Covering Interactive & Multimedia Entertainment

COMPUTER GAMING WORLD

The #1 Computer Game Magazine

October 1993
Number 111

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Shadowcaster - pg. 12

Cover Illustration by
Denis Loubet

Return of the Phantom - pg. 20

Tornado - pg. 66

Jutland - pg. 164

FEATURES

ADVENTURE AND ROLE-PLAYING SECTION

11 **Digital Dragons And Silicon Slings**
A Journey Through The Realms Of Adventure

12 **Revolutionary Perspective**
Origin's *Shadowcaster*
Highlighted by Johnny L. Wilson

16 **The Krondor Passes**
Betrayal at Krondor From Dynamix
by Jay Kee

20 ***Return of the Phantom***
MicroProse Avoids Sir Andrew
by Chuck Miller

30 **Fatal Inheritance**
The Legacy From MicroProse
by Allen L. Greenberg

34 **Opening Up The Archives**
Scorpia Surveys The World Of Role-Playing

54 **MicroProse Uncovers *Pirates! Gold***
The Lost Treasure Of Sid Meier Resurfaces
by Chris Lombardi

58 **Noteworthy Musical Entertainment**
Microsoft Musical Instruments
by Donald S. Griffin

60 **Total Reminiscence**
SSI's *Flashback* Offers Colorful Challenge
As Recalled by Dave Pyron

64 **Skunk Works Software**
Domark's *Flight Sim Toolkit*
by Paul Rigby

66 **Spectrum HoloByte's *Tornado***
Doug Fick Test Flies The British Airplane

70 **CGW's Game Of The Year Awards**
Why Not The Best?

76 **Sound Card Roundup**
CGW's Technical Editor Corrals 20 Sound Cards
by Mike "Moondawg" Weksler

88 **Digital World's Futurist Vision**
CGW Reports On New Directions In Interactivity

96 ***Railroad Tycoon Deluxe***
New Maps For "Model" Railroad Executives
H. E. Dille Takes Rolling Stock

98 **Double Your Space War**
Impressions' *When Two Worlds War*
by Martin E. Cirulis

102 **"Rules? In A Star Fight?"**
Omnitrend And Impressions' *Rules of Engagement 2*
by Stanley "Butch Cassidy" Trevena

106 **Colorful Conquest And Colonization**
VGA Planets 3.0 Explored
by Martin E. Cirulis

108 **Books That Compute**
Books And Software From The Waite Group
by Randall Black

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118 **Mindcraft Grows Up**
The Kingdom Of Prince Ali Atabek

122 **Gametek's *Ashes of Empire***
Fanning The Flames Of Freedom In Eastern Europe
by Paul Schuytema

126 **Planes Of Fame And Shame**
MicroProse Challenges Gamers To An *Air Duel*
by Bryan Walker

COMPUTER WARGAMING WORLD

132 **SSI's *Clash of Steel***
The Sound Of Fury Across Europe
by M. Evan Brooks

134 ***Class Of Steel***
Alan Emrich's Lectures On *Clash of Steel* Strategy

142 **More *Conquered Kingdoms***
QQP Expands The Borders Of Its Highly Rated Wargame
by Randall Black

144 **Brooking More Warfare**
M. Evan Brooks' Annotated Listing Of 20th Century Wargames, Part II

150 **Booting To Conquer**
Elpin Systems' *Conquer for Windows*
by Neil Harris

156 **Three-Sixty's *High Command***
The Lofty Pinnacles Of Military Power In WWII
by Terry Lee Coleman

160 **Shipyard For *Carriers At War***
SSG's New Construction Kit Is No Drydock
by Bob Proctor

164 ***Jutland* Bound**
Software Sorcery Forms A Line Of Battle
by H. E. Dille

Computer Gaming World joins forces with Ziff-Davis Publishing!
See pg. 178

DEPARTMENTS

8 Editorial (The Digital Highway)
24 Scorpion's View (*Realms of Arkania*)
28 Scorpion's Mail (Game Hints)
52 Shareware (*Universal Hint System*)
86 Over There (Sports Games From Europe)
112 Letters From Paradise
130 CWW Editorial (Boardgames On Computer)
131 Opponents Wanted (Victim Listing)
166 The Rumor Bag (Mouthus Grandiosus)
168 Taking A Peek
173 Hall Of Fame
174 Top 100 Games
176 What's Hot
177 Patches
178 From the Publisher
178 Advertiser List

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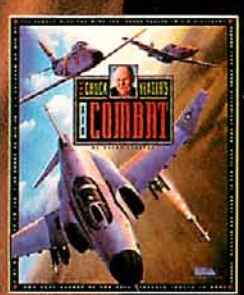

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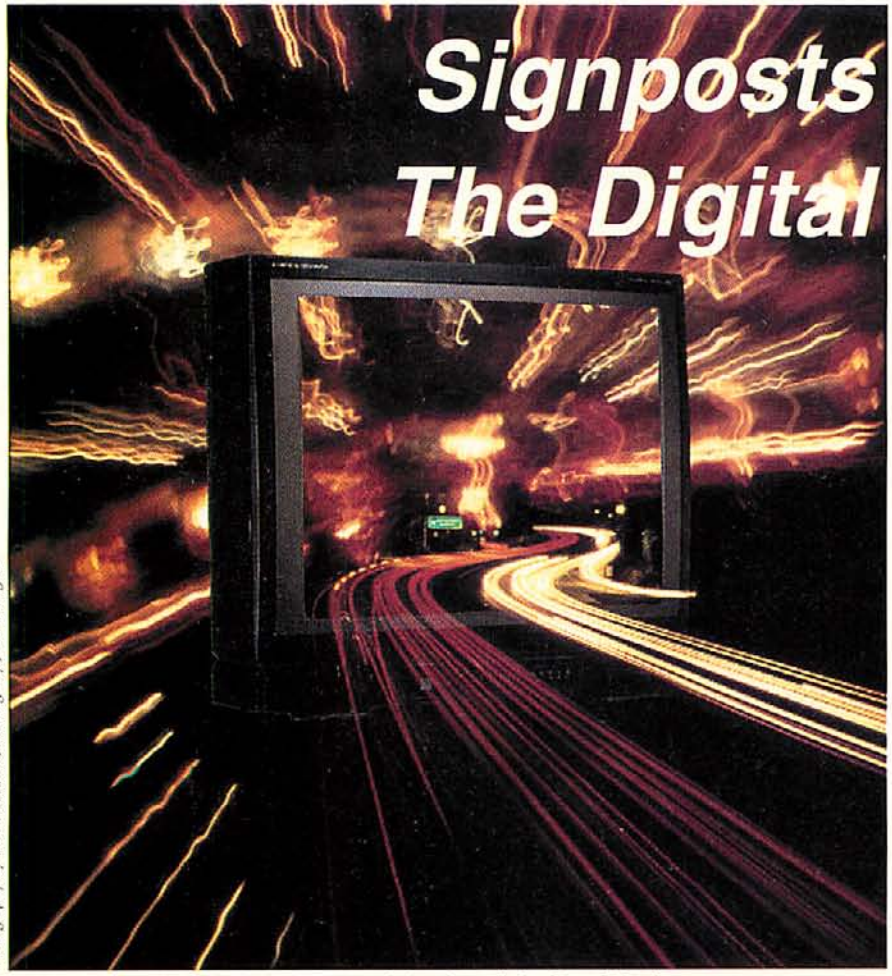
Signposts Along The Digital Highway



Photography by Susan Zurawik; Montage by Jack Rodrigues

The general media has discovered the idea of the digital highway and is fast making it their own. Whether it is called the digital highway, interactive infrastructure or information highway, this amorphous octopus of a future technological network has captured the imagination of the press. It has had cover stories in *Time* and *Newsweek* combined with numerous features in business publications. The Clinton ticket invoked it as though it were a sacred incantation during the last presidential election and Hollywood seems to have discovered it as the "next big thing." But what *is* it and why is the media so excited about it?

Jonathan Seybold (CEO of the group which sponsors the *Digital World* conference, see the related story on page 88) says that "information highway" is the wrong metaphor. In a recent publisher's note in his *Digital Media* newsletter, he rightly observes that what we are talking about is not a highway *per se*, but one huge interconnected computer network. Unfortunately, to the average consumer (the couch potato as potential information handler/shopper/gamer which most of the companies gearing up to service the information highway want to reach) the computer network idea conjures technophobic images of being controlled instead of being empowered.

The highway imagery appeals to the average citizen, the kind of person who doesn't take mass transit because he/she doesn't want to have to overshoot the destination and backtrack. On the highway, the motorist is in the driver's seat and, under optimal conditions, determines the speed at which he/she travels, the rate of rest stops, the casual side trips to satisfy curiosity, and the ultimate destination. So it should be with the information highway. The viewer/shopper/gamer decides which channels to search, when to download information (movies, features, game software and demonstrations), and when to venture into interconnected interactive opportunities (multi-player games, shopping, and conversation). The important fact is that the user has control.

How will the highway be built? There are currently two models. One model is for cable television to become the nexus point. The cable companies would bring fiber-optic cable into neighborhoods of around 500 homes. Then they would install set-top cable boxes with powerful RISC-based processors in each subscriber's home. The set-top boxes would be able to use the coaxial cables already in the homes to access the fiber-optic network and, as a result, bring in the digitized information which the cable viewer desires.

Initially, this would be used primarily for video-on-demand (a more sophisticated pay-per-view and easier-than-VCR time-shifting), downloading of software and shopping transactions.

The problem with this model is the existing cable television mess. Largely the fault of self-interested city councils, the map of the U.S. has been politically gerrymandered with regard to cable television contracts. It will be difficult to interconnect these cable television providers considering the amount of local government red tape that has to be cut.

The other model is that of the telecommunications networks, letting the Baby Bells have even more potential for monopolizing our daily lives than that which Ma Bell previously possessed. Letting the Baby Bells bring fiber optic into everyone's home creates a level playing field and avoids the political gerrymandering problem, but also means that the phone companies could feasibly play havoc with every aspect of our lives (E-mail, credit accounts, investments, telecommuting, entertainment, and more) rather than just controlling our telephones and modem lines. The capacity for the phone companies to improve our lifestyles is awesome, but the downside is ominous, as well.

Whichever model becomes dominant (and it seems clear that the free market will decide), it means that information providers (whether they be publishers of software, producers of film/television/recordings or, ahem, editors of magazines) should be able to reach a broader audience than ever before (with potentially greater profits) and consumers should have more choice and more instantaneous response from those same providers (more control). Potentially, it is a win-win situation. We're just waiting for the potential to be actualized. CGW

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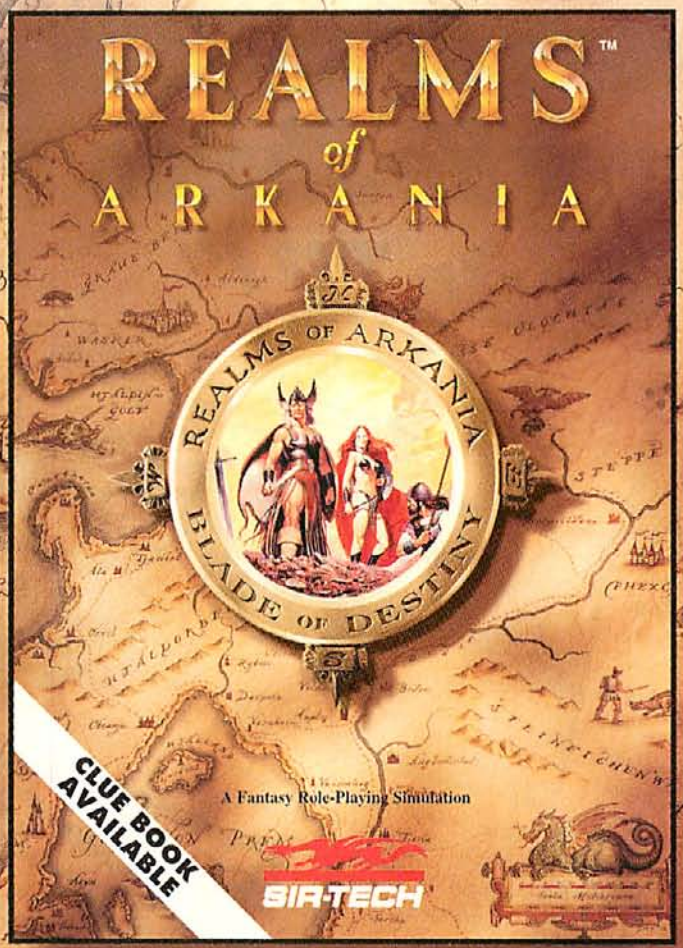

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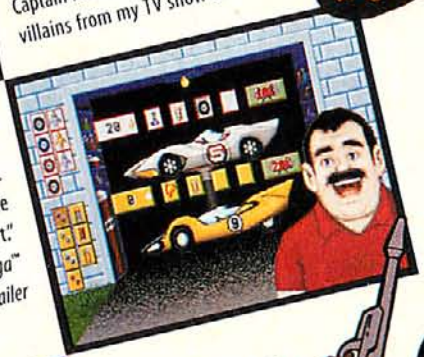

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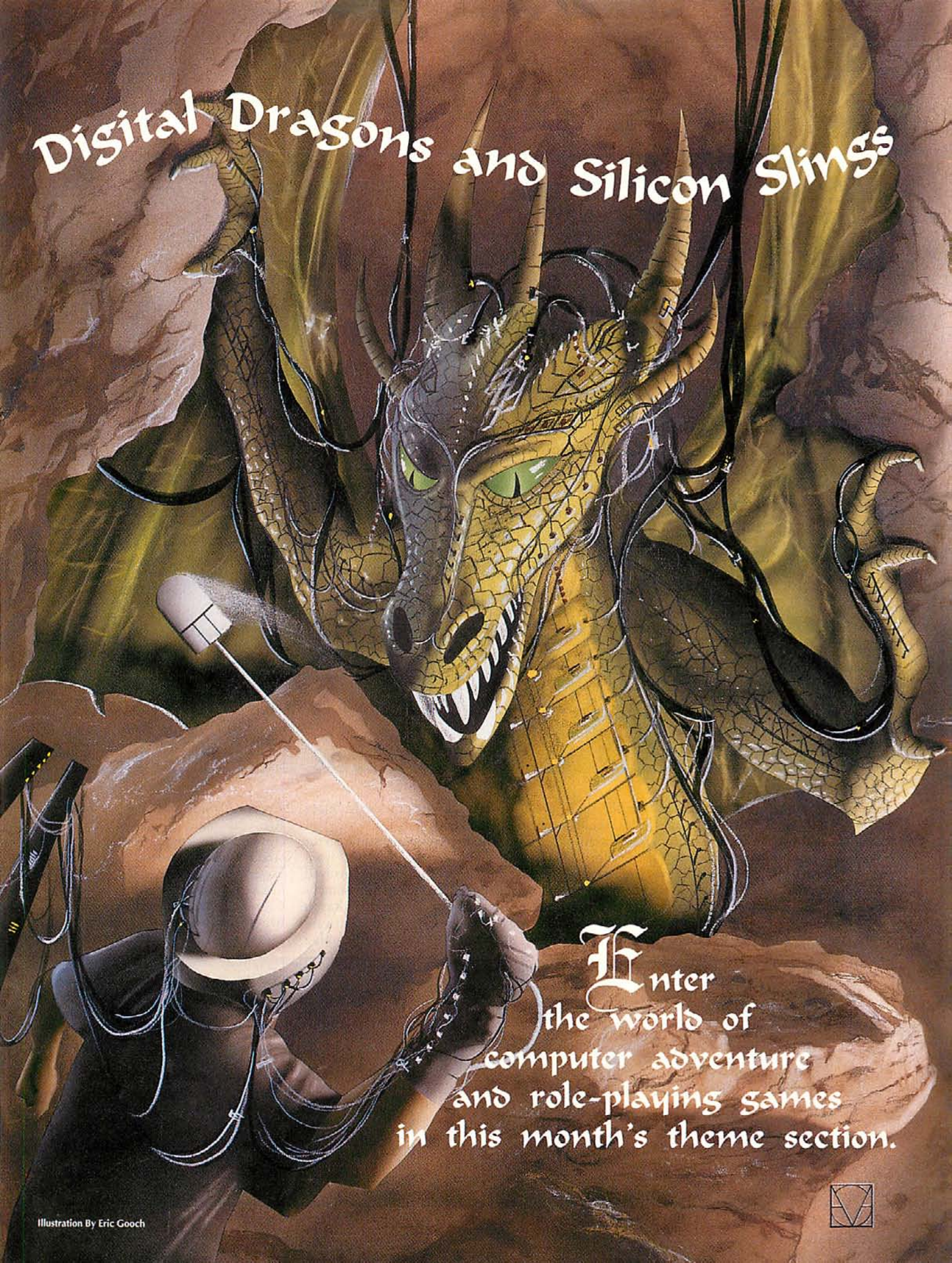

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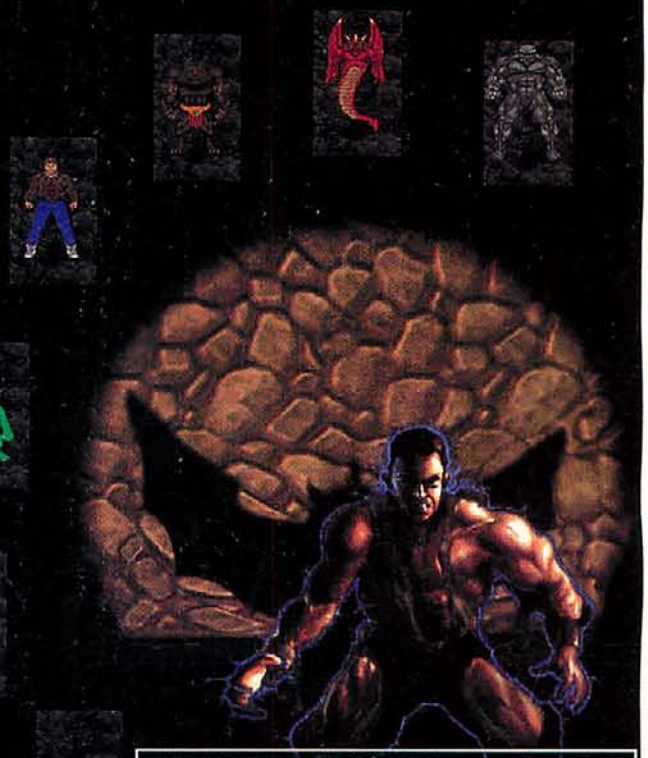
CAST PARTY

From A Cast Of Thousands

A Sneak Preview of

SHADOWCASTER

by Johnny L. Wilson



Sneak Previews are not designed to be reviews. They are feature articles based on "works in progress" that CGW's editors have deemed worthy of early coverage. These articles are not intended to provide the final word on a product, since we expect to publish appropriate review coverage when the game is finished.

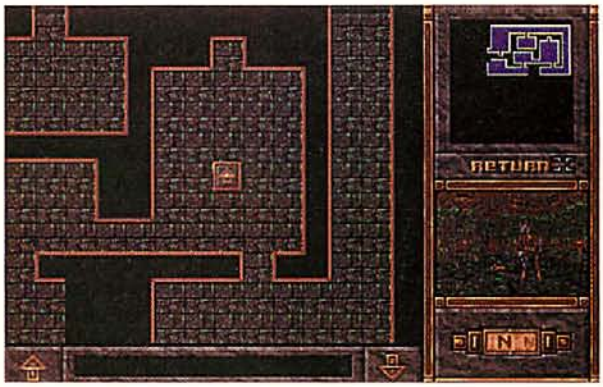
I consider myself a credit watcher, the kind of person who stays in his seat at the movie theater until the credits end or the projectionist turns off the film. I have watched the credits ever since I recommended a film to a friend in high school and the friend asked, "Why? Who directed the film? Who wrote the screenplay?" Now that I've met a couple of folks in the movie biz, I watch the credits more religiously than ever.

Those who are computer game credit watchers should get excited just from reading the names of companies involved in *Shadowcaster*. It has taken four companies to put this project together: **Raven Software** *(Black Crypt)*, **Id Software** (*Wolfenstein 3D* and the forthcoming *Doom)*, **Origin Systems** and **Electronic Arts**. Talk about culinary perfection, this combination cooks. Computer game credit watchers know that starting with Raven Software provides the ultimate in detailed, macabre, gruesome graphics. Combine their art with Id's latest 3-D first-person perspective scrolling, and the product gets body. Take another part of

Origin's role-playing expertise, stirred in with magical elements from their musical and sound effects departments. Finally, whip it into shape with both the overall coordination of and story development from a top Electronic Arts producer. Serve prior to Christmas and one has a visual, technological feast for the holiday season.

Play Mystic For Me

When *Shadowcaster* was first unveiled, my initial impression was that it was yet another *Ultima Underworld* knock-off. Within two minutes of play, I discovered that this was not your father's underworld, but today's "state of the art dungeon crawl." What changed my mind? It was the overall concept combined with technology that enhanced rather than detracted from that concept.



In the game's original concept, the protagonist was a mystic shaman who would take the shape of sentient beings from other dimensions by temporarily trading bodies with them. In the current version of the game, the player's character is named Kirt and is the last of a race of shapeshifters from another dimension. There was a massive battle between the good and evil shapeshifters. Naturally, the good guys lost and Kirt is predestined to confront a Foozle (the ultimate bad guy, an evil shapeshifter named Veste) and try to recover the MacGuffin (the late Alfred Hitchcock's term for the vital artifact or bit of knowledge that a protagonist needs to retrieve, the obelisk). Of course, it isn't by any means certain that Kirt will succeed. Where the soothsayers had foreseen momentous disasters befalling the offspring of other shapeshifters, there was a shadow across the fate of Kirt. Hence, the justification for the name of the game.

The fabulous part of the game is that the player's character can morph from human form into any one of six creatures in order to traverse the locations necessary to fulfill his quest. One creature is similar to a grizzly bear with four arms, while the others run the gamut from leprechaun-sized faerie creature through beholder-esque flying orb, frog-like humanoid, pseudo-fire elemental winged creature and a gargoylesque version of a stone-hinged "Incredible Hulk" creature.

Shadowcaster presents a graphically appealing animation for the actual transformations between beings and also changes the perspective from which one views the dungeon. For example, the leprechaun-sized creature sees everything from a much lower line of sight than the other creatures and the flying creatures (the elemental-type creature and the flying orb) see everything from a higher line of sight. It really adds to the suspension of disbelief.

In addition, the different beings have different attacks. The froglike creature has a sonic attack that features concentric circles moving across the target in a ripple effect. He also has a melee attack which reacts as though he were an electric eel. The elemental-esque creature has a spiked, demonic tail for a melee attack and a fireball at a distance. The flying orb has two ranged attacks, each with their colorful special effect. Add sound effects to enhance those attacks and the combat really becomes vivid.

The art is vintage Raven and is texture-mapped across the 3-D objects used in the latest Id graphic engine. The texture-mapped walls have tremendous detail, presenting sculpted stone and moldy surfaces with equal attention to detail. Some surfaces, like the water in one level and the walls in others, throb. Some surfaces are obscured by fog, like the scenes set in the necropolis, and others feature animated star-bursts like the dimensional gateways sprinkled throughout the levels.

Another surprise is the use of detailed landscapes on the horizon. As one's character explores open-roofed ruins, there are mountains beyond the walls that are as impressive for this genre as those in *Comanche: Maximum Overkill* were for their genre. As one of our editors commented, "It sure beats ceilings!"

Even when one is used to the look of a level, there can be other surprises to make it worthwhile to explore everything. I was surprised to hit a trip switch which literally flushed (complete with marvelous digitized sound effect) the watery level my character was exploring. Underneath the water was an entirely different look with skulls engraved at the base of the walls.

The sound effects are also impressive. From the first sword thrust with its Errol Flynn film whoosh, through the choking, phlegmatic death of one's character, the

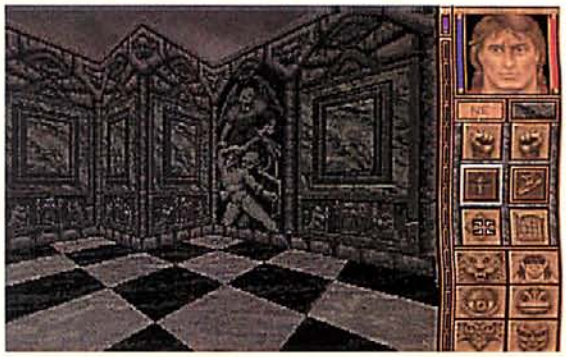
sounds are terrific. At one point, I was moving about a maze as a colleague talked on the phone with a representative from a sound card company. I absentmindedly used a magic wand to send a fireball and the resulting sound was so loud and vivid that the person on the other end of the line jumped and said, "What was that?!" When my colleague told her it was only the 8-bit sound card manufactured by her company, she was truly impressed. Most gamers are likely to be as equally impressed.

Icon-O-Clash

The interface is strictly icon-based. *Ultima Underworld* fans will likely find it ideal, but it is not, strictly speaking, intuitive. If the arrow on the three-dimensional screen points up, the character moves straight ahead. If it points down, the character moves in reverse. This is fine in most 3-D scrollers, but it loses something in the translation for a game that has flying characters. I would have expected the up and down arrows to deal with altitude, not forward and backward movement. Then, there is the matter of speed. The higher the up arrow appears on the screen, the faster the character moves through the maze, ruins, dungeon or temple. It also took me a while to realize that I had to de-select all of the icons underneath the 3-D view window in order to get active arrows on the view screen. While the interface may be learned fast enough, it is not exactly an instant winner. Using the keypad option was extremely helpful to me, avoiding the occasional ambiguity and awkwardness of the mouse interface.

The heart of the game deals with the morphing from creature to creature, and that is smooth and painless. Underneath the character portrait, there are six icons. Each represents the face of one of the creatures. One merely clicks on the creature desired and the transformation is almost instantaneous (well, it's instantaneous on a 486/50, but almost tedious on a 386SX), assuming Kirt has sufficient mana (a Polynesian term for the spiritual energy necessary to accomplish magic) to do so.

Across the bottom of the 3-D window, there is a command line full of icons. One icon takes the player to the disk functions (there are four save game positions), another leads to the automapping screen, one icon controls the character's left hand and another the right, and others control the special attacks for each creature.



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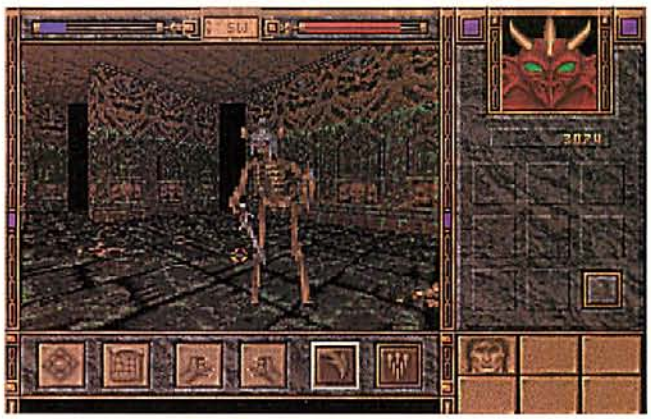

While the main interface might not be intuitive, combat certainly is. The player places the ready weapon in the right hand so that it appears on the icon command line. Then, one has the option of selecting that weapon for an ordinary attack or selecting one of the special attacks. After selecting the weapon, one places the target cursor over the monster to be wasted and right clicks on the mouse. The sword whooshes, the trident stabs, the lightning sizzles and the fireballs explode as monsters are reduced to quivering puddles of mush.

Since some gamers have complained about how easy it is to get lost or disoriented when moving around 3-D terrain, *Shadowcaster* has a solid approach to automapping. It shows the gamer a large map with a clear-cut "You Are Here" arrow and a smaller map of the entire level which the player is exploring. Every area which the on-screen character has seen or traversed is portrayed on the automapping screen.

Till There Was You

One factor that is decidedly missing is non-combative character interaction. The whole thesis of *Shadowcaster* is that Veste has lined up the denizens of evil from multiple dimensions against the player's character. As such, one doesn't worry about whether to kill anything which appears on the screen, but rather how to destroy whatever beings Kirt encounters.

Indeed, I found myself wondering if it were truly appropriate to call *Shadowcaster* a CRPG. The role-playing element is strictly limited to choosing a creature to shift into and is roughly equivalent to having an entire party of character classes in one character. Yet, the character does not improve in strength or skills, a vital element in role-playing. Further, the shapeshifting is more puzzle-solving than role-playing, as one figures out which shape will have the optimal combat value or best chance of solving a puzzle.

The puzzles themselves are primarily of the graphic adventure variety (i.e. what do I have to move/find in order to open/shut this or that). They are spatial logic puzzles and "hit and miss" explorations more than anything. Since, however, this is a sneak preview of only a portion of the game, we cannot be sure that this will be the final limit of the puzzle selection. Also, our version of the game did not have the climactic battle with Veste, so commenting on the endgame is impossible.

What I can say, with confidence, is that *Shadowcaster* is a visual and aural cornucopia, a showcase game that will be a must have for owners of high-end systems. I can also state unequivocally that *Shadowcaster* features a unique premise that is supported by advanced technology. It is a "hack and slash" masterpiece with plenty of visceral support to undergird its chrome. What I cannot say with certainty is whether it is a role-playing game or not. It may just be the most advanced action game I've ever played. **CGW**

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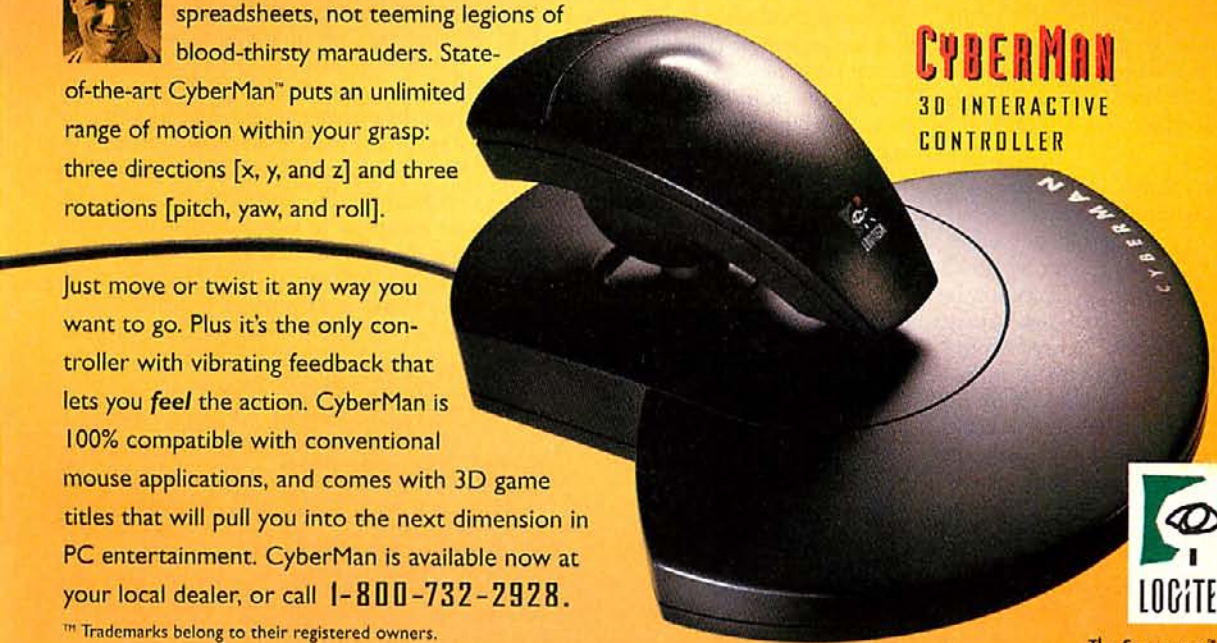

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My, But You're A Feisty One!

Raymond D. Feist And Dynamix Conspire In A "Betrayal"

by Jay Kee

On the surface, fantasy role-playing games seem to have come a long way since the early days of text-based gaming; the days when dungeon mazes were created by bored programmers on mainframe computers. Today, the graphics, sound effects, music and animations produced on increasingly sophisticated personal computers make those early efforts look like cave drawings. Yet, for all the glitz and glamour, the actual game play itself hasn't really changed a heck of a lot. The player still "rolls" a character or party of characters, chooses race, sex and profession, then spends the rest of the game mapping dungeons, killing monsters and finding treasure. It doesn't make any difference if the game world is based in a medieval land or outer space, the objectives and methods are the same.

All that may change with *Betrayal at Krondor* from **Dynamix**. *Krondor* is a fantasy role-playing game unlike any other. It is drawn directly from Raymond Feist's fantasy trilogy, *The Riftwar Saga*, with the same world, cast of characters and history. This isn't one of those "based upon" products with little more than surface similarities and names to link it to the original. This was a collaborative effort between Dynamix and Feist, with the author providing guidance and inspiration from start to finish. The result is an interactive fantasy adventure that could best be described as a sequel to *The Riftwar Saga*, and a new high-watermark in RPG design.

Opening A New Chapter

Krondor is laid out exactly like a novel. Nine chapters comprise the beginning, middle and end of a drama that takes up where *Darkness At Sethanon*—the last of the *Riftwar*, but not *Midkemian* books—left off. Instead of the usual party of wizards, clerics, fighters and thieves, the player starts and finishes the game with characters right out of the novels themselves. There's Locklear, Jimmy the Hand and Pug, plus three new characters: Owyn, an apprentice magician; Gorath, a Moredhel rebel; and Patrus, a veteran spellcaster. Of course, anyone expecting to play with these characters in the traditional party of six for the duration of the entire game is in for a major surprise. In fact, anyone expecting anything like a standard CRPG is in for a *lot* of surprises.

There are never more than three characters in a party at any time—sometimes, only two. As the party progresses from chapter to chapter, the characters and their objectives change just as they would in any novel. Each chapter has a unique goal and a different mix of characters, and takes place in a different part of Midkemia. Fortunately, there is no time limit or linear chain of events imposed here. Players are completely free to go where they want, do what they want, and see what they want. The only limitation is that they achieve the specific goal for a chapter before they move on to the next. These goals are clearly defined, and players are given lots of guidance along the way, so there's never any danger of not knowing what to do or where to go.

While each chapter has a primary goal, there are dozens of minor quests and subplots waiting to be discovered. Considering that the game world occupies the equivalent of 224 million square feet of terrain, that's a lot of surprises.

Seeing The Forests In The Trees

It should be stated up front that the graphics in *Krondor* are not going to knock players out of their chairs. Scenery is a combination of digitized trees and shrubbery overlaying hand-drawn mountains, rivers and grassland. Characters are digitized images of live actors in costume often seen in rotoscoped animation. While all of this is skillfully done, the overall impression of the 256-color VGA

graphics is of haze and grain. Still, what the graphics lack in resolution, the game makes up for in design. Small details greatly develop the suspension of disbelief: birds and insects produce an audio backdrop that changes with the time of day; colors change across distances; light sources cast shadows that recede along dungeon walls. The graphics, while simple, manage to evoke a constantly-shifting mood. From the north country, with its brooding snow-covered trails, to the dark forests of Elvandar, the overall effect is just right, with a storybook quality that is both satisfying and appropriate.

Elegant simplicity seems to be an underlying theme throughout the game. Every action is mouse-driven and has a handy keyboard

Seeing Forests In The Trees

TITLE:	Betrayal at Krondor
PRICE:	$69.95
SYSTEM:	IBM
REQUIREMENTS:	386-16MHz, 2MB RAM, VGA graphics, 15MB hard drive space
PROTECTION:	None
DESIGNER:	John Cutter
PUBLISHER:	Sierra/Dynamix Coarsegold, CA (800) 326-6654

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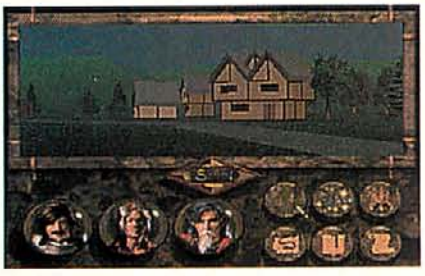
A001CGW

equivalent. All a player needs to know is which button to click: right button for information; left button for action. Everything else follows logically. If the purpose of some icon or object is not self-explanatory, right-clicking on it will tell the player what it is and what it does. If the player wants to use it, abuse it, attack it, or talk to it, he or she just left-clicks on it. This creates a hands-free environment where the player can enjoy the game without having to constantly look up information in a manual.

Another slick feature is the two-tiered mapping system that allows the player to see an overhead view of either the immediate area or a full-size map of Midkemia. The overhead view can be zoomed in or out, and the full-size map displays the party's position and bearing. Best of all, the overhead view can be used to map dungeons—a great boon for people who break into a cold sweat at the mention of graph paper.

Chapter And Verse

There are no long lists of exotic weapons and fancy armor in *Krondor*. No complicated stat tables, no shields, helms, bracers, gauntlets or other accouterments—just simple sets of armor, swords and staffs. The only variables are in the type and quality of the item. Some swords are a lot more powerful than others; some armor does a lot better job of protecting. About the only complication is something called a Racial Mod, which reflects the fact that some stuff was designed for humans, some for elves, and others for Tsurani or dwarves. All this means is that a character wearing or using something designed for a another race suffers a small degradation in the item's capability. It's simple, but surprisingly effective.



Stats and skills are simple, too. There are only four stats and twelve skills, and all the information that pertains to them can be easily accessed. The stats cover the usual Health, Stamina, Speed and Strength, and the skills include some familiar labels, like Melee, Casting, Lockpicking and Stealth. Less common skills include Weaponcraft and Armorcraft, which determine how good a character is at repairing weapons and armor; Barding determines how much gold a character can earn singing in taverns and inns; and Haggling determines how much they can knock down the price of an item before buying.

All of the skills and some stats are improved as the player progresses through the game, but improvements are not predicated upon combat experience, or even successful actions. Sometimes, just attempting something will produce an increase. The player can even exercise limited control over the developmental process by highlighting individual skills in the stat screen in order to increase the rate at which they are improved. This allows the player to direct Lockpicking increases to the character with the best lockpicking potential, or Casting increases to the spellcaster, and so on.

What's Your Point-Of-View?

Travel in *Krondor* is ground-level, real-time. The world is seen from the characters' point-of-view in the upper two-thirds of a split-screen display. Objects exist in three dimensional space through a full 360-degree panorama. Players can walk around buildings or objects, examine things from any angle, wander through forests, circle mountains, move along rivers and cross bridges. All of this is a product of something Dynamix calls 3Space technology, a system used in their combat flight simulators (*Aces of the Pacific* and *Red Baron*), but players familiar with those simulators will notice a couple of differences in *Krondor*. First, there is no joystick support; movement is directed by mouse or keyboard. Second, instead of the smooth-scrolling action found in simulators, the motion in *Krondor* is executed in "steps." The game preferences let the player set the degree of these steps from large to small and reduce detail to a minimum, but even at the lowest setting, movement is still a jerky affair. If there is one disappointment in the game, this is probably it.

Crossing Swords

If there is one pleasant surprise in the game, it has to be the combat sequences. Without a doubt, this is the best I've seen in a fantasy CRPG. Characters and opponents are clearly displayed in a near-perfect perspective. Rotoscoped animations produce actions that are quite lifelike, and digitized sound effects add a touch of realism not found in many computer games. This is a realism, it should be noted, that excludes any hint of gore. The action is fierce, the effects are compelling, but the violence is relatively tame.

Further, there is more here than meets the eye. Combat is comprised of a series of turns that continue until one side or the other is defeated. During each turn, characters have complete freedom of movement and a full range of offensive and defensive options. The player can move them anywhere on the field of battle and take whatever action is necessary. To make things even more interesting, the enemies are intelligent and often unpredictable. This a far cry from the basic encounter formats found in so many games. Success here depends as much on tactics and timing as on simple brute force. In *Krondor*, you think, or you die.

There is a price to be paid, though. Because of this enemy intelligence, some of the fights border on the impossible. Without the best armor and weapons and a good stock of spells and potions, a few key encounters can't be won. While this can be a major frustration, the designers thoughtfully made saving games as painless as possible. When a player gets blown out, he or she can simply go back, restore the game, and try again. One must just be sure they have a lot of disk space because each save takes a huge 335,000 bytes!

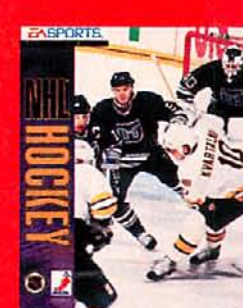
A Bestseller?

Nothing's perfect, and this game has its flaws. Some people will not like the look of the characters or their costumes. Some will dislike the jerky movement or the VGA graphics. Others might frown at the lack of joystick support. Yet, all of these are minor annoyances, trivial when viewed against the overall context of the game.

Trivial, because *Betrayal at Krondor* is a rare gem. It has broken free of the boundaries of common fantasy CRPGs, has given players a compelling story, and has set new standards for others to follow. For once, a game actually lives up to, even exceeds, its advance billing.

There's already talk of a sequel. I can hardly wait. **CGW**

If you still can't imagine what it's like to play this game, rip out this ad, tape it to a concrete wall, then hurl your body against it.



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Chasing Down An Organ Donor

Unmasking MicroProse's *Return of the Phantom*

by Chuck Miller

Erik was his name. Most, however, knew him by the pitiable monikers bestowed upon him by a cruel society. Disfigured from birth, his was a face that not even a mother could love, his first gift being a mask to hide his horrid countenance. Shunned by his own family, Erik left home at an early age and joined the circus. There he earned his living, being exhibited as a "living corpse." In humiliation, he traveled all of Europe, cavorting with vagabonds and completing a macabre education in the arts and magic. Finally, after a protracted stay in Persia, Erik made his way to Paris where the final days of his tragic existence brought him his greatest fame. For, dear reader, it was there that Erik became known as the Phantom of the Opera.

The Fat Lady Is Mute

The year is 1993; the location, the Paris Opera House. Raoul Montand, a detective with the Paris Surete (France's equivalent of the FBI), suddenly found his plans for a pleasant evening thwarted as the immense chandelier of the Opera House crashed down upon an unsuspecting crowd, its support deliberately severed. Who could have perpetrated such violence? What fiend could be so heartless? This is what the player, in the guise of Raoul Montand, must discover.

Though only roughly resembling the play and novel of the same name, the plot of *Return of the Phantom (Phantom)* is a gripping one. The legendary Phantom of the Opera (presumed dead around the turn of the century) has appeared in present day Paris. With vengeance his driving force, the Phantom has bridged time, caused multiple deaths, and entangled Raoul Montand in his evil machinations. Not content with his efforts up to this point, the Phantom mysteriously transports Raoul back to the late 1800s where he awakens as an historical character of similar name. However, lest I spoil the game by continuing further, suffice it to say that this digital drama is unique, touching upon the mysterious and supernatural.

An Engine Of Construction

Phantom is based upon **MicroProse**'s Animated Graphic Adventure (AGA) game engine, first seen in *Rex Nebular and the Cosmic Gender Bender*. The AGA engine has changed little since its inception, and so brings with it both the pleasures and pitfalls of the first release.

On the positive side, *Phantom* offers a simple and attractive interface. Installation is a breeze, as is configuring the software to one's system and playing preferences. Though Novice and Challenging modes are once again provided, they differ little in actual difficulty of play (both are relatively easy).

Other adjustable game play options include the choice of two mouse modes, Standard and Easy, with the latter identifying the objects under the mouse pointer as it passes over them; Panning, which allows the player to select the scroll rate of certain large locations (slow, medium or instant); and Room Fades (slow, medium or fast, with slow being the most mood effective but the least time effective of the three). Players with slower systems will want to opt for instant panning and fast fades. Additionally, in the few situations where one's character can die, a restore is unnecessary. The game will automatically return the player to his or her position prior to that last, fatal decision.

On the down side, keyboard commands are sorely needed to speed and simplify play. Providing key equivalents for the mouse driven commands, as in **LucasArts**' adventures, would be a definite plus (e.g., "l" for "look" or "t" for "talk"). Another weakness involves character movement which, though fluid, is a bit slow and in need of a speed adjustment option as in **Sierra** titles. While many screens do allow "jumping" from place to place (by clicking where the player wants to go and hitting the spacebar), this does not work on all screens. Traversing the Opera's stairs, for instance, was a tedious process that did not employ the "jump" feature used elsewhere. A "quick move" feature would also have been appreciated, allowing the player to go from one location to another without actually having to walk there one screen at a time.

Return of the Phantom

TITLE:	Return of the Phantom
PRICE:	$69.95
SYSTEM:	IBM, IBM CD-ROM
REQUIREMENTS:	286 or better, 2MB RAM, VGA/MCGA graphics, 8MB hard drive space
PROTECTION:	None
DESIGNER:	Raymond Benson
PUBLISHER:	MicroProse, Inc. Hunt Valley, MD (410) 771-1151

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Scoping Out The Opera

Rotoscoped animation is the star of *Phantom*. If any one area of development outshines the rest, this is it. While the graphics are attractive, on par with those of *Rex Nebular*, it is the rotoscoped animation that distinguishes itself, being as fluid and lifelike as that of any computer product to date. Be it walking, kneeling or taking a fall from the catwalks above the Opera's stage, the movements of the characters in *Phantom* are completely natural.

Music is richly textured and thematic, sounding especially good if General MIDI or Roland support is available. In this case, it is excellent, more opulent than the FM synthesis supported by most sound cards (though the music is still rich and full with any Ad Lib or Sound Blaster compatible board). Sound effects, though, are a mixed bag. While the sound of footfalls is mediocre, the digitized laugh of the Phantom and the screams of the player's character are great. The sound of squeaking doors is also reproduced especially well, though it was overused to the point of annoyance. It seems every door in the Opera House is due for a good oiling. Still, the music and sound effects complement the game well.

Where's That Damned Book?

Most puzzles are of average difficulty, though a few proved unduly perplexing.

Finding Madame Giry's book, detailing Erik's damned and tormented life, proved very frustrating. It simply was not in the library where it was supposed to be and progress was halted until it could be located. As it turns out, one cannot simply "look" for the book, at least not until one has "looked" at the entire row of shelves; only then does it becomes visible (like being unable to see the trees for the forest?). Another puzzling conundrum involves the fire axe. One knows, without a doubt, that it is needed, even vital. However, it can only be acquired and used in "emergency" situations. Until then, one cannot get it. (This is simply a frustration, as it is unmistakably clear when the axe is finally needed. In fact, its acquisition and use is automatic.)

The game takes an occasional shot at humor, but it sometimes seems out of place in a game containing such a sinister and intense atmosphere. One example presents itself upon finding a skull in the catacombs beneath the Opera House. When the player examines the skull, it elicits the response "Some poor skeleton must be running around without its head." In a title like *Monkey Island*, such a phrase *might* be worth a smirk, but it's not really funny in the context of this adventure and works against the suspension of disbelief necessary in a horror/mystery. *Phantom*, for the most part, is a serious title and should be understood as such. While a touch of humor is present, most of the story conveys a sense of gravity.

The Curtain Falls

Overall, I found the plot of *Return of the Phantom* intriguing, but the adventure a bit too linear. There just didn't seem to be enough to do during play. Offering only 12 to 18 hours of gaming for the average player seems a significant weakness in a product that retails for $69.95. Apart from the problem with the book mentioned above, the only bothersome aspect of play was the process of mapping out the maze of catacombs below the Opera House. This is good for several hours of *work*, but does not enhance the *play* value. It is a process that I and most of my friends have long since tired of performing in preference to some form of automapping being incorporated into an adventure.

Yet, in all, I enjoyed pitting wits against the Opera Ghost. *Phantom* offers a plot with a twist, one that comes full circle without being predictable. It offers interesting dialogue (when it's not spoken, see the sidebar) and is pleasant to the eyes and ears. What it *doesn't* offer is inspired puzzle design or extended play. If a player values story over puzzles and low impact gaming over an exhausting cerebral workout, Phantom is worth a look (even more so with a discounted price tag). Others would be better off seeking a different marquee. CGW

Did You CD The Phantom?

For many developers, the time between the release of disk-based and CD-ROM versions of their products is lessening. In the past, it has taken several months for titles to appear on silvery disk, but delay time is now beginning to hover around a period of several weeks, at least for some vendors. In keeping with this trend, **MicroProse** has just shipped *Return of the Phantom* CD, a short two weeks following the disk-based release. Since the review of *Phantom* was already complete, we felt it prudent to provide an update in sidebar fashion, focusing on the enhancements to the CD product.

Though not apparent from the packaging, *Phantom* CD has been given the "talkie" treatment. However, this talkie version has not received the full attention of similar products. Only "conversation" between characters is spoken. Room and object descriptions are still text only. In addition, there is no way to turn off the displayed text. One still sees the text box containing the speech and motionless faces of those speaking. Furthermore, the quality of vocal talent employed is a mixed bag. Poor inflections and a strange bouillabaisse of English sprinkled with French accents didn't help strengthen the game's believability. Fortunately, speech can be toggled off if so desired.

Another weakness, as may be expected, is CD-ROM access time. Since only a token amount of data is installed to one's hard drive, most game data must be extracted from the CD itself. What this amounts to in *Phantom* (more so than in other CD products we have played) is a significant delay in transitions from scene to scene. Even a double speed CD-ROM drive does little to alleviate the data flow crunch. Provisions to copy all game data except speech to one's hard drive would have been appreciated. This data would only consume 15MB of space, but would allow greatly accelerated play.

Overall, *Phantom* CD is a disappointment. Uninspiring vocals and slow access mar an otherwise solid product. Let's hope the next effort has higher production values. CGW

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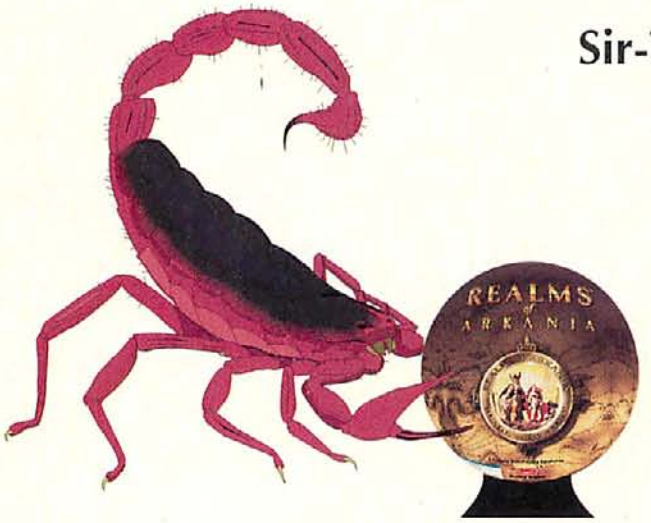
Circle Reader Service #62

Scorpion's View

Sir-Tech's *Realms of Arkania*

by Scorpia, Adventure/RPG Editor



TITLE:	Realms of Arkania: Blade of Destiny
PRICE:	$59.95
SYSTEM:	Amiga, IBM
REQUIREMENTS:	IBM: 386-16MHz, VGA graphics, 6MB hard drive space, Amiga: 1MB RAM, hard drive recommended
PROTECTION:	Documentation look up
DESIGNERS:	Hans-Jürgen Brändle and Guido Henkel
PUBLISHER:	Sir-Tech PO Box 245 Ogdensburg, NY 13669 (315) 393-6633

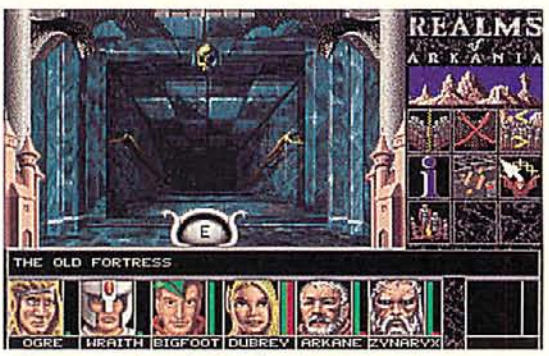
Realms of Arkania: Blade of Destiny from **Sir-Tech** is a computer version of *Das Schwarze Auge*, a popular German role-playing system. No translation of the title is given in the game manual, which is probably a prudent move. "Das Schwarze Auge" means "The Black Eye," and that might be appropriate here.

The plot of the game offers nothing new. Your party of six adventurers rambles across the countryside assembling that hoary old chestnut, the treasure map. The map leads to the resting place of fabled Grimring, the Orcslayer sword. With that in hand, you rush off into the middle of an Orc army encampment to challenge the head Orc to single combat. If you win, the Orcs pack up and go invade somewhere else. If you lose, they follow through with their plans to trash the human settlements of Arkania. That's the extent of the story.

For the most part, the path to the map is fairly simple. You start with one personal contact and learn of others who can help you through the game. It's a simple matter of following the chain of people, acquiring map pieces as you go along.

The big problem arises after you have Grimring—the information dries up. All the clues and people are there only to get you to the sword. Finding the Orc army is an entirely different matter, and for that there is no help at all. I was stuck at this point for three days, sending my party back through the towns and villages, drinking in innumerable bars, hoping to pick up some clue or rumor leading to the Orcs' location. This was a waste; there is no information available.

It turns out that you have to take the road from Skelellen to Phexcaer and climb a sheer rock wall along the way. Not many players are likely to do this, as there is a swamp between the two towns, and players will inevitably lose valuable items when the swamp is crossed. Fortunately, if you start from Skelellen, you won't have to worry about the swamp. Unfortunately, you are more likely to start from Phexcaer, as that town has a couple of tributary roads and Skelellen doesn't. After one bout with the swamp, losing who knows what (the items are taken at random), many players would probably give up on that route and be a long time finding the cave.



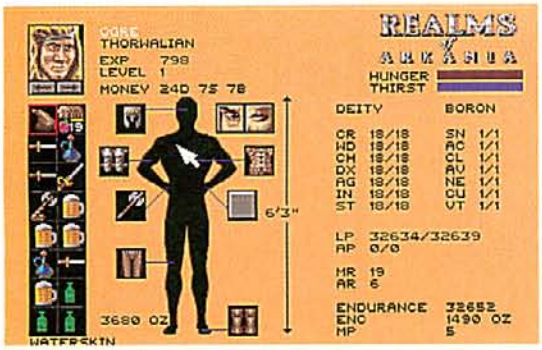
That's a serious matter, since there is a time limit here. You have roughly two years game time to find the sword and the Orcs. After that, the Orc hordes will descend on Arkania and the game is lost. It is quite amazing that no clues to the location of the Orc map are given, aside from one rather vague mention of the road between Phexcaer and Skelellen being "adventurous."

What A Character!

Character creation can be an involved process. Rolls are made one at a time, and you allocate them to seven physical stats, trying to obtain the character type you want (each has minimums in certain areas). This is followed by another set of rolls for negative attributes of claustrophobia, necrophobia, avarice, superstition, acrophobia, violent temper and curiosity (all character types come with these same disadvantages).

If your allocations meet the standards for a character "archetype," you then go to the skill screen. Here you have 20 chances to raise some of the skills available. All skills are available to all characters, but some types will be naturally better at certain skills than others. For instance, Warriors start with better combat abilities than mages, and Rogues are better at lockpicking. Skill increases are not automatic. You can make up to three attempts to raise a particular skill. If all three fail, you must wait until the character advances a level of experience before you can try again. At level gain time, this process is repeated, with another 20 chances to raise abilities.

This can make for difficulties, as there is no guarantee that any skill will be raised. So, for example, a fighter going from level one to level two might fail all



three chances in sword skill, thereby making him no better at second level than he was at first level. It is also possible to blow it twice in a row, as happened to one of my fighters, who made no advance in swords on two successive level gains.

Magic users go through several additional screens where they can have several attempts to raise spell skills in similar fashion. Most spells start off well down in the negative numbers with only a relative handful available for casting, and these vary by type of mage.

The entire spell system is awkward and confusing. After going for the obvious combat and healing spells, you have no idea what other spells are really going to be useful in the game. With only three chances to improve a spell, choices become difficult and points can easily be squandered on useless spells.

The game offers two play modes: Novice and Advanced. Novice mode should certainly be avoided. In this mode, you cannot check on any of your character's skills or spells. You have absolutely no idea how good any character is at anything, nor do you know which spells they are supposedly competent at casting. It's one thing to let the computer handle this, but being unable to see a character's abilities is poor design.

Positive Attributes

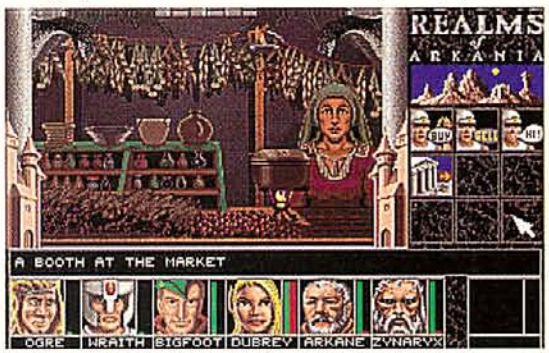
There are so many things wrong with the game play that we should start off with the few that are right. The game offers auto-mapping, which is available in both towns and dungeons. It uses a color-coding scheme, and once you get used to it, this works rather well, although separate colors for taverns and inns would have been more helpful. The party's position is always shown and large areas can be scrolled sideways. Of course, you have to walk through an area for it to show up on the map, but once you do that, it is permanently displayed.

One interesting new idea is the giving of extra experience the very first time a party encounters a monster. This is a reward for facing the unknown, and makes a lot of sense. After the first encounter, all monsters (or human opponents) are worth exactly the same amount of experience, either 57 points or 114 points, depending on how many of them there are.

During combat, you can reload a save position. Most games force you to sit through the wearisome experience of watching your party be trounced by superior opponents. In *Arkania* you can get out of this situation if you see that your characters are in over their heads and return to a previous save. This is a feature more games should have.

Extra Baggage

Moving to the down side of *Arkania*, there are several differences between what the manual says and what actually happens in the game. For instance, the pause key does not work; you have to bring up a character's stat screen to halt the passage of time (and time moves on regardless of whether the party does the same).



While the "Lightning" spell blinds opponents for three rounds, they can still parry, although they're not supposed to be able to do that. "Visibili" only makes the caster invisible, not the entire party. "Iron Rust" is supposed to be a "touch" spell, but enemy mages were able to cast this across long distances. "Arax Poison" (used on weapons) is noted as reducing an opponent's stats; it actually does mega-damage, sometimes as many as 35-40 points in one shot.

One irritating feature is the inability to see a weapon's damage potential except in combat. There, you can pick "Check Values" from the combat menu and see how much damage a weapon is capable of doing, but this is the only time you can see these numbers.

Haggling with merchants can be dangerous. If you're haggling to raise or lower prices and fail three times in a row, the party is kicked out of the store and will never be able to deal with that merchant again. In a large city with many merchants, this isn't much of a problem. Out in the boonies, where there may be only one shop, it's a serious matter.

Role-playing, as such, is pretty much nil. About the only opportunity for it is to be rude or insulting to shopkeepers—not the best move if you're hoping to buy or sell something in that store.

In some places, NPCs can be invited to join your party, but they are usually more trouble than they're worth, as you have no control over them in combat. They also leave the party whenever they feel like doing so, and you have no idea when that will be until it happens.

Those, however, are almost trifles compared to the three major strikes against this product, of which the first is saving the game. You can save almost anywhere, except while traveling on the road. If you save outside a temple, however, each party members *loses* 57 experience points per save (the manual says 50, but it is actually 57).

This atrocious concept is a slap in the face to game players. Either you go through several levels of dungeon, hoping you won't have to reload (thereby losing all your progress so far), or you save once in awhile, giving up the experience. And when it takes 5,000 experience just to get from level 1 to level 2, every point is precious, particularly at the start. I would not mind, and I doubt anyone would, receiving *bonus* experience for going without saves. But to penalize someone for being prudent, to put players in the position where they must risk possibly redoing a substantial portion of a dungeon (as well as the trip *to* the dungeon; many are outdoors) is almost too outrageous for words.

Combat does not make this situation any better, and is the second strike. No one expects beginning characters to fight as well as veterans. However, when the average hit percentage for melee weapons is 20% or less, and when that percentage does not improve much with advancement (especially if you miss skill increases), fighting becomes a tedious, frustrating, boring, long-drawn-out affair.

This applies to spells as well. Many of them fail, even at decent skill levels. The only ones I found to work reasonably often were "Lightning" and "Fulminictus," but even with these you can't count on them going off properly.

Exacerbating this further is the incredible number of weapon fumbles made by

the characters. While playing this game, I could absolutely guarantee that at least one fighter would fumble, in every single combat. *Every fight*, and I kept track to be sure. These characters were not using exotic or unfamiliar weapons, but plain ol' everyday one-hand swords. They were trained up in swordplay (skill rolls permitting), yet even when the sword skill was up at 10 or 11 they fumbled with the same depressing regularity, occasionally breaking weapons or hitting themselves for damage. A fumble now and then is one thing; when supposedly-competent characters do so in combat after combat, something is seriously wrong with the game mechanics. This is especially true as this ineptitude does not apply to bow weapons. A Green Elf or Hunter with bow in hand will hit, even at level 1 experience, about 80% of the time. A regular fighter with bow in hand and some missile weapon skill will hit about 50% of the time, occasionally better. It's quite obvious that the combat is extremely unbalanced.

Now we come to the last straw. After finishing the game it occurred to me to check whether or not it was possible to win the Big Showdown with an ordinary sword instead of Grimring. Well, I had a hard time during my first attempt, and I decided to try again. To my surprise, the Quit/Reload command didn't bring up the load game screen. It brought up the *victory* screen.

That's right folks; if you quit during the final battle you automatically win the game, without having to fight at all. You don't need the treasure map or Grimring (though it's a nice weapon to have), just the Orc map showing the army's position. With this you can finish the game at any time, at almost any level.

This is not just a seam; it is the Grand Canyon of seams. How did the 20+ playtesters manage to miss this one? If they didn't miss it, why wasn't it fixed? As it stands, this bug makes playing the game a farce, even without all its other problems.

Those who worship at the mythical altar of Realism often end up sacrificing fun and playability on it. That is what happened with *Blade of Destiny*. In their attempt to make the game "like real life" (something few players actually want in the first place) the designers went overboard in the wrong direction more than once. I would not recommend *Arkania* to any game player, but I do recommend it to game designers as an example of what to avoid in their own products. Let us all hope we don't see another one like this any time soon. CGW

Playing Tips

My experimentation with the game showed that the best party is probably composed of two fighters (one a Dwarf), three Green Elves (best archers, and they have spells, too), and a Magician. Since the fighters, especially at low levels, are almost useless, you should tank them up in the best armor you can manage and use them as target dummies for the opposition. Fighters should carry a spare weapon for those times when the primary one breaks (as it inevitably will).

Once they've attracted the enemy, send the archers around to pick them off with arrows. You can never have enough arrows (or bolts), so the Elves should be lightly-armored and carrying as many missiles as possible. Do not neglect sword skill however; sometimes the combat arena is too confining, or your Elf might run out of arrows, so a melee skill is necessary.

Rogues, even with training, are the worst fighters around. Take the Dwarf instead and build up his lockpicking. One character, preferably with good charisma, should work up haggling skill.

Avoid the fancy weapons and stick to the everyday kind; your fighters will do a little better that way. When you have some cash, save the game, buy a bunch of exotic weapons, equip them one at a time, and take a look at the Attack/Parry values. It's a real eye-opener.

The Magician should specialize in combat spells and should always take the skill attempt/astral point exchange. Also work up Analyze Magic; there are a few goodies out there that you don't want to miss. At the start of the game, enchant the wand for the permanent light spell so you don't have to carry torches or lanterns. Later on, enchant the wand up through the rest of its special purpose functions.

Good spells to have are: Lightning, Fulminictus, Ignifaxus, Somnigravis, Paralyze, Horriphobus, Balm, Pure and Clear, and Accurate Eye.

On the road, always have your best survivalist go foraging and send your best herbalist (the Magician) hunting for herbs. *Always* set guards when you are not sleeping at an inn.

Never use Talents to heal people. More often than not, the attempt will fail, and you can make the patient worse, adding to the injury or even giving him or her tetanus. The professional healers are sometimes no better, so avoid them, too. Use healing spells, healing potions or healing herbs instead.

Upon gaining a new level, concentrate on reducing: superstition, acrophobia, claustrophobia, and necrophobia. The other three disadvantages don't seem to have any effect on game play (at least that I experienced), so leave them for later.

Riding skill has no function in this game, as all travel is by ship or foot. Put points into climbing and swimming, self-control, physical control, and some of the other body skills.

Arkania And The Gravis Ultrasound Card

Arkania is the only game I've played so far that would not work with the Gravis Ultrasound card. Everything else I have on my new system has gotten along with the SBOS (SoundBlaster emulator), but nothing I tried would make *Arkania* accept it. Therefore, I could not comment in the main article on any sound effects or music in the game, as it naturally played silently.

After configuring for SoundBlaster (original) and booting up, the program would display the message "sound hardware not found." This seems to indicate that it is looking for the actual physical card, rather than just accepting the drivers. I could find no way around this, which was very irksome.

I am currently using SBOS v2.04. If anyone out there with a Gravis manages to get it to work with this game (although after my current article, there may not be too many attempting it!), I would like to hear from you. Send full details on your config and autoexec files, SBOS settings, SBOS version, and any parameters you used (see end of Mail column for the address). If I can duplicate sound in the game, I will print the info in a future issue. CGW

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Scorpion's Mail

Serpent Isle ■ Labyrinth of Worlds ■ The Summoning
Magic Candle II ■ Darkside of Xeen ■ Eye of the Beholder III
Alone in the Dark ■ Legend of Kyrandia ■ Monkey Island I

Wherein CGW's Adventure Games Editor Offers Aid For Adventurers

As you can see, Fred and I have not made too much progress lately in cleaning up the place (I just don't know where all this mail comes from). Fortunately, there's still a small space left in that corner over there, and as long as you don't sit up straight, your head probably won't hit the ceiling.

Before we get to the good stuff, I have a message for Kevin C. in Malaysia. Kevin and I have been corresponding fairly regularly, but over the last several months a problem seems to have developed. While all his letters have been arriving in my box, and I've answered all of them, the contents of his letters indicate that those replies are not being received.

While it could just be that outgoing mail is unusually slow, that would not explain this occurring over a number of months. I am really concerned about this and don't want Kevin to think I'm ignoring him. Since regular mail doesn't appear to be working too well (at least from here to Malaysia), this column is the only means I have to let him know about this problem (and with the publisher's lead time, even this is going to take awhile).

Serpent Isle: It seems a lot of Avatars have gotten themselves stuck in the Endless Corridor of the Mountains of Freedom. We can't have that; after all, how can you save the world (again) if you can't get out? So, you'd better find that secret door that leads to the last part of the maze. It's there; just go one step at a time, look to the rising sun, and you should find it.

Labyrinth of Worlds: Here's mud in your eye! Also your boots, your pants, and everything else. There's just nothing like a refreshing filanium mud bath with basilisk oil to make your day…or your body into a bottle of gin (or something like that). Well, there's a little more to it than that, but it's enough to get you started anyway.

The Summoning: Some people are still wandering around down there in the caves, and it would be a shame not to give them a helping hand (or at least a hint). For example, they're having a hard time finding the last wizard skull. It's behind a door just past the medallion slots on the Crimson Knight level. A sun key is needed to unlock the door.

Magic Candle II: Interestingly, mail still comes in occasionally about this one, and everyone pretty much asks the same question. Namely, where is that unmentionable iron key that opens the final dungeon? Well, it happens to be in the Caverns of Mandarg, and it's not easy to reach. In fact, you'll have to get up to the fourth level of the caves before you can find the way back down to level one and the secret area where the key is hidden.

Darkside of Xeen: A little surprisingly, some adventurers are having a hard time in the northern tower of the Vowelless Knights. They've gotten to the top, but the chalice eludes them, probably because they have not learned from their lessons. Think about it: all those questions (lessons) down below, how were they answered? The same thing works here.

Eye of the Beholder III: Getting out of the starting graveyard, and/or out of the forest, has proved to be a chore for a few folks. The graveyard itself isn't really that much of a problem *if* you have an axe with you or can find the one that's lying around somewhere. The entire area is actually a large square, and the boundaries can be mapped with a little patience (and axe). The forest requires a different item, which can be found in one of the thorn mazes. By the way, for those mucking around in the mausoleum, I have heard on good authority that a certain tigerish individual in the front ranks is really, umm, death on Undead Beasts.

Alone in the Dark: Care to dance? Yes? Oh, you don't like the music. Too bad. It's a pity that none of the records you found so far suit the tastes of the waltzers in the ball room. Then again, perhaps you haven't looked hard enough, in the right places. Have you taken a stroll down the picture gallery yet? After you do something about that annoying Indian chief, you'll be able to enter a very important room where you should come across a couple of items that will help out in the ballroom.

Legend of Kyrandia: The birthstone "puzzle" continues to make life difficult for game players. This is not surprising since it's strictly a trial-and-error solution, with no clues at all as to which stones work on the altar. While you do need the stone from the stream, the other gems are randomly determined. All that can be done here is to collect as many different gems as possible, save the game at the altar, and try them one at a time. When you get the first one, restore the game, use that stone, then start on the rest of the gems. Eventually, you'll know which are the four right ones.

Monkey Island I: This one remains popular, and the problem of getting around under the Monkey's Head is popular, too (heh). Come to think of it, there are a lot of heads around here (well, after all, this *is* cannibal country). And you do need to get a head to get ahead. The trick is what to trade for it. Remember, in this situation, navigation is everything!

And that's about it for this look into the mailbag. In the meantime, if you need help with an adventure game, you can reach me in the following ways:

On Delphi: Visit the GameSIG (under the Groups and Clubs menu).

On GEnie: Stop by the Games Round-Table (type: Scorpia to reach the Games RT).

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

Until next time, happy adventuring!

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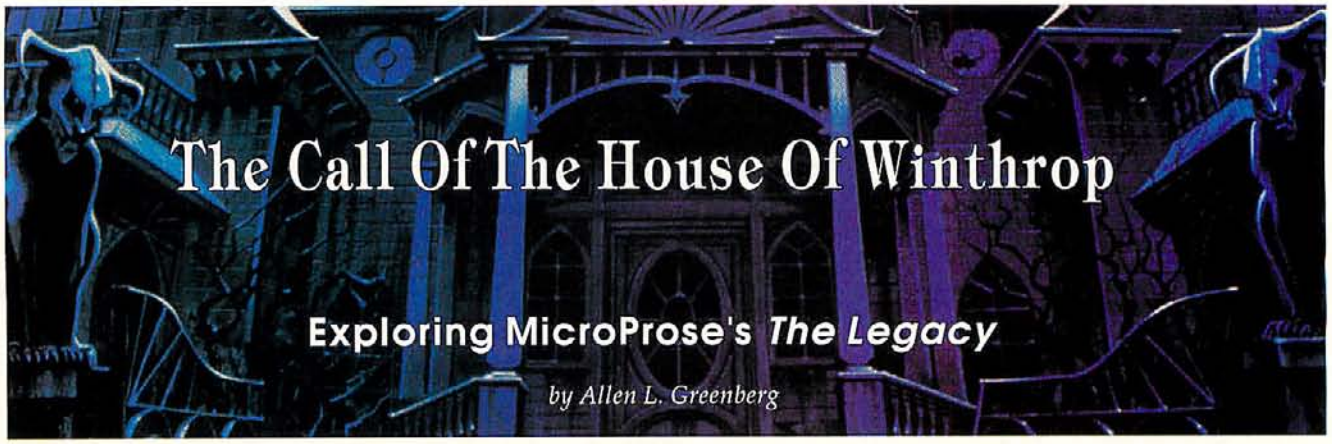


The Call Of The House Of Winthrop

Exploring MicroProse's *The Legacy*

by Allen L. Greenberg

The Legacy is filled to its blood-choked attic with the writings of Edgar Allan Poe, H.P. Lovecraft and more than a dash of Clive Barker. As in most gothic stories, the protagonist discovers that he/she is the last known member of some mysterious clan and has just inherited a home with a built-in problem of the supernatural variety. Exploring that property and learning its unspeakable secrets—usually associated with some diabolical pact between one's ancestors and an evil force—becomes the primary objective of said heir. So it is in *The Legacy*, a fantasy role-playing game from MicroProse where the player's character inherits the mansion belonging to the mysterious Winthrop clan.

According to the game's documentation, it was Poe's visit to the Winthrop house that inspired his account of *The Fall of the House of Usher* and may have even contributed to the insanity which ended his life. Anyone familiar with the writings of H.P. Lovecraft is aware that the human race is not the first to inhabit our earthly dimension. Beings too hideous to appear in any respectable book (although not, apparently, in this program) were cast out by magical means. To this day, a firm of extra-dimensional lawyers stand ready to sign agreements with some foolish member of humanity who will allow these demons to re-enter and reclaim their former home world. Clearly, the Winthrop family has been involved in some tasteless negotiations with these spirits.

Rococo Interface

The heir to this foreboding real estate is a character chosen by the player. Four male and four female pre-written characters are available for this purpose, any of whom may be modified should the player so desire. Character attributes include strength, knowledge, dexterity and willpower. Several of these also contain subcategories such as brawling and mechanics. As the player progresses through the game, the character will gain experience points that may then be distributed among these attributes. Magic plays an important part in the game, and the inheritor's ability to use it will increase along with his or her experience. The house has its share of secret walls and sliding panels, but the player is not so overwhelmed with them as to make the entire game an exercise in puzzle-solving.

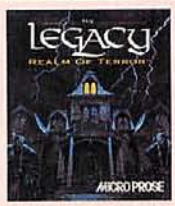
The Legacy displays a first-person view of the action which takes place in real time. The mouse is the most strongly recommended interface device, although a keyboard equivalent for each command is also available. The player selects one of six on-screen arrows to issue movement commands, while other icons are reserved for battle or spell-casting. In addition to a view of the action, the screen also displays a view of the inheritor. Objects in the hero's inventory, as well as any weapons at hand, are also displayed in this view. A scrolling narration of the action appears at the bottom of the screen. Most important of all, a self-drawing map is also visible. Each of these functions appears in an individual window that may be sized and placed anywhere on the screen the player desires. A window arrangement may be saved to disk just as though it were a saved game in progress.

Inventory management is a major task in *The Legacy*. There are several times more objects to be found in the Winthrop mansion than the player may carry at one time. Nearly all of these objects are necessary, or at least useful, at some time in the game. An attaché case, whose slender outward appearance is belied by a generous storage capacity, becomes the players constant companion. Like a business person fumbling for an appointment book, players are forced to retrieve their spellbook, or an appropriate weapon, while some fiend or monster attacks.

Early Gothic Decor

A tour through the mansion reveals an interesting variety of decor. Much of the house consists of dull wood paneling and threadbare furniture. However, this unique piece of real-estate also features a shining temple, a family crypt and a museum of occult paraphernalia. Another level holds a grisly, blood-splashed asylum which is rendered in such appalling detail as would leave a tabloid journalist speechless. A dungeon, sickeningly upholstered by a dermatologist gone mad, generates an atmosphere which could only have been inspired by Clive Barker.

The Legacy: Realm Of Terror



TITLE:	The Legacy: Realm of Terror
PRICE:	$69.95
SYSTEM:	IBM
REQUIREMENTS:	386SX-16MHz, 2MB RAM, VGA graphics, 18MB hard drive space
PROTECTION:	Documentation look up
DESIGNERS:	Jim Bambra and Magnetic Scrolls
PUBLISHER:	MicroProse Hunt Valley, MD (410) 771-1151

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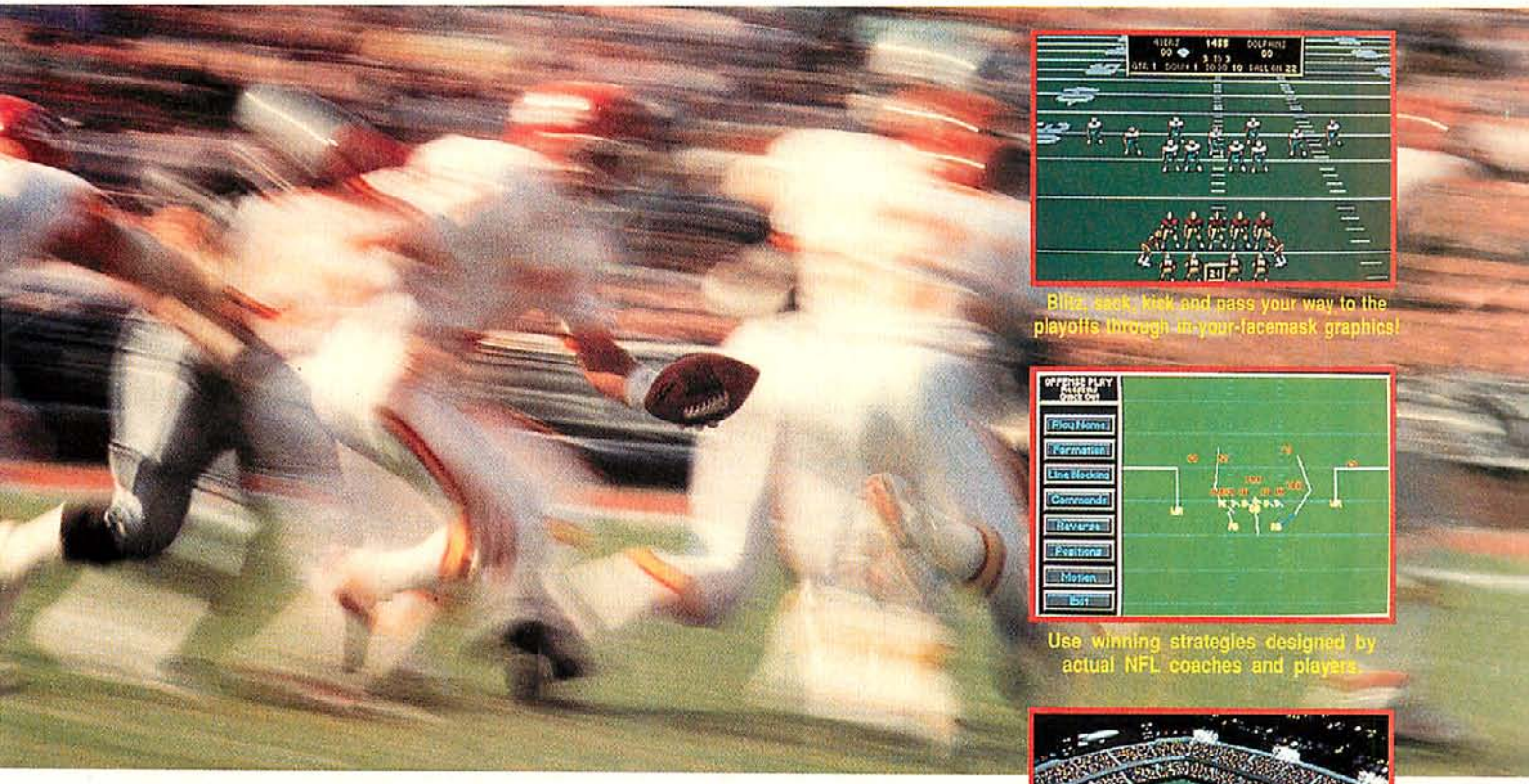

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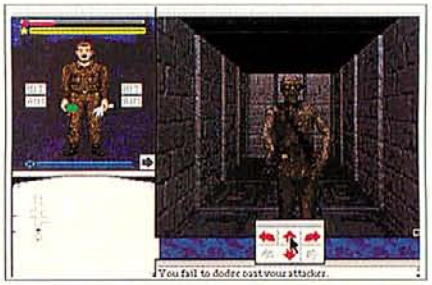
Rendered in dull, textured colors, the walls throughout the mansion are impressively real. Ultimately, players will have the chance to step through those walls and into a rift which separates the dimensions in order to experience what lies on the other side.

The supernatural creatures who populate the Winthrop house would prefer that the heir neither receive the expected inheritance or accomplish the required task, and it is with these creatures that *The Legacy* scores its highest marks. Using some innovative techniques, the game's programmers have produced a cast of demons who shine with supernatural depth and move with near video quality. Were anyone to actually see one of these first-floor zombies shuffle out from a bedroom shadow, they would surely spend the rest of their life in intense psychiatric therapy. A race of sea demons and their transformed human servants are particularly impressive. Only the fact that the monsters do not always seem to be aware of their surroundings, and may continue to walk even though they have reached a wall, mars the illusion that they are alive.

The Legacy features an interesting story involving an ancient Winthrop who formed an agreement with an extra-dimensional demon. Since that time, other members of the family have found themselves caught up in the repercussions of that agreement. Several outsiders have ventured into the home, leaving behind hints, food and weaponry of all types. The time is quickly approaching when the doorway between dimensions will once again open. This will prove an excellent opportunity to destroy the original demon, rendering both it and its contract null and void. Leading up to this climax are several smaller rituals which, when complete, will cause many lesser spirits to be evicted from this earthly property. When not armed with a spellbook, the hero often becomes a ghost-busting Rambo in order to kick ectoplasmic butt with more conventional weapons.

Magic spells are scattered throughout the mansion, and some heirs enter the house, spellbook in hand, with one spell already under their belts. For the others, a spellbook is waiting in the foyer. Once



found, spells are copied to the book and may be cast provided the hero's spell points and attributes allow him to do so. A full spellbook contains the usual variety of combat, protection and ability-enhancing formulas. The spells are capable of producing some amusing effects on the demons, some of whom may throw their hands up in surprise, or find themselves spinning around in confusion.

Baroque Appeal

Those who find *The Legacy*'s frighteningly realistic demons excessively traumatic should avoid the program. Others will be disappointed because *The Legacy* does not attempt to widen the envelope of conventional computer role playing. However, within that envelope it delivers some very solid entertainment in the form of eye-opening visuals and a page-turner of a story. Let the gamer be heir. CGW

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©Boris Vallejo/Interplay from the Dragon Wars game box

Scorpia's Magic Scroll Of Games

A Survey Of Computer Role-Playing Games

by Scorpia, Role-Playing Games Editor

Owners of yellowed, dog-eared copies of issue #87 may well remember portions of this article. To others, many of these references are mysterious arcana from the past. By updating this list of references, we hope to serve both types of reader, those that have been with us long-term and those that have just encountered the computer role-playing genre of mega-games (CRPGs). Here, then, is the wisdom of Scorpia, a summary of CRPGs olde and new.

The compendium that follows is not all-inclusive. It would be nice if I had (and had room for) an Amiga, Atari ST and Mac in addition to my old Apple and IBM compatible. Unfortunately, that's not the case. I can only talk about games I've played, and while I've played many, there isn't enough time even for me to get to all of them.

Since such an overview can cover games only briefly, I have included the issue (by number and cover date) in which the particular CRPG was covered, either as a review or a Tale (my regular hint column).

Finally, a word about Foozle. This is my generic term for the Big Bad Guy (or Gal) who is behind all the trouble. Invariably, Foozle is either an evil wizard or demon who has unleashed the ravening hordes of monsters that are making everyone's life difficult. Games that feature a Foozle almost always have a big battle with him (or her) as the major goal of the game. These days, there is a slight trend away from "Kill Foozle" endings, but most CRPGs still include it as the grand finale.

Alternate Reality: The City
Datasoft; Ap, At, C64
Review: #32 (Nov. '86)

First of a proposed multi-game adventure, *AR: The City* was a fascinating premise that turned out rather poorly, especially in the 8-bit versions. There was literally nothing to do beyond mapping out the city and building up your character for the next scenario. Of course, much was planned for you in later scenarios, but the total lack of any true goal turned what could have been a really involving CRPG into a tedious exercise in hack and slash. A game for those with great persistence and patience.

Alternate Reality: The Dungeon
Datasoft; Ap, At, C64
Review: #44 (Feb. '88)

Second and last in the series, *AR: The Dungeon* was a slight improvement with several little quests to be completed. However, the design was very loose, and you could stumble on quests without being told of them by the Oracle at all. A Devourer that showed up to steal items when your inventory became too large did nothing to improve matters. Although there was a bigger area to explore, the emphasis remained primarily on fighting. Better than the first, but not by much.

Ancient Land Of Ys
Broderbund; IIgs, IBM
Review: #77 (Dec. '90)

Japanese import converted from game machine to computer. A fairly simple entry with a few puzzles to solve, it offered Nintendo-style combat and graphics. There were several tough battles with major monsters (called "bosses" in the idiom of arcade gamers), but otherwise it was pretty much a romp. Interesting mainly for seeing what the Japanese do in terms of lightweight CRPGs.

Bard's Tale I
Interplay; Am, Ap, At, C64, IBM, Mac
Review: #5.5 (Nov-Dec '85)

The initial game of the series is a combination of puzzle-solving and hack'n'slash with a very linear approach. Dungeons must be done in strict order for successful completion. Getting started can be extremely difficult and the game can be saved only in one place, making for a certain amount of aggravation. However, it does have many points of interest, particularly in the puzzles, and is definitely a game worth getting.

Bard's Tale II
Interplay; Am, Ap, C64, IBM
Review: #38 (June-July '87)

Without doubt, the worst of the series. Combat reaches ludicrous proportions and its "Death Snare" puzzles are nothing more than monotonous, real-time run-arounds designed to frustrate and aggravate the player. The "big battle" is a farce, with Foozle going down pretty quickly, but his guards taking many rounds to dispose of. Boring and pointless about sums up this one.

Bard's Tale III
Interplay; Am, Ap, C64, IBM
Review: #48 (June '88)

The series redeemed itself with the third installment, flawed though it was by several seams in the game. It is basically a sequence of mini-quests in which the party visits various lands and times to acquire a variety of special magical items. All of this, of course, is the prelude to the usual "ultimate combat" at the end, which is a let-down. The best parts are the quests themselves, which have a slight "adventure game" feel to them, as the use of different objects is often necessary to accomplish one's goal. Still, too oriented towards the "hordes of monsters" approach to combat, along with spells of absurd power, but otherwise worth playing.

Beyond Zork
Infocom; Am, Ap, IBM, Mac
Review: #42 (Dec. '87)

Infocom's only entry in the hybrid game approach, its merging of CRPG with adventure does not mix as well as it should. Combat in particular is more a matter of getting the "lucky hit" rather than damaging an opponent sufficiently over time to kill it. The adventure portion is, of course, much better, as you would naturally expect. So this one is really an adventure game with some CRPG features rather than a true hybrid.

Buck Rogers: Countdown to Doomsday
SSI; Am, C64, IBM
Review: #78 (Jan. '91)

A surprisingly enjoyable little game using the *AD&D* Gold Box engine with the addition

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of character skills. Typical plot of stopping the bad guys, but the atmosphere of the old serials is re-created quite well. Side bits connected to the main story add significantly to the game; everything is related, one way or another. Essentially a quick-playing game, but fun nonetheless.

Buck Rogers: Matrix Cubed
SSI; Am, IBM
Review: #94 (May '92)

Disappointing sequel to *Doomsday*. More combat than is necessary, including three separate excursions where the party must fight sans armor and weapons. Plot and side quests are uneven and poorly developed. Most astonishingly, after the final battle, you get three cheers and a drop to DOS as a reward. This one is best avoided unless you're a real hard-core Rogers fan.

Champions Of Krynn
SSI; Am, Ap, C64, IBM
Review: #70 (April '90)

First in the Dragonlance series, this game is a slight variant of standard *AD&D*, different in its handling of magic. Go forth and beat up on dragons and dragonmen (as well as other critters) to stop the evil Myrtani from corrupting the eggs of good dragons. Standard fare for the most part, although the final battle with Myrtani is wearisome rather than exciting. Cameo appearances by some of the characters from the books is a nice touch.

Curse Of The Azure Bonds
SSI; Am, Ap, At, C64, IBM, Mac
Review: #63 (Sep. '89)

Sequel to *Pool Of Radiance* with a bit more plot. Characters must rid themselves of five blue tattoos that put them under the control of evil forces. Improved combat with fewer opponents per fight; no more hordes of critters to slow things down. It's more linear than the previous game, though it has some interesting side bits, especially with the Rakshasa. For all that, it's still mainly hack'n'slash leading up to the usual "Kill Foozle" ending.

Dark Heart Of Uukrul
Broderbund; Ap, IBM
Review: #67 (Jan. '90)

A standard dungeon-delving expedition with some interesting points, not least of which is the best auto-mapping in any game to date. Combat is better balanced than in many CRPGs of this type. Solving puzzles is key in the latter half of the game, so this one is *not* for those seeking only hack-and-slash entertainment. It has an unusual ending for a CRPG (play it and find out!).

Dark Queen Of Krynn
SSI; Am, IBM, Mac
Review: #98 (Sep. '92)

Conclusion of the *Krynn* series, and none too soon. It is an extensive game, larger than either of the previous entries, featuring combat galore mostly with enchanted Draconians of all varieties that blow up when killed. More back-to-back (and back-to-back-to-back) fights than any other Gold Box product. Many situations where one's "choice" of action means nothing. Only for the dedicated Gold Box fan.

Darklands
MicroProse; IBM
Review: #101 (Dec. '92)

MicroProse sticks its toe into the CRPG waters and ends up over its head. Perfect example of a fine idea (real-world setting of medieval Germany) gone wrong. Menu approach allows for more options than most games of this type, but over time, gives the game a static feel. It offers an unusual magic system based on alchemy rather than spells, along with prayers to various saints to obtain temporary benefits of one kind or another. Much of the game play involves "fetch it" quests or knocking off local robber barons, until the call comes to wipe out a witch cult and exorcise a demon. Horrible ending, with the player being shafted rather than rewarded. For this and other reasons detailed in the article, it is not a recommended game.

Death Knights Of Krynn
SSI; Am, C64, IBM
Review: #84 (July '91)

This is a sequel to *Champions Of Krynn* where Lord Soth and his endless undead legions are causing trouble. Getting to Soth is a linear, step-by-step process that needs to be followed carefully, however you can take time out to wander the countryside for interim adventures as the fancy takes you. The showdown with Soth is standard stuff. Afterwards, two special areas open up for additional adventuring and goody-grabbing. All in all, though, it's mainly just another chop-em-up.

Deathlord
Electronic Arts; Ap, C64
Review: #46 (April '88)

Poorly designed and implemented mishmash with a quasi-*Ultima* look. Everything that could be taken from other CRPGs was thrown in with little coherence, covered with pseudo-Orientalism, and developed into an extremely pointless game. A deficient manual makes it worse. Definitely one to avoid.

Demon's Winter
SSI; Ap, C64, IBM
Review: #53 (Nov. '88)

Follow-up to *Shard of Spring*, pretty much in the same style, but with an expanded engine. The world is larger, with more to do, and dungeons now require some puzzle-solving, but clues and directions on where to go or what to do are scarce. Many improvements over the previous game and an interesting plot, although combat is not as balanced as it could be. The demon of the title is the main foe, but the ending does not rely on the usual "Kill Foozle" battle, which is refreshing.

Don't Go Alone
Accolade; IBM
Review: #65 (Nov. '89)

Imagine a boring trek through a haunted house with simplistic puzzles at best, when there *are* any. The character classes are ill-described with functions which are completely unknown. Magic is performed through the use of chemical formulae, the only point of interest in an otherwise dreary product.

Dragon Wars
Interplay; Am, Ap, C64, IBM
Review: #66 (Dec. '89)

First of a proposed series that never came to pass, *Dragon Wars* has a lot going for it: balanced combat and magic (no mega-death spells), skill use, interesting subplots, and a battle with Foozle that will not be of the "ho hum, over in two rounds" variety. The only feature lacking is the ability to have conversations with NPCs. There isn't much talking to be done here: most information comes (as it did in *Wasteland*) from reading designated paragraphs in a separate booklet. While the game does have a few rough edges, overall it's a good choice when you want something a bit more than a standard slicer/dicer.

Drakkhen
Infogrames/Data East; Am, ST, IBM

A Japanese import with an interesting idea, but poor implementation, *Drakkhen* allows you to take sides in a war among dragonkind that has profound implications for the human race. Its odd combat style allows for little in the way of tactics or even control during fights. Character movement is occasionally awkward with people getting stuck at times behind obstacles, or the party not following the leader through doorways. Its sparse documentation does not provide enough information and the terrible character generation system requires creating the party together (one poor set of stats and you may well have to start it all over again). This one is only for the patient.

Dungeon Master
FTL; Am, ST, IBM
Review: #100 (Nov. '92)

This is the ground breaker that set the standard for 3D, point-of-view dungeons. It is similar in many ways to the *Eye of the Beholder* series (which owes it a lot), but with its own points of interest, not least of which are more varied puzzles. The game still holds up well after seven years, even graphically, and is worth playing today, especially if you like the *EOB* style. The end game with Lord Chaos can be a problem, so this one is not for the easily-frustrated.

Elvira: Mistress of the Dark
Accolade/Horrorsoft; Am, IBM
Review: #82 (May '91)

Elvira is a beautiful graphic CRPG with many gory close-ups and is *not* for the squeam-

ish or faint of heart. This is true of combat as well, where much blood goes flying as you fight your way in and around the castle. It offers plenty of combat using a variety of weapons and spells (cooked up for you by Elvira herself with ingredients you have to find). Lots to do and explore, this is a tough game and will not be finished in a few sittings. If you don't mind gruesome visuals, it's definitely worth playing.

Elvira II: The Jaws Of Cerberus
Accolade/Horrorsoft; Am, IBM
Review: #92 (March '92)

In a surprisingly bad follow-up to the original game, gamers must rescue Elvira and save the world from the demon Cerberus, who has taken over a movie studio. Half the game is an incredibly tedious hack'n'slash through seemingly-endless tunnels and caverns. The other half is poorly-designed adventure puzzles. If solved incorrectly, the latter can prevent you from winning. This one is best avoided.

Eternal Dagger
SSI; Ap, At, C64
Review: #40 (Oct. '87)

As a sequel to *Wizard's Crown*, this uses the same engine with a few enhancements and minor changes. It's not as good as the previous game. It is heavily weighted towards magic use in combat and opponents are far more difficult to dispose of, making for lengthy battle sequences much of the time. Fighting in dungeons is especially frustrating. Though it features an interesting plot idea, this game is only for the most patient.

Eye Of The Beholder
SSI; Am, IBM
Review: #83 (June '91)

First in a new series from SSI, this one features a totally new engine based upon the *Dungeon Master* model. It uses excellent visuals and sounds to create a "you are in a dungeon" feeling. It departs from the Gold Box series in that it emphasizes puzzles over combat. The combat portion needs work, as controlling up to six characters during real-time fighting becomes unwieldy at times. Nonetheless, it is an impressive first effort that bodes well for the future.

Eye Of The Beholder II: Legend Of Darkmoon
SSI; Am, IBM
Review: #93 (April '92)

More substantial than the previous entry, *EOB II* features better puzzles and more areas to explore. Combat remains a sore point, as nothing was done to improve handling of multiple characters during fights. It has a standard "Kill Foozle" ending, with Dran Draggore being even more of a tough opponent than the Beholder of the first game. A definite must for all *EOB* fans.

Eye Of The Beholder III: Assault On Myth Drannor
SSI; IBM, CD
Review: #109 (Aug. '93)

The series ends on a disappointing note. Though combat is finally fixed up with the "all attack" command (allowing everyone with a ready weapon, melee or missile, to attack at the same time, and halberds to fight from the second rank), the game is rather dreary with: dark graphics everywhere, much-overused sound effects which are occasionally monotonous, and a Foozle fight that is a letdown instead of a grand slam finale. This one is only for the hard-core *EOB* player. (Note: Westwood had nothing to do with it.)

Fountain Of Dreams
Electronic Arts; IBM
Review: #78 (Jan. '91)

This is a horrid post-nuke loser with a quasi-*Wasteland* interface. Its inane plot, ridiculous combat, and terrible ending make it a poor value for anyone.

Gateway To The Savage Frontier
SSI; Am, C64, IBM
Tale: #88 (Nov. 91)

Standard Gold Box fare in this first of a two-part series, this one lets gamers save the world from an invasion by hordes from Zhentil Keep. A few new touches have been added to the basic engine, but otherwise you've played this one many times before.

Hard Nova
Electronic Arts; Am, IBM
Review: #81 (April '91)

This science fiction CRPG uses an improved variation of the *Sentinel Worlds* engine. Indoor locations are now fully graphic and movement is no longer a tedious business. You take on mercenary jobs for the Starkillers, recruiting a variety of NPCs along the way. Its strong plotline has an interesting ending that allows for two different ways of handling the main problem and there is plenty of well-balanced combat with little of it random, except in space. It is definitely worth your attention if you like space games.

Knights Of Legend
Origin; Ap, C64, IBM
Review: #69 (March '90)
Playing Tips: #69

Tactical wargaming with a thin veneer of role-playing, *Knights of Legend* features interesting backgrounds and NPCs which are buried by the weight of incessant combat: 20 quests, all in the same mold (bring back an item stolen by some type of creature), tend to become tedious after a while. The game emphasizes battle techniques over all else. Only wargamers or devoted hack'n'slashers are likely to enjoy this one.

Legacy Of The Ancients
SSI; Ap, C64, IBM
Review: #43 (Jan. '88)

Would you believe a CRPG in the *Questron* style? Of course you would, since it was done by the same people. The only novelty is a museum with exhibits you enter by depositing the proper coins. Plot is almost identical to that of *Questron II:* destroying a scroll of evil spells. Primarily a hack'n'slash epic of moderate interest.

Legend Of Faerghail
Rainbow Arts; Am, IBM
Review: #79 (Feb. '91)

This is a German import that should never have crossed the Atlantic. Its poorly translated manual has several mistakes, the graphics are ugly, and combat is absurd (characters in the rear rank can be hit by opponents nowhere near them—opponents that do *not* use missile weapons). There is nothing new or of interest in the game. It's a mediocre effort at best. (The review presents a quite different picture of it; makes me wonder if we were looking at the same product.)

Lord Of The Rings
Interplay; Am, IBM
Review: #81 (April '91)

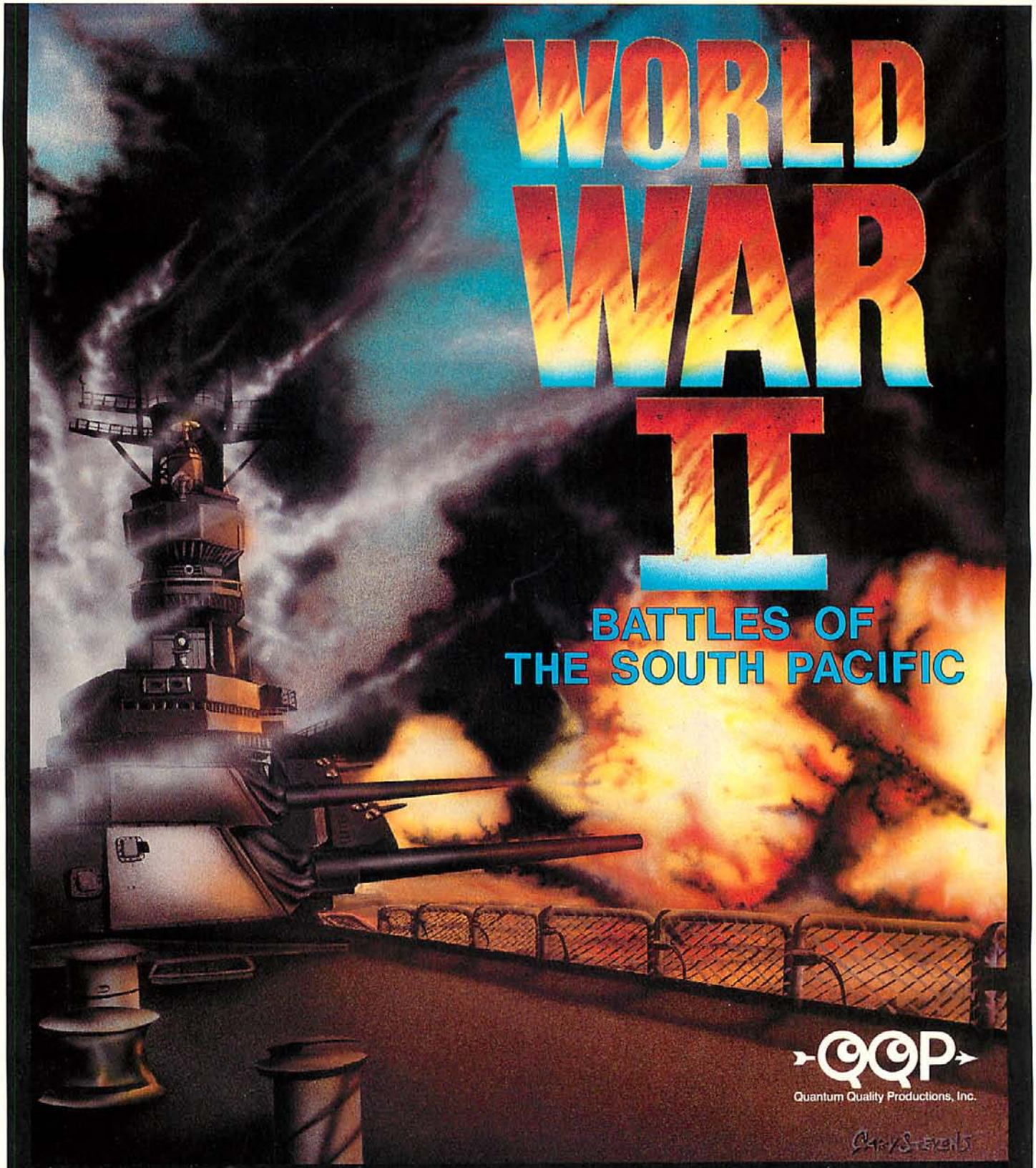
Probably the best so far of the various Tolkien adaptations, although not without its weak points, it follows the book (*Fellowship of the Ring*) fairly closely in its main aspects, but also has a lot of side stuff added. The terrain covers a *huge* area, and walking around can be a bit much at times, especially considering the number of things that can be found only by stepping on the right spot. Since new material has been put in to round out the game (this being only the first of three parts), those familiar with the original story may find themselves a little bewildered now and then. It is best to go through this one slowly and carefully; it's a big game and will not be completed quickly, no matter how well you may know your Tolkien.

Magic Candle I
Mindcraft Software; Ap, C64, IBM
Review: #58 (April '89)

CRPG in the late *Ultima* style, with much trekking around and gathering of information, as well as multiple mini-quests to perform. No endless stream of monsters or extraneous combats; this is *not* a hack'n'slash game. Careful note-taking is a must. Superior nonviolent ending; one of the few CRPGs that does not depend on "Kill Foozle" for the denouement. *CGW*'s Computer Role-Playing Game Of The Year for 1989, and deservedly so.

Magic Candle II: The Four and Forty
Mindcraft Software; IBM
Review: #95 (June '92)

Follow-up to the first game, taking place about 10 years later. This time your party of



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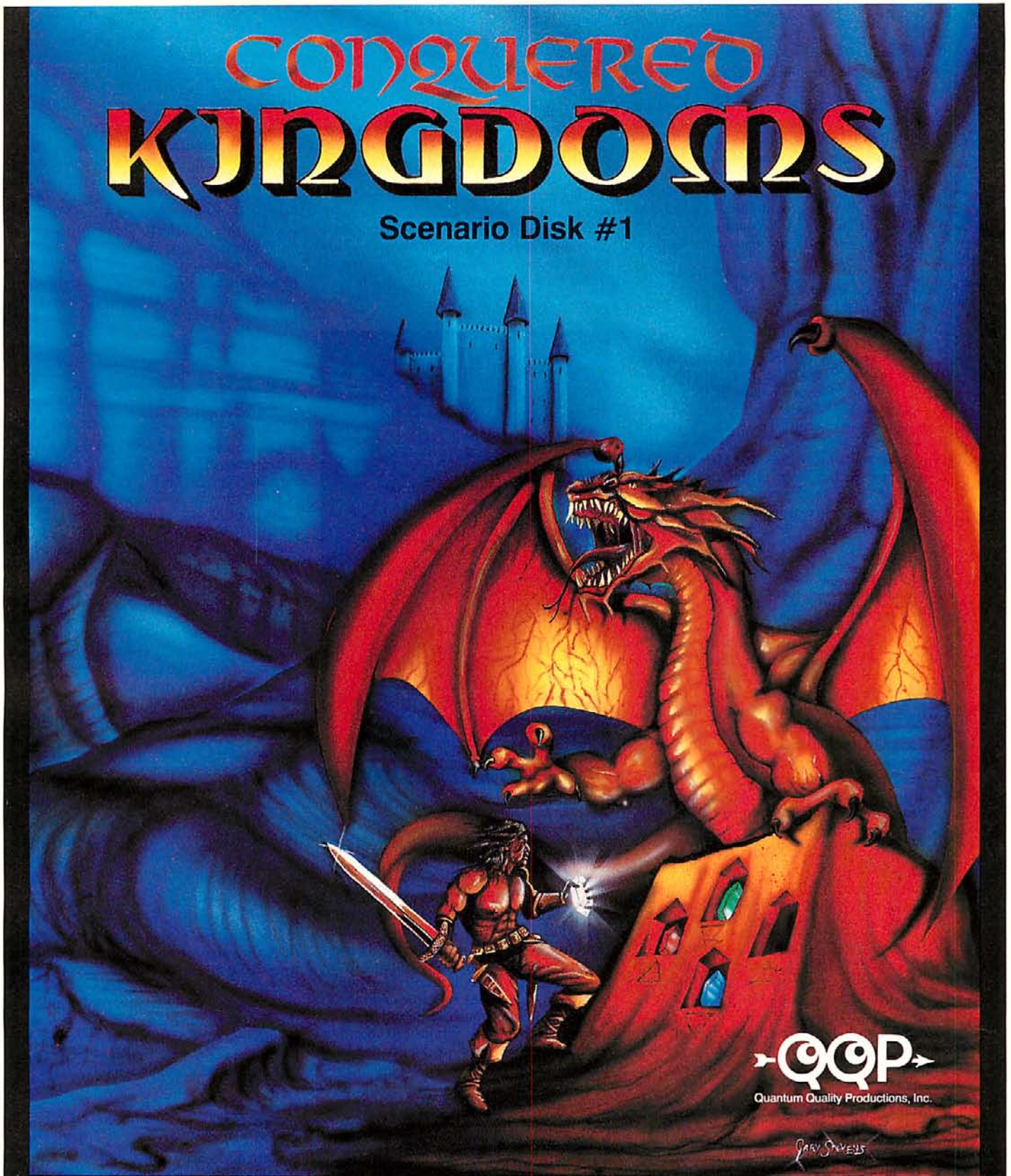

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heroes is trying to find out what happened to the original guardians of the Magic Candle whose disappearance set off the events of the previous entry. Sports pretty much the same engine, with a few improvements, such as an automatic note pad (which could have done better). However, the game is uneven, with a surprising overemphasis on combat, and one dungeon that is a nightmare. While better than a number of CRPGs on the market, *The Forty and Four* isn't quite up to its predecessor.

Magic Candle III
Mindcraft Software; IBM
Review: #106 (June '93)

Conclusion of the series, and, in common with many CRPGs these days, ends on a mediocre note. The main goal is to save the southern islands from a mysterious blight that is taking over the land. There is nothing really new or exciting about this one; in fact, the game is remarkably dull, and after a while it becomes hard to maintain interest. Unusual for a *Magic Candle* game, there is a Foozle fight, which is so easy it's laughable. This one is only for the hard-core fan of the series.

Martian Dreams
Origin; IBM
Review: #86 (Sep. '91)

Visit Mars in the 1890s! Second in the *Worlds of Ultima* series, it uses the same engine as *Ultima VI*. A nice recreation of Victorian science fiction with an interesting story line. It is really more an adventure game than a role-playing game, as character stats have relatively little importance in accomplishing the mission. Too much walking around and backtracking, with no means of easy travel, is a definite weak point. The game requires patience and careful attention to detail, but is otherwise enjoyable.

MegaTraveller I
Paragon; Am, IBM
Review: #76 (Nov. '90)

The first computerized version of the popular *MegaTraveller* role-playing game comes off rather poorly. Its most serious flaw is an atrocious combat system that makes fighting excruciatingly frustrating. Much time must be spent in earning money to get on with the game. Nowhere near as good as it should have been, it is only for the devoted *MegaTraveller* fan with a high tolerance for exasperation.

MegaTraveller II
Paragon; IBM
Review: #88 (Nov. '91)

Somewhat improved over the previous game, although not by much. Combat is better and is not as large a part of play. There are many worlds to visit (perhaps too many) as your party looks for a way to save Rhylanor from a creeping tide of slime. Much of the action ends up going into side quests that have nothing to do with the main plot, but you don't often realize that until too late. In time, the game becomes mechanical and tedious, as you find yourself doing pretty much the same things over and over again.

Might & Magic I
New World Computing; Am, Ap, C64, IBM
Review: #36 (April '87)

Extensive CRPG rivaling (possibly even surpassing) the *Ultima* series in the size of its world. Map-making is a must; expect to have 50+ by the time you're finished. Plenty to do besides cartography and exploration, with many mini-quests to complete and puzzles to solve. One of the few in this genre that has a nonviolent ending. Biggest difficulty is getting started, as combat in the early stages is unbalanced. However, it's well worth the effort.

Might & Magic II
New World Computing; Am, Ap, C64, IBM
Review: #57 (March '89)

Not as good as the previous game on many counts. Worst is the excessiveness of the combat, which turns this one into a "Monty Haul/Monster Mash" extravaganza. It has a weak plot padded with many extraneous activities leading to a "Kill Foozle" encounter, followed by a real-time solve-the-cryptogram finale. Graphics are much better and the party can be filled out with various hirelings, but overall, this one is only for the devoted hack and slash crowd.

Might & Magic III: Isles of Terra
New World Computing; Am, IBM
Review: #90 (Jan. '92)
Tips: #90

A completely redesigned engine, interface, and graphics display turn the series away from the excesses of the past and on to a more reasonable route. Combat is much more balanced, although Neat items are a little too easy to come by too early in the game. Skills are brought into play for the first time, with a long list available. The party is after Sheltem again, although they won't catch up to him here (see *Darkside* below). Overall, a big improvement in the series, and worth playing.

Might & Magic IV: Clouds Of Xeen
New World Computing; IBM
Review: #102 (Jan. '93)

Similar to *M&M III* in game engine and mechanics, although with several improvements, including auto-notes for quests and a separate list for quest items acquired. Two play modes: Adventurer, which makes combat a little easier (critters die sooner), and Warrior, which makes it harder (critters die later, if they don't kill you first). Ending is "Kill Foozle," and rather disappointing; it's strictly a one-shot deal. Still, *Might & Magic* fans will enjoy this one...and should keep it handy on the hard drive (see next entry).

Might & Magic IV: Darkside of Xeen
New World Computing; IBM
Review: #110 (Sept. '93)

The conclusion of the current *Might & Magic* series that began way back with *M&M I*, featuring the final showdown between Sheltem and Corak. Can be played as a stand-alone or incorporated into *Clouds* to make the complete *World Of Xeen*, allowing you to slip back and forth between both sides of the world. You must create the full world if you want to use your *Clouds* party. The most enjoyment will be obtained by installing both and playing them as a single game.

Nothing really new has been added, and play is pretty much the same as in the previous game, although monsters here are tougher. Puzzles are a disappointment, most being blatantly obvious and not much of a challenge. Non-Foozle ending; great scenes of the fight between Sheltem and Corak, and later when the two halves of Xeen are brought together into a single world. A must for those who have followed the series since its inception.

Phantasie I
SSI; Ap, At, C64, IBM, ST
Tale: #5.4 (Sep-Oct '85)

A surprisingly good little game, with many interesting features: auto-mapped dungeons, multiple parties (only one at a time can be out), dropping off of characters in different towns, and monsters that can (sometimes) be bribed to leave you alone. Combat is a little weak, as party members are strung out across the bottom of the combat screen when fighting begins, but this is not too serious a drawback most of the time. Standard "Kill Foozle" ending, but he is tough to defeat.

Phantasie II
SSI; Ap, At, ST
Review: #30 (Aug. '86)

Tough follow-up to the first game. It is almost identical in terms of engine and interface; the same manual is used for both I & II (with a card to detail the few differences, which are very minor). The world is smaller, but the monsters are nastier, so getting through this one will be hard slogging. Also, this isn't exactly a "Kill Foozle" epic, and the rewards afterward are fun and better than in many games of this type. A good sequel to the previous game.

Phantasie III
SSI; Am, Ap, C64, IBM, ST
Review: #38 (Aug-Sep '87)

This one closes out the trilogy and is by far the weakest in the series, even with the changes to the basic engine. For one thing, it is quite short. Players may be astonished how quickly they reach the typical "Kill Foozle" end. Fewer dungeons to visit, so the world seems smaller. Monsters, of course, are nastier than before, but the game can be finished with lower level characters than usual. Still, the final battle is a toughie, though the rewards are very nice. The conclusion ends up being satisfying, if perhaps a little too brief.

Pool Of Radiance
SSI; Am, Ap, C64, IBM, Mac
Review: #49 (Dec. '88)

The first Gold Box game—the one that started it all. Multi-quest format, leading up to the standard "Kill Foozle In The Big Battle" ending. Has a more open format than later games. Biggest drawback to this otherwise well-designed slicer/dicer is the inordinate number of creatures to fight as the game progresses. Combats become drawn-out and tiresome, with no way to avoid them or speed up the action. Patience (possibly of Job) required to get through this one.

Pools Of Darkness
SSI; Am, IBM, Mac
Review: #89 (Dec. 91)

Conclusion of the series that began with *Pool of Radiance*, this otherwise fine game (the best of the lot) is marred by two nasty points: One is having to put aside all good magical stuff (armor, weapons, etc.) whenever you pass through a portal to another dimension, where you have to find temporary replacements that won't make the trip back. The other is that the ending is almost as bad as a drop to DOS: intervention by the gods makes everyone except your party and Elminster forget what happened. If you can live with that, *Pools* provides the ultimate challenge for the experienced Gold Box gamer (not recommended for the novice).

Quest For Glory I: So You Wanna Be A Hero
Sierra On-Line; Am, IBM
Tale: #67 (Jan. '90)

Cute hybrid of adventure and role-playing; one of the few that are truly replayable. The puzzles have multiple solutions depending on character class. Several different quests, but no overall "Kill Foozle" plot—quite a nice change of pace. Great graphics, particularly the animations. Lots of humor. Essentially a beginner's game, but can be enjoyed by all.

Quest For Glory II: Trial By Fire
Sierra On-Line; Am, IBM
Tale: #79 (Feb. '91)

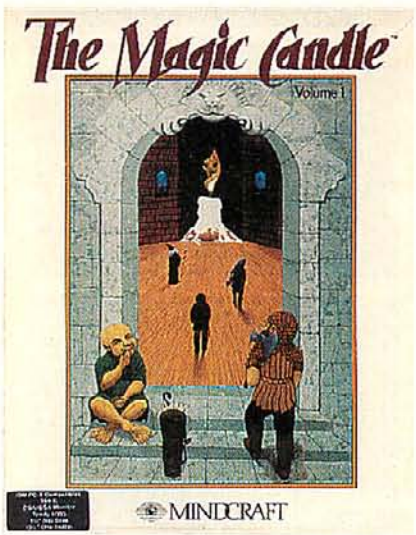
Second in the series, this one is more structured and linear than its predecessor. It is not as replayable, as many events are time-dependent with little to do in-between after you've gone through the game once. It is also slightly harder than the first game, but not by much. You have to save the home town of the Kattas and "Kill Foozle" at the end, but each "Foozle" battle is different depending on character class, with the thief ending being the most difficult and involved. Has one of the neatest and best "reward" sequences around.

Questron
SSI; Ap, C64
Review: #4.3 (June '84)

Something along the lines of an early-*Ultima* clone (a license had to be obtained from Lord British for this game to be published), but with its own points of interest. Monsters roam the outdoors in specific places and require particular weapons to kill them. Travel is accomplished in a variety of ways, including by ship, llama and giant eagle (the most fun way to get around). There are three nasty dungeons to traverse before the big one with Foozle. Though a bit old, it still has one of the neatest reward endings in the genre.

Questron II
SSI; Am, Ap, C64, IBM, ST
Review: #50 (August '88)

Reprise of a familiar theme; pretty much the same stuff as the previous game, although somewhat easier. Here you're out to destroy the evil book of magic by going back in time, a plot device rather reminiscent of Mondain and his evil gem in *Ultima I*. It is mainly hack'n'slash with some dungeon-delving and no puzzles to speak of. Auto-mapping is available in some dungeons. Overall, not as good as the first *Questron*.



Realms Of Darkness
SSI; Ap, C64
Tale: #37 (May '87)

A CRPG of only moderate interest. You march through various dungeons on little quests, solving obvious puzzles along the way. Not as well-balanced as it could be in matters of combat. Extremely linear setup, requiring completion of one quest before moving to the next. Overall, it is a game for beginners more than anything else.

Savage Empire
Origin; IBM
Review: #80 (March '91)

First in the *Worlds of Ultima* series, it uses the *Ultima VI* engine and graphics. Avatar and friends are pulled by accident into a jungle world and must find a way to get home. This requires uniting a variety of native tribes who are all more or less at war with each other. Like *Martian Dreams*, it is more oriented towards puzzle-solving than role-playing, although there is a fair amount of combat to be done along the way. Not too difficult, but occasionally tricky. Good for filling in the hours while you wait for the next real *Ultima*.

Scavengers Of The Mutant World
Interstel; IBM
Review: #59 (May '89)

Another post-nuke scenario that should never have seen the light of day. It is a game with ugly graphics, incredibly awkward interface, killer-dungeon mentality and truckloads of aggravation. Pass it by.

Secret Of The Silver Blades
SSI; Am, C64, IBM, Mac
Review: #75 (Oct. '90)

In this sequel to *Azure Bonds*, the party is summoned (sans equipment) to help a mining town besieged by monsters in the mines. Of all the Gold Box games, this is the most combat-intensive and most boring. There is virtually nothing to do but kill almost everything in sight. For hard-core slicer/dicers only.

Sentinel Worlds I: Future Magic
Electronic Arts; C64, IBM
Review: #54 (Dec. '88)

Once you get past the slow beginning, this is an interesting science-fiction CRPG. It has a good plot with several smaller stories inside the large one. Biggest drawbacks to the game are the incredibly tedious indoor movement system and the terrible ending ("Okay, you won! That's it! Done, over, next"). If you can live with that, this is a good game to play.

Shard Of Spring
SSI; Ap, C64, IBM
Review: #33 (Dec. '86)

Imagine a typical hack-and-slash romp where your party attempts to retrieve a magical gem (the shard of the title). The party rambles across the countryside and through dungeons (most of which are small, except the final one), with numerous battles leading up to the usual "big confrontation." This one is not bad for its type, and better than some.

Space 1889
Paragon; Am, IBM
Review: #80 (March '91)

Paragon's attempt to bring this paper RPG to life falls flat on its face. Uninspired graphics, disorganized plot, irksome interface, terrible combat system and humdrum ending create the disappointment. While not a total disaster, it is likely that only the most hard-core *Space 1889* (paper version) fans will enjoy it.

The Summoning
SSI; IBM
Tale: #102 (Jan. '93)

This is a neat single-player CRPG with an emphasis on puzzles. It overdoes it a little with the floorplate/teleporter combos, but otherwise a lot of fun, if occasionally frustrating. Very good automap, which can be sent to the printer for hardcopy. Balanced combat, with good mix of melee and spells. Short but unique ending. Despite only two disks in the box, this is a BIG game with much to do. Save

files grow quickly, so reserve a lot of space on the drive for this one. It's worth your time.

Treasures Of The Savage Frontier
SSI; Am, IBM
Tale: #96 (July '92)

Last of the Gold Box games, this one is almost indistinguishable from any of the others. A couple of twists (such as reinforcements for the enemy that can pop up at any time), but otherwise pretty much a yawner.

Tunnels & Trolls: Crusaders Of Khazan
New World Computing; IBM
Review: #79 (Feb. '91)

Here is a perfect example of a good game gone wrong. Poor programming and/or playtesting allowed far too many bugs in the game and it featured a very loose design, with little direction for the player on what to do or where to go. Unbalanced combat, especially late in the adventure. Overall, a big disappointment; for the hard-core fan only.

2400 A.D.
Origin; Ap
Tale: #44 (Feb. '88)

This is a science fiction cartoon pretending to be a real game. Hokey graphics and simplistic play destroy any feeling of excitement or suspense. It is shallow, bland and not particularly imaginative, but may be good for a summer afternoon or rainy day when you want something that isn't mentally taxing or especially involving.

Ultima I
Origin; Ap, At, C64, IBM, Mac, Vic

This first game in the series is truly epic in scope: aside from a large land (with dungeons) to explore, eras pass from primitive to high-tech, providing ever-better weapons, armor and transportation. There is even an outer space combat segment! The basic goal is to eventually go back in time and destroy Mondain and his evil gem of power. One of the first games of its time to have a real outdoors; most in the genre were busily pushing you through underground passageways. This game also introduced interaction with NPCs, although in a much more rudimentary form than the current *Ultimas*. The biggest problem in the game (not really fixed until *Ultima IV*) is the unbalanced combat system. Otherwise, it is a classic not to be missed.

Ultima II
Origin; Ap, At, C64, IBM, Mac, Vic
Review: #3.2 (March-April '83)

In this game, Lord British began tightening up the design. Here you're after Minax, the protégé of Mondain. There is still some flying around in space (which could well have been omitted), and moongates are introduced for the first time, but there is also considerable scaling back in the structure with a trend towards more plot. Aside from the uneven combat and the fact that dungeons tend to be extraneous excursions, it is a good sequel to the original game.

Ultima III
Origin; Am, Ap, At, C64, IBM, Mac, ST
Review: #3.6 (Dec. '83)

This is the best of the first trilogy. Time travel and space stuff have been dropped, so

The Evolution Of ULTIMA I-VII

the emphasis is on fantasy alone. Plot and structure are better developed. It is the first *Ultima* to feature party adventuring with a group of up to four, and a revised combat system with individual depictions of monsters and characters. Destroy Exodus, offspring of Mondain and Minax, in a surprisingly quiet and nonviolent fashion. This marked the turn of the *Ultima* series away from the standard "Kill Foozle In A Big Battle" ending to resolutions that are less combative in spirit, a trend that has continued through *Ultima VI*.

Ultima IV
Origin; Am, Ap, At, C64, IBM
Review: #25 (Jan-Feb '86)

Still my personal favorite of the series, this is the only game on the market where personal development of the character, beyond mere fighting skill, is the heart of the plot. This theme makes the game occasionally difficult for those who are only used to the typical slicer/dicer where the sole matter of importance is the body count of monsters. Structure is very tight, but the format is open; this is by no means a linear game, and you have much freedom to roam and explore. Combat is better-balanced here than in previous *Ultimas*, so even the beginning character is in no danger of being trounced by over-powerful opponents. A class act throughout.

Ultima V
Origin; Am, Ap, IBM
Review: #47 (May '88)

A more somber theme prevails in this one, with the land of Britannia crushed under laws enforcing pseudo-virtues. Lord British is missing, and the Avatar is called back to set things right again. It is a worthy follow-up to the previous game, although the manual is surprisingly poor, omitting much basic information of importance. The Underworld is likewise a disappointment, being vast but essentially empty and rather tedious to move around in. The structure of the game also seems a bit loose, and there is a slightly unfinished feel to it. For all that, this is the logical continuation of the previous game with an involving storyline. Not to be missed.

Ultima VI
Origin; C64, IBM
Review: #71 (June '90)

This is the ground breaker that ushered in a new era in *Ultima* graphics, with a world and interface so completely different it comes as a shock to veteran players. The game is seen on a single scale with no more "zoom-ins" to cities and dungeons. Virtually all items are tangible and can be manipulated some way or other. Overall, the real-world feel to this one is astonishing and takes a little getting used to. This is enhanced further by putting all the monsters in dungeons, so that combats on the surface are few and far between. The plot wraps up the first trilogy as well as the second, reveals the secret of the *Codex Of Ultimate Wisdom*, and provides some lessons on getting along with those who are different. The weak spot is the middle portion and the hunt for the pirate map, which is more a time-waster than anything else. Regardless, this one is definitely worth your time.

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Ultima VII Part 1: The Black Gate
Origin; IBM
Review: #97 (August '92)

Sporting a completely new mouse-driven engine, enhanced graphics, and a somber story line, *Black Gate* ushers in a new era of maturity in the series. The Avatar returns to a Britannia 200 years in the future where many modern-day problems have their counterparts, and the evil Guardian is gathering power through his benevolent-appearing "Fellowship" (ring not required). Putting an end to this nefarious scheme is the main objective. Early releases had many bugs, including trashed graphics of one kind or another. Be sure your version is 3.4 or better to avoid these and also the infamous "key deletion" bug that removed keys, used or unused, from your inventory. While the game has its annoying aspects, such as minimally-controlled party members in combat and excessive disk access, it is certainly worth playing.

Ultima VII Part 2: Serpent Isle
Origin; IBM
Review: #108 (July '93)

Follow-up to *Black Gate*, starting where the previous game ended. For the first time, an *Ultima* takes place off the main continent of Britannia, in the area called Serpent Isle. Tracking down Batlin, who escaped at the conclusion of *Black Gate*, is only part of the story. The Avatar must discover the secrets of an ancient and long-gone race, the Ophidians, in order to save the world.

Much more grim than the prior entry, with wholesale slaughter of innocent people, as well as the sacrifice of one of that hardy trio of Shamino, Dupre, and Iolo at the end. The game is marred by many poorly-designed puzzles and event triggers that can be tripped at the wrong time. Voodoo memory is still in use, and disk access has not improved much over the previous game. Overall, it has a good story with poor implementation. Prepare to be frustrated with this one.

Ultima Underworld I: The Stygian Abyss
Origin; IBM
Review: #96 (July '92)

First in a new series featuring the Avatar, with superb graphics that model a dungeon almost perfectly, it produces that "you are there" feeling in a way no other game before it has ever done (including the venerable *Dungeon Master*). The Avatar is railroaded into an underground complex used now as a prison and must escape, incidentally saving the world along the way. The combat system takes some getting used to, but is otherwise balanced. Spells are cast using runes instead of reagents. Much interaction with the inhabitants, many of whom are not hostile. Its fantastic automapping feature lacks only a printing function to make it perfect. The only drawback to this one is a lot of excessive running around between levels. A definite must for game players (at least those who are not claustrophobic).

Ultima Underworld II: Labyrinth Of Worlds
Origin; IBM
Review: #106 (May '93)

This one offers pretty much the same engine and graphics as the previous *Underworld*. The Guardian makes a cameo appearance, encasing Lord B's castle in a mountain of blackrock. The Avatar heads down into the sewers and below to find a solution, which turns out to be a blackrock gem that acts as a portal to other worlds. All must be visited, some several times, before Britannia can be saved. A traitor/murderer in the castle itself adds to the tension. Only one world is an "outdoors" setting, so the game still has a tendency to make one claustrophobic. One drawback is not being able to bring your character over from *Abyss*; you have to start over again from level one. More complex in some ways than the previous game and somewhat more combat-intensive, it is a good follow-up to the previous entry.

Wasteland
Electronic Arts; Ap, C64, IBM
Tale: #48 (June '88)

Really the only decently-designed post-nuke game on the market, *Wasteland* features Desert Rangers who investigate strange happenings in the deserts of Arizona and discover more than they bargained for. It has a bang-up ending, though not exactly in the "Kill Foozle" class. There are interesting subplots, multiple solutions to many situations, an emphasis on skills (although this part was not as well thought out as it could have been) as well as on stats. It has, perhaps, more combat than is really necessary, but fighting is better-balanced than in many games of this type. A *CGW* Hall of Famer and a good one to choose.

Wizardry I: Proving Grounds Of The Mad Overlord
Sir-Tech; Ap, C64, IBM, Mac,
Review: #2.3
Hints: #4.5 (Oct. '84)

The original classic and the first CRPG to give you a full party of individuals to control instead of the usual single character. It was also the first to provide for heavy-duty magic use, with reams of spells for mages and priests. Delve into a 10-level dungeon to retrieve Trebor's (the Mad Overlord) amulet that was stolen by Werdna. It has 3D point-of-view perspective with mediocre graphics: walls and floors are line drawings without color or decoration; no visible objects on-screen (stairs, for instance, have to be stepped on to find out they're there); static monster pictures (although in full color) during encounters; all-text combat resolution.

Of course, *Wizardry* was never noted for its graphics, but for the quality of its game play. Moving through the dungeon levels was exciting, and occasionally frustrating thanks to Dark! areas (where no light worked), Fizzle! areas (where no magic worked), spinners, teleporters, pits, and other nasty contrivances, not to mention all manner of hostile critters. This was in addition to the tricks and puzzles, most of which were solved by having the right item equipped, and a host of mysterious magical objects whose uses were determined by trial and error. While mainly hack'n'slash, it's still a grand expedition, even today.

Wizardry II: The Knight Of Diamonds
Sir-Tech; Ap, C64, IBM, Mac

Disappointingly weak follow-up to the original, it has a tiny (comparatively) dungeon with only six levels. Pick up the pieces of the Knight of Diamonds armor that are scattered around throughout the dungeon. Playing *Wizardry I* first is a necessity, as characters must be imported in from that game. Nothing really new or innovative to be seen here, although the non-Foozle ending is a nice touch; best for the hard-core fan only.

Wizardry III: Legacy of Lyllgamyn
Sir-Tech; Ap, C64, IBM
Review: #3.6 (Dec. '83)

This one is not a true sequel, as you start out with level one characters. Essentially, *Legacy* is *Wizardry I* all over again, with a few bells and whistles added. The object is to obtain the Orb of Lyllgamyn from the dungeon. This requires running two parties alternately, one good and one evil. Aside from that novelty and a change in the monster graphics, there is little to distinguish it from the previous two games.

Wizardry IV: The Return of Werdna
Sir-Tech; Ap, IBM
Review: #41 (Nov. '87)

Wiz IV is an interesting RPG inverse: Instead of being the good guy, you play the evil Werdna, making his slow way up through the dungeon to retrieve the amulet of power. Along the way, you can summon a variety of nasty critters to help you in your fights against wandering bands of adventurers who want to keep you down. In addition, there is a raft of diabolical puzzles to solve as Werdna treks upward to the exit. When he gets there, the second half of the game begins. This one is involved and complicated, with multiple endings, and by no means linear. It was designed primarily for the experienced, hard-core *Wizardry* player and is not for the novice gamer. Wizardry fans who want a good workout shouldn't miss this one.

Wizardry V: Heart Of The Maelstrom
Sir-Tech; Ap, IBM
Review: #56 (Feb. '89)

A better game than *Wiz II* or *III*, although it does away with the neatly-sized dungeons, making for a lot of aggravation in mapping. This one is a combined rescue mission/kill Foozle expedition. Combat is not as well-balanced as it should be, and there is a lot of silliness in the game. Monster pics are improved over previous *Wizardry* titles, but the

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dungeon graphics are still colored lines. This one began the trend of actually using objects during play, instead of merely having them with you. Most puzzles, however, are simple once you have the right item (or right instructions, as the case may be). One of the better features is (are?) critters you can talk to as you progress through the dungeon, who will provide information and/or have important items for sale (it's refreshing not to have to kill everything you come across!). Overall, a medium effort, better than some, not as good as others.

Wizardry VI: Bane Of The Cosmic Forge
Sir-Tech; Am, IBM, Mac
Review: #79 (Feb. '91)
Tale: #82 (May '91)

At last the series breaks out of the line-drawing mold and starts to get into real graphics. The bleak and colorless walls are finally a thing of the past. While there isn't that much variety, it's still better than outlines. This one is not a sequel to *Maelstrom*, as you have to create a brand-new group. Character creation isn't much different from before, except in some of the classes and races you can have. More puzzle-oriented than most previous Wizardries, with a lot of objects (not necessarily magical) to be used in different places, and posers to unravel; however, the majority are not difficult. Interesting use of multiple endings, although how to get to them is somewhat obscure. Combat in the latter part of the game tends toward imbalance. Weak in parts, but better than *Wiz V*.

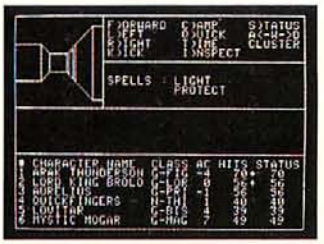
Wizardry VII:
Crusaders Of The Dark Savant
Sir-Tech; IBM
Review: #103 (Feb. '93)

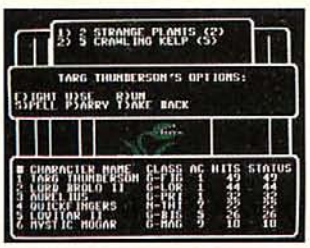
This is a sequel to *Bane* with essentially the same engine. This time the party is after the Astral Dominae, an artifact of great power. So is the Dark Savant of the title, as well as other groups. More detailed than any previous *Wizardry* with some real and very interesting interactions between the party and the various inhabitants of the world. This is also the first *Wizardry* to provide an actual outdoors, with towns, rivers, and an open sky. The design is a little weak in some places, and there is too much unnecessary running back and forth, but this one should not be missed, especially not by *Wizardry* fans.

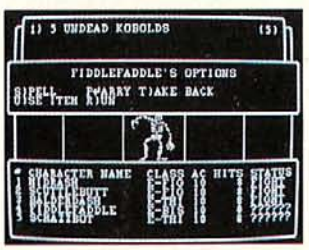
Wizard's Crown
SSI; Ap, At, C64, IBM, ST
Review: #31 (Sep-Oct '86)

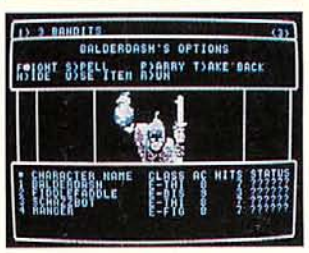
A better-than-average hack'n'slash game featuring tactical combat and other interesting points, *Wizard's Crown* features detailed, but time-consuming combat. Fortunately, a quick combat mode is available for the speedy dispatch of weaker opponents (done in text mode with the computer running both sides). It features no levels as such; experience is traded for increases in skills and stats, a very intelligent way of handling things. Good balance of magic/weaponry in combat, and spells do not become overwhelming. It also offers a very tough fight with Foozle at the end. A good game for the bash'em crowd.

The Evolution Of WIZARDRY I-VII









Wrath Of Denethenor
Sierra; Ap, C-64, IBM
Review: #37 (May '87)

An *Ultima II* look-alike, right down to the graphics, only not as good as the game it copies. Trek around the world to find out how to bring about the downfall of the evil Denethenor of the title. There's lots of tedious backtracking with nothing particularly new or inventive in the game. If you didn't play it, you didn't miss much.

Moldy Oldies

These games are old, REALLY old, and it's doubtful you will come across any of them these days. Even if you did, most are likely to be unplayable, since they were written mainly for the old Apple II and TRS-80 lines, although some might run on the IIGS.

This collection of the first CRPGs may surprise you a little. Not all of them were of the endless hack and slash variety, and some contain features you might not expect in games that were designed to run on small machines. Many were slow in terms of play speed, and their graphics were primitive by today's standards, but the concepts they introduced have been incorporated into most of the modern CRPGs. So take a look and see what was going on in "the good old days" when Apple was king and 64K RAM was more memory than one could ever use!

Aklabeth
California Pacific; Ap

This was Lord British's first published game. Bluntly, it wasn't all that terrific. *Ultima* fans may find it hard to believe, but the outdoors were an absolute, unrelieved blank slate. The only features were little five-square symbols that represented towns (and carried over to early *Ultimas*), big X's that looked like scars (and represented dungeons), and way, way down on the right-hand side, a castle. In the castle was a lord who kept sending you out to kill particular monsters, after which he would raise you in rank (you started as a peasant). That was the whole "plot" of the game.

The main point of interest (other than it being Lord B's first) was the dungeoneering. This is where all the graphical efforts went. The dungeons were point-of-view, 3D perspective, and you could see monsters in the distance approaching you and becoming more defined as they got closer. What makes this especially noteworthy is that *Aklabeth* was the first CRPG to use this form; other dungeons typically took the overhead, bird's-eye-view. Otherwise, *Aklabeth* was a pretty standard hack-em-up.

APventure to Atlantis, Odyssey: The Complete Apventure, Wilderness Campaign
Synergistic Software; Ap

This trio of games by Robert Clardy, published sometime between 1979-81, were some of the finest of the early CRPGs. While mainly along the "Kill Foozle" lines, they incorporated an astonishing range of features: true wilderness with swamps, mountains, jungles, etc., that had hazards of their own to overcome; travel by horse, ship, magic carpet or teleportation; sailing by the wind (which required re-rigging the sails when the wind changed); non-hostile travelers such as merchants to buy from or mercenaries to recruit;

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temples, ruins, crypts and castles to explore; a bunch of items and magical objects to use; and monsters that inhabited specific areas (so you knew pretty much what you'd be up against in many locations), among others.

Not only that, but success required a lot of people on your side, especially for the final battles. *Wilderness Campaign*, for example, recommended that you have 50-75 warriors—a veritable army!—in your party before going to take on Foozle. And you thought you had it good if your present-day groups were six or eight characters strong!

More amazing yet, this type of detail was squeezed into games that were designed for 48K RAM Apples. Sometimes it makes me wonder what the modern CRPGs are doing with all of that 640K.

Beneath Apple Manor
The Software Factory; Ap

One of the earliest (1978!) CRPG-type games for the Apple. It used ASCII graphics (letters, numbers and symbols) for the display. A single character fought through successive levels of nastiness beneath Apple Manor to recover the fabled golden apple. Written in BASIC, it was terribly slow even by the standards of the day, but it was fun nonetheless. Interesting points: experience was traded for stat increases, gold for "brain scans" that were essentially save game positions, and your character was able to use both weapons and magic. Even more, each new game created a random dungeon over which you had some control, such as choosing the number of rooms per level and the difficulty factor (how tough the critters were). Not bad for a game that was designed to run in as little as 16K of memory! The big drawback (aside from the slowness) was that the game had to be played in one sitting, as the save game was good only for the current session.

Bronze Dragon, Twisted Speare
Commonwealth Software; Ap
Review: #32 (Nov. '86)

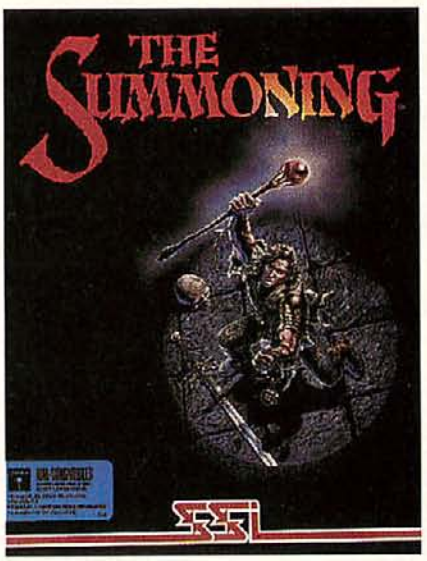
Hybrid adventure/CRPG in the Sword thrust mold, but a little more sophisticated, as you could create a new party right from the start and go adventuring with them. Aside from the main scenario, there were 12 others that you could play. These were somewhat like *Beneath Apple Manor* in that you had control over their creation and difficulty. This did not change the plots of the scenarios, but did confer some advantages in having an idea of what you were up against. *Twisted Speare* was a follow-up with more scenarios to play, set in the Twisted Speare tavern. Most interesting was having NPCs drop in now and then to give clues and information about the various quests. It was another fun series that did not survive the graphics onslaught.

Eamon/Swordthrust Series
CE Software; Ap

Eamon was one of the first (if not *the* first) of the adventure/CRPG hybrids, blending standard role-playing features with puzzle-solving. You created a character with physical and mental attributes and sent him out into different scenarios. These scenarios required a combination of fighting (and a little magic) and regular adventure game puzzle-solving to complete.

This game was eventually released into the public domain, along with utilities for creating your own adventures. It survives to this day, and both the utilities and new scenarios can often be found on local bulletin boards (by this time, there may be other versions besides Apple floating around, but Apple *Eamon* is still the most prevalent).

Swordthrust was a revised and enhanced version of *Eamon*. Still all text, it allowed you to pick up other characters in a scenario who would join you for the duration of the adventure. Interestingly, monsters had a chance to either like you (and go with you), or ignore you (as long as they weren't bothered), as well as rush to rip out your throat. After the original game there were six different scenarios, with #7 "Hall of Alchemie" ending the series (the master diskette was #1), and each being more difficult than the last. It's a pity that *Swordthrust* did not survive into the graphic era, as it had great potential.



Galactic Adventures
SSI; Ap, At
Review: #3.4 (July-August '83)

This was a sort of follow up to *Galactic Gladiators*, a tactical wargame with a science-fiction flavor. *Galactic Adventures* kept the tactical combat and added a bunch of little quests for the party to complete, thereby giving a bit more to do than merely bash. It was actually quite involved, though the adventures themselves were simple, with people to hire (they had to be paid *and* fed), skills to perfect, and various planets to visit. Also, like several other games mentioned in this section, you had control over creating the scenarios themselves. Of course the main part of the game was still the combat, and this one (if you can get it) is likely to appeal more to wargamers than anyone else.

Hellfire Warrior
Epyx; Ap, TRS

This was the true sequel to *Temple of Apshai*. It brought in some improvements, such as remembering how much gold you carried, and having an actual goal (rescuing a sleeping warrior queen, lifted pretty much right out of Wagner's Ring cycle). It played almost the same as the previous game, although this one brought in the use of magic potions to temporarily enhance attributes. The interesting kicker was that some of the potions were addictive: if you used them too much, your permanent stats began to decline, forcing you to use the potions more and more (and making for more and more decline, etc.). Overall, this one was better than *Apshai*, but not by too much, since the game considered the queen "just another treasure" and there was no special message for getting her out of the dungeon. Two follow-up scenarios for the Apple were published, *The Keys To Acheron* and *Danger in Drindisti*; as with the Apshai add-ons, they were only extra adventures with not much new about them.

Telengard
Avalon Hill; Ap
Review: #3.3 (May-June '83)

Another of the early "hack'n'slash with no main goal" extravaganzas. Create a character and explore ever deeper into the dungeons below the surface. Very much influenced by *D&D*, as shown by (a) the attribute range of 3-18; (b) the requirement for getting treasure out of the dungeon before it counted towards experience, (c) one level at a time advancement, regardless of the amount of experience acquired and (d) the spells available for use (do names like "Magic Missile," "Cause Light Wounds," "Phantasmal Force," and "Power Word Kill" sound familiar?). Interesting for its time, the game would be pretty dated today, especially with the advent of SSI's Gold Box series. Back then, however, it was hot stuff, and a fun way of passing the time.

Temple Of Apshai
Epyx; Am, Ap, ST

This game caused a sensation when it first appeared, being one of the earliest graphic CRPGs. A fully-defined character was maneuvered through a series of corridors and rooms in a four-level dungeon. It was a hack-and-slash game, with no particular goal beyond killing monsters and grabbing treasure. The programming was not as polished as it could have been, since the game could never remember how much gold you carried, and always asked on replays what you had (a really powerful incentive to, ahem, pad a trifle). It was also very slow, being another BASIC game. However, in a day when most CRPGs were text (like *Eamon*) or had graphics but text-only combat, it was a marvel to be able to *see* the fighting, especially when your character lunged at a critter. The game was later ported over to the Atari 800 line with several improvements in the way of speed and graphics. Two add-on scenarios for the Apple were also released, *Upper Reaches of Apshai* and *Curse of Ra*, but they didn't add much new, being just extra adventures to take your character on.

One of the more interesting aspects of *Apshai* was its use of paragraphs to describe the various rooms of the dungeons (the Apple graphics being rather Spartan). This feature was later taken on by more modern games such as the Gold Box series from SSI and *Wasteland* (to name just a few), but, so far as I can tell, *Apshai* had it first (these paragraphs, by the way, were a great means of ensuring that you didn't miss any rooms on a particular level!). CGW

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BEST OF THE REST

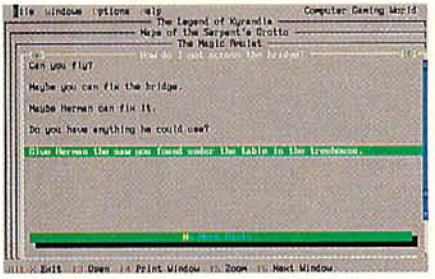
Shareware For The Adventurer's Backpack

by Chuck Miller

When I begin an adventure, I always like to keep several helpful objects tucked safely away in my backpack; items that make a difficult quest just a bit more enjoyable. So, in keeping with the theme of this issue, adventure and role-playing games, I would like to focus our attention on a handy "backpack" resource designed for the intrepid adventurer who, at times, feels a little less intrepid than usual. The subject of our interest is an application that has been available for several years, but which has received too little attention—the *Universal Hint System.*

Universally Accepted

The *Universal Hint System (UHS)* by Jason Strautman is a nifty gaming utility that I wish would receive greater, perhaps even *universal*, support in the gaming community. Originally released back in 1988, the *UHS* has undergone several upgrades and has grown beyond its original DOS-based incarnation to include versions for the Amiga, Macintosh, and *Windows* environments. Fortunately, *UHS* files, the actual hint files for each game, are designed to be exchanged across computer formats, making it possible for a hint file written on one system to be shared with someone using another computer format (as long as a current reader is available).



Universal Hint System Reader

The *UHS* file reader (Version 1.50) has been enhanced greatly since its inception, offering improved hint options, the ability to include 16-color pictures (great for maps and diagrams) and an improved file structure making future revisions much easier to implement. Its interface is quite intuitive, being fully menu driven and supporting the ever faithful "digital rodent." Included are options for hint counting (informing the gamer of total hints available for a given puzzle and the number accessed), tiling and cascading of open windows, printing/saving of the contents in the current window, and displaying of pictures when available.

Patterned after the old **Infocom** *InvisiClues* hint books, the *UHS* only gives the user as much of a hint as they wish to see at a time, ranging from subtle clues to complete answers. Thus, rather than spoil the puzzle by offering the outright answer up front, hints are given in a progressive fashion. For example, let's say that one has to get a locked steamer trunk open. The *UHS* would direct the gamer as follows: 1) Do you have the key to unlock the trunk?, 2) In what location do you think it might be kept?, 3) Have you checked the Captain's quarters?, 4) Did you look on the night stand?, 5) Take the key from the night stand and unlock the trunk. This process allows one to get a nudge in the right direction without spoiling all the fun by immediately revealing the solution. Personally, I find this method preferable to the present alternatives: complete step-by-step walkthroughs (which often result in the player accidentally seeing the solution to puzzles yet to be encountered) and coded keywords (which must be "translated" to provide the solution).

At present, over 60 games are supported by the *UHS*, including both classics and new releases. Hint files are currently available for most **Sierra** and **Dynamix** games (all of the *King's Quest, Space Quest, Leisure Suit Larry* and *Laura Bow* adventures, plus *Quest for Glory I & II, Heart of China, Rise of the Dragon* and *Willy Beamish*), many of the old **Infocom** titles (including *Hitchhiker's Guide* and *Leather Goddesses*), **LucasArts** graphic adventures (*Loom, Monkey Island 1 & 2, Zak McKracken, Indiana Jones and the Last Crusade* and *Fate of Atlantis*) and an assorted bag of other quests (*Alone in the Dark, Lost Files of Sherlock Holmes, Legend of Kyrandia, Rex Nebular*, the *Spellcasting* trio and more). New hint files are regularly being added that can be found on many on-line services, including the GAMERS library on **CompuServe**, PC Games on **America Online**, and Scorpia's Games RT on **GEnie**. The hint files are free, only the file readers are shareware.

In addition to the *UHS* reader for MS-DOS, Jason Strautman has created a TSR version of the program that enables players to activate hints from within many games with just a single keystroke (unfortunately, some titles will not allow the TSR to function properly). This version, however, has much steeper system demands. It requires a 386-SX or better, 2MB RAM with 256K configured as EMS, DOS 5.0, and an expanded memory manager.

Registration costs vary depending on which version of the *UHS* reader one prefers. The MS-DOS and TSR versions are both available from Jason Strautman. Registering the DOS version costs a mere $10 and includes the *UHS* compiler (for compiling hint files) and the decoder (for creating a text file of a hint file's content), plus several minor features not enabled in the shareware version of the program. A registration fee of $20 will buy both the DOS reader and the TSR version. Adding an additional $5 provides the gamer with a disk full of all the available hint files.

To order the DOS and TSR versions of the *UHS*, send payment to Jason Strautman, 239 Redwood, San Antonio, TX 78209. Those preferring the *Windows* version may order it by sending a registration fee of $10 to Robert Norton, 706 Copeland Street, Madison, WI 53711. A freeware Amiga reader is available on CompuServe (GAMERS LIBrary 1, General/Help) and GEnie (Scorpia's Games RT). A newly released Macintosh reader is also available on CompuServe (GAMERS LIBrary 1, General/Help).

I heartily recommend the *Universal Hint System* as an adventurer's resource par excellence. Hopefully, many gamers will support Jason Strautman's efforts, increasing both its popularity and the number of hint files available.

Send Us Your Best

If you have authored a shareware or public domain game for MS-DOS compatible, Macintosh or Amiga computers and would like to have it considered for review in this column, please send two complete copies (preferably on 3.5" disks) with documentation and a cover letter to:

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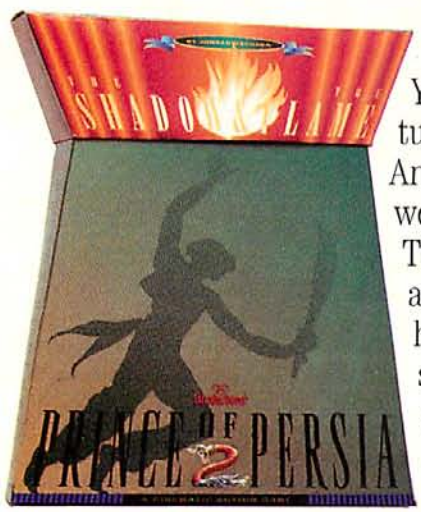

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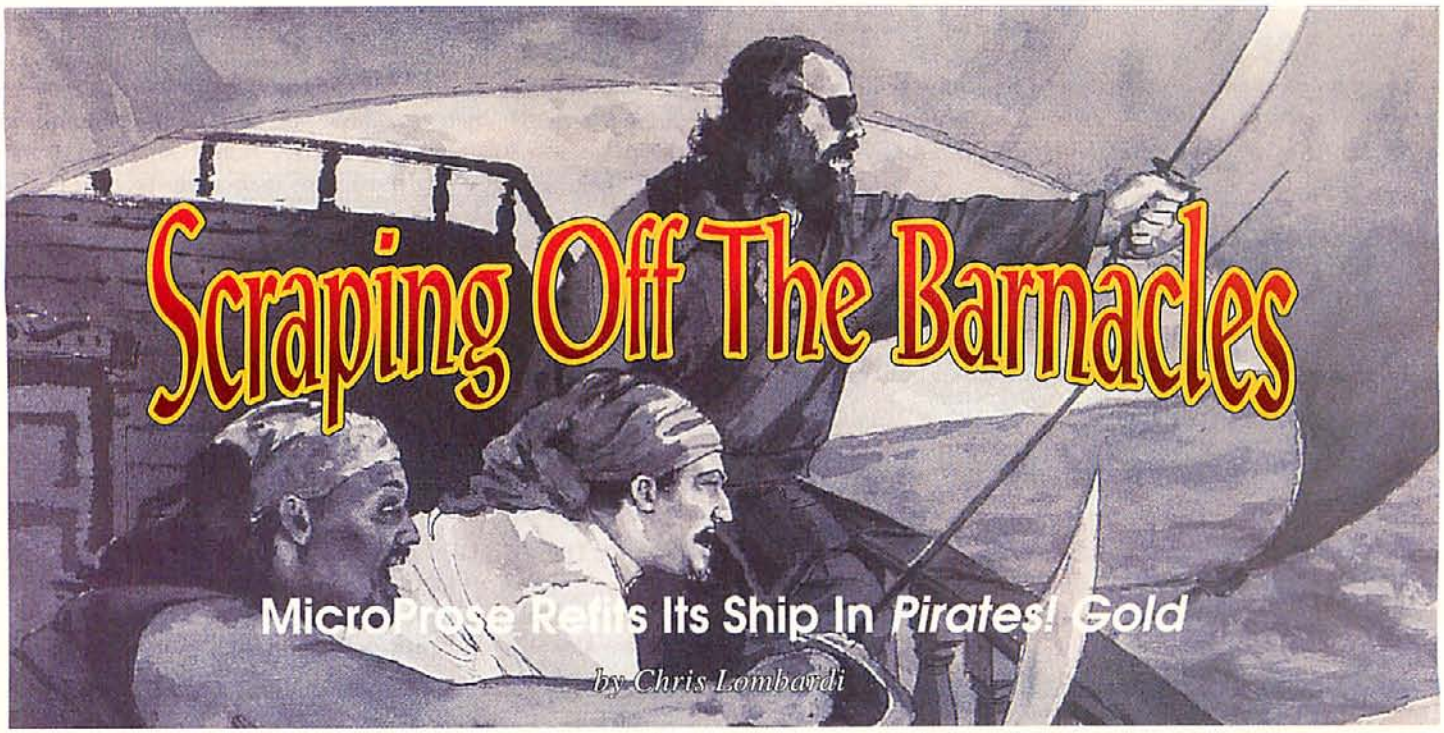


Scraping Off The Barnacles

MicroProse Refits Its Ship In *Pirates! Gold*

by Chris Lombardi

As noted in this issue's Hall of Fame, *Pirates!* is considered one of the best "hybrid" game designs to come along. Though called an Adventure Game for the sake of our awards and ratings, *Pirates!* fits into that round hole like a square pegleg. While players *do* have the opportunity to strike out on quests to find lost members of their family atom and seek out buried Incan treasure, they must also strategically plan raiding excursions and trading routes, they must lead men into tactical land battles, they must cross blades with skilled swordsmen in

action sequences and cross "Ts" with hostile ships in tactical ship-to-ship battles. The game also has a wargame feel in its historical scenarios that challenge gamers to best the performances of buccaneers like Francis Drake and Henry Morgan. Running through it all, and perhaps the secret to the game's appeal, is a touch of role-playing. The player dons the sabre of Dread Pirate X, who, in the course of his adventures, can earn titles of rank from chosen national interests, earn a reputation for either his bold or cowardly actions, wed a fair daughter of a Caribbean governor, and end his days with the retirement benefits of a king's advisor or a bartender, depending on the success of his younger days. This personalized role-playing thread binds all of these various facets into a game that goes right on being good, even while editors quibble over its categorical designation.

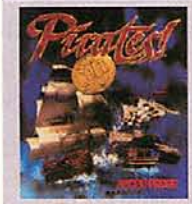
MicroProse has thrown their hat into a growing ring of publishers who are revamping some of their great, but aged games. The new and improved version of *Pirates!*, dubbed *Pirates! Gold*, brings this classic into the world of VGA, 8-bit sound support, expanded RAM and 386/486 processors. This general trend of updating classics appears a good thing for all involved. There are some fabulous ideas lying in the rubbish heap of gaming history, and restoring them will expose newcomers in the gaming community to these great designs and make some extra cash for publishers for the cost of, essentially, little more than a new paint job.

And that's what *Pirates! Gold* is, in essence—a great game engine with some body work and a few coats of high quality paint. MicroProse has not made any significant design changes nor added much additional play value to what was present in the original. What they have done is made some interface tweaks, added a couple features that help smooth the rough edges, and heaped upon the game three disks of graphical gold.

And does that gold glitter! All of the game's still-shots are delicately painted in 256-color VGA, and with a style and palette that powerfully evoke the feeling of the period (Dutch and Flemish schools, by and large). In addition to the paintings, there are some excellent 3-D modeled ship and flag animations. When players run across a ship in the open sea and decide to investigate it, they will first see an animated model of the ship pitching with the swells, and then a close-up animation of the ship's flag blowing atop the mast. The look of the main over-head sailing view has been jazzed up slightly, but remains virtually the same, with the exception of those pesky wandering storm clouds that now look somewhat 3D and a bit misplaced in their 2D surroundings.

The renovation has been very good to the interface. Where players once chose items from menus, these menus have been replaced by graphic depictions of the menu choices. When players enter a city, for instance, they are given a picture of the town with mouse hotspots representing the various possibilities: visit a tavern,

Pirates! Gold



TITLE:	Pirates! Gold
PRICE:	$69.95
SYSTEM:	IBM
REQUIREMENTS:	386, 4MB RAM, 19MB hard drive space, VGA graphics, mouse
PROTECTION:	Documentation look up
DESIGNER:	Paul Murphy
PUBLISHER:	MicroProse Hunt Valley, MD (410) 771-1151

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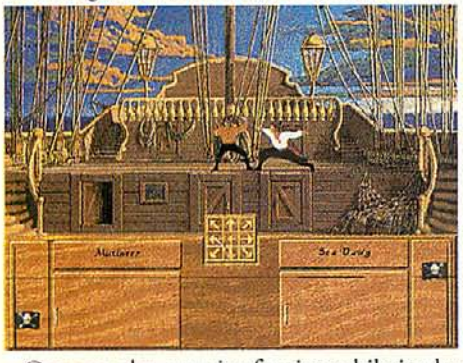
the merchant, the bank, the shipwright or the governor. For those who are iconically illiterate, each hot spot also has a verbal label which pops up to identify the option.

The main information interface, or the Captain's Cabin, has been similarly treated. A visit to these cluttered quarters will enable one to access the current collection of treasure maps, peruse the ship's log with its party and personal information, and save the game. These options will all be very familiar to players of the original, but several new features have been added as well. The "Sun Spot" feature, a navigational tool with which players could get a rough idea of their latitude, has been replaced by a full map of the Caribbean that gives the exact position of the ship, in addition to city information. As one who generally tends to vote for playability over uninteresting attempts at accuracy, I find this a nice change. Another handy tweak is a new "time compression" feature for sea travel. In the original, sea travel could be quite slow, especially when sailing against the prevailing winds. Add a slow sailing galleon to one's fleet, or worse yet, a galleon with sail damage, and the up and coming Blackbeard could quickly go Gray. The new Turbo feature can greatly speed sailing; however, like similar features in flight simulators, it is best used with caution as it can quickly get a player into trouble.

One rather bizarre feature of this new interface is that, while a player can save games from the Captain's Cabin, one cannot restore those games. The only way to do so is to dive out of the game universe and into DOS, and there restart the game. I can only see this as a design oversight, as I can't fathom any reasonable design motive for such an inconvenience.



One can also practice fencing while in the Captain's Cabin. This is an excellent new addition for the first time player. In the original *Pirates!*, the player was thrown into the game and forced to learn swordfighting under very difficult circumstances, apparently buying into the questionable notion that the best way to teach someone to swim is to throw them into the deep end of the pool.

The sword-fighting segment has been revamped, and in more than just new graphics. The animations of the dueling buccaneers are smoother and more subtle in their motions. Whereas it was very easy to distinguish a mid-range from a low-range thrust in *Pirates!*, it is now more difficult to decide, making it a bit tougher to defend against attacks. In spite of this, the sequence seems easier than before. I've only lost one swordfight, and that when outmanned three to one. I might attribute this to my (relative) youthfulness and morning calisthenics, except that I was never this good in the original game. It seems it is quite easy to develop strategies with the new swordfighting that will win in all but the most ridiculously out-matched fights. This may be because sword-play effectiveness can be improved through practice and over the course of many successful battles. This step toward improving the "role-playing" aspects of the game with improving skills is a nice one, but doesn't seem to apply to the other skills (at least, such improvements are not mentioned in the manual and, if they exist, are not visible to the player).

The original *Pirates!* was a tremendous game, but it wasn't perfect. There were some goofy and frustrating parts of the game. The land combat module leaps to mind as an example of both. Here, the player led one or more groups of men in tactical combat against town defenders. The player directed the men from the overhead perspective, trying to get his men into cover and lure the enemy into a "killing field." The AI was moronic. Clever players could quickly learn how to lead the computer into ambush after ambush, dwindling a defending force hundreds strong to nothing while taking few losses. It became a joke and was part of the reason I eventually lost interest (after several months of play, mind you) and moved on to other waters.

I was hoping that *Pirates! Gold* would make land combat a little more interesting, but that isn't the case. They've tweaked things a little and the AI is less of a moron (now just an average-grade idiot), but on the whole it isn't a very interesting affair. The units do not fire their musket volleys as far, so the battle is reduced to melees for the most part and usually involve placing your men in cover and waiting for the AI to attack (though sometimes you have to lure it). In addition, keyboard commands are not supported (despite what the manual says), and the mouse interface is terribly clumsy.

Speaking of clumsy, the main traveling interface should be keelhauled a bit. A mouse interface has been added that enables players to direct their ship with the right and left mouse buttons (one is forced to the mouse because the keyboard commands are much less responsive). But like the original there are some hair-pulling aspects of this system, especially the land travel/sea travel interface. When a ship strikes land, a party of men immediately sets out from the boat. This includes insignificant little patches of islands. I often found myself in an archipelago of little islands or a tight cove that was nearly impossible to escape from because the ship kept hitting the islands and turning into a party of men. Add a gusty wind to the equation and I was tempted to reach fer me belayin' pin.

Beyond a few superficial attempts at adding game play—adding a few new cities on the Mexican and North American coasts; adding the possibility of marriage to a merchant's daughter instead of only a governor's—*Pirates! Gold* is identical to its predecessor. So being, it has much to offer a new player and comes with the highest recommendations. Whether it is worthwhile for players of the original game is another question. Personally, it didn't offer enough new game play to fill my top sails beyond three full careers. Others may find an old love rekindled by the new look, but these suitors should keep in mind that they are buying three disks of pretty pictures and a few interface tweaks—not a significantly revised game with fresh game play. CGW

Bed Bugs In The Bunks

The first run of *Pirates! Gold* escaped from MicroProse with a few significant bugs (so significant we are baffled as to how they could have been missed!). When encountering the evil Spaniard with information about a family member, the game will crash. It will do the same when fulfilling a secret mission for a governor. Thankfully, MicroProse responded quickly with a new version. This new version can be had by contacting MicroProse directly or by phoning their bulletin board system at (410) 785-1841. It is also in the software libraries of the major on-line networks.

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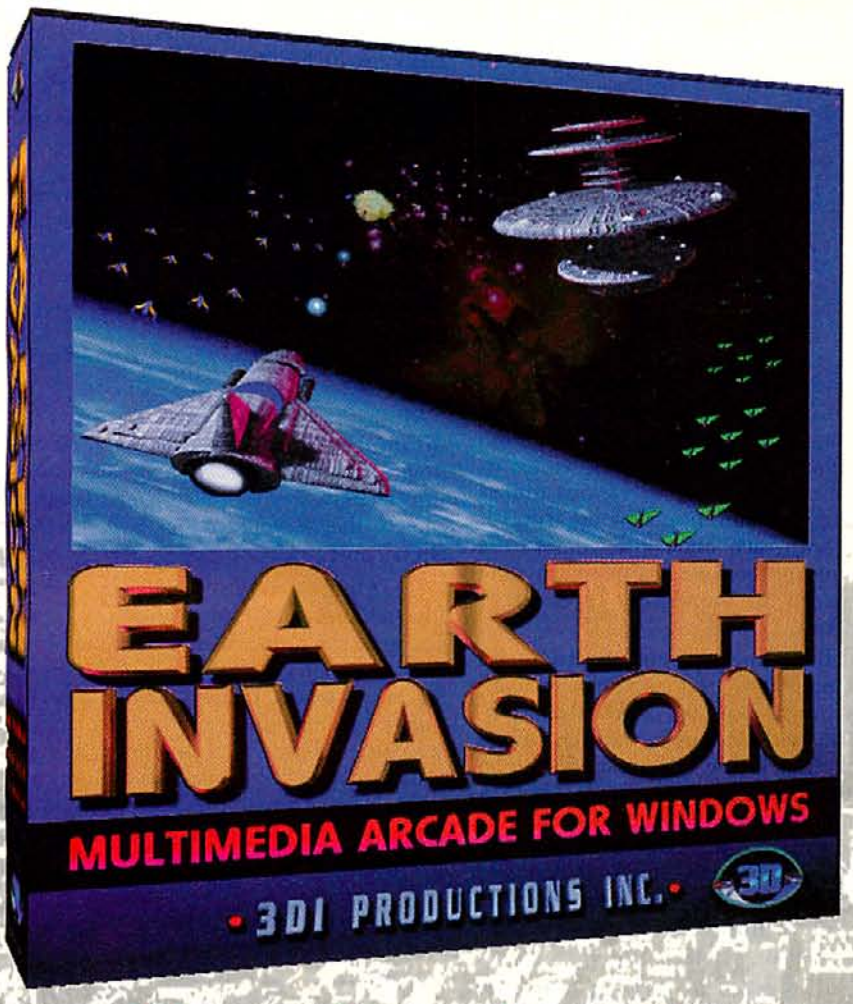

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Does Anybody Here Have A Sackbut?

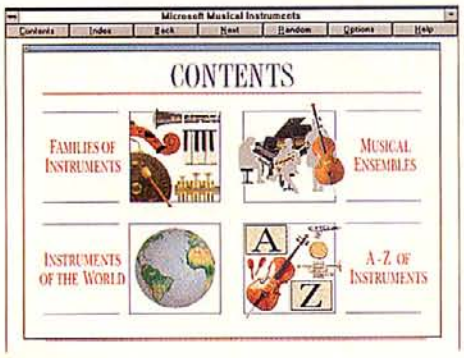
Microsoft's *Musical Insturments CD-ROM*

by Donald Griffin

What's the difference between a Cornet and a Cornett? A Diple and a Dimple? Until I started playing with **Microsoft**'s *Musical Instruments CD-ROM*, I wouldn't have been able to answer these questions. Yes, my friends, until recently I too was the lowest of the low. A man in search of a Duda!

Please forgive my momentary foray into evangelistic silliness but *Microsoft Musical Instruments CD-ROM (MSMI)* is terrific! Producer John Porcaro and Ethno-Musicologist Jon Kertzer have put together a wonderful array of musical sights and sounds, so full of pictures and music that one doesn't even need to be able to read in order to enjoy it. From the opening screen, one is immediately treated to pictures of 15 different musical instruments from around the world and quick musical samples of several of them.

MSMI immediately brings up a screen called *Contents* but unlike the usual dreary lines of text that the term implies, the user is offered more crisp graphics and invited to select from Families Of Instruments, Musical Ensembles, Instruments Of The World and A-Z Of Instruments.



A-Z Of Instruments offers an alphabetic list of all the instruments in *MSMI* with accompanying pictures and sound icons. The sound icons allow you to hear the instrument to decide whether this was the instrument you were looking for. Since I started my musical life as a Trumpeter, that was where I started exploring *MSMI*. I found I could choose from Trumpet, Conch Trumpet, Natural Trumpet and Piccolo Trumpet. Decisions, decisions. I opted for plain old Trumpet. A full screen photograph of a trumpet was accompanied by the word "Trumpet" and a speaker icon which played a voice pronouncing the name. Next was a paragraph about the trumpet. Active text labels filled the screen and pointed to every part of the picture.

These showed close-up views and sometimes more musical examples and text. In this case, clicking on "Bell" brought up a picture looking straight inside the bell along with text, plus four more pictures of various mutes. From here you could hear how the trumpet sounded with each mute inserted into the bell. Along the bottom of this screen were four icons labeled Sound Box, Types, Facts, and See Also.

Sound Box brings up another screen with more photographs, text and speaker icons offering musical examples of how the Trumpet sounds with various musical ensembles like Orchestral, Jazz, R'N'B and Latin. Sound Effects describes and plays examples of various techniques used with the instrument. It even has a musical scale where one can play tunes using the sound of the instrument! Even with the momentary delay after clicking on each note of the scale, the response was fast enough to me to play slow, simple tunes.

Next, the Types icon brought up a new screen with photographs of all the instruments related to the trumpet and described how they are similar. Finally, the Facts icon brought up a small page of general information in categories like Name, Family, Pitch Range, Material, Size, Origins, Classification and Did You Know. Some of the latter were very interesting. For the Natural Trumpet, for example, it says, "In the 17th- and 18th-century Germany, only members of the Trumpeter's Guild were allowed to play. Anybody else would have his trumpet smashed and his teeth knocked out." I'm sure glad I was born a few hundred years later!

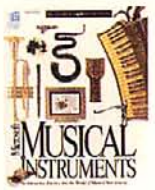
Back at the Contents screen I selected Families Of Instruments. This gave me five more photographs labeled Brass, Strings, Woodwinds, Keyboards and Percussion. Families allows you to explore a family of instruments to see how they relate to each other. Instruments Of The World is similar to Families except that it uses a map of the world as the menu. I clicked on the Middle East because I was working on music for **Virgin**'s *Aladdin* cartridge and wanted to hear what authentic instruments from that part of the world should sound like. There, I discovered that the stringed instrument my brother bought for me in Egypt was called a Kamanche, but upon clicking the pronunciation icon, found that the name sounds different than the Native American Comanche.

Musical Ensembles shows and plays how instruments are used in groups. *MSMI* breaks down what most of us younger folks listen to into a large category called Rock Bands and then further down into Rock'N'Roll, Heavy-Metal, Soft Rock and Pop.

The Options choice contains the only flaw I found in the program. It will let you copy a screen to the clipboard or to a printer. However, I was unable make the *MSMI* print in landscape mode. It kept forcing it back to portrait mode. This is unfortunate since the screens are all landscape oriented and in portrait mode my HP Paint Jet did not print the labels clearly enough to read. In a music and sound multimedia product this may go unnoticed by almost everyone, but it bothered me.

My overall impression of *MSMI* was excellent. Given my broad musical background, I was surprised and delighted to find so much that I didn't know. Although *MSMI* was not intended as a complete encyclopedia of musical instruments, it does have surprising depth considering the amount of the CD that was needed for graphics and sound. For those looking for a good quality, low cost CD-ROM for the entire family to justify the investment in a CD-ROM drive—this is it. By the way, the Sackbut was an early version of the Trombone. You'll have to look up Duda in *MSMI*. **CGW**

Microsoft Musical Instruments



TITLE:	Microsoft Musical Instuments
PRICE:	$79.95
SYSTEM:	IBM
REQUIREMENTS:	386SX, 2MB RAM, VGA graphics, CD-ROM drive, mouse
PROCTECTION:	None
PUBLISHER:	Microsoft, Inc. Redmond, WA (800) 426-9400

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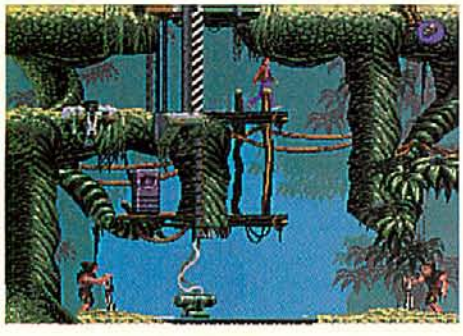
FLASH FORWARD TO FLASHBACK

A Review Of SSI's Flashy Action Game, *Flashback*

by Dave Pyron

From *Out of this World,* **Delphine**'s extra-dimensional action hit for **Interplay Productions**, the French developer now takes gamers on a far-future shoot-out with superbly rotoscoped graphics and diabolical aliens which are definitely "out of this world." In **Strategic Simulations, Inc.**'s *Flashback: The Quest for Identity*, the protagonist is a young scientist extraordinaire, top athlete, and all-around good guy. This character, Conrad B. Hart, has discovered that Earth is being invaded by shape-shifting aliens with genocidal intentions. Naturally, it is up to the gamer to guide Conrad safely through 200 screens of action, intrigue and suspense in order to penetrate the mystery of the alien invaders and prevent the destruction of mankind.



Conrad, suffering from a massive memory loss, begins his adventures in the midst of a dense, steamy jungle on the Saturn moon of Titan. Before he can save the world, he must recover his identity and rediscover the alien plot that landed him in this strange environment. Though his memory fails him, Conrad is blessed with the combined athletic skills of a Tarzan and a Terminator, and his inventory includes a remarkably lethal and inexhaustible pistol. His graceful coordination and quick trigger finger will be needed to fight killer robots, deadly cyborgs, corrupt police and sinister aliens.

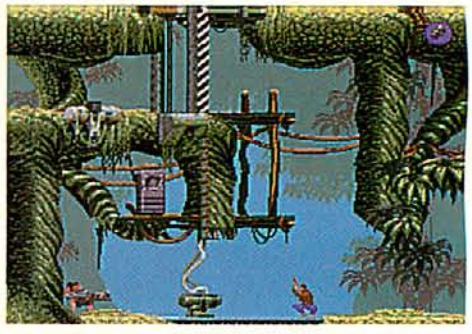
In the course of his quest for identity, Conrad will travel back to Earth and then, to the aliens' home planet. There, the fate of the world will be decided by Conrad's quick thinking and sharp reflexes. With skill, determination, a bit of luck and many "saved" games, Conrad just might succeed. The alternative, of course, is abrupt termination, followed by another start from the previous saved game.

On The Levels

The dense leaves, twisted branches and dripping water of the first level evoke the organic atmosphere of the jungle. Each screen of the level is seen from a two-dimensional cross-section, and the lush background graphics form a consistent continuum throughout the level. Completion of the jungle level accomplishes two things. First, the player will gain skill at running and jumping, and also at avoiding or eliminating the omnipresent antagonists found at every turn. Second, the plot will unfold, revealing a story to match some of the most ambitious "B" sci-fi movies.

Levels I and II take place within the Titan city, New Washington. This city is built underground, complete with its own subway, bar and shifty denizen. Whirring ventilation fans, metal panels and a mix of concrete and steel walkways evoke a somewhat sterilized cyberpunk feel. Just arrived from the jungle, Conrad is penniless and must earn his keep by running errands, killing a deviant cyborg, and miraculously saving the city from an errant power turbine. Unfortunately, players will soon learn that a ticket for the necessary passage to Earth is exorbitantly expensive and must be procured in some other way. Fortunately, a TV studio is awarding starship tickets for Earth to those players who can complete a deadly game show, not unlike Arnold Schwarzenegger in *The Running Man.* After battling cyborgs and killer robots before a galactic TV audience, Conrad just might earn the First Place Prize of a free voyage to Earth.

The Earth of 2142 (levels IV and V) is not much different from some inner-cityscapes of today. Grimy concrete walls, near-dead trees, and bits of trash litter the walkways. Corrupt police patrol the polluted streets of Washington, itching to shoot Conrad on sight. The plot thickens considerably when our hero discovers the secret plans of the aliens and their scheme to invade Earth! These aliens are not easy kills, absorbing repeated blows and changing shape to confuse their attackers. A truly hideous adversary, they!



The final levels find Conrad being teleported to the home world of the aliens, a grotesquely different environment than any found on Earth. Strangely colored globes glow in the dim light, giving eerie shadows to the terrain. Oozing plants and weird rock formations surround the passageways that lead into the depths of this world. The player will soon discover that the aliens are not the only deadly entities to be found here. It will take Conrad many attempts before he can decipher the mystery of the planet, and so change the course of history forever. Long live Conrad! Long live Earth! Save often!

Flashy Sights And Sounds

Flashback really excels in the graphics department. Each screen is rendered in sharply detailed VGA graphics. As in *Out of this World,* cinematic sequences bridge together the plot and give the player a much needed rest from the action.

Flashback: The Quest For Identity

TITLE:	Flashback: The Quest for Identity
PRICE:	$49.95
REQUIREMENTS:	286-16Mhz, 1MB RAM, VGA graphics
PROTECTION:	Documentation look up
DEVELOPER:	Delphine Software Int'l
PUBLISHER:	Strategic Simulations, Inc. Sunnyvale, CA (408) 737-6800

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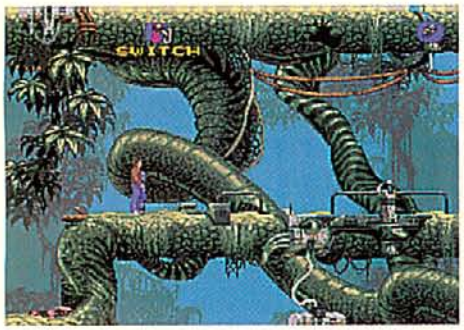

What really stands out, though, is the fluid movement of the characters. The game boasts impressive animation derived from 24 frames-per-second rotoscoping—a truly uncanny thing to watch! Conrad jumps, rolls, twists and runs with ease and grace. With a little imagination, the player might even see the muscles rippling under Conrad's drab clothing. And the superb graphics don't stop with just our hero. All the baddies are endowed with the same smooth movements. The aliens slurp along like hideous purple blobs, but with the quickness of a cat. Cyborgs stride with robotic precision then suddenly transform themselves into a speeding blur, impossible to track with weapons.

The game designers earn extra "attaboys" for the interesting interactive environment in *Flashback*. Stones, passkeys, ID cards and other nifty devices are scattered throughout all levels and must be used to interact (in a limited way) with other characters, switches, electronic doors and elevators. In many places the screen flashes a modest "alert" icon, just to make sure that Conrad doesn't overlook one of these devices.

From the opening scene of the game, players with sound cards will be well rewarded. *Flashback* supports Sound Blaster, Ad Lib and Roland sound cards. The haunting cries of jungle birds, explosive blasts from Conrad's pistol, and the gurgling screams of dying aliens reverberate dynamically over the loudspeakers.

Glaring Errors

All that flashes is not gold, however, and *Flashback* has a few glaring flaws within its jeweled framework. A real problem is the awkwardness of the interface, whether with keyboard or joystick, which results in unnecessary frustration for the beginning gamer. The "A" and "B" buttons are used for certain actions, but at times their functions were reversed. This needless confusion brought poor Conrad to his death more often than not.

Another significant problem was the lack of a game saving feature that can be accessed at any time, rather than only at pre-determined points in each level's scenario. Temporary save-game opportunities were scattered

throughout the game, but each level is quite lengthy and difficult. If a gamer is near completion of one level and becomes interrupted, he or she can only begin that same level from the start. In Europe this may be common practice, but many American gamers will find this unacceptable.

Final Flashes

Flashback is an excellent game that truly creates a sense of reality. The plot, farfetched at times, is better than most other action/arcade games. And, while *Flashback* does have its blemishes and save-game frustrations, the actual game play is superior to many, and the graphics and rotoscoped movement are tops! *Flashback* should brings flashing smiles to everyone who enjoys a good shoot'em-up.

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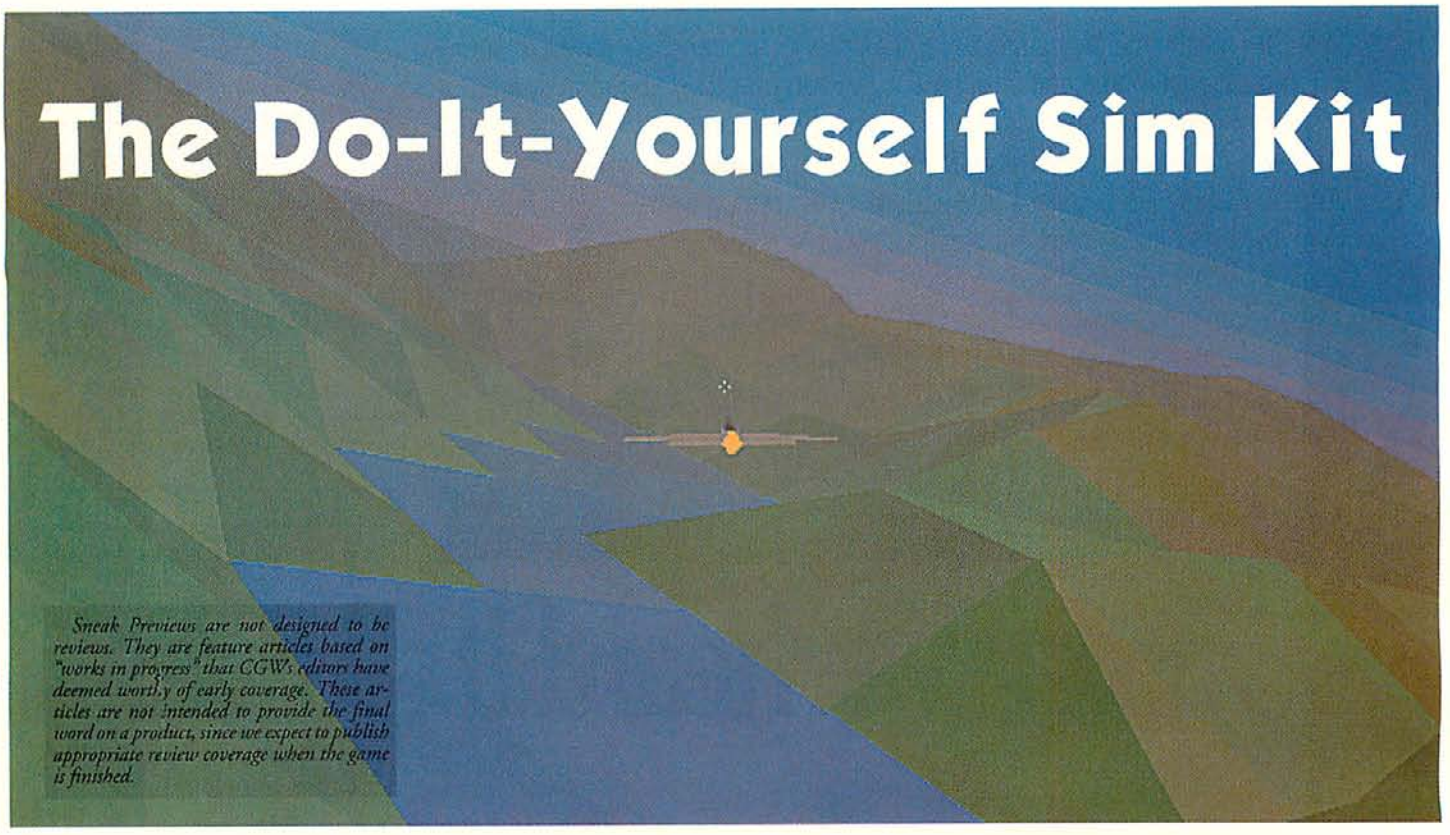

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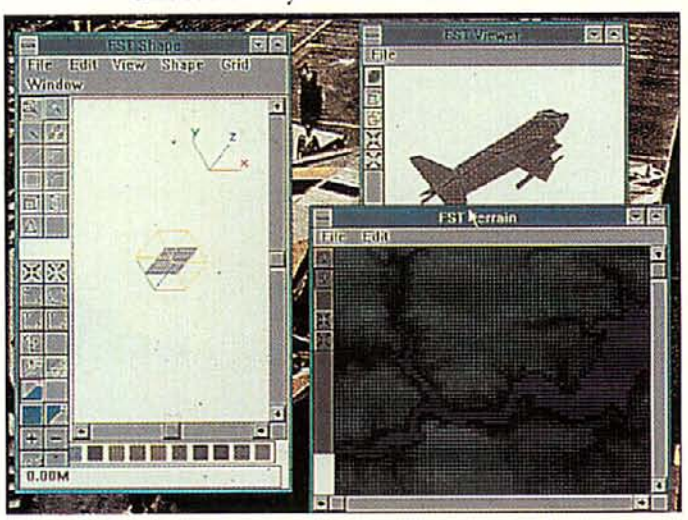
A Preview Look At Domark's *Flight Sim Toolkit*

by Paul Rigby

With the increased power of the home computer, the flight simulation enthusiast has been treated to a gamut of impressive products. Whether civil or military, the offerings have presented a wide variety of subject matter. With add-on products like scenery disks and mission builders, flight sim nuts have been able to extend the life of their favorite sims to a certain extent, but no company has yet opened up the program and exposed its innards to the users, enabling them to tinker with the code and experiment with the simulation environment.

Now **Domark** *(AV8B Harrier Assault, MiG-29)* is proposing to hand their simulation development tools to sim fans and let them have at it. This toolkit, which they are simply calling *Flight Sim Toolkit*, will allow both the civil and military flight simulator fan to completely design their own sim, from the scenery, to the aircraft, to the aircraft's cockpits, the enemy craft, their ordnance, and so on—all within the *Windows* environment. The technology will be at the level of their *AV8B Harrier*, so there won't be any snazzy Garoud shading (that's for Domark's next project), but there will be an unlimited number of scenario possibilities.

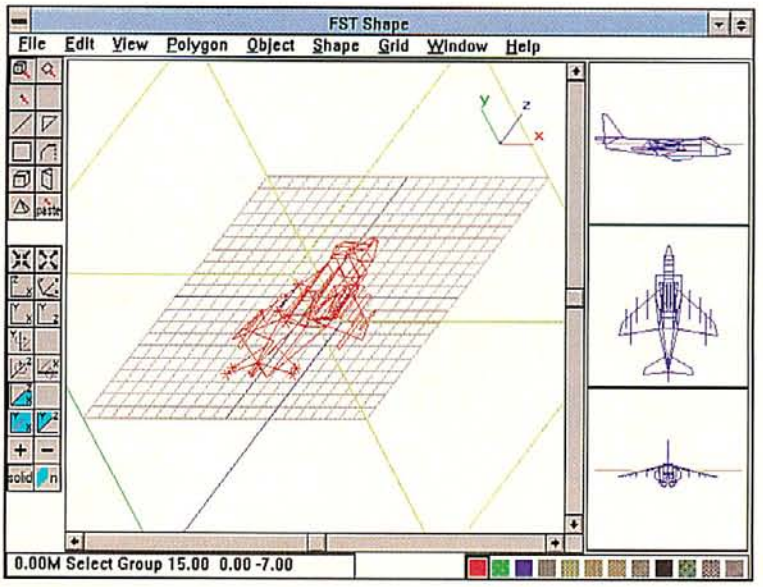
Opening the toolbox one finds, well, tools! Actually called "editors" in this context, they are the Cockpit Editor, Shape Editor, Terrain Editor, Flight Model Editor and the World Editor. Screen resolutions for these programs can reach 640x480, although the actual sim can only be flown at that resolution with a *Windows* accelerator video card (with an S3 chip set). The *Windows* interface makes the toolkit a breeze to use, although how cleanly the individual tools will work together as a unit could not yet be determined.



The Cockpit Editor allows designers to import a cockpit they have created or digitized (some are provided as well) and select the types of instruments that can be used in the proposed aircraft. There will be a number of different instruments provided by the toolkit, some digital, some analog. Most will be generic to a particular time-period, so if one is a stickler for accuracy, a dial can be loaded into a paint package like *Deluxe Paint* for editing. The dial can then be loaded back into the toolkit and inserted in the cockpit. Any changes to a cockpit shape (or any shape at all, for that matter) can be saved as a separate object in one's user-library. Using the dials in the library, one should be able to perform just about any type of flying that the imagination can perceive. There will be minor exceptions for the highly specialized cockpits like the Harrier, which carry rather idiosyncratic instrumentation. As the cockpit is a bitmap, the user will also be able to design the window onto the outside world and any external detail seen from the cockpit window (such as the engine coaming, exhausts, fuzzy dice).

The Shape Editor uses a CAD-based system. Shapes can be manipulated in a number of different ways. A user can load an object from the shape

library and then, stretch it into another shape. A flat surface, line, square or polygon can be created and extruded into a 3D object. Further, individual points can be input to form an object (as in Mallard's *Aircraft & Scenery Designer*); an object can be deleted from another to form a third object (e.g., by taking a piece out of a cube) and a group of several items can be placed together to form a new object. CAD-like tricks can be utilized to save time, such as mirroring or flipping. It's rather nice to design one wing and flip it to form a perfect mirror-image.



The Terrain Editor, the tool that creates hills, rivers and so on, uses what Domark calls "Real Terrain." Real Terrain uses Data Elevation Maps from the U.S. Geological Survey to generate rough approximations of actual landscapes. The initial release of the game will probably include a few hundred square miles of terrain, but there is talk of a CD-ROM version that will provide terrain data for the entire continental U.S.! The program will also allow the user to generate terrain using fractal algorithms.

The Terrain editor includes many tools found in a standard bitmap paint package. It offers a contour map view of the terrain with shaded blues and browns designating different features and altitudes. The user can select any point in the map and raise it to any height or depth. Creating a river-valley is easy. Just use a sort of "smudging" tool (as found in paint packages) that can smooth out a mountainous region into a valley. The terrain is

divided into square tiles spanning 50km x 50km, which is pretty large, so one rarely experiences frustrating pauses while the hard disk loads a lump of new scenery. The wait for the scenery is largely imperceptible and is greatly aided by disk cache and, of course, a high-end microprocessor.

The Flight Model Editor allows one to adjust the aerodynamic design of an aircraft. Here, as in Mallard's *AC&SD*, the user can change nearly every aspect of an aircraft that influences its mode of flight. One can select the wing area, engine type and position, center of gravity, and so on. A "slider-bar" interface is used, via the mouse pointer, to change settings, but data can also be input via keyboard for the sake of accuracy.

The World Editor is the glue that links everything together. Once the terrain is loaded and dropped into the world, 3D objects can be defined as to how they will behave, and then placed onto the terrain. Domark plans a wild menu of objects, offering such bizarre things as the Sydney Opera House, Noah's Ark, Jet Packers, Zebra Crossings, and the Parthenon, as well as more mundane things as Scud Missile Launchers, Sherman Tanks, civil and military shipping, and an array of military aircraft. The mind reels with the scenario possibilities....

If a military simulation has been created, the World Editor would control how the enemy behaves. For example, if the user has destroyed an enemy base, the World Editor would control the enemy "supply logic," in this case, perhaps controlling trucks that bring supplies to repair that base. The AI of the enemy aircraft cannot be changed, however. That is, one cannot tell an Me109 what maneuvers to perform and when to perform them. A range of algorithms can be selected, though. One can set the AI to be aggressive, or to patrol and attack only if under attack, and so on. Domark does recognize that anything in a toolkit is upgradable, so altering enemy AI in a specific manner is not a closed subject and may be considered in the future.

Unlike some other recently produced toolkits, such as *Unlimited Adventures* from SSI, Domark's toolkit will allow the user to create a freely distributable file containing scenery, a batch of shape files, and even a complete simulation. Essentially, a user could upload a complete battlefield to his or her modem buddy and then slug it out in head-to-head combat.

Sound effects will all surround the popular .WAV sampled format. **Sound Blaster** or compatible is the only sound hardware currently supported. Other sound cards may be supported, too, but no concrete news was announced at the time of writing. No sound editors are supplied, but Domark says that .WAV files produced via a third party editor will be compatible.

Add all of these functions together and one

has a very powerful creative environment. Knowing how seriously simulation fans take their hobby, we can expect to see all manner of user-created scenarios, aircraft, and object libraries cropping up. *Flight Sim Toolkit* may turn out to be the ultimate playground for sim enthusiasts. Look for it in October '93.

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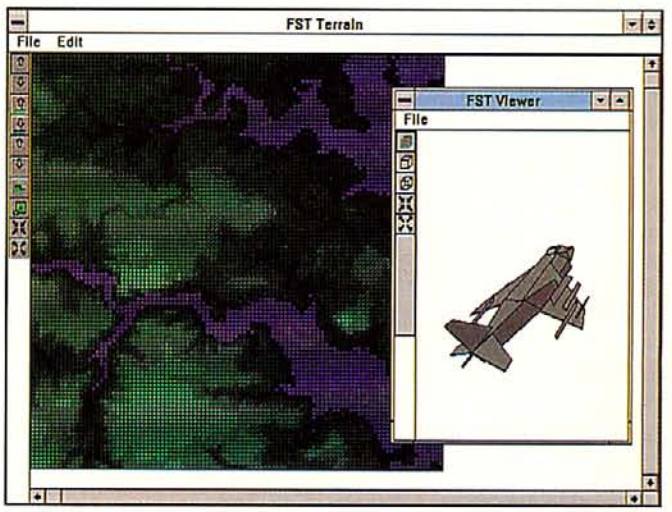

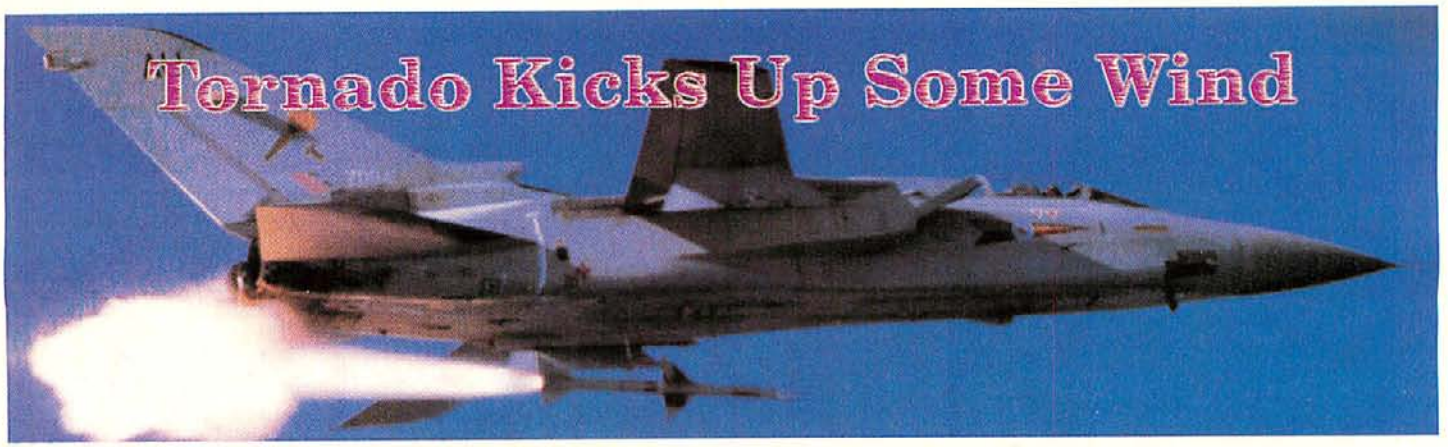

Tornado Kicks Up Some Wind

Digital Integration's *Tornado*

by Doug Fick

Doug Fick is an F-16 Instructor Pilot and Flight Examiner with the Vermont Air National Guard. He has logged over 1500 hours of flight time in both F-16As and F-16Cs.

Panavia's Tornado is the European version of an all weather interdiction and strike aircraft. The aircraft is used by Britain, Germany, Italy and Saudi Arabia, and much like America's F-111 and F-15E, is designed to carry out deep strikes into enemy territory no matter the time of day or weather condition. **Digital Integration**'s *Tornado* is the European simulation that models all aspects of this strike fighter.

Storm Front (The Big Picture)

Tornado comes packaged in the high quality manner I've come to expect from **Spectrum HoloByte**. An excellent manual that runs to 332 pages, theatre maps and keyboard command summaries are included. In addition, the limited edition contains keyboard overlays to help in familiarizing many of the commands.

The manual does a nice job of explaining all of the important concepts presented in the program. It comes loaded with tons of pictures that make learning the game far easier than it would have been otherwise.

As is becoming standard on all high tech flight simulations, there is an abundance of keyboard commands to master in order to fly the Tornado into combat. This program forces players to spend quite a bit of time mastering the keyboard before really getting into the swing of a typical mission. More on keyboard commands later.

Maneuvering around the program interface is clean and straight forward. The menus are easily navigated and the graphics that accompany them are excellent. Options include jumping into the simulator to get a feel for various aspects of employing the Tornado, flying single missions in either the interdiction strike (IDS) version or the air defense variant (ADV), and running full multi-mission campaigns in which up to six Tornadoes can be sent to attack assigned targets.

When one jumps into the driver's seat of the Tornado for the first time, the first impression is bound to be that it flies like a lead sled. The aircraft is great for slashing over tree lines with lots of Mach, just don't ask it to turn. Even with the wings swept forward and maneuvering flaps down, the plane was never designed to be a dogfighter.

Overall, the flight dynamics feel very accurate and continue the recent trend of flight simulations away from arcade style performance and much more firmly into the realms of simulation. Hand flying a strike aircraft at 200 feet for any length of time would be next to impossible at night and too taxing during the day. In addition it would take all one's concentration that could be better spent targeting, navigating and avoiding threats. Terrain following (TF) radar uses ground radar returns to automatically fly an aircraft at a pilot selectable height. Since the Tornado makes its living on the deck, a good percentage of time will be flown under terrain-following operations. By letting the on-board computers do the flying, the task loading is eased tremendously. When I first jumped into the game, I had some difficulty in figuring out the system, since it incorporates three

distinct subparts, those being terrain following, autothrottle, and auto altitude/heading acquire. After going back to the manual for a refresher and smacking the ground a few times, it became second nature. Weapons for the air to ground mission include low and high drag general purpose bombs, laser guided bombs, cluster munitions and the JP.233 dispenser that's used to destroy enemy runways. Once again, the manual does an excellent job of describing each delivery technique, making the learning process fairly painless. Don't expect to jump right in and find everything to be intuitive, but after a little trial and error everything starts to make sense.

Air-to-air weapons include the gun, AIM-9L heat seeking missile, and on the ADV Tornado, the Skyflash radar homing missile. Air-to-air operations are talked about more fully later in the article.

Graphically, the program runs the middle ground in terms of what's already on the market. While nothing fancy, the terrain is well-contoured and there is plenty of good detail. Power lines, roads, railroads, towns and targets are cleanly displayed.

Tornado

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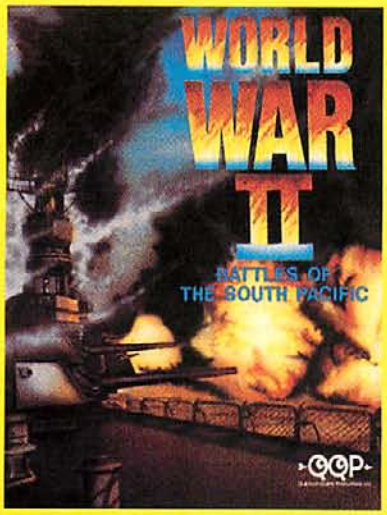

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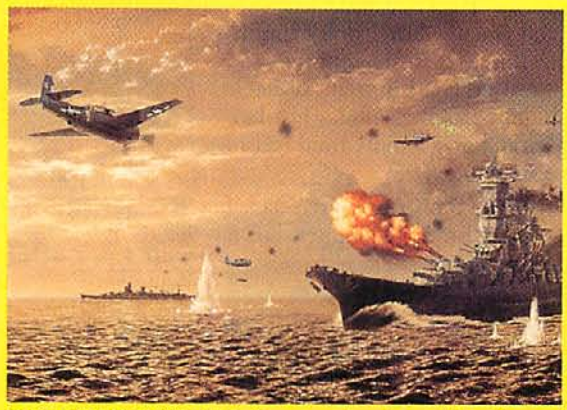

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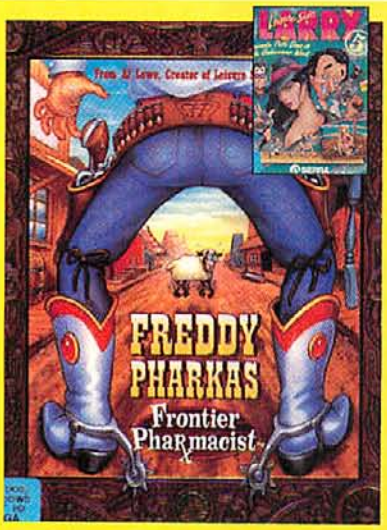

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Explosions and other effects won't elicit any ooh's or ah's as they are run of the mill.

Overall, the game hits a good balance between game speed and graphic look and feel. It plays fast in most circumstances, which is a lot more than can be said about a few other recent releases that are all graphics and no game play. The most unique feature of *Tornado* is the mission planning phase. Flying at 200 feet provides a lot of terrain protection, but nothing beats putting a mountain between the aircraft and the enemy's radar. During mission planning, the player can use an overhead terrain map to pick low level turn points that optimize use of ground features to hide behind. The interface is a simple point and drag using the mouse and can be mastered fairly quickly.

Since up to six Tornadoes can take part in a mission (the player flies his and the computer handles the rest), mission planning for larger multi-aircraft strikes can get a little more complicated. If one isn't careful, it's possible to have the bombs from a previous aircraft explode underneath the next aircraft over the target, often with fatal results. I've seen real world missions that incorporated 40 to 60 strike aircraft attacking the same target over a period of a few minutes. Believe me, it can get hairy in the target area if everyone isn't on the same sheet of music. If this type of involvement doesn't interest the gamer, don't worry, the options allow for either campaigns to be flown as a series of single ship missions or running the multi ship packages.

Dust Devils (Program Shortcomings)

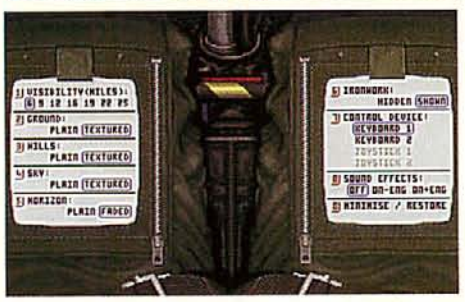
Tornado comes with a few thorns that really detract from the game. The first involves keyboard commands. There are more oddball combinations of keys to push than I've ever seen. It isn't merely a matter of taking time to learn complex commands—that would be acceptable on a simulation of a complex aircraft. What gets me is the unnecessary awkwardness of some of them. Better utilization of the keyboard could have been made. Hunting for Alt and Ctrl keyboard combinations just doesn't hack it. I'll be glad when game designers start taking advantage of this device called a mouse that most people have on their computers. Instead of hunting for one key on the keyboard, the controls could be set up so the mouse is clicked on the appropriate control (i.e. the gear handle or radar range knob). What could be more realistic?

That's basically what pilots do in the aircraft. Almost every important function could be controlled by point and click. The only disadvantage is that most people would have to release the stick to operate the mouse, but enough of my soapbox sermon, let's move on.

My second gripe has to do with view modes, or should I say the lack thereof. Forward, forward high, left, right and back seat plus a couple of worthless external views is all one is provided. I found myself starving for information about the outside world. I knew it was there somewhere, but I just couldn't find it. Sure, the Tornado is primarily a night striker but quite a few missions occur during daylight and, even at night, a missile is visible for miles during its boost phase of flight when the rocket motor is burning. A track mode that locks on enemy missiles or aircraft should be mandatory on any top of the line simulation. Some gamers say it isn't realistic since it's external to the aircraft, but I don't buy it. Many of the things that are intuitive and natural in the real airplane just aren't available on a flat monitor. External modes just balance gameplay and give a more fluid feel to the combat environment.

Finally, air to air combat is a farce. Yes, I know the Tornado isn't a dogfighter, but it does have an excellent avionics package that includes a real radar. The IDS version of the plane has a maximum range of ten miles. Most World War II nightfighters had better. By the time an adversary aircraft is detected on radar, if it has radar guided missiles and has employed them, the player has less than five seconds to live. This drops the game from simulation to arcade reflex shooter in one quick stroke. Even the ADV version of the Tornado is limited to a thirty *mile* radar to accompany its Skyflash missile.

Once the player gets within visual range of an adversary, turning engagements are practically impossible as the enemy can't be tracked via a view mode and are poorly presented graphically.



Modem play is an option but a very limited one. Instead of allowing two players to either team up in the same aircraft or run a strike with a pair of aircraft, all that's possible is flying head to head against each other. Since the Tornadoes' systems and flight characteristics are optimized for strike operations and not dogfighting, this is a little more enjoyable than watching paint dry. I'm convinced that the only reason modem play is even offered is to put a "Head-to-Head" emblem on the box as a selling point. Very little effort was put forth by Digital Integration to give gamers a modem option that really offered something. If modem play is what the gamer is after, several other programs offer much more.

Dissipating Clouds (Summary)

Except for mission planning, *Tornado* really doesn't cover any new ground and overall, the game comes across as having a one dimensional feel. Strike operations and mission planning are nicely presented but don't hunt for any depth of game play beyond that. It seems as if Digital Integration had a certain mindset of how the game was to be played, then wrote the computer code to force the player to adhere to their idea.

Tornado has some strong features: the manual, flight modeling, flight planning and the graphics to game speed balance. For me, however, its negatives drop it out of contention in the competition for King of the Flight Simulations. **CGW.**

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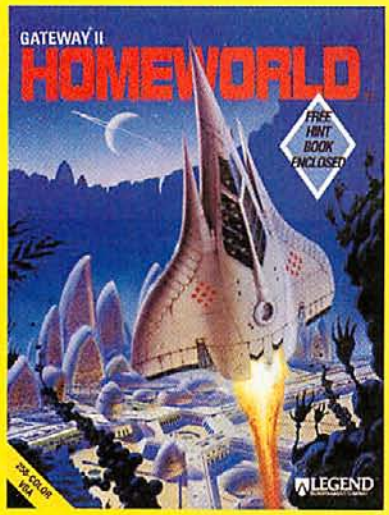

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Computer Gaming World's

Each year, prior to the *Summer Consumer Electronics Show*, the editors of *Computer Gaming World* examine the games that have been released since the last *SCES*. Games are selected based on three criteria (technical excellence, artistic presentation and reader rating) and the nominations are revealed at the show. Later, we examine the nominees genre-by-genre and different editors present their cases for each title. We cross-reference our conclusions with the Top 100 Poll results, take any differences into consideration, and reach a consensus.

This year we had difficulty reaching a consensus in two categories: Adventure Game of the Year and Simulation of the Year. We opted to have co-winners in those categories. Here then, we proudly present this year's outstanding productions.

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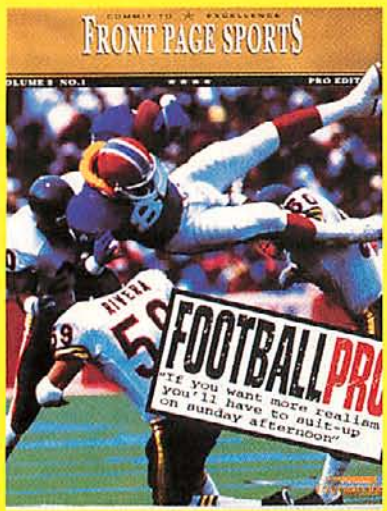

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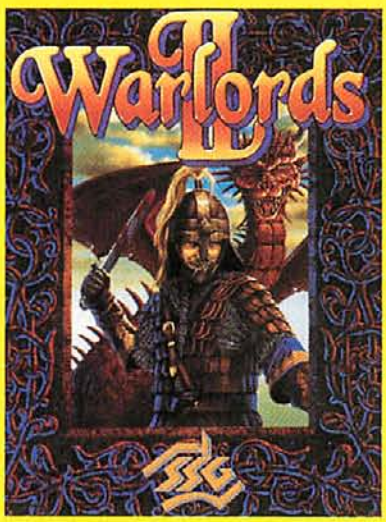

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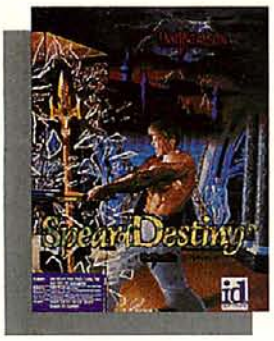
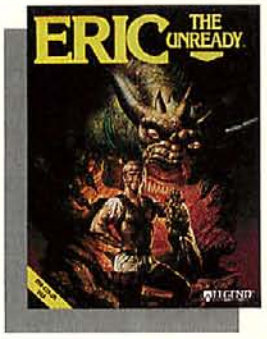
Action Game of the Year



In the **Action Game of the Year** category, we nominated *Minotaur: The Labyrinth of Crete* (**Bungie Software**) because of its exciting multi-player capacity. Jason Jones' design is a multi-player network *Rogue* for the Macintosh environment. *Summer Challenge* (**Accolade**) features a fluid and attractive implementation of Olympic events, complete with head-to-head human competition. Jeff Sember and Mike Benna were the designers. And the winner is:

Wolfenstein 3-D (**Id Software**), John Carmack and John Romero, designers. When the fast-scrolling action captures the hearts, minds and hard drives of *CGW* readers and non-gamers alike, there must be something to it. *Wolfenstein 3-D*'s visceral images and responsive interaction make it a worthy winner.

Adventure Game of the Year



The Adventure Game of the Year category was particularly competitive this year. The 3-D polygon-filled perspective and innovative camera angles of **I-Motion**'s *Alone in the Dark* (Frederick Raynal, designer) brought the eerie world of H.P. Lovecraft to life. The wizards of **Westwood Studios** (Brett Sperry and Michael Legg, designers) brought the rich textures and vivid animation of *The Legend of Kyrandia* to the computer screen, widening the field of graphic adventure publishers. Corey and Lori Cole brought their *CGW* award-winning talent to the party with **Sierra**'s *Quest for Glory III*, putting vivid art and vital storytelling in the same context once again. In spite of such worthy contenders, the co-winners were: *Eric the Unready* (**Legend**), Bob Bates' hilarious send-up of the entire adventure genre, and *Star Control 2* (**Accolade**), Paul Reiche III and Fred Ford's hybrid romp through a universe of bizarre alien races. Both games had *CGW* editors commend them as the best games they had played all year.

On-Line Game of the Year

This is the first year that *CGW* has offered an On-Line Game of the Year award. With more and more modems among our readership and numerous games appearing with graphic front-ends, it has been an interesting year for this genre. *The Kingdom of Drakkar* (**Multi-Player Games Network**) put an entire game network on the map. This clever graphic role-playing experience is only the beginning of what may become an empire of on-line games. Jim Dunnigan put his hat into the ring as his dream game, *Hundred Years War*, took to arms (and diplomacy) on **GEnie** (Jim Dunnigan, Dan Masterson and Al Nofi, designers) and later **NVtel**. Though it seems largely to be an extension of a Play-By-Email game, it is well-executed and incredibly involving. **Sierra**'s *Shadow of Yserbius* (Joe Ybarra, designer) continues to evolve in both graphics and play mechanics as it takes its position as one of the most played multi-player role-playing games on-line. *Legends of Future Past* (Digital Dreams Network), Jon Radoff, designer, is a human-moderated, on-line role-playing game that makes up for its lack of graphics with stunning prose and challenging situations that exploit the communal aspect of role-playing. This year's winner, however, is *CyberStrike* (**GEnie/Simutronics**), David Whatley, designer. *CyberStrike* combines real-time, polygon-filled graphics and local machine sound card support to provide a visceral experience of "being" in cyberspace. Add the teamwork and communications aspects to the competitive challenge of fighting it out through multi-colored streets and alleys, and it becomes a definite winner.

Special Award for Artistic Excellence

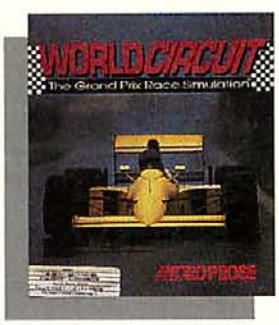
Though we were mesmerized by *CyberStrike*'s technological achievement and game play breakthroughs, we were also overwhelmed by the creative power of storytelling and fertile liveliness to the game mastering in *Legends of Future Past*. We are proud to present a Special Award for Artistic Achievement to *Legends of Future Past*, (Jon Radoff, designer). It should remind us all that an artistic presentation means more than graphics and sound.

Role-Playing Game of the Year

In the Role-Playing Game of the Year category, **Event Horizon Software** had two nominees: *The Summoning* (Chris Straka and Thomas Holmes, designers) and *Veil of Darkness* (Chris Straka and Thomas Holmes, designers). Although purists may claim that the latter was more of an adventure game than a CRPG, both games featured satisfying stories and intriguing environs. In addition, **Horrorsoft** produced another gory CRPG for **Accolade**, called *Waxworks*. It features interface improvements over its predecessors and a diabolical storyline. Another nominee was the sequel to last year's winner in this category: *Ultima Underworld II* (**Origin**, Tim Stellmach, Doug Church and Paul Neurath, designers). Though it was technically as excellent as its award-winning progenitor, it was not perceived as exceeding that performance. *Crusaders of the Dark Savant* (**Sir-Tech**), however, is David Bradley's best CRPG to date. The hybrid sci-fi/fantasy story, plus improved graphics and technological excellence (in data compression and hard disk storage) make this a worthy winner in this category.

Simulation Game of the Year

For Simulation Game of the Year, the nominees featured a host of familiar names from the past. Award-winning designer Damon Slye raised the ante on game graphics with the beautiful detailing in *Aces of the Pacific* (**Dynamix**). Kyle Freeman and John Garcia made voxel graphics almost a household word (and a soon-to-be patented process) with the mind-boggling graphics of *Comanche: Maximum Overkill* (**NovaLogic**). *F-15 Strike Eagle III* (**MicroProse**) shows the programming magic of Andy Hollis, Jim Day, George Wargo and Chris Clark in one of the best implementations of cockpit instrumentation we've ever seen.



Stunt Island (**Walt Disney Software**), Ronald J. Fortier and Adrian Stephens, designers, is the first flight simulation that doubles as a film direction sim. It is unique enough to have garnered one of our special awards.

And this year's co-winners are: *X-Wing* (**LucasArts**), Lawrence Holland and Edward Kilham, designers, and *World Circuit* (**MicroProse**), Geoff Crammond, designer. The former presents one of the toughest space combat games to come our

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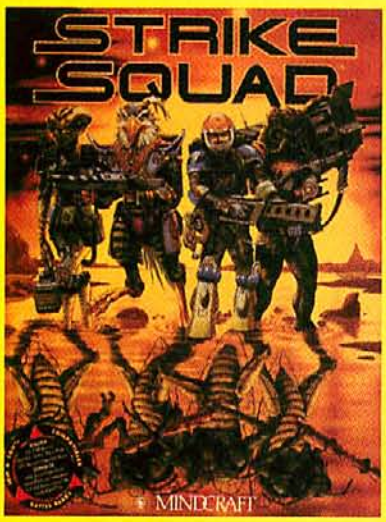

'STRIKE SQUAD' The insectoid K'kistiks have overrun the planets of the humans. Your strike squad of unruly, but talented mercenaries may be the consortiums's only hope. Choose 30 mercenaries from 9 different races. For one or two players.
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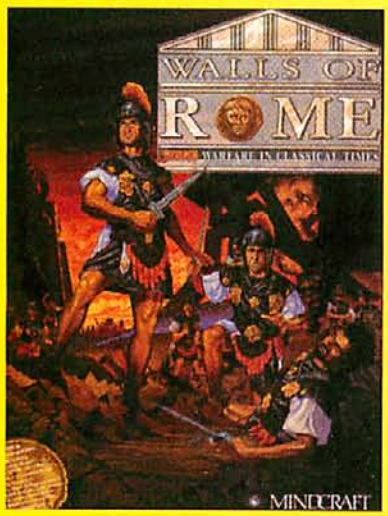

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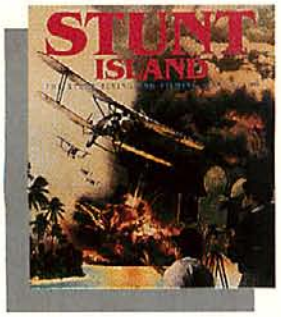
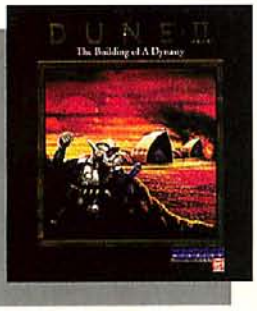
way, and the latter received praise for its accurate handling characteristics from nearly every racing buff we know.



Special Award for Innovation

A Special Award for Innovation is presented to *Stunt Island* (**Walt Disney Software**) because its designers, Ronald J. Fortier and Adrian Stephens, refused to be satisfied with having gamers fly planes and perform stunts. They wanted to allow gamers to create something they could keep. Moments to relive.

Strategy Game of the Year

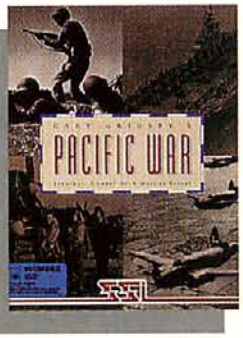


The nominees for Strategy Game of the Year were extremely varied this year. All were interesting in their own right. *Air Bucks* (**Impressions**), Ed Grabowski, designer, featured an intriguing subject matter and solid challenge. David Lester's *Caesar* moved **Impressions** up in class from British importer to American software publisher. Though a hybrid game, *Caesar* features strategic depth, nice graphics and a capacity for expansion using *Cohort II*. Though some argue that it is too data intensive, *Shadow President* (**D.C. True**), Robin Antonyck, designer, is a strategy game with bite. It touches on knotty relationships and tough problems.

Sim Life (**Maxis**) is Ken Karakotsios' entertaining product built around the idea of artificial life. In addition to being colorful and entertaining, it is educational. *Konami* created a hybrid *SimCity*-style/sci-fi wargame with *Utopia*, Graeme Ing and Robert Crack, designers.

The winner of the 1993 Strategy Game of the Year award is *Dune II* (**Virgin**), Aaron E. Powell and Joe Bostic, designers. Its fast-action, great graphics and sound, and challenging scenarios make it a marvelous crossover hit between action and strategy gamers.

Wargame of the Year



Carriers at War from **Strategic Studies Group** (Roger Keating and Ian Trout, designers) is a remarkable and versatile product. Its approach to the artificial opponent alone is worth the price of admission. *Castles 2: Siege & Conquest* is **Interplay**'s response to those who didn't think there was enough game in the original *Castles*. The new design by Vince DeNardo, William Fisher and Byon Garrabrant was exciting enough as a solitaire game that it may become a multiplayer game on a major network during 1994. Award-winning designer Bruce Williams Zaccaggnino's *Conquered Kingdoms* is a well-balanced and addictive fantasy wargame. The only thing missing is a solid PBEM feature. Proving that it is possible to make an old classic better, Mark Baldwin's and Bob Rakosky's *Empire Deluxe* can be as easy or as difficult a challenge as the player desires. It offers the best of the classic game with a modem option that is efficient and entertaining. **Mindcraft**'s *Siege* brought a new level of beautiful graphics and sound to the wargame genre. Purists wished for the historical scenarios to become available in its upcoming sequel (*Walls of Rome*), but gamers liked the intricate tactical challenge of the fantasy wargame. Ali Atabek, Larry Froistad, Patrick E. Hughes and James B. Thomas are the designers.

V for Victory: Velikye Luki is **Three-Sixty Pacific**'s follow-up to their successful *V for Victory: Utah Beach*. Ed Rains, Eric Young, Keith Zabalaoui and Larry Merkel have created a versatile and attractive game engine for traditional wargamers.

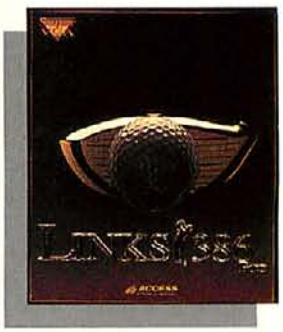
The winner of the 1993 Wargame of the Year is *Gary Grigsby's Pacific War* (**Strategic Simulations, Inc.**). Gary Grigsby has packed almost everything we could want in a wargame into a layered game design that allows as much or as little control as gamers want. It teaches valid historical lessons in an intriguing way and keeps veteran gamers coming back for more.

Sports Game of the Year

Jack Nicklaus Signature Edition Golf (**Accolade**) is not only excellent as a stand-alone, but connects to the tournament on **Prodigy**, as well. Ned Martin is the designer. **Microleague Sports**' latest baseball game, *Microleague Baseball 4: USA Today Edition*, (Jim Nangano, Ed Daniels and Skip Haughay, designers) uses video and a connection with the national newspaper's sports network to enhance its value. **Bethesda Softworks**' *Wayne Gretzky Hockey 3* (C. Walton and D. Gregory, designers) is light years ahead of its immediate predecessor and still the best overall hockey game on the IBM. *Tony La Russa Baseball II* (**Strategic Simulations, Inc.**), Tony La Russa, Hudson Pichl, Don Daglow and Mark Buchignani, designers, won our Editors Choice award, but is still an evolving product. Links 386 Pro (**Access**) will be discussed later for reasons that should quickly become obvious.

The winner of 1993 Sports Game of the Year is: *Front Page Sports: Football* (**Dynamix**), Patrick Cook, designer. This football game literally brought an extra dimension to the look of computer football games and extra depth to such games with the ability to design and implement custom plays.

Overall Game of the Year



It is probably obvious that this year's Overall Game of the Year is *Links 386 Pro* from **Access** (Vance Cooke, Kevin Homer and Roger Carver, designers). It receives consistently high marks from our readership and rested atop the Top 100 Games list for so long that we would have been remiss not to select it as Game of the Year. Even non-gamers are attracted by the incredible sounds and graphics of the detailed courses. Gamers like the smooth interface and the ability to play head-to-head at the same computer.

Where Do We Go From Here?

It was an interesting product year to cover from June, 1992 to June, 1993. Products seemed to reach comparable levels of quality all over the spectrum and this year's award winners seemed more predicated on design features and elegant implementations rather than the grand leaps of technology or game design of past years. We suspect that next year will be similar, but anticipate that we may be only a year or so away from another grand leap in technological sophistication.

Meanwhile, here's to all the nominees! Out of all the games released during the product year, they represent the 43 games we will most remember out of that time period. And here's to the winners. Out of 43 outstanding products, they represent the 11 products we were privileged to single out. **CGW**

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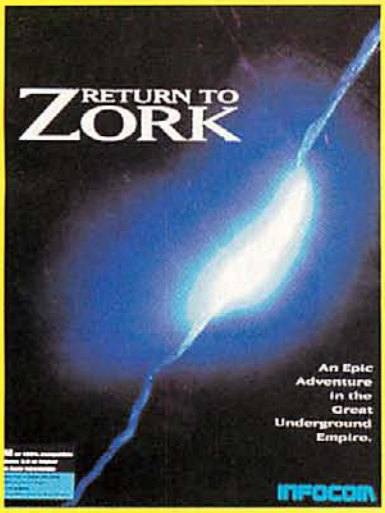

'RETURN TO ZORK' is the next generation in the classic Zork series. Return to Zork is an amazing interactive adventure of danger, intrigue, and low cunning. Filled with fascinating puzzles, it features a cast of Hollywood stars, a revolutionary interface, over an hour of spoken dialogue & an enchanting musical score. **$46**

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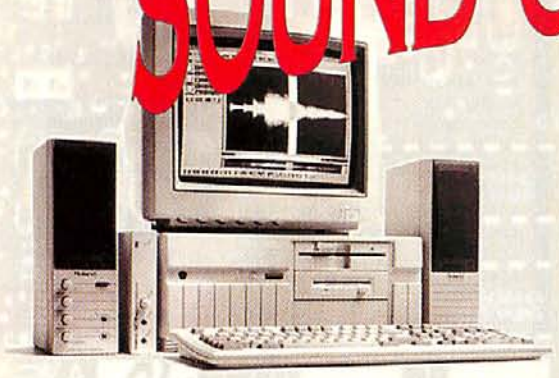
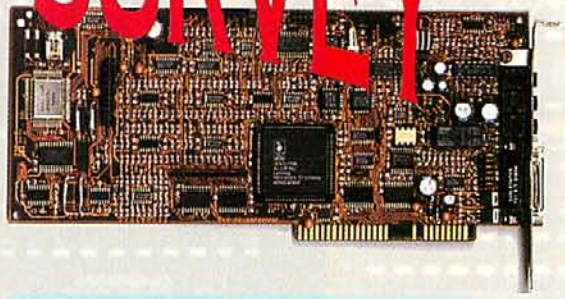
CGW SOUND CARD SURVEY





by Mike Weksler & Joe McGee

Mike Weksler co-wrote Chuck Yeager's Air Combat Handbook *and is* CGW*'s Technical Editor. Joe McGee is a private computer consultant who specializes in multimedia.*

In the early days of IBM gaming, one may as well have been hearing impaired. The chirps and beeps of the internal speaker added almost nothing to the gaming experience. It was the silent movie era for computer games. At that point, the introduction of **AdLib**'s FM synthesis was as dramatic a leap as from prehistoric cave paintings to the glorious age of portraiture epitomized by Gainesborough and van Dyke. Then came **Creative Labs**' *Sound Blaster,* with digitized sound effects to accompany the *AdLib* FM synthesis. Between the sound effects from **Creative Labs** and the orchestration provided by **Roland**'s *MT-32* (a high-end, large-ticket, multi-tambral sound card for those gamers who were not satisfied with tinny-sounding FM synthesis), computer games jumped from filmdom's Vitaphone and Movietone sound to Dolby in a single generation.

For a couple of years, *AdLib, Sound Blaster* and *MT-32* were the Big Three cards in gaming. Now, with the increasing demand for sound from the gaming community and all the ranting about multimedia, PC sound equipment has suddenly become a big market, and manufacturers are hell-bent on tapping it. This past year has seen an *explosion* in the sound card population that has us teetering on the brink of a THX-style sound revolution. The *AdLib Gold* (a proposed *Sound Blaster Pro* killer) came and went, then came back again, wave table synthesis has come of age, and there are more combinations of digital audio and synthesis than there are combinations of word processors and spreadsheets.

One of the most significant variables in the sound card equation is the evolution of the 16-bit sound card. It has the capability of digitally recording and playing a 16-bit resolution sound sample at 44.1KHz—the same as CD audio. The quality varies from product to product, but some cards can play a digitized sample so realistic you'd swear it was an audio CD. Sixteen-bit audio is great for your own audio dabbling, but for the majority of games, 8-bit is the limit. This is due largely to the increase in storage requirements for higher resolution sound. Most games use sound sampled at 8-bit resolution at a rate of either 8, 11 or 22KHz.

Another notable milestone in sound card evolution is the inclusion of wave table synthesis. In wave table synthesis, the sounds of actual instruments are digitized and stored on the card. Some of these wave table synthesizers are General MIDI compatible, meaning that they follow an established MIDI standard, while others require a specific software driver to get the sound out of the machine.

What You Need

This survey was designed to give gamers an idea of what is available and pending in the sound card arena. The focus is on games, with an eye for compatibility, ease of configuration, and developer support. We will emphasize products that have been designed specifically for game enhancement and that hold promise for future game manufacturer support.

Anyone who has paid attention to sound cards knows that, for *current* games, *Sound Blaster* compatibility for digital audio and the *AdLib* standard (**Yamaha** FM synthesis) for MIDI music are the most important features. This is the "base" requirement for a gamer's card, as it is most widely supported by manufacturers and tends to cause the least compatibility headaches.

Most of the cards covered are *Sound Blaster* and *AdLib* compatible, usually by way of FM synthesis provided by the **Yamaha** OPL2 chip, the newer OPL3 chip, or software that emulates FM synthesis. Unfortunately, we've yet to hear any emulation of FM synthesis that sounds as clean as the ol' 8-bit *Sound Blaster* that we used as a control (comparison) card.

With the advent of wave table synthesis, one would expect the tinny-sounding FM synthesis to go the way of AM radio. It should still be supported in that one will be able to run his/her older games in the same manner that AM receivers are still included with new stereo receivers, but wave table synthesis is far superior in sound and, with the low priced cards available, it should move in to stay in the near future.

Dealing The Cards

AdLib Gold 1000 (AdLib)

Why would a gamer buy the *AdLib Gold 1000*? We don't know. The major problem is its lack of *Sound Blaster* compatibility; without it, the card will not work with the majority of games currently available. It is only now beginning to gain support from publishers, although this support is not widespread. (Currently, **Electronic Arts**, **MicroProse** and **Impressions** have committed to support.) It has the "Gold Standard" for digital audio, which sounds clean, but is only 12-bit This is alright for games, but is limited in other applications.

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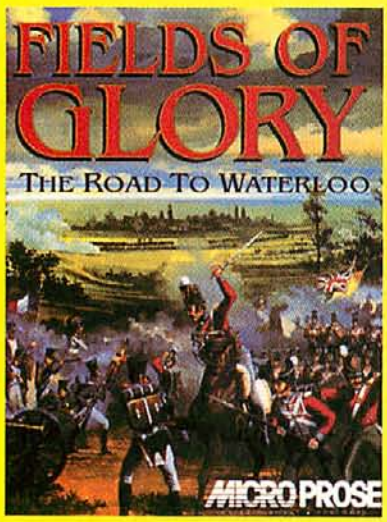

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For the same money, one can buy a more widely supported and fully featured card.

Gravis UltraSound (Advanced Gravis)

We tried two versions of the *Gravis UltraSound (GUS)* card. The first one had old software drivers and 256K of RAM (into which one must load MIDI patches). It worked great under *Windows*, but we found it to be less desirable under DOS.

We also tested a new version of the card with a 1MB RAM upgrade and new software drivers. For games that support the card, we found the wave table synthesis and digital audio to be quite acceptable. However, in *Sound Blaster* emulation, we had less luck. Getting sound from the few games that will work with the *GUS* emulating a *Sound Blaster* requires a *lot* of tinkering. The card uses FM synthesis emulation to provide FM music in a game—a less than optimal solution, as explained in the introduction.

Due to the need for many TSRs (see glossary of terms), lack of publisher support (less than the *AdLib Gold* at press time) and poor *Sound Blaster* emulation, it is hard to recommend this card to anyone other than a *Windows* MIDI musician. Were not saying that for a given game, the *GUS* won't work, it's just that for the casual gamer wanting *Sound Blaster* compatibility, we found it is not worth the configuration headaches. The 32-voice wave table synthesis is based on an older Ensoniq technology and sounds very good, though not as good as some of the other wave table products surveyed.

Logitech Soundman 16 (Logitech, Inc.)

We are often visited by game developers who want to demo their game on one of our computers. Getting a computer configured correctly so that it runs fickle pre-release software can be a real bear. While changing crashing sound cards (like a pit mechanic changing tires at the Indy 500) during one demonstration, the *Soundman 16* showed off its greatest strength: it can be quickly installed, configured and run with very little hassle.

This card is born to run games. It doesn't clutter itself with extra bundled software, CD-ROM interfaces, or thick manuals to wade through. The drawback is that it uses the **Media Vision** chipset, so if the reader dislikes these chipsets due to problems encountered with *Sound Blaster* compatibility, this may not be his or her card of choice. On the other hand, more and more companies are supporting the **Media Vision** chipset directly. Also, if one already has a CD-ROM host or SCSI drive, this card is easier to install (there are software configurable jumpers and no SCSI or proprietary CD-ROM hosts to conflict with existing hardware). Though the documentation is a bit sparse, it should get the average user up and running with a minimum of difficulties.

Pro AudioStudio/AudioSpectrum 16 (Media Vision)

With an OPL3 chip for FM synthesis, an MPU-401 MIDI interface, compatibility with all **Media Vision** supported games, and some *Sound Blaster* compatible games, the *Pro AudioStudio (PAS)* should give the *Sound Blaster 16* some good competition. One should note however, that the majority of distressing phone calls we receive from readers (and our own editors) regarding compatibility problems are related to the **Media Vision** cards. These problems are usually attributed to incorrect jumpering (i.e., "I have music, but no sound") and to older versions of the *Pro AudioSpectrum 16 (PAS16)*. These problems should be ameliorated with the newer versions of the cards (such as version 4 for the *PAS16*). In fact, these compatibility problems have been worked out so that one may configure a game to use a *PAS* or *PAS16* card in native mode or as a *Sound Blaster* with the same game.

We found the installation procedure to be clean and simple, with the exception of diskette labels that did not match the installation program's insertion requests. Additionally, we had to go through a real song and dance to get the *Windows* utilities installed on a network version of the operating system.

The quality of the digital audio is, in our opinion, much cleaner than the *Sound Blaster 16* products. However, one should note that there is no internal MIDI connector, so a wave table daughter card (mentioned later) cannot be installed.

Overall, we found the *Pro AudioStudio* to be an impressive card. It sounds terrific and, for the most part, installation is a "plug-in and play" affair. Without changing any of the jumpers, it played the machine gun sound effect in *Wolfenstein 3D* just fine while in *Sound Blaster* mode (which we found to be a challenge for other sound cards). The lower priced alternative for the gamer on a budget would be to buy the *PAS16* and save $50 (sacrificing the voice recognition hardware on the *Studio* card). The *PAS16* has the OPL3 and 16-bit stereo DAC, although it didn't seem to sound as clean as the *Pro AudioStudio.*

Sonic Sound (Diamond)

Most people know **Diamond** for their hot-rod graphics cards such as the *Speedstar 24X. Sonic Sound* is one of the new breed of multimedia sound cards that, in the tradition of TV-advertised food processor products, does many things. The difference in this case is that the *Sonic Sound* does them all well. It has register level compatibility with the 8-bit *Sound Blaster* and also emulates OPL2 FM 22 voice synthesis; in English, this means that it emulates 8-bit *Sound Blaster* music and digital audio. MIDI for one's keyboard is handled with an MPU-401 full duplex MIDI port. However, one should note that this card does not have an on-board MIDI interpreter; in other words, one would not select the "General MIDI" option in a game setup program and have his or her ears filled with killer game tunes. It's **Aria** chip *must* be supported directly.

Scott Kim, the *Sonic Sound* marketing manager at **Diamond** tells us that they have a driver that major game developers will be supporting in the near future. SCSI is handled with a **Future Domain** SCSI-2 host. This means that one can hook up everything from scanners, hard drives, and SCSI CD-ROMs to it—the caveat being that if a hard drive is hooked up to the card, it cannot be booted because the card does not have a boot ROM on it. (It is primarily intended as a CD-ROM host for a multimedia configuration.) There is an upgrade available which includes voice recognition, larger wave table ROM, and a headset. Having these features as an upgrade gives the card a lower retail price. Any upgrades to the *Sound Blaster* emulation can be run from an executable program which may be downloaded from the **Diamond** BBS. This executable is not a TSR and need only be run once prior to each use, due to the on-card Digital Signal Processor (DSP).

This card had hardware jumpers and required a bit more tinkering, but the installation program was first class. The **Aria** wave table synthesis may not sound quite as good as some of the other cards mentioned here, but its low retail price and added features make the *Sonic Sound* hard to pass up. Cards like this should put wave table synthesis into more gamer's hands and will hopefully be widely supported. In the meantime, there are only a handful of games which support the **Aria** chip directly.

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Sound Blaster 16/Sound Blaster 16 with Advanced Signal Processing (Creative Labs)

The *Sound Blaster 16 (SB16)* promised to be the ultimate sound card for gamers. Bundled with useful software, a connector for an optional wave table synthesis daughter card, MPU-401 MIDI interface, and a voice recognition package, this card would appear to be the gamer's Holy Grail of sound cards. In our evaluation, however, we found this not to be the case.

A variant of **Creative Labs**' 16-bit card is the *Sound Blaster 16* with *Advanced Signal Processing (SB16 ASP)*. This card is identical to the standard *SB16* except for the inclusion of Advanced Signal Processing, used for digitized audio compression and decompression. This technology is currently useless for gamers—it is primarily for the multimedia enthusiast or sound card tinkerer. If the potential sound card consumer is buying only for a card's gaming potential, he or she could save $100 and go for the standard *SB16*.

We were not impressed with the quality of the digital audio in either of the above sound cards when compared to earlier versions of *Sound Blaster* products. The sound had pops and extra noise that William Volk, Technical Director at **Activision** attributes to increased time between the end of a played sample and the interrupt. We also noticed that our *SB16 ASP* card would transmit extraneous computer noise through the speakers. Additionally, the card is known to crash games when played in the *Sound Blaster* or *Sound Blaster* "Compatible" modes. One would think that a *Sound Blaster* product would be 100 percent *Sound Blaster* compatible, but our experience shows that this is not the case. Eventually, drivers should be written to support the card in its native mode, possibly solving the noise and compatibility problems. The FM music, however, sounds great.

Based on the above, one would be inclined to purchase a *Sound Blaster Pro* for less, which has a stereo DAC and an OPL2 on card, or an original *Sound Blaster* if one can live with monaural sound. They are certainly adequate for most games, with the latter being almost foolproof. Our conclusions at the end of this article offer more details.

One major advantage to the *SB16* and *SB16 ASP* is that they have an on-board MPU-401 MIDI interface. Using this, one could route MIDI data to either an external MIDI device such as a **Roland** *SC-7 Sound Canvas* module, an *MT-32* module, or one's General MIDI keyboard. Additionally, one may route the MIDI data from the OPL3 chip to an add-on daughter card like **Creative Labs**' *Wave Blaster* or the **Aztech** *Wave Power* (both mentioned later in this article). These modules are alternatives to dedicated wave table cards, and since they snap onto the *SB16* and *SB16 ASP*, one's entire sound system would only require one slot. This method of implementing wave table synthesis is more suited to one who has already purchased one of the above *Sound Blaster 16* products. In addition to saving a slot, the setup will not require two sets of speakers (or one set of speakers and a mixing card), for sound effects and music.

Installation of the *SB16* and *SB16 ASP* is greatly facilitated by software configurable jumpers, a new software installation routine, and good documentation. We were able to configure the cards in a 486/50 DX2 that also had a SCSI host, an Ethernet card, and a proprietary CD-ROM host. Most of these devices have trouble being in the same room, let alone the same computer.

Sound Galaxy NX Pro 16 (Aztech Labs, Inc.)

The *Sound Galaxy NX Pro 16 (SGNXP16)* touts compatibility with *AdLib*, *Sound Blaster Pro* (both stereo digital audio and OPL3), *MS Sound System*, **Covox** *Speech Thing*, and **Disney** *Sound Source*. When we first installed this card we used it with a particularly fussy prerelease version of **Electronic Art**'s forthcoming *Seawolf*. Since most of the other cards in this survey choked when we tested the *Sound Blaster* compatibility on this game, we figured that we would crash it in no time trying to emulate a *Sound Blaster Pro*. Much to our delight, the *SGNXP16* worked as advertised—without a hitch. Additionally, it is compatible with *AdLib* through the OPL3 chip, has an on-board *Sound Source* DAC for those products which require that hardware, and is compatible with the **Covox** *Speech Thing*. With all of these options, this would also be a great choice for the gamer with a library of older titles that require many different sound devices. Few games support this card in its native mode, but we found that in most cases, it was compatible with *something* in the setup menu of a given game.

The card has a pin connector to accept either the **Creative Labs** *Wave Blaster* or **Aztech Lab**'s own *Wave Power*. While the *Wave Power* runs well under *Windows*, there is a slight hitch in the *SGNXP16* which renders the wave table synthesis option useless for DOS gamers—lack of an MPU-401 MIDI interface. Without this interface, MIDI data will be routed out of the MIDI interface on the back of the card. This is great if the user has his or her own MIDI synthesizer, but it will not support a wave table daughter card in DOS. The daughter card option works fine with current drivers in *Windows*, however, DOS gamers will be stuck.

This oversight will be corrected on the *Sound Galaxy Pro 16 Extra*, which should be out in Fall '93. A spokesperson for **Aztech Labs**, informed us that this card will have the MPU-401 interface and voice recognition capability, though with less compatibility (*Sound Blaster Pro, Ad Lib,* and *Windows Sound System* only).

Soundscape (Ensoniq)

While surveying the sound card market over the past few months, we have been keeping our eyes on a promising prototype sound card from **Ensoniq** called *Soundscape*. Though not currently available, it will be in the near future. For now, **Ensoniq** is licensing the technology to other manufacturers. For instance, the **Aztech** *Wave Power* uses the **Ensoniq** chipset, although with an 8-bit ROM to store the sound. The *Soundscape* card will use 16-bit ROMs (OEMs, however, may opt for 8-bit to keep the price down), giving the various tambres a richer sound. The card also has an on-board **Motorola** 68000 processor to run it's own downloadable firmware. (Firmware means drivers that are loaded on a card prior to playing a game to carry out various modes of operation. They use a small portion of RAM on the sound card and are used in place of loading a TSR driver into a computer's valuable RAM.) This approach may extend the life of the card, as upgrades to the firmware would be available directly from **Ensoniq** (or one of their OEMs) when they become available. For gamers, one need only run a brief initialization program to configure the card for either General MIDI wave table synthesis, *MT-32* emulation, or FM emulation. The *Soundscape* may be run as a synthesis sound card only (like a **Roland** *SCC-1 Sound Canvas* mentioned later in this article) by disabling the on-board DAC. This is a good feature for those gamers who already own a *Sound Blaster* or a *Sound Blaster Pro*. The only drawback to this approach is that one must give up two precious slots in one's computer; however, the *Soundscape* may be configured to occupy an 8-bit slot. Additionally, our prototype *Soundscape* card is a snap to set up with software configurable jumpers.

The on-card MIDI interpreter on this card is another strong feature. It allows the gamer to select General MIDI from his or her game setup screen and have the MIDI data play from the card itself, rather than passing MIDI data to a MIDI keyboard.

One drawback to this card is that it has no **Yamaha** FM synthesis chip. Instead of an FM chip, the card does FM emulation, which does not sound as good as the real thing. **Ensoniq's** Joe Cotellese explains that, "The decision to use FM emulation over a **Yamaha** OPL Chip was made because FM synthesis is a 17 year old technology which gives inferior sound when compared to wave table synthesis. You'll find that most of the larger game manufacturers are supporting

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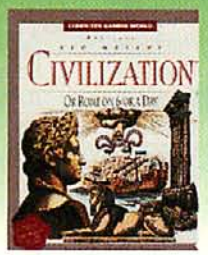

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- START Magazine

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- Jerry Pournelle, BYTE Magazine

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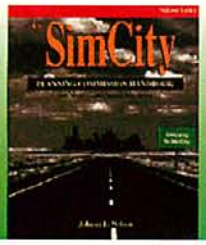

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Product	Company	MS-DOS Installation	Windows Installation	Ease of Configuration	Jumpers	MPU-401 MIDI	Supports General MIDI
SoundBlaster Pro	Creative Lab	Adequate	Adequate	Very Easy	Hardware	No	No
SoundBlaster 16 with ASP	Creative Lab	Excellent	Excellent	Very Easy	Software	Yes	Yes, other hardware req'd
SoundBlaster 16	Creative Lab	Excellent	Excellent	Very Easy	Software	Yes	Yes, other hardware req'd
Pro AudioStudio	Media Vision	Adequate	Adequate	Easy	Software	Yes	Yes, other hardware req'd
Pro AudioSpectrum 16	Media Vision	Adequate	Adequate	Easy	Software	Yes	Yes, other hardware req'd
AdLib Gold 1000	AdLib	Adequate	Adequate	Easy	Software	No	Yes, other hardware req'd
Logitech Soundman 16	Logitech	Good	Adequate	Very Easy	Software	No	Yes, other hardware req'd
Sound Galaxy NX 16 Pro	Aztech	Good	Good	Easy	Software	No	Yes, other hardware req'd
Sound Galaxy Pro 16 Extra	Aztech	n/a	n/a	n/a	n/a	Yes	Yes, other hardware req'd
Winstorm	Sigma	Good	Adequate	Easy	Software	Yes	Yes, other hardware req'd
Ultrasound	Adv Gravis	Adequate	Adequate	Difficult	Hardware	Yes	Yes, other hardware req'd
Sonic Sound	Diamond	Good	Excellent	Difficult	Hardware	Yes	Yes, other hardware req'd
Viva Maestro 16 VR	Viva	Good	Excellent	Difficult	Hardware	Yes	Yes, other hardware req'd
Viva Maestro 16	Viva	Good	Excellent	Difficult	Hardware	Yes	Yes, other hardware req'd
Wave Blaster	Creative Lab	Excellent	Excellent	Easy	n/a	n/a	Yes
Wave Power	Aztech	Excellent	Excellent	Easy	n/a	n/a	Yes
SCC-1 Sound Canvas	Roland	Excellent	Excellent	Easy	Hardware	Yes	Yes
SC-7 Sound Canvas	Roland	Excellent	Excellent	Easy	n/a	n/a	Yes
Roland Audio Producer	Roland	n/a	n/a	n/a	n/a	Yes	n/a
Soundscape	Ensoniq	Excellent	Excellent	Easy	Software	Yes	Yes

MT-32 and General MIDI, but by including FM emulation we offer some backwards compatibility with older software at a lower cost."

We've been told that possible OEMs of this card will have either an OPL3 daughter card or an OPL3 chip on-board.

Viva Maestro 16 VR (Computer Peripherals, Inc.)

From the makers of fine modem hardware comes *Viva Maestro 16 VR (VM16VR)*, another **Aria** OEM wave table audio card. This one is similar to the **Diamond** card mentioned above, with the exception of on-board hardware voice recognition. One can also buy a version of this card without voice recognition for $299.

An interesting point regarding this or any **Aria** card is that several companies are looking into its hardware-supported voice recognition for use in their games. **Interplay** has a version of *Star Trek: 25th Anniversary* that runs with the *VM16VR*. Additionally, **Impressions**' *When Two Worlds War* is another example of the increasing support for **Aria** synthesis and voice recognition. There have also been rumors of development at **Trilobyte**. Additionally, by using a true DSP, one may obtain upgrades to the firmware from a BBS for such things as MIDI patches, and *Sound Blaster* FM emulation upgrades.

The *Viva Maestro 16 VR* gave us some problems at first because we already had an **Adaptec** SCSI host for our hard drive. One problem with these cards is the amount of hardware jumpers for IRQ, MIDI, CD-ROM and **Aria**'s proprietary sound stuff. Additionally, because these are not software configurable jumpers, the cards were very difficult to configure. Clear documentation was its saving grace.

Winstorm (Sigma)

The *Winstorm Multimedia Display Adapter* is similar to the above **Logitech** *Soundman 16* in that it is another **Media Vision** OEM, but is also a 24 bit VESA compatible, accelerated video adapter. It is primarily marketed to those who are just assembling their new computer (i.e., do not already own a graphics card), or those who are short on motherboard slots. Additionally, some buyers may already have a SCSI host adapter and a video card. Nonetheless, with its ease of installation and software configurable jumpers, we feel that it is still adequate for the needs of today's gamer—especially those who also require *Windows* acceleration (or those who are waiting for games with photorealistic 16 million color images at 640x480 resolution).

Wave Blaster (Creative Labs)

This is a daughter card designed to snap onto the *Sound Blaster 16* or the *Sound Galaxy NX Pro NX 16*. In addition to being a General MIDI **E-mu** wave table synthesizer, it also emulates a **Roland** *MT-32*. The *Wave Blaster* was one of the best sounding wave table synth cards we listened to, short of our **Ensoniq** *Soundscape* prototype and the **Roland** *SCC1-Sound Canvas*. It sounds fabulous and comes with great software, but getting games to recognize the card while plugged into a *Sound-Blaster 16* or *Sound Galaxy Pro NX 16* is tough. With the former, using the SBMIDI.EXE utility should solve this problem; however, with the latter, one must wait for a new version of the *SGPNX16*, the *Sound Galaxy Pro 16 Extra*. For $249, this is the way to go for wave table synthesis if one already owns a sound card with daughter card connectors.

Wave Power (Aztech Labs, Inc.)

Aztech's *Wave Power* is the first OEM of **Ensoniq**'s *Soundscape* technology, a General MIDI wave table daughter card that provides wave table synthesis with their *Sound Galaxy NX Pro 16*. Additionally, it works great with either one of the *Sound Blaster 16* cards. In fact, as mentioned earlier, it actually works better for games with the *Sound Blaster 16* because of its MPU-401 compatibility. In other words, although the *Wave Power* works fine for *Windows* applications with **Aztech**'s own card, it will only work as a General MIDI card if one uses it with one of the *Sound Blaster 16* cards. This may be fixed with software available this Fall. Additionally, **Aztech** will be releasing the *Sound Galaxy Pro 16 Extra* around the same time which, as mentioned earlier, *will* have the MPU-401 compatibility.

We found the *Wave Power* to be a fine substitute product for the *Wave Blaster*; however, we noted that it did not possess the same richness of sound that its cousin, the prototype *Soundscape* from **Ensoniq**, had.

The documentation for this product along with the full implemen-

On-Board Wave Table Synthesis	FM Synthesis	CD-ROM Interface	8-Bit Sound Blaster Compatibility	Voice Recognition	Developer Support	Price
None	OPL3	Proprietary	Good	Optional-software	Excellent	$199.95
Adapter for Wave Blaster/Wave Power	OPL3	Proprietary	Adequate	Yes/software	Adequate	$349.95
Adapter for Wave Blaster/Wave Power	OPL3	Proprietary	Adequate	Yes/software	Adequate	$249.00
None	OPL3	SCSI	Adequate	Yes/software	Adequate	$349.00
None	OPL3	SCSI	Adequate	With after market software	Adequate	$299.00
None	OPL3	SCSI Optional	None	None	Poor	$299.95
None	OPL3	None	Adequate	With after market software	Adequate	$199.00
Adapter for Wave Blaster/Wave Power	OPL3	SCSI Optional	Adequate	With after market software	Increasing	$259.00
Adapter for Wave Blaster/Wave Power	OPL3	Proprietary, SCSI Optional	Adequate	With after market software	Increasing	$279.00
None	OPL3	Proprietary, SCSI Optional	Adequate	With after market software	Adequate	$349.00
Older Ensoniq Chipset	Emulated	SCSI Optional	Poor	With after market software	Poor	$199.99
Aria Chipset	Emulated	Adaptec SCSI-2	Good	Optional-hardware	Increasing	$269.00
Aria Chipset	Emulated	Future Domain SCSI-2	Good	Yes/hardware	Increasing	$349.00
Aria Chipset	Emulated	Future Domain SCSI-2	Good	None	Increasing	$299.00
E-mu Chipset	n/a	None	n/a	n/a	n/a	$249.95
New Ensoniq Chipset	n/a	None	n/a	n/a	n/a	$199.00
Roland Chipset	n/a	None	n/a	n/a	Increasing	$499.00
Roland Chipset	n/a	None	n/a	n/a	Increasing	$399.00
Roland Chipset	n/a	n/a	None	n/a	n/a	$599.00
New Ensoniq Chipset	Emulated	Proprietary, SCSI Optional	Good	n/a	Excellent	n/a

tation of **Midisoft**'s sequencer and its low price make this a good choice for one whose wave table synthesis needs require a daughter card.

Roland SCC1 "Sound Canvas" (Roland)

Without a doubt, this card offers the best wave table synthesis of any other in this survey. The richness of tambres is overwhelming. Most impressive was the soundtrack to **Electronic Art**'s forthcoming *Seawolf*, composed entirely by George "Fat Man" Sanger. The card also is recognized as a General MIDI card when a game doesn't support the *SCC-1 Sound Canvas* directly, and can emulate an *MT-32*. This is definitely serious music hardware for the serious enthusiast. It's as revolutionary as our first encounter with the *MT-32* back when the only thing around was the *AdLib*. Anyone who can afford it, including the MIDI musician, needs this card.

Roland SC-7 Module "Sound Canvas" (Roland)

This is the external module version of the *SCC-1* above, sans the MPU-401 interface. Since it is an external module, it is also suitable for Macs and Amigas.

Roland RAP 10 (Roland)

Our last product in this survey is one that is currently not available, but we were able to hear it at a recent trade show. It sounds impressive.

Finally, **Roland** is going to incorporate digital audio into one of their sound card products. The *RAP (Roland Audio Producer) 10*, is an audio card that we feel *would* have been the ultimate sound card for games, but we have learned that **Roland** has chosen *not* to include *Sound Blaster* capability. We feel that this will put off several potential consumers who may have many games which are only *Sound Blaster* compatible, including many of the edutainment software packages on the market. This product is definitely targeted for the MIDI musician rather than the casual gamer, but consider that the retail price of $599 is approximately what it costs for a *Sound Blaster 16* and a *Wave Blaster* from **Creative Labs**. Given that, if developers support the new **Roland** digital audio standard, gamers may embrace such a product, but we will take a wait and see attitude. One thing would be certain, the *RAP-10* with its *Sound Canvas* synthesis, would be the ultimate game sound card.

Le Grande Finale

In summary, before purchasing a sound card for games, consider the following:

Since most games require a *Sound Blaster* or 100 percent compatible product, one would do well using an 8-bit *Sound Blaster* for digital effects (PCM sound) and FM synthesis, and an add-on product for wave table synthesis. While the *Sound Blaster 16* would work, there are problems with backwards compatibility. Additionally, since said games are using digitized 8-bit samples at a rate between 8 and 22KHz, a *Sound Blaster Pro, Sound Galaxy Pro 16 Extra, Soundman 16,* or *Pro AudioSpectrum 16* (version 4 or higher) would be adequate. This would give the user the sound playback capabilities in stereo, OPL3 FM synthesis, and few compatibility problems. Further, upgrading to General MIDI is as easy as adding a **Roland** *Sound Canvas SCC1*, or down the road, one of the substitute products that should pop up, like the *Soundscape* prototype. While this configuration would be great for the gamer with a few slots left in his rig, the combination of the *Sound Blaster 16* and one of the daughter cards mentioned above: the *Wave Blaster* from **Creative Labs**, or the *Wave Power* from **Aztech Labs** would save space by using one slot and one set of speakers.

If voice recognition, value-added features, or a lower price are what the reader has in mind, then perhaps some of the **Aria** cards, like the **Diamond** *Sonic Sound* or the **Computer Peripherals Inc.** *Viva Maestro 16 VR*, or the *Gravis UltraSound* might be appropriate.

Finally, for those who spare no expense for their hobby and are destined to sound card heaven, there is the line of **Roland** products.

Yes, we are on the brink of a THX-style breakthrough. Yet, in many ways, the success or failure of many of the products discussed in this survey will depend upon the marketing angles used by the manufacturers. We are, quite frankly, amazed at all of the available products and the unique angles with which consumers are being lured. Indeed, with the exception of the **Logitech** *Sound Man 16*, and some of the wave table stand-alone products, all of the products surveyed were bundled *excessively* with multimedia software products which are superfluous for games, software which, if anything, raises the product price. Wouldn't it be great if more companies took the *light* approach, that is, offered sound card packages just for running games? Then, maybe we could all afford a symphonic orchestra on a sound card,

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Glossary of Terms

ANALOG: Values which range between a set of defined limites.

DAC: *Digital to Analog Converter.* A device which converts a digital value into an analog voltage.

DIGITAL: Values which are represented as discrete numerals (zeros and ones)

DIGITAL AUDIO: See PCM

DIGITIZE: The process of converting an anolog value into digital (numeric) representation of that value. Example: If an anolog input ranged from 0 to a peak of 6.2 volts, a input value of 4.5 volts would be digitized to a numeric 186, under an 8-bit sample resolution, (256 x 4.5 / 6.2).

DMA: *Direct Memory Access*—a feature which allows a device to access RAM independently of the microprocessor, thereby achieving better, more stable performance, and reducing the load on the microprocessor.

DSP: *Digital Signal Processor*—a device which can be used to manipulate digital signals, providing special effects, real-time echo, harmonics, etc.

FM Synthesis: *Frequency Modulated Synthesis*—a technique for producing sounds by modulating sine waves to produce harmonics.

IRQ: *Interrupt ReQuest*—a mechanism whereby a peripheral can notify the microprocessor of some event. The processor would be iterrupted to perform some service for the peripheral.

MIDI: *Musical Instrument Digital Interface*—a serial-like interface used to pass commands and events between MIDI devices, (instruments, computers, sound modules).

MPU-401: Popular MIDI interface standard for musical instruments.

OEM: *Original equipment manufacturer.* May manufacture products under its own name or under a licensing agreement with another company.

OPL2: *OPerator type L2*—a Yamaha FM Synthesis chip (YM3812)

OPL3: *OPerator type L3*—a Yamaha FM Synthesis chip (YMF262), backwards compatible with the OPL2, but with twice the capabilities.

OPL4: *OPerator type L4*—a Yamaha FM Synthesis chip backwards compatible with the OPL3 *with* on-board Wave Table synthesis. In short, FM synthesis *and* Wave Table synthesis in one chip! (At press time, none of the sound card manufacturers had announced implementing the OPL4 into their sound card products.

PCM: *Pulse Code Modulation*—a technique for producing sounds by modulating digital pulses.

Sampling Rate: The frequency at which analog samples are converted to digital values during digitization. The higher the rate the more accurate the sample. Speech is typically sampled at 7000-8000 samples per second, CD quality audio is sampled at about 44,000 samples per second, (44 KHz).

SCSI: *Small Computer Subsystem Interface*—a bus-type connection that can be used to connect computers with peripheral devices; hard disks, CD-ROM drives, scanners, etc.

TSR: *Terminate and Stay Resident*—programs which remain resident in memory, such as hardware "driver" software. Excessive TSRs are likely to interfere with games.

Wave Table Synthesis: Incorporates digitized samples of instruments stored in ROM. CGW

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Circle Reader Service #63

Over There

Speaking Of Sports

by Robin Matthews

Football, or soccer to you Yanks, has been slowly gaining a strong following in the States over the past decade. With the recent slaughter of England's football team by the US team, and with the next Football World Cup being held there, soccer fandom seems to be reaching critical mass. To celebrate this new-found sport craze, this month's *Over There* first looks at two new soccer games.

Premier Manager is from **Gremlin Graphics** and is a sports management game. The emphasis here is mostly away from the actual playing field and concentrates on assembling a team of players and settings tactics and style. It is a very "British" game, especially as it does not place you in the expensive leather managerial shoes of a Premier Division team such as Liverpool or Manchester United, but rather in the scuffed and worn sandals of a part-time manager of a feeder league team such as Woking or Merthyr Tydfil.

You then take this band of hopefuls on a course that can lead to glory, through promotion, or you can job hop to better things. One to four players can take part, and there are cup competitions, match highlights, transfer markets and lots of statistics. What this game does, it does very well, and *Premier Manager* will be enjoyed by football nuts from Woking, Merthyr Tydfil and soccer "brit-o-philes" everywhere.

The second football game is from the other end of the stadium. *Sensible Soccer* from **Renegade** is a football action game with no pretensions of management. There have been several previous efforts to write a good soccer action game for the PC, but they have all been poor. *Sensible Soccer* has done well on other formats and this PC conversion is long behind schedule. Initial views of the early version suggests the wait has been worthwhile with real game speed, positive control and an unusual control feature. Most footie games allow you to control and tackle the player nearest the ball, and shoot or pass using key or joystick. *Sensible Soccer* scores a true winner in its "after-touch" system, that is, after you have struck the ball, pulling the joystick will cause the ball to dip and bend. This gives a far greater level of control than in any another football game.

Sensible Soccer also allows Cup competitions and leagues, and it incorporates special rules for away goals, extra time, penalty shoot-outs plus the option to change and design the team's strip. The PC is a reasonable opponent in the single player mode, but it's in the head-to-head mode that this game almost makes you want to do a Mexican wave!

After the very average *Nigel Mansell's Racing* game, Gremlin Graphics is set to launch another car-based product, *Lotus: The Ultimate Challenge*. This has a considerable pedigree, at least on other platforms, with Gremlin having previously published *Lotus Esprit Turbo Challenge* (1990), *Lotus Turbo Challenge 2* (1991) and *Lotus III* (1992). These titles were available on the ST and Amiga, but now the best of each game will be incorporated into their first Lotus PC title.

Lotus: The Ultimate Challenge

Lotus: The Ultimate Challenge will be a one player, full-screen or two player, split-screen simulation. The core of the game will be the beautifully stylish Lotus cars themselves: Elan, Concept Car M200 or the new Esprit S4. Thirteen different scenarios feature snow, forests, deserts, storms, winds and mud, 64 built courses *and* a construction kit! It will probably be available in the UK as you read this.

As predicted, the enhanced game engine in **BlueBytes'** *History Line* has been reverse engineered into a souped-up version of its earlier *Battle Isle* product. *Battle Isle '93* is a complete re-write with a storyline based around the Drulls and Skynet Titans. This time they are furiously searching for Chromos' rare energy crystals. New maps, special units, animated sequences and some great music on top of the new engine should result in a real mean game.

For some light gaming relief, French publisher **Titus Software** has fired off another of the *Crazy Car* titles. *Volume 3* puts you at the controls of Lamborghini Diablo. It offers lots of action that will appeal only to speed freaks or joystick wagglers.

Ocean, the Manchester based company that is known for their games based upon film tie-ins, is coding a *Jurassic Park* game for the PC. This is apparently based on a *little known* film about an animal park which all sounds a bit boring. Well, at least prehistoric. Anyway, leaving the 'J' word for the moment, Ocean has just published a golf game for the PC and Amiga. Some people may think this strange, perhaps considering that there is already the odd golf title about. Apparently Ocean con-

International Open Golf Championships

siders that the fairways are not crowded enough, and hence on the first tee we have, representing the Manchester Club—*International Open Golf Championships*. Garoud shading (how did we ever manage without it?), three championship courses, 3D panning and four camera angles make the game a cross between *Links*, *David Leadbetters* and *PGA Tour Golf*.

If you enjoy sports simulations it's likely that you already have your favorite, but if not, *International Open Golf* does have its own character and feel, and is certainly very quick on screen re-draw. There is a rumor that Ocean is also about to release another golf game linked with some odd team match, but in the meantime I think I'll sneak back to the Brabazon course and *Links 386....*

The above games and any of the other games mentioned in *Over There* in past issues can be obtained from:

Computer Gaming World [not associated with CGW magazine], 318 Kensington, Liverpool, England, L7 OEY.
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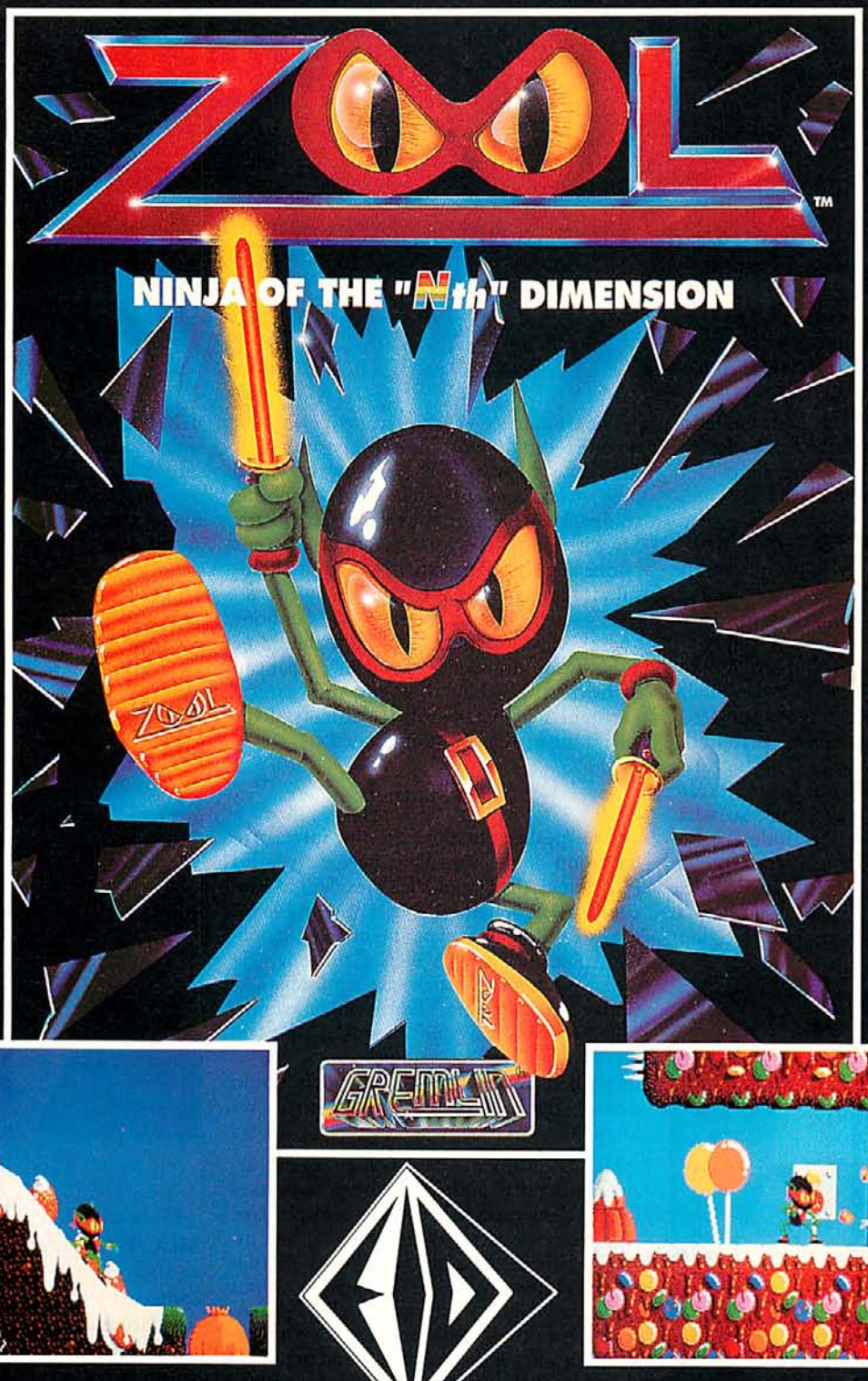

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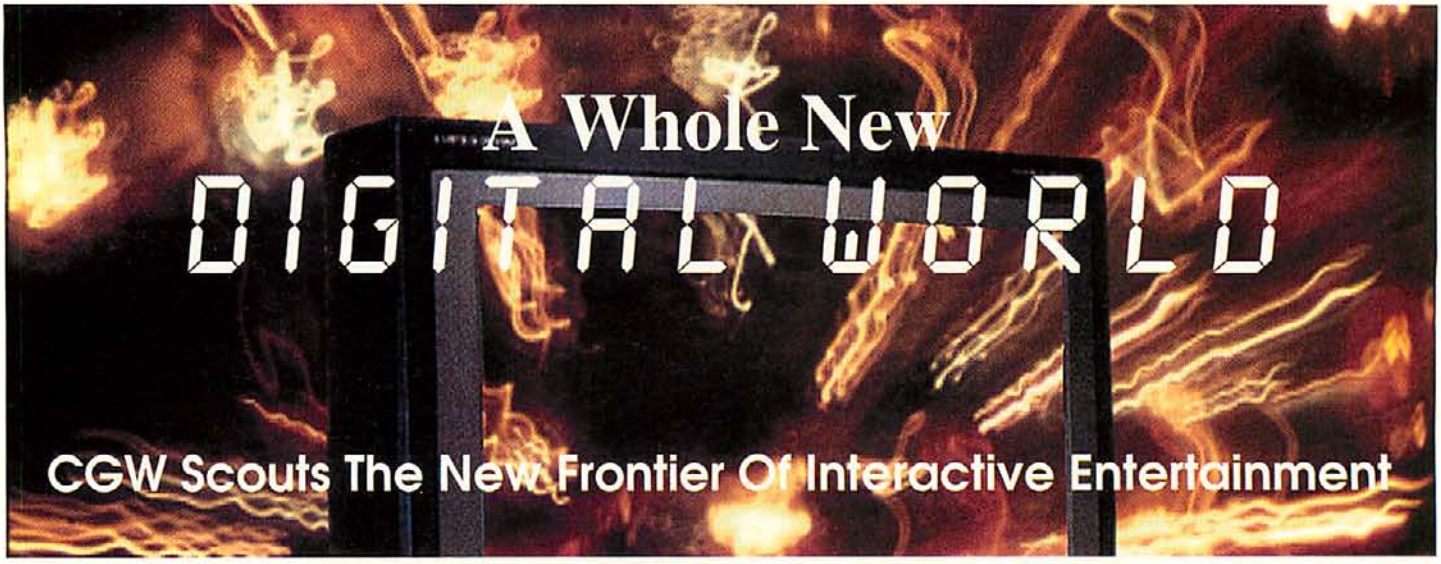


In the early years the computer game industry held the promise that game designers would be electronic artists in a "New Hollywood," the equivalent of rock stars mesmerizing millions with their dazzling creations. Well the future is fast becoming "now." Traditional Hollywood no longer ignores the fledgling computer game industry. Rather, the huge conglomerates seem to want to link their stars to those of software publishers.

Why is this? Interactive entertainment looms as a more economical, and potentially more lucrative, means of filling the projected 500 channels of a digital highway than traditional media. Further, studies from both the cable television and computer fields indicate that consumers *want* to play games. So, what better place for the computer industry and the traditional entertainment industry to congregate than Beverly Hills? This year the **Seybold Group** elected to hold their annual *Digital World* conference at the prestigious Beverly Hills Hilton.

Ed Horowitz

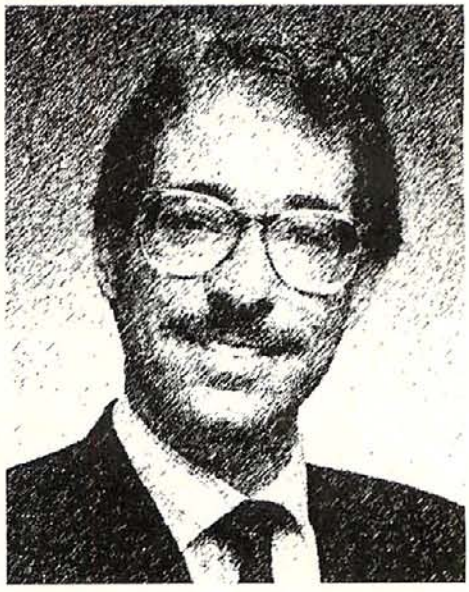
The conference's agenda made it clear that no one is certain what the delivery system for the digital highway will be. However, both cable television companies and telephone companies are vying to be that infrastructure. So, with nearly everyone having at least one phone line and 60 percent of U.S. households subscribing to cable, the very idea of interactive games entering homes via telephone and/or television means that there should be a significant number of new gamers that can be reached. Reaching those potential gamers means high potential profits. Naturally, that's where the media is getting excited.

500 Channels

One speaker put the future of interactive television into immediate perspective. Ed Horowitz is the Senior Vice President of **Viacom International, Inc.** He is responsible for the cable company's experiment with interactive cable in Castro Valley, California. He said: "Technology often raises more questions than it answers." For example, technically, we could have 500 channels, but there are not enough archived properties. So, to immediately introduce 500 channels would destroy the economics of television as we know it."

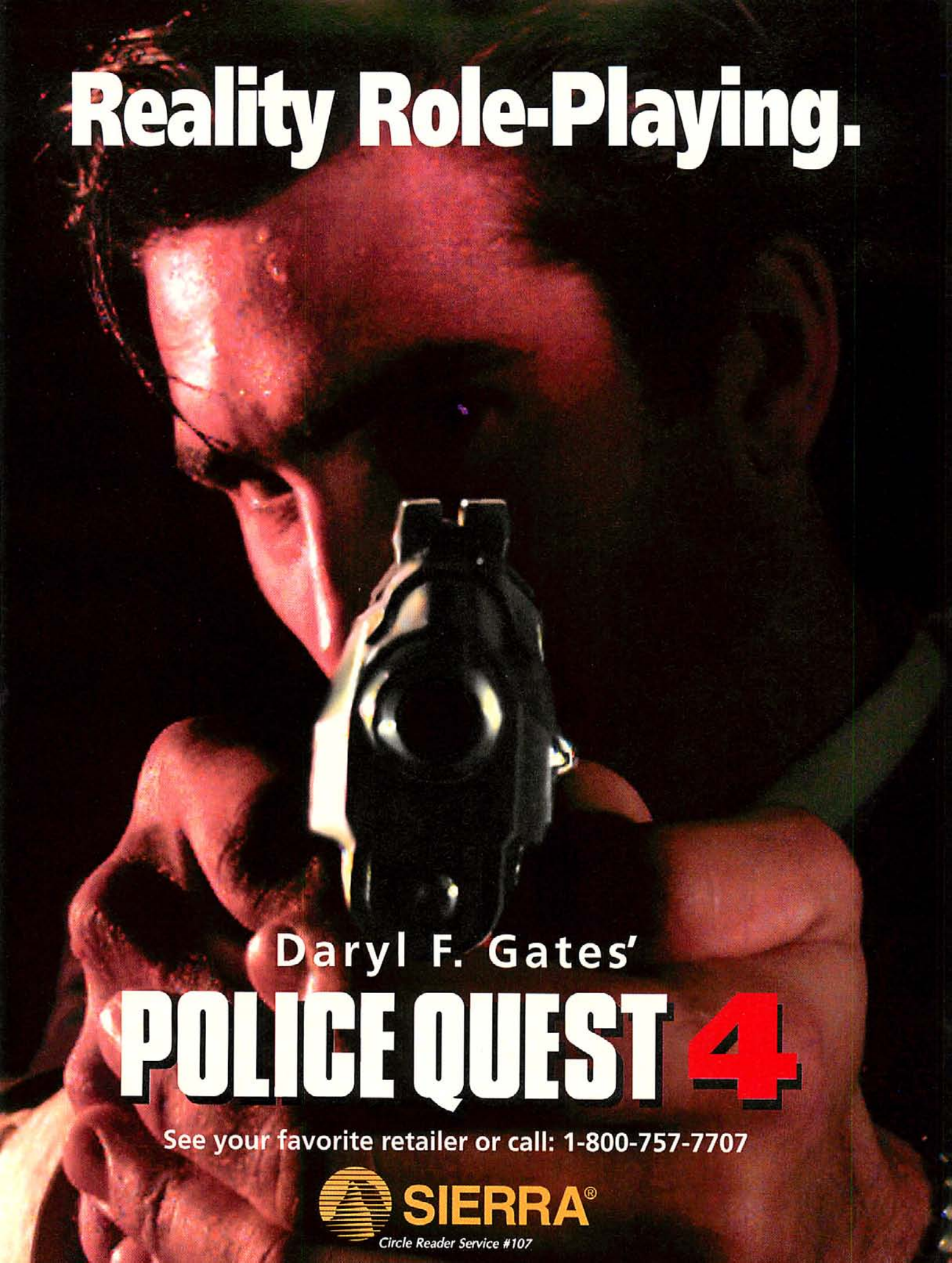
He also warned, "Technology always arrives earlier than anticipated, but always takes longer than expected to reach critical mass. Also, technology always costs more than initially desired." The quick and dirty translation is that we will have the capacity to put interactive boxes with digital upload/download capability into homes before we are capable of effectively marketing and servicing that potential. Further, it is going to require a significant investment before anyone reaps the potential rewards. Witness the Castro Valley project, which priced its first set-top boxes at $800-$1,000.

Whatever happens, Horowitz is quite correct to remark: "This is not about 500 channels. It is about one channel—what the consumer wants." Naturally, such an assumption indicates that cable television operators, telecommunications companies and computer manufacturers will need to know what consumers really do want. One such study was presented during the same session as Mr. Horowitz' address.



Bruce Sidran

Bruce Sidran is Executive Director of **MCC/First Cities**, a consortium established as a response to Japan's "Fifth Generation" computer program. The research that they have accomplished indicates that, "Frankly, consumers *are* willing to pay for entertainment. It has *not* been proven that they are willing to pay for airline guides, shopping, etc." Though the success of cable's QVC network may contradict Sidran's final point, the research indicates that consumers are looking for: 1) low cost, 2) largest choice, 3) high quality, 4) convenience and 5) time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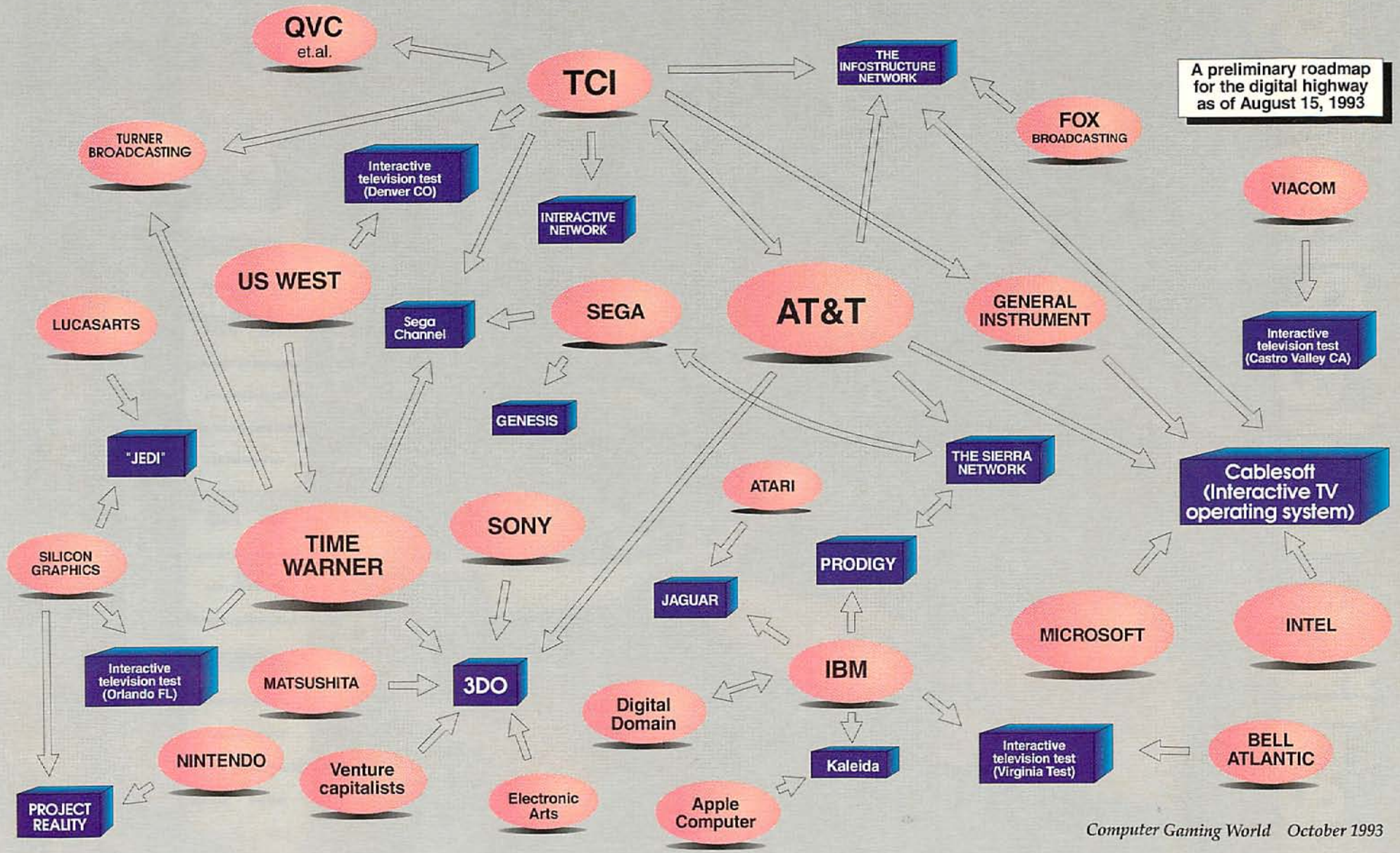
Computer Gaming World's Digital Highway Map



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savings. In that context, Sidran observed, they want:

- Entertainment on demand
- Multi-player interactive games
- Shopping and Transactions
- Customized Publishing
- Multimedia Teleconferencing
- Education
- Health Care

How will all of this take place? **Time-Warner**'s Orlando experiment plans to use fiber optic technology and **Silicon Graphics** machines (for both the network servers and set-top boxes) to provide multimedia on demand. According to Geoffrey Holmes, vice-president of Technology for Time-Warner, the set-top box for Orlando will feature a RISC-based MIPS chip. The model is for the overall architecture to be a "network to networks." Time-Warner expects eventually to connect to **Prodigy, America Online, ZiffNet** and similar on-line services. They also plan to offer subscribers a chance to hook printers to the set-top box in order to encourage information surfing (using electronic services to find specific bits of information) and downloading. What this means to gamers is that the prospects for multi-network gaming and even PBEM games using the digital highway is significantly improved. Further, one shouldn't have to subscribe to each individual network in order to play the network games of choice. Rather, one could reasonably expect a "pay as you play" pricing structure for multi-player games to emerge when networks have a pool of new cable television users from which to draw.

Will There Be Interactive Movies?

In the computer game industry, there is considerable skepticism about the potential for interactive film. Experienced designers and producers insist that film is a narrative and that computer games branch too much to follow the film model. Experienced Hollywood veterans were not convinced, however.

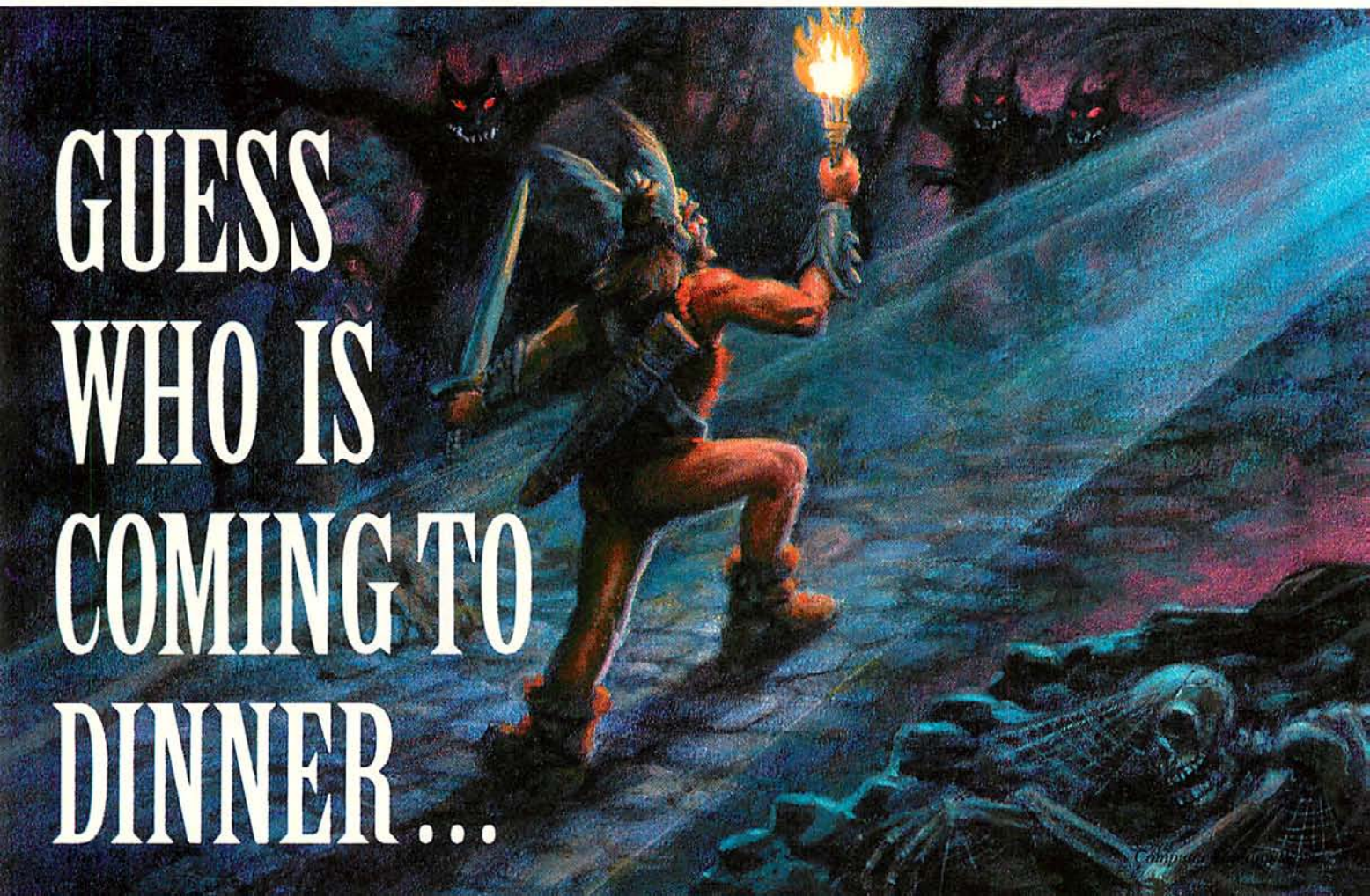
For example, James Cameron (director of *The Terminator, The Abyss* and *Terminator 2: Judgment Day*) expressed his belief that any writer creates enough of a world and backstory that it should be fairly easy to shift out of a linear mode and introduce possibilities for rich interactive experiences. He admitted that the interactive writer gives up pacing, but still thought it was possible to direct the experience with appropriate motivation.

John Badham (director of *War Games, Short Circuit, Stakeout,* and *Sneakers*) seemed to agree. He observed, "If the writer is willing to regear thinking, a whole new art form presents itself."

Michael Backes (Executive Director of the **American Film Institute** and Technical Artist Supervisor on *Jurassic Park*) addressed the downside of the potential new art form, however. He questioned the validity of interaction in existing computer games by observing that they feel like they're designed on a node system "How much fun would a playground be if a child had to play the slide first, then, the merry-go-round and so forth, but couldn't get on the slide if they didn't have the right thing."

Gale Anne Hurd (producer of *Alien Nation, The Abyss, Cast A Deadly Spell,* and *Terminator 2: Judgment Day*) followed up Backes' discussion with a precautionary word. She noted that the success of marketing promotions tied to major films is creating a significant pressure with regard to ancillary products. This means that more and more of Hollywood's attention is concerned with co-promotion. She feels that the convergence of video/computer games with the film media will lead to a loss of narrative storytelling. Alluding to a recent release, she caustically remarked, "Let's do a Nintendo game as a movie, but without a story."

As for the practicality of publishing interactive film/television, Cameron advocated concurrent production between feature films and interactive products. He commented, "I've always been frustrated by the stuff I've had to throw out; interactivity should give us a chance to use it." Backes' vision may even be more important in the world of concurrent production. He perceives that future improvements in the digital creation of sets (and extras?) may resurrect the so-called BIG mov-



ies (epics). The use of digital sets may even further facilitate the production of interactive film products.

Suggestions about concurrent production aroused warnings of computer illiteracy among studio executives, though. Badham told a great anecdote where **SuperMac** had donated a significant amount of equipment to the *Sneakers* set. In exchange, the company was supposed to be mentioned by name in the script. They decided that a female character would work for SuperMac. When an early cut of the film was being shown in the studio screening room, an executive stopped the film and complained, "This is a reality-based film. She can't work for Superman!" Hurd was able to identify with that type of illiteracy. On one of her films, she was required to use an archaic piece of budgeting/scheduling software that wouldn't run on her 486. Instead, she had to find a slower machine in order to submit her production reports.

In another discussion, screenwriter Michael Halperin (*Falcon Crest, Star Trek: The Next Generation, Airwolf*) expressed his belief that interactive film could be a viable medium by stating, "Adults will be interested in interactive entertainment when the choices in the experience are non-trivial." He suggested that story is the key to any entertainment product and asserted that characters are what make a story interesting. The interactive medium should be interesting because, "No character arises out of nothing. They arise from *choices*." With interactivity being dependent upon choices, it should become an interesting character-oriented medium.

He observed that the basic problem with uniting interactivity and storytelling is that

John Badham

interactivity comes out of the computer metaphor (information finding and manipulation), but storytelling comes out of a different tradition (the search for meaning). So, the question becomes, "How can the interaction itself have a moral consequence?" If there is any hope for the interactive story, it will arise when it becomes a narrative tool where we can put meaningful choices in front of the gamer, just as we do in front of the character.

One individual in the audience questioned Halperin as to how an interactive product could possibly present the verisimilitude of real life's infinite choices. To which Halperin answered, "Infinite choice? There is no such thing. Even in life, there is no such thing. Great art is *structured*. The creator makes choices and channels the audience into certain directions to achieve the most psychological impact."

The Future Of Interactive Entertainment

The future of interactive entertainment may be as dismal as Ray Bradbury's vision in *Fahrenheit 451* where lonely wives were selected by lottery to choose what would happen in the day's soap opera or as bright as Badham's "whole new art form." The truth is, however, that it will be the creativity injected more than the technology wielded that will signal the revolutionary or devolutionary changes in computer gaming.

Watch for more coverage of Digital World *and the new frontier of interactive entertainment in upcoming issues of* Computer Gaming World. **CGW**

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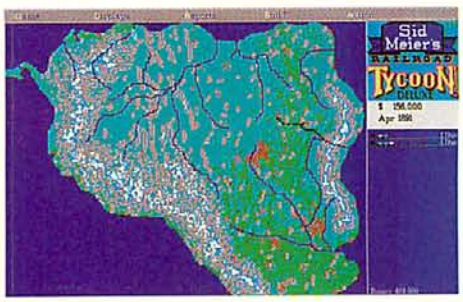
The African Steam

MicroProse's *Railroad Tycoon Deluxe*

by Ed Dille

Fans of *Railroad Tycoon,* the venerable strategy game by Sid "Civilization" Meier and **MicroProse**, will be happy to note that the updated version of the game is more than just a cosmetic facelift of the original. Although *Railroad Tycoon Deluxe (RTD)* does offer VGA graphics in lieu of EGA, extended sound board support, and some very nice digitized cut screens, these features in and of themselves would not have justified the asking price. Fortunately, *RTD* also introduces eleven new engines, two new continents, and several new nuances to the economic model.

In addition to new maps for South America, Africa and the entire USA, there are now new historical periods for the original maps: two more for the Eastern and Western USA maps, and one for Europe. In total, there are



now sixteen different scenarios, each of which is unique because the changes in time period vary the engines and the incomes one can expect from cargo. Combined, these features will challenge the mastery of experienced tycoons and add much more play value to the original design.

The new engine types will be of more interest to railroad purists than to strategic players. The 2-4-0 John Bull (1830) was notable for its pulling power and handling of curves. The 4-4-2 de Glehn Atlantic (1890) was used almost exclusively in France, because French conductors were required to study as mechanics first, and this engine required complex expertise to maintain it. The 4-6-4 Hudson (1920) was noteworthy for express travel because its maximum speed exceeded 100 mph, though it was limited to a load of about 1000 tons. The 4-8-4 Northern (1930) is a critical addition to the game because, in their day, these engines were the largest and most powerful straight passenger locomotives ever built. The DO-DO Centennial (1970) produced a staggering 6,600 hp for a single unit engine, making it the most powerful prime mover locomotive in the world. Among the other inclusions are the 2-CO-CO-2 GG1 (1950), the BO-BO Amtrack F40PH (1980), the 4-4-0 Class S3 (1890), the 4-6-0 Class P8 (1900), the 4-6-2 4500 Class (1910), and the CO-CO Class 1020 (1950).

Those who favor the strategic elements of the original will note that the addition of South American and African scenarios is significant, not only because of the stringent geographical constraints the player will face, but because of the types of economies they represent. The player will discover that Africa and South America produce export economies. Normally, cargo is shipped to a factory or harbor where it creates new cargo that can be shipped elsewhere on the existing rail route, finally ending its journey as revenue in another city. In purely export economies, the player will find that the cargoes arriving at factories become "export goods." This type of cargo has only one destination—a port. As such, in South America and Africa, all rail traffic except mail and passengers is a one way proposition. Further, since the continents are so vast, and the groupings of raw materials are so near the center of each land mass, the player will find that the return trip from the port to the resources tends to be a long, unprofitable haul. As such, developing a successful long term rail net under these conditions is much more difficult than in either the North American or European economies.

The African economy is further complicated by incessant border warfare among the different political factions. While the nuances of these military operations are not present in the model, the player is influenced by their presence nonetheless. These "Brush Wars" are simulated by special cargo shipments of troops to the stations in the game. If the player fails to make a required shipment, the destination station is reduced to a depot and all improvements are destroyed, reflecting the unchecked raiding of insurgent forces. Players will find that the economy changes with the tide of war and that they must respond quickly to these changes to maintain a prosperous line.

Train Bandits have been included to spice up play in the North American scenarios. Robbers will attempt to prey on mail cargoes, as was the style of the day. If the player has a post office in the station of destination for the robbed train, then there is a 33% chance that the robbers will be caught and a $50,000 reward tendered to the player's railroad.

Players will find that the core of the economic model has remained essentially unchanged, though there are some minor tweaks. For example, if the share price of a competing railroad falls below $5 and stays there for too long, there is a chance that the railroad will be dissolved and disappear entirely from the game. Also, for each declared

bankruptcy, the interest required for subsequent bond offerings rises by 1%. As such, after enough bankruptcies, the player will no longer be able to sell any bonds. The manner of making rail car changes has been simplified. Each car placed on the rail line has a base cost of $5,000. After that, the player may shift the types of cars at will and is only charged additional expense when the total number of cars increases. Finally, types and the distances between resources in all of the scenarios have been changed to make the game more closely approximate the realistic hardships faced by the early entrepreneurs of this field.

Railroad Tycoon Deluxe enhances an already classic game in ways that veteran players will appreciate and novice players will adore. It is a strategy game par excellence, one that can be enjoyed even by those not enamored by railroads. This new version only adds to the charm and immense play value of an already charming and playable original. **CGW**

Railroad Tycoon Deluxe

TITLE:	Railroad Tycoon Deluxe
PRICE:	$59.95
SYSTEM:	IBM
REQUIREMENTS:	386-16MHz, VGA graphics
PROTECTION:	Documentation look up
DESIGNER:	Sid Meier with Bruce C. Shelley
PUBLISHER:	Microprose Hunt Valley, MD (410) 771-1151

WALLS OF ROME

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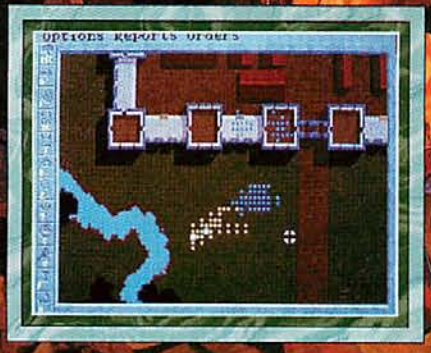

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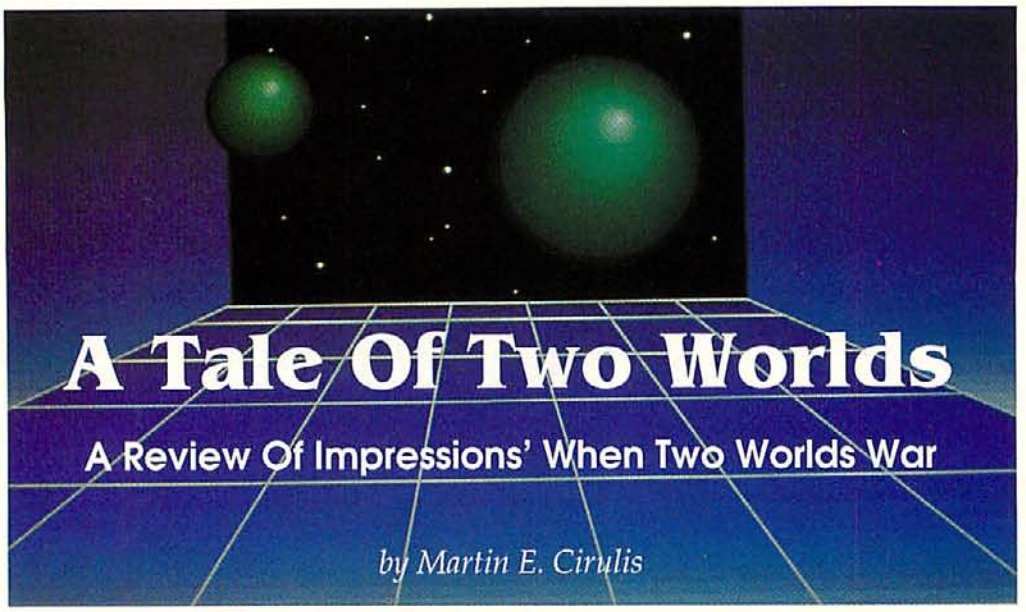

A Tale Of Two Worlds

A Review Of Impressions' When Two Worlds War

by Martin E. Cirulis

It was the best of worlds. It was the worst of worlds. Or maybe it was neither, or both. **Impressions'** *When Two Worlds War (W2WW)* is a game of space conquest, or "spaceploitation." Unlike most such games, however, it does not involve hundreds of planets spread across a huge galaxy far, far away. It brings spacewar up close and personal, one world versus another, *worldo a worldo.* With this tighter focus, one might expect it to make a leap in tactical detail and strategic options. As it turns out, *W2WW* is a mixed-bag, delivering on some fronts, but failing on others.

This spacewar scenario involves three arenas of combat—one's homeworld, space, and the enemy's world. Oddly enough, these three battlefields are all exactly the same size: a 100 by 100 grid of squares. I'm not sure what the scale of these squares is but they count as one distance unit for purposes of both movement and combat, regardless of which arena one is in. To abuse the enemy, one must travel across this space grid, usually carrying units that are non-space capable.

The game can be played in real time or by turns. Turns allow the player the maximum amount of control and awareness, but make the game quite slow and somewhat tedious. In real-time mode, the game is more realistic and enjoyably frantic, but maybe a little too much so. Even at its slowest speed things move a bit too fast on a 386/33 to take advantage of some of the combat options which the game offers. Luckily, the programmers at Impressions gave us an intermediate stage—real-time with a pause button. I found this to be the most pleasurable mode of play. A typical game runs about 2-4 hours and can be saved at any time.

Games can be played against the computer or against another player connected by modem or serial link. Players can choose any two of seven worlds stored in the library or randomly generate a world from the "Setup War" menu. Though the game appears complex initially, novice gamers will be relieved to find an easy-to-follow tutorial in the technical manual and a help mode that identifies the function of any screen "button" simply by pointing at it.

"And In This Corner! ..."

In *W2WW* we are presented with two worlds locked in a tactical war to the death. Units are individual Starfighters, Jets, Transports, Satellites, Tanks and Submarines, and each of these general classes can be modified

in 10 attributes ranging from Speed to Firepower to Carrying Capacity, each of which can be at one of 10 technological levels. These vehicles are referred to, generically, as Military Units (MUs). Each MU is built by and attached to a base that can be constructed by the player on his homeworld. (All production and development takes place on your world, death and mayhem only occur in space and on the enemy world.) One must keep MUs in mind at all times because they are the only victory condition that matters in this game, and the rule is simple: If at the end of a game year a player has no MUs, that's it. Game Over. Thank you for playing. No matter how elegant one's research and production infrastructure is, if one doesn't keep enough MUs around to guard it, forget it. Of course, the opponent has the same problem.

The only other things that the player is required to build are the four basic facilities: Labs, Power Plants, Mines and Farms. The former three are required to accumulate resource points for building and research, while the latter supports MUs in a basic one-to-one ratio. Although farm resources can accumulate and be expended later, it is generally a good idea to have at least the same number of farms as MUs at any given moment. Facilities can be bombed by enemy units, so it is best to build the first few close to one's initial base for a modicum of protection.

As is the current trend in spacewar games, *W2WW* emphasizes the development of "tech" ratings ranging from 1-10 for MU attributes. These tech levels are researched by allocating points created by lab facilities, and can be incorporated into new MU designs or even into old designs, allowing one to upgrade one's current MUs at a fraction of the resource price of building new ones. Like *Spaceward HO!,* the unit design system provides graphics for the various base vehicle types and alters them (though far more subtly and seriously) as one adds higher tech level components. Strangely, the options one puts on a vehicle only increase its production cost;

When Two Worlds War

TITLE:	When Two Worlds War
PRICE:	$59.95
SYSTEM:	IBM
REQUIREMENTS:	386-16MHz recommended, VGA graphics, 7MB hard drive space
PROTECTION:	None
DESIGNER:	Ed Grabowski
PUBLISHER:	Impressions 7 Melrose Drive Farmington, CT 06032-9812 (203) 676-9002

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they have no other effect. For instance, adding armor to a vehicle doesn't slow it down or limit the number of other advancements one could add. As a result, one ends up with odd things like a fighter with ten transport bays fighting as well as one without any.

"You Talkin' Ta Me?"

The centerpiece of this game is its interface, and, as seems to be the newest trend in computer spacewar (*Maelstrom, Star Legions,* etc.), part of the fiction is that the player is in command of a state-of-the-art command console. In this case, it is a slick monster known as the Westock-Waadam Warfare Workstation. This interface allows one to command units, set construction schedules, change theaters of war, and even, in stop/go mode, halt the flow of time, all easily accessed from one view screen and all the pop-up menus a star commander could want. The player can also customize the interface by setting the first five function keys to call up the menus used most often.

Driven by mouse, this interface is exceptionally clear and easy to use. Impressions has made it simple to be working on a design for a new MU but jump to a late breaking battle scene and still see who won. Even slicker is the fact that *W2WW* supports voice recognition for anyone having an *Aria* sound card hidden in the depths of their PC. Lacking the appropriate hardware, I was unable to test this option, but one can imagine that being able to actually bark commands could only enhance the thrill of command.

"Go Right!...NO! MY RIGHT!"

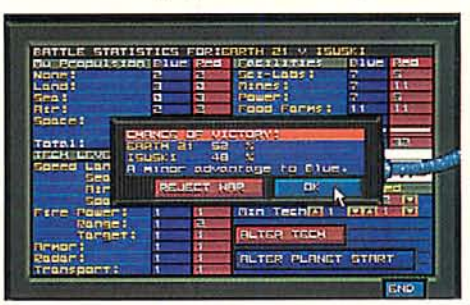
Another interesting innovation is the way the game handles the command of individual MUs. They can be given orders in any of three ways. The most familiar is the "Direct Control" method where the player takes operational control of one MU, guides it to its destinations, and executes its mission by pointing and clicking on the map or the unit. Unfortunately, this method, while allowing one to make surgical strikes, also rivets one's attention on a single unit instead of the whole war—one goes from commander-in-chief to tank jockey in one fell swoop. The second method, the "Q&A Mission," is less direct but allows the player a freer hand to deal with other events. This method allows the same

precision of direct control but also enables one to pre-set the entire mission. The computer merely asks "Where?" and "Do what?" for a series of way points, and executes the series without requiring any further player involvement.

The third option, and potentially the most interesting, is the "Programming" control. *W2WW* comes equipped with a simple, icon-based programming language that allows the player to create detailed flight plans, transports and attacks. There are a large number of pre-programmed routines in the library such as "Bomb Mines" or "Patrol" that one can simply use as commands or as building blocks for one's own missions. While intriguing, this mode does have its drawbacks. The worst is probably the lack of an "If/Then" structure, which is extremely frustrating; even a "Return when fuel low" icon would have been a big help. A subtler but more important flaw is that the command language system isn't really needed in order to win the game. As far as I have seen from my wars, any game can be won by using the library missions and a little Direct Control. The game simply isn't detailed enough to require a player to carefully program a unique series of moves into his MUs.

"I Coulda Been A Contender..."

I have been looking forward to this particular game since I first saw the big glossy ads many months ago, and when I finally got my copy, I was even more impressed. The packaging is slick, the manuals are great, and the look and sound scream quality software. And yet I find the more I play this strategic simulation, the more disappointed I become. *W2WW* is a study in contradictions. Great care has been taken to give the player as many play options as possible, but when it comes down to actual play, most of those options are



irrelevant. There are few things more disappointing than creating a string of ornate strategies in your head and then being forced to accept the fact that the old straight and true is the most effective. As I have said, the game looks great, yet there are crude data structures that show through during play, such as annoying limits in unit numbers and save slots, or the fact that units land on the enemy world in the exact same grid spot as their base locations. Another sloppy point is that while the enemy world is initially hidden in the depths of space, giving a starfighter the "Patrol Enemy World" mission will lead right to it. This negates the excitement of finding the enemy before they find you!

For all the glitz, there is a curious emptiness to this game—a lack of personality, if you will. Many of its potential strengths were left unexploited. Space is a virtual blank slate when a real-time game is ideal for a simple solar system model and gravity. In a game called *When Two Worlds War* one would think that there would be a few specific scenarios modeled after various Sci-Fi classics that deal with the same sort of conflict. It would have taken very little effort to loosely model a scenario on *War of the Worlds*, or even Haldeman's *The Forever War.*

But most disappointing of all is that this game, which promises "*ENORMOUS REPLAY VALUE!*" on the box is just too easy to win against the computer. I have yet to lose a game, even when I choose the wimpiest world and the computer plays the strongest at its highest IQ level. The AI is simply not aggressive or clever enough.

Fortunately most of these flaws fade a bit in two player mode. A few subtler strategies are needed to pull a victory out of the vacuum, but there is a tendency for two players to fall into a very long, drawn out war of attrition where endurance determines the winner more than subtle play. While still an entertaining package, I believe most hard-core wargamers will be disappointed with this offering. I appreciate a great interface as much as the next player, but I don't believe it should be the centerpiece of a strategic game while game play itself seems an afterthought. *W2WW* is not a bad game, but if it were a movie it would be a "*BattleStar Galactica*" when it promised a "*Star Wars.*" **CGW**

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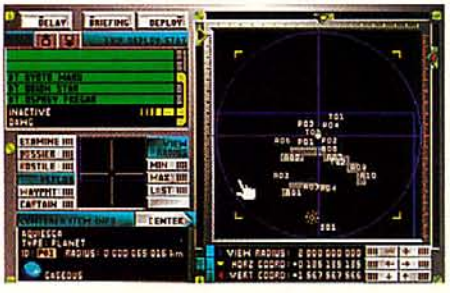
Changing The Rules

Impressions' *Rules of Engagement 2*

by Stanley R. Trevena

In 1990, **Omnitrend** released *Breach 2*, a tactical sci-fi wargame that cast the player as a leader of a squad of nine marines. *Breach 2* was a decent game in its own right, but it was never meant to stand alone. With its release Omnitrend announced an innovative gaming idea under the name *IGS*, or *Interlocking Game System*. The idea was to develop a series of games that would link together to form a gaming universe of unparalleled depth.

In 1991, Omnitrend released *Rules Of Engagement (ROE1)* under the **Mindcraft** label. In *ROE1* the player assumed the role of Fleet Commander of a group of starships. It also linked to *Breach 2* so that when a ship-to-ship boarding action took place, the player had the option of leading the boarding party into battle in the *Breach 2* system. With this first link made, the IGS system had arrived.



Now, with the new release of *Rules of Engagement 2 (ROE2)*, Omnitrend (and their new publisher, **Impressions**) have enhanced the *ROE* system, vastly improving its interface, and leaving the possibility for connection with *Breach 2*, with a promise of *Breach 3* in the near future.

Manual Transmission

Upon opening the box, players will find three manuals. The Fleet Operations Manual is a 164-page detailed document with excellent coverage of all game components including extensive appendices and a comprehensive index (unlike *ROE1*). The Training Manual is a 22-page tutorial and strategy guide for beginners, also with an excellent index. The Builder Manual is a 45 page document that details the mission building process. Players of *ROE1* will not take long to acclimate themselves to the interface, as many of the original elements have been transferred to *ROE2*.

The first thing that players of the original *ROE* will notice is that the Command and Control Systems Interface has been extensively remodeled. Players of *ROE1* complained of confusing button layouts, sharp contrasting colors, and a rigid mode-specific system of control panels. The new system uses a series of quad-panels (quarter screen windows) that can be combined and arranged to the commander's preference. The system allows for the programming of four configurations that can be recalled at the click of a button. *ROE1* had five main panels: Navigation, Communications, Tactical, Data Retrieval and a Save Game panel. In *ROE2*, these five panels have been split into 26 quad-panels depicting specific functions, and two full-screen panels that combine the functions for Navigation and Data Retrieval. This new system is one of the most noticeable improvements to the gaming system and places complete power over the interface under the player's control.

In addition, the color scheme and presentation have been updated to 256-color VGA, and the interface now has a 3-D feel to it. Non-functional buttons and panel areas are now shaded with color gradients to distinguish them from the solid-colored active components. Buttons have both a visual push/pop look and an audible tone to indicate activation. The harsh contrasting colors of *ROE1* have been replaced with more subtle shades that blend in an "eye-gonomically" pleasing scheme.

Planning *cum* Mission

A new game is started in the same way as in *ROE1*. First a Fleet Commander is selected or created, and then a campaign is chosen. A click of the "Make" button and the naming of the game gets things rolling. In *ROE1*, the player selected a mission and was assigned a fleet with captains already at the helm. A unique part of the *ROE* system is a personality component built into all beings in the game (FW, UDP, and Alien). Eighteen personality traits determine how well a captain will perform in a given role and how he/she/it will interact with others. This element has been greatly expanded in *ROE2*. The player must now go through an extensive planning process to set up a mission.

Each component of a ship has a value in Resource Points (RP). These RPs are used in allocating resources for a mission. Each waypoint requires an allocation of RPs, and the player must select and combine ships to make maximum use of these points. There are 50 FW ships provided with the game. Some or all of them will be available in each individual mission. With many missions combined to

Rules of Engagement 2

TITLE:	Rules of Engagement 2
PRICE:	$49.95
SYSTEM:	IBM
REQUIREMENTS:	286-16Mhz, 386-25Mhz with 2 MB RAM recommended, VGA graphics, 8 MB hard drive space
PROTECTION:	None
DESIGNER:	Thomas Carbone, Maurice Molyneaux
PUBLISHER:	Impressions Software, Inc. 222 Third Street, Suite 234 Cambridge, MA 02142

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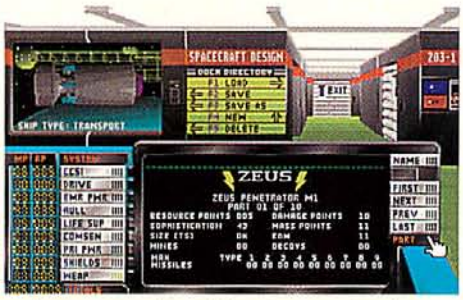


make a campaign, ships that are lost in one mission will be unavailable in future missions.

Once the ships are assigned to waypoints, captains must be assigned to the ships. Here, the interpersonal dynamics of the character's traits must be carefully examined. Since ships at a specific waypoint are often logical candidates for battle groups, personalities and command figures must be carefully selected or missions may fail due to poor crew planning. Nothing is more disappointing than watching as a ship goes its own way during battle, or a trigger happy captain tries his version of "negotiation" in a delicate diplomatic situation.

From the Mission Deployment Screen, the player has access to a scalable system chart, ship information, captain dossiers, profiles of the hostile forces, and a summary of the mission briefing. Several refinements to this screen have been made and several more are planned. As I write, the third update has been released with the fourth only weeks away. Faster methods of scrolling through the ship selection screens have been targeted for fine tuning. [Note: The updates are uploaded to the GAMEPUB forum on CompuServe in the Impressions Library (LIB7). Tom Carbone (CIS id 70300,245), both president and programmer for Omnitrend, is very active in this area and is always open to suggestions and problems from players. Updates are also available from Impressions.]

The missions included with the game are much like those in the original. Players will have to do battle with the hostile UDP forces, capturing outposts, neutralizing enemy ships, securing resources, escorting ships, etc. Some missions will require the player to use many ships scattered about several waypoints to achieve victory. Four campaigns are included with *ROE2:* Basree Cargo (very easy tutorial, no IGS), Doomsday Operation (medium difficulty, one IGS link), Tour of Duty (medium difficulty, many IGS links), and Ill Wind (hard difficulty, several IGS links). All but the Basree Cargo are protected with passwords from the mission builder/editor (to prevent peeking). Passwords are awarded to the player upon successful completion of the campaign.

Yes, Master!

Once in a game the player has a Master Control bar running down the center of the screen. This bar will allow the player to select quad panels and change quad panels to various system-specific functions, and monitor ship status, commander health, mission time limit and game speed controls. The major system buttons will pull up selection lists for Navigation, Communications, Tactical, Data Retrieval, Docking and Repair and Emergency Systems. This is another interface component that has been refined. In *ROE1*, when a selection list was available, only a few items were visible, and the player had to scroll through the long list three choices at a time. The system utilizes pop up selection lists that are much larger and can display many items at once. Some menus are several layers deep, with additional sub-menus for specific selections.

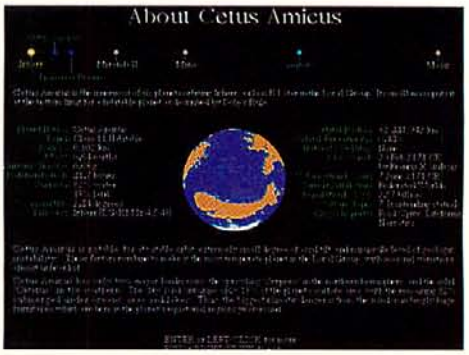
Battle is depicted exactly as in *ROE1*. Ships are represented as small arrow-like icons with alphanumeric designations. Planets, outposts, and waypoints appear as colored dots with alphanumeric designations. Various field types are represented as shaded areas. The player will find that the TACFIR (Tactical Fire) and TACMAN (Tactical Maneuvers) quads should grace many a battle screen.

Breach Of Fate

As mentioned, links to *Breach 2* are available to *ROE2*. If the IGS link option is activated from the settings screen, and the *Breach 2* program is installed in the RULES2 subdirectory, control during a boarding sequence will be handed over to the *Breach 2* program. The transition is seamless and takes the player directly into squad level battle. If the IGS option is disabled, the boarding sequence will be handled automatically by the computer. The player will have no interaction in this sequence and can only watch as two gauges show percentage of ship systems controlled by each side. Unfortunately, *Breach 2* is showing its age. The graphics are crude by today's standards, and many players with newer sound cards complain of the silence when entering the IGS *Breach 2* link. Others complain that often the linked IGS scenarios can take longer than the *ROE2* mission itself. I opted to disable this component until the arrival of *Breach 3*. As with the rest of the game, it is entirely up to the player to decide how these boarding sequences are resolved.

A mission is complete when all the mission objectives have been accomplished. A mission will end if the flagship is destroyed, the fleet commander is killed in a boarding sequence, the flagship surrenders, the flagship is abandoned, or the flagship hyperjumps out of the system. A campaign will end if the player successfully completes it, the enemy fleet runs out of ships, or the FW runs out of ships or captains. Should any of the above occur, a game will revert to the last saved game position.

Audible cues have been added throughout *ROE2*. A female computer voice, A.N.D.I. (Auto Narrative of Damage and Intelligence), has been added to give verbal status messages to the player. She will usually not speak unless specific settings are changed on the ship or the ship gets in trouble. Incoming messages are also acknowledged by A.N.D.I. She does much to create the "suspension of disbelief" that gamers value so much.

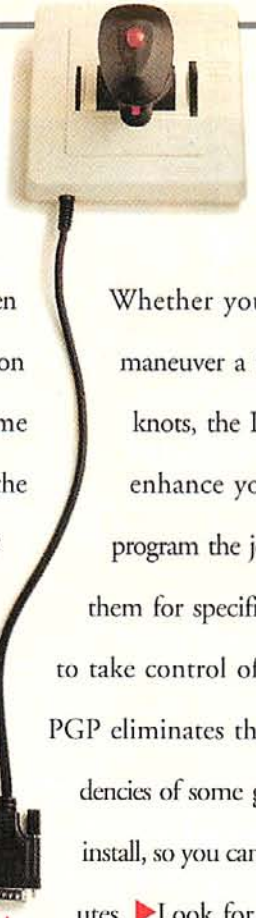


If this were not enough, the mission builder component of *ROE2* has been vastly enhanced. Campaigns can now be constructed in a binary win/lose tree that can contain up to 511 nodes. Players are given total control of almost all aspects of game design; even animated introductory sequences can be created using a program called *PC Animate* from **Pacific Motion, Inc.**

Gaming systems like IGS can be more of a lifestyle than a game. With other games, you buy them, play them and shelve them. But a few come along that allow the user to generate scenarios, customize gaming elements, and essentially take control. These are the games that usually find a permanent home on a player's system. The open-ended nature of these programs unleash the creativeness of the player. Often the player can derive as much enjoyment out of the building of missions as in the playing, and the rest of his or her gaming comrades reap the benefits of additional game play.

If **Maxis** is known in the industry for their "Software Toys," Omnitrend should be known as the producer of "Software Toolboxes." Considering the unlimited possibilities of the *ROE2* mission building tools and the amount of activity already happening on the bulletin boards, *Rules of Engagement 2* could well become the sleeper hit of this year.

Next month: Game strategy and mission building tips for Rules of Engagement 2. CGW



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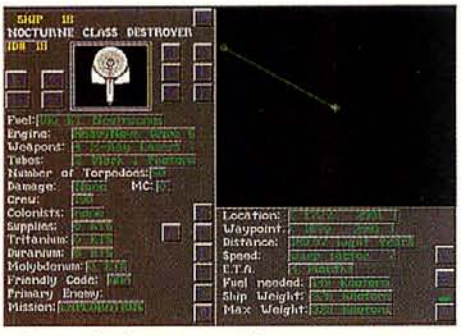
In Cyberspace, Everyone Can Hear Your Modem Scream

A Review Of Tim Wisseman's *VGA Planets 3.0*

by Martin E. Cirulis

Contrary to what game designer Sid Meier has said, computer gamers *do* have friends. Or at least they enjoy reaching out to crush somebody. For the past few years, fans of "spaceploitation" games have had to switch seats at a single computer to enjoy the benefits of social warfare or, recently, they could network with the enjoyable but basic *Spaceward Ho!* But true Machiavellian, multi-player, clash-of-empires-type mayhem via modem have been absent, save for those on commercial networks like **GEnie** or **CompuServe**. Now, though, thanks to the



efforts of a logger-turned-game programmer from California, there is a spaceploitation game that is relatively easy to learn and manage, available as shareware, and comparable to any of the recent entries into this genre.

VGA Planets is a game of exploration, development and warfare that takes place against a huge backdrop of 500 worlds and dozens of starship types. A player can take the role of any of 11 distinct races, all bearing a strong resemblance to those that have appeared in popular Sci-Fi books and movies, and each having their own special abilities

and ship classes. Colonial worlds may also have their own native races that can affect any colony placed on them according to their general racial class.

The game is really meant to be played in conjunction with a bulletin board system of some kind, but there are provisions for single computer and a form of network play. To begin a game, one person must create a new "universe," which is a simple matter of running a special program that allows one to select which races will be available to choose from, and to set various starting parameters (richness of the homeworld, quality of mineral deposits, etc.). Players can then connect with the main computer to download their "turn." Each turn comes in a small file containing all the data the players will need to make their moves from their own copy of *VGA Planets*. When finished, players upload their turn files back to the hosting computer. When everybody has uploaded their files or a predetermined time limit has passed, the host runs a program that compiles all the separate turns into a coherent universe, resolves any conflicts and developments resulting from the players' orders, and then creates a new batch of player files that reflect the new state of the universe. Then, the whole process begins again.

Economic Opportunity

The economics are simple but there are more than a few subtleties involved. Money is generated by the taxation of colonists and native populations, and the selling of supplies generated by factories. To live long and prosper, planets usually require the building of mines, factories and defense bases. The number of facilities each world can build is based on population, which increases at a rate that is directly proportional to the tax rate. Each world has a random amount of four minerals, one of which serves as fuel for starships and is correspondingly valuable. The three other minerals are used in the construction of ships, starbases, torpedoes and fighters.

The use of transponder codes for planets and ships allows players to communicate with one another, forming alliances or involving themselves in inter-empire trade. Expansion is limited by available mineral wealth, so worlds known to be rich in minerals usually provoke "border clashes." Since a starbase can only produce one new ship a turn, one's fleet growth is directly proportional to the number

VGA Planets

TITLE:	VGA Planets 3.0
PRICE:	$15 (Shareware registration)
SYSTEM:	IBM
REQUIREMENTS:	286+, VGA graphics, modem
PROTECTION:	Program-based
# OF PLAYERS:	2-11
DESIGNER/PUBLISHER:	Tim Wisseman PO Box 204 North Fork, CA 93643

of these monster facilities one can build and defend. However, the limit is one starbase per world, so exploration is not only a good idea, but a necessity. It usually takes two or three worlds to supply a starbase with the materials needed to keep producing ships. Starbases are also responsible for paying the upgrade costs of hull, engine, beam and torpedo technologies.

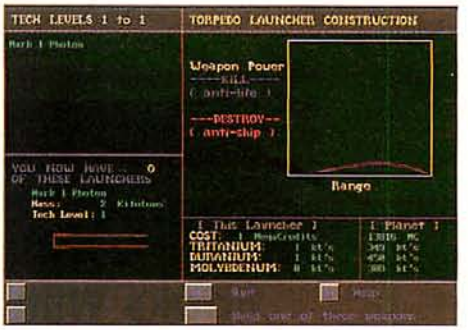
War Machine

Actual combat is either ship-to-ship or ship-to-planetary/starbase defense and is pretty basic. Like something out of an episode of *Star Trek: The Next Generation*, a nice replay-after-the-fact feature lets one watch two antagonists blaze away at each other while they close to a nose-to-nose position. Once ships meet at a location, combat is resolved automatically and players have no involvement except to cheer and groan. Then, damaged ships can limp back to a starbase for repairs. While tactics-oriented gamers may not glean the optimal satisfaction from these sequences, I must confess to a guilty pleasure in watching these replays. In fact, it seems something akin to sitting in the stands at a really good demolition derby.

Intelligence Report

The game has obvious weaknesses. The interface tends to be a little clunky, and there is no AI to automate the opponents for single player use. The compilation and copy protection process can be nerve wracking at times, and mistakes in these processes are not easily forgiven by the program. Yet, these things are minor when one realizes what a great deal Mr. Wisseman is giving the computer gaming public, charging a mere 15 dollars for a registered copy, when much shoddier shareware products are asking store prices ($30-$40) for registration. (Registered versions of *VGA Planets* give the player easier access to tech levels 7-10, which translates into better weapons, engines and more ship hulls from which to choose.)

More importantly, Mr. Wisseman seems to be constantly striving to improve his product and respond to the suggestions of players, a lesson in consumer relations that is lost on many of the mainline software companies. I



played an earlier version of *VGA Planets* and many of the shortcomings I perceived in it were addressed and improved in this latest effort. This is a commendable effort for such a large game. For every rough edge, there are two or three clever touches that show a love for the subject matter that is lacking in many "professional" products.

So, anyone who enjoys spaceploitation should give the shareware version of *VGA Planets 3.0* a try. It can be located in the libraries of an ever growing number of local BBSs, so it is easy to download for playing a game or two with some friends. Of course, someone like Sid who is, at least facetiously, short on that commodity (i.e., friends), can always scan a few BBSs until a message pops up to inform new blood that there is a new game starting up. There is always room for another cosmic Machiavelli. **CGW**

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A Matter Of Life And Death

Books With Disks From The Waite Group Press

by Randall Black

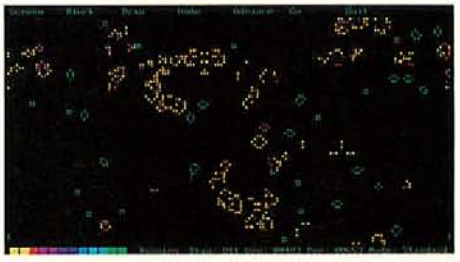
A science writer for more than a decade, Randall Black has written for such publications as *Smithsonian Air & Space, Wildlife Conservation, Science Digest,* and *OMNI.*

If a picture is worth a thousand words, how valuable is a book that's packaged with its own software? That's the idea behind The Waite Group's *Playhouse* series of popular science books, each of which comes with a 5.25-inch floppy disk sealed inside the back cover. The *Playhouse* series is billed by publisher Michael Waite as part of an effort to eventually develop "technology that will replace the book." Whether or not one agrees with Waite's assertion that books are going to "go the way of the buggy whip," an examination of two of the *Playhouse* books is a strong reminder that, however ideas get transmitted in the future, we will still need good writers.

Stephen Prata, author of the *Artificial Life Playhouse: Evolution at Your Fingertips,* serves up a rich banquet of heady ideas, painstakingly laid out and followed by a dessert of eight computer programs, including two excellent versions of John Conway's classic game, *Life.* However, if Prata's work can be considered an expertly prepared seven-course meal, the second book, *Nanotechnology Playhouse: Building Machines from Atoms* by Christopher Lampton, counts as little more than an intellectual hors d'oeuvre. As we will see, even the ingredients for this light weight fare turn out to be of questionable origin, and any trip back to the kitchen would be not to congratulate the chef, but to check the date on the can.

Prata's work shows that the book-with-disk concept really can work by taking advantage of the synergism of two powerful educational media. An excellent writer, Prata gives us a well-researched book that methodically introduces simple concepts and then builds them into complex ideas, drawing on the theories of numerous well-respected scientists. Although the book could stand alone, it is enhanced by the bundled shareware and freeware artificial life programs that give the reader a hands-on appreciation of the theoretical underpinnings Prata describes in print.

Once restricted to mainframes, rudimentary artificial life or A-Life programs now have entered the domain of the newly powerful home computer. The grandpappy of A-Life programs was the *Game of Life,* invented by Cambridge mathematician John Conway in the 1960s. The rules are simple. On a two-dimensional grid of squares, a cell is surrounded by eight squares. If two or three of those neighboring squares contain other



Life goes on.

cells, the cell will survive until the next generation. Cells with fewer than two neighbors will die of loneliness; those with more than three will die of overcrowding. An empty square will come to life in the next generation only if it has exactly three neighbors. That's it.

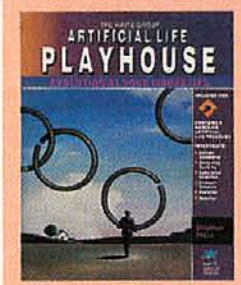
However, as Prata explains, from these simple rules, complex and unexpected patterns emerge depending on the number and position of cells that form the initial population when the program begins. Some clusters of cells will simply die out while others proliferate like, well, life. Some "organisms" attain stability, such as the simple square of four cells that remains static because each cell has three neighbors to keep it alive. Still other organism achieve dynamic stability. The simplest dynamic arrangement is the "spinner" or "blinker," a row of three cells. Each generation, the two end cells die but by their presence not only keep the center cell alive but also give birth to the two cells that flank the three-cell row. This forms a three-cell row perpendicular to the original. The spinner gets its name from the illusion of rotation produced as it flips back and forth from three horizontal cells to three vertical cells.

The spinner is but one of a family of dynamically stable cell colonies possible in Conway's *Life,* some of them huge pulsating escapees from a kaleidoscope that take several stages to return to their original configuration before repeating. Even more fascinating are "gliders," dynamically stable collections of cells that appear to swim across the grid like amoebas in a two-dimensional pond. Even more surprising, gliders can be emitted by stable arrangements of cells known as "guns."

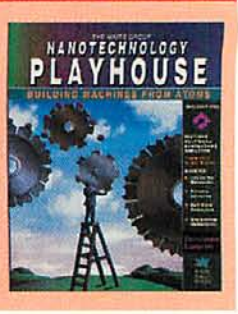
All these forms are among a menagerie of creatures based on the two simple rules of Conway's *Life.* They are an example of "emergent behavior," complex and unexpected phenomena growing out of a simple set of rules. Prata notes that emergent behavior "makes many A-Life projects seem like creating characters for a play, then letting the characters develop the plot."

Artificial Life Playhouse comes with two versions of Conway's *Life,* each with its own strengths. *Green Life* takes Conway's original to new heights, furnishing the computerized critters with a huge wrap-around matrix in which to frolic, and color coding the age of

Artificial Life Playhouse Nanotechnology Playhouse



TITLES:	Artificial Life Playhouse, Nanotechnology Playhouse
PRICE:	$23.95 each
SYSTEM:	IBM
REQUIREMENTS:	Artificial Life Playhouse: 1.5 MB hard drive space, 5.25" floppy drive, EGA, VGA or SVGA graphics, Windows 3.0 or later (required only for LIFE 3000), 5.25" disks can be exchanged for 3.5" Nanotechnology Playhouse: 3 MB hard drive space, 5.25" floppy drive, VGA graphics, supports Sound Blaster
AUTHORS:	Artificial Life: Stephen Prata, Nanotechnology: Christopher Lampton
PUBLISHER:	Waite Group Press Corte Madera, CA (800) 368-9369



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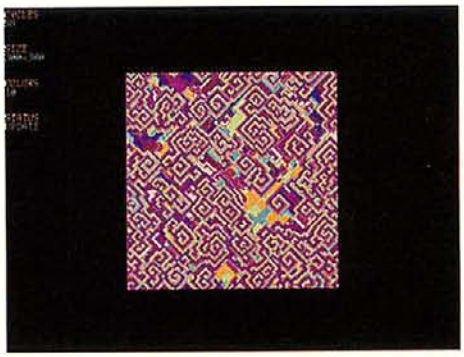
each cell, from yellow, newly born cells to old, stable green ones. Fast on even a mid-range computer, the program gives those of us who once played *Life* on graph paper an experience akin to playing war games with a mouse instead of dice and a hex map. The visual impact can be mesmerizing, and I have heard of at least one poor chap who has become addicted to *Life* in the fast lane. The *Playhouse* also comes equipped with *Life 3000,* which runs only on *Windows* and allows the player to change drastically the rules of Conway's *Life*. Instead of requiring three neighbors to initiate cell birth, *Life 3000* will give life to cells with as few as no neighbors or as many as eight. Likewise, the rules for cell death from "loneliness" can be modified, creating interesting new universes where life flourishes with robust fecundity or hovers constantly on the edge of extinction.

A pretty but slow program called *Cyclic Space* demonstrates how a random collection of cells that "eat" their neighbors, changing prey's color to their own, produces emergent behavior with several distinct stages. Interestingly, the kinds of calculations the program uses lend themselves to "massively parallel" processing. However, using a 386, my impatience soon overcame my desire to watch the process more than once.

Two more programs elucidate the concept of "cumulative selection," which addresses the mystery of how random mutations can result in the seemingly purposeful design of living things. Drawing on Richard Dawkins' book *The Blind Watchmaker,* Prata confronts the old saying that, given enough time, a roomful of monkeys with typewriters could duplicate all of Shakespeare's works. In principle it's true. But Prata points out that, using

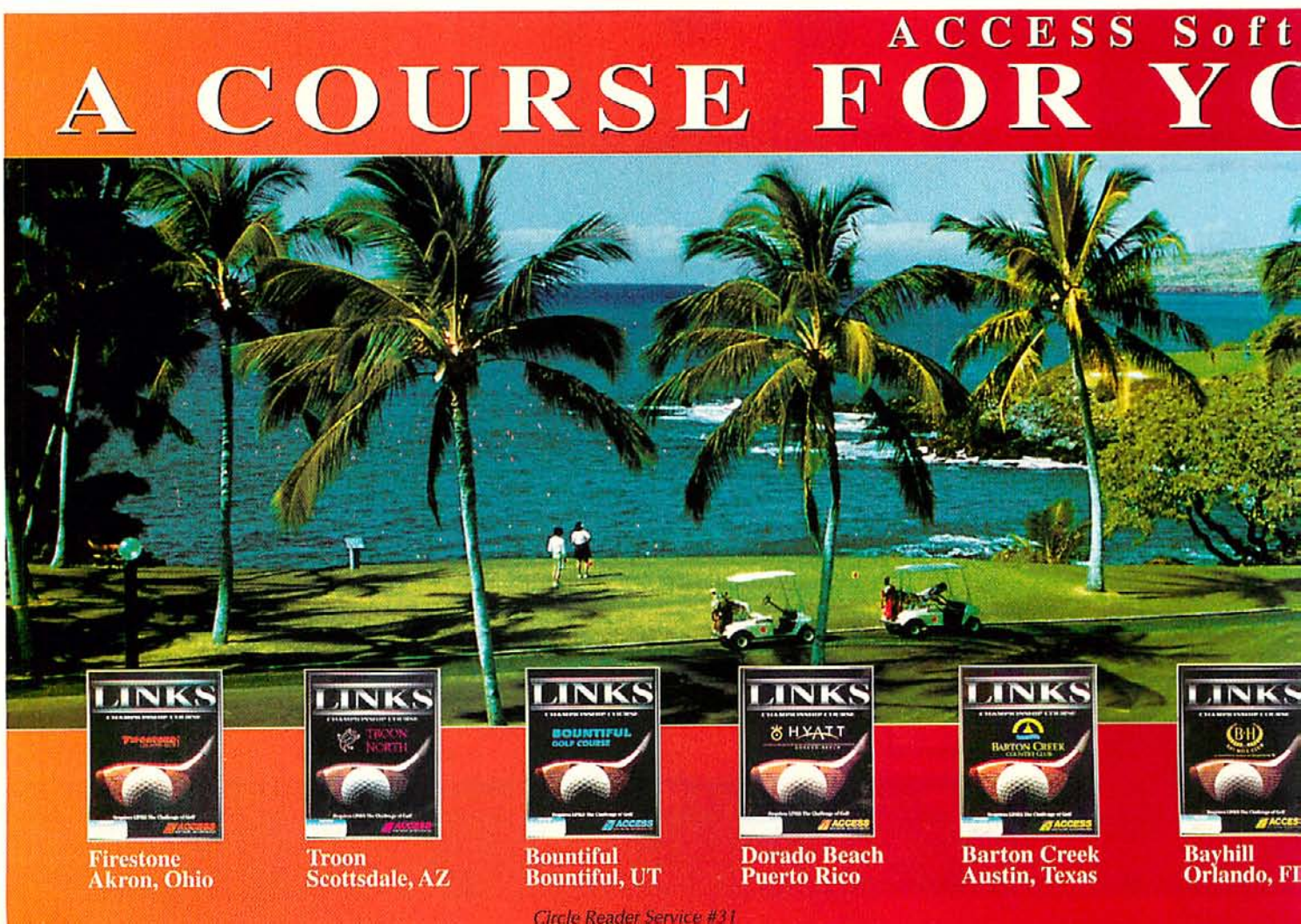


Pattern emerges in *Cyclic Space.*

a computer to generate 8,000 random speeches per second, it would take six quadrillion years to create the short fragment, "Some are born great."

"Now add cumulative selection to the process," writes Prata. "One way to do this is to start with a random speech and generate 20 offspring, each slightly mutated from the original. Then, apply selection by choosing the one offspring closest to the desired speech.... The same computer that would take six quadrillion years to match the target string might take only 124 generations and 0.2 second to reach the target with this method!" The program *WORDEVOL* does essentially that, prompting the user for a string of text and then employing cumulative evolution to reproduce it (also calculating how long it would have taken using a simian typing pool). *BIOMURPHS* is a graphic analog of the same process, generating stick figure mutants and prompting the user to choose one that most closely approximates the desired "species." Interesting teaching tools, these two programs grow stale rather quickly once they have served to make their point.

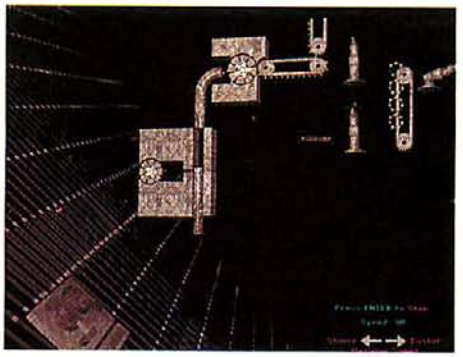
MicroAnts provides a very rough version of the type of mutation and selection by competition found in Maxis' *SimLife* but with nothing like the detail, complexity and ease of interface. If *MicroAnts* has an advantage it is a short learning curve and excellent documentation by Prata. Another program, *Gene,* shows the interaction of plant and animal populations, including genetic mutations that control animal movements. Unfortunately, controlling parameters involves a clumsy interface requiring the creation of ASCII text files. Anyone who likes these programs is going to love *SimLife.*



Bottom line: Prata has done his homework and readers of his book are getting the latest on the exciting field of artificial life.

Nanotechnology Playhouse: Building Machines from Atoms by Christopher Lampton could have been just as good as Prata's work if the author had spent more time researching the topic. Instead, the book is little more than an uncritical compilation of the far-fetched ideas of a single dreamer, Eric Drexler, head of the Foresight Institute in Palo Alto. Drexler also authored the book's foreword and served as a technical reviewer. If we are to believe Drexler's vision, nanomachines will do everything from curing aging to removing carbon dioxide from the atmosphere to solving the problem of world hunger. The basic line of thinking throughout the book is that machines that are really small can perform feats that are impossible for regular-sized machines. One is reminded of 1930's science fiction in which, not microscopic, but gigantic machines solve all of mankind's problems.

Each chapter of Lampton's book is introduced and concluded with a few paragraphs of what qualifies as bad science fiction. In one scenario, workmen wonder what to do with a pile of surplus dirt and end up feeding it to nanomachines that can take the dirt's atoms and rearrange them into everything from groceries to bowling balls. The bulldozer operator says he could use a new set of golf clubs and moments later they are created from the dirt. The workers end up complaining about already having too much "nanostuff" and one hard hat says, "My wife told me that if I bring home another bowling ball, she's going to clobber me with it." One can only wonder how human workers are paid or why they are even needed in this utopian nanofuture.



Nanotechnology Playhouse's Multimedia Demonstration

Nanomachines are self-replicating (i.e. von Neuman machines), capable of sensing their environment through "diffusion," and artificially intelligent: engineering feats that have eluded designers at the macro scale. Glaring technical questions simply go unanswered. What do they use for energy? Perhaps nuclear fusion is another engineering problem that's much simpler to solve at the microscopic level.

The single bundled program is simply a tedious menu of graphics, the most ambitious of which is a Rube Goldberg device constructed of atom-handling gears, belts and a "universal assembler," a doohickey that looks like a flexible microscope eyepiece. These nanomachines apparently bond chemically with atoms and then effortlessly relinquish their grip—*how* we are not told. The net effect is a sound and picture equivalent of hand waving.

Near the end of the book, in a section titled "Is Nanotechnology Possible," we are finally introduced to some skeptics. We learn that an engineer at the Hewlett-Packard Company has been quoted in *Science* magazine as calling Drexler a "flake." However, we also learn that Drexler has written a book, "nearly inaccessible" to the lay reader, that explains nanotechnology "in stupefying technical detail." Then Lampton writes, "Whether [the book] will be criticized, and how effective that criticism will be, was unknown at the time of this writing."

More's the pity because scientists at a number of institutions have made real if less sensational advances by actually creating microscopic gears, axles and even batteries. A book detailing these accomplishments and engaging in level-headed speculation about their future would have been vastly more entertaining and certainly more believable.

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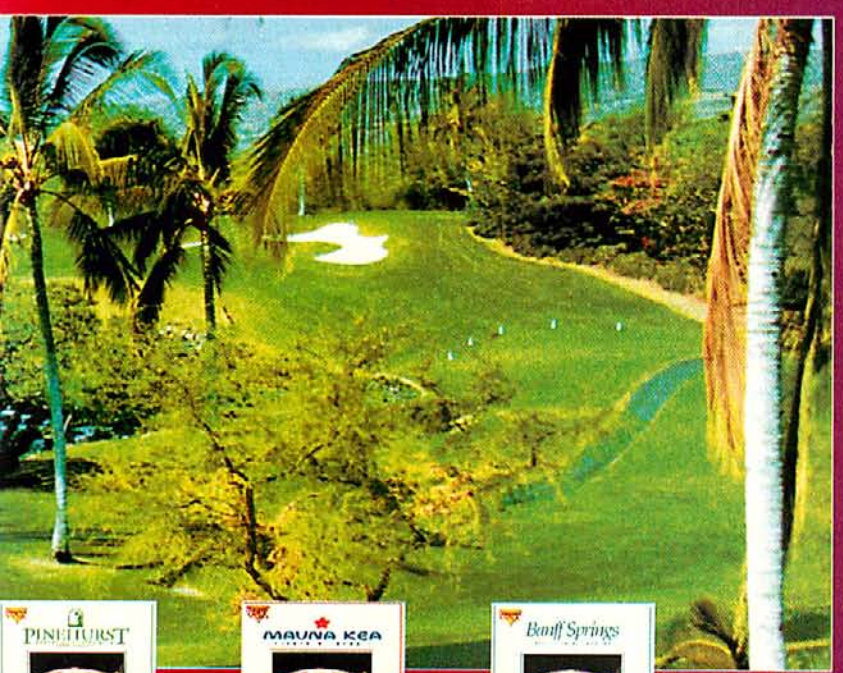

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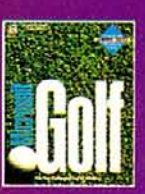

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Letters from Paradise

Dead Pun Expression

I'd just like to say that the slight reduction in puns in the last few issues is long overdue. It isn't enough, though! The pun should be used like a rapier, a quick slashing of wit. By loading every article and every paragraph within that article with some stupid attempt at a pun, you cause not only indigestion, but major distractions from the subject material.

I've got a lot of mean things to say about the puns, but I'll reserve them for later (assuming they don't stop). But I have to think the only reason for the massive pun overload is that your writers (or editors) are so arrogant that they assume they are more humorous than every stand-up comedian in the United States. I say this because the sheer number of puns in some issues is greater than that put out by all of those comedians combined.

Stick to something you are successful at, reviewing computer games, and leave the comedy to HBO and VH-1!

Tim Hunnicutt,
Dayton, OH

We have alerted the false analogy police and want to set the record straight on the use of puns. Puns are not as useful for stand-up comedians because they are as much visual as aural. CGW's editors use them for two reasons. First, because we love to play with, abuse and misconstrue words all of the time. It is an amusing recreation for those of us who have to handle words all day long. By including puns in the magazine, we are simply following the example of the famous mystery writer, the late John D. MacDonald. He said, "My purpose is to entertain myself first and other people second." Admittedly, we are talking about two very different types of writing, but we think the principle holds that when we enjoy what we're doing, it is shared by others.

Second, we use puns rather than the type of humor used in stand-up and broadcast media because they are both visual and short. They don't take up much space and they allow us to break up the text or attempt to get our readers' attention with a quick verbal gambit. As one of the great modern novelists, the late Walker Percy, is reputed to have said, "A good title should be like a good metaphor: It should intrigue without being too baffling or too obvious." I suppose your complaint indicates that we don't succeed as often as we'd like, but we do try to use the puns in subheads and titles as a tease rather than a club.

Before we rest our case, we would like to appeal to the poet, Alexander Pope:
"A perfect judge will read each work of wit.
With the same spirit that its author writ."

The Genesis Of A Thought

And God made *Computer Gaming World* and it was good.

Paul Martin
Bronx, NY

Yeah, but did He have to make us work so hard in order to get it to the printer each issue? We're waiting for the seventh day when the editors get to rest.

Airline Fracture

I am writing to inform you of a mistake in your magazine, albeit a small mistake. On page 76 of your August, 1993 issue, in an article about *IFT-Pro*, you refer to *Airline Transport Pilot*, by **Sublogic**, as *Air Transport Pilot*. I wanted to let you know that this is incorrect. The correct name is *Airline Transport Pilot*.

Ennis Parker
Atlanta, GA

Would you believe it was deleted by line item veto? How about that the editor responsible for fact checking the title failed his sobriety test? Maybe we grounded the correct title under an obscure FCC regulation. Yeah, that's the ticket. First Class, in fact.

The Magic Word

Uh, uh, uh, editor!

You didn't say the magic word!

Dennis Nedry
Industry, CA

Paiktography? Actually, Dennis, we don't know exactly what you mean, but it sure gave us a chuckle around the office.

We *Have* A Plan

I think you should plan your magazine so you can do the whole CES rundown in a single issue. The idea that there simply isn't enough room denotes one of two things: 1) poor planning on your part or 2) a deceptive practice on your part to sell more issues. You must have a low opinion of your readers' intelligence.

Marc Baime
Tampa, FL

In general, the editorial staff reaches the floor of the Consumer Electronics Show when the bulk of the magazine has already reached the printer. We leave a few pages blank in order to cover the hottest trends that we see at the show and try to do a rundown on at least one style of game. These pages are filled at the usual proofing time. Our printer would choke if we left 10+ pages blank until the proofing period. Actually, we thought our readers were intelligent enough to understand that we worked extra hard to insert several pages of late-breaking news into the magazine rather than waiting until we could leisurely publish it all a month later. We have adjusted our production schedule in order to try to provide more timely reviews in the future, but this has nothing to do with scheduled shows which operate independently of our production schedule. We are likely to continue to be confronted with the choice of holding material or printing a portion of a report. Our current editorial philosophy is to get the news out as soon as we can. We think that serves our readers best.

Uncivilized Response

Is there anything to these rumors of a *Civilization* update/add-on/expansion?

Jim Doublas
Jacksonville, FL

Sid Meier is working diligently on CPU Bach *for the 3DO machine. After that, he plans to finish* Sid Meier's Civil War. *That means it will be the middle of next year at the earliest before we could see a new* Civilization *product.*

Modeming Target

I subscribe to *CGW* and I read the article on the *Empire Deluxe* tournament. I'm the one who wrote the note you quoted from after my loss in the first round of the tourney. It appears on page 109 (August), second to the last paragraph. The guy with the best excuse for losing a game. Yea, well guess what? Everybody and his brother wants to play me

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by modem. Oh, it doesn't matter what the game is, they figure it's a cinch to beat me. Thanks for the national attention.

Benjamin Duval
Largo, FL

Gee, Ben. If you'll send in your picture, we'll publish it with a nice overlay of concentric circles. It would apparently serve the same purpose.

Market Hardened

I feel the review of Three-Sixty's *V for Victory: Operation Market Garden* (*CGW* #109, p. 112) was somewhat lacking. The game does have the look and feel of a wargame and I wish it had been evaluated as one. We have tried to play it with two human players a number of times and found it very unbalanced and ahistorical. The German player can slow 30 corps to a virtual standstill and wipe out the British airborne units at his leisure. It is not a "bridge too far" but many bridges too far. The limited intelligence is not limited enough, especially for the German view of Allied units behind Allied lines. The German units move rapidly around the board in strategic movement, allowing reinforcements to arrive at critical terrain earlier than historical. Poor roads, weak supply, Allied air power, a fractured command system and uncertainty about Allied units and intentions made German movement much slower than portrayed in this game. The Germans are not surprised by the attack and can put themselves at maximum supply, as well as move, on the first turn. This makes it almost impossible to duplicate the historical start of the battle. The game has a solid basic system, good graphics and a few bugs, but as a competitive game or simulation of Operation Market Garden, it is lacking.

Roger Miller
Rancho Cordova, CA

Thanks for the additional information. Your observations certainly underscore how differently a game system can be perceived when the opponent uses "real" intelligence to exploit the opportunities allowed rather than "artificial" intelligence to muddle through the game. The reviewer correctly noted that German units controlled by the computer opponent have a tendency to be spineless, even without the limitation on movement.

Squad Breeder?

More reviews of wargames, please. Is there a *Squad Leader* (Avalon Hill boardgame) type computer game out there anywhere?

Doug Webb
Knoxville, TN

Right now, the closest thing to Squad Leader *is an out-of-print game called* Computer Ambush *(Apple II, SSI) and the on-line game,* Sniper! *(CompuServe). The good news is that Avalon Hill has recently signed Atomic Games (developers of the* V for Victory *series for Three-Sixty Pacific) to design and program a computer version of* Squad Leader.

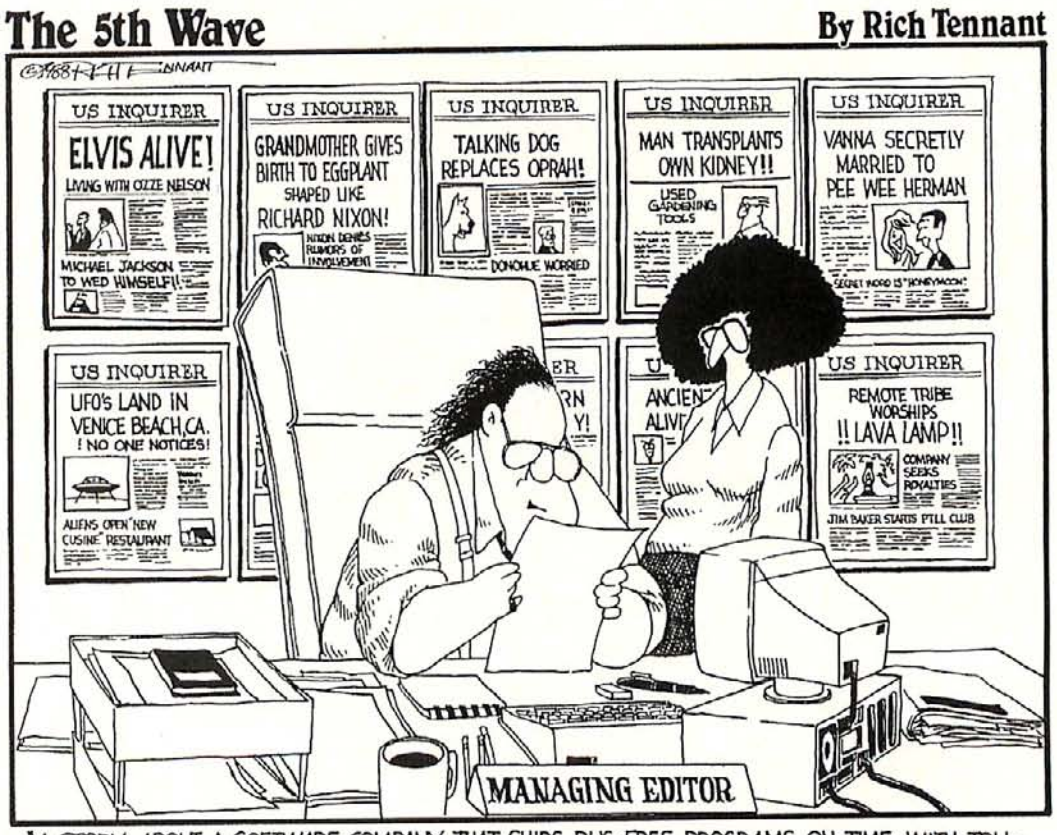
Graphic Glut

Graphics, graphics, graphics and more graphics. I hate graphics. Why can't games go back to EGA or just okay VGA and not spend half of the production time on graphics. I want good wargames and strategy games. I don't want to play a bunch of graphics.

Kevan Antley
Houston, TX

When games with great graphics sell, software publishers assume that gamers want great graphics. When games with lousy or non-existent graphics don't sell, publishers assume that gamers won't buy them. Computer game series that don't have improved graphics see declining sales with each new release.

*Further, wholesalers and retail buyers don't usually spend much time with the games, and they largely base buying decisions on their impressions of CES demos. So, there are two big factors pushing publishers to create better graphics. That's why it is doubly important to vote with our dollars and support great game play, whenever we find it, regardless of the graphics. Many of the favorite games of the editors (*Battles of Napoleon, Federation II, Legends of Future Past, Pacific War, *and* Star Saga, *to name a few) either have no graphics or sub-standard ones.* CGW



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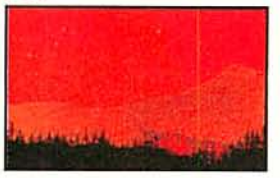

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JOYSTICKS/GAMECARDS

Analog Plus Joystick	22
Command Control Pad	17
Flight Stick	35
Flight Stick Pro	60
Flight Yoke 2000	49
GameCard 2-Port Programmable	18
GameCard III Automatic	24
GameCard III MCA Automatic	39
Intruder 5 Joystick QS-146	27
MAXX Rudder Pedals	38
Mach III Joystick	24
Maxx Flight Yoke II	59
ThrustMaster Weapon MkII	99
Thrustmaster ACM Game Card	26
Thrustmaster Flight Control	62
Thrustmaster Pro Flight Ctrl	106
Thrustmaster Rudder Pedals	106
Virtual Pilot	62

SPEAKERS

ACS100 Speaker Pair	123
ACS300 Speaker Pair	205
Koss HD-6 MPC Speakers	67
Koss Speaker Pair HD-4	40
Koss Speakers Amplified HD-1	22
Labtec CS-800 Speakers	40
Labtec Speakers CS-150	18
Labtec Speakers SS-700	27

CD-ROM TITLES

CD-AD&D Eye of the Beholder 3	42
CD-Adventures of Willy Beamish	39
CD-Animals MPC VERSION	54
CD-Arthur's Teacher Trouble	39
CD-Arts and Entertainment	43
CD-Beauty and the Beast MPC	25
CD-Berlitz Japan Alive	109
CD-Berlitz Think & Talk French	97
CD-Blue Force	39
CD-Case of Cautious Condor	37
CD-Chessmaster 3000 Window	56
CD-Cinemania Movie Guide WIND	52
CD-Clinton	25
CD-Compton's Enc. Comp. Upg	92
CD-Compton's Interactive Ency.	237
CD-Conan The Cimmerian	22
CD-Cookbook Heaven	25
CD-Curse of Enchantia	22
CD-Dinosaur Adventure	42
CD-Dinosaurs! Multimedia Ency.	44
CD-Eco Quest Search for Cetus	39
CD-Elect. Travel California	29
CD-Eric the Unready	34
CD-European Racers	45
CD-F-15 Strike Eagle III	45
CD-Flight Sim: San Francisco	27
CD-Flight Sim: Washington D.C.	27
CD-Funny	25
CD-Global Explorer	87
CD-Global Golf	60
CD-Gobliiins	28
CD-Gobliiins 2	28
CD-Golf Guide MPC (CA,HI)	24
CD-Grammy Awards	37
CD-Grolier Encyclopedia Window	216
CD-Guinness Disk Records MPC	56
CD-Gunship 2000 w/Scenario	34
CD-INCA	39
CD-Indiana Fate of Atlantis	38
CD-Infocom Collection	45
CD-Iron Helix	56

CD-ROM TITLES

CD-Jones in the Fast Lane	39
CD-Just Grandma & Me	33
CD-Jutland	48
CD-Key HomeDesigner Windows	25
CD-Kids Dictionary Windows	37
CD-King's Quest V	39
CD-King's Quest VI	43
CD-Laura Bow II	39
CD-Legend of Kryandia	39
CD-Leisure Suit Larry I Window	39
CD-Lightning	54
CD-Lord of the Rings	43
CD-Lost Treasures Infocom	45
CD-Lost in Time	39
CD-MPC Music Mozart	22
CD-MPC Wizard Diagnostic	12
CD-Mantis Experimental	46
CD-Map Expert	277
CD-Mayo Clinic Family Health	54
CD-Microsoft Golf Windows MPC	49
CD-Multimedia Dinosaurs WIN	52
CD-Multimedia Mozart WIN	52
CD-Multimedia Stravinsky WIN	52
CD-Musical Instruments	52
CD-Photo CD Access Windows	27
CD-ProPhone 1993	125
CD-Protostar MPC	39
CD-Return of Zark	50
CD-Return of the Phantom	39
CD-RingWorld	34
CD-Scrabble Deluxe	25
CD-Secret Weapons Luftwaffe	45
CD-Secret of Monkey Island	45
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CD-Sherlock Detective Volume 2	46
CD-Sherlock Detective Volume 3	46
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Chinon CDX-435 External Drive	476
DigitalEdge CD Mult. Kit	698
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Discovery Int. 16-bit Kit	479
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Edutainment Ext. 16-bit Kit	616
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Explorer Upgrade Kit	380
Fusion CD 16 (Internal)	463
Fusion CD 16E (External)	532
Media Vision Fusion Double CD	578
NEC CD Express External IBM	358
Omni CD Upgrade Kit	314
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Texel Int. w/8-bit AT Adptr	473
Texel Int. w/MCA Adapter	474
Texel Int. w/PAS-16 & Cable	573
WinSound 16 CD-ROM Kit	684

EDUCATION

A-Train	39
AJ World of Discovery	28
Alphabet Blocks for Windows	28
Bailey's Book House	28
Calculus for Windows	52
DinoPark Tycoon	34
Discover Space	34
Facts in Action	28
GMAT w/Cliff Notes	25
GRE w/CLIFFS Notes	25
Kid Cad for Windows	28
KidDesk	22
Language Assistant:French 5.0	56
Language Assistant:Spanish 5.0	56
Logo Writer	55
Math Rabbit Enhanced	28
Mickey's 123's Enhanced	18
Mickey's ABC's Enhanced	18
Millie's Math House	28
Mystery at the Museums	34
Oregon Trail Deluxe VGA	34
Pepper's Adventures in Time	28
Playroom 2.0	28
Ready, Set, Read	28
Rock & Bach Studio	34
SAT Personal Trainer	27
SAT w/Cliff Notes	25
Science Adventure	34
Slater & Charlie	28
TreeHouse	34
Where in Space is Carmen Delux	45

HOME/HOBBIES/FINANCE

AutoMap 3.0	54
AutoMap Upgrade 3.0	39
AutoMap Windows Upgrade 3.0	39
AutoMap for Windows 3.0	54
Betty Crocker Cookbook	20
Betty Crocker Cookbook Windows	20
Bible Study 3.0	84
DoodleMotion Windows	17
Draft & Print	73
Expert Landscape Windows	12
Financial Calculator Personal	39
Financial Calculator Pro	229
Flicks	34
Home Medical Advisor Windows	40
Micro Kitchen Companion	28
Micro Kitchen Companion Window	28
Modern Bride Planner Windows	28
Morgli2	64
Print Shop Deluxe	45
Print Shop Deluxe Comic Chara	25
Print Shop Deluxe Windows	45
Quicken for Windows 2.0	40
Quicken/DOS 6.0	40
Your Deck for Windows	45

RECREATION

688 Attack Sub	23
AD&D:Dark Sun Shattered Lands	45
AD&D:Eye of Beholder II HBook	12
AD&D:Eye of the Beholder II	36
AD&D:Eye of the Beholder III	41
AD&D:Stronghold	36
ATAC: Secret War Against Drugs	34
Aces of Pacific 1946 WWII Miss	18
Aces of the Pacific - VGA	45
Adventures of Willy Beamish	22
Air Bucks 1.2	34
Air Duel	34
Air Force Commander	34
Air Warrior SVGA	34
Aircraft & Scenery Designer	26
Alone in the Dark	34
Amazon The Guardians of Eden	39
Ambush at Sorinor	36
Ancient Art of War in Skies	34
Ashes of Empire	34
B-17 Flying Fortress - VGA	39
Barbie Glamorous Quest	15
Bard's Tale III	29
Battles of Destiny	34
Betrayal at Krondor	39
Birds of Prey	30
Blue Force: The Next of Kin	39
Bridge Master	28
Buzz Aldrin's Race into Space	38
Caesar	34
Caesars Palace Windows	18
Car and Driver	36
Carrier Strike	44
Carriers at War	39
Carriers at War Construction	34
Carriers at War II	39
Castle of Dr. Brain - VGA	18
Castles	18
Castles Campaign Disk	18
Castles II:Siege & Conquest	34
Challenge of the 5 Realms	39
Chessmaster 3000 for Windows	33
Chuck Yeager's Air Combat	20
Civilization	45
Civilization Hint Book	16
Civilization Master Player Ed.	50
Clash of Steel: WWII 1939-45	43
Classic 5 Windows	28
Cobra Mission	39
Cognito for Windows	34
Cohort II	18
Comanche: Mission Disk I	24
Comanche: Mission Disk II	20
Comanche:Maximum Overkill	42
Command HQ Classic	18
Conquered Kingdoms	34
Conquered Kingdoms Scenario	24
Conquest of Japan	34
Conquests of Longbow - VGA	24
Creepers	28
Crosswords Deluxe	20
Dark Seed	28
Darklands Hint Book w/Disk	15
Darklands - VGA	39
Darklands Master Players Ed.	45
Daughter of Serpents	30
Day of the Tentacle Hint Book	10
Day of the Tentacle: Maniac II	34
Deja Vu I & II Windows	40
Dragon Knight III	45
Dune	28
Dune II	34
Eco Quest II Hint Book	9

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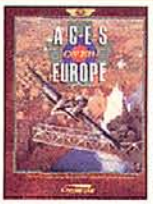

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RECREATION

Eco Quest II:Rainforest 28
Eight Ball Deluxe 33
ElFish 33
Empire Deluxe 34
Eternam 34
F-15 Desert Storm Scenario 18
F-15 Strike Eagle II Classic 18
F-15 Strike Eagle III 45
F-19 Stealth Fighter Classic 18
Falcon 3.0 45
Falcon 3.0 Operation Fight 24
Falcon 3.0:Mig 29/Deadly 34
Family Fun Pak w/Free Castaway 28
Fields of Glory: Waterloo 34
FlashBack 32
Flight Assignment:ATP 34
Flight Sim: New York 30
Flight Sim: Paris Scenery 5.0 30
Flight Sim: San Francisco 30
Flight Sim: Washington D.C. 30
Flight Simulator 5.0 42
Football Pro 39
Freddy Pharkas 38
Freddy Pharkas Hint Book 9
Front Page Sports:Football 39
G-Force 18
Game Modem w/Sierra Network 49
Gary Gribes War in Russia 45
Gobliiins 18
Gobliiins Hint Book 9
Goblins II:The Prince Buffoon 24
Grand Slam Bridge II 30
Great Naval Battle:America 20
Great Naval Battles N.Atlantic 42
Great Naval Battles:Scenario 25
Great Naval Battles:SuperShips 20
Great War 39
HardBall III 33
HardBall III Big League Parks 16
HardBall III Player Disk 16
High Command 42
Home Alone II 25
Hong Kong Mah Jong 30
Hoyles Book of Game I Classic 28
Human's Like You've Never Seen 24
Human's: Insult to Injury 15
INCA 34
INCA Hint Book 9
Incredible Machine 27
Indiana Jones Fate of Atlantis 34
Innocent Until Caught 34
Island of Dr. Brain 28
Jack Nicklaus Signature Golf 38
Jack Nicklaus Signature Tour 1 16
Jack Nicklaus Signature Tour 2 16
Jet Fighter II 38
Jet Fighter II Tactical Bundle 45
Jump Jet 39
KGB 18
King's Quest V - VGA 39
King's Quest V Hint Book 9
King's Quest VI - VGA 45
King's Quest VI Hint Book 9
Kings Table 24
Laffer Utilities 22
Lands of Lore 34
Laura Bow II - VGA 39
Laura Bow II Hint Book 9
Leather Goddesses of Phobos II 39

RECREATION

Legend of Kyrandia 34
Legend of Kyrandia Hint book 9
Legends of Valour 36
Legends of Valour Hint Book 12
Leisure Suit Larry I - VGA 18
Leisure Suit Larry V - VGA 4
Leisure Suit Larry V Hint Book 9
Lemmings 6
Lemmings II 34
Les Manley Lost in L.A 20
Les Manley in L.A. I Book 10
Life & Death 18
Life & Death IIhe Brain 28
Links 24
Links 386 Pro 38
Links Pro:Banff Springs 19
Links 386 Pro:Bellrey Course 19
Links 386 Pro:Innsbrook Course 19
Links 386 Pro:Pinehurst Spring 23
Lost Admiral 34
Lost Files of Sherlock Holmes 41
Lost Treasures of Infocom I 28
Lost Treasures of Infocom II 30
Lost Treasur of Infocom III 18
Lost Vikings 24
Lost in Time 34
Lucas Arts Classic Collection 34
Lure of the Temptress 30
Mantis Experimental Fighter 39
Mantis Speech Pack 18
Master of Orion 34
MechWarrior/BattleTech I & II 20
Metal & Lace 28
Michael Jordan Flight 36
Microsoft Space Simulator 45
Might & Magic Clouds Xeen Hint 15
Might & Magic Clouds of Xeen 39
Might & Magic DarkSide of Xeen 39
Might & Magic III 35
Monopoly Deluxe for Windows 28
More Incredible Machines 27
NHL Hockey 45
National Lampoons:Chess Maniac 39
Ninja Gaiden II 12
Origin FX Screen Saver 24
Pacific War 45
Patriot 40
Perfect General 34
Perfect General Great Battles 24
Perfect General WWII Scenario 22
Pirates! Gold 38
Police Quest I - VGA 18
Police Quest III - VGA 39
Police Quest III Hint Book 9
Pool Shark 18
Populous 18
Populous II 36
Power Politics for Windows 28
Powermonger 30
Prince of Persia II 39
Prince of Persia II Strategy 15
Privateer 47
Prophecy 24
Protostar:War on the Frontier 39
Putt-Putt Fun Pack 27
Quarterpole 28
Quest for Glory I - VGA 18
Quest for Glory III 39
Quest for the Silverseed 15

RECREATION

Rags to Riches 34
Railroad Tycoon Classic 18
Railroad Tycoon Deluxe 39
Railroad Tycoon Master Hint 15
Reach for the Skies 18
Realms of Arkania 34
Realms of Arkania Hint Book 15
Red Baron - VGA 39
Red Baron Mission Builder 18
Red Crystal 34
Red Storm Rising Classic 18
Return of the Phantom 34
Rex Nebular - VGA 39
Rex Nebular Clue Book w/Disk 12
Rex Nebular Master Players Ed. 45
Road & Track Grand Prix 34
Rome:Pathway to Power 28
Rules of Engagement II 39
S.C. Out 33
Savage Empire:Worlds of Ultima 35
Scenery Collection California 34
Scenery Collection USA East 40
Scenery Collection USA West 40
Secret of Monkey Island - VGA 22
Secret of Monkey Island II 22
Seven Cities of Gold 36
Shadow Caster 47
Shadowgate for Windows 34
Sid Meir's Trilogy 28
Silent Service II Classic 18
SimAnt 28
SimAnt for Windows 28
SimCity Classic Windows 24
SimEarth 28
SimEarth Windows 28
SimLife 39

RECREATION

SimLife for Windows 39
Solitaire for Windows 28
Solitaire's Journey 34
Solitaire's Journey Windows 34
Space Quest IV - VGA 24
Space Quest V 39
Space Quest V Hint Book 9
SpaceWard Ho! for Windows 34
Spectre PC 34
SpellCasting 301-Spring Break 34
Star Control II 34
Star Trek: 25th Anniv. Hint Bk 9
Star Trek: 25th Anniversary 35
Street Fighter II 34
Strike Commander - VGA 47
Strike Commander Players Guide 15
Strike Commander Speech Pack 16
Strip Poker III 28
Strip Poker III #1 Data Disk 16
Strip Poker III #2 Data Disk 16
Strip Poker III #3 Data Disk 16
Strip Poker III #4 Data Disk 16
Strip Poker III #5 Data Disk 16
Strip Poker III #6 Data Disk 16
Stunt Island 34
Sub Version 1.0 34
Summoning 35
Syndicate 36
Take-A-Break Pinball Windows 28
Task Force 1942 39
Terminator 2 Chess Wars 34
Terminator 2029 39
Tesserae for Windows 16
Tetris 14
Tetris Classic for Windows 25
Tetris Trio 28

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COMPANY REPORT

Mindcraft: Keeper Of *The Magic Candle's* Flame

CGW Visits Mindcraft's Torrance, CA Headquarters

"It's all Richard Garriott's fault," says Ali Atabek, CEO of expanding **Mindcraft Software**. His pilgrimage into the world of computer games began when he quit smoking. As an internal programmer at a large corporation, he had heard about computer games, so he purchased an Apple II and Lord British's *Ultima II* in order to take his mind off it. As it worked out, he ended up substituting one addiction for another.

Recalling The Past

Ali finished *Ultima II* and purchased a "ton of games" thereafter, but just couldn't find anything that satisfied him as much as the creation of the young Lord British. So, being a programmer himself, Ali purchased a book on 6502 Assembly Language and learned how to program his Apple II. He started work on his first game, but admits that his family and friends didn't believe anything could come of it. He called the game, *Rings of Zilfin*, and sent a copy to every major software publisher. He was absolutely delighted when **Strategic Simulations, Inc.** decided to publish it and, at that point, decided that computer game design could become a career.

Unfortunately, neither Scorpia in particular nor the gaming public in general warmed to *Rings of Zilfin*. Still, Ali learned a lot of lessons from the game's lukewarm performance and formed a fledgling company, **Mindcraft**, to create and publish the game which would be called *The Magic Candle*. His wife, Ugur Atabek, and longtime partner, Jim Thomas, formed the company with him. **Electronic Arts** showed a bit of interest in the game's design document and a contract was signed. Unfortunately, this was at the point when EA was losing Joe Ybarra (onetime head of Interactive Stories at EA, former President of **Infocom** and current developer of TSN's *Shadow of Yserbius*) and essentially, reducing the department to one lone and overworked producer. EA backed off and Ali found himself with a product and no way to distribute it.

Mindcraft marketing director Lawrence Norman has an informal style.

He tried to make Mindcraft an Affiliated Label of EA, but EA's distribution arm wanted companies with product lines, not single products (they even turned down **New World Computing** with its successful *Might and Magic* during this period). So, Ali came up with an alternative plan. He would become an affiliated label of one of EA's affiliated labels. He struck a deal with Brett Miles of **Miles Computing** and *The Magic Candle* was distributed by **Electronic Arts Distribution**. This was good. *TMC* won *CGW*'s Computer Role-Playing Game of the Year (1989) and Mindcraft was on its way.

Or was it? Miles Computing was running into a cash-flow crisis and couldn't pay their bills. Mindcraft and Miles entered into litigation. Miles went under, but not before Mindcraft had lost all of the potential sales momentum from having the CRPG of the Year.

Ali and his partners tried other approaches. They marketed an action game, *The Keys To Maramon*, and reached an agreement with **MicroProse** to handle the distribution under their **Medalist** distribution program. This agreement functioned slightly better than the previous one, but neither the initial release nor *The Magic Candle II* managed the critical or popular success of the original *TMC*. Also, the company was still small enough (only three-to-four people working on the products) that both products reached the market later than either Mindcraft or MicroProse had expected. As a result, they had a dated appearance and the designs themselves lacked the marketing research to know that mouse support was now a necessary feature.

By this time, Ali and his partners realized that their tiny shop could not publish enough games to provide the cash flow they needed to stay alive. They looked for a strategic relationship with another software company in the same boat and ended up teaming with **Omnitrend Software**. Omnitrend was another publisher of niche software and didn't seem to be able to get the kind of distribution that their products deserved. Ali took a page out of an earlier playbook and made Omnitrend an affiliate label of Mindcraft as Mindcraft finally became an affiliated label of Electronic Arts. Though the deal wherein Mindcraft distributed *Breach 2* and *Rules of Engagement* only lasted a couple of years, it lasted long enough to get Mindcraft's production/distribution cycle going.

CEO Ali Atabek examines cover painting for *Dominion*.

When the Omnitrend relationship ended (Omnitrend now has a strategic relationship with **Impressions**), Mindcraft was publishing six titles per year on its own with a staff that had grown to around 30 employees. This year, Mindcraft plans to launch eight of its own titles, and its 40 employees are excited about the company's potential.

Foretelling The Future

Mindcraft's employees are divided into project teams that usually have both a project leader and an analyst. The latter serves in much the capacity as a producer would at other companies, but is also responsible for helping to design the game, create maps, design missions and even coordinate testing. The project leader is sometimes a programmer, but is always responsible for seeing that each facet of the game is coming together smoothly. As a result of this Japanese model of production teams, Ali has learned to put complementary teammates together in terms of interests, personalities and work ethic.

"It is impossible, I've found out, to put a programmer on a project for a type of game they don't enjoy," he says. Hence, anyone wandering the office suite belonging to Mindcraft is apt to feel a bit of excitement and

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Amazing Computing, Nov. '92

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Chicago Tribune, Sept. 25, '92

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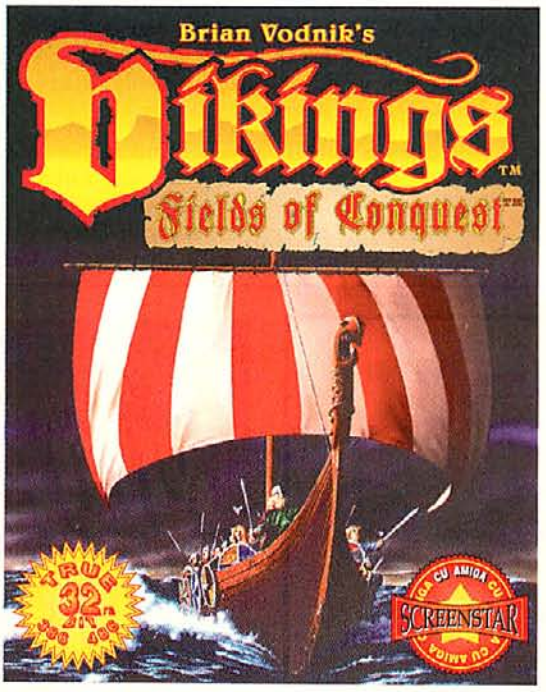

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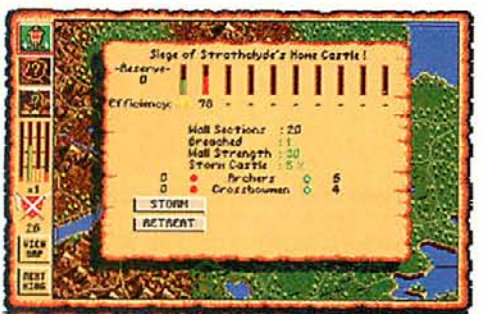
Looking at the overview map, we see an even game in progress.



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possessive pride as they pass from office to office and project team to project team. Peter Akemann, the AI programmer on *Walls of Rome*, the historical sequel to *Siege*, is so focused on the AI routines that he isn't concerned with the way art and design is coming together in other ways. He sits isolated from the rest of the team, working on his algorithms until that day when he anticipates returning to his Ph.D. in mathematics. Jamie

Gryphon Masters' design team includes (l-r) Eddie Del Castillo, Kurt Depner, Don Likeness, and Jamie Fristrom.

Fristrom, the project leader on *Gryphon Masters*, a CRPG with a new 3-D look to it that Mindcraft calls "3Dsometric," believes in grouping the entire team together in a single room where they can boisterously brainstorm ideas back and forth, a cerebral weather front of stimulus. The designer of *Dominion* (Mindcraft's first 256-color SVGA game), Patrick Hughes, is something of a loner in his development approach. Mindcraft makes allowances for all of these differing styles.

As a result, the future looks very interesting with regard to Mindcraft releases. *Dominion* will not only feature state-of-the-art SVGA graphics, but looks like a very sophisticated map-based strategy game with plenty of economics and political involvement (diplomacy, trade, war) to keep the pot boiling. Hughes believes his game is more realistic than most in that there is a limited population/production base to the world. Production is based upon population, a resource that military build-up drains. Without population, the player will lose.

Gryphon Masters is the largest product that Mindcraft has ever attempted. A CRPG with an Irish/Celtic feel, it will have a completely new look to the terrain, and Eddie Del Castillo's plot combines with Kurt Depner's dialogue to create a whole new realm of possibilities. When asked what the best part of the game was, the team readily replied that it was its rich world with characters that had plenty of shades of gray.

In addition to these games, Mindcraft intends to build upon the success of: *Siege* with *Walls of Rome* (a historical game with much improved AI), *The Magic Candle* with *Bloodstone* (the last game to be set in that world),

Artists Dan Burke, Juan Galceron and Steve Burke (l-r) demo an electronic tablet.

and *Tegel's Mercenaries* with *Strike Squad* (a fast-moving real-time space opera game of small unit action). In addition, they have just reached an agreement to distribute the nation's leading *Go* game and are working on a sci-fi strategy game with the working title *Mechamender* (sort of *Dune II* meets the *BattleTech* universe).

Will these titles propel Mindcraft to the top? We don't know. What we do know is that the staff of Mindcraft believes in their products and that their enthusiasm is catching. We also know that Mindcraft is careful enough with the production costs that most of their titles break even at a sales level far below other companies in the industry. That means this company is likely to be around for a long time to come. CGW

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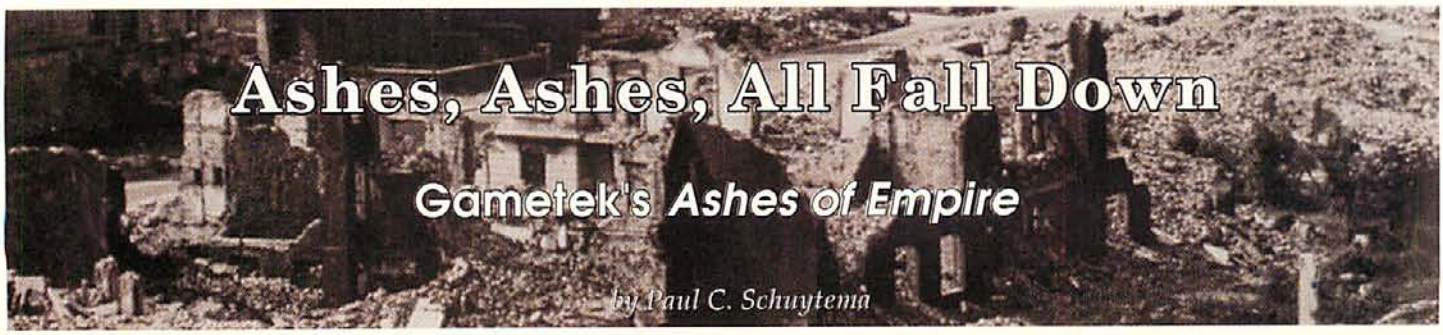


Ashes, Ashes, All Fall Down

Gametek's *Ashes of Empire*

by Paul C. Schuytema

With the world changing so fast that even the most diligent cartographers cannot keep up, the task of enabling international stability is a daunting one. Every week, a new conflict erupts as people attempt to balance their national pride and identity with the need to survive. Nowhere is this conflict more evident than in Eastern Europe, where United Nations troops, in their bleach-white transports, can only observe and not intervene.

But what if the UN's role was not merely observational? What if they had the power to intervene, to attempt to bring order and democratic peace to the chaos? What could someone do, if given strategic carte blanche and a sizable cache of resources and sent into the fray in Eastern Europe or the Commonwealth of Independent States?

Gametek's latest game, *Ashes of Empire*, allows us to explore that option. They have created a fictional country, the Confederation of Syndicalist Republics (CSR), which is breaking apart at the seams. The player's goals are simple: bring peace and democratic harmony to the CSR.

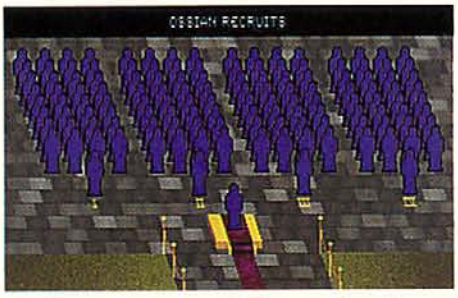
Back In The CSR

Obviously, the CSR is a country which closely echoes the former USSR and the Commonwealth of Independent States. Once the kingdom of Ossia, the lands were usurped by the totalitarian Syndicalist Party. Now (the game begins on January 1, 1993), the CSR is crumbling, central authority has decayed, and each of the five republics are struggling with national identity, economic hardship and military confusion.

So what kind of game is *Ashes of Empire*? Is it a wargame? Not really, since combat makes up only a small portion of the actual game. Is it a role-playing game? No. The player, although a commander of the United Community (UC), isn't really an individual character with skills and abilities. The player is an individual who commands supplies and resources. Is *Ashes* an action game? No, though the player will have to pilot several combat vehicles from a cockpit perspective. Then what is it? For lack of a better pigeonhole, it is a logistical game. The player is akin to a logistics and diplomatic general, an agent of the UC who must juggle military might, diplomatic acumen, and careful planning to recruit supporters to the cause and pacify the CSR's provinces.

Layers of easily-reachable interfaces will help in the task of pacifying the CSR's republics. There are menus for checking supplies and recruits, fractal-generated topographical maps, movement maps of each province, an icon-based system for interacting with the professional class, and screens that allow the player to view myriad statistics.

Much of the movement in the game's 2.8 million square miles of terrain is handled through a generic vehicle interface, similar to a flight-sim, but allowing the player to be either on foot, driving, flying or operating a submarine.



Because of its logistical focus and its abstract representation of the world, *Ashes of Empire* truly breaks new ground. In doing so, however, it reveals major weaknesses. Logistical games of this magnitude are a new breed, and I'd wager that not many people have enjoyed a gaming experience such as *Ashes*. It's a new way to approach a game, and because of that, it might turn off some people who are looking for more depth, or refinement of an already established genre. Still, if a game is truly revolutionary, that hurdle can be overcome. A more important litmus test is whether it provides a satisfying, rewarding experience.

Sadly, *Ashes of Empire* comes up short. The main action of the game, which consumes perhaps 75 percent of playing time, is moving from village to village with either an instant "airlift" or by piloting a vehicle in the sim environment. When in the village, the player recruits individuals to gain control of buildings, supplies, and to garner the names of other important individuals. Unfortunately, even though the player is only given a limited amount of time to accomplish this task in each province, the pace is rather plodding and devoid of any intense challenge.

A player who is meticulous, who keeps track of all his supplies, the time and the names and locations of the various professionals, will have little trouble advancing in this game. The level of challenge in *Ashes* rarely escalates, except for brief moments of military angst and an increased need for speedy play as time runs out.

An example of this is evident when recruiting a "citizen" to control a building. They usually want something in exchange, such as food, medicine or clothes. If the player has enough supplies, he can click the barter button and recruit them instantly. Sometimes their demands are paltry, such as a single cask of wine, so barter is the best course of attack. Other times, they ask for more than it is prudent to part with, so one may attempt to use one of the eight persuasion icons, from charm to threat of force. Only two approaches will work, and a failed attempt reduces the options and takes time. Simply clicking on each icon will eventually yield their service and control of the building, with the only penalty being time spent. This approach to use either barter or to persuade, and incur a time penalty for failure, is solid in conception but weak in execution, and echoes some of the major flaws in the game. Picking a persuasion icon is pure guesswork. There is no interaction between the player and the citizen for even an educated guess. Also, there is no penalty, except for time spent, in trying every method until one works. This just doesn't feel right, because an individual who first tries threats, then trickery, then friendship, then pleading will have lost all credibility in the real world.

Perhaps, though, I am not being fair to *Ashes of Empire*. Comparing the game to the myriad of war, adventure and simulators already in the market is comparing apples to oranges. To be completely frank, using that

Ashes of Empire

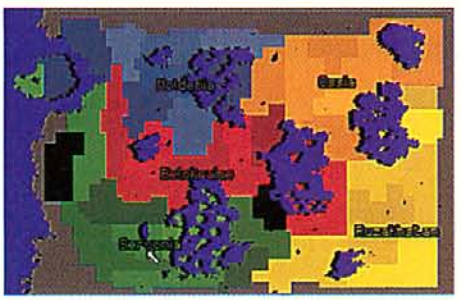
TITLE:	Ashes of Empire
PRICE:	$59.95
SYSTEM:	IBM
REQUIREMENTS:	2MB RAM, VGA/MCGA graphics, 3.5MB hard drive space
PROTECTION:	None
DESIGNER:	Mike Singleton
PUBLISHER:	Gametek 2999 N.E. 191st Street, Suite 800 North Miami Beach, Florida 33180 (305) 935-3995

litmus test, *Ashes* comes up lacking on challenge and exciting game play. Perhaps, though, there are more important issues which can be explored through computer entertainment. In my mind, *Ashes of Empire* is more akin to *Shadow President* than any other game I've seen; like D.C. True's game of global politics, it is a logistical puzzle to be solved, and one which elucidates the complex world in which we live.

By working through *Ashes of Empire*, one can interactively explore the layers upon layers (perhaps an onionskin metaphor is appropriate here) of relationships playing against each other as one attempts to transform a dinosaur of a country, the CSR, into a modern, democratic state. Ethnic rivalries must be diminished by garnering votes and the support of influential people. Necessary structures, such as hospitals and warehouses, must be constructed, while barracks and military-production factories must be destroyed.

More than anything, *Ashes of Empire* is an exercise in "interdependence diplomacy," a logistical tug-of-war between the tangible and the intangible as one attempts to stop and eventually reverse the totalitarian inertia of a socialist dictatorship gone wrong. On that level, *Ashes of Empire* succeeds very well indeed, and provides the player with an interactive education and thought puzzle which is highly topical in today's changing world.

Ashes does falter under some new-release bugs, such as news headlines which flash by too fast for the player to read. In addition, there are no engine sounds to give the feel of flight when piloting any of the aircraft. Frankly, crashes are far too common due to this lack of feedback and an overall lack of simulation "feel." Fortunately, it is a simple task for those who have crashed to call up their reserves and have a vehicle of choice delivered automatically. Indeed, players on foot can even immobilize enemy vehicles and climb aboard.



One programming oddity is fairly entertaining, though. Occasionally, when flying in the auto-travel mode, the landscape flips upside down, or the craft rises higher and higher, until the entire landscape is just a speck below. While not adding anything to the game, the free fall back to the terrain level is visually exciting.

Do You Have Your Papers?

The package includes a tutorial video which moves so quickly, it is likely to scare many people off and a lengthy, 160+ page instruction manual which provides an obtuse instructional set to the game. Actually, figuring out how things work is more of a trial and error affair, since the rules are more reminiscent of Avalon Hill's *Squad Leader* boardgames than a computer game. A *written* tutorial would have been extremely helpful. Unfortunately, the bulk of the manual features a wealth of background information on the CSR's provinces, news headlines, and several short stories which is *not* essential for game play. It supports the suspended disbelief of the game world for players, but doesn't really help the gamer in understanding the mechanics of the game.

I must tip my hat to designer Mike Singleton for presenting us with a truly fresh gaming experience. I will hedge my praise slightly by saying that, for the moment, *Ashes of Empire* is a touch too esoteric to provide the general gaming audience with a wholly satisfying experience, and a bit too loose in its design to satisfy the hard-core. This type of game needs several generations of development before it will cross into the mainstream as a viable, yet important genre. It's about time, though, that a game like *Ashes of Empire* took the first important step. **CGW**

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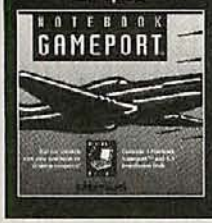

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Bloodstone 27
Blue Force 43
Body Illustrated Dual 48
Bridge 7.0 32
Bridge Master Windows 37
Caesar 37
Carrier Strike 43
Carriers at War 43
Carriers at War 2.....43
Carriers War: Construction Kit 37
Castle of Dr. Brain 32
Castles 2 - Siege & Conquest..32
Celtic Legends 32
Center Court Tennis 15
Challenge of the 5 Realms 42
Champions 37
Chess Maniac 5 PC 43
Civilization Master Player's 47
Clash of Steel 43
Coaster 27
Cobra Mission 47
Cohort II 22
Comanche: Maximum Overkill 47
Comanche Mission Disk 1 28
Comanche:Mission Disk 2 28
Command Adv. Starship 43
Conquered Kingdoms 37
Conquered Kingdoms Disk 1...27
Conquest of Longbow 43
Creepers 32
Crusaders of the Dark Savant 43
Daemonsgate 37
Dark Side of Xeen 45
Dark Sun: Shattered Lands 50
Daughter of Serpents 21
Deja Vu I & II:Casebook of Ace Harding 33
Delta V.....43
Design Your Own Railroad 37
Discovery:Steps of Columbus .37
Doom 47
Dragon Knight 3.....43
Dune 2: Building of a Dynasty 32
Earth Invasion.....27
EarthQuest 37
Eco-Quest 2 32
Eco-Saurus 27
Eight Ball Deluxe 43
Empire Deluxe 37
Eric the Unready 37
Eternam 37
Eye of the Beholder 1,2,3 47
Eye of the Beholder 3 37
Falcon 3.0 47
Falcon 3.0 Mig 29 Mission 37
Falcon 3.0 Fighting Tiger 27
Family Fun Pack 32
Fatty Bear's Birthday Surprise 33
Femme Fatale 27
Femme Fatale Data Disk 1 18
Femme Fatale Data Disk 2 18
Femme Fatale Data Disk 3 18
Femme Fatale Data Disk 4 18
Fields of Glory 37
Flashback 35
Flight 701 20
Flixmix 32
Freddy Pharkas 43
Front Page Sports: Football 43
Gary Grigsby's Pacific War 47
Gary Grigsby's War in Russia ..47
Gateway 2 37
Gateway II Homeworld 37
Gearworks 32
Global Domination.....37
Gods 27
Grammar Gremlins 32
Grand Slam Bridge 2 33
Graue Wolf Aces of the Deep .42
Great Naval Battles 47
Hardball 3 37
Hardball 3 Stadium Disk 19
Hardball III Players Disk 19
Harpoon Challenger SIG. 52
Harpoon Designer Series 2 27
Headline Harry VGA 37
High Command47
Hired Guns 37
Hong Kong Mahjong Pro 33
Hoyle's Book of Games 3 32
Hoyle's Book of Games 4 32
Hoyles Classic Card Games ...32
Inca 42
Incredible Machine 32
Indiana Jones IV Atlantis 40
IndyCar Racing 47
Innocent Until Caught 37
International Golf 32
Island of Dr. Brain 32
Isle of the Dead.....37
Italy Scenery Disk 52
Jagged Alliance 47
Jet Fighter 2 Bundle 47
Jordan In Flight 47
Jump Jet 43
Jurrassic Art 39
Kasparov's Gambit.....37
Kid Pix 37
Kid Works 32
Kid Works 2 37
King's Quest 6 47
King's Ransom 37
Koshan Conspiracy 37
Kronolog The Nazi Paradox.....43
Lands of Lore 37
Legacy Realm of Terror 43
Legal Letter Works 47
Leisure Suit Larry 5 27
Letter Works 47
Life & Death II: The Brain 32
Links 386 Course Disk Bellfry ..22
Links 386 Pro 42
Links Course Banff Springs 22
Links Course Disk: Bountiful ..22
Links Course: Mauna Kea 22
Lost Files of Sherlock Holmes 30
Lost Treasures of Infocom 2 ..32
Lost Vikings 32
Lucky's Casino.....37
Lunar Command 37
Maelstrom 33
MM2 Day of Tentacle 40
Mantis: Experimental Fighter ..43
Mario Teaches Typing 27
Masters of Orion 37
Math & Me 22
Math Blaster Plus 32
Math Rabbit Enhanced.....32
MegaFortress:Flight Old Dog ..28
Megalomania 32
Metal and Lace 30
Mickey's ABC's 2.0 22
Microsoft Flight Simulator 5.0 45
Might & Magic 4: Clouds Xeen 43
Naval Battles:America Atlantic 22
Naval Battles:Scenario Builder 29
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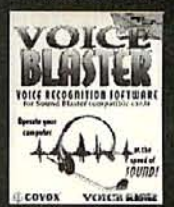

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Quarterpole 43
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Quest for Glory III 43
Ragnarock 37
Rags to Riches 37
Railroad Tycoon Classic 22
Railroad Tycoon Deluxe 43
Rampart 29
Reader Rabbit 2 37
Reading & Me 27
Realms of Arkania 37
Red Baron 43
Red Crystal.....37
Return of the Phantom.....37
Return to Zork 43
RingWorld 37
Rules of Engagement 2 40
Sales Letter Works 47
Scenery Collection Set A 37
Scenery Collection: Set B 37
Scenery Enhancement Editor ..27
Scenery Grand Canyon 22
Scenery Upgrade: Tokyo Japan 22
Scooter's Magic Castle 33
Seawolf 43
Secret of Monkey Island II 40
Shadow President 43
Shadowcaster 43
Sharif on Bridge 32
Shuttle Space Flight 37
Siege Walls of Rome 37
Silent Service 2 Classic 22
Sim Ant 37
Sim Ant Windows 37
Sim City 30
Sim City 2000 43
Sim City Classic 27
Sim City Windows 37
Sim Earth 37
Sim Earth Windows 37
Sim Farm.....37
Sim Farm 37
Sim Life 42
Slater Charlie Go Camping 32
Solitaire's Journey 37
Space Quest 5 37
Spaceward Ho! 37
Speed Reader for Windows 32
Spell It Plus 32
Spellcasting 301 37
SPROUT! 37
Star Trek 25th Anniversary 37
Star Trek Judgement Rights 37
Star Trek Next Generation - 47
Stonekeep 52
Street Fighter II 30
Strike Commander Speech 22
Strike Squad 37
Strip Poker 3 32
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The Elder Scrolls The Arena 43
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The Labyrinth 37
The Lost Tribe 27
Theatre of War 33
Tom Landry Football Deluxe 32
Tony Larussa Baseball 2 40
Tony Larussa II AL/NL Stad 19
Tony Larussa II Fantasy Draft .16
Tony Larussa II Player Disk 16
Tornado 47
Tristan Pinball 32
U.S. Atlas for Windows 54
Ultima 7: Forge of Virtue 22
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Ultima Underworld II 52
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Gameport 2 MCA	22
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Hare Raising/Sound Source	24
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Icontroller for Laptops	49
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Jetsons Game 5.25	11
King's Bounty	14
L' Empereur 5.25	29
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Legend of Excaliber	19
Legend of Kyrandia	19
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Links Course Troon North	9
Lost Treasures Infocom Mac	34
Mach I	17
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Mario is Missing	24
Martian Memorandum	19
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McGee Bundle	22
Mercenaries	29
Mickey's Memory Challenge	14
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Office Design	9
Omega Joystick	9
Oregon Trail Deluxe	29
Oregon Trail IBM	27
Oregon Trail Mac	24
Origin FX Screen Saver	19
Pacioli 2000 V.2	24
Panzer Battles Macintosh	14
Paperboy 2	14
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Personnel Readyworks	49
PowerGame Bundle	44
Pro Football Analyst ON	19
Puzzles & Stories	7
QS161 PC Pack	34
Reading Adventures in Oz	29
Remote Control 5.25	9
Rex Nebular	37
Road Track's Grand Prix	19
Romance Three Kingdoms II	37
Sailing Simulator III VGA	29
Sargon V	24
Scenery Upgrade Tri-Pack	29
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Space Ace 2:Borf's Rev.	29
Space Quest IV VGA 5.25	22
Special Forces	22
Special Operations 2 5.25	17
Spoils of War	29
Star Legions	29
Starter Kit	34
Storybook Weaver	24
Strike Commander	47
Super Munchers	27
Swap	19
Ten Best	14
Ten Best Publishers Choice	14
Terminator 5.25	29
The Humans	19
Theatre of War 5.25	29
Time Treks	29
TimeQuest	14
Tom Landry Football	19
Trolls	24
Trump Castle 3	29
Typhoon of Steel	19
Ultima 7: The Serpent Isle	42
Ultima Underworld II 5.25	49
UltraSound	119
Veil of Darkness	30
Virtual Pilot	59
Wayne Gretzky Hockey 3	32
What's My Angle	24
Wheel of Fortune w/ Vanna	19
WindEase	17
Zoo Keeper	29

Ultrabots	39
Unlimited Adventures	37
USA East Scenery Disk	43
USA Wars: Civil War CD	39
V for Victory 1: Utah Beach	47
V for Victory 2: Velikiye Luki	47
V Victory 4: Gold Juno Sword	43
Victory 3: Market Garden	47
Walker	32
War in the Gulf	34
Warlords 2	43
WC II Special Operations 1	25
WC II Special Operations 2	27
When Two Worlds War	37
Where Space Carmen Deluxe	50
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Where in the World Deluxe	48
Wing Commander & Ultima 6	39
Wing Commander Academy	32
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Word Munchers	22
World Circuit Grand Prix	37
World War II Battles of Pacific	37
X-Wing	42
X-Wing Mission Disk 1 or 2	22

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Busty Babes 3	69
Busty Babes	69
Cafe Flesh (M)	44
Case of Cautious Condor	37
Chess Maniac	43
ChessMaster 3000	32
Classic Book Collection	45
Clip Art Galore	29
Clip Art Heaven	34
Conan the Cimmerian	19
Deluxe Scrabble	37
Desktop Publisher's Dream Disk	34
Digital Dancing (I)	69
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Dune	45
Eco-Quest 1	43
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Education Master	37
Electronic Traveler:California	20
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Eric the Unready	37
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EroticCafe	99
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House of Games	34
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Jets & Props	44
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Just Games	18
Jutland	59
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Kings Quest 6	47
Kings Quest V	43
Language Dicovery	32
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Local Girls	39
Loom	34
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Lotus 1,2,3	129
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Mayo Clinic	59
Mixed up Mother Goose	29
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Multimedia Grammy Awards	37
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Night Trips (M)	69
Night Watch (I)	69
P.C. SIG Games	34
PC Globe	49
PC Medic	34
PC Pix Vol. 1, 2 or 3	69
PC Sig Version 2	34
Phoenix 3.0	34
PhoneDisc Residential USA	59
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Publisher's Paradise	33
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The Animals	59
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Tropical Girls	39
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Twelve Roads to Gettysburg	20
U. S. Presidents	39
Ultima 1 thru 6	44
Ultima Underworld 1 & 2	59
Ultima Underworld/Wing Comm. 2	54
US Atlas w/ Automap	57
US History	34
US Wars Korea or Vietnam	42
Visual Fantasies (M)	69
Volcano	69
Where in World is Carmen Deluxe	39
Wild Places	29
Willie Beamish	29
Windoware	19
Windowmaster	32
Windows 1993	34
Wing Commander & Ultima 6	39
Wing Commander 2 Deluxe	52
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MISSION CONTROL

Anachronistic Air Battles

MicroProse's *Air Duel* Explores The Impossibilities

by Bryan Walker

"It's the man, not the machine," was a favorite maxim of General Chuck Yeager, America's legendary fighter pilot. In *Air Duel,* a new British-designed flight simulator being distributed by MicroProse, gamers have the opportunity to put that bold statement to the test.

In *Air Duel,* players take to the skies in any of seven locales flying one of history's greatest fighters: the Sopwith Camel, Fokker Dr.1, Spitfire Mk. II, Bf 109E, F-86, MiG-15, F-4J Phantom II, MiG-21F, Harrier FRS.1, Mirage III, F-16A and MiG-23S. Seventeen other "Non-Player Character" aircraft also make appearances in missions spanning much of air combat's history. Six different chapters of aerial combat are depicted in the WWI, WWII, Korea, Vietnam, Syria and

Falkland scenarios, each with a single mission that allows the player to take either side (for a total of 12 different missions). The player also has the option of free-form dogfighting against up to five computer-controlled planes, or facing another player in head-to-head combat. Unlike many flight sims, players have the ability to match aircraft of different eras against one another. Sure, most gamers have downed hundreds of MiGs while flying an F-16, but can they do it with a Spitfire? A Fokker? *Air Duel* gives them the chance to find out.

Casually Combative

Air Duel is a "casual" simulator, best suited to gamers who don't want to read 300-page manuals or struggle with dozens of functions just to fire a missile. The overpowered flight models are very forgiving, with stalls, spins, buffeting, aileron lock and G-LOC nonexistent. The realism of the weapons, particularly the guns/cannons, is also approached in a leisurely manner. A configuration screen allows the player to alter the realism and detail to suit his or her skill level and hardware capability.

Even though the terrain of *Air Duel* isn't exactly spectacular, most aircraft are rendered very well. In fact, only the planes in *Red Baron* and *Strike Commander* look better. The Harrier and Spitfire are particularly sharp, no doubt due to some extra attention from the game's British designers. The depictions of smoke and missiles are the best I've seen so far. The out-of-the-aircraft views are nicely drawn, with each plane having unique artwork. Some players may not notice the excellent animation of the aircraft's gyroscopic artificial horizon, but it's top-notch! The introductory sequences and end-of-mission screens are flat-out gorgeous, with some screens comparable to artwork seen in the Smithsonian Air Museum.

The wide range of external views available during flight include nearly all of the industry standards. A "Head Up" view, much like *Falcon 3.0*'s "Padlock View" is also available to give players the best situational awareness possible in a dogfight. In addition, vital information such as heading, altitude and airspeed are constantly displayed at eye level in all aircraft, much like a modern jet's real Head Up Display. This feature, and others, makes *Air Duel* very similar to *Yeager's Air Combat.*

One of the biggest similarities between *Air Duel* and *Yeager's Air Combat* is the ability to match all aircraft in the game against each other. Using this "What If" feature, players can fly a Spitfire against a Bf-109, an F-16, a Fokker DR.1, a Mirage III and an F-86 in a single mission! Flying against five different planes from different generations at once definitely adds a degree of challenge! The "What If" feature allows any type of mix, so players are free to make the melees as challenging or easy as they wish. For those in a non-combative mood, the "Free Flight" feature allows the player to simply take a plane out for a test drive. The Harrier can be an interesting choice for this, since the player can experiment with the aircraft's vertical-takeoff

capability without being harassed by enemy fighters.

Back To The Drawing Board

Most gamers will agree that *Air Duel* offers some nice, if not particularly original, features. Unfortunately, many players are going to discover some problems very shortly after their first game begins.

For example, the 486/66MHz VLB system I use has always provided ample gaming power. However, I was surprised to find a relatively low frame rate and "ratchety" flight model in *Air Duel.* Even turning the detail down to the lowest settings provided nowhere near the smoothness of *Falcon 3.0, Yeager's Air Combat* or *SVGA Air Warrior. Air Duel* was also tested on a 386SX/20MHz, with the frame rate dropping considerably. While it may *run* on the "minimum" 286/16MHz as MicroProse claims, few would call the result "playable."

The avionics of the modern jets in *Air Duel* are simply generic and unrealistic. The lack of a Constantly Computed Impact Point, perhaps the most significant development in the history of fighter avionics, is a severe handicap. Without a CCIP, using cannons in a close, turning dogfight is an exercise in aggravation. The very poor tracer effects

Air Duel

TITLE:	Air Duel
PRICE:	$59.95
SYSTEM:	IBM
REQUIREMENTS:	286-16MHz, 1MB RAM, VGA/MCGA graphics, 9MB hard drive space
PROTECTION:	Documentation look up
DESIGNERS:	Ciaran Gultnieks, Dominic Robinson, Ian Martin
PUBLISHER:	MicroProse Hunt Valley, MD (410) 771-1151

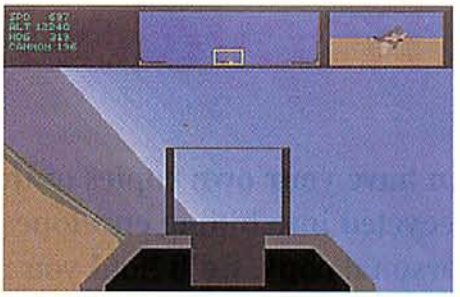
only compound this problem. Even though air-to-air missiles are present, they consist of older "tail-chasing" heat-seekers or all-aspect radar-guided versions. Both can be decoyed fairly easily. However, aircraft capable of firing radar-guided missiles enjoy a huge advantage, as they don't have to maneuver to the tail of the enemy jet to obtain missile lock.

Fokker: 5, MiGs: 0

What are the odds of a Fokker Dr.1 defeating five MiG-15s at once? Excellent, in *Air Duel*. While claiming that the Artificial Intelligence is highly sophisticated, the designers apparently forgot to teach it ground avoidance. Simply fly very low or land, then watch the computer-controlled jets plummet to the ground. Until they all hit the ground, the computer's jets will stage an aerial comedy, bumping into or shooting one another. The maneuvers the AI employs are limited, rarely using the vertical and often settling for simply flying in circles. The weak AI also makes the computer-controlled planes vulnerable to missiles, while a human opponent easily avoids them.

Dreary Dozen

With only 12 missions available, even beginning players can complete them all in one weekend. Lacking a campaign game, flight recorder or mission builder, *Air Duel's* replay



value is very low. While the player can tweak each mission by choosing targets and actions for the computer-controlled aircraft, this does little to hold interest after one or two sittings. Without another player to duel head-to-head with, *Air Duel* could wind up being a $60 bookend very quickly.

With the many shortcomings of *Air Duel*, the two-player option could be the game's major saving grace. Unfortunately, I ran into problems there, as well. Despite successfully playing *SVGA Air Warrior*, *Falcon 3.0* and other titles over a modem connection, my opponent and I were frustrated by *Air Duel*. All possible communication options were adjusted with no luck. A call to MicroProse didn't reveal any obvious reason for the inability to connect via modem. However, the representative did note that he had not heard of many similar problems from other players. Perhaps our problem was unique, but it still stands unresolved. Fortunately, we used a null-modem cable and physically linked the machines with success. While the game slowed down noticeably, the two-player option was enjoyable.

Lack Of Self Control

With the number of different control devices on the market, I was disappointed to find that *Air Duel's* control options only include a single joystick and/or keyboard. While the game isn't so complicated that it requires the Thrustmaster accessories to be enjoyable, the ability to select different control layouts is becoming something of an industry standard that I was starting to appreciate.

Had it been released two years ago (ironically, it was expected several years ago as **Activision**'s *Planes of Glory*), *Air Duel* would've been a rousing success. As it now stands, it might appeal to a new flight-sim player, or a compulsive joystick jock that simply must have every new title. Regrettably, it has come all the way from Europe to discover that "pretty good," "a lot like" and "as good as" may not raise many eyebrows. In the current flight simulator market, each new release has to offer something new or better to succeed. *Air Duel* isn't bad, but it certainly isn't new *or* better. **CGW**

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#93 (April, 1992)

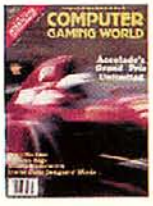
Cover Story: Champions sneak preview. Reviews include: Bloodwych, Falcon 3.0, Lost in L.A., Global Conquest, Millenium, and Eye of the Beholder II. Features include: Winter CES Report (Part II), a replay of a SimAnt battle, a sneak preview of The Next President, and strategies for Romance of the Three Kingdoms 2 and Sid Meier's Civilization, among others.

#94 (May, 1992)

Cover Story: Darklands sneak preview. Reviews include: Castle of Dr. Brain, Shuttle, Uncharted Waters, StarTrek: The 25th Anniversary Game, Super Tetris, Worlds at War, Pacific Storm and V for Victory: Utah Beach. Features include: hints for The Secret of Monkey Island 2, tactics for Secret Weapons of the Luftwaffe, Civilization sneak preview and more.

#95 (June, 1992)

Cover Story: Laura Bow II sneak preview. Reviews include: Populous II, Twilight 2000, Celtic Legends, Multi-Player BattleTech, Birds of Prey and more. Features include: Software Publishers Association report, strategy for Uncharted Waters, Crisis in the Kremlin sneak preview, tactics for The Perfect General, a study in opening moves for L'Empereur, and Evan Brooks' survey of wargames from Korea through the far future.



#96 (July, 1992)

Cover Story: Grand Prix Unlimited sneak preview. Reviews include: Planet's Edge, Sea Rogue, Ultima Underworld, World Circuit, Gods, Big Three, and MBT: Middle East. Features include: tips on Treasures of the Savage Frontier, strategy for Castles, an interview with Roberta Williams, and a report on the Computer Game Developers Conference.

#97 (August, 1992)

Cover Story: Stunt Island sneak preview. Reviews include: Jack Nicklaus Signature Edition, Chessmaster 3000, Out of This World, Legends of Future Past, Magic Candle II, Federation II and Computer Third Reich. Features include: a replay of Global Conquest, strategies for Populous II, Lemmings tips, and more.

#98 (September, 1992)

Cover Story: Amazon sneak preview. Reviews include: Omar Sharif on Bridge, A-Train, Wolfenstein 3-D, Dune, Dark Seed, Carrier Strike, Conflict: Korea, Aces of the Pacific and Napoleon I, among others. Features include: golf game news, gaming lite survey, and part II of the 1992 Summer CES report.

#99 (October, 1992)

Cover Story: X-Wing sneak preview. Reviews include: Laura Bow II, Gateway, World Series of Poker, The Two Towers, Grand Prix Unlimited, Pitfighter, Waxworks, and Galactic Frontier. Strategies and tactics articles are included for the following: Sea Rogue, Lemmings, Aces of the Pacific, The Lost Admiral and Siege.

#100 (November, 1992) Collector's Edition

Artist Mark Ferrari caricatures the CGW staff on the front cover. Inside, Publisher Russell Sipe offers a retrospective on 11 years of computer gaming. News and other features include: a report on Digital World, Part 1 of a series on Jack Nicklaus golf course design, an update on virtual reality, an interview with child star/game designer Peter Oliphant, a segment on the GenCon/Origins game convention, and the story on the Electronic Arts acquisition of Origin Systems. Reviews include: The Summoning, Crisis in the Kremlin, The Dark Half, Links 386 Pro, Tetris Classic and more.

#101 (December, 1992) Holiday Buying Guide

In addition to the theme article, this issue features: a Software Publishers Association report, Chuck Miller's first Shareware column, Darklands survival guide, sneak previews of Buzz Aldrin's Race Into Space and Empire Deluxe, the second article in Mark Willet's series on course design, and strategies for Warlords. Reviews include: John Madden II, Cruise for a Corpse, Heaven & Earth, Mantis, Air Force Commander, Team Yankee, Cyber Empires and more.

#102 (January, 1993)
Sights And Sounds

Composer Donald Griffin's article on sound support, Mark Willet's third article on Jack Nicklaus course design and Johnny Wilson's sneak preview of UltraBots serve as the keystones for this issue's theme. Reviews include: King's Quest VI, Summer Challenge, Quest for Glory III, Air Bucks, Spear of Destiny, Spring Break, Theatre of War, Gunship 2000 and lots more.

#103 (February, 1993)
Techno-Wizardry Issue

Theme features emphasize: fractals, behind the screens of Return to Zork, visit to the BattleTech Center, Comdex report, and upcoming products like Syndicate and Alone in the Dark. Issue also features: video poker survey, final article of the design series for Jack Nicklaus Signature Golf, strategy for Castles II, and sneak previews of Betrayal at Krondor and Caesar, as well as reviews on: Robosport, Rex Nebular, KGB, Amazon and Waxworks.

#104 (March, 1993)
Winter CES Report

Major articles include: Consumer Electronics Show report (Part I), EA*Kids preview, surveys of computer football and computer bridge games, sneak previews of Iron Helix and Eric the Unready, and Scorpia's tips for Crusaders of the Dark Savant. Reviews consider: Star Control 2, Spelljammer, Comanche Maximum Overkill, Ancient Art of War in the Skies, Paladin II, The Summoning and many others.

#105 (April, 1993)
CD-ROM Survey

Reviews include: Space Quest IV CD-ROM, Alice, Who Killed Sam Rupert?, The Incredible Machine, SimLife, World Circuit, Dune II and Patriot. Contains special section on Gary Grigsby's Pacific War, sneak preview of Tony La Russa Baseball II and much more.

#106 (May, 1993)
Telegaming

Features include: SEAL Team sneak preview, Pentium analysis, a game listing of network and private BBS games, strategy guide for Dune II and the following reviews: Ultima Underworld II, Ringworld, CyberStrike, Shadow of Yserbius, SVGA Air Warrior, Conquered Kingdoms, Special Forces, and AV8B Harrier, as well as additional full-length critiques.

#107 (June, 1993)
Sports Section

Features include: Hell Cab sneak preview, 18 config files for frustrated gamers, play design strategy for Front Page Sports: Football, and Pre-20th Century Wargame Survey. Reviews include: Tony La Russa Baseball II, Greens, Wilson Pro Staff Golf, Hockey Simulator II, Alone in the Dark, Veil of Darkness, X-Wing and a dozen more.

#108 (July, 1993)
Computer Game Design Section

Features include: Companions of Xanth sneak preview, behind the screens report on Day of the Tentacle, sneak preview of IndyCar Racing, InterMedia '93 report, and Computer Game Developers Conference report (Part I). Reviews include: Michael Jordan in Flight, The Journeyman Project, Maelstrom, Empire, Builder, Shadow President, Aide de Camp, Caesar and plenty more.

#109 (August, 1993)
Inside Entertainment Software

Features include: reports on the Consumer Electronics Show (Part I) and Computer Game Developers Conference (Part II), a tour of Westwood Studios, behind the screens of Sam & Max: Freelance Police, and a sneak preview of Clash of Steel. Reviews consider: Strike Commander, Pax Imperia, V for Victory: Operation Market Garden, The 7th Guest, and ChessManiac 5 Billion and One, among others.

#110 (September, 1993)
Special Strategy Section

Features include: Masters of Orion sneak preview, strategy for Buzz Aldrin's Race Into Space, additional CES coverage, sneak preview of Flight Simulator 5, Evan Brooks' wargame listing for 1900-50, and a Spectrum HoloByte company profile. Reviews include: Prince of Persia 2, Day of the Tentacle, Syndicate, Harpoon Designers' Series II, Strat-O-Matic Baseball 4.0, Challenge of the Five Realms and more.

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CGW Article Indexes for the years 1987, 1988, 1989, 1990, 1991, and 1992 are now available. Please send a large self-addressed stamped envelope and $1.00 per index (specify which years) to: Computer Gaming World, Index Dept., P.O. Box 730, Yorba Linda, CA 92686.

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COMPUTER WARGAMING WORLD

In this issue . . .

SSI's *Clash of Steel*
by M. Evan Brooks . . 132

***Clash of Steel* Strategy, Part I**
by Alan Emrich 134

QQP's *Conquered Kingdoms Scenario Disk #1*
by Randall Black . . . 142

Wargames Survey 1900-1950, Part II
by M. Evan Brooks . . 144

Elpin System's *Conquer For Windows*
by Neil Harris 150

Three-Sixty's *High Command*
by Terry Lee Coleman 156

SSG's *Carriers At War Construction Kit*
by Bob Proctor 160

Software Sorcery's *Jutland* CD
by H. E. Dille 164

Everything Old Is New Again

by Alan Emrich

There is nothing as rewarding or rejuvenating as going on the summer game convention circuit. Game conventions like **Origins**, **Gen-Con** and the local conventions in L.A. and Phoenix deliver a full jolting dose of the board wargaming experience. After attending the summer games of '93, I am ready to fight the good editorial fight on behalf of my brothers-in-(simulated-)arms. The wargame market, both board and computer, seems to be holding steady after a couple of years of fairly healthy growth, so as the ranks of strategy gamers increase, the trends noted here become more fun to watch.

In the "old business" department, Scott Hamilton made a public debut of his *Aide de Camp* program by sharing a booth with **The Gamers** at **Origins '93** in Fort Worth over the July 4th weekend. This board wargame/computer PBEM construction set caused considerable buzz among the faithful grognards attending, most of whom had heard about *ADC* from this magazine. For them, seeing was believing, and Scott was very satisfied with sales at the show. Better still for wargamers everywhere is his persistence in getting board wargame companies to join the *Aide de Camp* bandwagon and put their games on disk using the *ADC* system. Announcements, presumably, will be forthcoming, although the possibilities of TSR/SPI games becoming licensed using *ADC* were described as "a snowball's chance in hell...in July...during a heat wave." It looks like players will have the vast **SPI** wargames collection left to their own creative juices.

Our **New World Computing** *Empire Deluxe* tournament continues apace. However, the summer vacation schedules of many participants has caused us to delay, for one issue, the results of the next round. With a trip to L.A. to see New World Computing, *Computer Gaming World*, plus various other local attractions (like an excursion to a quaint little place called Disneyland) in the grand prize offering, it's no wonder the competition is so fierce!

Speaking of *Empire Deluxe*, let me thank everyone who has complimented me on the recent publishing of the book *Empire Deluxe: The Official Strategy Guide*. I'll be sure to pass those kudos along to my co-author, Mark "skulker" Carroll.

New Business

I do have one exciting announcement to make, and that is the formation of the *Command HQ Player's Club*. An independent group operating with the blessings of both **MicroProse** and **Ozark Softscape**, the *CHQ Player's Club* is comprised of many of that game's most ardent fans. Because of the programming skills of some of its members, they've developed (on their own!) a 2.02 version of the game. This upgrades players above and beyond the current 1.97 version, including bug fixes (particularly eliminating the "dock scan" bug) plus a few new features and enhancements. I've seen and played this new version of *Command HQ*, and it has definitely renewed my interest in this classic, heart-pounding wargame.

For more information, contact:

Modem Games, Inc.
c/o Information Management Services
2040 Avenue of the Start, Suite 400
Los Angeles, CA 90067

To join the *CHQ Player's Club*, send them $20. Members receive a 3.5" diskette (unless 5.25" is specified) with the 2.x version of the game, plus they are placed on the roster to play with other club members. Presumably, there will be some sort of club communications (newsletters, e-mail, etc.) which will be well worth reading, if for no other reason than to follow the development of the Version 3 code for *CHQ* that these guys are currently working on (which may include a random map generator, scenario editor and more).

Until next time, I'll be sharpening my skills at the new version of *Command HQ* and longing to get away with dropping the first nuke. **CGW**

Opponents Wanted

Those wishing to place their own free ads need only send us a postcard (or use the *Notes* section of the RID card), letter, FAX [714-283-3444] or e-mail (Prodigy [EXPT40B], CompuServe [76703,622], The Sierra Network [Box 1048], GEnie and America Online [CGW]). Generally, we run them only once, so send your request every other month if you want to keep your name listed. The ads themselves should serve as reasonable examples as to how to write your own. However,

- Include a brief description of the types of opponents and games you are interested in playing. Games being played other than by direct modem can be listed (trading save game disks or even face-to-face).
- At least one (possibly more) telephone number must be included. *Do not forget the area code* and mention whether they are Home, Work or Modem numbers.
- Include your city and state so that people who call you will both: a) have a clue as to what time zone you are in and b) recognize it when they see it on their phone bill.

The Networks

The following are voice contact numbers for many of the on-line network services that connect gamers. For more information, call: **America Online:** (800) 827-6364; **CompuServe Information Service:** (800) 848-8990; **Novalink Network** (formerly **Digital Dreams**): (800) 274-2814; **GEnie:** (800) 638-9636; **Multi-Player Games Network:** (800) GET-GAME; **National Videotex (NVtel):** (800) 336-9096; **Prodigy:** (800) 822-6922 x556; **The Sierra Network:** (800) SIERRA-1; and **USA Today Sports Network:** (800) 826-9688

Bulletin Board Systems

Thunderbolt! BBS in Chicago, IL now offers on-line entertainment with *Poker, Blackjack, Bingo, Galactic Empire, Zorgon, Quest for Magic, The Arena* and *Flash Games* ("The Next Generation" of online gaming). Play RPGs with on-line multi-sided dice! Eric Spanitz, SYSOP. Modem settings 8-N-1, 300/1200/2400. Phone (312) 248-4822.

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The **Vanguard Information Systems BBS** in Boston is looking for more gamers for their 70+ on-line games. VIS has two gigs containing over 8,000 files. Call at (617) 267-7168 (up to 14,400 - v32bix 8N1). Downloads okay on first call! No fee!!

Call the **Missile Silo BBS.** Contestants wanted for *Command HQ, F-29 Retaliator* and many others. Tournaments to be held soon. Files, message base and (soon to come) on-line games. Running on Telegard 2.5 7 days a week, 24 hours a day. Located in Skokie, IL outside of Chicago. Call (708) 581-1735. Mention this ad in CGW for no-hassle access validation.

The Delphic Oracle is an all-gaming BBS. Play RPGs (*AD&D, GURPS*), play-by-e-mail games (*Diplomacy, ASL*), *Empires at War* (a Napoleonic on-line game) and other games on-line. Find modem game players. Gamemasters and players wanted. Simi Valley, California (805) 582-9004 [2400 8-N-1] Free access.

The Imperium BBS is looking for modem gamers like you! Tournaments are run for *Knights of the Sky, Command HQ, The Perfect General* and *Global Conquest* (just to name a few!). We have on-line games, message base and 3 gigs of files, too. Call one of our three nodes in Middleton, NJ at either: 1200/2400 (908) 706-0342; 9600 v.32 (908) 706-0305; HST Dual Standard 38.4 (908) 706-0321.

The World of Windows is looking for some great game players like you! Try your skill and compete for monthly prizes. Sports: Drag racing excitement at *The Motor City Raceway*, a fishing tournament at *The Freshwater Fishery*, play in the *Tournament Golf* game or even pick your favorite NFL team and play some *Pro-Bowl Football*. In *RPGs* there is the post-apocalyptic horrors in *The Land of Devastation*, warriors collide in *The Pit*, explore *SinBaud's Dungeon* or conquer the galaxy during *Trade Wars 2002*. For *Strategy* games, try our *ChessMagic* chess tournament, deluxe versions of *Scrabble* and *Blackjack*, or solve a murder at the *Who-Dun-It Hotel*. Modem settings are 8-N-1, 300-38400! There is free access and thousands of Windows games to download for off-line enjoyment. Call today at (305) 751-3117.

The *Electronic Estates BBS* in Oak Lawn, IL invites you to join their *Tradewar 2002* game. Fly your spaceship, battle the Ferrengi and other traders. Download TWRULES.ZIP before starting. Once you start, you may not restart for 4 months. Only 150 players maximum per game. Call (708) 424-6136.

Space Station Aragon welcomes all adventure gamers to call (206) 277-5489 in Bellevue, WA. This unique board features free downloads of the latest demos from many major software companies and text files on subjects like *Star Trek* and *Star Wars*. Take part in our forums to discuss and get hints on the latest games. Take a break and play one of our adventure doors. Sysops Ilibard and Tiern.

Dune BBS is seeking modem gamers like you! Modem warrior message area and on-line games. Running on remote access 1.1+. Operates 24 hours/day, 7 days/week. Located in the Milwaukee, WI area: (414) 571-0584 at 2400 - 14.4k; 8,N,1.

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The **Mac Commonwealth BBS** in metro New Orleans is sponsored by the National Home & School Mac User Group, a nonprofit organization promoting leisure and learning on the Mac. Our multi-line system features over 1 gigabyte of downloadable files, with emphasis on games and educational material. On-line magazines, Usenet newsgroups, OneNet conferences and Internet e-mail. Support file sections for over 60 commercial games! FirstClass graphic user interface. All lines support 1200 - v.32bis 14,400 access. For information on BBS and group activities, send inquiries to NHSMUG, PO Box 640641, Kenner, LA 70064. BBS line 1: (504) 837-7984.

The **Gaming Connection BBS** in Everett, WA specializes in connecting modem-to-modem players. Give it a call at (206) 742-4044, 24 hours a day. Join a Gaming Ladder and make new friends to challenge. *Empire Deluxe* and *Harpoon* scenarios, plus access to everything (including over 5,000 files) available on the first call!

Conventions

The 510th Tactical Fighter Wing invites you to attend SIM-CON '93, the premier flight sim event of this year. Scheduled activities for this 2-day event include head-to-head, solo and team competitions featuring *Falcon 3.0* and *MiG-29*. There will be lectures from well known fighter pilots and hands-on instruction on a variety of top computer combat flight sims. Hourly drawings for software and computer flight accessories will be held, and attendees can sit in Thrustmaster's ultimate flight sim cockpit. Registration includes a chance at the grand prize drawing, a day at Air Combat USA. Be there October 9th & 10th, 1993 at the Dunfey Hotel in San Mateo, California. Registration is $20. For more information, contact: The 510th TFW, 45 N. First Street, Suite 142, San Jose, CA 95113.

By Area Code

Seeking opponents for *Global Conquest*. Please call Steffen H. in Wilton, CT at H-(203) 762-0541.

Local opponents sought for *The Perfect General, Command HQ, Empire Deluxe* and others in the Seattle-to-Arlington area of Washington state. Call voice at (206) 252-4838 and ask for Leonard Coyle. The 24-hour modem number is (206) 742-4044.

I'm interested in playing *The Perfect General* by modem. Please contact Mike Baker in Whitehall, PA at H-(215) 820-5765 or W-(215) 821-6723.

Seeking modem players or face-to-face opponents in the Denver area for strategic and tactical strategy games including *Command HQ, Global Conquest* and *The Perfect General*. Also, will play most old SSI games. Contact Bill Whiteford at H-(303) 757-7247.

Opponents wanted for *World Circuit* and *Command HQ*. Please, local opponents preferred in the Green Bay, WI area. Call Mark at H-(414) 494-1331.

I'm seeking modem warriors in the Omaha, NE area for *Command HQ, 688 Attack Sub, F-29 Retaliator* and *Car & Driver*. Call Greg Sewald at H-(402) 597-2837.

Seeking pilots to go head-to-head in *Falcon 3.01* and/or *F-15 III*, preferably in the San Francisco area. Call John at H-(415) 468-2021 or my BBS at (415) 468-6713.

Opponents wanted for *Conquered Kingdoms, Perfect General, Mech Force, Romance of the 3 Kingdoms* and others. I own an Amiga and an IBM clone. Please, call mornings at my H-(516) 758-7823 or write to Nick Galante, 246 Fairharbor Drive, Patchogue, NY 11772-3344.

Looking for opponents who prefer to be well above the confines of the ground. Will challenge in *Falcon 3.01 OFT* or *F-15 III*. Call John "Eagle" at H-(501) 394-0139. Local opponents preferred.

I'm willing to duel in *any* flight sim! (603) 437-3417.

Seeking local opponents for *Command HQ* and *Conquered Kingdoms*. Contact Joe at H-(708) 782-6272 in the Chicago suburbs.

Seeking opponents (especially local) for *Command HQ, The Perfect General* and *Battle Chess*. Am I the only person in my area p' .ying these games? (Surely not!) My limited phone budget will allow me to only call local opponents, but I'm always up to a challenge match (particularly in *CHQ*) if you're willing to call. Contact Charles Mosteller in Greer, South Carolina at H-(803) 895-1058. Please, leave a message if I'm not home.

I'm looking for local opponents for modem gaming around the Anchorage, AK area. *The Perfect General* and *Conquered Kingdoms* are my favorites. Please call Jeff at H-(907) 428-3841 anytime.

Seeking *Empire Deluxe* and *Perfect General* players in the Temecula, CA area. Call Johnny at H-(909) 676-7251. CGW

Clashing In On World War II

SSI's *Clash of Steel*

by M. Evan Brooks

Clash of Steel (COS) is a strategic simulation of "Hitler's War" covering both European Theater fronts. Previewed by Alan Emrich in *CGW* #109, he characterized it as "*High Command* Lite." I agree, and would add that *COS* is reminiscent of one of my favorite board wargames *Hitler's War* (Metagaming/Avalon Hill).

While SSI's own *Storm Across Europe* covered the same subject in a similar format, its interface and gameplay were so awkward as to make it all but unplayable. *COS* is a gamer's game—quick-playing, entertaining and reasonably accurate. An entire campaign (1939-1845) can be played in as few as six hours.

The Rules Of War

The documentation is SSI-standard. While this is less than an endorsement, the game is virtually self-teaching and a user can rapidly pick up the stream of play. As for those gamers wanting to know the formulae and nuances of the program, see Mr. Emrich's article in this issue.

The graphics are 256-color VGA—well done, clear and distinct. The sound is reputed to be well done, but for those who like myself have a Pro AudioSpectrum 16, a basic incompatibility exists. I understand that those with a compatible sound card will enjoy an audio track that sounds like a Hollywood war movie.

Getting There From Here

The basic units of *COS* are corps and armies. Each hex is 50 miles across and turns are in two-month increments with variable "impulses" allowing a game turn to last between two and eleven turns. Generally, winter turns are short (and when one is facing "General Winter" on the Russian steppes, the shorter the better), while summer turns allow enough maneuver time for massive redeployments and offensives.

Though the game may be played via keyboard, its beauty is in its mouse implementation. The interface may be summed up in one word—*smooth!* Click on a unit, click on a destination, and that's it. Alternately, units may be moved hex-by-hex. In either case, there is little opportunity for error, and even if a mistake is made, the OOPS key will allow the player to "undo" the move.

Air power is just as simple—access the target and hit "Strike." The closest available air element will attempt to carry out a mission, which may cause massive damage or be intercepted, or elements of both. Seapower is a more abstract affair with units moving between sea areas and attempting to gain local superiority.

Clash Revivis?

A few minor bugs and inconsistencies have crept into the game, but not enough to destroy its considerable playability. When playing a single Allied power, the computer will occasionally reach into one's treasury to spend saved resources on bomber production. Also, Sweden has a tendency to raise its convoy resource value from two to three. These few trifling contradictions in the manual detract little from the game, and corrections will in all likelihood find their way into a future patch.

COS should not be missed. While the victory conditions are an overly simplistic all-or-nothing, the myriad of options coupled with a relatively short playing time allows one to test out his favorite theories of what should and shouldn't work. The bottom line is that *COS* will remain on my hard drive for a long time to come.

Pressing To Victory (Strategy Notes)

Let's face it—most gamers like to try a World War II game from the German side. In recreating history, it is more entertaining and challenging to try to win as the historical loser. Thus, most of my tips are directed to the player assuming the German role.

In discussing *COS* with Alan Emrich, I discovered that he is more of a gamesman. He strives to determine optimal play, while I am more inclined to attempt a historical play pattern. Thus, I recommend an historical approach to victory, both for its inherent realism and its challenge.

In effect, I recommend a "Clockwise Crusade"—conquer Poland in September/October 1939, and then turn on France in November/December. Begin by taking out the Benelux (two Panzer formations supplemented by airpower can easily accomplish this in a single impulse). Then, drive on Paris. The only thing that can damage the player is a short game turn; but if impulses range between nine and eleven, the Wehrmacht can literally be shifted *nach Osten* and be ready to invade Russia by April/May 1940.

Optimally, Russia should be conquered in a single campaign season. However, it is difficult to achieve, and the German player should be ready to assume a defensive posture with local counterattacks once winter strikes. By attacking in 1940, the Germans will find the Russians off-balance; the Stalin Line of fortifications will still be on the drawing board and not an obstacle to overcome.

The German Offensive must be carefully planned. Leningrad can be conquered by two army groups supplemented with the paratroops and two air units. While the airborne can only affect combat on the first impulse of a turn, they negate any river advantage and often disrupt the defenses. Leningrad should easily fall. Although Russian forces remain near Vologda, they seldom assume an offensive posture.

Clash of Steel

TITLE:	Clash of Steel
PRICE:	$69.95
SYSTEM:	IBM
REQUIREMENTS:	1.7MB hard drive space, VGA graphics
PROTECTION:	Documentation look up
# OF PLAYERS:	0-2
DESIGNER:	Martin Scholz
PUBLISHER:	Strategic Simulations, Inc. Sunnyvale, CA (408) 737-6800

Moscow is not much more difficult to capture, with the following caveat: Do *not* make Army Group Center too strong—three Panzer units and two infantry units should be sufficient to seize Moscow. While this may seem too little, it should capture the capital with its last offensive gasp, and then assume a defensive posture slightly to the east.

Army Group South is the decisive front. Stalingrad must be captured to begin the Russian collapse. Therefore, strike south of the Pripet Marshes and drive east. While Odessa is a tempting target, it is a trap, leading into swamplands and a morass of defenders. Using the weak German allies (Hungarians and Rumanians), one can often pocket the Odessa defenders. If the German is "lucky," Rumania will remain neutral and not allow a broader front for the inevitable Russian Winter Offensive. While the German player may often not conquer Stalingrad before winter's onset, he should be poised to resume the offensive when the weather improves.

Once the weather warms up, Stalingrad can be seized. Then it's simply holding on for dear life and hoping that the Russian hordes do not achieve any major breakthroughs. The Odessa units may break northwest and threaten Warsaw, but so what? As long as Berlin is garrisoned, the Russians will collapse

before any offensive bears fruit. Remember, *make the right wing strong!*

The invasion of England can only occur on the first phase of a turn, so don't send out the fleet until the invasion is about to commence. While the fleet may be lost in battle, it will have served its purpose, and a quick capture of London will often obviate the need for an external supply source (mobile harbor). The Italian Fleet can also be used to reinforce the *Kriegsmarine* in a Mediterranean dash to the North Sea. Shades of Tsushima? Hopefully not!

Airborne and air forces from the Continent will buttress the German offensive across the plains of England until a victory is achieved.

It should be emphasized that the errata card in the documentation must be carefully scrutinized. While the manual notes that the Commonwealth may be conquered by the German occupation of London and Liverpool, the errata card has added Alexandria to the requirements for Commonwealth surrender. This literally changes the complexion of the game. By making Alexandria an integral victory condition, both sides have a need to reconsider what had been a meaningless diversion of effort.

Other concerns:

(a) Research: Deciding on what to research and how much to spend are choices that can be endlessly reargued. Alan Emrich prefers a broad approach with lower odds, while I prefer a greater emphasis on one or two areas (generally heavy tank and MLRS or Panzerfausts).

(b) Scenarios: There are six start times for the "campaign game." One will notice that the Fall of France 1940 Scenario begins with the Germans stronger than they could ever be if the game had commenced in 1939. As a gamer once noted, if Hitler had played a boardgame of the war, he rolled 6's for the first two years; thereafter the odds evened out.

(c) Strategic Bombing: Is it a good idea? Generally, I prefer to build elsewhere. Germany never envisioned a need for strategic bombers, and by the time one has the luxury of being able to afford them, their utility is virtually unnecessary.

For further tips on *Clash of Steel*, see the following article. **CGW**

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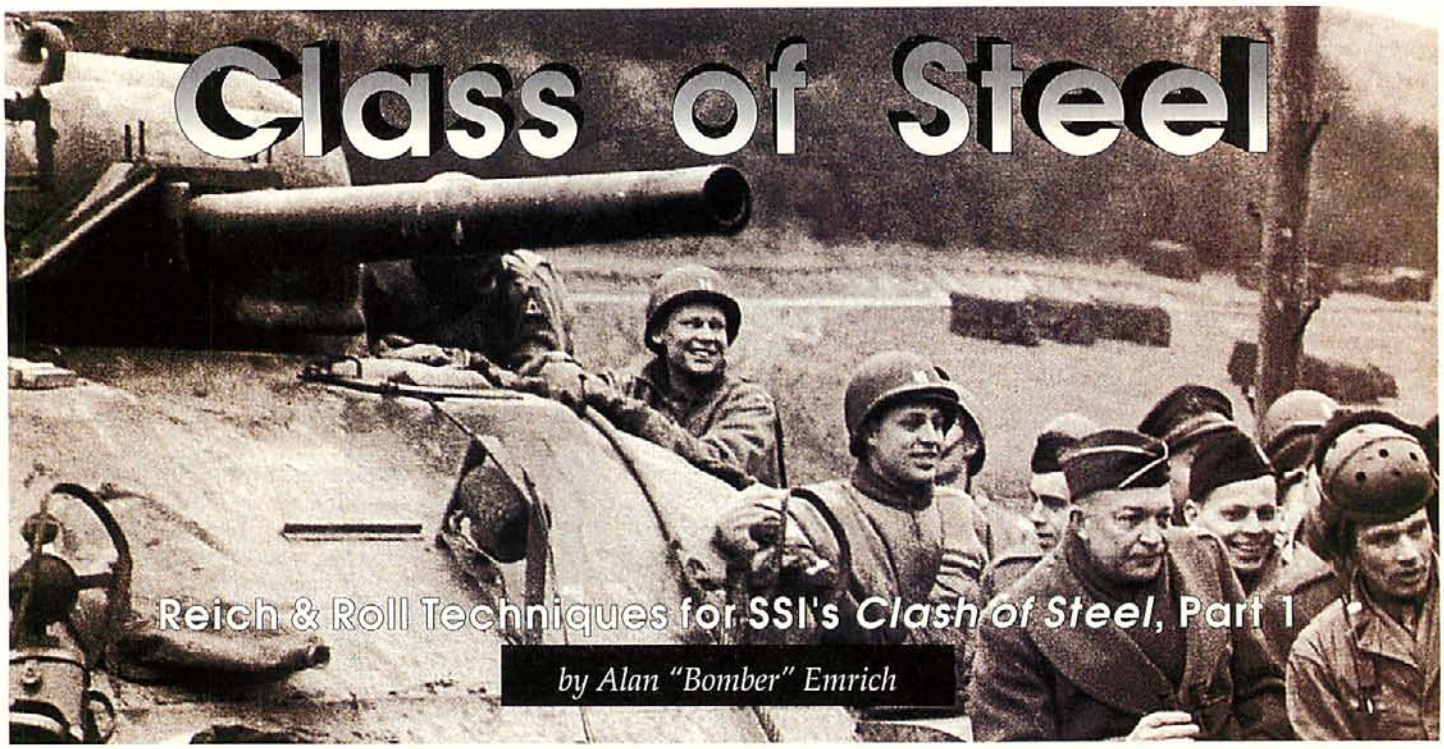

Class of Steel

Reich & Roll Techniques for SSI's *Clash of Steel*, Part 1

by Alan "Bomber" Emrich

Back in the ancient days of wargaming (the 1960s), one publication glued the hobby together. *The Avalon Hill General*, now approaching its 30 year anniversary, was little more than a professionally printed fanzine in those days. A highlight of each issue was a major article which offered some sort of "perfect plan" for one side in a popular wargame. (Of course, the letters section of the next issue would be filled with additions, exceptions and methods for undoing every so-called "perfect" plan).

Like their boardgame kin, computer wargames have often lent themselves to developing "perfect plans." This is due, primarily, to the limits of the computer opponent's AI; when one figures out how it plays, it can be countered and defeated almost every time. As wargame AI improves and multi-human player options (particularly modem play) continue to proliferate in computer wargames, the "perfect plan syndrome" should become less of an issue. But until then....

Because I have found *Clash of Steel* to be such an enjoyable wargame to play, I've been inspired to really put it under the microscope. This article presents my findings, complete with strategic tips, for winning game play, and even "perfect plans" for would-be European conquerors.

What Do The Die Rolls Mean?

For every land, air and sea battle, the computer shows players the random "die roll" and the results of that roll, but only for sea battles is the effect of any given die roll explained. At sea, the firing ship hits its target if the die roll is less than or equal to the ship's strength. However, an undocumented feature secretly adds one to the die rolls of damaged ships, which makes sense. For land and air battles, air strikes, and when rolling for the end of the game turn, one has no table to consult to see what the actual probabilities are. Allow me to present this, among other, important tables for *Clash of Steel*.

Each combat table presents four numbers per result. In order, they are: the attacker's strength point loss/the defender's strength point loss and the attacker's morale loss percentage/the defender's morale loss percentage. Terms such as d(#) indicate a die roll

Land Combat Results Table

Odds	>1:2	1:2	1:1	2:1	3:1	4:1	5:1	10+:1
Roll								
1	2/0	2/0	1/0	1/0	1/0	1/0	0/0	0/2
	90/5	90/10	80/10	70/10	60/20	50/30	50/30	10/50
2	2/0	1/0	1/0	0/0	0/0	0/0	0/1	0/3
	90/5	78/16	62/16	52/22	48/32	38/36	38/36	10/50
3	2/0	1/0	1/0	0/0	0/0	0/0	0/1	0/3
	88/6	70/20	52/22	38/30	38/40	28/42	28/50	10/50
4	1/0	1/0	0/0	0/0	0/0	0/1	0/2	0/3
	82/9	70/20	58/28	32/30	32/40	22/48	22/50	10/50
5	1/0	1/0	0/0	0/0	0/0	0/2	0/3	0/3
	80/10	66/24	56/30	38/30	30/40	20/50	20/50	10/50
6	1/0	1/0	1/1	1/1	0/2	0/2	0/3	0/3
	80/10	60/30	50/30	50/30	30/40	20/50	20/50	10/50
7	1/0	0/0	0/1	0/1	0/2	0/3	0/3	0/3
	68/22	54/36	38/30	38/30	18/50	14/50	20/50	10/50
8	1/0	0/0	0/1	0/2	0/3	0/3	0/3	0/3
	56/34	48/42	28/34	28/44	10/50	10/50	18/50	10/50
9	0/0	0/1	0/1	0/2	0/3	0/3	0/3	0/3
	44/46	42/48	22/46	22/50	10/50	10/50	12/50	10/50
10	0/0	0/1	0/1	0/3	0/3	0/3	0/3	0/3
	40/50	40/50	20/50	20/50	10/50	10/50	10/50	10/50

Notes: A '2' or '3' loss result for the defender requires the unit to make a morale check to see if it retreats (see p. 31 in the manual). Attackers never check for retreat.

A morale check fails if a d(100) is greater than the retreating unit's efficiency. If there is no retreat route or the unit fails a morale check while isolated, the unit is eliminated instead of merely dissolved.

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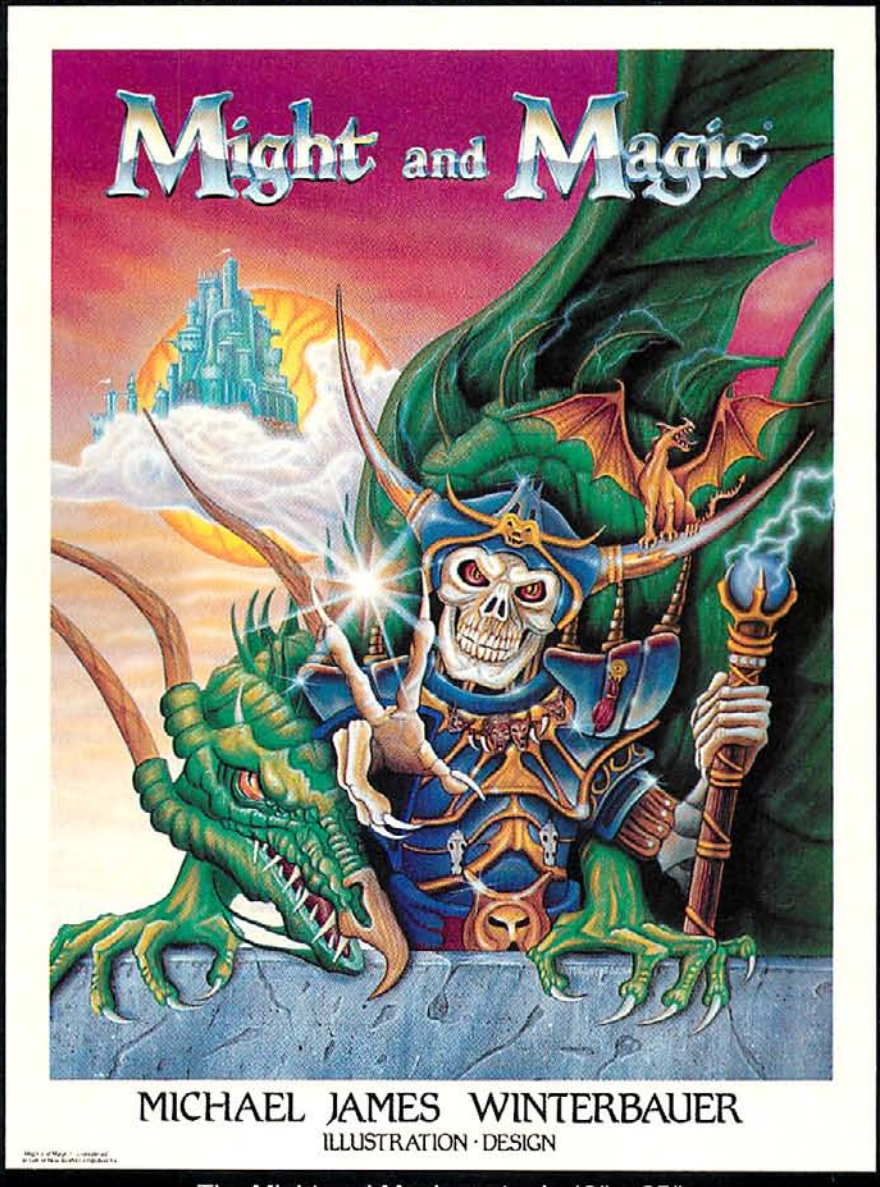

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Air-to-Air Combat Results Table

Strength Differential	-3	-2	-1	0	1	2	3
Roll							
1	1/0	1/0	1/0	1/0	1/0	0/0	0/0
	90/10	80/10	70/20	70/20	20/70	10/80	10/90
2	1/0	1/0	1/0	0/0	0/0	0/0	0/0
	80/10	70/20	60/30	60/40	30/60	20/70/	10/80
3	1/0	1/0	0/0	0/0	0/0	0/0	0/1
	70/10	60/20	60/30	50/50	30/60	20/60	10/70
4	1/0	0/0	0/0	0/0	0/0	0/1	0/1
	60/20	50/30	50/30	30/30	30/50	30/50	20/60
5	0/0	0/0	0/0	0/0	0/1	0/1	0/1
	50/30	40/40	40/40	40/60	40/40	40/40	30/50
6	0/0	0/0	0/1	0/1	0/1	0/1	0/1
	40/40	30/50/	30/60	20/70	60/30	50/30	40/40

Notes: Defending airplanes, if within four hexes of the target hex, have a 50% chance of intercepting and initiating air-to-air combat. The strength differential column is obtained by subtracting the interceptor's effective strength from the attacker's and truncating (dropping all the numbers after the decimal point) the result. The bombers are the attacker for purposes of reading this table. The asterisk on the computer results represents the strength point loss indicated on this table.

between 1 and the number in parenthesis. For example, when a d(100) is mentioned, the computer generates a random number from 1-100.

The Two Key Hexes

Certain hexes are critical to take (as the Axis) or hold (for the Allies). Assuming the Axis take out Poland and France along historical lines (by the way, beginning the game with the attack on France in 1940 is greatly advantageous to the Axis in terms of on-board production), the two critical hexes on the board become Gibraltar and Leningrad. The cornerstones of any Axis victory, it seems to me, are the control of these two spaces.

Leningrad is crucial during a war with Russia as it is the first of the three cities (Moscow and Stalingrad being the others) that trigger Russian collapse. If Leningrad can be held (and its defensive geographical location greatly facilitates this prospect) the Finns will stay bottled up and the Russians will never surrender.

My technique for holding Leningrad is to fortify the two hexes south of it, place infantry units in those fortifications, place my first Army Group HQ in Leningrad proper, and then put my first airplanes behind lake Ladoga to the northeast of the city. Next, I always commit an adequate number of forces to defend the swamps and forests in that area.

Taking Leningrad is another matter. Often, seizing it requires *at least* one German HQ, a strong army unit, one or two air units, the Finnish army unit plus both Finnish corps (attacking in succession on the same impulse), the paratroops (to negate the river effect on the city's south side) plus whatever help the German navy can contribute by way of shore bombardment. Leningrad can be a tough nut to crack, but crack it the Axis must if they ever hope to start the clock on a Russian Surrender and have a chance to win the war.

Getting A Piece Of The Rock (Of Gibraltar)

The next, and by far more crucial, key hex on the map is Gibraltar. Basically, the entire war can be won by control of this single port city. I'll leave techniques for attacking and defending Gibraltar up to individual player preference, but let me support my statement as to its importance by citing the consequences should Gibraltar fall to the Axis:

1. The Allied navy is cut in two. All the naval forces in the Mediterranean are trapped (they cannot escape through Alexandria by way of the Suez canal). If the Allies have no transport ships in the Mediterranean (which is the usual case), the Axis can free up every coastal garrison there for other duties, giving them a major manpower boost on the Russian front!

2. Gibraltar connects Europe to Africa, making it a single supply block and allowing for redeployments across its straits. Thus, the Axis can reinforce Africa via Gibraltar without ever having to risk their transports in battle against the Allied navy. (Note: Constantinople in Turkey has this same effect.)

3. The German and Italian navies can combine, thus allowing them to form a decisive naval/invasion force at the time and place of their choosing. Generally, this will put England's neck on the chopping block.

4. Axis control of Gibraltar cuts off the British Asia convoy PP income. This can add up to a lot of British PPs over time.

5. If the Axis fleet combines and controls the North Atlantic, America's economy is reduced to zero PPs—a disaster of the highest order for the Allies!

6. Finally, if Gibraltar falls to the Axis, the fortress in Malta disappears (although the entire strategic significance of that island is quickly rendered moot if the Axis push across French North Africa and roll the Allies out of Alexandria).

Sadly for the Allies, when playing against a computer, Spain almost always joins the Axis cause due to diplomatic pressure (as I'll explain in Part 2), so Gibraltar's position often becomes quickly untenable.

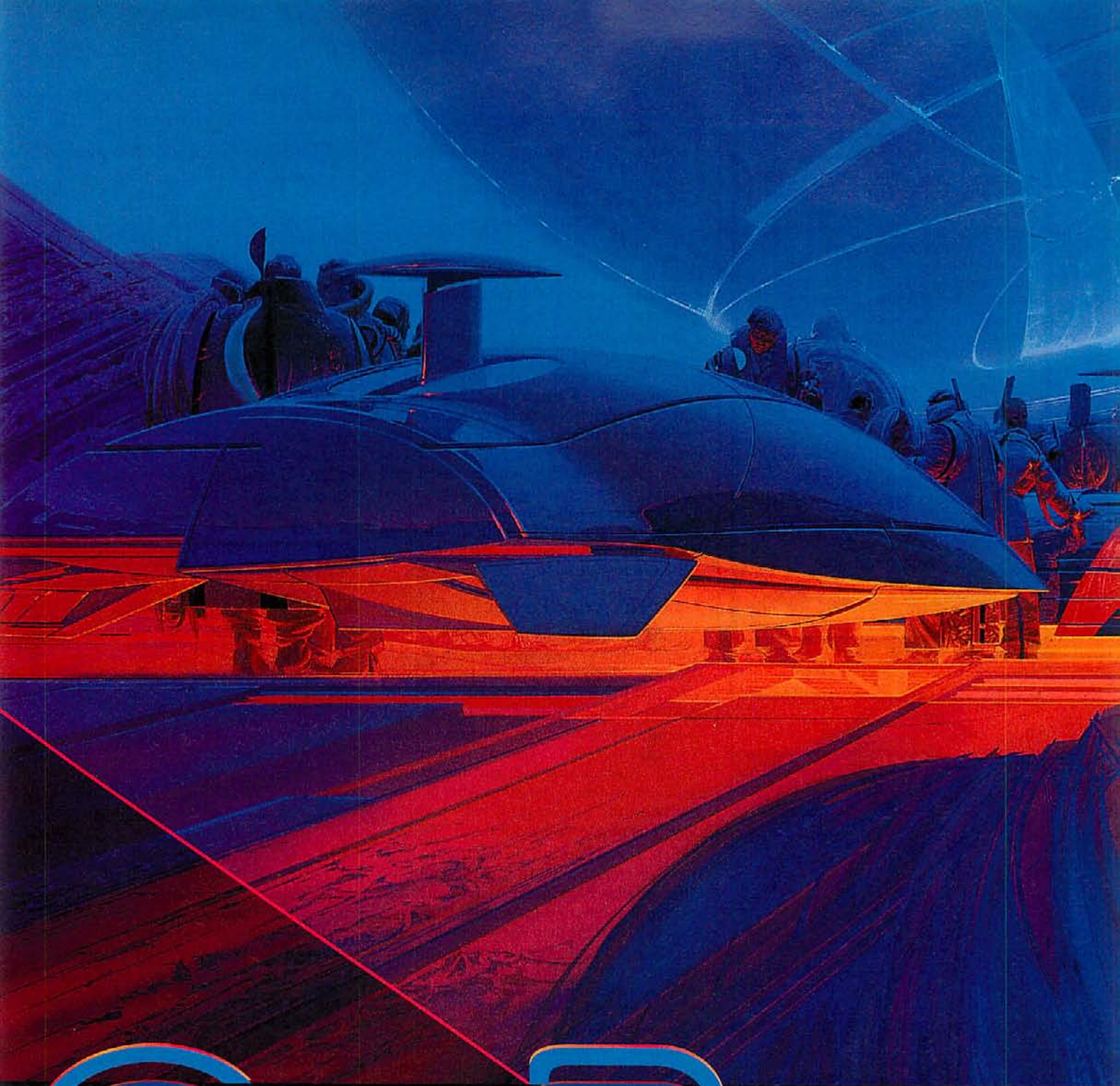
The Key Area

In addition to Leningrad and Gibraltar, there is one particularly vital area on the map, and controlling it means being able to call the tune on the war's strategic flanks. That area

Air Strike/Shore Bombardment Table

Strength	1	2	3	4
Roll				
1	2/0	1/0	0/0	0/0
	80/0	80/10	80/10	80/10
2	1/0	0/0	0/0	0/0
	70/10	60/20	60/20	60/30
3	0/0	0/0	0/0	0/0
	60/10	60/20	50/30	50/40
4	0/0	0/0	0/0	0/0
	60/10	50/30	40/30	40/40
5	0/0	0/0	0/0	0/0
	40/30	40/30	30/40	30/50
6	0/0	0/0	0/0	0/0
	40/40	30/40	30/50	20/60

Notes: Losses for the air units are on the left side of the slash. While ships conducting shore bombardment ignore all losses, striking with a depleted air unit can sometimes result in its own self-destruction.



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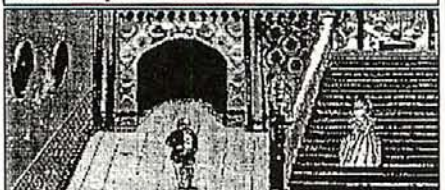

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is the Middle East. Between Persia (4 PP) and southern Russia (11 PP), one can make or break their economy with the capture/loss of this strategically vital region.

The strategic position occupied by the Middle East is as important as the resources it holds. When owned by the Allies, it allows the Soviets and Western Allies to cooperate fully by sending troops back and forth. Thus, the Russians can help campaign in the Mediterranean and the Western Allies can serve on the Russian Front. (Players haven't lived until they see Patton in the Ukraine!) When owned by the Axis, it generally signals the fall of Alexandria and an attack on Russia's southern flank. Therefore, Persia is a vital link in the game's strategic chain.

The Axis' "Perfect Plan"

By applying all of the notes, tables and tips from above, I've developed a "perfect plan" for the Axis (particularly when playing against a standard computer opponent) and some interesting plans for the Allies to try as well. In truth, role-players and adventure gamers would call this plan a *spoiler* as it attempts to "crack" *Clash of Steel* and may detract from future enjoyment of the game. After all, once you know the "perfect plan," why bother to play? The puzzle has been solved.

Well, I say "Poo!" to that. For one thing, there are enough ways to vary the game and handicap players versus the AI in *Clash of Steel* to keep it interesting for a long, long time. Also, there is more than one way to skin a cat, so players will still be challenged to come up with their own, alternate "perfect plans." Finally, and above all else, *Clash of Steel* is about the best multi-human-player-hot-seat computer wargame that's ever come down the pike. If any reader can, by hook or crook, get a wargaming buddy to come over so that they can play a game of *Clash of Steel* together, the result will be sublime. With the predictable AI out the window, both sides will have to develop new plans with which to confront a wily opponent. It is an experience I highly recommend.

"The Counterclock Conquest"

Here is the way to almost insure success as the Axis against computer opponents in *Clash of Steel*. After the fall of Poland, the German army moves like the sweeping hands of a clock, counter-clockwise, starting in France, and going a full revolution through Spain, Africa, the Middle East, Russia, and then on to England. This is the precise path of the German schwerpunkt ("spearhead") as it advances forward to victory.

The Axis should take out France as quickly as possible in 1939-40, accepting a Vichy Government if offered, and then immediately declaring war on it, occupying Marseilles in the process. Early purchases should include U-boats (at worst, replacing losses, but preferably to build up strength in the North Atlantic), HQs and air units.

Mass up the Wehrmacht (German Army) along the entire Spanish border and march it as rapidly as possible down through to Madrid (here Spain usually surrenders) and on to Gibraltar. By the end of 1940, Spain should have fallen and, after Gibraltar joins it, the counter-clock will run on automatic for a while across the long and narrow desert front.

Keep the Russian border garrisoned with at least enough troops to reduce their chances of preparing for war (see p. 38 of the manual). Production should then concentrate on building up the "anvil" (i.e., building up a large ground force with which to attack Russia) and keeping the "hammer" (the units marching through Spain) up to full strength. In particular, be sure to build the paratroops for the assault on Leningrad. However, HQs, armies, air units and tanks will all prove useful, so build some of those, too.

After Gibraltar falls, make sure the Allies have no transports in the Mediterranean. If this is the case (and it usually is), strip every garrison army out of the Mediterranean and send them off to Poland to join the "anvil chorus" for the coming Russian campaign.

Do not attack Russia in 1941! Instead, spend a year preparing the Polish anvil while the Panzers and airplanes roll across Africa.

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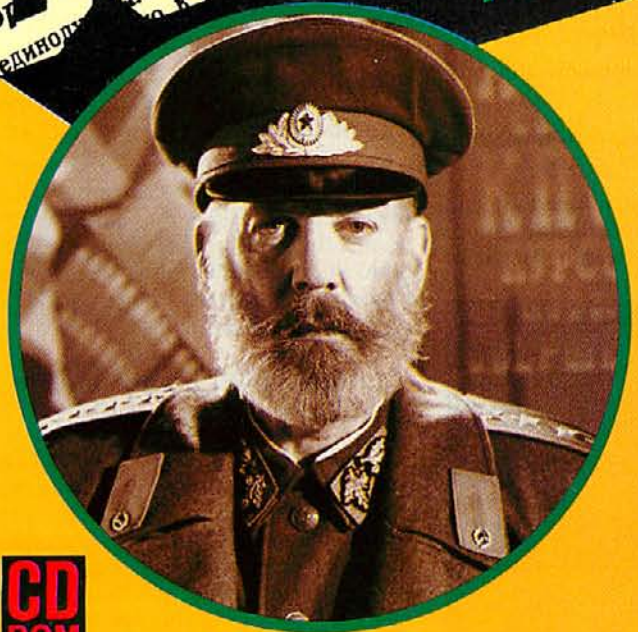

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DONALD SUTHERLAND is your father and only ally. A former KGB agent, he will shrewdly guide you through CONSPIRACY with state-of-the-art digitized speech and video. Actual TV footage of the Soviet crisis also heightens the very real peril of your assignment.

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FEATURES:

★ Extensive video of Donald Sutherland as your father gives you hints and help throughout the game.
★ TV footage of the Soviet crisis as it unfolded.
★ Movie-like storyline filled with surprising twists and intrigue.

CD ROM

Virgin GAMES

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Remember, after Gibraltar falls, redeployments and reinforcements can usually be brought in as far forward as Tobruk on the very next turn. The goal is to capture Alexandria and then Syria and the Middle East. The deadline to complete all of these conquests is early 1942.

The Summer Of '42

Declare war on the May/June turn of 1942. If Russia opens hostilities with a preemptive declaration of war, consider pressing Hungary (and, possibly, Bulgaria) to supporting the Axis. Don't involve Rumania until "the hammer" coming up through the Middle East is in place. At that point, stretch the Russians as thin as possible to pave the path to victory.

During the opening campaign in Russia, concentrate on two key thrusts: the first being made by "the hammer" forcing up through the mountains of Iran into Russia's vital southern resources (once a city is captured, redeploy units and send reinforcements there on the next turn). The second thrust must come off the "anvil" force and capture Leningrad. Be sure this "anvil" thrust includes the German paratroops, as they will be needed to breech the rivers and fortifications around the ancient Russian capital.

One move that will greatly aid the fall of Russia is to assign the Axis bombers to the Russian factories. Building one or two additional bombers can greatly compound the Allies' problems in Russia, as they never commit their air units to strategic air defense. Also, surrounding their units before destroying them will take them out of the war for at least a year.

By the winter of '42-'43, Leningrad should be conquered and Moscow and Stalingrad either captured or threatened by Axis forces hoping to close their giant north/south pincers somewhere between Saratov and Gorki. Usually, Russia is ripe for easy conquest in 1943 when using the counter-clock conquest plan, and her fate is sealed the moment she begins to accumulate surrender points.

End of Turn Table

The row used is based on the current weather in the (large) "Temperate Zone." A turn will continue if the die roll is *less than* the number indicated.

Impulse	1	2	3	4	5	6	7	8	9	10+
Clear	7	7	7	7	6	6	5	4	3	2
Mud/Snow	7	5	4	2	2	2	2	2	2	2

Fighting Them On The Beaches

Once Russia begins to accumulate surrender points, use the now humongous German economy to crank up the fleet and prepare to conquer England. Be sure to build the amphibious port along with all planes and ships. The air force needs to be positioned along the North Sea coast in anticipation of the coming naval Armageddon that will ensue when England is attacked.

As long as Gibraltar is still Axis controlled, the Axis fleets (German and Italian) can combine, while the Allied fleets in the Atlantic and Mediterranean are separated. Although the Axis can draw the Allied Atlantic naval forces into battle at any time by sailing into the North Sea, and can completely halt the American economy by gaining complete control of the North Atlantic, one needn't really focus on either of those strategic options. Instead, one need only worry about sailing this combined fleet on the turn England is scheduled for invasion.

Since it will usually be a clear weather turn in the temperate area, one should invade England in the Autumn of '43 (if one does not wait for the entire German navy to arrive) or the Summer of '44. Also, by this time, much of the German economy will have gone to upgrading units to their fullest potential (where the computer player is usually slow to improve its forces), so that in individual battles, these upgraded Axis units will usually prevail.

Tips for conquering England:

a) shift bombers to Commonwealth production;

b) invade around London first, then grind on into Liverpool;

c) give priority to attacking American land units in England (since British troops receive the double strength benefit of their "Home Guard" rule).

Once firmly planted in England, the Axis armies should prevail. Game over.

Some Allied Plans

For the Allies, I've developed a couple of interesting strategies that I like to use to pull the *computer* player's tail every now and again. They can also be used to tweak the nose of a human opponent, although usually with less effect.

The first is the "Plan 17 Revivis" option. With that, I like to attack Germany with the French on the first turn of the 1939 scenario. I've been able to capture the Ruhr about half the time, as well as the resources near it. This really messes with the AI's "mind." Of course, I usually have to evacuate back to the Maginot line by the Spring, and the French will take some early losses, but the strategic effect upon the Axis campaign in the West in 1940 can be quite unbalancing.

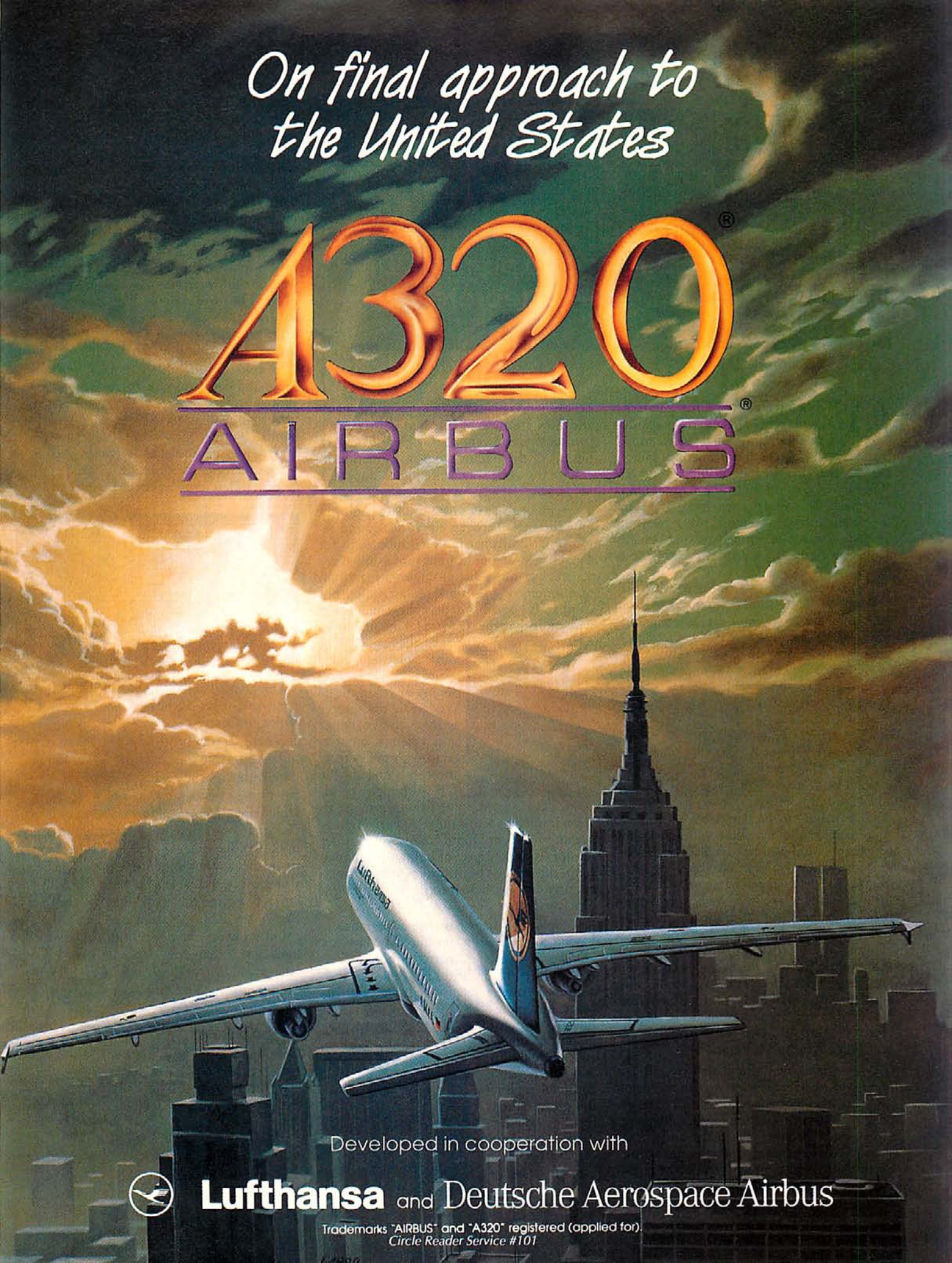
To enhance my chances with the French attacking the Germans in 1939, I will usually commit at least one British army to the continent and have it garrison Paris or the northernmost hex of the Maginot line. With a *major* Allied commitment (of production

points spent building up the French army and sending every available Brit) and some luck, the Germans can even be prevented from conquering France in 1940. If that happens, it's a whole new ball game for the Allies!

My other Allied plan is to conquer the Middle East with the Allies early in the war (by the end of 1940 at the latest). When this occurs, the British economy is enlarged and both allies can shift forces to each other's fronts. This makes holding Alexandria far easier after Gibraltar falls.

Signing Off From Supreme Headquarters (For Now—)

In part 2 of this in-depth look at *Clash of Steel*, I will present some exhaustive tactical tips for conducting air and naval campaigns, an examination of economics and production strategies, insights into the diplomatic system, plus more tables and formulae. Until then, hunker in the bunker and give my regards to Berlin. CGW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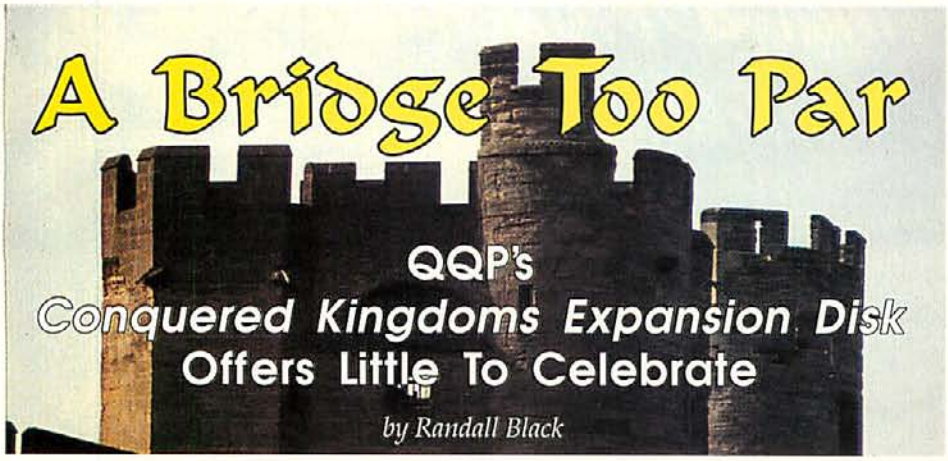


Photo by Susan Zurawik

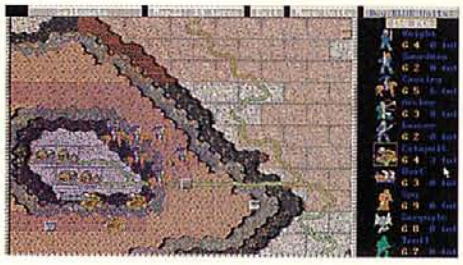
A Bridge Too Far

QQP's Conquered Kingdoms Expansion Disk Offers Little To Celebrate

by Randall Black

QQP's first scenario disk for *Conquered Kingdoms* adds 14 scenario maps that can be used in the single battle mode. If there is an electronic equivalent of gilding the lily, this is it. In the tradition of QQP's *The Perfect General* and *The Lost Admiral*, *Conquered Kingdoms* is a gem of a game. That means any software designed to augment the original *Conquered Kingdom*'s high quality should be something special. *Scenario Disk #1* isn't.

If one could report that the expansion disk was "more of the same," in the case of an excellent game like *Conquered Kingdoms*, that would be good news. Unfortunately, many of the maps provided in this package don't share the delicacy of the nine original maps nor their careful intermingling of elements. If the intricately meshed land, sea, hills and mountains of the original maps can be compared to Faberge eggs, many of the big, chunky designs of the new maps could well be described as hastily-dipped Easter eggs. Vast, unbroken expanses of a single terrain type characterize many of the maps and tend to introduce more tedium than challenge. Facile attempts to introduce variety such as changing water color from blue to red are predictably unsuccessful. Finally, where most of the originals had interesting networks of rivers and seas to allow for rapid transport and naval bombardment, several of the new scenarios ought to require armies to don stillsuits from Arrakis since they don't even include water.



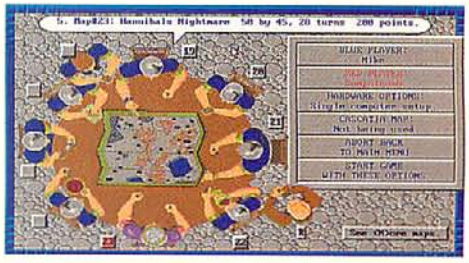
As for appearance, the game's overall aesthetic is virtually unchanged by the expansion disk. On the screen where warriors are depicted as sitting around a table and the player can select a scenario via "point and click," there is a new button that says "More Maps." Pressing the button merely takes the player to an identical scene with different map numbers. There is red water in some of the maps, and hills are now represented with stacked contours reminiscent of *The Perfect General*, but all of the terrain types still function in exactly the same way: stopping or impeding movement.

Several of the new maps are large and put long distances between cities, castles and resources. Unfortunately, the implications for a game in which most units move only three squares per turn, this promotes a marathon race among a few types of fast units, not combat. It's possible to play chess on a board with more than the standard 64 squares; however, the absence of card table-sized chess boards in the living rooms of wood pushers reveals that bigger is not always better and, when it comes to strategy games, getting there is *not* half the fun. Although spending five turns to get an armada of boats across the sea—correction—ocean, in "Sea of Doom" may create greater tension at the prospect of losing the eventual fight, the exercise begins to resemble a cross-country drive with no prospect of stopping at Stuckey's.

Some of the maps have the appearance of having been hastily produced. Map 20, "Dragon's Claw," is marred with bracket-shaped lines, blank boxes littering the landscape, and tiny rectangles pointlessly jutting from the shoreline. A stripe of graphic "noise" runs through this and other maps. Although slightly unsightly, these little glitches don't affect game play. Others do.

In the "Sea of Doom" scenario, the front gate of Imperial Castle lies flush with the shoreline, leaving no path from the castle onto land. When the castle was occupied by the computer opponent, Compolean, units appeared inside, but were unable to leave. They stacked up like cord wood on the ramparts. Since it was Compolean's only castle, it was a simple matter to surround it with archers in boats and pick off units as fast as they could be produced. When attacking units attempted entry by the only route left (from boats on the water), they were not allowed to enter the castle. The fortress only fell after being bombarded to the ground. The only challenge in this admittedly novel turkey shoot was having the patience to ship material to the site.

In spite of the disappointing scenarios, some of the new ones are fun to play. "Three Powers" offers a compact arrangement of diverse terrain that encourages fast and fierce combat among all variety of units. However, it is really quite similar to "Opposing Lands," one of the original scenarios. The major difference is that some bridges have been added.

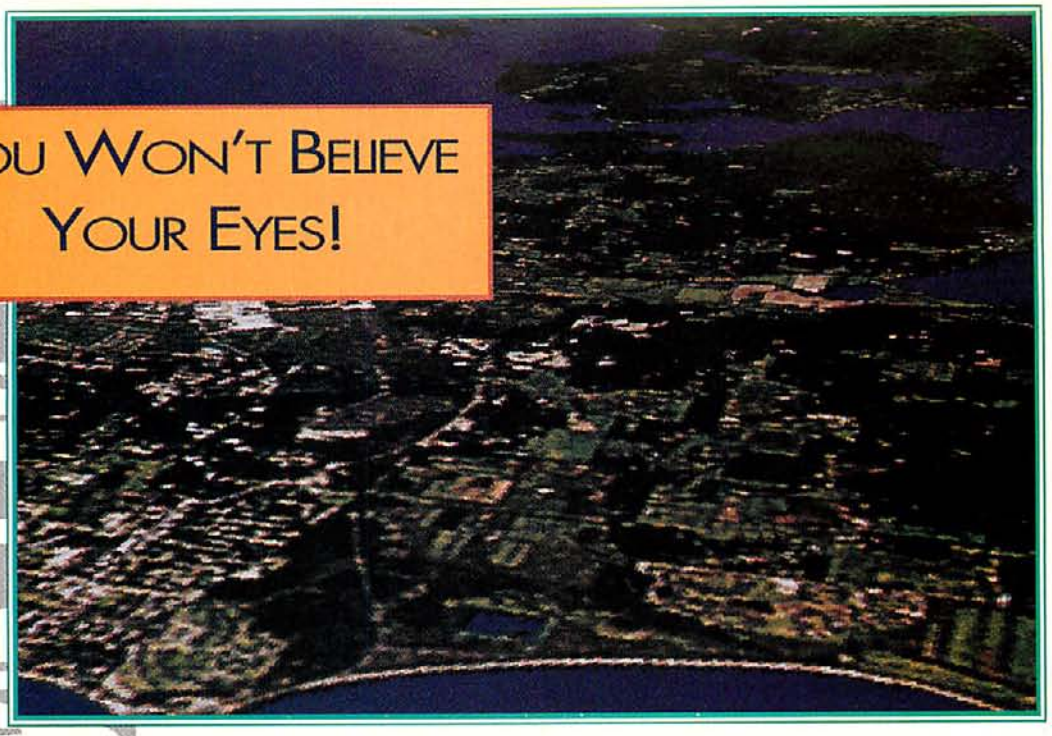


The greatest initial disappointment in the scenario disk is that the new maps don't work with the Cascatia campaign. Kings, officers and hard-won bonuses of gold or extra starting pieces make Cascatia interesting, and the long campaigns are where *Conquered Kingdoms* gets played most. A call to QQP revealed that failure to make the new maps Cascatia-compatible was an oversight and an update disk, which is expected to randomly insert the new maps into the campaign game, will soon be available to owners who call or write. But given that a dry, long distance trek like map #23, "Hannibal's Nightmare," could show up, the original mix of scenarios looks better than ever. *Scenario Disk #1* does have some bright spots, but considering its overall quality, it might be best if conquerors let these kingdoms rest in peace. **CGW**

Conquered Kingdoms Expansion Disk #1

TITLE:	Conquered Kingdoms Expansion Disk #1
PRICE:	$39.95
SYSTEM:	IBM
REQUIREMENTS:	VGA/EGA graphics, 550K hard drive space, mouse
# PLAYERS:	1-2 (head to head modem play)
PROTECTION:	Documentation look up
DESIGNERS:	Bruce Williams Zaccagnino and Thomas Searfoss
PUBLISHER:	QQP 1046 River Avenue Flemington, NJ 08822 (908) 368-9369

You Won't Believe Your Eyes!



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Brooks' Book Of Wargames: 1900-1950, R-Z

An Annotated Listing Of Games From CGW's Wargames Editor

by M. Evan Brooks

As surely as the Triple Entente faced the Central Powers in The Great War and the Allies confronted the Axis during World War II, magazine editors contend against demands of space which exert a devastating zone of control over the original concept. When we first conceived of these annotated listings (originally called *paiktographies*, a neologism derived from the Greek words for play and writing), we anticipated running one four-to-six page listing per quarter. Unfortunately for us, but *presumably* of great fortune for wargamers, the number of releases has grown to such an extent that we can rarely run these listings in a single issue. Last issue, we offered the first portion of the alphabet; this issue we conclude with games from R to Z.

RAF: BATTLE OF BRITAIN (N-R)
(Ap/T) Discovery; Dave Arneson, Dave Wesley and Ross Maker; 1980; O/P
Beg/Air/Op-Str/1
A simulation of up to 12 fighter aircraft in the World War II Battle of Britain.

REACH FOR THE SKIES (N-R)
(I; #79,106) Virgin; Rowan; 1993; xxx
Int/Air/Tac-Op/xxx
The Battle of Britain; more of a game than a simulation. Opening sequences, with graphics and sound, are superb, the remainder adequate....

RED BARON (★★★★★)
(A/I/M; #74,75,76,81,83,84) Dynamix; Damon Slye; 1991; $59.95
Adv/Air/Tac-Op/1
The best World War I air simulator ever done. Graphics, sound, historical accuracy and superb game play combine into a complete experience.

RED BARON MISSION BUILDER (★★★★)
(I; #102) Dynamix; Damon Slye & Chris Shen; 1992; $29.95
Int/Air/Tac/1
A scenario design kit for *Red Baron* that adds additional planes.

RISING SUN, THE (N-R)
(Ap/I) General Quarters; Owen P. Hall, Jr.; xxx; $35
Beg/Nav/Tac-Op/0-2; M
The Russo-Japanese War (1904-5). An interesting period in naval warfare that has been rarely simulated.

ROAD TO MOSCOW (N-R)
(C; #40,41) Game Designers' Workshop; Phil Gardocki and Greg Mojher; 1987; O/P
Adv/Land/Op-Str/1-2
A corps level simulation of World War II's War in the East. For a more contemporary treatment see *Second Front.*

ROCK OF STALINGRAD, THE (N-R)
(Ap) Benchmark Software; Stephen Newburg; 1983; O/P
xxx/xxx
An early attempt to simulate the World War II epic Battle of Stalingrad. Command perspective, no graphics.

ROMMEL: BATTLES FOR NORTH AFRICA (★★★)
(C/Ap/I; #50,51,64,65) Strategic Studies Group; Roger Keating and Ian Trout; 1988; $39.95
Adv/Land/Op/0-2
Rommel in the *Battlefront* system, this simulation offers several famous battles of the African Campaign as well as a "design-your-own" option.

ROMMEL: BATTLES FOR TOBRUK (★+)
(A/Ap/C; #32,37,48,50) Game Designers' Workshop; Frank Chadwick; 1986; O/P
Adv/Land/Tac-Op/1-2
A tactical/operational simulation of World War II's desert battles, this game is very detailed and complex. Supply and air rules are among the most elaborate ever devised, but sheer unplayability will deter most players. The graphics deserve special mention, since they look like someone ate a Big Mac and threw up onto the screen.

ROMMEL AT EL ALAMEIN (N-R)
(Ap/ST/I; #52) Simulations Canada; Bill Nichols; 1988; $60
Adv/Land/Op/1-2
Operational study of the World War II battle (1 July - 6 November 1942). Command perspective, no graphics.

ROMMEL AT GAZALA (★★)
(Ap/ST/I; #30,40,41) Simulations Canada; Stephen St. John; 1986; $60
Adv/Land/Op/1-2
The Battle for Tobruk (26 May - 27 June 1942). Computer-assisted boardgame from a command perspective with no graphics.

RUSSIA (★★★★)
(C/Ap; #39,40,41) Strategic Studies Group; Roger Keating and Ian Trout; 1987; $39.95
Adv/Land/Str/1-2
A simulation of the entire Eastern Front (1941-1945), it is similar to both *War in Russia* and *Second Front.* However, it offers a more impressionistic and less quantitative analysis. Even with its age, this product is highly recommended.

SANDS OF FIRE (★★)
(M/I; #74) Three-Sixty; Gordon Walton; 1990; $49.95
Beg/Air/Tac/1
World War II North Africa from the tank commander's cupola, this game offers both arcade and simulation play. One of the more interesting graphic/sound aspects is the gun ejecting an empty shell with a satisfying "thunk," but in many ways, "thunk" describes the game play.

SEARCH AND DESTROY (★)
(C/I; #43) Broderbund; xxx; xxx; O/P
Beg/Nav/Tac/1
World War II destroyer simulation, distinguished by nothing of importance. Reminiscent of an arcade-type product with similarities to *Destroyer.*

SECOND FRONT (★★★+)
(I/Am; #65,68,72,73,85) Strategic Simulations, Inc.; Gary Grigsby; 1990; $59.95
Adv/Land/Op-Str/0-2
The Eastern Front of World War II, covered from start to finish. Different levels allow one to see losses taken down to squad level. Replace commanders, build armies, seize objectives. It's all here, and this is *the* simulation to have on the Eastern Front—at least until Gary Grigsby's *War in Russia: 2nd Edition* is completed.

SECRET WEAPONS OF THE LUFTWAFFE (★★★★+)
(I/CD; #74,76,77,88,94) LucasArts; Lawrence Holland; 1991; $69.95
Int/Air/Tac-Op/1
LucasArts' action-oriented simulation with emphasis on the Bomber Offensive Over Germany (1943-45). It features B-17s and German fighters such as the Me-262 jet. Offering excellent graphics, the game attempts to portray tactical, operational and strategic levels, and generally succeeds.

SECRET WEAPONS OF THE LUFTWAFFE: Expansion Disks (★★★★)
I.P-80
II.P-38
III.HE-162
IV.DO-335
(I) LucasArts; Lawrence Holland; 1991-1992; xxx
Four additional planes and missions for *Secret Weapons of the Luftwaffe.* The "Best Buy" is the CD-version, since it comes packed with the main program and all the expansion disks.

SHERMAN M4 (★★)
(I) Lorelei; xxx; xxx; xxx
Beg/Land/Tac/1
An arcade-type treatment of Desert Warfare during World War II.

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SIEG IN AFRIKA (N-R)
(C/Ap; #4.5,5.1) Simulations Canada; xxx; 1984; $60
Adv/Land/Op/1-2
The Desert Campaign (1940-1943) covered from a strategic viewpoint.

SILENT SERVICE (★★)
(C/I/A/Ap/Am/II-GS; #25,26,30,37) MicroProse; Sid Meier; 1985; $19.95
Adv/Nav/Tac/1
A tactical simulation of submarine warfare in the South Pacific during World War II. Detailed rules, historical accuracy and layers of complexity made this sim a necessity in every gamer's library when it first appeared, but it has been rendered obsolete by time and superseded by *Silent Service II*.

SILENT SERVICE II (★★★★+)
(I; #74,76) MicroProse; Arnold Hendrick; 1990; $59.95
Adv/Nav/Tac/1
A remake of *Silent Service*, this game brings what was a fine simulation up to state-of-the-art in graphics and gameplay. It does not seem to have engendered the rousing reception that its predecessor received, but it remains the best World War II submarine simulation available.

SNIPER (N-R)
(#61,63) CompuServe; Steve Estvanik; 1989; xxx
Air/Land/Tac/1-multi
An on-line version of the famous SPI board game depicting man-to-man combat in WWII. Originally reviewed as an ASCII-only game, it has since been enhanced with a graphic interface.

SONAR SEARCH (N-R)
(C) Signal Computer Consultants; xxx; 1984; O/P
Int/Nav/Tac/1
Early simulation of Battles in the North Atlantic during WWII. One of the first computer wargames to use a keyboard template as a game aid.

SPITFIRE ACE (★)
(A/C; #4.4) MicroProse; Sid Meier; 1984; O/P
Beg/Air/Tac/1
An early combat simulator that has been severely wrinkled by age.

SPITFIRE '40 (0)
(C/Ap; #69) Avalon Hill; xxx; xxx; $35; 0
Int/Air/Tac/1
World War II flight simulator; poor graphics and poorer execution. It flies like a bus with the maneuverability of a tractor-trailer.

STALINGRAD CAMPAIGN (★)
(C/I/Ap/ST; #37) Simulations Canada; Bill Nichols; 1987; $60
Adv/Land/Op-Str/1
An operational/strategic simulation of the 1942-1943 Russian Campaign, this game fails due to a poor interface, poor documentation, and the inability of the game to deliver any semblance of player participation.

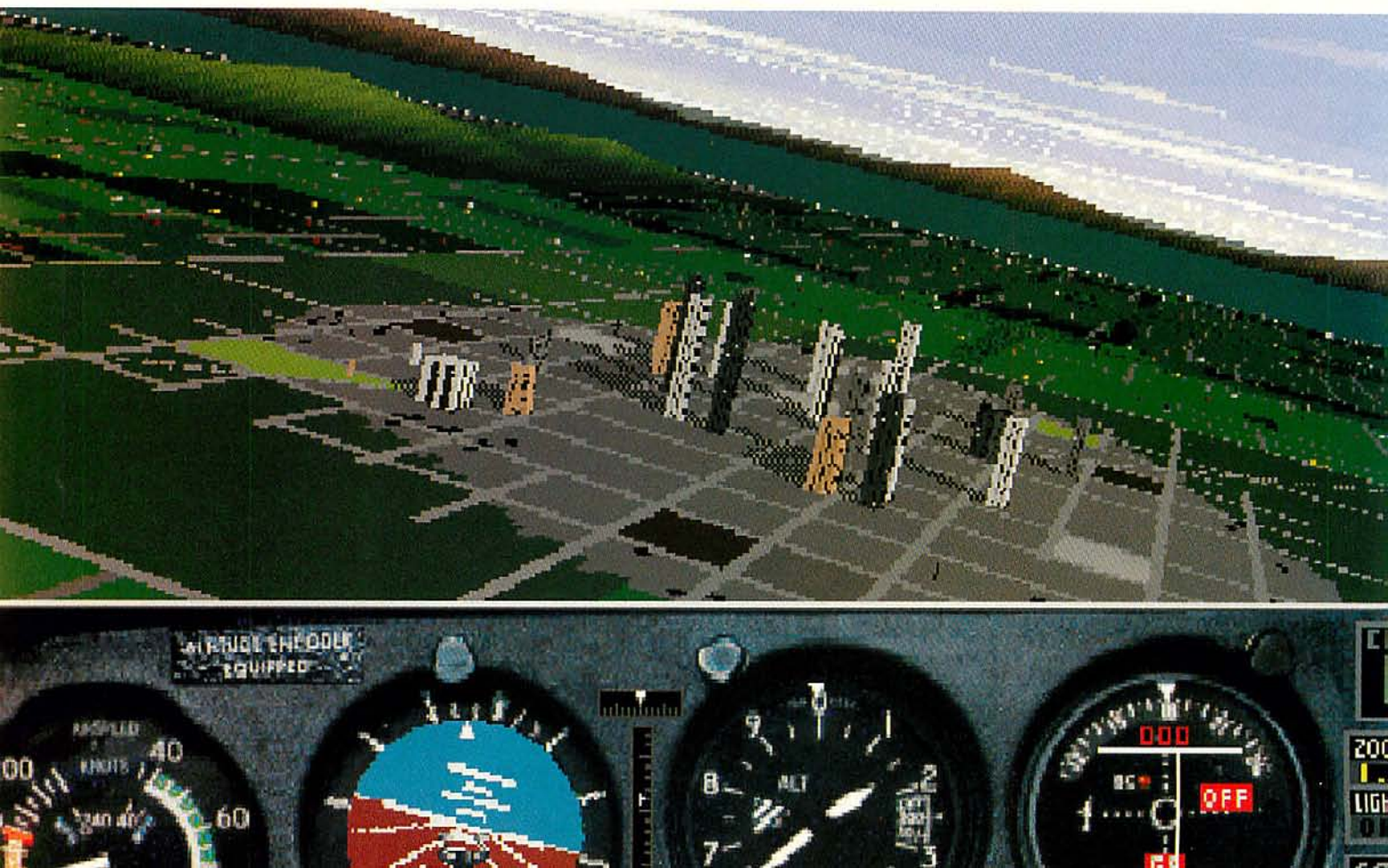
STORM ACROSS EUROPE (★★★)
(C/Am/I; #62,65,74,75) Strategic Simulations, Inc.; Dan Cermak; 1989; $39.95/59.95
Int/Land-Nav/Op-Str/1-3
Similar to the boardgame *Hitler's War* except that the computer interface is much more awkward. The graphics are primitive and the documentation somewhat sparse. *Clash of Steel* makes this embarrassingly unplayable.

SUB BATTLE SIMULATOR (★★★)
(C/I/Ap; #36,38) Epyx; Gordon Walton; 1986; O/P
Adv/Nav/Tac/1
World War II submarine simulator in either the Atlantic or Pacific theaters. Obsolete, but it did have some interesting features (and some not so interesting, e.g. one's submarine could claw its way across the coast of Spain rather than transiting through the Straits of Gibraltar).

SUBMARINE COMMANDER (★)
(A) Thorn; xxx; xxx; O/P
Beg/Nav/Tac/1
Virtually the first submarine simulator, it was innovative in its time, but now offers next to nothing for the simulation gamer.

SURRENDER AT STALINGRAD (★+)
(C/A; #37) DKG; Marc Summerlott; 1986; O/P
Int/Land/Op/1-2
The World War II Southern Offensive in the East carried on in DKG's inimitable format, i.e. primitive graphics, inadequate user interface and overall slowness of execution.

T.A.C. (★)
(A/C/Ap/I; #3.4,37) Avalon Hill; Ralph H. Bosson; 1984;$30
Beg/Land/Tac/1-2
A tactical simulation of armored conflict during WWII. Similar to *Panzerjagd* and just as obsolete.



TANKS AND SQUADS (N-R)
(xxx) C&C Software; Al Winfree and Tim Deane; 1982; O/P
xxx/2
Ostensibly a "simulation" of World War II Eastern Front tactics, it is extremely primitive.

TANKTICS (N-R)
(A/Ap) Avalon Hill; Chris Crawford; 1981; O/P
Int/Land/Tac/1
One of the first computer wargames, *Tanktics* portrayed hypothetical, World War II German-Russian armor battles. A computer-moderated boardgame using cassette tape storage, the human player could only command the Germans.

TASK FORCE 1942 (★★★+)
(I; #101) MicroProse; Lawrence Schick; 1992; $69.95
Adv/Nav/Op-Tac/1
A detailed simulation of 1942 naval operations off Ironbottom Sound. Graphics are well-done and game play is in-depth. Yet, switching between stations on a single warship or switching to different warships can be somewhat confusing. Allowing the computer to fight on the tactical level is not the key to success.

THEATRE OF WAR (★★+)
(I; 97, 102) Three-Sixty; Bill Banks; 1992; $49.95
Int/Land-Air/Op (Abstract)/1-2; M
A wargame first—i.e. first SVGA release. This is its biggest claim to fame; it takes the worst aspects of chess and wargaming and bundles them into a mediocre product. It does have some following as a modem game, however.

THEIR FINEST HOUR (★★★★)
(I; #65,66,67,75,77,82,83)
LucasArts; Lawrence Holland; 1989; $59.95
Int/Air/Tac-Op/1
The Battle of Britain done in LucasArts' inimitable style. Multiple planes, a campaign option, and a scenario designer offer a superb product.

THIRD REICH, COMPUTER (★)
(Am/ST) Avalon Hill; Thalean Software; 1992; $39.95
Adv/Land/Str/1-2
A computer rendition of the boardgame based upon the 3rd Edition rules. Its AI fails to deliver on several fronts.

TIGERS IN THE SNOW (★)
(A/C/Ap; #37) Strategic Simulations, Inc.; Chuck Kroegel and David Landry; 1981; O/P
Beg/Land/Op/1-2
An operational simulation of the Battle of the Bulge, its primitive graphics and play mechanics, and its poor user interface have been superseded by more recent efforts.

TOBRUK: THE CLASH OF ARMOUR (★+)
(C; #49) DataSoft; Steve R. Williams; 1987; xxx
Beg/Land/Tac-Op/1
A tactical/operational "simulation" of the African Campaign covering the Battle of Gazala with a strong arcade element. Rather than complementing each other, the simulation and arcade aspects denigrate each other's appeal.

TORPEDO FIRE (N-R)
(Ap) Strategic Simulations, Inc.; John Lyon; 1981; O/P
Int/Nav/Tac/2
Submarine warfare in World War II in both the Atlantic and Pacific theaters. A very early effort with no computer opponent.

TO THE RHINE (N-R)
(Ap/ST/I; #43) Simulations Canada; Stephen St. John; 1987; $60
Adv/Land/Op/1-2
The War in the West, 29 August - 11 December 1944.

TSKFRC-58 (N-R)
(Ap) Jagdstaffel; xxx; 1983; O/P
Int/Nav/Tac-Op/xxx
A simulation of the World War II Battle of the Philippine Sea.

TSUSHIMA (★★)
(C/Ap) Avalon Hill; Kiya Overseas Industry; 1985; $30
Beg/Nav/Tac/1-2
The Battle of Tsushima during the Russo-Japanese War. Clumsy graphics and user interface, but it is one of only two simulations covering this period.

TYPHOON OF STEEL (★★+)
(C/Ap/Am/I; #53,54,64) Strategic Simulations, Inc.; Gary Grigsby; 1988; $49.95/$59.95
Adv/Land/Tac/0-2
The sequel to *Panzer Strike*, this covers the remaining theaters of World War II (Pacific, Asia, etc.). Similar to its predecessor with all of its strengths and weaknesses.

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U.M.S. (★★)
(ST/I; #43,48,51) Firebird; Ezra Sidran; 1987; $49.95
Int/Land/Op/0-2
A wargame design kit characterized by easy design parameters. However, accuracy is sacrificed for playability, and often playability is sacrificed for graphics. Maritime operations are ignored, so its universality is not "complete." It will visually impress your friends, though it's clumsy and awkward.

U.M.S. II (★★+)
(I; #74,75,87) MicroPlay; Ezra Sidran; 1991; $59.95
Int/Air-Land-Nav/Op-Str/0-multi
A newer version of *U.M.S.* (see above), with more emphasis on strategic operations. A visual feast and a playability desert. The "design-your-own" disk is marketed separately, and company support for the title is tenuous at best.

UNDER FIRE (★★+)
(A/C/Ap/I; #25,27,37,41) Avalon Hill; Ralph Bosson; 1985; $59.95
Adv/Land/Tac/1-2
A tactical simulation of World War II infantry and armor. Open-ended with a versatile map maker and scenario builder, but it does show its age.

UNDER SOUTHERN SKIES (★)
(Ap; #4.3) Avalon Hill; Owen P. Hall, Jr.; 1984; xxx
Beg/Naval/Tactical/1-2
A tactical naval simulation covering the pursuit of the Graf Spee.

UP PERISCOPE (★★★)
(C/I; #38,CGF Winter) ActionSoft; xxx; 1986; O/P
Adv/Nav/Tac/1
Similar to *Silent Service*. Excellent documentation and good game play, but *Silent Service II* has assumed the mantle of graphics and utility in the contemporary market.

U.S.A.A.F. (★★★★★)
(A/C/Ap; #26,27,37) Strategic Simulations, Inc.; Gary Grigsby; 1985; O/P
Adv/Air/Str/1-2
An operational/strategic simulation of the Bomber Offensive Over Germany (1943-1945) on a daily basis. Scenarios range from one month to two years, and playing time is almost that long. With German production and industrial devastation the key, it remains a fascinating product. Based upon its commercial success, it would appear that its fans are limited to this reviewer and the designer.

V FOR VICTORY I: UTAH BEACH (★★★★)
(M/I; #94,101) Three-Sixty; Atomic Games; 1992; $59.95/69.95
Int/Land/Op/1-2
Perhaps the smoothest conversion of a boardgame-style wargame to computer format ever done, this covers the Utah Beachhead in the Normandy invasion (June 1944) with multiple scenarios.

V FOR VICTORY II: VELIKIYE LUKI (★★★+)
(M/I; #101,103,104,105) Three-Sixty; Atomic Games; 1992; $59.95/69.95
Int/Land/Op/1-2
The sequel to *Utah Beach*, this covers an obscure battle on the Eastern Front. While mechanics are similar to its predecessor, a historical and strategic analysis of the battle's importance and outcome would have been appreciated.

V FOR VICTORY III: MARKET GARDEN (★★★★)
(M/I) Three-Sixty; Atomic Games; 1993; $69.95
Int/Land/Op/1-2
The next expansion in the series, this does a commendable job of simulating the airborne drop in the Netherlands (1944). While alternate drop zones are available, I would have appreciated the option to determine my own drop zones and run from there.

VULCAN (★★)
(I; #56,64) CCS; R. T. Smith; 1989; $39.95
Int/Land/Op/1-2
Similar to *Desert Rats*, this simulation covers the Tunisian Campaign in WWII North Africa. Mediocre graphics and game play do little to enhance the program.

WAR AT SEA (★)
(Ap/I) General Quarters; Owen P. Hall, Jr.; xxx; $30
Int/Sea/Tac/0-2; M
The exploits of the WWI German cruiser SMS Emden, using the same designer and overall style of *Under Southern Skies*.

WAR EAGLES (★+)
(I; #69) Cosmi; Ron Paludan; 1989; O/P
Beg/Air/Tac/1
A World War I flight simulator, this was one of the first out on the IBM block. Its graphics are chunky, game play is awkward, and overall, there is nothing to recommend this as anything more than a thinly disguised arcade product.

WARGAME CONSTRUCTION SET (★★)
(C/A/I/ST/Am★; #34,75) Strategic Simulations, Inc.; Roger Damon; 1986; O/P
Int/Land/Tac-Op/1-2
Basically the user-modifiable source code of Roger Damon's previous works (*Operation Whirlwind*, *Field Of Fire* and *Panzer Grenadier*), the game's potential to design-your-own scenarios is limited by the failings of the system's mechanics. It is most applicable to the World War II era. A novice may well find its flexibility interesting, although the graphics are dated.

WAR IN THE FALKLANDS (N-R)
(Ap/I) General Quarters; Owen P. Hall, Jr.; xxx; $35
Beg/Nav/Tac-Op/0-2; M
The WWI Battles of the Coronell and Falklands.

WAR IN RUSSIA (★★)
(A/Ap; #4.4,5.1,5.2,29,37,62,65) Strategic Simulations, Inc.; Gary Grigsby; 1984; O/P
Adv/Land/Str/1-2
An operational/strategic simulation of the entire Eastern Front (1941-1945), this game is easily learned and played. Sheer size and certain defects in the artificial intelligence present the difficulty. It has been superseded by Grigsby's later efforts.

WAR IN THE SOUTH PACIFIC (★★)
(C/Ap; #36,37) Strategic Simulations, Inc.; Gary Grigsby; 1987; O/P
Adv/Nav/Op/0-2
World War II in the South Pacific—a logistician's dream (or nightmare!). Complex and interesting, but it attempted to accomplish more than it could deliver. Recommended only to those with a specific interest in the period. For a better treatment, see *Gary Grigsby's Pacific War*.

WARSHIP (★★)
(A/C/Ap/ST/I; #33,34,37,42) Strategic Simulations, Inc.; Gary Grigsby; 1986; O/P
Adv/Nav/Tac/0-2
A tactical simulation of Pacific surface naval engagements during World War II. The documentation and game play seem to gloss over much-needed details as to what is (or should be) happening, and the graphics are reminiscent of a sex-education movie showing sperm traveling in various directions. Its main appeal is to the true naval aficionado and not to those with only a marginal interest.

WARSHIP THAT CHANGED HISTORY, THE (N-R)
(Ap/I) General Quarters; Owen P. Hall, Jr.; xxx; $35
Beg/Nav/Tac-Op/0-2; M
The voyages of the WWI naval vessels Goeben and Breslau.

WESTERN FRONT (★★★+)
(Am/I; #88) Strategic Simulations, Inc.; Gary Grigsby; 1991; $59.95
Adv/Land/Op-Str/0-2
The sequel to *Second Front*, this covers what most historians refer to as the "Second Front" (i.e. the war between Nazi Germany and the Western Allies, 1944-45).

WHITE DEATH (★★)
(Am/I; #66,68) RAW; Al and Joseph Benincasa; 1989; $49.95
Adv/Land/Op/1-2; M
The Battle of Velikiye Luki (WWII, East Front). A direct and literal translation from the board game of the same title, it suffers from user unfriendliness. However, if one liked the board game, this will keep *White Death* in one's library.

WINGED SAMURAI (N-R)
(Ap/T) Discovery; Dave Wesley and Ross Maker; 1980; O/P
Beg/Air/Tac/1
Similar to *Flying Tigers*, only with worse graphics, if that is possible.

WINGS (★★★+)
(Am; #67,69,74,76,77,83) Cinemaware; John Cutter; 1990; O/P
Beg/Air/Tac-Op/1
As a World War I flight simulation, this offered more of a cinematic treatment of aerial operations than a historically correct gestalt. However, it is fun to play, perhaps falling somewhere between "cotton candy" and "beer and pretzels." One of the few Amiga products that this reviewer misses on the PC-machines.

WINGS OF WAR (★)
(C) Strategic Simulations, Inc.; Charlie Merrow; 1985; O/P
Int/Air/Tac/1-2
World War II air combat; poor graphics and mediocre play render this product obsolete.

WOLFPACK (★★)
(Am/I; #61,62,65,72,73) Broderbund; John Garcia; 1990; $54.95
Int/Nav/Tac/1
Submarine operations in the World War II Atlantic. Superb graphics and the ability to play either German submarine or Allied surface combatants cannot disguise historical inadequacies. CGW

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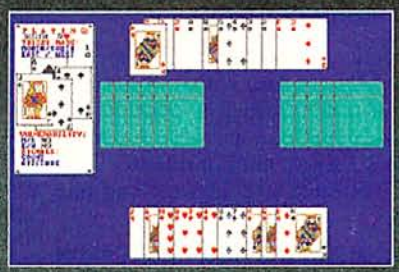

Play Screen

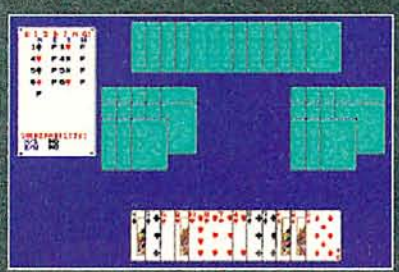

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Illustration by Bilbert Lage ©CorelDRAW

Elpin Systems' *Conquer for Windows*

by Neil Harris

Conquer for Windows is almost a great game. It has hidden terrain, production and multiple maps. Players builds new units in cities, choosing which types they want and paying time penalties for building more sophisticated pieces. It has a halfway challenging AI and a modem option for even more challenge. Yes, it is almost a great game. In fact, it is almost *Empire Deluxe.*

Any Kind Of Tank You Like, As Long As It's Black

For an experienced wargamer, *Conquer for Windows* is like fixing a car with only a screwdriver and a hammer: It may be possible, but it is most likely that one will wish for more tools. There is a single kind of infantry unit, a single type of tank, one airplane and one ship. That's it.

Further, terrain effects are minimal. Water is only passable by ships and planes. Planes can also go over mountains. Tanks move faster than infantry through all terrain, even through woods. Land spaces all produce the same amount of food or resources.

Frankly, however, the economic system might as well not be there. The player will have to pay attention to it, but no real thought or planning is actually required. One just sets up the parameters so there is enough food and mineral resources to handle the cities and armies, and uses any excess to build more cities and armies. The only time I had trouble managing my economy was after taking too many enemy cities. At that point, the bills for repairing them became too high for my economy to be able to absorb. One would think that the cost of *losing* would be higher than that of winning. On the other hand, there may be some historical justification for this. The U.S., after all, has often rebuilt the economies of its former enemies.

Modem Warfare

There are some interesting features here, particularly when playing against other human players. The game uses a simultaneous movement system that makes modem play go much faster than in other games, including *Empire Deluxe.* This tends to turn games into mad scrambles to move all one's attacking pieces as quickly as possible, after which one waits for the other player to move before strategically placing the more defensive stacks and the reserves.

The modem option, after some problem configuring my opponent's junky generic internal modem, worked more smoothly than most games I've tried. Players can easily send messages to each other, the game moves along quickly, and there's very little waiting, unless of course one's opponents are taking time to appreciate the juggernaut just launched against their home cities.

Even A Kid Or CEO Could Play This

Despite the extreme simplicity, there is a game here. As play progresses through the difficulty levels, it does take more skill and care to win. Still, the game is so abstract and basic that a first-time wargamer can grasp the essentials and learn the ropes.

Indeed, this game is so similar to *Empire Deluxe* that I thought it important to take a side by side look. At the basic game setting on *Empire Deluxe*, there is more to the game—an extra layer of complexity that makes the game both more interesting and more difficult. It is my opinion that a beginner could grasp that game just about as quickly as *Conquer for Windows.* Both games have modem play, although *Conquer for Windows* adds the ability to play over a LAN, which, though not tested here, did sound like it had some potential.

Take My Advice, So I Can Beat You

At the start of the game, a player owns one city. There is an infantry piece and a tank in the city. The short-term objective is to explore new territory and use its resources to build up one's economy. At this stage, it is vital to maximize the amount of terrain explored. This requires one to immediately switch their city's production from armies to tanks. Since tanks move twice as fast as armies, they can uncover twice the amount of potential resources. So, it doesn't take long before the exploration advantage of the tank outweighs the ability to build infantry quickly. If players do nothing but explore, they'll have more resources in nine turns by using a tank. Infantry has the same defensive capability as a tank, but is only half the value offensively. Overall, I can't see where infantry has any

Conquer for Windows

TITLE:	Conquer for Windows
PRICE:	$69.95
SYSTEM:	IBM with Windows
REQUIREMENTS:	386 or better, VGA graphics, 4MB RAM, 4MB hard drive space, Windows 3.1 enhanced mode
# OF PLAYERS:	1-4, 2 for head-to-head modem play, 4 on network
PROTECTION:	Documentation look up
DESIGNER:	Harold Habeck
PUBLISHER:	Elpin Systems 45 S. Park Victoria, Suite 401 Milpitas, CA 95035 (408) 956-0720

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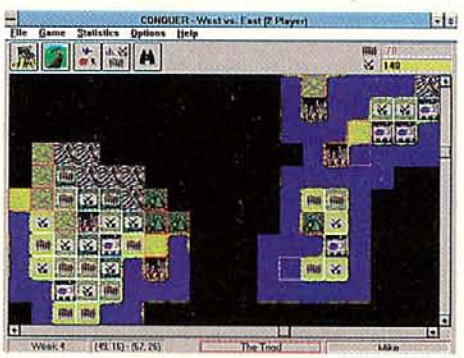
value at all except for building a quick defense force.

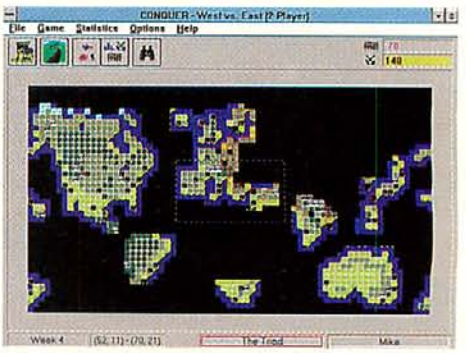
Airplanes are important as the game moves along. After players get their economy in order, they need to find out where the enemy is and prepare a smiting. Airplanes can move over all terrain. They can be stacked eight high in a space, regardless of how many ground units are with them. So, once the offensive starts, they can beef up an army in a big way. They also have the highest attack factor of any unit.

The manual explains clearly what the attack and defense values are for each unit, but never explains exactly how combat works. It does say that the odds are based on the attack value of the stack vs. the defense value of the other stack, but doesn't explain how losses are calculated for the attacker. A call to the company and a friendly chat with one of the programmers filled me in. The attack values of all offensive pieces in a stack are combined and compared to the defense values of the defending army. The attacker's and defender's chances of winning are proportional to those values. If the attacker has 10 and the defender has 5, the attacker is twice as likely to win a battle. What the manual doesn't make clear is that this calculation results in the destruction of one unit from the losing force, after which the odds are recomputed and a result calculated until one side is completely eliminated. In this way, units can be lost from the winning side. In a big battle, both sides are very likely to take losses.

The Battle Goes To The Swift... But Don't Misplace Your Army

This combat system and the values for the pieces favor the attacker in most battles. Yes, infantry is better in defense than in offense, but only because they are nearly worthless offensively. Since armor and planes both have attack values one greater than their defense values, it is vital in a pitched battle to be the one to attack. The simultaneous movement system makes this even more important. Since players don't politely wait to take turns, one has to wait for their shot. Against the computer, one can count on a brief pause at the start of the turn in which it is possible to





pounce quickly and get the jump on the AI. Against a human player, though, one must remain alert.

The map makes this difficult. The world is considerably bigger than what fits on the screen, even when using one of *Windows'* more extravagant screen resolutions. At the later stages of play, one can have battles all over the map and the potential for controlling

> "To conquer without risk is to triumph without glory."
>
> —Corneille, *Le Cid*

all fronts simultaneously is decidedly marginal. In fact, even without pitched battles it is all too easy to forget some of the more isolated pieces. They can wait around for several turns before one happens to look in the right place.

Reading through the manual—and yes, if I were a regular player and not a reviewer I wouldn't have read it either—one will find a number of features to make game play easier. By using the "shift" and "alt" keys in combination with game functions one can take better control of the forces. Wouldn't a *Windows* program ordinarily offer an icon-based or a mouse-controlled way to do that in addition to the hot keys? Close, but no cigar.

The "Go Fish" Of Wargames

A serious card player might like to play "Go Fish" every once in a while to relax and spare his or her neurons. For a wargamer, *Conquer for Windows* could be that kind of relaxing diversion. It's not complex enough to engage one too deeply, it doesn't take long to play, one can set their own goals, and one doesn't have to go to War College to learn how to play. It might be a good way to get someone started in wargaming, but such a newcomer should keep in mind that there are other games out there that will probably provide more training and amusement, especially in the long run. **CGW**

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Conquest of Longbow	42	-
Curse of Azure Bonds	19	37
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Darkside of Xeen	44	-
Dark Sun	Sep	-
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Daughter of Serpents	19	-
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Eric the Unready	37	-
Eye of Beholder	19	-
Eye of Beholder II	19	-
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Gateway Savage Frontr.	31	-
Gemfire	32	-
Gryphon Master Havlar	Nov	-
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Inca	37	-
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Kings Quest IV	39	-
Kings Quest V	42	42
Kings Quest VI	47	-
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Legacy of Necromancer	TBA	-
Legend of Kyrandia	37	-
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Magic Candle 3	37	-
Martian Dreams	37	-
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Pirates Gold!	39	-
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Pools of Darkness	37	37
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Realms of Arkania

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The Summoning	38	-
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Treasures Savage Frntr	19	-
Ultima IV	37	-
Ultima V	37	-
Ultima VI	19	-
Ultima VII	49	-
Forge of Virtue	17	-
Ultima VII Part 2	49	-
The Silver Seed	17	-
Ultima Trilogy I	37	-
Ultima Trilogy II	49	-
Ultima Underworld	49	-
Ultima Underworld II	49	-
Uncharted Waters	43	43
Warriors of Legend	22	-
Wizardry Trilogy	34	-
Wizardry 4	27	-
Wizardry 5	17	-
Wizardry 6 (Bane)	39	37
Wizardry 7 (Crusaders)	42	Sep

Present

Alone in the Dark	38	-
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Blue Force: Next of Kin	42	-
Crmen SnDiego:Past	-	37
Crmen SnDiego:Europe	34	-
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Crmen SnDiego:USA	34	-
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Leisure Suit Larry 5	42	42
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Veil of Darkness	37	-

Future

ArmourGeddon	37	-
Bad Blood	31	-
Battletech Powerhits	33	-
Buck Rogers	15	-
Buck Rogers 2	19	-
Cyberspace	Sep	-
Dominion	39	-
Dune	37	-
Dune II	37	-
Flashback	32	-
Free D.C.	40	-
Gateway	38	-
Hard Nova	16	-
Star Legions	37	-
Mantis	38	-
Speech Pack	22	-
Martian Memorandum	30	-
Mechwarrior 2	Sep	-
Out of this World	37	37
Privateer	Sep	-
Protostar:War Frontier	42	-
Rex Nebular MPE	38	-
Ringworld:Revenge Patr	37	-
Space Hulks	39	-
Space Quest 3	37	37
Space Quest 4	42	42
Space Quest 5	42	-
Spelljammer	19	-
Star Control 2	37	-
Star Trek 25th Annivers	36	-
Star Trek:Next Generation	Sep	-
Strike Commander	49	-
Speech Pack	19	-
Terminator 2029	42	-
Ultrabots	39	-
Wing Commander 1	19	-
Secrt Miss 1 & 2	19ea	-
Wing Commander 1 Dlx	49	-
Wing Commander 2	49	-
Spec.Ops.Dsk. 1	19	-
Spec.Ops.Dsk. 2	19	-
Speech Pack	13	-
Wing Commander 3	Sep	-
X-Wing	42	-

Hint Books

AD&D Clue Books	10-12
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Rex Nebular	10
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Sim Life:Strategy Guide	12
Star Control 2	11
Star Trek 25th Anniversary	10
Strike Commander	10
Summoning	15
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Ultima 3-4	9ea
Ultima 7	10
Ultima 7 Part 2	10
Ultima 7 & Underworld	11
Ultima Underworld 1 & 2	11
V for Victory Battle Book	12
Veil of Darkness	10
Wing Commander 1 & 2 Bk	12
Wizardry 6 (Bane)	10
Wizardry 7 (Crusaders)	13

Hardware

CH-Flightstick	42	-
CH-Virtual Pilot	66	-
Gravis Eliminator Card	29	-
Gravis Joystick Pro	39	-
Gravis Ultrasound	130	-
Pilot Control Stand	26	-
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Pro Audio Spctrm Plus	145	-
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Soundblaster Pro Delx	130	-
ThrstMster Flight Stick	69	-
ThrstMster Pro	114	-
ThrstMster Ruddr Pddls	109	-
Thrustmaster Throttle	79	-
ThrustMaster TSR's	12	-

September Specials

	IBM	AMI
Daughter of Serpents	19	-
Eye of the Beholder I	19	-
Eye of the Beholder II	19	-
Leisure Suit Larry 5	-	19
Meglomania	19	-
Paladin 2	25	-
Space Quest 4	-	19
Spelljammer	19	-
Summoning	19	-
Wing Commander I	19	-

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	IBM	Mac
Ambush at Sorinor	38	-
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Caesar	38	-
Centurion	16	-
Civil War Vol. 1,2 or 3	27ea	32
Cohort 2	18	-
Conquered Kingdoms	37	-
Conquest of Japan	38	-
Gettysburg	39	-
Great War	42	-
L'Empereur	38	-
Liberty or Death	38	-
Man of War	39	-
No Greater Glory	22	-
Paladin 2	25	-
P.T.O.	Sep	-
Rampart	25	-
Red Baron	42	42
Mission Builder	19	-
Siege & Dogs of War	19	-
Warlords 2	42	-

World War II

Aces of the Pacific	47	-
WWI:1946	25	-
Aces Over Europe	Sep	-
Campaign Dsk. #1	Sep	-
Air Warrior SVGA	38	-
B-17/Flying Fortress	38	-
Battle of South Pacific	Sep	-
Battletank Barbarossa	39	-
Carriers at War	42	35
Const. Kit	37	30
Carrier Strike	42	-
Expansion Dsk #1	21	-
Clash of Steel	43	-
Fleet Commander	Sep	-
Fleet Med	39	-
Grand Fleet	39	-
Great Naval Battles	42	-
Super Ships/Atlantic	19	-
Scenario Builder	25	-
America/Atlantic	19	-
Grigsby's War in Russia	48	-
High Command	44	-
Malta Storm	39	-
MBT Central Germany	39	-
MBT Kursk	39	-
New World Order	Sep	-
Pacific Theater Opera.	Sep	-
Pacific War	47	-
Panzer Battles	26	29
Patton Strikes Back	17	19
Red Sky at Morning	Sep	-
Rommel North Africa	26	29
Second Front	22	-
Secret Weapons Luftwaf	44	-
DO-335	20	-
HE-162	20	-
P-38	20	-
P-80	20	-
Silent Service 2 Classic	22	-
Task Force 1942	39	-
V for Victory Series:		
Utah Beach	43	37
Velikiye Luki	43	43
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Casserine Pass	Sep	Sep
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	IBM	Mac
Victory at Sea	43	43
Western Front	22	-
WWII: Battles of Pacific	Sep	-

Modern

A.T.P	39	-
A-10 Warthog	Sep	-
A Line in the Sand	19	-
ATAC	29	-
Commnche: Max Ovrkill	43	-
Expansion Dsk. #1	25	-
Expansion Dsk. #2	25	-
Conflict Korea	19	-
Conflict Middle East	19	-
Crisis in the Kremlin	42	-
F-117A Nighthawk	40	-
F-15 II Classic	22	-
F-15 III	42	-
Voice Commander	18	-
Falcon 3.0	45	-
Op. Fighting Tiger	25	-
Falcon MC	-	42
Flight Sim 4.0	40	-
Flight Planner	27	-
Sound & Graphics	27	-
Rescue 911	19	-
Scenery Design	28	-
Global Effect	19	-
Gunship 2000	38	-
Campaign Disk #1	22	-
Halls of Montezuma	27	29
Harpoon v1.3	25	37
Battleset 2 or 3	20	20
Battleset 4	22	24
Harpoon Designer Series	32	32
Harpoon Designer Ser. 2	26	26
Harpoon Scenario Editor	25	25
Harpoon Pack Sig. Edi.	49	49
Harpoon 2	Sep	Sep
Harrier Assault	37	-
Jet Fighter 2	42	-
Jump Jet	38	-
KGB	22	-
M1 Tank Platoon	29	-
MacArthur's War	32	-

	IBM	Mac
Megafortress	28	-
Megapack	37	-
Patriot	25	-
Red Strm Rising Clasic	22	-
Shadow President	42	-

Sci-Fi

Armored Fists	38	-
Cyber Empires	32	-
Global Effect	19	-
Imperium	25	-
Maelstrom	42	-
Mantis	41	-
Speech Pack	18	-
Mechamander	Sep	-
Mercenaries	37	-
Mercenaries 2	Sep	-
Reach for the Stars	28	28
Robosport (Windows)	38	38
Rules of Engagement	38	-
Rules of Engagement 2	38	-
Spaceward HO! (WIN)	37	-
Spaceward HO! (DOS)	37	-
Spectre	37	-
Star Legions	37	-
Star Legions 2	Sep	-
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When Two Worlds War	38	-

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A-Train	42	42
Construction Kit	24	24
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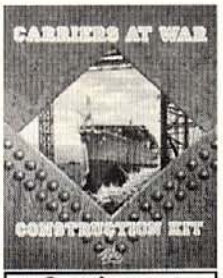

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This kit allows modification of existing scenarios or the creation of new ones. New scenarios include Wake Island, Guadalcanal, and Tarawa.

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Civilization	42	42
Civilization Master Edion	45	45
Command HQ Classic	22	-
Design Your Own R.R.	38	-
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Empire Deluxe	38	-
Flight Sim. 4.0	40	39
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Global Conquest	39	-
Gobliiins	37	-
Grandest Admiral	Sep	-
Grand Slam Bridge 2	34	-
Hong Mahjong Pro	32	-
Hoyles/Classic	32	-
Incredible Machine	32	-
Ishido	-	34
Lemmings	32	32
More Lemmings	22	-
Lemmings 2	37	37
Lost Admiral	38	Sep
Lost Admiral Enhanced	Sep	-
Perfect General	38	-
WWII Scenario Disk	22	-
Gret Battls 20th Cen	25	-
Perfect General Enh.	Sep	-
Populous	16	-
Populous 2	37	-
Powermonger	31	-
WWI Scenario Dsk	Sep	-
Power Politics (WIN)	32	-
R.R. Tycoon Classic	22	-
Reach for the Skies	22	-
Shuttle	38	-
SIMAnt	38	38
SIMCity	32	-
SIMCity (Windows)	38	-
SIMCity Supreme	-	37
SIMCity Supreme 2	-	47
SIMCity 2000	Sep	-
SIMEarth	42	42
SIMEarth (Windows)	42	-
SIMFarm	Sep	-
SIMLife	42	42
SIMLife (Windows)	47	-
Solitaire (Windows)	32	-
Solitaires Journey	38	-
Spoils of War	37	-
Stunt Island	37	-

Sports

	IBM	Mac
4-D Boxing	16	31
ATP Tennis	31	-
All Amer. Coll Ftbll 92'	37	-
Andretti's Racng Chllnge	16	-
Bill Elliot Nascar	32	32
Car and Driver	37	-
Complte PGA Tour Golf	31	-
Front Pg. Sprts Football	42	-
Front Pg. Sprts Basbll	Sep	-
Front Pg. Sprts Bsktbll	Sep	-
Games: Summr Chllng	35	-
Games: Winter Chllng	35	-
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Pinehurst	19	-
Bellry	19	-
Microleague Baseball 4	33	-
NFL Challenge	56	-
NFL Video Pro Football	47	-
PGA Tour Golf	19	37
Tour. Crs. Dsk.	15	15
PGA Tour Golf (WIN)	37	-
Tour. Crs. Dsk.	15	-
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Powerhits: Sports	32	-
Stratamatic Baseball	42	-
Tony Larussa Ulti. Basbll	19	-
Add-on Disks	15ea	-
Tony Larussa 2	37	-
92' Stats Disk	12	-
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Fantasy Draft Dsk	12	-
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Hockey League Sim	28	-
Wayne Grtzky Hckey 3	37	-
Wilson Pro Golf	27	-
World Circuit	34	-

Keyboard Overlays

A-10 Tank Killer	10
Aces of the Pacific	10
B-17 Flying Fortress	10
Chck Yeager Air Combat	10
Commanche:Max Ovrkill	10
F-15 Strike Eagle 2	10
F-15 Strike Eagle 3	10
F-117A Nighthawk	10
Falcon 3.0/3.01	10
Flight Simulator 4.0	10
Gunship 2000	10
Jetfighter 1 & 2	10
Megafortress	10
Secret Weapons Luftwaffe	10
X-Wing	10

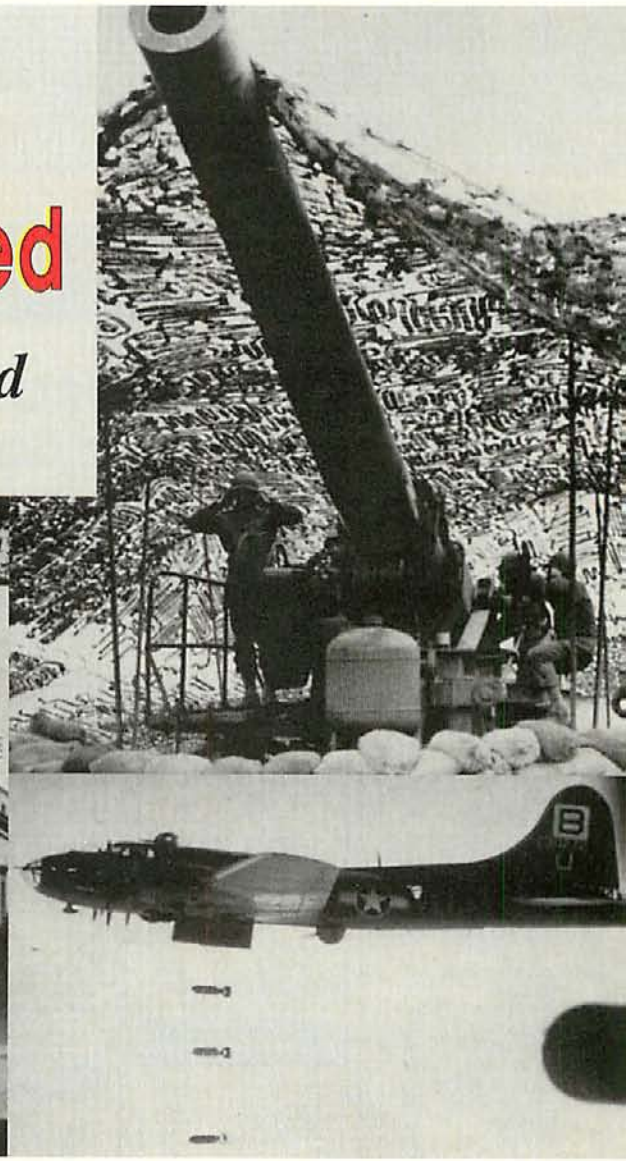
CD-ROM

	I	M
7th Guest	57	-
12 Rds to Gettysburg	42	42
Battle Chess	47	47
Battle Chess Enhanced	47	47
Blade	-	57
Buzz Aldrin's Rce/Spce	57	-
Challenge 5 Realms	Sep	-
Chessmaster 3000	57	-
Conquest of Longbow	42	-
Cyberspace	Sep	-
Dagger of Amon Ra	42	-
Dark Sun	Sep	-
Day of the Tentacle	42	-
Dune	42	-
Great Naval Battles	Sep	-
Iron Helix	-	62
Kings Ransom	37	-
Kings Quest 5	42	-
Kings Quest 6	47	-
Legend of Kyrandia	42	-
Loom	47	-
Lost Treasrs Infocom 1	47	47
Lost Treasrs Infocom 2	37	37
M1-Tank Platoon	57	-
Magnetic Scrolls	47	-
Mantis	42	-
North American Indians	42	-
Prince of Persia	57	-
Secret Monkey Island	47	-
Secrt Weapns Luftwaf	57	-
Sherlock Holmes Series		
Consulting Det. #1	43	43
Consulting Det. #2	43	43
Consulting Det. #3	43	43
Star Trek 25th Anniv.	47	-
Total Distortion	-	62
Ultima 1-6 Bundle	57	-
Undrwrld 1/Wing Co 2	47	-
Ultima Undwrld 1&2	53	-
Wing Commander 2 Dlx	47	-
Wng Cmmndr/Ultima 6	57	-
Wolfpack	Sep	-

Climbing Too High Can Leave You Winded

Three Sixty's *High Command*

by Terry Lee Coleman



High Command is a redesign of a WWII simulation in Europe, originally released in 1992. Gregg Carter and Joey Nonnast of **Colorado Computer Creations** designed the original version in the hours after their day jobs, and produced a respectable game. Being wargamers and programmers, and not artists, the original version lagged behind commercial products in its look and feel.

Wargame publisher **Three-Sixty** was impressed with the core design of the game and so arranged a deal wherein they would give the product a graphic makeover to get it up to today's consumer standards, and distribute it under their aegis.

High Command's packaging shows how much computer publishers have learned about marketing in the past few years. Embossed lettering on the box modestly claims "Stunning SVGA Graphics!" which, once you get to them, are rather impressive. It replicates the feel of board wargaming to a remarkable degree. What strikes the gamer first is the interface, an array of buttons which would do a Star Trek control board justice. A pull-down menu interface would have given old-fashioned gamers less culture shock, and with minimal programming it could have been implemented. However, the complexity of the game practically forces the player into using the tutorials, and one quickly finds that once mastered, the interface moves the game along more quickly than those which use our pull-down friends.

The first tutorial, dealing with the German conquest of Poland, is suitable in a philosophical sense, as this event was the beginning of WWII. That this approach has been used before, most recently by *Carriers At War* with its Pearl Harbor scenario tutor-

High Command

TITLE:	High Command
PRICE:	$69.95
SYSTEM:	IBM
REQUIREMENTS:	386sx, 3 MB RAM, VGA graphics, mouse
PROTECTION:	Documentation Look up
DESIGNERS:	Gregg Carter, Joey Nonnast
PUBLISHER:	Three-Sixty Campbell, CA (408) 879-9144

ial, is testimony to its soundness. All of the tutorials are basically puzzles to be solved, but the player who skips them will be ill-prepared for the Campaign Game.

The gameplay itself is reminiscent of the classic **Avalon Hill** board game, *Third Reich*, with a bit of ADG's *World In Flames* thrown in. Declarations of War, political variants and impulse movement, are all familiar items, and for gamers who were disappointed by the computer version of *Third Reich*, are welcome news indeed! All of the elements are present for an all-encompassing military, economic and political simulation of WWII in the European theatre. The major question is, of course, does *High Command* attain the heights for which it strives?

One oddity is that the game program is very obviously divided into military, political and economic simulations, with the ability to delegate any or all of these areas to computer "subordinates." Awkward at first, the player will soon know when to give the computer free rein and when to use more "hands-on" management to assure that Turkey is subverted, or that those supplies get to the front in time for the party at Leningrad. While the use of the computer here is not as realistic in terms of how real subordinates work, the scale is appropriate for grand strategic warfare, and when used judiciously, can speed up the game. A player can choose to wear many hats or play solely as the grand strategist, content to run the country in terms of economics and politics, and let his computer generals deal with the battlefield.

Of course, any true wargamer will not delegate away the fight, and he will love the ease with which the interface allows for maneuver and combat. Moreover, there are several specialty units, such as marines,

strategic air, even stealthy subs, which give *High Command* a good, historical flavor. The air and naval systems are thankfully more intricate than found in *Third Reich*, but can be more difficult to assimilate.

In fact, once the average gamer decides to really bear down, learn more about the game, and—*gasp*—read the documentation, he will probably be reaching for the nearest aspirin bottle. The problem is, the designers have a noble purpose: To provide all the information for players of *High Command* that a comparable boardgame would include. The amount of data is not only staggering in and of itself, but the writing style is right out of "My all-time favorite novels about mathematics." What explanations of combat systems should include are tables and charts, which *High Command* has, and examples of play, which despite the tutorials, are nowhere to be found. Instead, we get the following:

"These losses are equal to 1% times the square root of the ratio of the combat factor for the attacking aircraft to the combat factor of the defending anti-air. The losses can never be greater than 5%."

Unless of course, it's Tuesday and the moon is full...

Equally mind-boggling is the sequence of play, which would do *Pacific War* proud. While logical and somewhat realistic, one can't help but wonder if some items could not have been trimmed to facilitate game play. Three-Sixty wisely did not print out a comprehensive sequence of play on the back of the box, as it would have scared off potential buyers. Control freaks who think *Civilization* was lacking in detail will have a long and fruitful life with High Command. Until one learns to manage the flow of the game, it has the flavor of a tuna salad sandwich: So much layered on it's hard to tell what is really being digested.

The most troubling thing is that, even with all the painstaking attention to historical detail, *High Command* is still more a game than a simulation. Where are the rules for morale, both of individual units and for whole countries? Where is terror bombing? Atomic bombs were not used in Europe, why include them, or if they must be in, why not make the Allies stage commando raids to stop the German heavy water experiments? Why are all defenders automatically entrenched? What about separate rules for building-to-building firefights in cities?

The answer of course, is that every game, like every book, has a particular focus. Games such as Third Reich suffered from somewhat blurry vision when they first appeared, but eventually gained great popularity because they had something to say. *High Command* tries to be a grand sweep of WWII, much like its boardgame ancestors, and suffers from many of the same problems they experienced early on. The AI has been criticized far and wide, mostly by its inability to stop bizarre, ahistorical human player strategies. The computer opponent is definitely better on defense than attack, but it is not bad at all on the economic levels, and can even spring the occasional surprise on the diplomatic end. To compare the AI to say, the excellent opponents provided by *Chessmaster 3000*, is nothing short of ludicrous. For chess, or even simple wargames such as Risk!, the AI has pre-programmed libraries of "best moves" and/or openings to support it. Not only is the playing field 20 times larger in *High Command*, but the computer also has to coordinate a grand strategy for its military, economic and political plan (considerably more than the simple allocation of resource points. That the computer plays a passable game at all is commendable, given that several wargamers have been initially overwhelmed by the sheer scope of *High Command*.

A variety of options also enhance the game's longevity. While being allowed to invade Russia without weather is ahistorical, it does make for an entertaining blitz game if one is starved for an Axis victory. It is even assumed that the Japanese could have won the Pacific War, and Allied economic/manpower pools are downgraded accordingly. Of all the options available, using Hidden Deployment & Discovery rules is highly recommended, as they tend to help the computer player and create a wonderfully tense feel for combat, especially amphibious assaults.

Still, the fact that hidden deployment is such a plus shows *High Command* to be more a truly good war game, rather than simulation. Consider—WWII had the best reconnaissance of any war up to its time, including air on a scale never seen before or since. The ULTRA code was broken by the Allies, spies were everywhere, as were partisans. On a grand strategic scale, it would be more easy to know where one's enemy was located than say in a Civil War game. This would be less of a problem for a game of lower complexity, but is very disturbing in a game claiming to be a true simulation and possessing over 200 pages of rules! I am reminded of all those "monster wargames" from demised boardgame king SPI, where players snapped up the games because they were awed more by their sheer size than their game play. *High Command* is perilously close to that genre.

I kept asking myself, is this game really worth all the work? *High Command* is less innovative than a good amalgam of what came before. Overall, it tries to be too much, even for a detailed wargame, particularly in the economics end (which nearly put me to sleep, and I used to sell stocks and bonds). Lack of modem play is a sign of the program's age, but is still a minus. What has been done from a programming standpoint, however, is very impressive. This is the first computer game I have played in ages that did not crash even once, or have any problems with save game files and the like. The combat systems are fun, and are not that tough to integrate with the other systems once you get the hang of it. In many respects, this is the game I wanted when I bought *Computer Third Reich*, albeit a bit unnecessarily complicated for what it delivers. The main saving graces are the unique interface that simplifies play, and the variety of options that will keep me coming back, at least until a better strategic WWII game comes along. For players who love a marathon, it is certainly worth the trouble, especially as unwanted detail can be edited out. Now, if we could only do that with all of our computer games. CGW

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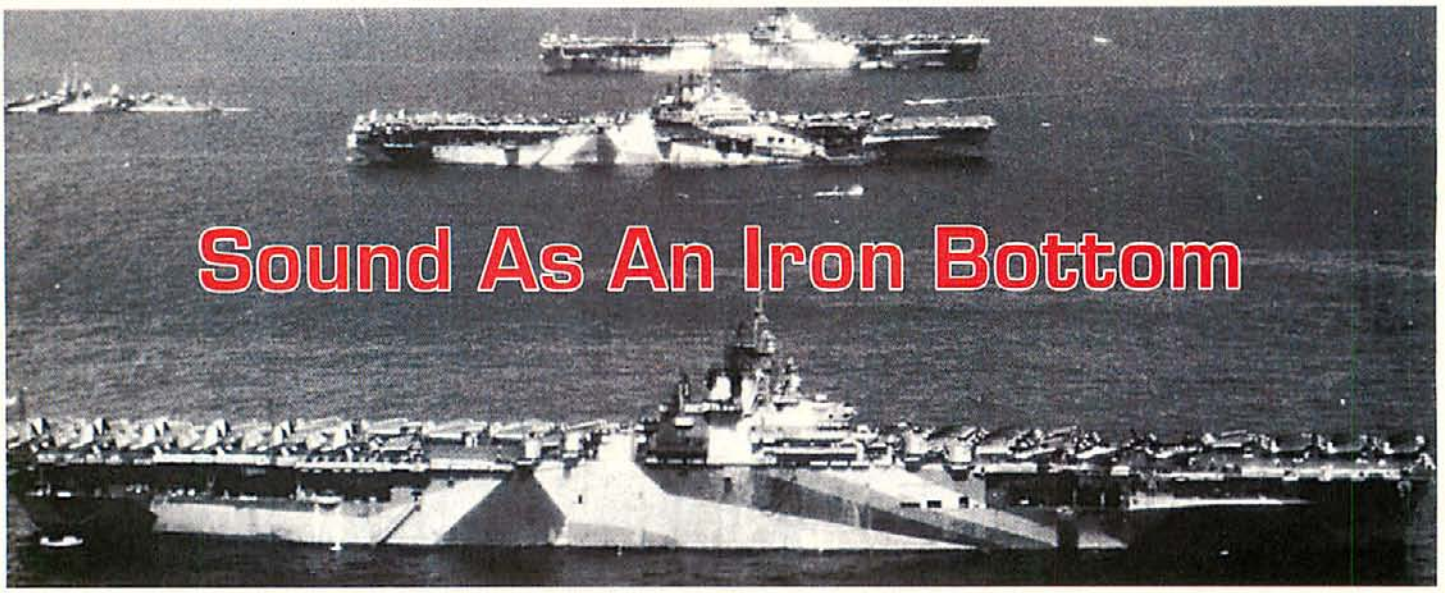
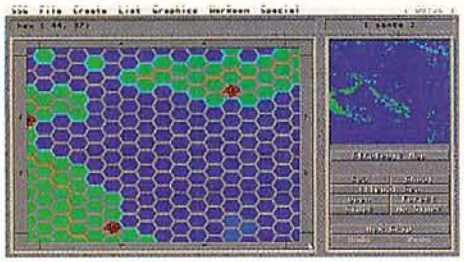


Sound As An Iron Bottom

SSG's *Carriers at War Construction Kit*

by Bob Proctor

Carriers at War, an oldie but goodie from the days of the 8-bit computer, was recommissioned last year by **Strategic Studies Group** (SSG) for IBM compatibles. As reviewed in issue #101 of *CGW*, *Carriers at War (CAW)*, like the 8-bit original, is an operational game of naval war in the Pacific during WWII. It emphasizes solitaire play, and the computer is a strong, if not perfect, opponent. Pacific theater buffs have waited with great anticipation for a scenario editor that would allow them to devise new strategies and battles with this solid game system.



And here it is...[long drum roll]...the *Carriers at War Construction Kit!* Unlike many scenario editors that merely let one change or add forces on a pre-set map, the *Kit* is a programming environment that allows a player to tinker with the computer opponent's artificial intelligence and create original maps. The *Kit* is a little late, yes, but it's a more ambitious product than was originally announced. SSG has improved the functionality of the AI by expanding the programming language that the designers use to create it, and has used this smarter, more flexible AI to create new versions and variations of the original scenarios included in *CAW*.

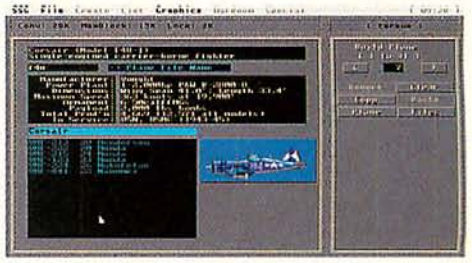
If the word "programming" is intimidating, rest assured; one can enjoy the game without delving into this aspect of the *Kit*. Even if players don't use the AI programming tools, they will still have a state-of-the-art computer opponent and an enormous amount of fresh game-play in the pre-created scenarios that come with the *Kit*.

Variations On A Theme By Yamamoto

There are nine scenarios included in the *Kit*, all with a historical version. Here is a list of the variations:

1. Pearl Harbor (12/41)

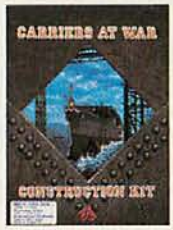
   There are two new variations; one portrays the US reaction if there had been warning of the Japanese attack. The other is a bit crazy. Based on the movie *The Final Countdown*, it sends the modern USS Enterprise, complete with F-14 Tomcats, back through a time-warp to face the Japanese carriers. (You don't want to play the Japanese side on this one!)



2. Wake Island (12/41) - new scenario

   Their first attempt to invade Wake having failed, the Japanese redouble their effort while the US tries to run in reinforcements. One creates this scenario by working through the tutorial, but if the player doesn't want to invest that much time, he can create it by running a provided program named "MAKEWAKE."

Carriers at War Construction Kit



TITLE:	Carriers at War Construction Kit
PRICE:	$65
SYSTEM:	IBM
REQUIREMENTS:	EGA or VGA graphics, original CAW game, mouse
PROTECTION:	None
# OF PLAYERS:	1 or 2, same computer only
DESIGNERS:	Roger Keating and Ian Trout
PUBLISHER:	Strategic Studies Group (American office) 8348 Monticello Drive Pensacola, FL 32514

3. Coral Sea (5/42)

There are two new variations; one gives the US a third carrier (the Enterprise) and the second adds cruisers and destroyers for more AA support.

4. Midway (6/42)

Only the historical setup here, although there is still plenty of uncertainty. The Japanese will approach Midway in one of several different ways, and the US waits in different places to spring its trap.

5. Guadalcanal (8/42) - new scenario

The Marines invade and the Navy struggles to keep them supplied. Two variants allow for Japanese responses earlier than the historical setup.

6. Eastern Solomons (8/42)

Two new variations here; one gives the IJN an extra carrier and the other uses different approaches and tactics.

7. Santa Cruz (10/42)

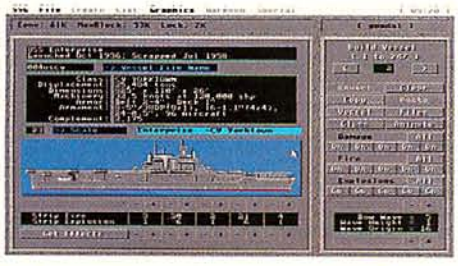
There are three new variations here: one helps the Japanese by upgrading the airfield at Buin and adding a few squadrons, the second helps the US by adding the Saratoga, and the third combines the two.

8. Tarawa (11/43) - new scenario

The Marines invade the Gilberts and the USN has new carriers and BBs for support. The IJN faces the difficult task of ambushing a superior force. If this seems too difficult, one can try the variant that adds the super-carrier Shinano!

9. Philippine Sea (6/44)

This was a tough scenario for the Japanese, so two new variations have been added to help them. The first, called "Raise The Dead," presumes that Japan does not lose all of her skilled carrier pilots at Midway



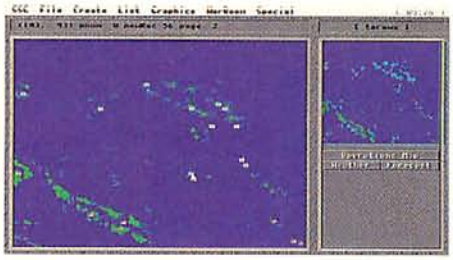
(and elsewhere) and that the IJN still has a respectable carrier force in 1944. The second hypothesizes that the Kamikaze program starts earlier and two squadrons are ready and waiting on Iwo Jima.

The system is extremely flexible. In each variation the major carrier forces usually have several alternate strategies, and the player can have the computer select a variation at random. It is now possible to go into a scenario without being sure of what forces one will be facing or how they'll be deployed. To really make this work, one should learn how to create even more variations.

A Tour Of The Hangar Deck

To understand the process of changing or creating a scenario, one must first understand the *CAW* file structure. Every scenario consists of a minimum of four files. These are:

a. the map (with a DOS extension of .PCK)
b. the data base (.CAW) with the ship, plane and base data
c. the graphics file (.LST) with the images of the ships and planes
d. the computer's AI program (.AIQ)



The AIQ file is referred to as a deck of "WarCards." If the scenario has more than one variation, there will be one deck for each, and all will start with the same four characters. For example, the historical program for the Coral Sea scenario is CORAL.AIQ and variations would be CORA001.AIQ, CORA002.AIQ and so on. All variations use the same data base, map and graphics. If one wants the USS Enterprise to appear in any variation, then it must be present in the data base and must be deleted by the WarDeck for those variations where it should *not* appear (like the historical one). This critical concept deserves a second example: Say one wants the Yorktown to start the Midway scenario sometimes damaged and sometimes undamaged (showing what might have happened if she didn't get pasted at the Coral Sea), then one needs to put *both* versions of the Yorktown in the data base and always delete one or the other.

A benefit of this structure is that it is easy to exchange warplans for an existing scenario. Say a friend develops a new plan for the IJN to capture Midway. One could copy the friend's AIQ file onto the hard disk so that his variation will appear at the beginning of the game. One can then select it and attempt to find its weaknesses.

Let's Create A Scenario

First, we start by putting in the scenario name, date and the names of the commanders. Then, we need a map. If we're lucky, we can copy one of the existing maps. Otherwise, it's time to crank up the map-drawing module. The map is always an 84 by 72 hex grid at a scale of 20 nautical miles per hex. Using the map editor is easy, but we'll want to calculate the location of land and bases before we start. No help is provided for this. The starting weather position and the forecast are also part of the map file.

Now, we need to complete the data base. This means typing in the characteristics of every type of plane and ship class, which is very tedious. The back of the manual contains the data for every major type of ship and aircraft used in the Pacific by the US and Japan. Even though the common types appear in the existing scenarios, we must still type them in. It would be so much easier if there were a table look-up feature so we could select a name from a list and get the default data entered for us, reducing the tedium and the chance of errors. Next, we need to enter the composition of every squadron and task group. Then we assign squadrons to bases and carriers. Finally, we need to add info on victory conditions. At least editing an existing scenario is easy; we can bump up the range on all B-17s, add more aces to a squadron, or make it easier for the US to get a draw.

When we get the data base done, it's time to build the graphics file. This contains pictures and animations for all of the plane types and ship classes in the data base. The *Kit* does not include tools for creating or editing the basic images; this must be done with another program (the manual recommends EA's *Deluxe Paint II*). Fortunately, we can steal graphics from other scenarios, so creating graphics is easy as long as we stick to existing types.

Finally we are ready to create a deck of WarCards. There are three basic types of cards: start-up cards, instructions for land bases, and instructions for task groups (hereafter called TGs). Land bases (which have no need to move) select a new card once a day, while TGs select a new card every hour. Each card applies to a specific force (base or TG) but it is easy to copy and modify cards to give similar instructions to other forces. A special kind of start-up card adjusts neutral elements like game length and weather.

What happens when a card is selected? That depends on the card. An instruction card contains up to ten actions and is a complete plan all by itself. One could order up CAP with the "Combat Air Patrol" action, set search zones with the "Air Search" action, and order attacks on enemy sightings using "Base Strike Zone." A simple plan like this will suffice for a land base for the whole game if it can use the same plan (card) every day.

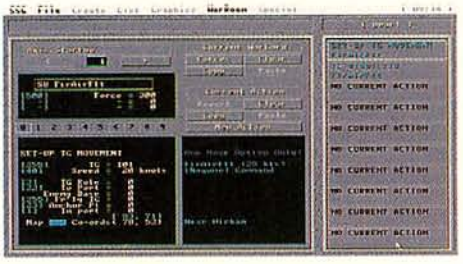
Every card is identified by an ID number from 1 to 99 which SSG calls a "thread." The number one thread is special because it is used at the beginning of the game (every force

should have a number one thread). Now comes the clever part. If more than one card has the same ID number (belongs to the same thread), then the computer will select one at random. Thus, if the Enterprise-Hornet group has four cards in thread one, each of which uses "TG Patrol" for a different area around Midway, then a human playing the Japanese will not know where to expect the US carriers.

Stacking The Deck

If we want to favor certain strategies, we can add a "chance value" from 1 to 50 on each card. The higher the value, the more likely this card will be selected. This approach is simple, but controlling the odds precisely is not intuitive. Take the simplest example, a thread of two cards. On one card, we'll leave the chance value at zero. Now consider the second card; if we add a chance value of 10, this plan becomes twice as likely as the first. A value of 15 makes it three times as likely, and 30 makes it 10 times as likely! The odds are only approximate but the lesson is clear; keep the chance values low, especially when three or more cards are present.

It is normal practice to create several threads for each TG. Carrier groups usually patrol and wait to react to the enemy using "Local Response" actions. They may also support other TGs or launch a strike at an enemy base. They should always have an escape thread in the form of a "TG Movement" to a base or safe map edge. The power of the WarCard system comes from actions that switch from one thread to another. Simplest, but least flexible, is the "Time Out," which switches on a pre-set day and time. An example of when to use this is when one wants to wait until the fourth day of the battle to send an invasion force toward its target. One can also switch to a new thread upon the completion of a mission.



All other actions that switch threads are conditional. "Area Response" is used to switch if a unit sights an enemy TG in a particular area (within 300 miles of a key base, for example). "Effectiveness Lost" switches if one or more TGs are weakened; this is the primary method for "getting out of Dodge" with whatever ships are still afloat. One can also switch when a particular ship, either friend or foe, is sunk. The most complex technique is the "Thread Reaction" action that lets attack groups switch threads whenever another TG switches. For example, when that invasion force switches to its invasion thread, a carrier group could also switch to a thread to support it in some way, perhaps running in at high speed and delivering an airstrike on an enemy airfield. Since one can have a TG change threads on many conditions, there are a lot of ways to use "Thread Reaction."

Recall All Ops!

CAW still has my vote as the best simulation of carrier warfare, and is by far the best for solitaire play. Although it's hard to be sure on a reviewer's schedule, the only bugs I have seen in three weeks of intensive play are bits of screen flotsam which all go away when that area of the screen gets redrawn. The *CAW Construction Kit* is a solid editor that delivers as promised. As a programming environment, it would benefit from easier data entry and better error detection, but we may well see these improvements, as SSG has committed to continued development of this game system. The next upgrade will add data and graphics for British and Dutch ships and, I expect, maps for the Southwestern Pacific and Indian Oceans. I expect SSG's house magazine, *Run5*, and gamer bulletin boards will be buzzing with news, programming tips and great variant scenarios. **CGW**

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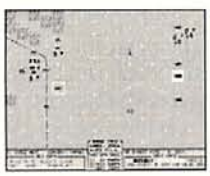

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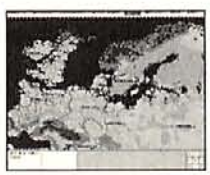

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Line Of Battle

Software Sorcery Casts A Spell On Naval Wargamers

by Ed Dille

"...It is highly dangerous to consider that our ships as a whole are superior or even equal fighting machines."
— Vice Admiral Sir John Jellicoe
July 14, 1914

"...there seems to be something wrong with our bloody ships today."
— Vice Admiral Sir David Beatty
May 31, 1916

Although Germany's High Seas Fleet had been recognized as the primary naval threat to England as early as 1904, the Royal Navy was ill prepared to confront its foe even 10 years later, at the outset of the First World War. Despite a small cadre of naval professionals, Admiral Jellicoe among them, the vast majority of the Officer Corps of the Royal Navy was composed of aristocracy and gentry who viewed the entire service as nothing more than a glorified yacht club. Diplomatic missions of showing the flag were viewed as opportunities to bring home baubles from abroad and gunnery practice was discouraged, as it made the

ships dirty. As such, when open warfare forced the reconversion of the Royal Navy from a Social to a Military entity, it is not surprising that confusion and disorder reigned supreme.

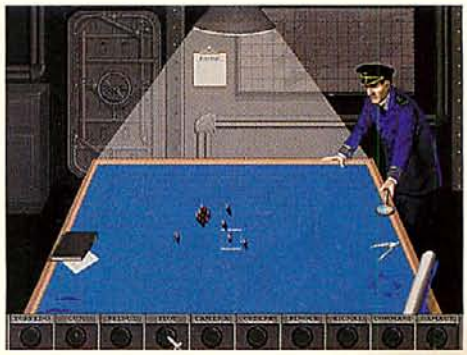
Although the British lacked the foresight to actually study naval warfare (their Academy was not built until 1912) and preferred instead to copy methods which had succeeded in the past, Admiral Fisher did bring vision and foresight to one aspect of the pre-war period, Naval Architecture. His advocation of scrapping obsolete portions of the fleet and focusing new construction upon heavily armored, big gun ships called Dreadnoughts, was controversial at best. Despite debate within the Admiralty and arguments that such a course of action would provoke an arms race with Germany (which it did), Lord Fisher prevailed and naval warfare was revolutionized. Battleships became Kings of the Sea for the next 30 years and, although they have since relinquished the title to aircraft carriers, remnants of the battleship revolution remained in service until very recently.

The battle of Jutland, which remains one of the largest set piece naval engagements of all time, has long been a popular subject matter among wargamers. In fact, some of the earliest miniatures games centered on it. Because of the sweep and grandeur of Jutland, it is also not surprising that most, if not all, of the other naval engagements of the period remain relatively obscure to most gamers. In reality, if it were not for the outcome of battles like Heligoland Bight, Coronel, Dogger Bank and the Falkland Islands, the stage would not have been set for the encounter at Jutland.

To Arms!

Jutland is a game of real-time tactical naval warfare. Players may opt to play with either the Grand or High Seas Fleet as a ship Captain, Squadron Commander or Commander-in-Chief. Rather than posing as difficulty settings, a mechanism used in other games, these selections actually determine the level of command and control ability the player will have in the course of subsequent battles. As a ship Captain, the player will be able to directly control only his own ship functions and can have no impact on the decisions of other ships in the squadron or other squadrons.

On board the ship, the Captain controls course, speed, damage control, gun and torpedo directors and the battle plot. As a Squadron Commander, the player may also use signal flags to alter the course and speed of other ships in the squadron. Because the Squadron Commander's ship always has the right of independent action, other ships will not automatically mimic the course changes of his own ship to maintain formation. Rather, it is necessary to signal each one of these ships individually to alter course and speed as desired. Further, preset division formations like columns and line abreast have not been included in the signal box. If players want to set up these formation tactics it is necessary to do so manually. If one plays at the Commander-in-Chief level, it is



necessary to coordinate the activities of all the squadrons. This is difficult in battles with a lot of squadrons, like Jutland, but in smaller engagements it is essentially the same as playing at the Squadron Commander level.

Gamers may play one of the aforementioned single battles as a stand-alone event or opt for a campaign that encompasses the entire war. The campaign option is *not* strategically based, as in SSI's *Great Naval Battles* series. Rather, it is a linkage of the existing set piece battles with hypothetical convoy engagements in between. The Convoy engagements generally involve Light Cruisers, and the player's success or failure in them has an impact on the flow of war supplies. Losses are carried over from one engagement to the next and players who are successful in sinking enemy shipping receive War Bonds that can be used for their own shipbuilding program. As such, victories in the early part of a campaign have a direct impact on which forces may eventually be available for the final conflict at Jutland.

Battle Stations

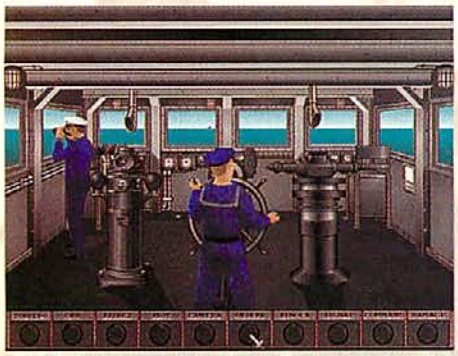
All battles begin within visual range of the opposing forces. Players must consider their approach to take advantage of the maximum effective range of their guns while attempting to avoid the similar band of engagement for the enemy. Classic maneuvers such as "Crossing the Tee" (passing in front of the enemy column to bring all broadsides to bear while they are limited to forward or aft

Jutland

TITLE:	Jutland
PRICE:	$89.95
SYSTEM:	IBM CD-ROM
REQUIREMENTS:	386-25MHz, 4MB RAM, 25MB hard drive space, CD-ROM Extension 2.21
PROTECTION:	None
DESIGNER:	James R. Jones III
PUBLISHER:	Software Sorcery San Diego, CA (619) 452-9901

guns only) are as effective as one might anticipate. Players select a ship to target and manually spot the fall of shot until they are achieving hits. It is important to note, however, that it is always a good idea to verify the target before proceeding too far into this process. Friendly fire is possible and selecting the "Target Leading Ship" option from the menu will select the closest ship, not the closest enemy ship.

The ballistics model used by the program is quite excellent, resolving the fall of shot to a three square meter area and determining penetration and damage based on caliber, belt or deck armor and the function of the compartment in the area hit. The only model gamers have seen that provides equivalent accuracy is the one used by *Action Stations*, the **RAW Entertainment** release covering WWII tactical combat. Further, when shells impact on the target, the player is rewarded with exciting graphic and sound routines. The "splang" of metal on metal is clearly heard, pieces fly in the air where appropriate, deck fires and secondary explosions rumble, and smoke fills the air. You can almost smell the cordite. When a ship sinks or a lucky hit causes a magazine explosion, a full size cut screen animation occurs. Players have the option of taking a "photograph" of these, or any other exciting moment in the game, and saving it in their war records file for later review.



The gunnery tables listed in the on-line documentation may be a little misleading to novice players of this type of simulation, as they focus on penetration vs. caliber at certain representative ranges. These ranges are not the maximum or even the maximum effective of the guns listed. Larger caliber guns may inflict hits at 16,000 yards, but the optimum range of engagement in most instances is 8,000-12,000 yards. Also, if one finds that they are hitting the target, but not achieving the desired affect, the likely reason is that they are hitting the belt armor. Belt hits are fine when one is close enough to penetrate the hull and attempt to capsize the targeted ship, but at longer ranges one should strive for deck hits, where the armor is thinner and the chance of penetration greater. To move from belt to deck hits in the optimum engagement range, try elevating the guns one-tenth of a degree.

Captain's Log

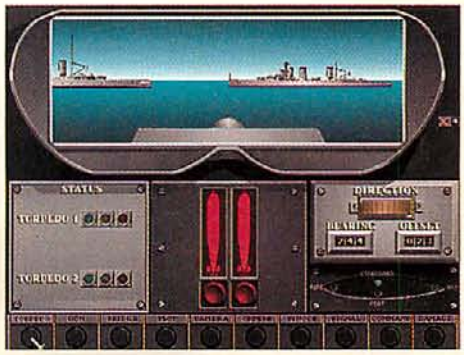
In addition to the superlative graphic routines that occur during play, the data files on the CD also include a historical data book that incorporates actual photographs from the Imperial War Museum and an excellent histography of the war. Unfortunately, online is also the only place where players can access the full version of the game manual. The small flyer that comes inside the CD case is helpful, but far from comprehensive. User feedback thus far has been less than positive to the lack of a printed manual and Software Sorcery is taking steps to rectify the matter, both for this and subsequent releases.

One other thing that is important, but not in either documentation, is a key combination that allows players to time compress the game. This feature is important to those of us who have a limited amount of play time and resent dead periods in a game. The hidden key sequence to invoke time compression is <shift= left bracket, right bracket ({,}). Players should ensure that none of their ships are in the middle of a turn before invoking this option.

INCOMING!!!

Jutland sets sail in this tumultuous period much as the British Grand Fleet did in 1914, with great pomp and circumstance and some hidden weaknesses which soon became apparent. The first thing that players will note is that *Jutland*, despite its packaging as a CD-ROM, eats up a lot of space on their hard drives. Although the manual states that 20MB are required, at least 25MB must be free during installation to allow for file manipulation. Because *Jutland* operates in real time, **Software Sorcery** made a design decision to avoid delays due to CD disk access by placing those files accessed most frequently directly on the hard drive. Their reasoning is sound, but the issue is discussed nonetheless because many players buy the CD-ROM format to avoid overcrowding of their hard drive and might be unpleasantly surprised by these requirements, which are not listed on the exterior package.

Another hidden gotcha' is that *Jutland* does not like disk compression software like *Stacker*. Although they are not the first to impose this restriction on players, *Strike Commander* being a notable culprit, some players will balk at the need to remove programs, defragment and unstack their drives simply to play the game. Finally, when *Jutland* says it needs 4 MB of RAM, it literally needs almost the entire 4 MB to run without memory allocation errors occurring in the course of play. Even with advanced memory management software like *386 Maxx* Version 7.0, the memory manager and mouse took up



sufficient Upper Memory Blocks to lock up *Jutland* in a memory allocation error periodically.

Software Sorcery should not be overly castigated for the configuration calamities, for several reasons. First, this is their initial offering, and many other companies with infinitely more experience have committed more grievous errors than making a good game difficult to play. Second, *Jutland* is a good game, on par with similar offerings by **Strategic Simulations, Inc.** and **MicroProse** in terms of mechanics and interface, while exceeding both in graphic presentation. Finally, they have taken an active approach to resolving user concerns, posting free patch files and IRQ corrections on CompuServe and Prodigy for every problem that has come to their attention. Software Sorcery seems to have discovered that pushing the technological envelope can be painful as well as rewarding, but they are also asking all the right questions and give every appearance of being a company with the potential to become a long term player in the industry. **CGW**

Flash Suppression

The technical support staff at Software Sorcery is professional, courteous and very helpful. They suggest the following CONFIG.SYS and AUTOEXEC.BAT files for those with an unstacked hard drive using a Sony CD unit, Pro Audio Spectrum 16 and a Microsoft Mouse.

CONFIG.SYS

```
files=25
Device=c:\dos\setver.exe
Device=c:\dos\himem.sys
Dos=High,UMB
Devicehigh=c:\sony\mvsound.sys
 d:3 Q:11 S:1,220,1,7 M:0
Devicehigh=c:\sony\slcd.sys
 /d:cdrom001 /b:1f00 /m:h /c /v
```

AUTOEXEC.BAT

```
@Echo Off
Prompt $pSg
set mouse=c:\msmouse
c:\msmouse\mouse
Path c:\windows;c:\dos
Set Temp=C:\dos
c:\sony\mscdex /d:cdrom001 /M:8 /E
```

The Rumor Bag

by William Randolph Bradlee

Anyone who reads this column (and the hate mail it generates) regularly knows that I rarely get any respect. So, when I heard from the Alfred E. Packer College of Culinary Sciences and Yellow Journalism, I was more than thrilled. Not only did this prestigious institution of higher learning want to give me an honorary doctorate, but they were going to pay all my expenses to the commencement ceremony. I was almost as excited as I was when I heard that Gary Grigsby was planning to revise *Panzer Strike* for **SSI** in much the same way he had redesigned *War in the South Pacific* and *War in Russia*.

Naturally, I wanted to make sure that this was a legitimate institution. I hadn't heard of too many centers of higher learning in Napoleonville, LA, but I wasn't about to miss my chance to become a Doctor of Humanities. At least, that's what I thought they had called it. I asked for a catalog and received a copy in the mail. Actually, what I received was a matchbook with a press release for **SDJ**'s new *Big 3 (Version 3)*. One side of the cover listed the fact that the new *Big 3* would have 12 scenarios and a scenario editor; mentioned that it would run under *Windows*; dropped hints about modem play, ambient video and multiple wars (possible World War I and 1986 campaigns); and suggested that a Pacific Theater campaign might be in the offing. The other side asked, "Could you write a magazine story from this? If you can, you may be ready to enter a tremendously exciting career as a journalist. Call the Alfred E. Packer School of Culinary Studies and Yellow Journalism for more details. 1-800-OLD-NEWS."

Of course, anyone can print a catalog. I wanted to find out more about the faculty at the school. I called the toll-free number and received the unmistakable dulcet tones of a modem or fax line. I connected my modem and redialed the number, only to discover I had dialed OLD-PEWS and got a televangelist's BBS by mistake. Fortunately, I found a demo for **Mage, Inc.**'s upcoming *Eternia*, in a library of files about Eternity. *Eternia* is a 3-D scrolling game in 320x200 resolution and 256 color graphics. The game uses fractal compression to speed up the action and, since it does not require rendering algorithms, is supposed to unfold to more than 2 gigabytes of graphic data on the fly. Mage thinks it will run on a 386SX and only require about 15 MB on the hard drive.

About that time, the televangelist's BBS was trying to take the offering by getting billing information from me, so I tried another number. This time I connected with the **CRC** information service by mistake and discovered that they are introducing a new information network that is being designed to rival Prodigy, CIS, GEnie, etc. The difference is that **CRIS II** is supposed to cost only $2.00 per hour.

I quickly downloaded a message about a new game that's supposed to come out from **Electronic Publishing.** It's a CD game called *Gahan Wilson's Haunted House* and should appeal to all of us bent, twisted sickos who like Gahan Wilson's cartoons.

I posted a naughty little note asking if **Atomic Games**' (developers of the *V for Victory* series) new agreement to develop **Avalon Hill**'s *Squad Leader* for the computer would preclude them from creating the American Civil War game for **Three-Sixty Pacific**. We don't actually think **Three-Sixty** will back off, but it certainly won't be *G for Glory*.

Meanwhile, I posted a little note telling wargamers who own *Aide de Camp* that they can keep themselves busy with new PBEM kits for some of the **Decision Games** titles. Now, if only **Avalon Hill** could come to an agreement with **HPS** so we can play *War and Peace* over the networks.

I finally gave up on reaching the school via the toll-free number, but I prepared my speech for the graduation, anyway. I flew to Baton Rouge via Cattle Call Airways and took the Cajun Trailways bus to Napoleonville. Once I reached the combination bus station/gasoline pump/general store, I shook hands with the president of the school and got into the institution's faculty limo. The good doctor cut the kudzu away from the tires (the bus was late and he'd had to wait about an hour) and we drove off into the country. He hacked off that kudzu like he was trimming Blackbeard's beard. It reminded me that **Avalon Hill** is allegedly working on *Computer Blackbeard*.

As we drove through the heavily wooded area of Louisiana and the shadows grew longer, I felt something like a character in the new fantasy game that the guys at **Sim-Tex** (developers of *Masters of Orion* for **MicroProse**) are designing. Certain parts of Louisiana do seem almost magical and unreal. As a result, I was just about to ask the good doctor if the school itself was built in a Gothic or Neoclassical design when we pulled up at the old country church which had been converted into the school's auditorium. I was beginning to think it wasn't an accident that I'd connected with the televangelist's BBS.

At any rate, I gave a marvelous commencement address, all about ethics, integrity and the avoidance of conflict of interest. I only let slip one rumor in the whole address. I inadvertently told everyone that Mark Baldwin and Bob Rakosky of **White Wolf Productions** are already planning their Christmas release for 1994. I extolled the virtues of this light, wargame construction set and proclaimed that its working title was *War!* I even waxed profoundly eloquent on the ironic fact that many of the hottest Christmas titles have more to do with war than "peace on earth."

At any rate, I must have cut a dramatic figure in front of the stained glass window. When I finished, *both* of the graduates gave me a standing ovation. Unfortunately, it was only then that I discovered that it was not a Doctor of Humanities degree that I was being awarded. The doctorate was in Inanities. Considering the school was named after the only convicted cannibal in U.S. history, I sure am glad they didn't ask me to sample the graduates' commencement cuisine. **CGW**

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4910 West Amelia Earhart Dr.
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THE BELFRY - LINKS CHAMPIONSHIP COURSE: The *Links* gamer can now play a round of "Jolly good Golf!" in Access' first European course, *The Belfry.* Tracing its origins to a potato farm, England's Belfrey course is probably best known for hosting the semi-annual Ryder Cup event. Now, American golfers can have a smashing good time playing one of Britain's best-known courses sans airfare and overpriced hotel. In fact, the cash saved can purchase a new set of clubs or even upgrade your computer system. The fourth Super VGA championship course, *The Belfry* requires *Links, Links 386 Pro* or *Microsoft Golf.* IBM ($29.95). Circle Reader Service #1.

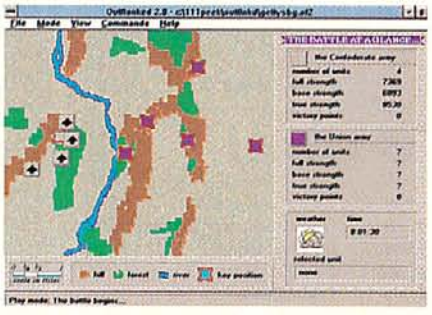
Alternative Software Creations
11514 Forest Grove St.
El Monte, CA 91731

OUTFLANKED: "Little" games for *Windows* are popular, but they often tend towards solitaire games or a clone of some popular board game. A quickie wargame for *Windows,* however, has not arrived prior to *Outflanked.* Sadly, this wargame lacks depth, scenarios and excitement. While those interested in 18th and 19th century battles and grand tactics might be able to make something enjoyable from the included scenario building tools, it's a lot of work for what appears to be positioned in the market as a "lite" *Windows* wargaming alternative. IBM with *Windows* ($59.95). Circle Reader Service #2.

Computer Athlete
5193 Betonywood Place
Dublin, OH 43017
(614) 761-1059

COMPUTER ATHLETE: The lone cyclist was rolling by colorful meadows at 23 mph with the snowcapped mountains looming in the distance when a giant pig came out of nowhere. With the click of two buttons the porker was plowed, garnering the rider an easy 100 points and easing the monotony of an otherwise boring routine. This unique "virtual reality" package offers a fun arcade-style graphic representation of five exercises:

The Belfry - Links Championship Course



Outflanked

Computer Athlete

Budo: The Art of Ninja Combat

Curse of the Catacombs

running, cycling, rowing, stepping and skiing. By setting up its electric eye sensor on any exercise machine and hooking it into a computer, one can enjoy running into cars, pigs and other athletes to earn points while burning calories. The display reacts to exercise speed and turning input from two buttons mounted on velcro straps. When you're done, a stat screen lists elapsed time, points, average mph and distance traveled. The home-grown package is simple to set up and fun to use, representing an early, innovative foray into the coming "virtual reality" programs. IBM ($159.95). Circle Reader Service #3.

Froggman Software
800 Douglas Rd., Suite 355
Coral Gables, FL 33134-3128
(800) 876-FROG

BUDO: THE ART OF NINJA COMBAT: Those from the Cuisinart school of gaming—into high speed slicing and dicing—may enjoy this dastardly simple shareware game gone commercial. The player's stealthy assassin must dispatch club-wielding guards, archers, vicious dogs and exotic enemies like a fire-breathing dragon and a giant. Your weapons include a sword, magic shirkens, and the ability to run, crouch or jump. Killing is easy, but many moons will rise over the bamboo fields before Budo mastery can be achieved. Chop good, hurry slaughter. IBM ($14.95). Circle Reader Service #4.

CURSE OF THE CATACOMBS: Those who enjoyed playing Softdisk Publishing's *The Catacomb Abyss* (see the shareware column in *CGW* Issue 106 for a review) should find *Curse of the Catacombs* a "virtual" treat. Developed by Softdisk for Froggman Software, this 3-D action adventure offers more of the same monster bashing, maze crashing excitement of the shareware title. Featuring 16 levels of mazes to explore, two levels of playing difficulty from which to choose (novice and warrior), and the ability to save and restore at will, *Curse of the Catacombs* grants the player a good value for the investment. While the 16-color EGA graphics are rather primitive (they are VGA/SVGA compatible), and while sound effects are minimal (PC speaker, Ad Lib and Sound Blaster are supported), the enjoyment from play is well balanced by the low retail price. IBM ($14.95). Circle Reader Service #5.

DOGNAPPED: Anyone who enjoys light to modest puzzles should avoid ending up in the dog house by missing this value-priced puppy from Froggman. The concept of *Dognapped* is a simple one. Aliens from the planet Canis have kidnapped Rusty (the player's faithful pup whom they have mistaken for Earth's ruler). Thus, one's goal is to rescue Rusty from the ruthless robots

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System requirements: 286-20 or faster machine (386 recommended) with 640K RAM, hard disk, joystick recommended. Operating Sys.: MS DOS 3.3 or above, Windows 3.1. Graphics compatible with VGA. Sound support: Sound Blaster, Sound Blaster Pro, Thunder Board, Pro Audio Spectrum , Adlib Gold and Speed Master.

NR-18 This game is not for the faint-hearted. Contains violence and some material inappropriate for minors.

NOT RECOMMENDED FOR PLAYERS UNDER 18.

For a free demo, call our 24hr. BBS at 310-539-7739. (8N1)

MEGATECH

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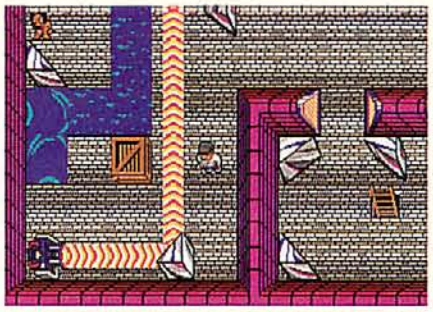
Circle Reader Service #66

before he is dogmeat. Fortunately, the puzzles are stronger in this strategy puzzler than the storyline. As in the rest of Froggman's titles, graphics are of acceptable quality 16-color EGA and sounds are modest (supporting PC speaker and Ad Lib/Sound Blaster compatible cards). Puzzles vary in difficulty, over the 30 provided levels, testing the player's ability to manipulate crates, moveable mirrors, and force fields while avoiding a myriad of traps. Progress can be saved, and there is no race against the clock to complete each level. Ideally, *Dognapped* will appeal to the younger player (pre-teens, it's too cutesy for most teenagers), though many adults will enjoy its charm, too. IBM ($14.95). Circle Reader Service #6.

STREET BALL: Probably the most enjoyable of these four titles from Froggman, *Street Ball* offers the player 20 levels of maze-based arcade action. The goal for each level is to collect all the available treasures and escape through the exit to the next level intact. Hazards to be avoided include laser armed robots, energy cannons, zombie spheres, mines and other menacing devices. Play continues as long as sufficient "street balls" remain (additional balls can be earned along the way). Though the graphics and sound effects are simple, play is thoroughly addictive. Overall, there is a good deal of enjoyment to be had in *Street Ball* for those with a bent toward action titles. In addition, once all 20 levels have been completed, random play of the previous levels at increased speeds is available. IBM ($14.95). Circle Reader Service #7.

Humongous Entertainment
12930 NE 178th St.
Woodinville, WA 98072
(206) 487-0505

FATTY BEAR'S BIRTHDAY SURPRISE: Following up Ron Gilbert's *(Secret of Monkey Island)* delightful *Putt Putt* games, *Fatty Bear's Birthday Surprise* offers early grade schoolers a chance to share in the adventures of a delightful stuffed animal who comes to life on the eve of young Kayla's birthday in order to bake her a surprise birthday cake and decorate the house. Naturally, misadventures ensue and, in the best traditions of adventure games (albeit with puzzles scaled down for its audience and several diverting pastimes such as composing music and lawn bowling along the way), one must help Fatty Bear find and use objects in order to keep a lid on the mayhem and make Kayla's birthday morning truly memorable. Every click on the screen is a delightful surprise, and the moral of the story along with the strength, caring and dedication of the lead characters makes this a much desired experience for computer connected youths. IBM ($59.95). Circle Reader Service #8.



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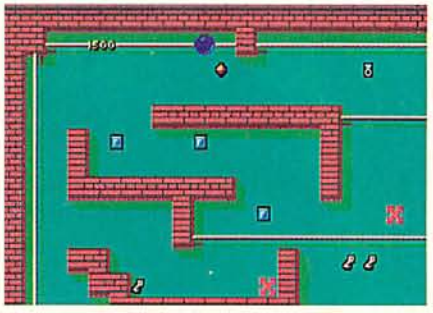
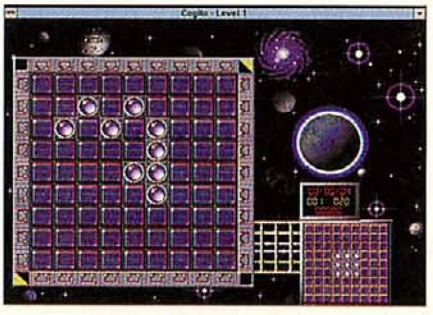


Street Ball

Fatty Bear's Birthday Surprise



Cogito

The Lost Vikings

Inline Design
PO Box 1989
Lakeville, CT 06039-9973
(203) 435-4995

COGITO: *Windows* gamers may lose their marbles with Inline Design's *Cogito*, a geometric game of strategy. Offering 120 levels of challenge, *Cogito* presents the player with a 9 x 9 grid of columns and rows that must be manipulated to restore a set geometric pattern. As the game begins, a pattern of spheres is presented, and then scrambled by the computer. Afterwards, the player has to manipulate the rows and columns in order to restore the original pattern, planning his or her moves in advance. While not a particularly memorable title, *Cogito* does offer challenging play, becoming more complex with each level. Information is provided on elapsed time, number of moves needed to scramble the pattern and the number of moves used by the player to restore it again. Successful completion rewards the player with a musical fanfare and the password to the following level. Games may also be saved in progress for later play. IBM with *Windows* ($59.95). Circle Reader Service #9.

Interplay Productions, Inc.
17922 Fitch Ave.
Irvine, CA 92714
(714) 553-6655

THE LOST VIKINGS: Helping three fearsome Vikings escape from captivity in time and space to return to their homeland soon becomes a labor of love for puzzle-solvers. Included in this hearty band (who must make their way through the worlds of Prehistoria, Egypt, Wacky World and more) are Stout Olaf who blocks enemies and parachutes with his shield; fighter Baleog who slays with sword or bow; and Erik the Swift who jumps and uses his hard head to ram down walls. All three must cooperate in order to survive through each of the 38 levels provided. With on-screen antics reminiscent of *Battle Chess 2000* to amuse and delight everyone, these Nordic seafarers-with-an-attitude need all the help they can get in finding their way home to claim the mantle of valor with the least number of anguished battle cries. IBM ($49.95). Circle Reader Service #10.

LucasArts Entertainment Company
PO Box 10307
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(415) 721-3300

IMPERIAL PURSUIT: Apparently none too pleased that the Rebellion blew up his bouncing baby Death Star, the Emperor has launched an immediate counter-attack against the Rebel base at Yavin. Twenty new *X-wing* missions and four cinematic inter-

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ludes will tell the tale of the Rebel's evasive maneuvers and challenge any young Jedi's reflexes. While the missions on this add-on disk can be as tough as some of those in the original game (the new mission is loaded with Assault Gunboats and Advanced Ties!), there are two included features that might make things a bit easier for players: On-line hints for each mission and a Top Ace pilot that can be used as a top-notch wing man. The Top Ace pilot can also be used to play the missions in the original game in any order, just in case you didn't finish them (Luke! You must complete your training!). IBM ($29.95). Circle Reader Service #11.

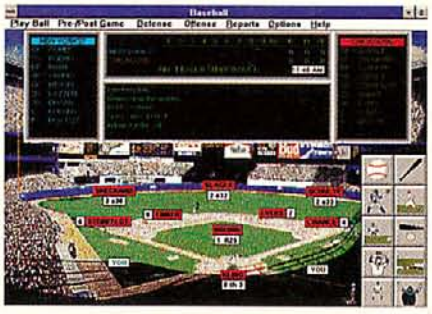
Miller Associates
11 Burtis Ave., Suite 200
New Canaan, CT 06840-9890
(800) 654-5472

BASEBALL FOR WINDOWS: Baseball fans who spend most of their computing life under *Windows* may want to investigate Miller Associates' latest baseball action strategy release. Introduced as the first computer baseball game for *Windows*, their new title, based upon *APBA Baseball*, offers the player many gaming amenities. Featured are 256-color and 16-color reproductions of actual ballparks, an icon-based interface, built-in micromanagers, advanced injury management capabilities and several playing modes (play against a friend, two computer managers, or "sit in the stands and watch" in Spectator Mode). Individual games or whole seasons can be managed; print out full reports and leader boards; and create unlimited lineups, teams, divisions, leagues and organizations. Thankfully, this feature-rich product includes a comprehensive tutorial. IBM with *Windows* ($69.95, $59.95 for upgrades). Circle Reader Service #12.

Sierra On-Line/Dynamix
PO Box 485
Coarsegold, CA 93614
(800) 326-6654

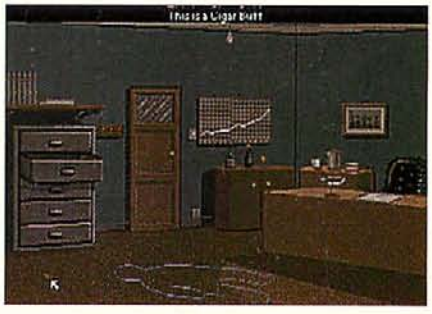
TAKE•A•BREAK! PINBALL: First came a *Windows* incarnation of a traditional game designed to test one's worth with words, *TakeABreak! Crosswords*. Now, Dynamix has set the ball in motion under *Windows* again with a title designed to test the player's prowess with paddles, *TakeABreak! Pinball*. Though it demands a relatively capable steed to enjoy its full potential, providing both music and sound effects in the background during play, this game of pinball is a real *Windows* gem. (A 386SX or better with 2MB RAM, VGA graphics and Windows 3.1 is required. However, play is more enjoyable on a 386DX or greater with 4MB of RAM or more, 256-color VGA graphics and a sound card.) Pinball action is amazingly true to the mechanical arcade machines, with the addition of unique animated graphics of

Imperial Pursuit



Baseball for Windows

Take•A•Break! Pinball



Crime City

Blue Force

which the old standbys were never capable. Digitized sound effects are great; music is upbeat and offers a positive accompaniment to play. Featuring eight different pinball variations (based upon classic Sierra and Dynamix games including *King's Quest, Space Quest, Leisure Suit Larry, Willy Beamish* and *Stellar 7*), this title employs sophisticated physics and gravity modeling, plus tilt and "grudge" effects. Even though *TakeABreak! Pinball* was delayed in its appearance, the wait was well worth it. IBM with *Windows* ($49.95). Circle Reader Service #13.

Micro Mysteries
222 Third St., Suite 0234
Cambridge, MA 02142
(617) 225-0500

CRIME CITY: This dreary little English mystery requires a patient sleuth to solve a run-of-the-mill murder in a dull graphic environment. As events would have it, the protagonist's father has been arrested on the charge and it's up to the player to solve the crime and effect his release. Its point and click interface works easily, but finding clues requires a good deal of hunting and pecking. In addition, the British locale for *Crime City* translates into some strange terms and a pound-based currency. One also can't overcome the static feel of this motionless mystery. IBM ($19.95). Circle Reader Service #14.

Tsunami Media, Inc.
PO Box 790
Coarsegold, CA 93614
(209) 683-8266

BLUE FORCE: Jim Walls, best known for his design work on Sierra's *Police Quest* series, offers up his latest law enforcement adventure, *Blue Force*, under the Tsunami Media banner. As the story commences, rookie motorcycle officer Jake Ryan has just joined the force, following in the footsteps of his father. However, little time passes before this cadet fresh out of police academy becomes involved in the unsolved case involving the brutal murder of both of his parents, a crime that has remained a mystery for the past 10 years. Including video captured animation, a streamlined interface and full stereo soundtrack, *Blue Force* offers the player an adventure in true-to-life police situations where following correct police procedure not only keeps young Officer Ryan and his fellow patrolmen alive, but aids the player in the successful completion of the game. *Blue Force* is available for IBM 386/16MHz compatibles and greater, and for PC CD-ROM (the CD version includes the game's soundtracks in CD-Audio format along with a 35 minute interview with Jim Walls). IBM ($69.95). Circle Reader Service #15. CGW

COMPUTER GAMING WORLD HALL OF FAME

The games in *Computer Gaming World*'s Hall of Fame have been highly rated by our readers over time. They have been rated for their impact on the computer gaming hobby during their peak period of influence and acceptance by our readership. Note that the dates listed for each game are the copyright dates and may precede the actual release dates. Specific formats listed are those which *CGW* has in its possession.

The Bard's Tale (Electronic Arts, 1985)
Many Formats

Chessmaster (The Software Toolworks, 1986)
Many Formats

Civilization (MicroProse, 1991)
Amiga, IBM, Macintosh

Dungeon Master (FTL Software, 1987)
Amiga, Atari ST, IBM

Earl Weaver Baseball (Electronic Arts, 1986)
Amiga, IBM, Macintosh

Empire (Interstel, 1978)
Amiga, Atari ST, C-64, IBM

F-19 Stealth Fighter (MicroProse, 1988)
IBM

Gettysburg: The Turning Point (Strategic Simulations, Inc., 1986)
Amiga, Apple, C-64, IBM

Gunship (MicroProse, 1989)
Amiga, C-64, IBM

Harpoon (Three-Sixty Pacific, 1989)
Amiga, IBM, Macintosh

Kampfgruppe (Strategic Simulations, Inc., 1985)
Many Formats

King's Quest V (Sierra On-Line, Inc., 1990)
Amiga, IBM, Macintosh

M-1 Tank Platoon (MicroProse, 1989)
Amiga, IBM

Mech Brigade (Strategic Simulations, Inc., 1985)
Many Formats

Might & Magic (New World Computing, 1986)
Amiga, Apple, C-64, IBM, Macintosh

M.U.L.E. (Electronic Arts, 1983)
Atari 8-bit, C-64

Pirates (MicroProse, 1987)
Many Formats

Railroad Tycoon (MicroProse, 1990)
Amiga, IBM, Macintosh

SimCity (Maxis, 1987)
Many Formats

Starflight (Electronic Arts, 1986)
Amiga, C-64, IBM, Mac, Sega

Their Finest Hour (LucasArts Games, 1989)
Amiga, Atari ST, IBM

Ultima III (Origin, 1983)
Amiga, Apple, Atari ST, C-64, IBM

Ultima IV (Origin, 1985)
Amiga, Apple, Atari ST, IBM

Ultima VI (Origin, 1990)
C64, IBM

War in Russia (Strategic Simulations, Inc., 1984)
Apple

Wasteland (Interplay Productions, Inc., 1986)
Apple, C-64, IBM

Wing Commander (Origin, 1991)
Amiga, IBM, Sega

Wizardry (Sir-Tech Software, 1981)
Many Formats

Zork (Infocom, 1981)
Many Formats

M.U.L.E.
Electronic Arts, 1983
Atari 8-bit, C-64

Asked to create a *Cartels & Cutthroats* clone, Dani (neé Dan) Bunten decided to throw away the template. Bunten merged elements of economics (supply/demand manipulation, production/storage, etc.) into a four-player exploration/strategy game in which the players purchase robotic "mules" in order to explore/exploit the planetary landscape of fictitious planets. *M.U.L.E.* was probably the landmark, multi-player game for input without modem assistance. The interface was both straightforward and humorous. The play was exceedingly well-balanced.

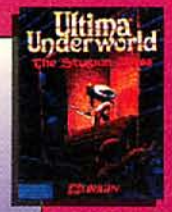
Pirates
MicroProse, 1987
Many Formats

Sid Meier's *Pirates* is another game that breaks traditional game design templates. The game features exploration, strategy, resource management, tactical combat and action-resolved combat, all wrapped up in a delightful role-playing package. It can probably stand as the most successful hybrid game in computer game history.

Top Adventure Games

	GAME	COMPANY	SCORE
1	The Seventh Guest	Virgin	10.55
2	Monkey Island 2: Le Chuck's	LucasArts	9.91
3	Indiana Jones: Fate of Atlantis	LucasArts	9.80
4	The Secret of Monkey Island	LucasArts	9.72
5	Quest for Glory III	Sierra	9.56
6	Star Control II	Accolade	9.55
7	Sherlock Holmes CD	ICOM	9.55
8	Les Manly in: Lost in L.A.	Accolade	9.28
9	Lost Files of Sherlock Holmes	Electonic Arts	9.20
10	Alone in the Dark	I-Motion	9.19

Top Role Playing Games

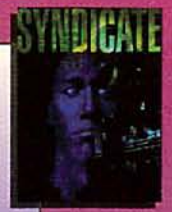


	GAME	COMPANY	SCORE
1	Ultima Underworld	Origin	10.45
2	Eye of the Beholder II	SSI	9.51
3	Ultima Underworld II	Origin	9.51
4	Might & Magic III	New World Computing	9.41
5	Ultima VII	Origin	9.34
6	Might & Magic: Clouds of Xeen	New World	9.34
7	Wizardry VII: Crusaders of Savant	Sir-Tech	9.25
8	Eye of the Beholder	SSI	9.10
9	Ultima VII: Part Two Serpent Isle	Origin	9.06
10	Bane of the Cosmic Forge	Sir-Tech	9.05

Top Simulation Games

	GAME	COMPANY	SCORE
1	X-Wing	LucasArts	10.04
2	World Circuit	MicroProse	9.93
3	Falcon 3.0	Spectrum HoloByte	9.59
4	Aces of the Pacific	Dynamix	9.45
5	Comanche: Maximum Overkill	NovaLogic	9.39
6	Secret Weapons of the Luftwaffe	LucasArts	9.19
7	Chuck Yeager's Air Combat	Electronic Arts	9.06
8	Red Storm Rising	MicroProse	9.04
9	Stunt Island	Disney	9.04
10	F-15 Strike Eagle III	MicroProse	9.03

Top Strategy Games



	GAME	COMPANY	SCORE
1	Syndicate	Electronic Arts	10.46
2	Solitaire's Journey	QQP	10.05
3	Dune II	Virgin	9.75
4	Chessmaster 3000	Software Toolworks	9.32
5	Hong Kong Mahjong Pro	Electonic Arts	9.13
6	The Lost Admiral	QQP	9.05
7	The Incredible Machine	Dynamix	8.98
8	Mech Warrior	Activision	8.94
9	The Island of Dr. Brain	Sierra	8.91
10	Hoyle Book of Games, Vol. 3	Sierra	8.78

Reader Poll #109

Top 100 Games

COMPUTER GAMING WORLD
The #1 Computer Game Magazine

	Game	Company	Type	Score
1	The Seventh Guest	Virgin	AD	10.55
2	Syndicate	Electronic Arts	ST,AC	10.46
3	Ultima Underworld	Origin	RP	10.45
4	Links 386 Pro	Access	SP	10.43
5	Wing Commander II	Origin	AC	10.14
6	Front Page Sports Football	Dynamix	SP	10.05
	Solitaire's Journey	QQP	ST	10.05
8	X-Wing	LucasArts	SI	10.04
9	Conquered Kingdoms	QQP	WG,ST	9.97
10	V for Victory: Velikiye Luki	Three-Sixty Pacific	WG	9.93
	World Circuit	MicroProse	SI	9.93
12	Monkey Island 2: Le Chuck's Revenge	LucasArts	AD	9.91
13	Indiana Jones: Fate of Atlantis	LucasArts	AD	9.80
14	Dune II	Virgin	ST	9.75
	The Perfect General	QQP	WG	9.75
16	The Secret of Monkey Island	LucasArts	AD	9.72
17	V For Victory: Market Garden	Three-Sixty Pacific	WG	9.63
	V for Victory: Utah Beach	Three-Sixty Pacific	WG	9.63
19	Falcon 3.0	Spectrum HoloByte	SI	9.59
	Wolfenstein 3-D	Id Software	AC	9.59
21	Quest for Glory III	Sierra	AD,RP	9.56
22	Sherlock Holmes CD	ICOM	AD	9.55
	Star Control II	Accolade	AD,AC	9.55
24	Ultima Underworld II	Origin	RP	9.51
	Eye of the Beholder II	SSI	RP	9.51
26	Links	Access	SP	9.47
27	Aces of the Pacific	Dynamix	SI	9.45
28	Warlords	SSG	WG,ST	9.44
29	Might & Magic III	New World Computing	RP	9.41
30	Comanche: Maximum Overkill	NovaLogic	SI	9.39
31	Pacific War	SSI	WG	9.38
32	Hardball III	Accolade	SP	9.37
33	Might & Magic: Clouds of Xeen	New World	RP	9.34
	Ultima VII	Origin	RP	9.34
35	Chessmaster 3000	Software Toolworks	ST	9.32
36	High Command	Three-Sixty Pacific	WG	9.29
37	Les Manly in: Lost in L.A.	Accolade	AD	9.28
38	Jack Nicklaus Signature Golf	Accolade	SP	9.27
39	Wizardry VII: Crusaders of Savant	Sir-Tech	RP	9.25
40	Empire Deluxe	New World	WG	9.23
41	Lemmings	Psygnosis	AC,ST	9.21
42	Lost Files of Sherlock Holmes	Electonic Arts	AD	9.20
43	Alone in the Dark	I-Motion	AD	9.19
	Secret Weapons of the Luftwaffe	LucasArts	SI	9.19
45	Second Front	SSI	WG	9.17
46	Tetris Classic	Spectrum HoloByte	AC	9.14
	King's Quest VI: Heir Today...	Sierra	AD	9.14
48	Hong Kong Mahjong Pro	Electonic Arts	ST	9.13
49	The Castle of Dr. Brain	Sierra	AD	9.11
50	Eye of the Beholder	SSI	RP	9.10

Top Wargames

	GAME	COMPANY	SCORE
1	Conquered Kingdoms	QQP	9.97
2	V for Victory: Velikiye Luki	Three-Sixty Pacific	9.93
3	The Perfect General	QQP	9.75
4	V for Victory: Utah Beach	Three-Sixty Pacific	9.63
5	V For Victory: Market Garden	Three-Sixty Pacific	9.63
6	Warlords	SSG	9.44
7	Pacific War	SSI	9.38
8	High Command	Three-Sixty Pacific	9.29
9	Empire Deluxe	New World	9.23
10	Second Front	SSI	9.17

Top Action Games

	GAME	COMPANY	SCORE
1	Wing Commander II	Origin	10.14
2	Wolfenstein 3-D	Id Software	9.59
3	Lemmings	Psygnosis	9.21
4	Tetris Classic	Spectrum HoloByte	9.14
5	Oh, No! More Lemmings	Psygnosis	8.92
6	Lemmings 2: The Tribes	Psygnosis	8.62
7	Out of this World	Interplay	8.57
8	Prince of Persia 2	Broderbund	8.36
9	Spectre	Velocity	8.02
10	Terminator 2029	Bethesda	7.97

Top Sports Games

	GAME	COMPANY	SCORE
1	Links 386 Pro	Access	10.43
2	Front Page Sports Football	Dynamix	10.05
3	Links	Access	9.47
4	Hardball III	Accolade	9.37
5	Jack Nicklaus Signature Golf	Accolade	9.27
6	Tony Larussa Baseball II	SSI	8.94
7	NFL Pro League Football	Micro Sports	8.54
8	The Games: Winter Challenge	Accolade	8.50
9	PGA Tour Golf	Electronic Arts	8.49
10	4-D Boxing	Electronic Arts	8.37

Poll is based on reader survey cards in each issue of *CGW* and published two issues subsequent. Data on more than 100 games is archived and top ten lists may contain games which scored below the Top 100 cutoff.

51	The Dagger of Amon Ra	Sierra	AD	9.09
	Conflict: Korea	SSI	WG	9.09
53	Chuck Yeager's Air Combat	Electronic Arts	SI	9.06
	Ultima VII: Part Two Serpent Isle	Origin	RP	9.06
55	Bane of the Cosmic Forge	Sir-Tech	RP	9.05
	Quest for Glory I (VGA)	Sierra	AD,RP	9.05
	The Lost Admiral	QQP	ST	9.05
58	Stunt Island	Disney	SI	9.04
	Red Storm Rising	MicroProse	SI	9.04
	Eric the Unready	Legend	AD	9.04
	Conquests of the Longbow	Sierra	AD	9.04
62	Silent Service II	MicroProse	SI	9.03
	F-15 Strike Eagle III	MicroProse	SI	9.03
64	Quest for Glory II	Sierra	AD,RP	9.02
	Gunship 2000	Microprose	SI	9.02
66	Police Quest 3	Sierra	AD	9.01
67	Ultima V	Origin	RP	9.00
	Battles of Destiny	QQP	WG,ST	9.00
69	Space Quest IV	Sierra	AD	8.98
	The Incredible Machine	Dynamix	ST	8.98
	Western Front	SSI	WG	8.98
72	Carriers At War	SSG	WG	8.97
73	The Adventures of Willy Beamish	Dynamix	AD	8.96
74	Mech Warrior	Activision	ST,SI	8.94
	Tony Larussa Baseball II	SSI	SP	8.94
76	F-117A	MicroProse	SI	8.92
	Oh, No! More Lemmings	Psygnosis	AC,ST	8.92
78	The Island of Dr. Brain	Sierra	ST	8.91
79	Rise of the Dragon	Dynamix	AD	8.89
	Martian Memorandum	Access	AD	8.89
81	Indianapolis 500	Electronic Arts	SI	8.83
82	Elvira	Accolade	RP	8.82
83	Command HQ	MicroPlay	WG,ST	8.81
	Spellcasting 301: Spring Break	Legend	AD	8.81
85	Rex Nebular	MicroProse	AD	8.80
86	Gateway to the Savage Frontier	SSI	RP	8.79
	Great Naval Battles	SSI	WG,ST	8.79
88	Populous II	Electronic Arts	ST	8.78
	Hoyle Book of Games, Vol. 3	Sierra	ST	8.78
90	Heart of China	Dynamix	AD	8.75
91	Veil of Darkness	SSI	RP	8.74
92	Battlechess	Interplay	ST	8.72
	Gateway	Legend	AD	8.72
94	Starflight II	Electronic Arts	RP	8.71
95	Battles of Napoleon	SSI	WG	8.70
96	Pools of Darkness	SSI	RP	8.68
	Freddy Pharkas Frontier Pharmacist	Sierra	AD	8.68
98	Typhoon of Steel	SSI	WG	8.67
99	Armada 2525	Interstel	ST	8.63
100	Lemmings 2: The Tribes	Psygnosis	AC,ST	8.62

Games on unnumbered lines have scores equal to the line above. = Top game of type. Magenta=New Game
AD=Adventure, RP=Role Playing, SI=Simulation, ST=Strategy, WG=Wargame, AC=Action, SP=Sports

The Computer Gaming World Poll

A monthly survey of the readers of Computer Gaming World Magazine.

PC Research Hits List Of Top-Selling Software

June, 1993
PC Games (MS-DOS)

Rank	Title and Source
1.	X-Wing (LucasArts Entertainment)
2.	Wolfenstein 3-D/Spear of Destiny (Formgen)
3.	Might & Magic: Clouds of Xeen (New World Computing)
4.	The 7th Guest (Virgin Games)
5.	Prince of Persia II (Brøderbund Software, Inc.)
6.	Strike Commander (Origin Systems, Inc.)
7.	Comanche: Maximum Overkill (NovaLogic)
8.	Hardball III (Accolade, Inc.)
9.	Links 386 Pro (Access Software, Inc.)
10.	Betrayal at Krondor (Dynamix, Inc.)
11.	Ultrabots (NovaLogic)
12.	Leisure Suit Larry V (Sierra On-Line, Inc.)
13.	SimCity (Maxis Software)
14.	Wing Commander (Origin Systems, Inc.)
15.	Links - Mauna Kea (Access Software, Inc.)
16.	Tony Larussa Baseball II (Strategic Simulations, Inc.)
17.	Space Hulk (Electronic Arts)
18.	Links - Banff Springs (Access Software, Inc.)
19.	AD&D Eye of the Beholder III (Strategic Simulations, Inc.)
20.	Police Quest (Sierra On-Line, Inc.)

Amiga Games

Rank	Title and Source
1.	688 Attack Sub (Electronic Arts)
2.	Shadow of the Beast II (Psygnosis, Ltd.)
3.	Overlord (Virgin Games)
4.	Legend of Kyrandia (Virgin Games)
5.	AD&D Eye of the Beholder II (Strategic Simulations, Inc.)

Macintosh Games

Rank	Title and Source
1.	Prince of Persia (Brøderbund Software, Inc.)
2.	SimCity Supreme (Maxis Software)
3.	Microsoft Flight Simulator (Microsoft Corporation)
4.	King's Quest VI (Sierra On-Line, Inc.)
5.	PGA Tour Golf (Electronic Arts)

CD-ROM Products

Rank	Title and Source
1.	The 7th Guest (Virgin Games)
2.	MPC Wizard (Aris Entertainment)
3.	Compton's Encyclopedia Upgrade (Compton's New Media)
4.	Corel Art Show (Corel Corporation)
5.	Street Atlas U.S.A. (Delorme)
6.	Cinemania (Microsoft Corporation)
7.	Indiana Jones and the Fate of Atlantis (LucasArts Entertainment)
8.	Secret Weapons of the Luftwaffe (LucasArts Entertainment)
9.	Curse of Enchantia (Virgin Games)
10.	Battle Chess Enhanced (Interplay Productions)

This list is based on units sold by Software Etc., Babbages, Waldensoftware and Electronics Boutique. For more information, please contact PC Research at (703) 435-1025.

What You've Been Playing Lately

Every month our mailbox bulges with hundreds of Reader Input Cards from our most loyal and outspoken readers. Over the years we've found these cards to be an invaluable source of feedback. Within 10 days of releasing our latest issue we can expect to see cards pouring in with suggestions, encouragements, tirades and many good laughs, in addition to the data for our Top 100 poll. Through your efforts, we know *exactly* where we stand with our readers (you don't mince words!), and we are treated to well-articulated opinions on anything and everything related to gaming. This column is a forum for these responses and for the results of our "Playing Lately?" query on the Reader Input Card. Thanks for taking the time to fill them out...keep 'em coming!

Playing Lately? Results For CGW #109, August 1993

1. X-wing (LucasArts Entertainment)
2. Betrayal at Krondor (Dynamix, Inc.)
3. Civilization (MicroProse, Inc.)
4. Syndicate (Electronic Arts)
5. Strike Commander (Origin Systems, Inc.)
6. World Circuit (MicroProse, Inc.)
7. Darkside of Xeen (New World Computing)
8. Ultima 7.5: Serpent's Isle (Origin Systems, Inc.)
9. Empire Deluxe (New World Computing)
10. The 7th Guest (Virgin Games)

Recipes From The Readers

Our short answer query last month asked gamers to act as Game Design Alchemists with the power to extract elements from their favorite games and recombine them to create The Ultimate Gaming Experience.

"1/2 c. Perfect General - playability/modem support.
1/2 c. Lost Admiral - tough AI.
1/2c. V For Victory - graphics.
1 1/2c. Pacific War - detail in exhaustive proportion & e-mail gaming.
3/4 c. Aide de Camp - map and unit creation/editing.
Title: Grognard Gumbo a.k.a. Sully's Succulent Stew"

- Sully, Manchester, CT

"The Perfect Game? Without a doubt, it's M.U.L.E. Commander... flying through the galaxy mining smithore and firing slices of toast at enemy ships. It'll feature full SVGA bit-mapped graphics, but through new compression techniques will use only 2 megs of disk space (or 3 with the speech pack). And it'll run at 40 frames per second on a 386sx-16. So there."

- Bob, Anchorage, AK

"Take the first person flight perspective and flight characteristics of X-wing, graphics of Comanche Max Overkill, economics of Elite, strategy of Dune II, and the plot of Star Control II. Some might want to call it Privateer, but I would call it "The Really Cool Game That Goffe Invented."

- Goffe, Seattle, WA

"Take the strategic engine of Napoleon I, the tactical engine of Battles of Napoleon, the AI of The Lost Admiral, the graphics of Fields of Glory and the sound of L'Empereur and mix them together to create the ultimate wargame. I'd call it Napoleon at War."

- Mitch Willis, Wetumpka, AL

"Dash of Origin
Spoonful of Electronic Arts
Pinch of MicroProse (include bugs)
Jigger of SSI
Shake vigorously and let settle for 6-24 months.
Title: Vapor Wars!!"

- N. Williams, Odessa, TX

"Combine all the space adventure games and name it "Dr. Hawking's Neighborhood."

- Bill Tripodi, Wanaque, NJ

The Patch File

Computer game programs have grown so massive and the number of possible configurations has become so huge that incompatibilities and glitches seem to be breeding at an exponential rate. Consumers and publishers are both frustrated at the need for adding patches into "buggy" programs, but they seem to be an interim solution that is going to be with the hobby for a while (presumably, until a standard platform configuration is agreed upon). So, until the golden age of standardized platforms and bug-free programs, *Computer Gaming World* will publish a regular list of the latest updates of which we are aware.

These patches can usually be downloaded from most major networks (e.g., **CompuServe** or **GEnie**), but can also be obtained from individual software publisher's own BBSs or direct from the publisher with proof of purchase. We continue to urge publishers to keep us updated on the latest versions/patches to their games.

('**' indicates new files)

Aces of the Pacific 1946 Add-On Disk Update: Single Missions will now be saved correctly, and several fixes have been made to Career Pilots, including the elimination of known Shell System Errors. 3/10/93.

** **Air Bucks Version 1.21:** Corrects lock-up and mouse compatibility problems. 8/06/93

Ambush at Sorinor Version 1.02: Adds a speed control option for fast machines, replaces several bad mission descriptions, and fixes the AI for VIPs and escorts. 6/17/93

Ancient Art of War in the Skies Update: Version 02 of the game. 3/01/93

Battles of Destiny V1.1 Patch: Enhancements and bug fixes include: Patrol Mode, Map Editor, and two player modem enhancements. 5/06/93

** **Buzz Aldrin Race Into Space Version 1.0b:** Fixes a lock-up bug and allows the removal of some files from the hard drive. 7/06/93

Caesar Patch: Allows players to use Impressions' game with disk compression utilities, and corrects the "culture" problem. 5/19/93

** **Carriers at War Construction Kit Patch:** Fixes the "CAP" bug and a few other minor problems. 7/13/93

Darklands Version 07 Update: Latest version of MicroProse's RPG. 3/05/93

Dune II Patch File: Fixes problems with the delivery of items from CHOAM. 4/18/93

Empire Deluxe Version 3.1: This new version makes a myriad of feature changes and bug fixes to Version 3.0. 4/30/93

F15 Strike Eagle III Version 3 Update: Corrects minor errors in earlier versions. 4/25/93

Harpoon Version 1.32A Upgrade: Makes changes to the Harpoon game system. 5/18/93

** **Imperial Pursuit Fix:** In the original version, it can be difficult to lock-on to a target with missiles under certain system configurations. This patch should correct this problem. 7/08/93

IndyJones/Atlantis Mac Patch: Corrects the "desert balloon" crash bug in the Mac version. 4/15/93

Indy Jones/Atlantis 486 Patch: Allows one to play the game on a 486 without color problems or errors. 5/26/93

Jordan in Flight SVGA Patch: Allows owners of Diamond Stealth, Diamond Stealth 24 and Orchid Fahrenheit 1280 Plus video cards to run the game in SVGA. 5/21/93

Jump Jet Update: Corrects the joystick problems some players are reporting and some other compatibility problems. 5/18/93

Links 386 Pro Update Version 1.09: Includes new drivers for specific video cards, a new Sound Blaster Pro 16 driver, and fixes the Harbour Town Hole 14 lockup. 3/3/93

Mantis Update (IBM): Adds new features and improves gameplay. For disk-based version only. 3/01/93

Pacific War V1.1 Upgrade: The "official" SSI upgrade to Gary Grigsby's Pacific War. 4/18/93

** **Patriot Version 1.1:** The long-awaited patch to Three-Sixty's Gulf War simulation. 7/27/93

** **Pirates Gold Patch:** Corrects the "evil person in the city" crash, the "mission from the governor" crash, and the V1 switch should now function as stated in the README file. 7/19/93

Realms of Arkania Disk 3 Fix: The first print run of this game was missing some data from disk 3. You only need this file if your BLADE directory has 48 files and 3,030,380 bytes in it. 6/23/93

** **Realms of Arkania Update #1:** Corrects the "Skeletarius" problem among others. 7/01/93

** **Rules of Engagement 2 Version 1.05:** Latest version of the Omnitrend/Impressions' space war simulation. 8/01/93

Sumpter to Appomattox Update: Fixes the "Build" routine and eliminates the memory error that some gamers were having. 3/13/93

** **The Seventh Guest Fix:** Updated sound cards drivers, installation program and player program (requiring only 450K memory). 7/28/93

Tom Landry Football V. 1.03 Update (IBM & Mac): Corrects problems with high-speed modem play. 3/06/93

Tony LaRussa II Patch: Fixes bugs in SSI's baseball simulation. 5/21/93

Unlimited Adventures Version 1.1 Patch: In addition to new files for the software, this file contains a supplement to the game's manual. 5/21/93

Unlimited Adventures Design Guide Supplement: A Technical Manual for Adventure Design by Scott Gries and MicroMagic, Inc. The official manual supplement. 5/20/93

** **V For Victory: Velikiye Luki Version 3.1 (Mac):** Upgrades the Macintosh version 2.0 to 3.1. 7/09/93

** **V For Victory: Market Garden Version 3.1 (Mac):** Upgrades the Macintosh version 3.0 to 3.1. 7/08/93

Wilson Pro Staff Golf Update: Corrects mouse driver problems and errors where incorrect driving clubs were selected for certain ranges. 4/21/93

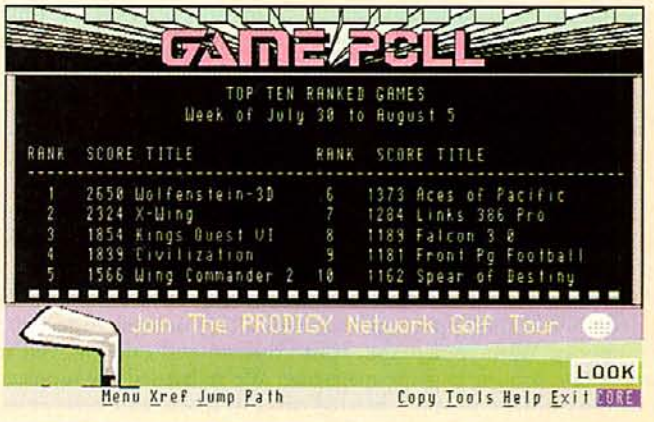
World Circuit Modem Update V1.05: Corrects problems with 2400 baud modems. 4/08/93

X-wing I/O Soundcard Patch: Allows I/O port settings of 210-260. 4/15/93

X-wing Roland Sound Patch: Fixes crash bugs associated with the Roland soundcard on 486 machines. 4/15/93

The PRODIGY Weekly Top Ten

Computer Gaming World is Prodigy's on-line games expert. Look for us in their Game Center, a forum where users read articles posted on-line by *CGW* and exchange messages on the bulletin boards (we can be reached there at EXPT40B). The Prodigy Game Poll is run by Prodigy based on a list of games provided by *CGW* and is updated weekly. Note that it is not a cumulative rating over time (like the *CGW* Top 100 Poll). Instead, the Prodigy Game Poll is a weekly "Snapshot" of game popularity with gamers rating their favorites on a 1 - 10 scale. The highest total point earners make their Top 10. We provide this data to our readers as another barometer of "what's hot" in computer gaming.



From The Publisher

We have always strived to give our readers the best coverage in the world of computer gaming. Time and again our readers and the industry have told us we have done so. However, with the coming of the digital highway, the establishment of a viable multimedia playground, and the embryonic sneak preview of a virtual-reality-based entertainment world, we feel that *Computer Gaming World* cannot serve its readers well and maintain its number one position without a strategic partner. When it comes to computer magazine publishing, the mother of all partners is surely Ziff-Davis Publishing. So, with enthusiasm and great pride we, *Computer Gaming World*, announce that: Ziff-Davis Publishing Company has acquired *Computer Gaming World*, the number one computer game magazine, and *Kids & Computers*, the world's first educational computing publication directed at parents.

What does this mean for the magazine, for the industry and for you, the readers? It will mean a dramatic improvement for all, I can assure you. Because Ziff-Davis, the leading computer magazine publisher with dominant titles including *PC Magazine, PC WEEK, PC Computing, MacUser, Windows Sources* and *Computer Shopper*, didn't buy *CGW* to tap our comparatively minor resources. On the contrary, the top people at Ziff are more interested in broadening their scope with our expertise and strengthening *CGW* as the premier information provider for interactive entertainment.

J. Scott Briggs, President of Ziff-Davis, said, "*Computer Gaming World* has, for years, been the premier magazine in the computer game category, and publisher Russell Sipe and editor Johnny Wilson are among the most respected voices within the computer game industry. *Computer Gaming World* is in an excellent position not only to be an information provider in the new interactive landscape, but also to be a well-connected observer and commentator on the phenomenon. We're delighted that Russell, Johnny and their team will join Ziff-Davis."

The magazine will maintain its editorial direction, location and staff. We will be an autonomous satellite responsible for our own operation. We gain Ziff's expertise, marketing savvy, distribution power, and financial strength. We will continue our on-line presence in Prodigy's Game Center, and will eventually be involved in the ZiffNet service.

In terms of the industry, as *CGW* grows we will be in a stronger position to cover it. Those in the industry will notice that we can be in more places at one time than before, with a better caliber of photographer to capture the scene (or screen). Editor Johnny Wilson, a man "jacked in" to this industry like no other, will have more resources, artists and writers to work with. He may even get his wish for a new computer.

Through it all, we'll continue to champion game designers and developers as the wellspring from which this industry flows. In doing so, *CGW* will introduce a growing audience to the exciting world of computer gaming, adventuring and discovery.

Now, what does this mean to you, the reader? You're going to get a better magazine. Bigger doesn't necessarily mean better, but this is one case where it will. You can look forward to more editorial content, more in-depth coverage and surveys, slicker design, and other interesting surprises.

I'd like to take this opportunity to thank all of our loyal readers for your interest, involvement and support. With your praise, your criticism and cajoling, you've helped us grow into the number one computer game magazine. We've battled the monsters, climbed the mountain, flown the ultimate mission, blasted off into space, and now we're scanning the heavens for our next horizon. We're glad to have you with us as we progress to the next level. CGW

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Access. 110-111
Accolade. 10
Activision. 55
AIdeaLabs 62
Apogee Software 17
Aztech Systems. 59
Bare Bones Software 158
Bitwit. 109
Broderbund 53
CGW Back Issues 128-129
CGW Book Store 81
CGW Subscriptions. 145
CH Products 61
Chips & Bits 67, 69, 71, 73, 75, 77
Computer Express 116-117
Compsult. 84
Computability 79
CGDC. 123
Creative Labs 63
Cyberdreams 137
Disk-Count Software. 171
Dynamix 45, 89, 91, 92-93, 94-95
Electronic Arts 7, 19, 49
Electronic Innovative Design. 87
Falcon Northwest 21
Flagship Magazine 32
Formgen 2
Future Vision. 103
Gamer's Gold 162
Genovation 105
Gosselin Computer 162
HPS Simulations 163
Homebase Products 120
Impressions 3, 23
Interplay 85
Keyboard Commander 107
Lance Haffner Games 133
Liberty International 169
Logitech. 14-15, 27
Luv Doze Lemmings 82
Mallard Software 143
Maxis. 29
MicroProse 31, 33
Microsoft. 146-147
Mindcraft Software 97, 99, 101
Mission Control. 124-125
New World Computing 51
Origin Systems. 59, 113, 180
Paper Mayhem. 138
Papyrus 35
Psygnosis 5
QQP 38-39
Quality Computers 133
Quadra Interactive. 159
RAW Entertainment 115
Readysoft. 149
Realism Entertainment 119
SDJ Entrprises. 138
Sideline Software 123
Sierra On-Line. 179
Sir-Tech. 9
Spectrum HoloByte 46-47
Strategic Simulations 43, 151
Thalion Publishing 141
Thrustmaster 127
Tsunami 121
Viking Software 154-155
Virgin Games. 139
Winterbauer Design. 135
Zeros & Ones 167

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