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The Next Generation

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TOWARD A GAMER'S LIBERATION MOVEMENT

by Johnny L. Wilson

Has this ever happened to you? (Sounds more like a late night commercial than an editorial, doesn’t it? Just humor me. Answer the question.) You’re sitting on an airplane, paging through the latest copy of CGW, and the person next to you glances at a screenshot and remarks, “My nephews and nieces love those Nintendo games. You must have children, too.” Ever have guests notice your desktop computer and, as a result, find yourself claiming that you only use it for work and maybe a couple of flight simulators? Ever hear your spouse apologizing on your behalf for how much time you “waste” playing games?

It just seems too strange. Just as some golfers have to justify “wasting” time on a golf course by explaining how much “business” they conduct on the course, many computer gamers are ashamed of their hobby. Model railroaders will nearly ostracize forever any person who comments about their “cute little trains,” but computer gamers seem to apologetically duck their heads whenever someone asks, “But aren’t those games just for kids?”

Isn’t it ironic, though? Many of those very people who feel like we are wasting our time in front of a computer monitor working out solutions to game problems, be they spatially, logically or resource based problems, spend a significant amount of time passively consuming whatever comes out of the television screen. They just don’t get it.

Our society seems to have a fundamental misconception regarding play. The majority of adults seem to regard play as having the same relation to reality that fiction does to truth: they perceive both as lies. That is a very naive oversimplification. Like the great Jewish novelist, Elie Wiesel, I happen to believe that “Some stories are true that never happened.” Just as fiction can suspend our disbelief enough to let truth penetrate our normal defense mechanisms, so can play penetrate to that inner core of personality where we ingest ideas through simulated experience.

Like art, play allows the gamer to experience a variety of perspectives. Ralph Ross, former Chairman of the Humanities Department at the University of Minnesota, wrote in Symbols & Civilization that “Art even offers syntheses of types of experience, ... yielding possible frameworks in which we can organize the fragmentary bits and pieces of our ordinary lives so that they are related and significant.” He goes on to conclude, “The value of a particular artistic perspective, then, lies chiefly in its originality, depth, and incisiveness—perhaps, too, in its pertinence to our lives.”

Given that definition, gaming is within itself a particularly vital form of art. Gaming is a structured play that allows the gamer to assume the perspective of a member of another class or race, a personage from history, a command persona, another sex, another profession, and another belief system. Role-playing and adventure allow us to examine other lifestyles, strategy allows us to expend and amass other resources, and action/simulation allow us to draw upon and develop other skills than those we use in our primary lives.

In short, play, and gaming as structured play in particular, has the capacity to broaden our knowledge and insight without the expense which would be required (in time, education, economic risk and physical risk) to gain an equivalent of the same knowledge in actual experience. Since it has this capacity (although this capacity is not always used, particularly in poor game design), gaming actually matches the purpose of art espoused by Kant in The Critique of Aesthetic Judgment. He said that art “is a mode of representation which ... although devoid of an end, has the effect of advancing the culture of the mental powers in the interests of social communication.”

But, don’t just take this editor’s philosophy. According to Dr. Gini Graham Scott, author of The Empowered Mind, even a video game as simple as those offered on Nintendo’s Game Boy “stimulates the brain in such a way that the nervous system produces more electrical energy, which actually changes the brain’s physical structure and chemical composition.” Essentially, game play creates endorphins which, in turn, “stimulate thought, interest and attention.”

Of course, the potential for opening new horizons and providing new insights, stimulating new ideas and creating new interest, does not guarantee the realization of such possibilities. I’ve known people who fixated on the language and feelings described in The Catcher in the Rye without learning to empathize with the difficult passages faced by adolescents that they knew. We have heard of high school students who viewed Schindler’s List and laughed at the death scenes rather than being sensitized to the horrors of racism allowed to run rampant. Potential does not guarantee fruition.

Yet, I cannot help but think that we, as gamers, are wrong when we are embarrassed by our hobby and pretend that we only play a few games or concede that games are “for kids.” Games are for anyone who is still learning and becoming. Games are exploratory learning experiences for all of us who still want to grow. Games are for those who want involved stimulation from their entertainment rather than passive viewing.

Maybe we need to rethink some of the conventions in game design—the preponderance of violent solutions as opposed to creative exploration and experimentation, the increasingly narrow scope of subject matter perceived as marketable, the limited nature of non-player characters and our assumptions about game players—but we sure don’t need to be ashamed of the fact that we play. Maybe we don’t need to have Gamer Pride parades or have an official Gamer Liberation Movement, but it’s time we realized that gaming is more than okay. It’s beneficial. If the hobby matures, it may someday even be understood as art by more than idealistic old editors.
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SSI Advances Beyond AD&D With Divorce From TSR

Strategic Simulations and TSR have decided to adventure off on separate quests. TSR, owners of the Advanced Dungeons & Dragons world of fantasy and role-playing characters, will not be renewing its exclusive license with SSI next year.

The TSR license on SSI’s games has been fruitful for both companies, resulting in sales of over two million games. The union began in ‘88 with Pool of Radiance, followed by the Gold Box Line, Eye of the Beholder series, and most recently Dark Sun: Shattered Lands. Both companies say they are separating on good terms. SSI spokesperson April Souza said the company chose not to renew so that its newer RPGs wouldn’t compete with SSI’s TSR-licensed games.

“We’ve had a few fantasy games without TSR like Veil of Darkness and Legends of Valour,” said Souza. “We’ve been getting into this category more on our own with games like Jornada: Alien Logic,” a computer game version of a 13-year-old paper RPG which SSI will release on CD with digitized audio and video.

Souza added that SSI was unhappy with the rules and restrictions imposed with the license that limited their creativity. SSI still has games under development using characters from the TSR universe, including Advanced DeD Slayer for the 3DO.

TSR has not yet announced a new exclusive relationship with another computer game developer or publisher. However, spokesman Tom McLaughlin said TSR will have a “major announcement at CES in June.” He added that TSR is moving toward the development of software on its own.

MicroProse Adventure Development System Purchased

As hinted in the March issue of CGW (#116, p. 26), MicroProse will no longer develop graphic adventures using the tools created for Rex Nebular and the Cosmic Gender Benders and Return of the Phantom. Sanctuary Woods, the Vancouver-based multimedia publisher, has purchased the MADS (MicroProse Adventure Development System) tool kit to produce original graphic adventures.

Spectrum, Inc. Chairman Gilman Louie explained to CGW that the MADS tools would no longer be useful for their company, because they did not allow adventure games to be linked with simulation products.

Since Ted Markley and Matt Gruson, designers of the engine, were moving to Sanctuary Woods, it was natural that they would want to obtain their old toolset. They will integrate the existing technology with Woodscript, the company’s cross-platform development system, to use on almost all of their products. “Even products that you might not recognize as graphic adventures will also use that toolset,” said Markley.

Sanctuary Woods may be an unfamiliar name to computer gamers. The company was named after a kennel (which bred champion St. Bernard dogs) and the kennel was, in turn, named after the famous World War I battle. The company basically put educational content on CDs for a time, but branched out into entertainment with the Victor Vector and Yondo adventures (Yondo is a St. Bernard). Now, the company is ready to move from light multimedia to actual games.

The first graphic adventure to use the toolset will be based on Robert Ripley’s Believe It or Not. The game allows players to become ’30s era explorers, the time frame when Ripley found most of his amazing discoveries. “We have a whole strategy to continue a product line with the adventures of Robert Ripley,” said Markley with the optimism any producer/designer has for a new product concept.
Game Companies Shuffle The Cards

February, 1994 was an eventful month in the entertainment software business. Virgin announced its intention to extend an initial public stock offering; Electronic Arts and Broderbund Software effected a merger; MCA took a significant stake in Interplay Productions; Activision, Inc. garnered $42.5 million from placing 5 million shares of common stock (slightly over 30% of the outstanding shares); and an acquisition of Sierra by Acclaim Entertainment was rumored. At press time, the Sierra/Acclaim rumor had been officially denied by Sierra On-Line's Jerry Bowerman, but the other four stories sent reverberations throughout the industry.

Activision, Inc. announced on January 31, 1994 that it had sold 5 million shares of stock for $42.5 million. In addition, the company is repurchasing $2.1 million worth of preferred stock. The new funds will enable the company to continue publishing high profile interactive movie-style adventures such as the successful Return to Zork, the upcoming Planetfall sequel, a spy adventure currently in production called William Colley's Cover Action, and an announced, potential project for a certain high-profile action star that has yet to begin production.

Virgin Interactive Entertainment will offer 1.85 million American Depository Shares. ADSs are instruments by which the shares of foreign companies are traded on U.S. exchanges.

Electronic Arts announced on February 9, 1994 that they had reached an agreement to merge with Broderbund Software. Under the structure, each Broderbund shareholder would receive 1.6 common shares of EA stock for each Broderbund share. The approximate value of the entire deal was reported to be $400 million. The agreement seems like a natural in that it marks a merger between two pioneers in the interactive entertainment industry. The merger may offer a signal that both companies felt pressure to align against the possibility of hostile takeovers from traditional entertainment or communications industries, but official statements from Broderbund CEO Doug Carlson and Electronic Arts CEO Larry Probst stressed the synergy expected between EA's broader-based distribution and Broderbund's strength in marketing educational and productivity titles.

Interplay Productions and MCA jointly announced their new relationship on February 10, 1994. Sid Sheinberg, MCA CEO, stated that the company had studied the interactive software industry over several years and targeted Brian Fargo and Interplay as an ideal creative partner. Neither Fargo nor Sheinberg would comment on the exact amount which the entertainment conglomerate invested in Interplay, but the terminology "significant minority stake" was used. One observer suggested that this might mean just under the legal limit of 20% ownership because of obscure financial reporting rules, but this was not confirmed by company spokespersons. Whatever the percentage, MCA was also granted additional options for increasing its minority position in Interplay, and Interplay was granted access to book, film, record and theme park properties for interactive purposes, as well as new technologies from MCA parent company, Matsushita.

Errata

In the March issue of CGW, the READ.ME column erroneously referred to Time Warner Interactive's purchase of Software Sorcery. Time Warner Interactive has not purchased Software Sorcery. Rather, Time Warner is publishing three of Software Sorcery's games: AEGIS: Guardian of the Fleet, Escape from the Dead Zone, and Fantasy Fieldwork. We deeply regret any inconvenience caused by the error.

"I'll Have A Pentium Lite"

Intel Announces New 486-DX4 Chip

Intel has just released information on their latest CPU in the 486 family, the Intel DX4 processor. Using processor clock tripling technology, Intel has been able to achieve speeds up to 100 megahertz, almost doubling the speed of current high-end 486-based machines. Intel hopes a new family of DX4 chips will fill the emerging price gap between entry level, 486SX systems and Intel's Pentium-based machines.

The Intel DX4 chip will be available in four flavors: 100/33, 100/50, 83/33 and 75/25, where the first number indicates the internal clock speed, while the second indicates the bus speed in megahertz. Since the Intel DX4 is already compatible with bus speeds of 25, 33, and 50MHz, we'll most likely see the 75/25 and the 100/33 combinations in desktop computers. Intel has also announced that there will be a future Pentium OverDrive processor chip that will be compatible with the DX4 systems.

The Intel DX4 is a 3 volt chip, rather than 5 volt as in most current DX2 systems. The down-side of this lower voltage requirement is that the chips cannot be used to upgrade existing machines. On the other hand, the chips will be a great boon to the notebook computing market. So far, notebook and portable computers have been the recipients of hand-me-down processors from their big brother desktop machine. Now, with a low voltage, hot,rod CPU, notebook users will be able to run their games and applications just as fast as on their desktops. In a demonstration of the chip, CGW saw Origin's Strike Commander running on an active matrix color notebook with the 75/25 DX4 CPU and, to quote a CGW Editor, "It cooked!"
Engage! With Spectrum HoloByte’s Role-Playing Event

by Terry Lee Coleman

Time flies. On a galactic scale, it seems to go by at warp speed. Can it be that Star Trek: The Next Generation is in its seventh season? It seems only yesterday that Trek fans were full of trepidation, wondering how any show could come close to the magic (if not ratings) of the first Star Trek. To be sure, the new series got off to a rocky start. An overly-long 2-hour pilot episode, the fact that the show was syndicated, and an untimely writer’s strike did little to get the show off on the right alien appendage. As the series progressed, it was apparent that the cast had developed into a fine ensemble group, in some ways even more endearing to fans than the crew of the original Enterprise. Now, as the show’s run appears at an end, big-budget films beckoning on the horizon, what better time for a Next Generation role-playing game?

Certainly Spectrum HoloByte thinks the time is ripe to go where “No game has gone before.” The Star Trek games from Interplay have been undeniably successful, reportedly selling over 300,000 copies, but even as good as the Interplay games are, they are in many ways very typical adventure games. Spectrum HoloByte wanted a game of greater scope, with more of a role-playing feel. To achieve this noble end, they have amassed enough information for the game to fill up an entire CD—over 600 MB of data. In fact, there was much discussion about whether 2 CDs would be needed, as in 7th Guest, but Spectrum decided to avoid the extra inconvenience to gamers and tighten the game to fit on one compact disc.

What could possibly take up that much room, you may ask? Digitized pictures and animation devour lots of bytes—at least with 20th Century technology. For those skeptics who harbor doubts about the worth of megabytes of graphics, they will fall by the wayside soon after beginning the game. The beginning screens are so much like the actual opening credits for the show, you may wonder if you’re watching a videotape. Painstakingly hand-rendered art combined with digitized footage is almost seamless, quite sim-
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ply some of the best animation seen in a computer game to date. The sweeping grandeur of the Enterprise gives way to close-ups of dark moons and ringed planets, finally broadening to include the vastness of the stars surrounding the ship. Such an impressive opening is not merely a pretty picture, but offers the first brush strokes on the canvas for what may well be Spectrum’s masterpiece.

With many games, the opening sequences offer so much promise that the player is inevitably disappointed by the graphics in the remainder of the game—such is not the case here. The characters are obviously digitized, then fleshed out with hand-drawn art and shading so that they really do look like their humanoid counterparts. Data is appropriately pale, Worf is hard-edged Klingon and Riker has on his famous poker face. Deanna Troi and Dr. Beverly Crusher are as beautiful as the actresses who portray them. Captain Jean-Luc Picard stands out from the rest: Regal, self assured, he occupies the forefront of the main screen of play, the bridge. His prominence is appropriate, as the player takes on the role of Picard for most of the game.

With most role-playing games and adventure games you must select one character to play throughout the game. While this approach has its uses, all of the dramatic impact of the storyline is tied up into what circumstances befall your single character. In Next Generation, you assume the guises of various crew members. In this respect, the game is more like a good novel, allowing you access to different points of view during play, and it also fits with the ensemble history of the Star Trek series.

Unlike more recent Trek games, which have resembled hour-long television episodes, Next Generation is much more open-ended. Make no mistake, there is a plot, but it won’t drag you by a leash. As the game opens, the Enterprise is patrolling near the Romulan Neutral Zone. Picard is reading a letter from a friend, who like Jean-Luc, is interested in archaeology. While the Captain ponders the difficulties of archaeological exploration so close to the Romulan Empire, he is abruptly called to the bridge. Immediately, the Enterprise is placed in a crisis situation involving the Romulans, political refugees, strange artifacts and the usual variety of alien races.

Having been hooked, you are then immersed in the depths of the story. Rather than the normal string of barely-related puzzles to be solved, the Next Generation plotline is a web of inter-related conundrums. The depth of both the writing and the gaming world itself is staggering—it is fair to say that the vast majority of gamers will spend between 30 and 100 hours of play in the Next Generation universe. Not every world you travel to has an alien race, of course, but consistent with the series, the galaxy is a big place, with plenty of things to do and places to go, keeping you and the Enterprise crew busy for quite a while.

To Seek Out New Life

To maneuver through the section of galaxy which the Enterprise is patrolling, you merely go to Astrogation, where the patrol area is depicted as a vast three-dimensional cube. Dozens of star systems and hundreds of planets, nebulas and the like are open for exploration, adding immeasurably to the illusion that you truly are “exploring strange new worlds.” The Astrogation interface is quite intuitive, allowing the erstwhile explorer to examine each cube of space in detail. Cross-section views show each star system, complete with convenient descriptions of each planet and celestial body from the ship’s computer. Star Trek fans and lovers of astronomy could spend hours with this feature alone, as the different planets all sport their own unique look.

The computer automatically sets a course for any sector of space and will target a particular planet if you have selected it specifically. The length of time it takes to travel to a particular system varies. For instance, going to Epsilon Alpha at Warp 3 will take over two years, while at Warp 7 it would be only a few days. Travel to the particular planet is then simply a matter of deciding on a speed and giving the order to “Engage,” in the usual Picardian fashion. A nice touch is that Chief Engineer Geordi LaForge will tell you if you lack the antimatter for a particular speed.

Follow My Orders

At various times in the game, your vessel may be called upon to help out in some emergency elsewhere in the quadrant. This brings up an interesting dilemma: If you rush off to the emergency, will the current situation be different when you return? Can you afford to ignore the plight of suffering Federation beings, regardless of your overall mission? Moral decisions for the player are the heart of good role-playing games, and Next Generation could be the best in this respect since Ultima 6.

The main storyline involves a mysterious, ancient alien race who has evidently disappeared without a trace. Without giving away the plot twists, suffice it to say that the legacy of this near-forgotten race proves most interesting to the Romulans and the Ferengi, as well as the Federation. As you move around the quadrant, clues to the overall mystery are found, both by stellar exploration and by away-team missions. You have the ability to choose who beams down to the different worlds, and this choice can make a huge difference in the success of the missions. Significant, the designers avoid using Data as the “Swiss Army Knife” for every occasion, and each character has different skills to be utilized, just as they would in the TV series.
Explore a new game world in the style of the Arabian Nights!

High magic and dark deeds reign as you face the evil Genie Lords in a quest to restore your family honor! A complex, pre-generated character grants you quick entrance into the all-new AD&D® AL-QADIM™ game world. Encounter genies, sinister sorcerers, wise hermits, and many more mysterious beings, each with their own secrets and challenges. Use magical items to face the challenge of real-time combat and puzzle solving. And savor a tightly woven story line that's enhanced by grand cinematic musical themes — all in the exotic new AL-QADIM game world!
Each member can be equipped with specific equipment, but they always carry phasers and tricorders. If Dr. Crusher is along, she always carries a medical tricorder, and so forth.

Away-team planetary missions take place in traditional adventure game fashion, being laid out across several screens to be explored. Non-player characters met during a mission are much more than the usual cardboard cutouts found in many role-playing products. Some are charming, others irritating; all have their own hidden agenda for you to discover, and each of them must be treated as individuals for you to ultimately succeed in the game. Certain decisions made on these missions can have catastrophic consequences, as you might expect. Even so, such is the depth of the game that the designers have left open different paths for the player to get the crucial information to reach the endgame. If, for instance, the evidence on a particular world is destroyed, you may be able to gather that same information in an asteroid belt, examining similar phenomena. Thus, the game universe can be explored without resorting to a number of save games, playing the same frustrating sequences over and over as in many games.

In fact, it is possible to reach the endgame along different paths. Of the dozens of worlds that can be explored by away-teams, the story is constructed so that the major worlds can be visited in any order, without compromising the player's chance to win. Crew members will make suggestions from time to time, but you are free to take action as you see fit. Should you decide to visit a section of the quadrant which is unknown to the Federation, you will map the sector, making the data available in the library computer for later perusal. While auto-map features have been a fixture of role-playing games for some time, this feature only adds to the illusion that you are in fact on a galactic mission of exploration.

My First Duty
Is To The Ship
Despite the freedom with which you have been endowed, you are still expected to represent yourself as a Federation officer. Therefore, while the game will let you fire on another starship, doing so without reason will bring inquiries from Starfleet and could cost you your command. Also, the beings whom you meet will remember how you treated them on previous occasions, which has obvious connotations on the outcome of the overall plot. The combat system itself is still under development at this time, but is expected to emulate more the combat sequences from the series, rather than the Wing Commander-style of simulator prevalent in previous Trek games. Generally, combat is a last resort measure, but space conflict is a necessary evil at various points in the game.

Away-teams, on the other hand, are accustomed to beaming into dangerous situations, which is probably why they are always equipped with phasers. The Federation crew may be non-aggressive, but they rarely run from a fight. More than once in Next Generation, you will have to decide whether to engage in a phaser firefight or beam back to the ship without completing your mission. As you might expect, it is difficult for the characters to die. Normally, injured crew members are beamed directly up to sickbay, just as they would be in the series. Still, this doesn't give free reign to the overly aggressive. If you provoke a fight with a host of Romulan vessels, expect to lose the Enterprise with all hands.

In addition to the problems faced by interacting with a multitude of different starfaring species, nature often conspires to throw prob-
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**INVASION OF THE DATA**

CD-ROM Drives—They attach themselves like parasites to our computer systems, similar to the way the alien mind-controllers of Robert A. Heinlein’s *The Puppet Masters* attached to their hosts. New machines with internal CD-ROM drives dominate store shelves as if they were the conquering tripodal Martians of H.G. Wells’ *War of the Worlds*. Meanwhile, multimedia upgrade kits sit on the shelf looking as benign as the pods from *Invasion of the Body Snatchers*, but frightening consumers almost as much as the original movie scared kids in the ‘50s.

Evidently, however, the masses are running toward CD-ROMs, instead of running away from *The Amazing Colossal Man* or *The Blob* in those old technophobic thrillers. *Dataquest* estimates an installed base of multimedia machines featuring an internal CD-ROM drive at 2.46 million worldwide (an almost 2,000% increase) by the end of 1993. Yet, the technophobia remains. While the results may be as beneficial in the long run as the intent of the alien robot in *The Day the Earth Stood Still*, the presence of these new machines or peripherals is significantly daunting to the average computer owner.

The consumer looks with justifiable skepticism at the idea that CD-ROM products will lower the prices of software purchases. Though some companies are selling products that use the CD as a delivery-only mechanism at less expensive rate than the same product on floppy disk, consumers are reserving judgment upon the claim that “We come in peace.” Savvy consumers see yet another piece of hardware that will be outdated in a short time and worry whether the investment is worth it or not.

Though CD delivery means shorter install times and an end to the ritual of disk-juggling, gamers find themselves particularly wary. They see the new CD products coming out with more sound, more video and, all too many times, less game play. Too often, they suggest, the “more” syndrome adds as little to game quality as 3-D did to *Creature from the Black Lagoon* and *It Came from Outer Space*. They mockingly refer to Apple’s *QuickTime* as “LagTime” and lament the fact that multimedia technology hasn’t quite come together in terms of presentation. There are still time lags, lip-synching problems, anti-aliasing problems in integrating digital video with rendered art, sound effect/music trade-off considerations and SCSI compatibility issues.

It’s a threatening new world for many gamers. Some software publishers are planning to publish strictly in CD format after this Christmas. Many believe that it will be hard to find floppy disk products on store shelves by the second quarter of 1995. The fact is that CD is here, now. So, in the tradition of those “Coming Attraction” trailers at ‘50s era drive-ins, we present our perspective on the world of CD-ROM entertainment software. With capsule reviews and a few quick comments, we will attempt to telegraph some of both the disappointment and excitement with regard to the fact that—They’re Here!
STASHERS

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At A CD-ROM Drive Near You

The 7th Guest: Consistently ranking high in our polls and a proven bestseller, The 7th Guest is a CD-ROM showpiece and a title that has remained unchallenged in its 3D-rendered beauty until the recent release of Myst on the Macintosh. Though classified as an adventure game, 7th Guest is really an interactive puzzle-based drama, a game whose traditional brain-teasers are woven together by the haunting story of the mysterious Henry Strauf. If you have a penchant for puzzles and want to see and hear some of the most exceptional computer graphics and music created to date, scare yourself up a copy of this game.


The Adventures of Willy Beamish: Almost every adult has, at one time or another, secretly harbored a desire to relive childhood years. You can take this wish to the vicarious extreme here. As Willy Beamish you play tricks on your little sister, irritate your teachers, and generally annoy the adult world in ways Cleaver never dreamed of. Of course, there is a plot woven through Willy’s shenanigans with his faithful frog sidekick, Horny: if Willy is able to get out of detention and ditch his baby-sitter, he may be able to uncover a toxic waste dumping scam. This wonderfully zany world, created by Jeff Tunnell, is every bit as carefully rendered as his more serious Rise of the Dragon, despite the fact that it is a cartoon. The CD version should be even more of a riot, with digitized and lip-synched voices, but the acting adds little to the game, and it is fair to say that some of the voices are miscast. Dynamix, DOS & Sega CD, $59.45.

Alone in the Dark: Games for the computer often lack suspense, but clever use of camera angles add a startlingly cinematic touch to this Lovecraft-inspired tale. You have the choice of playing either a male or female investigator searching for clues to the apparent suicide of Jeremy Hartwood. Inside the 3-D haunted house you’ll find ghosts, ghouls, pentagrams, demon-raising incantations, and all kinds of occult hocus-pocus. The floppy-based version was simply the best horror game for the computer in years, filled with creepy stairs, haunted pianos and more monsters than you can shake a crucifix at. Enhanced on CD, the game offers better animation and more eerie sounds, making the house of Derceto even more menacing. As an added bonus, the disc includes an adventure game vignette, Jack in the Dark, that introduces the sequel to Alone in the Dark. Make sure to play with the lights off. I-Motion, DOS, $69.95.

Battle Chess Enhanced: The game that brought animation and humor to chess has been released in several different forms. One of the first CD games on the market, the Enhanced version is still a popular variation on the ancient game. Queens cast deadly spells, Kings blast away with hidden revolvers, and lowly Pawns give arrogant Knights their comeuppance in ways the old chess masters never imagined. Better artwork, smoother animations, and a much stronger chess algorithm than its disk predecessors make the CD version a good buy for both the casual and the serious chess enthusiast. Interplay Productions Inc., DOS/MPC & 3DO, $54.99.

Capitol Hill: Perhaps providing real evidence that politics is a game, this producer walks the walk—would you be Congressional Representative from junior political to Majority Leader. Hundreds of actual Capitol Hill photos and 45 minutes of video clips put you right in the middle of legislative debates. There are lots of decisions to be made as you support or attempt to kill various bills—you may even get calls from that guy in the big white house. The big filibuster, though, is this game, for all its promise, lacks a real endgame to make it come to life. The Software Toolworks, DOS, $49.95.

CD-ROMIX! Prime, Free and Hardcase: It was inevitable that multimedia would eventually invade every aspect of our lives. One of the last of the artistic holdouts was comics, but now they get the full treatment in this title. Malibu Comics’ best-selling Ultraverse line is showcased here, including some real collector’s items. Prime #1, Hardcase #1 and Freez #1 have never looked better with high-resolution graphics and visual effects, and the sound effects and rich musical score add a new dimension to the traditional comic. The addition of interviews with the artists is another nice feature, but the tactile feel and smell of a newly-printed comic hasn’t quite been captured by the electronic medium as yet. CD-ROMIX!, DOS, $24.95.

Conspiracy: This cloak and dagger adventure game set in the crumbling USSR of 1990 was originally released as KGB. The mediocre game has been resurrected and embellished with the quality acting of Donald Sutherland and a new intro sequence. Sutherland plays the part of the main character’s dead father, introducing the story and dollying out advice in full motion video segments. Since the original game was not written with the Sutherland character in mind, his addition comes off a bit strained: he is a bit like a ghost that the main character can conjure when he “just thinks about

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It’s a dirty job but somebody’s got to do it.
him." Sutherland's acting is first-rate, nonetheless, and the video is played nearly full-screen, but pays a very heavy price in image resolution to do so. The novelty of seeing a Big Screen actor in an adventure game is about the only thing going for it. Virgin Interactive Entertainment Inc., DOS, $74.99.

**The Cyberplasm Formula:** Victor Vector and Yondo, the time-traveling field agents of The Museum of Fantastic Phenomena, are at it again. Their mission: journey to the late 21st Century and procure a supply of cyberplasm. It seems that the museum's curator, half-mechanical and half-humanoid, needs the cyberplasm to stay alive. Since there must be a problem in order for this journey to comprise a game, the only available source of cyberplasm is in the hands of a menacing mob of marauding machines. An interactive comic book for gamers eight years old and up, and fans of alienation everywhere, *The Cyberplasm Formula* provides for some entertaining, tongue-in-cheek, exploration and puzzle-solving. Sanctuary Woods Multimedia, MPC/MAC, $39.95.

**CyberRace:** Sid Mead brings his name, if not his considerable cinematic design talents, to bear on the software industry. However, even the man who helped make *Blade Runner* a science-fiction noir success can't quite pull off the same here. The game is a space race simulator that uses Voxel technology to render the alien

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**Interplay Enhanced**

Interplay Productions has always been at the forefront of CD-ROM gaming. When they introduced *Battle Chess* on the CD-ROM in 1990, they were the first company to enhance one of their games for the new technology. *Battle Chess* was, for a few years, one of the only real CD products amidst a lot of talk. Interplay continues to heavily support CD gaming, and has, in fact, built such a reputation that Maxis has come to them for enhanced versions of their games.

**Buzz Aldrin's Race Into Space CD:** Interplay has added multimedia booster rockets to their strategy game covering the U.S./Soviet race into space. The low frame-rate video footage of the original release has been enhanced and extended with full motion footage, including some never-before-seen video from the Soviet archives. The game has been significantly tweaked as well, with the addition of E-mail and modem play, a fully orchestrated sound track, a new quickstart level, and several new mission types, including a manned trip to Mars. Only the astronauts themselves had a clearer picture of this historic period.

**Castles II:** You're unlikely to see a better example of what CD-ROM can do for gaming than in this enhanced version of the original *Castles II*. Around the fortress of a solid strategy game, Interplay has built several multimedia battlements: fully spoken, professionally acted game plots totaling 4-5 hours of speech; enhanced black & white movie footage; 30 minutes of BBC documentary film footage on castle building history; and a fully narrated tutorial that allows the player to jump into a game in progress at several points. The package also includes a source book of 10 historical castles, with photos, film, and voice-over narration, and castle floor plans that you can actually use in the game.

**Lord of the Rings CD:** With 25 minutes of footage from the Ralph Bakshi film, and 40 minutes of high quality CD audio and digitized speech, Interplay's *Lord of the Rings* captures the flavor of Tolkien's epic tale better than any other computer game adaptation. You assume the role of hobbit Frodo Baggins, leader of the Fellowship on a quest to destroy the Ring. An 8-minute tutorial has also been added to help acclimate new players to the interface and gameplay features.

**SimAnt:** Maxis' digital ant farm has undergone a complete overhaul for this enhanced multimedia version. VGA graphics, a new sound track and sound effects, an incredible computer-rendered introduction, 30 minutes of full motion, full screen animation, and 20 minutes of film footage shot in the Arizona desert paint a pretty picture of ant life. A full tutorial has also been added, hosted by SimAnta, a digital puppet created with Vector-technology, a character animation process that creates excellent lip-synching and facial expressions. SimAnta will walk you through the basics of the game and allow you to play while she comments on your progress.

**SimCity:** Maxis' classic city simulator comes to life with the help of Interplay's multimedia team. Using the original SimCity game engine, Interplay adds a beautiful computer-rendered introduction sequence, full motion video segments of professional actors, and real footage of natural disasters to heighten the drama of SimCity life. Newscasters will bring out the lighter side of nuclear meltdown and tornados, while the working class sim will tell you about the problems they face in your city. SVGA video support has been added, as well as a spoken on-line help system. Even in a life-threatening crisis, SimCity has never looked better.

**Star Trek 25th Anniversary CD:** The voices of the original Star Trek cast have been beamed down to the CD-ROM version of Interplay's best-selling adventure game. Now, the actual voices of William Shatner, Leonard Nimoy and dozens of other actors will speak the lines of a half dozen original adventure episodes. The game has been changed a bit to incorporate a new ending, but the core game engine and its strong writing remain the same. Gamers who haven't yet explored this familiar universe will definitely want to do so.
Step back in history to the time of the War of the Roses. In England, racked by civil war, the crown hangs by a thread and the throne is there for the taking. Take command of your own faction and begin the quest for the crown. Will you fall to face the executioners blade? Or can you outwit your opponents and win, for your Royal Heir, the throne of all England? Based on the best selling strategy board game, Kingmaker brings the intrigue and anarchy of the 15th Century warring England to life. No matter how many times you play, highly-sophisticated artificial intelligence guarantees a challenge for novice and master strategist alike.

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landscapes of its race course. While the racing can be mildly interesting once you get beyond some awkward game mechanics, an uninteresting plot and characters fail to keep interest, despite some pretty neat artwork. CyberDreams, DOS, $69.95.

Day of the Tentacle: The disk version of this game was a fabulous sequel to Manic Mansion in which the world had to be saved from a mutated tentacle in classic cartoon chaos. The CD version adds not only full digitized speech for all of the characters, but the acting abilities of Richard Sanders (WKRP’s Les Nessman) as our hero Bernard, along with many other inspired performances. More than the sum of its parts, the enhanced game involves you in the characters’ plight, even as you’re splitting at the sides from the madcap humor. Chuck Jones would have been proud. LucasArts Entertainment Company, DOS, $69.95.

Dracula Unleashed: Those who sink their teeth into Dracula Unleashed can count on many hours of haunting play in this unholy whodunit from the creators of Sherlock Holmes, Consulting Detective. Live actors and sets add a strong cinematic realism to the atmosphere of this interactive horror. Acting is excellent, with memorably creepy performances throughout. There is a fair amount of repetition involved, and retracing one’s steps does get a bit old after a while. Nonetheless, the experience is worthwhile for anyone with more than a passing interest in the horror genre. Viacom New Media, DOS, $69.95.

Dragon Tales: Rage of the Dark Alliance: Role-players are in for a treat with this new 3-D adventure scheduled for a first quarter release. Unlike The 7th Guest, which offered limited path movement in each room, Dragon Tales features extensive movement throughout, some rooms having over 200 pre-defined paths. Created with 3D Studio 3.0, the game world offers a more realistic environment for interaction. As the player moves about in the CD version of this game (a floppy version will also be available), continuous movement and panning result in life-like first-person movements. Though action similar to that of Shadowcaster is incorporated, the primary focus is on puzzle-based play, where puzzles often have more than one possible solution—but keep your sword handy. The Software Toolworks, DOS, ☆, $59.95.

Dune: When released in the 60s, Frank Herbert’s epic novel was more than a sci-fi hit, becoming one of the first of that genre to gain acclaim—and big sales—in more mainstream venues. The

![Image of a CD with text: "It's All Relative: HBO Comedy Central's Short Attention Span Theater"

Playing Outside The Lines

Even as much as we enjoy gaming, we must admit, however reluctantly, that there are other reasons to “go multimedia.” With this in mind, here is a handful of other cool stuff available on CD for your PC, all unique and stimulating in their own right:

Dennis Miller: That’s News To Me: Described by the sardonic wit himself as a series of monologues from a comic in a padded cell designed by Steve Jobs, this CD allows you to do what no producer was ever able to do—control Dennis Miller. Building off Miller’s strength as the “newscaster” on Saturday Night Live and his very topical stand-up routines, the program allows you to select jokes based on the months of 1993 and four different topical segments (World News, Sports, Show Biz and Poliics). You pick a month, a category and a specific news story; Dennis takes care of the rest. $29.95. Macintosh and IBM with Windows.

It’s a Wonderful Life: It’s certainly a wonderful idea, transferring classic films to multimedia. This somewhat uneven product showcases both the strengths and weaknesses of the genre. The ability to read the script while watching the film makes this more than just a film on your computer, but the picture quality still has a way to go before it reaches television standards, much less those of a good movie theater. The sound is hardly earth- or ear-shattering, but in fairness, this approach would probably work better with a newer film. The performances, especially that of star Jimmy Stewart in the prime of his career, may yet be saved here. A noble effort, this title will please fans of the film, at least until the technology improves enough to leave it behind. MicroProse Software Inc., MPC, $79.95.

HBO Comedy Central: It’s All Relative: The Simpsons were neither the first nor necessarily the funniest of America’s dysfunctional families, and this product, the first release in Time Warner Interactive’s Short Attention Span Theater shows why. It presents 51 short video clips of stand-up comedians talking about the dysfunctional nature of their families. The short video segments are indexed by several subject areas and types of comedians (Italian, Jewish, etc.), as well as alphabetically by name. The product also has a screen-saver feature that plays video clips randomly when your computer isn’t busy gaming. IBM with Windows, $39.95.

MEGA Rock Rap’n Roll: Clever use of pre-composed music bits allow you to produce your own pro-quality jam sessions at home. Dissonance, distortion, wah-wah and several other sound effects constructed through “tape loops” can be used to emulate that big studio effect. Your recording genius can be saved to hard disk, or even cassette tape, as the program offers instant mixing and near-effortless editing. After just a few minutes with the interface, you’ll be grooving to the Bop O-Rama, a music mixing program for the musically-challenged. Paramount Interactive, MPC & MAC, ☆, $59.95.
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*Here's the fine print. GEnie multi-player games and support services are $2.00 an hour in non-prime time; 6 p.m. to 8 a.m. local time Mon.-Fri., all day Sat. and Sun., and selected holidays. There's also an $8.95 monthly subscription fee. Each month, you'll get credit for up to four hours of non-prime time usage. Any surcharges incurred apply to all hourly usage, including your first four hours.
film should have been bigger than Star Wars, because it had all the elements of a hit: strong characters, dastardly villains, politics, intrigue, and an action-packed plot. Somehow, the best elements of the book failed to translate to the big screen, and when the game was released, it suffered much the same fate. Of course, the most obvious solution was to take elements from the film and game to form a new product. Strange as it sounds, this cult marriage is fairly successful. Many of the actors come off better on the PC screen than they fared in the real cinema, and the addition of digitized speech spices up many of the dull parts of the game. If you have more than a passing interest, hop on an ornithopter and grab this game—just watch out for the worms! Virgin Interactive Entertainment Inc., DOS, $99.99.

F-15 Strike Eagle III: As this classic flight sim has progressed through its three versions it has steadily improved its graphic look while keeping its hard-edged simulation core intact. Although the game is not on the cutting graphical edge, the carefully rendered artwork still has a definitely pleasing photo-realistic style which adds immensely to gameplay. The CD adds some 15 minutes of gorgeous intro footage, a couple of new scenarios, and a very useful tutorial on the plethora of armament for this versatile fighter.

Movie Select: In a quandary about which video to rent for the night? This program has guides to some 40,000 video titles, each with capsule summaries. Films are listed in 23 categories, so that every fan's desires can be satisfied. Look for particular directors, stars or genres, while Movie Select gives recommendations based on your desires. You can even print lists of your favorites to take with you to the video store. As a bonus, the CD version includes movie-theatre style previews of just-released videos. Not yet the interactive Siskel and Ebert, but still a useful tool for the film fan. Paramount Interactive, MPC, $59.95.

Personal Daily Planner--Adrenaline, Earth and Paradise: These programs offer different versions of daily planners for the computer age. Earth has a real nature-film authenticity to its look, while Paradise looks as though you've been dropped into the middle of a sports swimsuit issue. Tons of quotes, trivia from Isaac Asimov and access to spreadsheets and word processors are but a few of the conveniences offered by this useful product. The addition of voice-recognition software makes you almost feel as if you have a secretary close at hand. Media Vision, MPC, $59.95.

The Sporting News Multimedia Pro Football Guide: You can host your own NFL highlight show with this multimedia product. A reference work in the Compton's tradition, this CD features statistics on all NFL players since 1980, video highlight clips from the 1992 season, Hall of Fame stories and video clips for some players, and a trivia game. The trivia game features an on-screen football field across which players advance by answering multiple-choice questions correctly. Unfortunately, it features no artificial opponent to test one's gridiron trivia prowess. Nonetheless, this electronic equivalent of an NFL encyclopedia offers plenty of information to be explored. Compton's New Media, IBM with Windows, $39.95.

Wines of the World: More than a coffee table book on the computer, Wines of the World not only offers color photos, literature text and understandable flow charts on Wine Appreciation, Wine Regions and Wine Quality, but it also features a useful tool called the Wine Browser. The Wine Browser is a database that contains notes on U.S.-produced varietals, Bordeaux wines, Personal Wines (user-customized, of course) and Port. You can search by varietal, producer, vintage, rating, price or value, with space provided to enter your personal tasting notes. Multicom Publishing Inc., MPC/MAC, $59.95.

Xplora: Peter Gabriel's Secret World: Peter Gabriel's pioneering musical and technological spirit are captured vividly on this CD. Nearly two hours of stunning video footage and 30 minutes of audio combine with more than 100 still images to allow you to search through the making of the Us album, view the filming of the Kiss That Frog video, or sample music of 40 eclectic artists from around the world. While viewing artwork, videos or backstage shots at the Grammy's might be interesting, explorers will have the most fun remixing their own Peter Gabriel music videos and joining in on jam sessions. Interplay Productions Inc., MAC, $44.99.
There’s more to games than a mouth that sort of moves or tinny sound. Now there’s a new way to play PC games that’s just like sitting in a theater controlling the action with your joystick.

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three goblins with the mouse, using each character's unique skills to solve the "now, where do I use this object?" puzzles. In its "enhanced" form, it has a much improved sound track along with new spoken word vignettes sprinkled between the puzzle levels. Sierra On-Line, DOS, $39.95.

Goblins II: The sequel to Goblins is no less entertaining than the original, though it does star one less animated goblin. In this trip through animated adventure/puzzle land, two imps, Fingus and Winkle, must work as a team to rescue the Goblin King's kidnapped heir. The game play is similar to the original, though the interface has been simplified, and there is much more sound and digitized voice acting than in the enhanced version of the first game. Sierra On-Line, DOS, $39.95.

Great Naval Battles: North Atlantic 1939-43: In some respects, this game is a cross between disk space-intensive games on CD such as Jutland, and more traditional fare. The game requires 8MB but has hundreds of authentic WWII images accessed directly from CD. The game features additional menu options, including hidden movement of other task forces. All the expansion disks and editors are included on the CD version, making it a good buy for aspiring captains of the Bismarck, or other great ships of the era. It would be hard indeed to find a more comprehensive simulation of ship-to-ship naval warfare in WWII. Strategic Simulations Inc., DOS, $70.00.

Hell Cab: Aesthetically resplendent, but rather simplistic in terms of game play, Hell Cab is a case of a new technology meeting old game design. In much the same way as the old Cinemaware games, we were enamored with the graphics but less than enthused with some of the game play. In this adventure game with timing-sensitive action sequences, the gamer takes on the role of a modern New York tourist who ends up in a taxi destined for the land of eternal punishment. If you have trouble playing games "to save your life," imagine what it's like trying to win a game in order "to save your soul." Time Warner Interactive, MPC & MAC, $99.99.

The Horde: Kirk Cameron, teen star of TV's Growing Pains, plays the role of Chauncey, a clumsy young oaf charged with turning a tepid swamp, an arid desert, and an arctic wasteland (among other undesirable plots) into productive farmland. As if that weren't difficult enough, Chauncey must defend his farms from the Horde: a species of ravenous mouths-with-legs. Developed by Games For Bob (Paul Reiche, Fred Ford), The Horde is a wild and wooly action/strategy game that combines resource management with scrolling hack-n-slash action. interspersed between game levels are full motion video clips that chronicle Chauncey's success and his developing relationship with the King and his Evil Advisor. Excellent acting and game play combined with twisted humor (centered upon a disturbing preoccupation with cows) should make this one a winner. Crystal Dynamics, DOS & 3DO, $59.99.

Hyper Backgammon: You can sharpen your backgammon skills against a wizard AI in this quick-playing game. It is quick-playing for two reasons: there are only three stones per side, and the AI is fast. The game's graphics aren't anything special and there isn't a sound track, but since the game doesn't require much disk access, you don't even need to put the game on your hard drive. It plays very nicely when it comes straight off the CD, even with a single-speed drive. ROM TIME, DOS, $39.00.

Inca Multimedia CD: Offering the same blend of arcade action and puzzle-solving play of the diskette version, Inca Multimedia CD adds to the playing experience and atmosphere by incorporating a New Age CD quality stereo soundtrack (employing authentic Incan instruments) and crisp, digitized voices. Otherwise, play has changed little from the original release, sporting puzzles of modest difficulty and joystick bustin' action sequences. So, if you don't mind a good dash of action mixed in with your puzzle-solvin' fun, Inca can offer it in plenty. Sierra On-Line, DOS, $49.95.

Indiana Jones and the Fate of Atlantis: Indy! Come quickly! They've taken the words off the screen and replaced them with speech! Playing the disk version of Atlantis is fun, but in many ways, it's just another adventure game. What the CD version does is use full speech throughout to transform the game into a fine approximation of an Indiana Jones film, with you as the main character. The acting is excellent, the action more gripping than ever, simply because it can be heard rather than read. It's like going from silent films to talkies. If you want a good reason to purchase a CD-ROM, look no further. LucasArts Entertainment Company, DOS, $69.95.

Iron Helix: The 3-D rendered interior of a starship with a mind of its own is the setting for this game of hi-tech car & mouse. You control a defenseless probe as it tries to wrest control of a starship from a renegade AI while avoiding the pursuit of a probe-eating defender robot. The pace of the action is not as break-neck as the game's billing likes to pretend, but the game promises several hours of intense, strategic duck n' jive against an aggressive and efficient AI. Be warned, though: when those several hours are up, there is very little replay value. Spectrum HoloByte, MPC & MAC, $99.95.

The Journeyman Project: For whatever reason, a large number of CD games share a common science fictional motif, probably because of the high-tech flair associ-

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Software © 1993, 94 Interplay Productions, Inc. All rights reserved. * & © 1994 Paramount Pictures. All Rights Reserved. STAR TREK is a registered Trademark of Paramount Pictures. Interplay is an authorized user.
ated with the genre. While *Journeyman* possesses some of the trappings, it avoids many of the pitfalls of its competitors. Gamers familiar with Paul Anderson's novels about the Time Patrol will feel very much at home here, as they attempt to repair rips in the fabric of time. The guardians of the True History must be ever vigilant as they travel through wonderfully-rendered 3D worlds, following the intricate plotline. Solid acting by real pros blends with the evocative soundtrack to provide a refreshing experience for most any gamer. Definitely a game with which to wow the neighbors. Presto Studios Inc., MPC & MAC, CD Only, $99.95.

*Jutland:* Jutland is one of the few naval engagements that rival Trafalgar in scope and grandeur. This CD-only game is appropriately grandiose, although it attempts a bit more than it can actually pull off. Real-time combat fits in well with the tactical feel, somewhat resembling tabletop miniatures in style and function. Gunnery tables showcase the effective penetration power of shells versus various types of armor thicknesses, fitting well into the complicated ballistic model. Wargamers will likely be disappointed from a historical standpoint, as the torpedo boats which caused Jellicoe to turn his fleet away are given short shrift in the game. In fairness, most boardgames have also ignored this aspect of the battle, and they certainly didn't look as crisp and ocean blue as *Jutland*—but then they didn't take up 20 MB of hard drive space, either. Software Sorcery, DOS, $89.95.

*King's Quest V:* Sierra's first *King's Quest* title to make its way to CD-ROM, *King's Quest V: Absent Makes the Heart Go Yonder,* is a product that leaves its players with mixed emotions. Though it employs over 50 voice actors and offers a rich stereo soundtrack, the quality of the voice acting covers the gamut from excellent to mediocre and, in some cases, can grate on the nerves. Nonetheless, if you have not yet played this title, it is an excellent animated adventure with a solid story continuing the exploits of King Graham, a game the whole family can enjoy. In spite of the heterogeneity of the voice talent, the CD version is preferable over the floppy edition as the other enhancements are excellent, and the game can be played directly from the CD. Sierra On-Line, DOS/MPC, $44.95.

*King's Quest VI:* *King's Quest VI: Heir Today, Gone Tomorrow* features quality vocal talent throughout and audibly displays that Sierra learned from their previous error, employing professional actors rather than using existing staff members for voice-overs.

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**The A B s of CDs**

**Multimedia For Kids**

*Busytown:* Based upon The Busy World of Richard Scarry, *Busytown* introduces children ages 3 to 7 to lovable characters like Huckle Cat and Mr. Frumble as they learn addition and subtraction, pattern matching, counting, problem solving and reading. Whether building a house or becoming a firefighter, *Busytown* is playful learning at its best. Paramount Interactive, MPC, $59.95.

*Forever Growing Garden:* Watering your computer is probably not a good idea, but watering the plants in your garden is a daily affair, even if your garden is a digital one. Young gardeners can sprout vegetables, flowers and decorative hedges in one of three garden sites: home, castle or farm. A Garden Growth Speed-O-Meter allows growth time to be adjusted so that one day equals one day, one day equals one second, or anywhere in-between. Whether you have a green thumb or not this garden simulator will provide much soil-spading fun. Media Vision, MPC/MAC, $49.95.

*Microsoft Dinosaurs:* Kids' obsession with dinosaurs long preceded Jurassic Park, but the hit film has only fanned the flames of the dino-craze. Included with this silvery disk of dino delights is a copy of the Dino Times, the official newsletter of The Dinosaur Society, and several classy dinosaur decals. The real meat of this package, of course, is the Dinosaurs program itself, a multimedia encyclopedia that chronicles the history of these ancient lizards. Graphics, videos and audio effects are superb, and the interface is a model of design and user-friendliness. If you want the best resource available on those wonderful and terrifying animals, then *Microsoft Dinosaurs* is your best bet. Microsoft Corporation, MPC, $79.95.

*Peter Pan: A Story Painting Adventure:* If you want to reinforce your children's (ages five to nine) learning skills, *Peter Pan: A Story Painting Adventure* offers a unique and entertaining way to do so. An adaptation of the classic children's story, this title allows kids to "paint their way" out of puzzling situations using well-known computer painting tools like a sprayer, eraser, paint brush and pencil. Afraid of the sharp edge on Captain Hook's sword? Grab the paintbrush and turn it into a banana! Over 30 scenes are featured with hundreds of possible solutions. Electronic Arts, DOS, $49.95.

*Putt-Putt Goes to the Moon:* Following the success of their exceptional educational title for young children, *Fatty Bear's Birthday Surprise,* Humongous has once again attained orbit with *Putt-Putt Goes to the Moon.* Directed by Ron Gilbert (of *Monkey Island* fame), *Putt-Putt Goes to the Moon* provides a fun learning adventure for chil-
Although the game can be played directly from the CD if so desired, installation of additional data will speed up play. Overall, the game features a nice, fairy-tale plot, fair but difficult puzzles, and Sierra's traditional excellence in sound and graphics. It is a much improved product over earlier multimedia efforts and a worthy heir to the King's Quest lineage. Sierra On-Line, DOS/MPC, $49.95.

Klokski: This admittedly budget offering is hardly Tassil, but it is addictive enough to stay on the hard drive for some time. A pure puzzle game, it requires moving blocks around so a particular block can "escape." Some of the puzzles require non-linear thinking, while others are fairly straightforward. Something to enjoy with the evening tea, for those who want more of a mainstream brain-drainer than, say, The Incredible Machine. Quanta Press Inc., DOS, $19.95.

The Labyrinth of Time: Essentially a traditional adventure game cast from the raw material of multimedia, The Labyrinth of Time features a relentless maze in both space and concept. King Minos is back in the labyrinth-building business and, if successful, he will use the mystical powers associated with the "labyrinth of time" to control all space and time. The player has been plucked from his/her own work-a-day life to face the immortal tyrant, and the rest is revisionist mythology. The graphics are impressive, from the film noir introduction to the lavish sets of ionic columns, and the soundtrack offers the gravity to be expected from a Classical Greek theme. Though mythology and time travel interbreed seamlessly, its depressingly empty world and staid adventure game mechanics create a game that is less than timeless. Electronic Arts, DOS & CD32, $59.95.

Laura Bow in the Dagger of Amon Ra: Mystery fans will relish the intrigue, secret consilions and hidden agendas of The Dagger of Amon Ra, not to mention the swirling tide of murders occurring throughout this adventure. The sequel to The Colonel's Bequest finds our heroine, Laura Bow, in a much more believable 1920s setting, with Art Deco very much in evidence, and hard-boiled characters in nearly every scene. Audibly enhanced from the original floppy release and featuring a competent cast of voice actors, this second Laura Bow adventure calls on the player's attention to detail and deductive reasoning skills to solve the theft of the infamous dagger and expose the murderer before becoming the next victim. Hand-painted art, emotive stereo soundtrack, deep puzzles, and a convoluted storyline all combine to make this multimedia game a winner. Sierra On-Line, DOS/MPC, $49.95.

The Legend of Kyrandia: Westwood's first Fables & Friends title is an excellent, if somewhat short, adventure. Stunning graphics and sound initially brought the fantasy world of Kyrandia to life. Now, with the release of the CD-ROM version, digitized voices have been added to further immerse the player in the richness of the gaming world. The Legend of Kyrandia is a quality product throughout. If Westwood would just release the CD version of their titles first, they would have fewer detractors. Westwood Studios, DOS, CD Enhanced, $74.99.

dren 3 to 8 years old. The goal: learn how to cooperate while helping Putt-2utt and his friend Rover (a moon rover) accomplish a few good deeds for the moon people and repair a rocket to return to earth. Putt-2utt offers a classic adventure experience for children (and adults).

Humongous Entertainment, DOS, $49.95.

Sitting on the Farm: It doesn't take very long for a picnic lunch to turn messy when a little girl is joined by a menagerie of delightful animals. The first I-Learn title for kids ages 7 to 11 offers four modes of interactivity: Listen-Along, for listening to the story being read; Read-Along, allowing a child to record her own voice; Sing-Along, for listening to and recording with the music; and Write-Along, for creating new stories. Designed primarily to develop reading and writing skills, and encourage creativity, Sitting on the Farm stands up well as a fun educational tool. Sanctuary Woods Multimedia Corp., MAC, $59.95.

Sound It Out Land: This is one of the few educational programs that uses phonics to teach reading skills. In the guise of a musical theme park, this program uses songs and objects to teach reading and recognition skills. From Sing Along Sam to Vowel Owl, Sound It Out Land offers youngsters eyes and ear candy of the most nutritious kind. The six original songs included can also be played on audio CD players. Conexus, MPC, $49.95.

The Tortoise and the Hare: An age-old tale from the fables of Aesop, this story—one that extols the virtue of steady work as opposed to hurried, sporadic efforts—springs to life in the hands of Broderbund's Living Books group. Children ages 3 to 8 can either listen while the story is read aloud or interact with the story by exploring screens that hide dozens of silly animations. In either case, there is certainly no shortage to the entertainment value or hilarious antics in The Tortoise and the Hare. Prepare for many hours of learning fun with this interactive picture book. Broderbund Software Inc., MPC & MAC, $39.95.

Tuneland: Starring Howie Mandel as Little Howie, Tuneland is the first title in a new, and aptly named, Desktop Playground series. Children (ages 3 to 103) can anticipate endless hours of giggles and play as they learn basic computer skills and interact with the comical on-screen antics of Little Howie. Countless animations and a bevy of favorite children's songs and rhymes contribute to each scene in this interactive musical cartoon, making it a wholly captivating experience for both children and their parents. 7th Level, MPC, $49.95.

Where in the World is Carmen Sandiego Deluxe: This educational sleuthing game needs little, if any, introduction. From Nickelodeon to Saturday morning cartoons, Carmen Sandiego is a well known figure. The CD-ROM version of this best-selling game adds substantial value to an already excellent game. Enhancements include digitized photos from the National Geographic Society, music from the Smithsonian/Folkways Recordings, and The World Almanac & Book of Facts. Go ahead, enlist as an ace detective with the ACME Detective Agency and track Carmen down in this educational adventure. Broderbund Software Inc., MPC & MAC, $60.00.
Loom: Brian Moriarty’s beautifully spun tale of Bobbin Threadbare and his quest to mend the fabric of time receives additional embellishments in its CD-ROM form. The game package actually includes two CDs: Loom the Audio Drama, a 30 minute story that sets up the game’s characters and setting, and the Loom the Game, which features full spoken dialogue and an enhanced soundtrack. Though a few years old, Loom’s unique music-oriented interface, strong story-telling, and incredible graphics still stand up to more current adventure games. Unfortunately, the CD-ROM version does nothing to address the only criticism ever leveled against the game—it’s too short. Still, it is an excellent game for the new computer gamer. LucasArts Entertainment Company, DOS, CD Enhanced, $99.95.

Lost in Time: Combining a 3D game world with digitized video to achieve a look similar to that of Inca, Coktel Vision transports you back to the year 1840, where you must prevent a murderous fiend from killing your ancestors in classic time-travel fashion. The game begins with your attempt to escape from a prison cell in the hold of a Spanish Galleon. Though game play is interesting and movement through the 3D world is fluid, the digitized video does not seem as crisp, nor does the music offer the emotive force of that employed in Inca. Additionally, some puzzles border on the obtuse, but there’s still enough going on to entice those gamers who missed catching reruns of Time Tunnel. Sierra On-Line, DOS, $39.95.

Lunarius: In this arcadish action shooter, the player is part of a team charged with zapping alien droids who have overrun Earth in 2023. As with most games of this ilk, the background info is superfluous. The game cleverly incorporates programming enhancements to speed up CD-ROM access times and enable “high speed, fluid motion” action. Firefights through mazes in three cities are challenging, but graphics quality is mixed and begs more realistic detail. Cyberflix, MAC, $79.95.

Mad Dog McCree: From the arcades to the desktop, American Laser’s Mad Dog McCree sets its sights on the gamer with the fastest mouse, as gun-slinging action comes home. Based on the arcade hit, this real-motion interactive shoot-em-up game brings exciting action to PC compatibles, complete with ambushes, bunk robberies and scalawags galore. The CD version is not as fast on the draw as its heritage would lead you to believe. Even so, there’s plenty for the sheriff to do. Rescue the mayor and his daughter and rid the town of Mad Dog and his pack of outlaws, but make sure to practice shootin’ some bottles first. If your aim is off and you take three bullies, you’ll be pushin’ up daisies. American Laser Games, DOS, CD-I & 3DO, $59.95.

The Madness of Roland: Set in Medieval France, this is the story of the paladin Roland, a knight in service to Charlemagne who won the magic sword Durendal from the Saracens. More a book than an adventure game, Roland incorporates HyperText, QuickTime video, and full spoken dialogue to tell the tale of Roland’s descent into madness from the perspective of several characters. With textual commentary from the likes of Carlos Castaneda, Carl Jung, and Anaïs Nin, its use of art and acting to add another dimension to the text, and its “mature” treatment of the story make it a decidedly adult, and decidedly interesting, tale. A significant step in interactive fiction’s quest to define itself. Compton’s New Media, MAC, CD Only, $59.95.

The Magic Death: Virtual Murder 2: A beautiful, Nobel-prize winning anthropology student has been murdered in a Voodoo ritualistic killing, and you have six virtual hours to figure out whodunit. The play is very similar to ICOM’s Sherlock Holmes series of games. After finding clues at the scene, ordering toxicological exams, and reviewing QuickTime animations of videotaped interviews with suspects, you’ll be able to solve this attractive, engaging, well-scripted mystery. Creative Multimedia, MPC, $49.99.

Man Enough: If you’ve ever wondered what an interactive dating service would be like, Man Enough should give you a clue. The object of the game is to win and not to score. You win by getting to know five lovely NPC ladies through menu-based conversations accented with boudoir photos. If you can successfully captivate their minds while following the conversation trees through five different dates, you get to go on a dream date with the lovely woman pictured on the package. Well…you get to go on a date via the magic of photography. Learning to match potential conversational gambits with each artificial woman’s personality is the primary activity in the game, but the designer did experiment a bit with interactive video during the Paintball segment. The denouement seemed kind of cute, but knowing this male-oriented hobby, we know that some gamers are going to be more annoyed than amused. Tsunami Media, DOS, $79.95.

Microsoft Golf: Sporting a familiar look, this could easily be called “Son of Links” to your favorite golf course.” While the resolution cannot equal Links 386—and what could?—it does use Windows’ 256 colors to good advantage.
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Circle Reader Service #70
Despite a staggering amount of detail, screen re-draw speed is not bad, provided the game is played on a fast 386 or better. Lots of informational screens and different views showcase a very user-friendly product. Torrey Pines, included with the game, is a fairly easy course, yet still offers a variety of challenges for the beginner or veteran computer golfer. Video tips from pros have full voice and are thus more like a real golf lesson. Certainly cheaper than most actual golf courses, with the comfort of putting in your own living room (or office). Microsoft Corporation, MPC, $64.95.

*Might & Magic: World of Xeen*: New World's popular World of Xeen has been available since the release of Dark Side of Xeen simply by installing Clouds of Xeen and Darkside on the same system. Now, with the release of World of Xeen CD (on two CD-ROMs), several enhancements make it the preferable choice for playing this expansive role-playing combination. Over 200 talking characters are interspersed throughout the game world (though some just offer greetings), featuring over two hours of digitized speech. Music of 16-bit CD audio quality is also provided. Xeen is playable directly from your CD-ROM drive, requiring only minimal hard drive installation. New World Computing, DOS, $69.95.

*Morphman*: This first release from Dynamic Dimensions combines 3D animations with Microsoft's Video for Windows to provide an interesting game concept, though it's decidedly lacking in interaction. Our superhero, Morphman, on a quest to rescue a kidnapped scientist, has the ability to transform into any creature he has "sampled" with his molecular sampler. Unfortunately, the transformations are automatic; you have no say in when or what Morphman morphs into. It often feels like there is little you can really do, with play reminiscent of Readysoft's Dragon's Lair and Space Ace. You simply perform the right mouse click at the right time. Dynamic Dimensions Development Inc., MPC, $49.95.

*Myst*: There's no question that Myst is an artistic masterpiece: the incredible, rendered artwork, the sound, QuickTime video clips, and their composition are superb. As for game play, it's very much standard adventure game fare. A lone righter of wrongs, you must unravel the mysteries of Myst Island and find out who is destroying a library of books with the power to transport readers to other worlds. Puzzles abound, and there are many interesting toys to noodle with, but the sights, the sounds! These are what Myst will be remembered for, and what plants it firmly on the top of the Mac multimedia heap. Broderbund Software Inc., MAC, $59.95.

*Power Modeler: Backroad Racers and Power Modeler: European Racers*: A true hybrid product, the folks at Revell have thoughtfully included a real model car in the game for those of us who like the smell of new plastic and modeling glue. The CD allows the prospective racer to paint and design his own car right down to a personalized license plate. What keeps this from being merely a cute software toy is the option to drag-race your model car masterpiece on four different tracks. In some respects, the designers go a bit too far—you can be arrested by the model police on the way to the virtual race track—but for the most part it's a good ride. Just don't expect this to be Hot Wheels meets Indy Car. Revell-Monogram Inc., DOS, CD Only, $69.95.

*Quantum Gate*: The line between genres continues to blur with this VirtualCinema product not exactly an adventure game, but hardly cinema either. Despite the too-politically correct theme of saving a dying Earth 60 years in the future, this nonetheless packs a good entertainment punch. The Windows interface encompasses both 3D movement and arcade sequences, with the player even being able to access on-line computer terminals in classic sci-fi...
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NOT HAVING ONE
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It's also the only controller with tactile feedback that makes you a physical part of the game. CyberMan is available now at your local dealer, or call 1-800-732-2928.

Circle Reader Service #71
Clearly, something has startled Mr. Cow, and it ain't a pair of cold hands.

You got a village.


Life is good. But then you get these visitors. They're Fat. They drool, burp, and smell like an outhouse. They come in hordes, eating your 3D texture-mapped huts, trees, women, children, and worst of all, your cow. You try to trash them with your sword, but it ain't easy, and their guts get all over you.


You build walls, moats, and death pits. And you hire an archer to help fend them off. Again the Horde attacks. You save the cow, but they eat your hut, your...
CORN CROP, AND THAT GIRL NEXT DOOR YOU HAD YOUR EYE ON.

NOW LIFE REALLY SUCKS. AND IT AIN'T ABOUT TO GET ANY EASIER. THE EVIL HORDLINGS GROW BIGGER, FASTER, EVEN SMARTER.

(AND YOU HAVEN'T EVEN MET THE EVIL CHANCELLOR YET.)

DEAR READER, WE PRAY YOU'RE THE SORT WHO LEARNS QUICKLY. 'CAUSE THIS STUFF'S HAPPENING ON 32 BITS. ENJOY, MY FRIEND. AND GOOD LUCK.

CRYSTAL DYNAMICS™

Circle Reader Service #51
style. Video segments offer the option to look at close-up windows of people you speak with, enhancing the feeling that you are a character in a movie. Still, the interface often intrudes into the action in ways that games of simpler plotlines, such as Down, do not. The acting is fine, the game interesting, but it’s still a game—not the great leap beyond the marketing folks would have you believe. Media Vision, MPC, $79.95.

Rebel Assault: LucasArts’ interactive telling of the Star Wars tale seems to have split gamers into two camps—those that absolutely love it, and those that absolutely don’t. All agree that the combination of video footage from the movie and marvelously rendered graphics is incredible, giving gamers the feeling of actually taking part in the movie. This experience is enough for some, but others find fault with the game play, which is very limited and very repeti

Return of the Phantom: The legendary Phantom of the Opera has returned; this time, however, he talks. Not well enough to send chills up your spine, mind you, and not in every instance, but he does reel off a few lines. A quick enhancement of the floppy version, this "talkie" CD needed more rehearsals prior to release. With no heir to Lon Chaney in evidence, the vocal talent leaves much to be desired in this otherwise enjoyable animated adventure. The text boxes are still intact, and no animation for lip movement is employed for the close-up character portraits, giving the whole thing the feel of a poorly subtitled foreign film. Still, if the price is right, the CD version is preferable as it requires very little hard drive space to install. Fortunately, speech can be toggled off. MicroProse Software Inc., DOS, $59.95.

Return to Zork: Updating and expanding a classic is similar to reinventing the wheel, but Activision manages a pretty good ride. A bizarre amalgamation of fantasy, modern and mythical worlds is somehow blended by a marvelous visual and sound presentation into an unusual whole which adds to the Zork universe. The acting on the full-screen CD is quite good with but a few notable exceptions. Veteran Zork travelers will be disturbed by the changes wrought in their beloved land, and they may have a little trouble with the new interface. Still, the many plot twists and engaging characters will keep most players engaged and might even give younger gamers a hint of what all the excitement was about back in the old 8-bit days. Activision, DOS, ⭐️, $79.95.

The Secret of Monkey Island: An award winning adventure classic by Ron Gilbert, Monkey Island offers up LucasArt’s famous humor at its best. From the hilarious sword-fighting banter to its jazzy reggae soundtrack and 300-pound voodoo priestess, this tale of scuzzy sea-dogs and ghostly pirates aims to please and hits the entertainment mark dead-center. Though game play has not been augmented, CD quality audio is provided, as is the full game text in five languages (English, French, German, Italian and Spanish). For an adventure you’ll long remember, raise your cup of grog, Matey, and sign on for the voyage to Monkey Island. LucasArts Entertainment Company, DOS, $59.95.

Sherlock Holmes, Consulting Detective I, II & III: With each volume in the series, Sherlock Holmes, Consulting Detective has steadily evolved and improved, most noticeably with regard to

The Medium Is The Messenger

Many companies have begun to offer their games on CD without “multimedia enhancements,” offering gamers the advantages of this new medium of delivery—easier installation and storage, and in some cases, lower prices. Almost all of these games must be installed to your hard drive before play.

B-17 Flying Fortress, MicroProse Software Inc., DOS, $69.95
Bicycle CD-ROM Collection, Swiftee International, MPC, $49.95
Blue Force, Tsunami Media, DOS, CD Enhanced, $69.95.
Capstone CD Game Casino Collection, Capstone, DOS, $19.95
Capstone CD Game Kids Collection, Capstone, DOS, $19.95
Chess Mania One Billion and One, Spectrum Holobyte, DOS, $9.95
The Coffee Break Collection, Villa Crespo Software, DOS, $9.95
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Myst: The Secret of the Lodge, Sierra On-Line Inc., DOS, $69.95
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Shuttle, Virgin Interactive Entertainment Inc., DOS, $49.95
The Software Toolworks CD Game Pack I, The Software Toolworks, DOS, $39.95
The Software Toolworks CD Game Pack II, The Software Toolworks, DOS, $49.95
The Software Toolworks CD-ROM Challenge Pack, The Software Toolworks, DOS, $49.95
The Software Toolworks CD-ROM Discovery Pack, The Software Toolworks, DOS, $49.95
The Software Toolworks CD-ROM Fun Pack, The Software Toolworks, DOS, $49.95
Spellcasting Party Pack, Legend Entertainment Company, DOS, $49.95
Terminator 2: Judgment Day Chess Wars, Capstone, DOS, $49.95
Terror Gold, Spectrum Holobyte, DOS/MPC/MAC, $49.95
Tony Lazurski Baseball II, Strategic Simulations Inc., DOS, $60.00
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gains in video quality—both clarity and color. While lacking the
spirited pyrotechnics of more recent portrayals of Holmes (such as
those featuring Jeremy Brett on PBS' Mystery! series), the casting is good and the acting solid
and professional. The chief strengths of these
games, though, are the challenging cases the
player is asked to unravel. Whether solving a
murder most foul, or following the trail of a
dastardly thief, your skills of deductive reason-
ing will be sorely tried. Would-be Watsons
should pack their trusty revolvers, as the game's
afoot! Viacom New Media, DOS & MAC,
$69.95.

The Software Toolworks' Star Wars Chess:
With the plethora of chess games on the mar-
ket, Star Wars Chess resorted to using a well-
known license in an attempt to distinguish
itself. The disk-based version is largely for-
table, but the CD adds enough bells and whistles to amuse even
the most jaded gamer, and plays a better game to boot. Choice of
chessboards is limited, but Darth Vader's infamous breathing,
growling wookies and C3PO's British-butler antics are only a few
of the items that make this a very entertaining and accessible prod-
uct for the casual chess player. Wookie to Jedi Knight 3, anyone? The
Software Toolworks, MPC, $69.95.

Space Quest IV: Thanks
to the distinctive narration of Gary Owens of Laugh-In
fame, playing the CD ver-
sion of the futuristic Space
Quest IV will bring back
memories of the late 60s to
many seasoned gamers.
Providing a more-than-
competent comedic perform-
ance, Owens and the rest
of the vocal talent
employed in this CD
enhancement bring Roger
Wilco's campy world to life. Though the
plot remains unchanged and no new game play has been added,
those who have not yet ventured forth with the intrepid janitor will
want to do so on the silvery platter, as this is one of his finest and
funniest adventures. Sierra On-Line, DOS/MPC, $39.95.

Strike Commander: Upon release, it was readily apparent that
this game suffered from an identity crisis. Viewed as more of an
action game than a serious simulation, it compares favorably with
titles such as F-117 Stealth Fighter. The detail in the game is
masked by a hazy horizon which seems to exist in all types of
weather and climate. Like most Origin action games, the plot ele-
ments make up for deficiencies in perceived realism, and are quite
entertaining in full digitized speech. The admittedly exciting comb-
bat sequences are enhanced in the CD version, particularly with a
more realistic flight model for the F-16. Various instrument
options are included, with an invisible cockpit the most avant-
garde change. New levels of difficulty and the Tactical
Operations missions are included, making the CD
the best option for most
gamers—especially as it
saves you 35MB on your
hard drive. Origin Systems
Inc, DOS, $79.95.

Video Cube Space:
Clever packaging—the
game box is itself a cubic
puzzle—encloses an insidiously
addictive game. Screen redraw is better than
a lot of Windows products,
and the puzzles themselves are visually pleasing, even considering
the high standards of many similar products. Sort of the SVGA
answer to Tetris, the excellent sound and ease of use make this a
good gift to ease newer computer owners into enjoying their
machine. Proof that good things do come in small, even weird,
packages. Aris Multimedia, MPC, $49.95.

Wolfpack: This sub sim is powered by an
emphasis on modifying and constructing new missions. Opening animations for the CD version
aren't bad, but once the game starts, the prospective
sub captain will feel as if the graphics are nearly
as far back in time as the technology of the
undersea vessel itself. Poor graphic resolution,
dappled with pixellations, do nothing to add to
the feel of a game sadly looking for more than the
facelift it received here. Additional scenarios are
available for those determined to torpedo some-
thing, but the venerable Secret Service II is much
preferable to this depth-charged offering.
Electronic Arts, DOS, $39.95.

Wrath of the Gods: An adventure game set in
ancient Greece, this CD-only product first
impresses with its size. Some 450-plus MB are used to send you on
a journey through a variety of mythical quests. Fans of special-
effects guru Ray Harryhausen will enjoy the ride, as it resembles
the old Jason and the Argonauts movie. Fight the many-headed
hydra, grab the golden fleece, it's all
here for hours and hours of
enjoyment. Keep in
mind that the more
classically educated
may fare a bit better
than the mythically
challenged, but
hints are included.
Maxis, MPC/MAC,
$79.95. CFW
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Students of Greek mythology, as well as fans of the classic Ray Harryhausen-animated films such as Jason and the Argonauts, will find Wrath of the Gods from Luminaria and Maxis an enjoyable and compelling photo-realistic graphic adventure. Unlike many titles that use digital video and live-action characters rather than traditional hand-drawn animations, Wrath of the Gods avoids the limitations of its peers. Wrath is interactive enough to play like a game, yet still retains a cinematic feel. Additionally, Wrath has a solid story line that incorporates most of the well-known Greek myths, supported by technology that enhances the whole rather than drawing attention to itself. Though Wrath, as the Greek gods it portrays, is not perfect, it does exhibit a touch of divine inspiration in its overall execution.

Steve Reeves You’re Not

Our hero is a young lad of less than god-like stature. In fact, he looks more Greek than Greek (one wouldn’t be surprised to find a pocket protector on his toga). Nonetheless, he is of noble birth, though initially unaware of it. In classic mythical fashion, he was abandoned on a mountain side as an infant, and was adopted by a centaur, unaware of his true lineage, at least until now.

The tale begins as you set out to reclaim your kingdom and free your people from the terrible tribute demanded of young men and women by the evil King Minos. Fail, and you will join them in their fate—a victim of the Minotaur in the Labyrinth of Crete. Succeed, and become a hero worthy of your godly lineage.

Making your name as a hero isn’t quite what it used to be. Perseus, Pericles, Hercules—they made their careers with one or two heroic feats. In Wrath, however, the challenge is nearly every challenge these epic do-gooders did, combined. Needless to say, there are encounters aplenty in Wrath, perhaps following a design philosophy where a myth is as good as a mile. Fortunately, you have advantages that these heroes lacked—multiple save games, allowing you to clone yourself, and, most importantly, mechanics that are not afforded those heroes of old, in addition to a comprehensive and accessible hint system.

Connecting for a “Homer”

There are three levels of hints available for those “myth-informed” about the Greek legends referenced in Wrath. The first is a straightforward information screen that tells the stories behind each location and character encountered. Savvy adventurers will manage to figure out what objects will be required to get them through most of the puzzles after reading these ancient tales recounted in a hip, modern style. Many of the ancients’ heroic feats are restated in relevant terms to today’s computer adventurer. While historical purists might prefer the classics, we found the writing style pleasantly breezy, and the stories were told correctly in an abbreviated form, interspersed throughout with touches of humor.

Most conundrums make sense and can be solved after a moment’s thought or by carefully reading the historical information provided. Some excessively challenging puzzles may require a visit to the Oracle, an on-line hint system that never fails to provide the solution to the quest’s puzzles. The Oracle will offer a vague hint for free, but more specific help comes at the price of five points deducted from your final score. Patient and reasonably competant adventurers will seldom need to pay for assistance if they read the tales carefully and devote a little brainpower to the task.

Apprentice Adventurers Please Apply

While Wrath will challenge even the most seasoned adventurer, the novice player will find the game enjoyable and manageable as well. Mercifully, game mechanics are streamlined and easier to use than those found in similar games. Luminaria should be praised for their foresight in helping the neophyte, as actions and inventory are both kept to a manageable minimum. Additionally, just to ease the frustration factor a bit, when you
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try to select an incorrect inventory item to solve the current puzzle, a sound cue like "Nope," or "Try something else" helpfully directs you away from the item that doesn't apply in that scene.

In order to meet the needs of a wide range of player abilities and knowledge of the Greek myths, the beautiful map of the game's locations and the on-line Oracle can be toggled off for veteran adventurers, or left on for the more casual gamer.

Another nice feature is that you never really die in Wrath, even when you die. Rather than having to restore a previous save, you automatically appear somewhere in Hades. While underground, you can speak to one of the many damned souls and pick up a clue to help solve the particular puzzle that resulted in your demise. After these encounters with the likes of Sisyphus (that rock n roller), Prometheus (who is glued to his seat) or Tantalus (whose reach does not exceed his grasp), it is generally a simple hike back to the surface.

A Game Of Mythic Proportions

Wrath features little in the way of atmospheric music, providing only occasional fanfares. Still, there are ample digitized audio effects to sufficiently accent play. Waves lap up on the shore, birds chirp, and dragons roar off in the distance. The sounds of battle include the grunts of warriors and the ringing of bronze swords. The digitized photorealistic backgrounds are quite plentiful, featuring over 100 beautiful scenes created from original photographs of Greece—which probably accounts for the general state of disrepair represented in all the temples, castles and other ancient Greek landmarks.

Though a few characters are computer-rendered, such as the dragon, chimera and Stygian witches, most denizens encountered are played by digitized actors. Many performances come off quite well, particularly the portrayal of Hera, the Hillary Clinton of the gods. Others seem to be done more for comedic relief, such as the hot-handed, hydravolting helper, who aids you midway through the quest. While the animation was not always smooth, due to the CD-ROM access time required, it remained very realistic.

The Furies

Apart from the sometimes slow access times associated with CD-ROM media, there are few shortcomings to quibble about. In particular, though, two improvements would have made the game even more user-friendly: an intelligent pointer and quick movement through the game world by means of the map. It became tedious determining which directions could be traveled from each location without using the "eye" cursor to examine each possibility. Employing an intelligent cursor that changed to indicate available "exits" would have alleviated this headache.

The other less-than-godlike annoyance was the frequent need to trudge long distances one screen at a time. Quicker passage could be booked through the strategically-placed chariot stations, where a dragon ride, complete with jet plane sound effects, whisks you across long distances; but the hassle of doing so often consumed as much time as simply hoofing it. We would have preferred to jump to previously visited locations through use of the on-screen overview map.

Reaching Mount Olympus

Wrath of the Gods is a fun and educational adventure for both the seasoned and novice player. Luminaria has blended a fine mix of hip history, challenging gameplay, and quality presentation in this title. The incorporated Reader's Digest-style version of the Greek myths, plus the beautiful pictures of related Greek art and architecture, combine to breathe new life into these ancient tales. Hopefully, interested players will be inclined to knock the dust off their old mythology texts and re-acquaint themselves with these legends of yore. At the very least, you might concede that all those history and classical literature classes were worth something after all. CGW
The Elder Scrolls: Arena

“I've played role-playing games since they first appeared on mainframes a decade ago. The Elder Scrolls: Arena is quite simply the most captivating, well-designed, realistic world available on home computers.”
—Russ Cecolla, Associate Editor, Electronic Games

“The most impressive showing by any company...Bethesda's Fall line-up is one of the best going.”
—Computer Game Review

Bethesda Softworks™
Remember the ad campaign for that lo-cal, hops-based beverage where one pack of blunted idiots chants "Tastes great!" while another, equally round, crowd chirps "Less filling!"? Naturally, one is supposed to come away with the impression that this swill is not only mighty yummy but also won't cause the imbiber to erupt in barking flatulence. The truth is that it usually is an either/or proposition: Either it tastes like beer and, because beer is full of carbon-dioxide, puffs you up like a dirigible, or it's flat and bland and leaves you wondering why, if you're so interested in staying trim, you didn't drink a bottle of over-priced bubble-water instead.

This kind of division also exists among developers of CD-ROM games. The We-Know-It's-Slow-But-That's-Technology-For-You camp produces games that are rich in graphics, animation, and sound but makes few attempts to coax arcade-like action out of its products. Conversely, the We're-Clever-Enough-To-Work-Around-These-Limitations bunch spends an inordinate amount of time devising caching and compression schemes that allow the action to spool smoothly from its disks. You can almost hear these disparate groups' antiphony: "Looks great! Runs fast! Looks great! Runs fast!" Paramount Interactive's Jump Raven falls squarely into the second category.

Jump Raven is the follow-up release to Bill Appleton's premiere effort, Lunicus. Lunicus showed Appleton's proprietary DreamFactory technology that left many players gaping in astonishment at its quick, CD-ROM-based arcade action. DreamFactory was so impressive, in fact, that few reviewers bothered to note that the plot surrounding the action was as trite hackneyed and that the other "breakthrough" technology, the Clutch Cargo-like CyberPuppets, smelled distinctly of ripe Camembert.

The good news is that Jump Raven features the same slyly (spritely?) action found in Lunicus, as well as a new and somewhat improved cast of CyberPuppets. The plot, although exhibiting some of the same weaknesses as Lunicus, is less intrusive this time around, while the dialog and backstory can occasionally be quite clever. The game is also enhanced by a wonderfully driving soundtrack. The bad news is that the interface could have been enhanced in a number of obvious ways, the program demands at least six megabytes of free RAM, and parents concerned that the scudder side of the English language might someday creep into their child's vocabulary will almost certainly find many of the CyberPuppets' snappy rejoinders objectionable.

Panic in The Year Zero

In the world of Jump Raven—a bankrupt America of the not-so-distant future—life is anything but good. Gangs of heavily armed Skinheads, Da Kuan (Chinese for "fat cats"), and Cyberpunks rule the boroughs of a decaying New York City. Due to the effects of global warming, Earth's ecosystem is in a shambles: floods, famine, disease, burning rain forests, mass extinction. The few remaining nonhuman planetary life forms have been preserved as genetic samples, locked in a frozen state within beer-keg-like pods.

A group of Skinheads who apparently object to all forms of non-jackbooted life have hijacked the pods and dealt them out to members of the various gangs who, in their thuggish wisdom, carry the pods aboard their screaming engines of death. The player takes on the role of Jump Raven, a male, mercenary warrior who pilots a heavily-armed hovercraft named, confusingly enough, Jump Raven. Raven's mission is to roam the streets of the Bronx, Brooklyn, and Manhattan, blast the baddies and their mobile machines of destruction to Kingdom Come, recover the pods, and deliver them to a predetermined drop point. Commanding the mission from the relatively safe confines of Grand Central Station is Lou Battaglia, the fighting zookeeper.

Battaglia acts as the Master of Ceremonies, providing a bit of background on the plug-uglies Raven is fated to meet and introducing him to Arms Mart's Weapons Lady, a proper English gentlewoman with a predilection for high-tech deathware. Raven is initially supplied with $1,000 (additional cash is earned for each enemy vehicle destroyed) to purchase weapons from five categories: lasers, shells, rockets, missiles and defensive weapons. Naturally, the G note is not enough to buy the
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IBM PC screens shown. Actual screens may vary.
really powerful "smart" weapons, so you must be selective and keep in mind that any spare cash will be needed for repairs at the local Jiffy Wrench or for gas from the roving fuel truck. Once Jump Raven is armed, Battaglia presents the cast of copilots.

**Pull My String**

These six CyberPuppet copilots are the key to the game. Although you need worry about only three of the craft's controls—navigation, hover and weapons—any competent hovercraft pilot will tell you that without a reasonable set of keyboard commands and a reliable targeting system, that's one or two tasks too many for a single person to handle. Enter the copilot. Each copilot is rated on the ability to handle the hover and weapons controls and can be assigned any or all of the controls. The theory is that the copilot's skills and a pilot's fighting style will determine which copilot is best for the job.

After a couple of battles, the seasoned Jump Raven player realizes that: (a) the copilots have generally good instincts in regard to navigation, although when the fighting gets too hot it's best to take over the controls and make a run for it; (b) the copilots aren't particularly adept with the hover controls; (c) manual targeting of moving enemies is next to impossible for non-CyberPuppets; and (d) some of the copilots are incredibly annoying.

Along with all the gages and controls in the Jump Raven cockpit, there is a video screen that displays the madding image of our puppet copilot. These one-dimensional CyberPuppets—whose personalities range from the whining valley-girl, Shablis, to the gruff, foul-mouthed cyborg, Dogstar—simply will not clam up. The unending chattering is irritating enough, but due to memory constraints, the Pups have a limited phrase book. Imagine a hellish Chatty Cathy repeating an unimaginative obscenity over and over. After a short time, one is relieved when the video screen takes a direct hit and silences these obnoxious magpies.

Unfortunately, this solution isn't permanent. The program determines the intervals at which Jump Raven requires repair, refueling and rearmament. When the game has decided that enough damage has been inflicted on the vehicle, a call comes in from Leonard "Lenny" Fiskowitz, the Jiffy Wrench guy, indicating that it's time for another round of expensive repairs. If the copilot has control over navigation, we immediately depart the battle scene—even when we're about to pick up one of the precious pods that we've blasted loose from an enemy ship—and zip off to the shop. The problem is, there's no way to tell Lenny that we don't find our copilot's inane dialogue particularly useful and prefer a broken video screen. Sure, we can decline the repair and save ourselves the much-needed $75, but it's now on Lenny's list and, as far as he's concerned, Jump Raven is one step closer to that next call. The indignant response to this problem is to worsen the navigation controls from the copilot when Lenny beckons and hold on to them until he gives up.

These not-completely-minor annoyances make it tough to fully embrace all that is Jump Raven. Yes, the battle sequences are tons of fun, the screen writing and non-repetitive dialogue is often very amusing, the background music is terrific, and the game is darned fast for a CD-ROM. Still, it seems as if the game's potential wasn't fully realized. How hard could it have been, for instance, to include a few keyboard commands that select the different weapons? Why is manual targeting so difficult? Would processing power really be so taxed by an option that instructs the copilot to shut the hell up unless something very important is going on? Finally, where do those unretrieved pods go once the player has left the area of conflict? Adequately addressing these issues might have made Jump Raven a great strategy/action adventure rather than just a good arcade game.
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Shadows of Darkness is the fourth installment in Sierra On-line’s Quest For Glory series. This time around, our hero adventures in the land of Mordavia, which means “Dark Valley,” and a more apt name would be hard to find. The town in which our adventure begins is cut off from the rest of the world by a deadly swamp across the only road. Nasty monsters roam the surrounding woods, and vampires are rumored to inhabit the decrepit castle nearby. Even worse, there is an ultimate evil, said to be in the mysterious Dark Cave, about which the villagers refuse to talk. All in all, Mordavia is definitely a place in need of a Hero.

For this excursion into the realms of horror, you can import a character from any of the previous Quest For Glory games (provided you finished the game) or create a new one. As in the previous games, you have your choice of Fighter, Mage or Thief, and each character type has different skills and so will follow a slightly different path through the story. If you want a Paladin, you must import one, as there is no opportunity to work up a Fighter to that class here.

Paladins are a good choice for this game. They are expert fighters and learn a few handy spells, too. They also gain the ability to heal themselves—a skill no other profession has.

Mages are an acceptable second choice if you don’t have a Paladin. They start with a wide variety of spells in their repertoire, which makes some parts of the game easier for them.

Thieves don’t come off so well in this game. In general, there is little scope for their profession. The town of Mordavia is small, with few inhabitants and fewer opportunities to perform as a Thief. On the other hand, armed with a generous supply of daggers and some proficiency in acrobatics, Thieves can do quite well in combat. For all that, anyone looking to indulge in a little light-fingered larceny will be disappointed.

Fighters, of course, are the premier muscle men. They are skilled in combat and will also learn to do some climbing. Otherwise, they have no special abilities and won’t pick up any new ones as the game progresses. This is probably the best choice for someone with no prior experience with the series.

Once the character is created (or imported), the game begins immediately with your Hero inside the Dark Cave, which is not a great place to be. Since the Cave is also the end game, you won’t see much of it at this time, so getting out is the first priority. Then it’s a matter of finding your way through the woods to the town of Mordavia.

There is no auto-mapping feature, so its time to dust off the graph paper and sharpen those No. 2 pencils. Many of the forest graphics are “recycled,” such that a number of screens resemble each other closely, so without a map it’s easy to become confused and lost. With nasty critters wandering around, you don’t want to spend too much time out here at the start.

When you do get to town, don’t expect a welcome with open arms. The villagers are fearful and suspicious of strangers. Given their circumstances, perhaps that isn’t surprising. In any case, you’ll have to prove yourself a Hero to them before their attitude changes.

As mentioned earlier, there are few inhabitants left here. The Burgomeister, the innkeeper and his wife, three peasant farmers (yes, one used to be an elephant trainer), the shopkeeper, a doddering old man, a mad scientist, and a gravedigger (yes, his name is Igor) are the only permanent residents. There is the Gnome jester, but he is only residing at the inn temporarily.

Outside the town, there are the castle gatekeeper, the gypsies, a mysterious woman with a crush on your Hero, and, in a special return appearance, Baba Yaga. Baba, by the way, isn’t the only one making a return visit, but that’s something you get to worry about later on.

Part of the game is devoted to helping out what’s left of the inhabitants by reuniting two married couples and rescuing the innkeeper’s daughter from an extremely nasty situation. In between, you save the lives of Igor and a gypsy, as well as restore the jester’s sense of humor. While doing all that, your Hero is also collecting several rituals that will release the Dark One into the world.

This Dark One brings infinite Lovecraftian overtones to the game, providing an odd juxtaposition with the more traditional fare of vampires, werewolves and ghosts. A mon...
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The game sports the standard Sierra icon interface. You can cycle through the various activity icons with the right mouse button or bring the cursor up to the hidden menu bar at the top of the screen. There you can switch icons, access inventory, check the time of day, rest, cast spells, save and restore the game. It is a simple system, and easy to use—Sierra is getting the interface thing down to a science.

In the past, Quest For Glory combat has been a bane to those like myself who despise arcade action in adventure games. In this iteration, there is a strategy mode that takes this burden off your fingers completely. In strategy mode, the computer runs both your character and the monster in combat, and how well your Hero does is based solely on his skills and stats.

Given the generally low competence of AI in most games, some might look upon auto-combat with a certain skepticism. However, I have played through more than once in this mode and have no complaints. My Heroes did quite nicely, and of course better as time passed and their skills improved. You can break out of strategy mode and back to arcade at any time, or even run away if your Hero is in bad shape. Without doubt, strategy mode is one of the brighter spots in this game.

Typical for a Quest For Glory, some puzzles have different solutions, and certain events or situations occur based on character type. For instance, only a Paladin can put to rest the Rustak in the lake or meet Piotyr’s spirit, while only a Thief can get into the Thieves Guild (there is no Mage’s or Fighters’ Guild in Mordavia).

For all that, play will be much the same regardless of profession, and so going through the game more than once can become a little tiresome. For instance, there are a lot of conversations, some of which act as triggers for events. So you have to endure them, even though you have played before.

In terms of puzzles, Shadows of Darkness ranges from weak to obscure, and some situations can’t really be called puzzles at all. For example, bringing together Olga the shopkeeper and Boris the gatekeeper is really no more than busy-work. Your Hero simply runs back and forth between the two as a sort of glorified messenger boy. Bringing together Anna and Nikolai is much the same, only you don’t have to do quite so much running around (although finding Anna in the first place can take awhile).

The end game, with your character face-to-face with the villain, is a letdown. Having worked so hard to reach this point, done all the rituals, and with the arrival of the Dark One imminent, you find that this dramatic moment is hardly more than a joke, literally. Only one physical action by your character is needed, and then it’s over. How hum. And the banishment of the Dark One is glossed over with a little text—you don’t even get to see a graphic of it! Did our art budget run short at the end of the project?

The manual is missing a little something, too. Actually, three booklets come with the game: the generic Sierra interface manual, a manual for special controls in the game, and a manual that describes spells, gives some playing tips, etc. Nowhere in these manuals is there any mention at all about strategic combat mode. Not a word. Something this important does deserve at least a few words.

You could, of course, turn on strategy mode to see what it does, but without instructions you’re likely to miss the second control panel. Once the combat screen comes up, clicking the left mouse button displays four extra levers that control the aggressiveness, defensive-ness, magic use, and special attacks of your character, so you can tailor fighting style to your taste. If you want to switch to arcade mode, click the right mouse button. It is simply amazing that this information was left out of the docs.

The real problem with this one, however, is technical. Shadows of Darkness may well be the sloppiest product ever released by Sierra. My difficulties began after the game was installed and it simply refused to run, period. A call to the Sierra tech line revealed that Shadows of Darkness, as released, was not compatible with AMI BIOS (not exactly an obscure one). This was related to the special 32-bit protected mode under which the software operates. Fortunately, a patch was available and I quickly got it online.

After the patch was applied, the game finally came up. Unfortunately, it came up silent. The 32-bit protected mode grabs all of upper memory for itself, so nothing can be loaded high, and a bare-bones DOS boot disk is necessary. This made it impossible to load in the Gravis Ultrasound Roland emulator, and I found that with the Sound Blaster emulator loaded low, the game again wouldn’t run. So, I had to play with no sound or music, which explains why there is no commentary on either.

I ran from a boot disk without sound, and for a while everything was fine. However, the further into the game, the slower it was in saving and restoring. Actual disk access was quite speedy, but waiting for the software to make up its mind to go to disk took a long time, often a minute or more; some on-line folk complained of waiting three minutes or longer to restore a saved game. It was usually faster to quit the game, rerun it, and then restore a position. For saving, of course, you just had to wait it out.

Regardless of the frustrations, I got through the game with a Paladin and a Mage, and then...
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moved to the Thief. Three quarters of the way along, the game crashed in the swamp whenever I tried to open the Mad Monk's tomb. This turned out to be a "random error," that might or might not show up. It didn't happen so with the other two Heroes, but this time it reared its ugly head.

Well, Sierra had a patch that fixed both this problem and the invariable waits for saves and restores (this patch, by the way, came out some time after the first one I had gotten). There was only one drawback: because of the extensive changes made to the files, my saved games were no good and I had to start over again from the beginning.

So I started my Thief over. By day 11 in the game, all the quests had been finished, the five rituals collected, and it was just a matter of waiting for a certain note to appear in my room one morning (this note initiates the end game). On day 26, I was still waiting for it. Nothing could make it appear, even replaying from some earlier positions. Either the trigger for this event was not set, or somehow it was turned off. I had no way of knowing, and with that in mind, I had no inclination to start from scratch again. This also happened to other players who were running characters other than Thieves, and we all eventually abandoned those games.

Finally, there is also a problem with importing some characters from earlier Quest For Glory games. Sierra has a patch for this one, too. Heartily suggest that if you intend to play Shadows of Darkness, you get the version number of your game and call Sierra first to find out if you will need any patches to fix any problems. That will, at the very least, save you some frustrating experiences.

Up to now, Sierra has had a reputation for releasing solid product—software that might require at most a minor upgrade for sound drivers or a small section of the game. With Shadows of Darkness they have tainted their near sterling reputation by releasing a game they knew to be in bad shape, releasing it prematurely for "financial reasons." While they have been quick in getting out the patches, that does not absolve Sierra of their lack of thorough testing that this game required, especially given that it is working under third-party software (the DOS Extender). We will hope that this is a one-time event and that Sierra is not going to join the ranks of other companies—too numerous to mention—who release shoddy product knowing they can get by with patches and upgrades, and who make "pay-testers" of their customers.

The Thief's Workaround
After the main article was written, a way around the thief's dead-end problem was worked out by Sierra. The key is spending enough nights in your room at the inn to have several "voice dreams," and most importantly, hearing the weeping from the innkeeper's room one midnight (you are awakened by this; don't stay up waiting for it). These events must happen before you rescue Tanya.

Once those situations have occurred, it should be safe to rescue the girl. I tried this in my Thief game, and after spending two extra nights in my room, the problem was cleared up and I finished the game with the Thief. So, if you have been waiting around for that note, and it hasn't shown, follow the above procedure and you should be able to continue on with the game.

Overall, then, Shadows of Darkness was a disappointment. I wanted to like this one, but the technical problems overwhelmed gameplay, and the numerous replays deadened any pleasure left in it. Had the game run without difficulties I'd probably have enjoyed it more. As it is, I can only suggest you approach this one with extreme caution, and be sure of what you're getting.
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Adventures Gaming's Answer-Woman Has Got The Clues For You

Darkside of Xeen ■ Ultima Underworld Stygian Abyss ■ Lands of Lore
Return To Zork ■ Simon The Sorcerer ■ Hand of Fate
Sam & Max ■ Dark Sun ■ Serpent Isle

Oh my, it's spring already (though there's snow on the ground as I write this!), and the mail room is still full to bursting. Even that little addition hasn't helped very much. Looks like Fred and I will have to do some work in here, if we ever get the time (hah! Dream on Scorp).

Before we get to the good stuff, I'd just like to remind everyone that my machine is MSDOS. For that reason, I really can't help you with a game if it only comes out on another computer, like the Amiga or Mac.

Darkside of Xeen: There's been a fair amount of mail lately about the levers in the Dungeon of Lost Souls. These letters have been from readers who bought the hint book, followed the instructions, and got nowhere. I talked to New World about this, and it turns out that—you guessed it—the hint book is wrong (oops). The correct instructions are: walk to the top of the room on the left-hand side. Go down the line, pull all the levers you can. If one doesn't move, just go on to the next. When you're finished, walk over to the right-hand side of the room and pull the lever you find there. The door should open.

Ultima Underworld Stygian Abyss: Looks like a resurgence of interest in this game. It seems the Cup of Wonder has a number of players wondering these days. It's certainly a tricky item to find, even when you've tracked down the right location on level 3. What you need to do is put a little music in your soul here. A little fine tuning, and the cup will be yours.

Lands of Lore: That big showdown with Scotia seems to be a big headache for some people. The old girl changes to one form—no problem. She switches to the second one—no problem. Then she gets to the third form, and suddenly she can't be killed. Uh oh. BIG problem. This is why you need the Whole Truth, and why you have to rescue King Richard first to get the shard (hint: shard, a small piece of something larger). When that idea merges into your head, you'll be able to deal with Scotia. Just make sure you use it soon, like before she gets to that third form.

Return To Zork: Entering the locked grocery store is one of the more obscure puzzles in the game. Forget about a key—there isn't one. You're going to have to make like a thief to get in. Of course, it helps if you had the proper tool, and that's the obscure part. Very likely, it wouldn't occur to most people that giving a certain item from Pugney's hot time would do any good, but there are a lot of strange things in this game, and that's one of them.

Simon The Sorcerer: This one can be frustrating because there are so many things tucked away in corners that are easy to miss. For instance, the man fishing at the bottom of the cliff. How to get down there? Good question. Luckily, the answer is a simple one: find the vines on the left, and in no time at all you'll be down there, too. Really have to move that cursor all over the screen when you play this game.

Hand of Fate: Somewhat surprisingly, folks are having a little trouble with that Skeptic potion. They can brew it up all right, but somehow, it just doesn't seem to have the necessary oomph to wake people up. That's because some players just don't read instructions carefully enough. Like the one that mentions the Altar of Doubt. Omitting that little step makes all the difference.

Sam & Max: What's that you say? You need to get your hot little hands on Mr. B's toupee, but the alarm keeps going off? Well well, you shouldn't be so clumsy (heh). Actually, this one is simpler than it appears, provided of course you happen to have the right item in your inventory. Don't be a vegetable, use your head! (Or, use Mr. B's head, that works better.)

Dark Sun: Some readers have been asking about that underground temple and how they can get around in it. There are entry points in each town (if you look carefully enough), but those don't lead you very far. Sorry to say, you won't be able to do the grand tour until after you've helped Tyman and Tristram get back together. And, alas, there isn't all that much down there in the way of goodies, although you should be able to find a nice ring for your mage.

Serpent Isle: Some gamers have been confused at the end of this one by Xenka's instruction to go to Sunrise Isle. They either mistake the ice dragon island for it and spend a lot of time wandering around and getting nowhere, or they set out in the ice raft looking for it. None of that is necessary. What Xenka really means (and what he should have said) is to go to the Temple of Balance, via the serpent gate.

And that's it for this look into the mail bag. Remember, if you need help with an adventure game, I can be reached in the following ways:

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

On GEnie: Visit the Games RoundTable (type: Scorpia to reach the Games RT).

By US Mail (enclose a self-addressed, stamped envelope if you live in the US):

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Circle Reader Service #80
Too Much, Two Late

Imagitec's Daemonsgate

by Bernie Yee

When Daemonsgate was shown to the press two years ago, it made a bit of a stir. It was an extremely ambitious fantasy role-playing game in the style of Origin's Ultima series. It used the now familiar 3/4 overhead view, had tons of characters and conversational interaction, and offered an exciting real-time combat system. That was two years ago. Sadly, Daemonsgate suffered a very complicated birth, enduring development delays and being shuffled around to several different publishers. Meanwhile, the RPG genre has moved on to Ultima VII, with its easy, full-screen, drag and drop interface, and Ultima Underworld, with its true first-person 3D engine and nearly perfect automapping system.

Daemonsgate is stuck, technologically, somewhere around Ultima VI, and it feels like an old game. Being an "old game" isn't necessarily a problem. Having had the recent pleasure of replaying Wasteland from Interplay's 10th Anniversary CD-ROM, it's obvious that older, less sophisticated engines can still play host to a great game. But Daemonsgate is not great—it's composed of good elements, but in their overly ambitious attempt to create a huge and complex world, the designers failed to integrate the good parts into a great whole.

Under Siege

The hero of this adventure is Gustavus, a young character with world-saving potential who begins his adventure inside the besieged city of Tornis. Hordes of daemons sit outside the city gates, and your job as Gustavus is to get out and discover who is behind this attack. The best start is to talk to anything that looks remotely humanoid. The conversation system is cleverly implemented with a hypertext-like interface with which you can gather interesting keywords to bring up in other conversations. The NPCs also have their own keywords in highlighted text that can be selected to follow up conversational leads. All of the information gleaned through conversation is gathered into a knowledge base that serves as an auto-notetaking device. Similarly, you can page through the inventory and character statistics pages, and set game options through the omnipresent menu bar.

The lack of an overhead map or automapping system is a very conspicuous omission, especially in a game that prides itself on its immense size. The starting city of Tornis is a big city, and although a map comes with the game, there's no way to find out where you are until you locate a landmark like a tavern or an inn. A physical map of the entire world is provided as well, but it only deals in geographical generalities. Even Interplay's ancient Dragon Wars, written for an Apple II, had a rudimentary automap. It is inexcusable that a game running off a CD-ROM drive on my 486/33 is lacking such a basic amenity.

There are many, many places to visit, and many things to do. Like the Ultima series, time passes in a realistic way, and people will be found in bed at 2 a.m. or tending their shop at 3 p.m. However, there are major gaps in the "realism" department. Your hero can walk into the medical facility and "borrow" a first aid kit, a mortar and pestle, and other items throughout the town. Again, like Ultima, the roofs of buildings disappear when you enter, allowing you to see inside the various structures you are exploring. While using the standard VGA palette, Daemonsgate graphics border on the cartoonish, especially in the separate combat display.

Might and Magic

While your party walks around, they are displayed as a single character icon. Enemy parties are similarly displayed as a single character. However, when combat takes place you find yourself in another display, suddenly facing off against a group of automatons. The combat system is actually reminiscent of MicroProse's Darklands, one of the best real-time combat systems I've seen. The overhead view allows combat to take on a tactical complexity that first-person games like Eye of the Beholder lack. Combat unfolds in real time as you issue orders...
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to each character, but you can interrupt the combat and issue new orders to attack, defend another character, retreat and so on. Nonetheless, the strength of the combat system is sapped by the graphics, which are so mundane, so uninviting, they look like they've come right out of an old Atari 2600 cartridge game. The character portraits, on the other hand, are nicely done and quite expressive. Go figure.

Daemonsgate's magic system also has a number of interesting and original features. There are different types of magic, like Hedge Wizardry or Elementalism, each with their own powers. You can create potions, summon daemons or enchant objects, and once your magicians have managed to bind powerful elementals to weapons, your party will be able to stomp just about anything it comes across. Of course, you will be diverted by numerous "shmuz-quests" where you need to run around looking for various "reagents" for magic spells (sound familiar?), but once you've gathered the goods, you've got immense power. Daemonsgate, like many of its RPG brethren, becomes a game where well-developed characters resemble not heroes, but gods.

It seems over-enthusiasm got the best of the designers in the realm of interface and game mechanics as well. It took me a great deal of effort to get used to the interface and feel comfortable in the game world. The complexity of the interface and engine is, no doubt, the result of the designers' attempt to encompass the massive quest and richly detailed world that they envisioned. Unfortunately, size isn't everything when it comes to FRPGs. Story pacing, balance and structure are even more important, and Daemonsgate's creators have not managed to create a game or a story that flows easily, like a good read in a well-written page-turner.

The designers had excellent game design concepts when they started out on this venture, but for some reason—perhaps the awkward circumstances surrounding its development—they were unable to pull it together. Daemonsgate isn't a bad game. If you are an Ultima fan from way back, or if you haven't been keeping up with the latest RPG advances due to hardware restraints, Daemonsgate is as good a choice as many other older games. Still, Daemonsgate is no Arena, no Betrayal at Krondor, no Ultima VII, and these are the games it will be sharing shelf space with, and with which it will be compared.
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The Red Crystal

Shattered: Imprisoned No More
By QQP's Quartz

by Alan Emrich and Petra Schlunk

In a fantasy land where crystals and mystical insights are the norm, it's amazing that we could not read the signs. The foreshadowing was there, if we had but noticed. After installing QQP's fantasy epic, The Red Crystal, the future was spelled out to us in DOS—CD/REDCRY—and how prophetic it turned out to be. Similarly, the per-game look-up copy protection took Alan to Page 8, Line 1, Word 1: "bored." Ignoring these tending bits, we pressed keys and pressed on.

Character Generation—Roll Again

Each player controls a single hero of the familiar fantasy ilk. During creation, the character's primary goal should be to start with the highest possible statistics. We learned quickly that an average schlep character can not just venture forth and hope to survive the massive castle cleaning endeavors in store. No, players must patiently re-roll ad nauseam (emphasis on the nauseum) until the numbers for the character's strength, intelligence, armor, etc., are at least demi-godlike.

To add more challenge to this task, the manual reveals nothing about average values or ranges for these attributes, and starting with anything less than an optimal character will only buy a player more frustration once the game begins. Trust us, it is better to be frustrated early on, generating optimal statistics for new characters and only marginally inconvenienced, rather than playing for a bit, watching them die, and then starting all over again.

Politicians Don't Shake This Many Hands

There you stand, a new hero in the land of Blackmoor (gain five experience points if you recognize "Blackmoor" as the name of one of Dave Arneson's campaign which formed the basis for the earliest Dungeons & Dragons game). Whither now? While scanning the minimally detailed strategic map of Blackmoor, the large and small squares denoting castles and towns offer prime locations to visit. Fortunately, new characters are placed near towns and castles that are geared toward their lesser prowess.

You maneuver through Blackmoor via sword icons, pointing in one of the eight directions found on a numeric keypad (although a mouse may also be used for movement). Upon entering a town, the familiar sword icon seems to multiply as swarms of non-player characters (NPCs), cleverly disguised as your sword icon, meander about town. Only a few dozen of these pointless encounters of The Red Crystal kind. Sure, these denizens disappear after you put up with their prattle, but more are continually generated, so you must quickly learn the art of avoiding these dreary least madness result.

There might be one beneficial encounter stashed in the area somewhere, but who wants to put up with a hundred pointless interruptions to find it?

Having endured character generation and the monotonous, moron-filled streets of a nearby village, it is your task to go adventuring and clean out each of the castles in the land of Blackmoor. The Ultimate Bad Guy has darkened the land, and only a hero who discovers the seven secrets of life can finally stop him. The seven secrets of life are decent pieces of sage advice, told by one of life's truly great adventurers, co-designer Bruce Williams (founder of QQP). Why these pearls were cast before this swine of a game, however, is something we cannot answer (perhaps that's the eighth secret). If there is any reward in playing Red Crystal, discovering these secrets would be it, but with all of the tedious required to learn even one, much less seven, we feel confident that these will remain secrets, even among purchasers of the game.

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Red Crystal

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Barbarian Needs Hit Points Badly!

Upon entering a castle, you are told if your character feels at ease there (meaning the castle isn't too tough for your character to take on at that time). However, a torturous amount of trial-and-error was required before we learned the disappointing secret of successfully conducting combat in the dungeons of these castles. When a monster is encountered, the play switches to a tiny area from which only you or the monster will survive.

In order to hit a monster with a hand weapon, you must maneuver your figure next to the monster and swing your weapon. Then, in order to have any hopes of hitting the monsters at all, you have to choose an attack height before swinging. Otherwise, you may find yourself swinging your weapon at the air space above a maggot or whacking away at the hooves of a minotaur. This is a convention tried by several games in the early days of CRPGs, but one that falls flat in Red Crystal, as height differences are not shown to the player graphically. In any case, the monsters are tough. Chipping them down a couple of hit points at a time, versus the plethora required to slay them, lets players know that this is going to be a long game.

That, however, is the good part of combat. The bad part is that, if you stand next to a monster for more than about two seconds, they swing back (and always at the right height, of course). And when monsters attack, they can deal some serious damage, especially to new characters. Furthermore, if your character has the misfortune of dying at the hands of one of these monsters, coming back to the last saved game position will reveal that all of the previously killed monsters have returned to their posts, and the gauntlet must be run anew from the beginning.

To survive and fight another day, the ideal tactic in combat is to close in, swing, and then run like hell to another corner of the area and face the monster for the next swing when it again closes. Repeat several million times until the monster is finally defeated. Repeat even more times to clean out a level, and more times still to clean out a castle—and then there are multiple castles! How much of this cowardly hit-and-run “heroics” one can stand is a matter of taste, but a good stand-up fight with a satisfying screen showing a monster's defeat would have been more to our preference.

Withdrawal Symptoms

Trying to find your way through multiple levels of several castles while fighting scores of regenerating monsters is bad enough. Worse, Red Crystal appears to offer the tantalizing prospect of actually being able to map dungeon levels. The maps, which auto-generate slowly as a character walks around dodging battles or looking for loot, disappear completely whenever you journey to another level or retreat from monsters too difficult to fight. “Fleeing” sends the character randomly to another part of the dungeon and, in the process, eliminates all the mapping that had been done up until that point.

But that's not all. Dungeons have secret doors, and Red Crystal takes the word “secret” to previously unexplored depths. If you've accidentally fled into a room with a secret door, for instance, you may never find your way out again (unless you flee once more and are, again, placed randomly elsewhere in the dungeon). How can this be? Because finding secret doors depends on one's Ability statistic and, if it is too low, you're entombed, period.

At some point, every gamer will appeal to the manual to help them out of their frustrations. In the case of Red Crystal, this may make a bad situation worse. Now, QQP has long been known for their below average documentation. Previously, though, their fine games have more than compensated for their printed weaknesses, but leaving gamers naked in the desert of despair with Red Crystal and naught but a bad manual for relief can lead to wailing and gnashing of teeth that reaches biblical proportions.

The usual poor (and unintentionally comical) editing aside, much of the manual's descriptive information is useless. The narrative describing the various evil generals and monsters, in particular, offers fiction where facts would have been more appreciated. What they really need are early game survival tips and more information for intelligent character generation. Also useful would have been basic game information such as how healing occurs and how to don armor.

Modern Bones

Red Crystal is one of the first few RPGs to offer modern play. Sadly, we're not pickers here, and even with the patient help of QQP's tech support, a modern connection was not possible. From trawling the on-line networks, we discovered that we were not alone in our difficulties and, in fact, were fortunate to even get the game running without needing to reconfigure our memory too much.

Among those who did manage a modem hook up, players discovered that there were even more frustrations ahead. For instance, there isn't a chat mode. How do you fight a monster cooperatively with two players connected by modem? Well, it seems you can't. Instead, you take turns—I'll fight this monster, you fight that one—if you can find each other and manage to stay together, but that's a different problem. Modern play has been the saving grace of many a computer game that was not in the forefront of its genre. In the case of Red Crystal, unfortunately, its poor implementation has become yet another blood-pressure raising exercise.

Sticks and Stones (er, Crystals)

Like many of those who enjoy good computer games, we've found QQP to be a very satisfying wellspring of entertainment, and their staff has always been exemplary in their helpfulness. Frankly, however, we can't believe that it says QQP on this game's box. Of course, every company has its dogs, and no one can hit the mark every time. Perhaps it is the “home run hitters syndrome” that makes this miss stand out. Like Babe Ruth, when QQP steps up to the plate and connects with a game, they hit home runs and the fans come back anticipating the next one. When they miss, however, a strike out seems all the more disappointing. We fear that this foul ball has hit them in the face, leaving a black eye that may take some time to completely heal.
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Wing Commander Under Water?

Exploring The Depths With Subwar 2050

by H.E. Dille

Space may be the final frontier, but it certainly isn't next in line for exploitation. Before Mars is marred by strip mining, the world's oceans will be harvested for their riches. Subwar 2050 explores a future where the concerns of conservationists have been shoved aside by a desperate need for more resources. Naturally, the oceans hold the last, largely untapped, solution to economic stagnation. The governments of the world lack the financial strength to exploit this environment, so the ball is grabbed by MegaCorporations—entities with the resources to compete on a global scale with complete disregard for everything except the profit margin.

Moratoriums on mining and drilling in international waters are a thing of the past. The major corporations embark on a "land rush" unlike any ever seen, staking their claims to the vital undersea regions. The promise of riches brings claim jumpers in its wake, and the climate of industrial espionage and sabotage gives way to open warfare. During play, you become one of many mercenaries willing to ply their trade 4000 feet down, provided the price is right.

Taking the Plunge!

Subwar 2050 is not, by any stretch of the imagination, an actual military simulation of undersea warfare; its design philosophy holds a far greater kinship to Wing Commander than it does to SeaWolf. Players pilot various types of deep submergence vehicles and submarines in five different campaigns (Training, North Pole, Antarctica, South China Sea and Sea of Japan), each of which is comprised of nine to eleven missions.

Before embarking on a given campaign, you create a character on the sub roster and familiarize yourself with the operations center of the "submarine carrier" they are embarked upon. From this central screen, it is possible to fly in a simulator, select a campaign, attend mission briefings and so on. Are the similarities adding up? You betcha, a straight mission-to-mission arcade game without characters or story. Fly the mission, collect the cash and move on. As such, it will only appeal to players on the base level, leaving it far behind its spacefaring cousin.

The training campaign is designed to familiarize new mercenaries with the operation of their craft and prepare them for the rigors of combat. Climbing into the "cockpit" after the mission briefing, you launch from the Tiger's Claw...oops, I mean the sub carrier...and proceed to a number of navigational waypoints, each of which may lead to an enemy encounter. The early missions are easy and fairly safe, mostly involving the destruction of numerous robot drones and the evasion of a few...
proximity mines. Once you’re certified to accept more strenuous and profitable missions, deadly combat begins in earnest.

Take Her Down, Scotty

Aside from a background that almost appears to be a field of stars at times, the underwater visuals are fairly good. Visibility is limited by depth, though cheating is allowed by way of vehicle “headlights.” Nearer the surface, the top of the viewing screen becomes progressively lighter to simulate the penetration of the sun’s rays. Once at the surface, things don’t hold up as well visually, perhaps to serve as a reminder that the real action is down below.

One of the most interesting aspects of *Subwar 2050*’s simulation model is the way it handles thermal layers. Understanding how these layers occur and their tactical significance is important to judging *Subwar 2050*’s combat model, so allow me to give a 30-second lesson.

The ocean is a dynamic environment, continually mixed by wind, waves, currents and tidal action. These forces have the greatest effect near the surface, but are present throughout the body of water. During the day, the sun warms the surface layer, exciting individual water molecules as energy is transferred. The individual particles spread out, making the entire layer of warm water less dense than its cooler counterparts. The depth to which this warming occurs varies with the length of the day and other factors, but all water within that depth is raised to a constant temperature. As such, it is referred to as the surface isothermal layer.

When the water is deep enough to permit several thermal layers to coexist, the conditions are right for the formation of a sound channel. This is a situation where a layer of warm water is bounded top and bottom by colder water, such that any sound emitted within that layer tends to be trapped between the two boundaries. The sound channel acts as a conduit for any noise, allowing greater propagation within the channel, but also precluding detection of noise sources outside the channel.

*Subwar 2050* attempts to model the complexities of ocean thermal conditions, paying particular attention to how sound moves through different thermal layers. Through the use of different-colored grids, *Subwar 2050* handles this tactical aspect well but, unfortunately, things take a turn for the worse from that point on.

Cavitation Noise

Real submarines are blind and must navigate and find their targets like a blind person does, by listening to his surroundings. *Subwar 2050* wants to adhere to this fundamental concept of underwater warfare, but cannot help including the visual aspect as well. Thus, all of the programming effort that went into the elaborate thermal layer model, as well as speed, detection curves and other factors, tends to be largely irrelevant.

A standard underwater engagement should incorporate a slow, methodical approach, including passive use of sonar, where you listen to your enemy’s radiated noise as opposed to actively “pinging” him. A carefully executed surprise attack would follow as soon as the target’s location is reasonably certain. *Subwar 2050* wants to be an intense action-oriented game, so the design encourages players to dash in—damn the torpedoes—and hope for the best. Since you shoot your enemy by line-of-sight, all of the normal suspense of this type of game is lacking. The cat-and-mouse chase, so enticing in the best of submarine games, is totally absent.

Weapons selection and performance is equally uninspiring. Today’s submariners have an awesome array of weaponry at their disposal, from 10 mile wire-guided MK48 ADCAPs that can be fired at an opponent with near pinpoint accuracy, to sophisticated wake homing seeker heads that can follow the pressure differential created by a ship passing through the water for 30 miles, rudely slamming home in the ship’s screws with no advance warning. What weapon options do you have in this multi-threat environment some 60 years in the future? How about very short range torpedoes that must lock onto their target within seconds of launch or they begin a circular search pattern that may prove hazardous to you and your “wingman’s” health. Not sexy enough? OK, then use even shorter range straight-running torpedoes that are annoyingly referred to as “rockets.”

Down Doppler

Clearly, *Subwar 2050* is a product with an identity crisis. It wants to incorporate sophisticated physical models of the type you’d expect from a true simulation, and yet it wants to have an action game’s visuals and pace. It wants to tap into the Wing Commander market and at the same time set itself in a truly novel environment, but it has neither the research nor the creativity behind it to establish itself as a unique product in its own right. It feels like a game unclear of its own concept, lost in the depths of its unclear goals, unable to return to the surface to enjoy the light of day.
Around The UK In Four Days

Accolade’s Rally Tears Up The English Countryside

by Gordon Goble

As an irrepressible fan of racing simulations, I was very much looking forward to Accolade’s Rally. The premier levels of formula auto racing have been wonderfully portrayed as of late in superb simulations such as World Circuit and IndyCar Racing, but the realm of rallying, where the multi-day driving events test both endurance and driving skill, has never been thoroughly explored.

Developed by England’s Euro-press Software, and focused on that country’s Network Q RAC Rally, a 35-leg 4-day racing event, Rally seemed full of promise. Scanning the game manual before loading the software (some people do that, you know), expectations were further heightened upon discovering the various forms of expert consultation that had gone into the making of the program. Event organizers, participants, and even representatives from Ford, Subaru, Lancia, Toyota and Mitsubishi had apparently had their input, and suddenly visions of an off-road IndyCar didn’t seem terribly exaggerated.

Upon loading Rally’s 5 megabytes onto my hard drive, a cool European beat filled my ears, and while titles and credits cascaded across the screen, so did short movies of these screaming little four-wheeled buzz saws, cutting swaths through narrow trails, hurtling over hill crests, plowing through mud bogs, and shining beacons into the dark night air.

Slowed temporarily while choosing the right code word from the Rally manual, I soon found myself in one of the simplest interfaces one could hope to find. Pointing and clicking my way through, I quickly had my car of choice, renamed the default driver “Gordo The Magnificent,” and was ready to run. First stage: Sutton Park, a forest-enclosed three mile sprint where all four wheels would, with a little luck and a dash of skill, find themselves on tarmac for the duration. An easy starting point.

After quickly calibrating my CH Flightstick, I found myself behind the wheel of my designated machine. Outside the car, the view was pleasant enough, and inside, ergonomics were suitable. A centrally positioned rear view mirror displayed what was behind me, a glove-clasped steering wheel framed a digital speedometer and tachometer, and across the dashboard to the passenger side were various readouts of split-times, course information, maps and gameplay options. All the necessary data, including material that was unrealistic but welcome, were certainly present. Without further hesitation, my talkative co-driver (more of a navigator, really) was informing me in his best British accent that we’d be off to the races in “3...2...1...Go!”

So Much For Fahrvergnügen

Well, four-wheel drift me off the Tower of London! No sooner were we out of the blocks than I had radically eliminated at least a half dozen spectators. While it’s true that spectators do stand awfully close to the action in real life, rarely has such carnage been wrought in the first five seconds of a run. Yet in the course of taking out the race fans, I realized that our Ford Escort had also warped right through several trees, stumps and large rocks. Seeing
ARE YOU READY TO EXPERIENCE THE ULTIMATE IN SQUAD-LEVEL SPACE COMBAT?

The sequel to the immensely popular Breach 2, Breach 3 puts you in command as Squad Leader of the Federated Worlds. Do you have what it takes to command your marines in dangerous missions against destructive enemy forces?

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no evidence of blood nor bark nor gravel on
the car, and certainly feeling no mechanical
or personal damage, I had my hopes for a
realistic sim dashed as surely as those spec-
tators would have were I piloting a real Ford.

By the end of Sutton Park, I had removed
over a hundred trees, stumps and posts, gen-
erally reshaped the landscape, taken a terrible
human toll (we're talking 20 fatalities, 30 or
so life-threatening injuries, and at least a
dozens nasty wounds), and had finished a
commendable fifth of 30 entrants, with nary
a slap on the wrist for my rather reckless
driving.

Needless to say, Rally just doesn't cut the
mustard in the realism department. Although
deserving of some accolades in appearance
(graphics are built on a 3-D texture-mapping
technology—sort of a poor cousin to IndyCar
Racing), game mechanics suffer in two im-
portant areas.

First of all, car control is erratic. Although
climbing a grade will slow you down as effectively as des-
centing will increase it, and the effects of "drifting" through
corners seems somewhat accurate, the
steering controls are both sloppy and oversensitive. Imagine driving
World Circuit with both steering assistance and traction control off.
Then imagine a joystick with two
degrees of movement on both axes and
acceleration controls with two
modes: completely on and completely off. This is the experience of driving a
Rally car. Loading auto-gearshifts and auto-
braking will assist handling, yet will detract
substantially from much needed speed. Ob-
viously, going from a pavement-hugging
state-of-the-art formula car to a dirt-eating sedan is quite a jump, but Rally is not merely
a matter of adaptation.

In an attempt to simulate the spinning rub-
er experienced in a real car, it's almost as if the
Rally designers have gone a little too far.
The slightest over-acceleration from a stand-
ing start or even at low speed will often result
in horrific spin-o-ramas, while moving from
joystick to keyboard control provides even
less joy. As mentioned earlier, taking out a
large number of obstacles as a result may not
significantly affect your placing in a given leg,
but damage will accumulate, and repairs
down the road will take a bite out of overall
time.

**Driver Side Airbags**

— Not Necessary

The lack of collisions is the truly damning
quality of Rally. A trick to racing at any level
is the avoidance of any and all obstacles. In
Rally, not only is this procedure next to im-
possible (due to curious handling char-
acteristics), but unnecessary. In a real rally,
competitors are released one at a time and
race against the clock. Given the narrow and
haphazard make-up of much of the route, this
is a good idea, and it is mimicked in the game.
In a real rally, a fast car might make up so
much ground on his predecessor that he may
well catch and perform a neat little pass. In
Rally, passing is passé. Instead, blowing
straight through your foe is the best course of
action. You may slow slightly as you merge
through his car, but suddenly he will appear
in the mirrors. Or not—perhaps he may va-
porize for a bit, then magically re-appear in
front, or to the side.

If you feel the need to win a specific leg, no
matter what the cost, the strategy is simple—
don't steer! Blasting through cars, people,
trees and other nuisances is no problem. Find
yourself off course, in the weeds, off the
beaten path, a roadside attraction? It just doesn't matter. Rally will
automatically right you and plunk
you back on track and pointed the
right way. In all fairness, some legs
are run on race tracks, and here Rally is adequate, bearing a striking
likeness to the late, lamented rac-
ing game named after Mario And-
retti. But such opportunities to
escape the mechanical foibles of
the game are few and far between.

Every dark cloud has a silver lin-
ing, and Rally is certainly not all bad. As a
matter of fact, Rally seems like a good idea
and a decent presentation awaiting proper
game mechanics. If it all worked properly,
piloting this type of vehicle through this
type of terrain would be a great way to spend some
gaming time. A speaking co-driver, barking
out navigational instructions is a novel and
interesting twist, as is the challenge of 35
separate and distinct courses.

Also commendable is the ease of movement
through the various interfaces and phases of
Rally—a quick point and click is all it takes.
Several visual effects are excellent too, includ-
ing that of changing environmental condi-
tions; races may be held in rain, snow or
complete darkness, and all are effectively por-
trayed, right down to working windshield
wipers.

But one of the biggest knocks against Rally
comes from its use (or misuse) of computer
memory. In the course of this review, being
unceemoniously heaved from the program
was not at all uncommon. Using DOS 6.2
MEMMAKER as instructed didn't help the
situation, nor did recommended alterations
to the CONFIG.SYS file. A Rally-specific
boot disk (or the ability to create one) was not
part of the package, and totally clean boots
(freeing up 615K of conventional memory),
although decreasing the number of dumps,
did not completely remedy the situation.

Unfortunately (and perhaps unfairly) for
their creators, today's driving simulations
must be compared to what else is out there,
and right now that includes Indy
Car and World Circuit. To that
death, Rally does not offer replays,
drafting of other vehicles, exterior
camera angles, or anything in
terms of car set-up (apart from
tires). Add this to the aforementioned
drums, and die-hard rac-
ers will want to look elsewhere
before considering Rally, a pretty
package and exciting concept with
little realism, stability or substance.
It's not a game. It's war.

New York, Monday.

It's D-DAY.

It's the Beginning of the End.

It's coming.

April, 1994
Parachutes open in the Norman

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Yet Another Bug Hunt

Alien Breed Runs The Sci-Fi Gauntlet

by Martin E. Cirulis

“Y”our Mission: Kick some mean, green Alien butt! Overcome 18 levels of the most ferocious creatures ever to terrorize the Cosmos. Then set the Intex Space Station for self-destruct and face the biggest challenge of all: Get out quick or die!

Sound familiar? It should. We’ve all seen this movie and its progeny countless times and, more importantly, we’ve seen this game motif before. Well, MicroLeague has decided that, once again, it’s time for a lone combatant to wander hi-tech halls of a space station in search of gleaming, long-headed monsters with serious overbite problems. Now, originality of storyline isn’t exactly the make or break point of either movies or software, but originality of execution usually is. Unfortunately, Alien Breed has fallen behind in the tech race.

A Case of Cartridge Envy

Alien Breed would be right at home at the local arcade or on any cartridge game machine. It has an overhead, two-dimensional viewpoint, colorful backgrounds, smooth scrolling, and quick-moving figures closely resembling Sigourney Weaver’s playmates. You move through various locations, shooting everything that moves, while picking up scattered ammo and credits. Between blasts, you can buy various items from convenience-store terminals placed around the complex. Every three levels or so there is the traditional “Boss” figure that is so popular in arcade games—basically a big monster that you must shoot many, many times instead of the usual once or twice.

To its credit, Alien Breed has introduced a small twist with the idea that the player rummages through each of the 18 levels and performs a specific mission on each one. Sometimes it’s the destruction of various power facilities; on other floors you must close the fire doors to prevent the destruction you’ve caused from spreading too soon. When you have completed your floor mission, usually you have less than two minutes to make your way back to the elevator shaft before the level is consumed by fire, ruining your whole day. This “beat the clock” premise is sometimes very weakly tied into the plot, but it does add a different kind of tension to the game and forces you to think about where you’re going instead of just firing blindly.

Also included is a two-player mode that puts both players on the screen at once. This is useful for a more social situation, but both players must stay relatively close together in order for the screen to scroll along with them, much like the classic arcade game Gauntlet. A modem or network link that would allow players to roam the halls in different directions and approach problems from both sides would have significantly boosted the game’s value.

Two Cultures Separated by Common Hardware

Alien Breed is a European import and so embodies all the curious differences in game design theory that distinguish the markets separated by the Big Pond. The game has no save-game slots, only mission codes that allow you to skip levels that you’ve already completed in a previous session, and none of the equipment you’ve accu-
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Available at your local software retailer or order direct from New World Computing at 1-800-325-8898, (818-689-3630 outside the US), or by mail PO BOX 4302 Hollywood, CA 90078-4302.
Unleashing the Power of Flight Sim Toolkit

Part One of a Three-Part Series

by Matt Miller of Domark

The February issue of CGW saw the unveiling of the latest simulation project from Domark entitled Flight Sim Toolkit (Toolkit). Domark released the product after two years of intensive development by Domark's flight sim partners, Simis. Toolkit was created so that the sim player no longer had to hope that his ideal flight scenario would be published, but so that he could use simple tools to create his own dream simulator. Much of the later development time was spent perfecting the Windows interface to increase ease of use and flexibility while maintaining the inherent power of the Simis polygon engine. The resulting product is a powerful and flexible tool that enables a person without programming experience to design anything from an F-111 Aardvark to the Wright Brothers' Flyer.

In this series of articles, we'll take you through the design of a complete Toolkit scenario, stepping through each of the program's Windows editors and providing special tips and shortcuts to make design easier. By the conclusion of this series, you will have built your very own super-charged flight sim. So if you'll now open your Toolkit, we'll get started.

Heating Up the Cold War—The Sim Scenario

The year is 1980. A Soviet spy has stolen a top-secret American U2 spy plane. The spy is nearly into Soviet airspace when SAC notices the outbound U2. A lone F/A-18 Hornet pilot is warming up his engines in preparation for a training flight, when he is ordered to take-off immediately to engage and destroy the stolen aircraft. Meanwhile, an increasing number of fishing trawlers have entered the Aleutian Island chain. U.S. Intelligence suspects them to be Soviet spy and missile boats.

The pilot's mission is to engage the missile trawlers and destroy them, using his HARM (High-speed Anti-Radiation Missiles) ordnance. U.S. satellites have also detected Soviet cruisers and an aircraft carrier moving into U.S. waters. Enemy aircraft will most definitely be in the area. The F/A-18 will be armed with 4 HARM missiles, 4 AIM-9M Sidewinders, and 2000 cannon rounds. If need be, the Hornet pilot could risk rearming at the Aleutian Island Airbase should he use up his payload before completing the mission.

To create our scenario, we will use a variety of Toolkit options: 1) a color palette to get the right terrain colors for the Aleutian Islands; 2) a shape for a U2 spy plane; 3) a cockpit for the Hornet and flight models for both the Hornet and U2; 4) sounds to enhance our sim; and 5) the terrain in which the combat scenario will take place. In this installment, you will first be introduced to the Color Editor, where you have access to nearly every color your sim world can produce. Secondly, we will take an in-depth look at the Shape Editor and build the U2 aircraft. After following the steps necessary to build the U2, you will have the skills needed to create virtually any Toolkit object.
and select New Project. The computer will ask you in a browser box what you want the new project to be called. Type “Coldwar.” This will create a new sub-directory and will copy the files in the TEMPLATE sub-directory into your new project.

Dipping into Toolkit’s clip-art library, we will choose the following objects: A-18.FSD (your Hornet), RUNWAY.FSD, AIRHANG.FSD, TOWER.FSD, TRAWLER.FSD, NIMITZ.FSD, KIDD.FSD, RAPIER.FSD, ZSU-53.FSD, SU-27.FSD and TUG.FSD. We will also use the included AV8B.PCX cockpit for our Hornet cockpit. Copy these files using the Windows File Manager (or Copy Item from the Project Manager) from the LIBRARY sub-directory, into the COLDWAR sub-directory. You may also want to copy the .WAV files (for sound) from LIBRARY into COLDWAR (we will be changing some of these later).

A Sim Of Many Colors

We begin building our sim in the Color Editor. Open the default color file (COLORS.FCD), where you will see a standard color palette from Toolkit. The sky is a common shade of blue, and the horizon and sea blend in a realistic fashion. The ground colors are all shades of green, and eight colors determine the appearance of objects. When observing the sky/horizon/sea colors, you will see four boxes. The top box is what the majority of the sky will look like, the bottom box depicts the sea, and the middle two boxes represent the variations.

The bottom box in the Horizon section is a color band that will be painted above the water. The box above it will be the next highest band above the horizon, and this color will blend smoothly into the color of sky you have chosen. There are five pre-determined shades, which are the shades used to blend the top horizon box into the sky color box. Most sims you create will have identical colors for the two Horizon boxes, but some interesting effects can be generated by varying the degree of the two colors located in the horizon.

The ground colors are determined by height. The highest point of your terrain will have the color in the lower right box of the two columns, while the lowest point (next to sea level) will have the color in the upper left box. The Spread function will look at both of these colors and evenly spread colors between them, creating perspective and horizon effects. Since our island is to be frozen over with snow, we want our colors to enhance the Arctic effect. Choose a darker shade of white like the other palette colors when you change the Time of Day in the World Editor to evening or night. This allows you to create runway lights, aircraft lights and sophisticated afterburner effects.

You can create a convincing camouflage effect on an aircraft by setting its colors to the same value as the sky color. While you can still see the definition of the aircraft (due to light-sourcing and shading), the effect created is a realistic blending into the sky. Similar effects can be generated with ground and sea vehicles; just set aside a few colors in Object Colors for camouflaging the enemy forces.

For our scenario, we will change the color of the light-blue shade (fourth from the left) to match the sky colors exactly. Specifically, the color should have the values: 56, 120, 156. Now that we have created a color scheme we will examine one of the most powerful editors in Toolkit, the Shape Editor.

Polygon Creation:
As Easy As X-Y-Z

Toolkit uses shapes to define the appearance of an object. These objects are created in the Shape Editor, which consists of a CAD package designed specifically for Toolkit users. Although it doesn’t take very long to gain proficiency with the Shape Editor, you may choose to select objects from the clip-art library to save time. The Shape Editor interface consists of a 3/4 perspective grid, which occupies the center window, and three vertical windows to the right labeled XY, XZ, and YZ, which show multiple perspectives of the object. On the far left is a menu of point-and-click icons familiar to Windows or Macintosh users.

The Edit Grid is your frame of reference as you edit your objects in two dimensions. The

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three vertical-view windows will indicate the third dimension, which is the plane the Edit Grid is currently on. The plus and minus buttons in the lower left on the toolbar can be used to move the Edit Grid. With some practice, you can edit in all three dimensions at once, moving the Edit Grid during an operation.

There are two important rules to follow when using the Shape Editor. The first is to always select each point of a polygon in a clockwise direction. Failure to do so will result in an unbalanced object. The second rule is: If You Can't See It, Don't Draw It! A common mistake is drawing polygons on an object that will never be seen in the sim. As the computer must draw each polygon to the screen, unnecessary polygons will cause your sim to slow down. At the bottom of the Shape Editor screen is a line which indicates the number of polygons your computer has to draw. The fewer the polygons, the faster the object will move on the screen.

Drawing a boat is a good example of this rule. There is no need to waste processing power on drawing the bottom of the boat, as it would naturally be submerged in water. You might benefit from asking, "How many polygons should my objects have for maximum speed efficiency?" This will depend on what object you are trying to create. Here is a good range for the number of polygons a shape should have:

**Cultural (Aesthetic value only):** 20-60p
**Target:** 50-90p
**Enemy Aircraft:** 80-140p
**Player Aircraft:** 90-200p

On the other hand, the player's aircraft can be made with more polygons should you wish; since the outside view doesn't require the processor to clip around the cockpit or generate the data for the instrument displays, there is more processing power available for more polygons.

In our scenario we will be creating the U2 spy plane. Before starting, you should know about a handy time-saving trick: in the Shape Editor, you can select various editing views just by clicking on the three vertical windows to the right of the main edit window. This bypasses the Switch View icons on the toolbar and makes the program even easier to use.

Our first step in creating the U2 will be to create the fuselage. We can use the Create Cuboid tool to create a long rectangular box 18 meters in length, and 2 meters in width (remember to click your polygon points in a clockwise direction). Since your grid size is set at 1 meter, the box will be 1 meter in height. Switch to the YX view and select the top polygon. Lift the top polygon 1 meter more off of the box. Now you have a basic shape 18m x 2m x 2m. We want to curve out the sides of the fuselage, so we'll use the Enter Tetra tool. Select the YZ view of the fuselage and then change your Grid Size to .5 meters using the Other Size in the Grid Menu item. Draw the short side of the shape first to ensure that the center line is going from front-to-back as opposed to bottom, and follow through on the points to complete the shape. Select the ZX view and use the Copy and Paste commands to copy the Tetra you just created on the other side.

Two other handy functions are the Lock to Grid and Mirror functions located in the Group menu. The Lock to Grid function takes a shape that doesn't currently rest on the grid lines, such as whenever you paste an object, and locks the points of the polygon to the closest grid points. Sometimes this may result in distortion of the object, but that can easily be fixed by Selecting the Points that are in the wrong place and moving them to the correct coordinates.

The other key function is Mirror. Mirror flips an object 180 degrees along one axis of the three dimensional work area and is great for creating perfectly matched wings and tails. In this case, we'll use it to copy the other side of the fuselage.

Next, place Tetras on the sides of the aircraft, looking at all three views on the right to make sure they are all placed correctly. We can now move on to the wings and tail. Since we want our wings to have some thickness, we'll set our grid to .25 meters. Now use the Enter Cuboid tool and (in the ZX view) create the right wing of the aircraft. Since the U2 wings are long and thin, make sure to draw the wing accordingly. Afterwards, use the Copy, Paste, Lock to Grid, and Mirror functions to create the left wing.
create the left wing and the tail, always making sure that the polygons line up with the fuselage in all three dimensions. Again, check the three view windows on the right.

Change the grid back to 1 meter to create the engine nozzle and nose piece. Select the YX view of the aircraft and move the Edit Grid, using the buttons on the toolbar, so that the Edit Grid rests on the back of the U2. The next task is to make a box the same width and height as the original fuselage block. From the ZX and YZ views, the block should extend 1 meter from the back of the fuselage, since the Grid Size was also set to 1 meter. The nozzle should be cone-shaped, so move your Grid Size down to .25 meters and then move the end points of the nozzle one step (one quarter meter) toward the center, making sure to do this in both the ZX and YZ views.

To create the nose piece of the cockpit, we need to select the XX view and move the Edit Grid to the front of the aircraft. Now use the Enter Penta tool and draw the four points for the base of the pyramid. The point for the pyramid will appear in the center of the base. If the center looks like it's going into the aircraft instead of going out, just Undo the function and enter the points counterclockwise. You shouldn't make this shape as tall as the engine nozzle, as it will interfere with the cockpit view.

The cockpit itself involves not only creating the shape, but placing the instruments as well. Start with a basic Penta shape in the ZX view, with a .25 meter grid. Center your view around the nose of the plane, and draw a diamond shape with longer sides towards the front. Now select the YZ view and center the Zoom on this piece if needed. Move the furthest back point so that it runs along the same Z plane as the middle two. Then bring the tip of the pyramid a bit further forward. Take the entire shape and move it so that the back of the cockpit rests against the fuselage. Grasp the forward point and bring it down to rest on the nose of the aircraft. Using what you have learned thus far, you can add little details to the aircraft such as external fuel tanks.

Since your aircraft is mainly one color, you can quickly color multiple polygons. Simply click on the Select Group button in the toolbar, then Select All in the Edit menu. Now in the Group menu, select Group, which will place all of your polygons together. You can Scale, Rotate, or Mirror in this mode to affect the shape of the entire plane. Also, you can color the entire object at once by selecting the group, then a color, and finally selecting the group again. While still in the Group menu, select Ungroup and choose the Penta used for the cockpit. Color the Penta a shade of blue, then use the Select Polygon tool to select the surface of the back of the engine shape. Finally, for a little flair, color this polygon red to create engine exhaust.

In the next installment of this series, we will discuss the Cockpit and Flight Model Editors, and in the final installment we'll put the finishing touches on our simulation using the Terrain Editor. By the conclusion of the series, you will have gained newfound insight into the behind-the-scenes world of modern day flight sim creation and will be invited to test your skills in a major Flight Sim Toolkit contest sponsored by Domark and CGW.

Oh, and don't forget to save your work!
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Ocean's TFX is a multifaceted, multi-layered, enigma of a game that simulates the new American ATF, the Lockheed F-22, the Lockheed F-117 Stealth Fighter, and the upcoming Eurofighter 2000.

TFX is divided into six portions:

Training is a structured set of 10 missions that introduces the new pilot to all of the aircraft, missions, weather types and other variables in the game. Progress to the inter-

esting parts of TFX is barred until the 10 training missions have been successfully completed. Overly strict, this may lead to frustration for some players unaccustomed to the flight sim experience.

Tour of Duty allows you to enroll in one of three squadrons and tackle missions around the world. Usually, this consists of the primary/secondary mission approach, with a bit of mission text to fatten the scenario.

Flashpoints feature five individual mission storylines. Imagine five Strike Commander storylines which cover such diverse areas as The Falklands, Bosnia and South America. The actual storylines are split into missions, or parts, as in a TV serial, with character text and newspaper headlines providing filler material to move the plot onto the next stage.

The Arcade section removes the realism from the game and sends you against the foe with five levels of increasing difficulty to tackle.

In Simulation mode you can pilot a craft without restrictions or specific mission considerations. Choose the elements of the flight sim — such as aircraft type, weather, time of day — and you’re off.

UN Commander is a simple mission builder with an easy-to-use menu interface. Completed missions can be saved and swapped with friends.

Once in the cockpit, the flight models are quite good. The inertia effects are quite credible, yielding loss of altitude during steady turns and realistic rolls and stalls. Flaps are controlled automatically and can be viewed in cross-section within the multi-function displays. G-forces are handled well, with some excellent digitized pilot grunting during blackout sequences.

Special FX

TFX's excellent FX include atmospheric missile viewpoints that offer an up-close viewpoint of the detailed objects and terrain, plus laser-targeting weapons. While in general the effects are well executed, there are noticeable restrictions as far as realism is concerned. The AGM-65 Maverick, a fire-and-forget missile, is a waste of space in TFX, being treated as a dumb, point-and-shoot rocket. In addition, there is no ranging or directional information at all on the heads-up display to help with gun kills. Most damning of all, there's no rudder, which knocks ground strafing down to minimal levels of realism, makes landing the aircraft rather hazardous (especially on a carrier), and reduces the effectiveness of many aerial dogfighting maneuvers.

The manual is lacking in certain areas, as well. There is little information on the weapons and no indication of how they rate in target effectiveness. The text is content to throw around terms such as "weapon drag factor," which have no apparent meaning in the game and seem more like pure hype. The manual also lacks structure; for instance, the instructions for launching Mavericks and free-fall bombs appear on page 31, with laser-targeting weapons included almost as an afterthought on page 46!

At first glance, the enemy artificial intelligence appears to be well-implemented. Enemy aircraft take advantage of three dimensions in their maneuvers, but quickly become predictable. When the player is faced with two aircraft, the bogies always split; one rides low, the other high on a curve, seemingly with no variation at all. Combat is fairly straightforward, and avoiding SAMs appears to be much too easy. No need for fancy-pants avoidance maneuvers — a few bits of chaff and the odd flare do the trick.

Landing is not easy in any of the aircraft, despite the inclusion of an ILS system. Car-
rier landings are notably difficult. In one instance, I found myself hitting the carrier deck at the wrong angle and bounced violently up into the air again, luckily to try again. There is an auto-landing option, handy if you want to ignore manual landings and just get on with the action, but this option leads to im-
plausible situations. Your craft can be out of fuel, miles from anywhere, then suddenly come in for a landing, simply by toggling the auto-landing switch.

During a mission you are treated to a very nice cockpit-scan view, initiated with the coo-
lie-hat on the joystick. The scan view is a minor variation on the padlock view, and it is far less disorienting than the Falcon system in many ways. In TFX, flicking the coo-
lie-left/flight smoothly moves the view left/right in one smooth scan. The downside is that there is no upwards view or target-lock view, which is the main positive aspect of Falcon's padlock view.

Blasted Blanket Bingo!

When low on fuel, an enormous BINGO sign is spread across the HUD, im-
pairing vision. Flying the Eurofighter, which carries little fuel in any case, this warning is triggered shortly after take-off. Why the low fuel warning couldn't have been reduced to an MFD or cockpit light warning remains a mystery. Even without the BINGO game, finding the target can be difficult, as there are no cursor-HUD markers to aid the pilot. AWACS information for alternative directions are haphazard at best; waypoints on the moving map would have been useful in this respect, but none are supplied. To make these matters worse, the briefings are too brief and lacking in necessary information.

In many ways, TFX feels old fashioned. There is no campaign option in which you can plan missions or make significant tactical decisions, and although the digitized voices provide an illusion of wing-men, the feeling is more akin to flying an old "you versus the world" simulation.

Clearly, TFX offers a mixed bag. Despite some innovative ideas and features, some parts of the design feel a bit hackneyed or unfinished. I would not recommend the game to Falcon or Tornado players, who will dislike TFX's simplifications, lack of realism, and lack of depth. However, if you are one for simpler simulations (like Jetsfighter II), TFX will definitely be worth a test flight. For the casual pilot, TFX will offer plenty of long-term gameplay, and its structured layout will not lose inexperienced players as did the open-ended format of Falcon. The excellent graphics and digitized sound may even provide enough glitz-appeal to tear one or two youngsters away from their Mario-clones.
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Sure, it'll test your nerves. But what were you expecting, the Love Boat?
A good carrier-based flight sim has always been hard to find. In ten years of combat sims, there have only been a few worth mentioning. Velocity’s JettVenger sims were breakthrough products in their day, simulating carrier operations with smooth flight models and graphics. Spectrum Holobyte’s Flight of the Intruder also included carrier scenarios and was probably the best of the older programs, offering innovative features that elevated gameplay to new levels of richness. Of course, all of these sims are several years old, which in our hobby means ancient, and the time is right for a “contemporary” carrier-based sim.

To fulfill this need, Spectrum Holobyte has released Hornet: Naval Strike Fighter, yet another high-tech toy in the company’s Electronic Battlefield Series. Hornet joins Operation Fighting Tigers and MiG-29 Fulcrum in the growing list of add-on disks that interface with Falcon 3.

Of McDonnell Had A Jet

The McDonnell Douglas F/A-18 Hornet incorporates twin afterburning engines and is packed with the latest avionics and weapon systems. The Hornet can function as a true multi-role aircraft by quickly converting to either a ground attack or air-to-air fighter. Its carrier deployment capability makes it even more flexible.

Once Spectrum’s Hornet has been loaded onto a hard drive with either Falcon or the stand-alone version of MiG-29 already installed, you can take to the skies over the world’s current hot-spot: Bosnia. To illustrate Hornet’s new features and flight model, I’d be pleased to have you as a copilot on one of my first missions.

Tour de Bosnia

The interfaces of Hornet are essentially the same as in Falcon 3, and within minutes of the install I had formed a new squadron with the new Bosnian theater, hit the commit button, and was waiting for the familiar satellite downlink message. Command sends a message describing the scenario: my mission, to take out an enemy tank column north of Vajevo. After setting up each flight’s waypoint action and flight path, I perform a recon of my flight path and use the trace option to find possible enemy threats.

With pilots assigned to their flights and armed with air-to-air missiles and air-to-ground Mavs, I tap the “+” key to throttle my two turbines up to full military power. It is now obvious that the Hornet cockpit is decidedly different from Falcon. I now have two Digital Display Indicators which display a variety of data. I pull up the engine DDIs and monitor my engine thrust, fuel flow and exhaust temp, all displayed as digital readouts. I then slam the afterburners open to stage 5 and give the MiG-C launch command.

The launch off the carrier was pretty straightforward, except for the fact that my joystick did not respond to small movements. I increased my stick movements and found my aircraft snap rolling at 500 feet. Whoooaah!! OK, so maybe my “Thruxty” joystick needs to be reconfigured. I give it another shot and find no improvement. After consulting an on-line flight sim

**Hornet: Naval Strike Fighter**

**Title:** Hornet: Naval Strike Fighter  
**System:** IBM  
**Requirements:** 386 or better, 1 MB RAM, 6MB hard drive space, Falcon ED or MiG-29 Stand-alone  
**Publisher:** Spectrum Holobyte  
**Address:** Alameda, CA  
**Phone:** (660) 696-1263
forum, I notice many players are experiencing the same problem. A suggested fix is to calibrate backwards or to hold the joystick calibration icon in the corners for a long period of time. I try this and it corrects the problem, though the aircraft still exhibits an extremely fast roll rate.

Once airborne with some degree of control, I configure my left DDI to show the Radar Warning Receiver and my right DDI to air-to-air radar. In the lower middle of the instrument panel is the Horizontal Situation Indicator. This display shows your aircraft's current heading along with a waypoint and radial heading. The radial heading is a specific flight path that has been preset to the waypoint. Ideally, you should line up the heading cue with the waypoint cue along with the radial indicator.

While heading to a waypoint, I take time to feel out the flight model. The F/A-18 feels responsive, yet it can get heavy and slow. Hornets can model four different flight models from Easy to High Fidelity as in Falcon 3. Airspeed does bleed off as Gs are applied to the aircraft, and the turning radius will tighten with reduced airspeed and higher Gs. The aircraft is heavier with more momentum than the F-16 and becomes lumbering at 125 KIAS. It does roll extremely fast and takes a very steady hand to fly. Close attention to energy management is a must, lest you want to present a fast, slow target.

At Angels 5, I instruct my wingman to close it up, and he quipts back with a "Copy will do." Time to activate the APG-65 Air-to-Air radar. This radar is simulated in many degrees in Hornets as in Falcon 3. I have configured my aircraft with the High Fidelity flight model so I can check out any new features. The F/A-18 radar incorporates Scan, Track While Scan, Single Target Track and Air Combat modes and a range of 80nm. When a contact is targeted, information as to heading, altitude, range and aspect are displayed next to the target icon. Aspect is displayed by a small directional tail attached to the icon and is displayed 180 degrees opposite of the Falcon program, so it does take some getting used to.

Scanning for enemy contacts, I select the Track While Scan mode. This allows me to target one aircraft while continuing to display other threats. Picking up a contact at 40 miles, I hit the "T" key to acquire the target and tap the "Z" key to lock 'em up. I hit the IFF (Identify, Friend or Foe) key and determine that the contact is hostile. My Radar Warning Receiver lights up, so I know my target has me locked as well. At 10 miles, I activate my jamming system and, since no other targets are within my scan, my radar shifts to the Single Target Track mode which will keep the target locked and will not display any other aircraft while automatically adjusting range. LAUNCH WARNING!!! I break hard to port and pump chaff and flares while I switch to padlock to get a visual on the AA missile.

The padlock view remains the same as Falcon, but now includes an afterburner and brake cue in the mini-HUD. I pull max Gs, which is limited to 7.5 by the F/A-18 avionics system, and jink violently. I can toggle off the G-limiter, but there's a chance I'll overstress the wings. Luckily, the Atoll missile impacts one of my chaff packets and I'm still alive. Still in padlock I keep toggling the view until it targets a MiG-29 which is now in visual range at 2 miles. I pull vertical while banking and re-acquire the target with the radar in Air Combat Mode which locks up anything within 10 miles of my aircraft. I get a good tone and holler off an AIM-9M. The missile tracks and flies up the MiG's pipe, exploding in a massive bit-mapped fireball. I didn't see a chute, poor bastard.

Are We Having Fun Yet?

Air-to-air action is typical of Falcon 3. Bandits will perform maneuvers in both the horizontal and vertical. Excellent enemy AI makes the F/A-18 a very difficult aircraft to fly and fight. The blistering roll rate makes control stability a major issue and a player must be very conscious of every move he makes. New padlock and radar information along with a new heading indicator increase the pilot's situational awareness and add new layers of challenge and strategy.

As I move into the mountainous region of Bosnia I admire the improved terrain graphics. Switching my radar to air-to-ground, I notice a new feature which enables a player to zoom in on a selected area of the topological display as opposed to zooming into the whole screen. Targets can now be identified even if they should be offset to the nose of the aircraft, so I can use Mavericks along with maintaining a ground radar image of the target. Switching down to my HSI, I line up the waypoint and radial cue to the target waypoint, and bring up the COMED map which is superimposed over the HSI information. I am now at the initial point for my attack run.

My air-ground radar picks up the tank column. They are expecting me, and my RWR lights up with AAA radar scans. Approaching the column head-on I target and release six Mavericks. The sky lights up with AAA and I get a launch warning. Jumping back into padlock view, I pick up an SA-6 missile tracking my six. Dumping flares, I break hard, but the missile nails my aircraft. Warning indicators are flashing and the incessant voice of Bitchin' Betty is screaming "Check Cockpit!" as I check out my warning sys and see that the missile has knocked out my weapons. Time to get out of Dodge. Endo exit stage right!

Air-to-ground action is intense. The
well-implemented enemy AAA and 50mm cannon fire leaves no question that you are getting shot at. Shoulder launched missiles will kill you very quickly should you not evade them or get outside of their range. Unfortunately FLIR pods are not supported, and targeting smart weapons remains virtually the same as Falcon 3. The ground map zoom feature does give you some added flexibility in picking up ground targets. Hornet does not support any low level terrain avoidance systems, so I’ll have to keep my hands on the road and my eyes on the wheel while I make my egress through the mountainous terrain.

Snagging The Three Wire

Heading home, I steer toward the waypoint cue in the HUD to get on course for the carrier—time to get in the groove. After passing the carrier on one side, I activate the ILS and the LSO calls to tell me that it’s time to enter the pattern. I begin to turn on final and line up with the deck, adjusting my airspeed with throttle and airbrake to 135KIAS. I pick up the “ball” (the optical landing system located on the carrier deck) which provides me with flight cues as to my angle of attack, while my angle of attack indexer provides an additional reference. The LSO is also giving me verbal cues to aid my approach, while an AOA bracket appears in the HUD. According to the manual, I should keep the velocity vector centered within this bracket to get a good approach. I’m lined up ready to catch the three wire, 200 feet...good speed....SLAM!! I smack the carrier lip and get the all too familiar “your dead” animation sequence. Oh well, maybe next time.

After playing for many hours, the landing section is still one of the most challenging aspects of the sim. This is exacerbated by the high roll rate, which makes more than minor flight corrections a hazardous choice during your approach. The LSO dialogue is a nice touch, and the AOA index and AOA HUD bracket aid your approach and generally give you the “feel” of maintaining a high AOA on carrier approach. A view shift will be activated when you hit the ILS, meant to simulate a pilot adjusting his view, so be prepared! Also, if you are carrying any stores, these will be jettisoned when the carrier waypoint is selected, so shoot ‘em or loose ‘em! [See the following Carrier Landing strategy article for some very useful tips.—Ed.]

Hornet has a modern option which will connect with Falcon 3.03 and MiG-29 players. Hornet will automatically update your Falcon 3 and MiG-29 programs to make them compatible with an updated communications system, which looks the same but permits a faster connect time. A network option is also included so that Falcon, Hornet and MiG 29 owners should be able to mix it up.

Bug ‘Em Up

Hornet does have some irritating bugs, the most problematic being the joystick calibration routine. The joystick is just too sensitive, making flight more difficult than it has to be. The carrier will also disappear under certain circumstances, and a random view change will occasionally occur, shifting the perspective to the left side of the cockpit.

Allied wingmen and flights also exhibit some funky behavior. I’ve seen wingmen fly around the carrier until they run out of fuel. Other allied aircraft will also run into mountains for no apparent reason. MiGs will get in behind your flights and will attack you when you are landing on the carrier, which is a real problem since your weapons have been automatically dumped. [At press time, Spectrum was working on a software patch to address most of these problems.—Ed.]

When the Smoke Clears

When these minor problems are addressed, Hornet will make a very welcome addition to the hard-core pilot’s collection. It doesn’t break any new ground, as it is basically Falcon 3 with new scenarios and a different flight model, but the carrier operations add an enjoyable twist. Players can expect the same degree of intense enemy AI and the involved mission planning requirements that made Falcon 3 a Touchstone testbed for serious simulations. Caw
approaching the last waypoint, I’ve been positioned astern of the carrier, and by using the ILS I can pinpoint its location. Coming back from a mission, though, I’m rarely flying standard approach parameters, so I still use the suggested race-track pattern.

**Entering the Pattern**

Descend to 1,000 feet, swing to 300 knots, and fly directly toward the carrier. Don’t worry about what the ILS lines are doing, you’re not going to land just yet. The carrier becomes visible at seven miles. When you close to approximately two miles, turn slightly to the right and fly past the carrier, maintaining 1,000 feet and 300 knots. Watch the carrier pass down the left side of your aircraft using the padlock view. This is the upwind leg.

![Photo of naval aircraft](image)

**Figure 1**

*Use the ILS-HUD to maneuver near the carrier.*

Once your aircraft is clearly past the carrier’s bow, note your heading. In *Hornet*, the carrier usually cruises along square headings of 90°, 180° or 270°. This makes your approach much easier. Drop your hook and turn 90° to the left. Maintain 1,000 feet, but slow to 250 knots. Using the padlock view, monitor the carrier’s position. Fly this heading until you have clearly passed across the carrier’s path. My procedure mirrors that found on page 72 of the manual, but allows a little extra altitude for mistakes during the crosswind leg.

You are now ready for the downwind leg. Turn another 90° to the left, holding altitude and speed. Don’t wait too long on the crosswind leg before entering the downwind leg, as you want to stay close to the carrier. Your heading should now be 180° opposite of the carrier. Although the manual suggests descending to 600 feet, maintain 1,000 feet altitude—you’re going to need those 400 additional feet very soon. Using the padlock and outside views, monitor the position of the carrier. When it is exactly off your left wing, the ILS HUD should show you approximately eight miles away from the ship.

**Timing the Base Leg**

From here, things are going to get busy. First, notify the LSO of your intention to land by pressing Alt-H, keeping in mind that you may have to press it twice before he responds. If the LSO calls, “deck clear,” you’re all set and can continue. If he orders you to go around, you must extend past the carrier and repeat the upwind, crosswind and downwind legs.

Once you have been cleared, verify your speed is 200-250 knots and lower your gear. If you’ve forgotten to lower your gear or your hook, the LSO will remind you. Still, you have enough other things to worry about the closer you get to the ship, so it’s best to have these simple things out of the way early. Be careful not to exceed 300 knots with the gear lowered, as the gear will be damaged. Your screen should now resemble Figure 1.

You are about to turn left another 90° onto the base leg. Correctly timing the base leg is critical. The base leg is a gentle left-hand turn back toward the carrier. When you complete the base leg, you should be reasonably aligned with the runway and on the final leg. As you can see in Figure 1, the carrier is 1.4 miles away. Although the carrier is visible from 7 miles away, the runway can only be seen from 1.7 miles, and the LSO only guides you under 1.2 miles. To maximize the time available for lineup on the final leg without extending beyond the 1.7 mile visual range of the runway, begin the base leg approximately 1.4 miles from the carrier, as shown in Figure 1.

Bank about 45° left and execute a gentle, 2-G turn. Don’t rush the turn. You want to complete 180° of turn and be aligned with the runway. If you turn too
quickly, you will fly toward the carrier but be improperly aligned. You'll only be about 1.4 miles from the carrier and there won't be enough time to correct a grossly mistrained base leg. Remember, when you begin the turn your speed will decrease. Apply power to keep your speed between 190 and 210 knots.

Watch your altitude closely. To complete the base leg, you'll want about 500 feet of altitude for each mile away from the carrier. Ideally, you should be at 750 feet when 1.5 miles from the carrier. Learning to adjust altitude, airspeed, throttle and turn rate simultaneously is no easy task and requires practice.

Turning on Final: Getting Busy

Now things really start to cook. Immediately hit the "I" key to deactivate the ILS. That's right, shut the ILS off. Why? Because it's not very useful at this point. The ILS bars themselves have no center points marked, so there's no way to really tell if they're centered or not. Second, the velocity vector does not operate properly on the ILS HUD. When ILS is activated, the angle of attack (AOA) indexer should appear beside the velocity vector, but the entire assembly should float around the HUD in ordinary velocity vector fashion. In Hornet, though, the velocity vector ceases to move around the HUD when the AOA indexer appears. The velocity vector is probably the single most important instrument during landings. If you're within 1.7 miles of the ship, you can already see the runway, and the ILS bars are more cluttered than anything else. Deactivate the ILS HUD and rely on your eyes for lineup and the working velocity vector for descent information. As the manual states, the runway is marked 10° from the deck. When you're perfectly lined up, your heading should be 10° left of the carrier's heading.

Why is the velocity vector so important? Because it shows where your aircraft is going, regardless of the nose position. If you're going to wind up. If the velocity vector is showing down properly, you're going to land exactly right. Figure 2 shows what you should see, captured from a replay tape.

On the final leg, always remember: use pitch to control your airspeed and power to control your altitude. If you are too low, don't pull the nose up. In the more realistic flight models, pulling the nose up will cause you to slow down, decreasing lift, causing you to descend even more. If you're too low, apply power. If you're too fast, pull the nose up slightly to bleed speed. This is very important! During the final leg, you must establish your sink rate, or vertical velocity, such that you use up all altitude and touch down exactly over the carrier.

Don't let your sink rate get too high, either. Although you can monitor your vertical speed on the HUD, you control your sink rate by speed and the velocity vector. In short, when you fly slower you sink faster. When you fly faster, you sink slower. If your speed is too high, you'll shoot right past the deck. If your speed is too low, you'll splash short of the deck and swim home. According to the manual, touch-down speed should be around 140 knots. However, in Hornet you'll sink like a simulated rock to the bottom of the simulated sea at 140 knots. Remember also that the engines take time to spool up. If you're sinking too fast, you must apply power quickly. If you wait too long, you'll crash while the engines are revving up to the new power setting.

Maintain a speed of 160 to 170 knots and move the nose until the velocity vector lays over the trap wires. Above all else during the final leg, keep the velocity vector on the trap wires! You should keep the nose roughly level and maintain an angle of attack of around 5°. As you close, listen to the LSO and watch the meatball for vital clues, but pay extremely close attention to the velocity vector. Keep it where you want to land, and you'll land there.

The Final Drill

It takes about 12 seconds from the time that you call the ball at 1.2 miles until touchdown. During that time you must keep the velocity vector on the trap wires,
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Machine Politics In The 21st Century

Understanding The Inner Workings of SimCity 2000, Part One

by Robert L. Hayes, Jr.

If the worst nightmares of 20th Century New York City mayors were recurring visions of the sewer system disintegrating, what will the dreams and nightmares be for mayors in the 21st Century? Obviously, SimCity 2000, Maxis' new version of their classic city building simulator, won't provide all the answers, but it's sure to offer some fascinating possibilities. In order to explore these new possibilities, Maxis has made significant technological advances over SimCity Classic and added a tremendous amount of detail. Naturally, this increased detail has increased the complexity of the simulation and the number of new game options. Combine these factors with a somewhat cursory manual, and many gamers may find that they would settle for the NYC sewer scenario that plagued the dreams of modern mayors rather than contend with this plethora of new details. This article is intended to keep that frustration from occurring.

Who To Listen To

One of the most essential qualities of a SimMayor is a thick skin. You will be continually criticized by the media, and there is no end to the vociferous complaining, begging, and whining of your citizens, who will constantly bombard your office with plaintive pleas for assistance: “We need more police,” or “We need a stadium.” Many new, eager-to-please mayors, working on the not unreasonable assumption that the SimCitizens know what they need, often build the requested facilities at once, then wonder why their cities go into premature bankruptcy. The important thing to remember is that your citizens are a bunch of pathetic whiners too lazy even to submit their own zoning requests, instead requiring you to make all of their decisions for them. Ignore the little beggars at first, and build your city your own way, in your own time. When you have steady cash surpluses each year and can afford the upkeep on the items your citizens want, then consider their requests. The only exceptions are requests for airports, seaports, and connections to other cities—these are very important.

Your advisers, on the other hand, will generally give you good counsel on what your city requires, with the exception of your fire marshal, who chronically wants more fire protection than your city probably needs. Your property tax manager often will tell you to jack up property taxes, but be careful about doing so, as too high a tax rate can actually
reduce revenues by killing development and driving your populace to greener pastures.

The People Mover

No area of city development is as critical as a well-planned transportation network. Without transportation, your citizens will be unable to reach shopping malls and their places of work, telecommuting and home shopping networks not being an option in the SimUniverse. Citizens go about their daily business via one of three ways: private cars (via roads and freeways), city buses (via roads and freeways), and trains (via tracks and subways). All have advantages and disadvantages, but to weigh those considerations it is necessary to first understand the heart of the SimCity 2K transit simulation: the trip generator.

Each and every building or undeveloped zone in SimCity 2K generates “trips” based upon its population. A “trip” represents a hypothetical attempt by a single SimCitizen to find a suitable destination, whether a place of employment or a place to shop. Zoned but undeveloped acres may generate one trip every ten cycles (a cycle is one iteration of the trip-generating subroutine, which operates continuously), while a high-rise apartment complex may generate a trip every cycle. The SimCitizen starts with 100 travel points, which it expends on movement through the transit network of your city. Each square traversed on the map costs a varying number of points (see Table 1); if no destination can be found before these points run out, the trip is considered a failure and no traffic is generated (the SimCitizen stays at home rather than venture out). If the citizen finds a valid destination, then the route is noted and appropriate traffic generated along that route.

A trip begins when a SimCitizen walks to a road or public conveyance located within the same block as the origin point. The SimCitizen can only walk three squares from its point of origin before it gives up, therefore no trips will be generated from any zone more than three squares from some form of transit. Once the SimCitizen hits a road, it follows that road (in a random direction), looking along both sides of the road for a valid destination square. When it comes to an intersection, it takes a random turn. If a dead end is reached, it retraces its steps back along the dead-end road (travel points expended on such wasted travel do count against the trip’s 100-point allotment) and continues. When the SimCitizen encounters a mass transit access point (a bus depot, rail station or subway station) it has a 50% chance of transferring to the new mode of travel and again setting off in a random direction. These mode changes also cost travel points (see Table 1). For trains, the SimCitizen proceeds along train or subway routes from station to station. At each station the SimCitizen has a 50% chance of disembarking (again paying the mode change cost) and continuing on foot or by car. If the SimCitizen does not disembark at a given station, it chooses a new direction along the tracks and proceeds until finding another station. For buses, each time the SimCitizen encounters a bus station it has a 50% chance to disembark and again travel by car.

Examining the travel point costs outlined in Table 1, it becomes clear that each method of transportation has advantages and disadvantages. Cities with no mass transit whatsoever do not impede trip efficiency when there is no traffic; indeed, the mode change costs incurred by mass transit (which your sims will take even when there is no need to) can result in trips being aborted that could have been successfully completed. However, when road traffic becomes heavier, the mass transit systems prove their merit. For example, let us use our sample mini-city in Figure A to observe the way the system works. Assume a trip is generated by a house in the residential area (green block), and that the entire roadway is clear of traffic. The commuter, a drone of the corporate state, wishes for some reason to visit her McJob in the industrial zone (yellow block). She enters the roadway (1 point) and travels to the left (since the road deadends on the right). Traveling one space (1 more point, total of 2), she looks to her left and sees nothing. To her right are more residences. Another space (1 more point, total of 3), again she is frustrated in her search. Traveling three more spaces (3 points, total of 6), she is still frustrated, for to her right is nothing but fast-food restaurants and shoe stores (blue commercial zone). Traveling one more space (1 point, total of 7), she finds her reward at last; to her right is an industrial zone, and she parks her car and enters a day of thankless drudgery. Had traffic been light, her trip would have taken 14 points; heavy traffic would have made the cost 21 points. As you can see from this small example, conditions of minimal traffic can make long automobile trips possible (at least along roads without trouble-making intersections), but heavy traffic will quickly limit the radii of your sim’s perambulations. Had there been a subway station in the heart of the residential and industrial zones of this miniature city, then half the trips from one zone to the other would take the subway, at a cost of only 6 travel points; the main benefit of such a short route would be that it would alleviate much of the traffic generated along the roads, mak-

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<thead>
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<th>TABLE 1</th>
<th>Travel Point Costs</th>
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<tr>
<td>Roadway by car or bus, no traffic</td>
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<td>Highway by car or bus, heavy traffic</td>
<td>3</td>
</tr>
<tr>
<td>On ramp by car or bus</td>
<td>2</td>
</tr>
<tr>
<td>Tunnel square via car</td>
<td>3</td>
</tr>
<tr>
<td>Tunnel square via bus</td>
<td>2</td>
</tr>
<tr>
<td>Bridge square via car</td>
<td>3</td>
</tr>
<tr>
<td>Bridge square via bus</td>
<td>2</td>
</tr>
<tr>
<td>Train track or subway square</td>
<td>1</td>
</tr>
<tr>
<td>Change modes from car to bus</td>
<td>4</td>
</tr>
<tr>
<td>Change modes from bus to car</td>
<td>2</td>
</tr>
<tr>
<td>Change modes from car/bus to rail</td>
<td>4</td>
</tr>
<tr>
<td>Change modes from rail to car/bus</td>
<td>4</td>
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</table>
is a fine art. Bus depots must be placed along a roadway or they will not conduct any passengers at all; within that limitation, any high-traffic area makes a fine place for a bus station. You must be careful not to build too many stations, because huge numbers of stations will result in many aborted trips due to your citizens' propensity for getting on and off the bus whenever they see a station. One station for every 70-100 acres of developed land (two 6x6 blocks) is about right.

Rail and subway stations can be placed anywhere. When placed on a road, they do not attract as many passengers from the interior of their block, but get passengers coming off the street. When placed inside a block, they get a larger proportion of their local business but do nothing for passersby. Either approach is fine; in general, let your track layout dictate where your stations are placed. One additional option is to lay a rail station across a street (see Figure B); this allows passengers from as many as four blocks to use the facility while still allowing for passersby to use it. The disadvantage of this technique is that it blocks the road, causing a dead end (and some possible aborted trips for long-distance drivers). Used sparingly, however, you can get a high proportion of your populace riding the rails in this fashion. For maximum rail coverage, lay your stations and track or subway so that every block has at least one rail access point; the difficulty here is that an excessive number of stations can cause passenger confusion as your citizens enter and exit the rail system many times in one trip, wasting travel points on mode change charges. Experiment to find the right balance for each area of your city.

The Water Works And Electric Co.

There are only two utilities that you must be concerned with as your city develops: water and electricity. Of the two, water is the simplest, as it has only two sources, pumps and desalination plants. Each water pump will generate an amount of water which varies according to the weather and the pump's proximity to fresh water. A pump will generate enough water to service 24 to 36 squares of development (depending on the weather), with an additional 12 squares of service for each water or waterfall square the pump is adjacent to. One handy technique for maximizing the coverage of your pumps is to build a long, thin (one square wide) strip of land through the middle of a long lake. Build a pump on each land square on your isthmus (See Figure C). Each of your pumps will generate enough water for 96 or more squares of developed land, saving you considerable money (though, regrettably, not any space, since the water spaces aren't of much use). If you don't have a natural lake available, then make one. Simply use the Lower Terrain tools to lay water in two long strips with one square of land between them. Creating water terrain costs $100, just as much as pumps, so the terraforming is not costing you any net funds; additionally, you gain the power savings of not having to power all those extra pumps, and the land-value enhancement of all that artificial coastline.

Desalination plants are generally not worth the trouble. It's easy enough to change your land-water configuration that there's no point in bothering with the ocean for water; just create some lakes inland (at $100 a square, admittedly) and save your citizens the pollution.

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useless, except for water-strapped cities with severe cash problems. One tower costs $250, takes four squares, and stores 40,000 gallons of water, whereas four pumps take the same amount of space, cost $400, and produce (rather than simply store) a minimum of 48,000 gallons of water. The $150 savings isn't worth it; go with the pumps every time.

Waste water treatment plants, on the other hand, are a boon to the ecologically conscientious mayor. They are inexpensive and will cut your city's pollution levels by as much as a third, and you only need one. Your citizens hate having them around, however, so make sure yours is far away from population centers (but still connected to the main water grid).

Don't go crazy with pipe laying to establish your water grid. Your citizens will take care of the plumbing within each block, so simply connect the blocks together with one length of pipe. It may take a little longer before water flows through the entire block, but you will save yourself trouble in the long run because pipes can interfere with your subway construction.

Electrical power is more complex, as there are many types of power plant and each has drawbacks. Table 2 summarizes the differences between power plant types. As this Table demonstrates, some forms of power are far more efficient than others. Ironically, the clear winner in the cost-benefit analysis is hydro power, the power source which is available at even the earliest historical periods of the game. While not quite as inexpensive as coal, microwave, or fusion plants, and while not as efficient in terms of megawatts per acre used as microwave and fusion plants, hydro power has the overwhelming advantage of not needing to be replaced every 50 years, and the strong advantage of being added to your city in small, affordable increments as the city grows, rather than as one enormous lump of mostly-unnecessary power. For a mayor wishing to run a more realistic city, then the choice is more difficult. In early historical periods, there really is no choice other than coal plants. Wealthy cities may flirt with oil power for the pollution reduction, but, in my opinion, it is not really worth the 50% price premium. Gas is massively expensive, at the top of the price list per megawatt, and shares with solar power the dubious distinction of being the largest waster of space (a measly 3.125 MW per acre of plant, worse even than wind power). In more modern eras, nuclear power begins to look attractive, but be advised that SimCity 2K nuclear plants suffer a remarkably high accident rate; that, coupled with the plants' high cost per megawatt and high capital cost make nuclear a poor choice. The ecologically-friendly plants of choice, solar and wind, are workable but incredibly wasteful of space. However, if you have room to burn, they make a better choice for the modern era than hordes of smoke-belching coal plants, and wind power, like hydro, does not need to be rebuilt every 50 years. Microwave and fusion power, of course, are the best of the futuristic plants. Since even an enormous city will need only two or three of these monsters, the MW/acre advantage of fusion plants is irrelevant, and you should build whichever plants meet your power needs.

In next month's article, we will deal with city services, the layout of your city, zone development, land value, and general tips and tricks for enhancing your city's performance in every way.

Robert Hayes welcomes questions and comments on CompuServe at 70314,2302.

<table>
<thead>
<tr>
<th>Plant</th>
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<th>Pollution</th>
<th>Accident</th>
<th>S/MW</th>
<th>MW/Acre</th>
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<td>4000</td>
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<td>40000</td>
<td>None</td>
<td>Slight</td>
<td>16</td>
<td>156.25</td>
</tr>
</tbody>
</table>

** NOTES:**
- Hydro power figures reflect the fact that it is generally necessary to construct the hill and waterfall needed to build the plants. The most efficient hydro dam configuration is a one-square hilltop with waterfalls on the eight descending slopes.
- Wind power generation can be less than shown in the table due to unfavorable weather conditions.
- Solar power generation can be anywhere from no power generated (in rain or heavy cloud) up to the figures shown.
- When nuclear plants have accidents, they explode and spread fire and radiation over large areas of the map. When microwave plants experience a mishap, an area around the plant may be incinerated, but no permanent damage is done. If a fusion plant suffers an accident, the plant is destroyed, but no other damage is done.
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The advent of the AdLib sound card in 1988 added a new dimension to the computer game experience. Unfortunately, the advances in sound technology since then have also added a new dimension of confusion. In this first article of a two part series, computer game composer Donald Griffin will wade through the sea of terms—DSP, PCM, MIDI, OPL—to help you better understand your sound card and its future.

by Donald S. Griffin

In a perfect world there would be a dozen sound cards...and they would all be essentially the same. They would all have every synthesis technology in abundance. They would all be compatible with every piece of software. They would all talk to the software in the same way so that software developers could make full use of their sonic potential without headaches. They would be flexible enough so that any new and inventive technique would be easy to implement. They would be similar enough that one piece of music would sound equally good on all of them, yet different enough that each brand could have its own sonic style. And, yes, they would be inexpensive. Are we anywhere near this perfect state of affairs? If you've been keeping up with the developments in sound cards, you're probably enjoying a good belly laugh right now, and I can't blame you. But we are closer than the disheveled pile of sound
cards on my studio floor would suggest. Sound cards do seem to be moving in the general direction of the ideal world of my hardware fantasies.

What’s Old

In the beginning Big Blue said, “Let There Be Noise,” and behold unto us was born the PC speaker: Beep beep beep. Boop hoop hoop. That got old really fast. Then came speaker modulation: Buzz, pop, click. This wasn’t much better. Then came the AdLib Music Card, and the waves parted and we were all led into the sonic promised land.

Well...not exactly. It was a big improvement on the state of the art, but the AdLib’s OPL-2 chip was a very basic implementation of a relatively old technology called Frequency Modulation (FM), which is not ideal for musical instruments and even worse for sound effects. Enter Sound Blaster stage left. The Sound Blaster was essentially the same as the AdLib card, but it added the important ability to record and play back low resolution digital audio. The low resolution part wasn’t so great, but the digital audio was a real godsend. Even low resolution digital audio sound effects were a great improvement over FM, and since the OPL-2 chip was no longer being used for effects, the music could have the OPL-2 chip all to itself. The type of digital audio the Sound Blaster used was called Pulse Code Modulation, or PCM for short. The maximum resolution of the original Sound Blaster’s PCM was 8-bit, 22KHz, and it was only capable of mono, not stereo.

Not long after, MediaVision introduced the ProAudio Spectrum card with two OPL-2s and PCM at the full resolution of a CD: 16-bit, 44KHz and stereo to boot. This touched off a flurry of one-upmanship that would not only lead to some real improvements, but would open up the market to lots of done, each with their own definition of the word “compatibility.” Companies like Roland, with their MT-32 and later SCC-1 Sound Canvas, and Turtle Beach with their E-MU-based Multisound card would attempt to bring much improved quality to the PC, but at the cost of high prices and even more diversity—otherwise known as confusion.

The prices may have dropped significantly, but confusion still reigns. If you can’t figure out what sound card will work best for you, it’s no fault of your own. The hardware and software manufacturers are still confused themselves. There are a lot of brilliant, well-meaning developers out there who can’t agree on what makes a good hardware-software combination. We would like to tell you that everything works with everything else, but it just ain’t so. As a result, developers are forced to make tough decisions as to which cards to support. In the words of technical director Dave Walker at Electronic Arts, “The consumer wants to buy a board supported by all the developers, and the developers want to support a board owned by all the consumers.” It’s a market Catch-22. To solve the problem, more communication is needed between sound card manufacturers and software developers. Things are slowly starting to get better, as we’ll discuss later, but the industry has a ways to go.

What’s New

Today, the latest thing is synthesis based on PCM recordings. There are many approaches, but the PC world has latched onto the term “Wave Table” to cover any type of synthesis that involves digitally recording and playing back samples of instrument sounds. For example recordings might be made of every third note on the piano. By playing back the recording faster or slower you can fill in the notes in between. Bend a note up or down too far and it doesn’t sound like a piano anymore, so real skill is involved in knowing how many recordings you need to cover the whole piano. Too many and you run out of memory for other instruments; too few and your piano doesn’t sound real enough.

The current crop of Wave Table-based cards all sound much better than OPL-2 or even OPL-3 based sound cards, but they have their own problems. Since their sound is based on digital recordings permanently stored in ROM (permanent memory on a chip) they are rarely inflexible. If you want a new instrument sound, you can’t have it. If you don’t like the hardware designer’s choice for a trumpet sound, you have two choices: take it or leave it. This makes the role of the sound designer a very important one since the quality of the instruments determines whether the hardware is allowed to reach its full potential. Important lesson number one: don’t buy a Wave Table card based solely on its technical specifications; listen to the Wave Table portion of the card thoroughly.

The OPL-4 is a new chip from Yamaha which is essentially a Wave Table synthesizer and an OPL-3 and OPL-2 all rolled up into one. This allows it to keep FM compatibility and add Wave Table synthesis while only requiring one chip. This should keep the cost down. Many of the boards I just mentioned have the ability to emulate or imitate an OPL-2 or OPL-3, but the results are inexact. The problem seems to be that they can make the OPL-2 emulation sound better than the original, but in some cases this causes the sound to be very different from the sound intended. This could make a cymbal, for example, sound more like a bell, or a gunshot sound like a buzz. The only solution seems to be a straight forward OPL-2 emulation, which tends to sound a bit raspy compared to the original. This approach is unfortunate, because it’s like asking a race car to drive like a bus; it’s hard to accomplish and is a complete waste of a race car. The reason we are reduced to this is twofold: we have tons of games written for OPL-2, and our race cars are all so different from each other we can’t find a single race they can all run in.

A Solution With Its Own Problems

Along comes General MIDI (Musical Instruments Digital Interface.) A long time ago in a music studio far, far away, some poor sap was trying to connect two synthesizers of different brands so he could play the keyboard of one while triggering the sounds in the other, and it just wasn’t going to happen. A bunch of manufacturers of synthesizers decided that if this was possible they would all benefit since it would allow one musician to play many synthesizers at once, thereby increasing the demand for their products. They formed the MIDI Manufacturers Association (MMA) and it formed the MIDI specification.

MIDI is what led to this business of using computers like word processors for managing musical notes and other musical stuff. As time went on, the keyboard makers began to realize that each synthesizer had different collections of sounds arranged in a different order, and they were using those standard MIDI controller messages in some very non-standard ways. This meant that even though their synthesizers could all communicate with each other, a piece of music written for one of them would not make sense when played on another. Their solution was the General MIDI standard. The MMA reached a consensus on a set of instrument sounds and locations as well as a standard drum set and standard uses of certain MIDI control messages. This was supposed to allow a tune in the form of a MIDI data file composed on one General MIDI (GM) synthesizer to play properly on a GM synthesizer of another brand. The problem with General MIDI is just that—it’s general. GM does not get very specific about things like duration and volume of the instruments it defines. This is good because it allows for individuality and creativity on the part of the manufacturers. It is also bad because GM synths are not enough alike in some cases, resulting in weird music. There are some in the industry who suggest further restricting...
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the GM specification. This makes many composers I know nervous. Who will get to impose their tastes on the rest of us? If we have to further standardize General MIDI (maybe we can call it Not-So-General MIDI) it should be done by an impartial committee under the MMA.

Why Not Roll Your Own?

Fortunately, there may be ways around the standardization problem. Creative Labs will soon be introducing a new sound card based on the new E-MU 8000 chip, a PCM playback synthesizer using a method they are currently calling Advanced WavEffects Synthesis. The new Creative Labs sound card will have one megabyte of sample ROM where permanent GM instrument sounds will be stored. It will also have 512k of sample RAM (expandable to 32 megabytes) which, unlike ROM, can be changed by your software for the occasion. This sample RAM could be used for special custom instruments designed by the composer. To facilitate this, E-MU is toting their new Sound Font technology which combines both the digital instrument recording and instructions for its use into a single file. Using Sound Font, a composer could fill in the sample RAM with his own custom instruments, and thereby make different sound cards appear identical.

Sample RAM could also be used for sound effects, saving that much memory in your PC for better graphics or more complex code. An added bonus is that sound effects in sample RAM can also be manipulated like any instrument sounds. They can be pitched up or down, panned left and right, and bent up like a slide trombone. But modern sound hardware can bring even more life to the party.

A Room For Improvement

Digital recordings for use in synthesizers, often called “samples,” are usually made in special acoustically dead rooms, with the microphone up close so all you hear is the instrument. When played back with no further processing, your music sounds like the band is with you in a closet. *You could* record your samples in large rooms to give them that concert hall sound, but when you shifted the pitch up or down you would also shift the sounds of the echoes off the walls. This can result in a really weird sound and so it limits your instruments to only one environment. Besides, you can always run the sounds through a reverb unit to get that sound like they are in any size room you want. What? You don’t have a reverb unit? Well at least you can thicken the sound a bit with chorus right? No chorus? Looks like we have a problem.

Reverb and chorus are called “effects” by musicians. Professional synthesists usually have effects in separate units which they can mix in as desired. This is why E-MU’s excellent line of Proteus synthesizers have no effects processing. In fact the Proteus line is admired for how “dry” their samples are. But this article is about sound cards which are meant to be everything you need in one place. Effects are often left out of sound cards because they increase the cost. But before you say you can do without reverb and chorus I suggest you listen to the Roland Sound Canvas in comparison to a Wave Table sound card with no effects processing. The difference is dramatic. The good news is that several new cards have connectors which can receive plug in daughter cards to add effects in the future, and both Creative Labs’ new sound card and MediaVision’s new Waveguide sound card (available this year) will have onboard effects processing.

What is Waveguide? Funny you should ask.

Organ Schwarzenegger

My ideal synthesizer has always been one where you say something like “I want a mahogany clarinet 12 feet long” and the synthesizer figures out what that instrument would sound like. It would be even better if I could make up instruments that were not practical
in real life. What would an organ the size of an aircraft carrier sound like? Well guess what? That’s what Waveguide is all about! Waveguide Filter, developed at Stanford and licensed to MediaVision, is one of several approaches generically referred to as “modeling synthesis.” A clarinet model would describe all the important aspects of a clarinet that effect the sound. The modeling equations, called algorithms, are designed with hooks which allow access to some of the values from a MIDI device like a keyboard. Naturally, the quantity and nature of these hooks would be totally different for different kinds of instruments. This means that playing each algorithm or instrument from a MIDI keyboard would be a new learning experience, sort of like learning to play the real instrument, and with Waveguide you can play it badly just like in real life. You can make a trumpet sound sour and you can make a clarinet squeak. Waveguide requires more musicianship from the user, but allows much more flexibility. I’ve heard a short flute solo coming out of a Waveguide that behaved much more like a real flute than any synthesizer I have ever heard. I have spent many years in bands and orchestras as well as trying to recreate them with synthesizers, and I would have been fooled. Each note had entirely different characteristics from the last, just like real sounds. Peter Cook, MediaVision’s master of the Waveguide, says that Waveguide Filter can not only provide effects like reverb to Waveguide instruments, but to PCM sound effects as well!

Another modeling technique involves reconstructing what happens to a sound after it is created. This is often called Resonance Modeling. Rob Faulkner at E-MU Systems says that E-MU’s new Morpheus synthesizer uses this technique. The Morpheus gets its name from the fact that you can morph one resonance into another as the note sounds, similar to the way your voice changes as you walk out of a tunnel.

The sound of an acoustic guitar comes from the vibration of its strings, but the sound is further refined when that sound bounces around inside the guitar body. In a sense, MediaVision is modeling the string and E-MU is modeling the body. At this point I am only speculating that Creative Labs, who owns E-MU, may include E-MU’s Morpheus technology in a future Sound Blaster card, but if MediaVision is successful with their recently announced sound chip involving multiple synthesis technologies including Waveguide, then Creative Labs may feel the need to up the ante.

To Synth, Or Not To Synth?
This may soon be the question. Digital recordings of sound and music may make synthesis unnecessary. According to Michael Land, sound programmer and composer at LucasArts, “It is going all digital sooner than we realize.” Land, along with Dave Walker of Electronic Arts, Doug Cody of MediaVision, and John Miles of Miles Design, sees the adoption of a new VESA audio standard as a chance to bring more and better digital audio to our computers than ever before. Although Land cautions that good sound card design is critical to good digital audio handling, he also points out that a straightforward method of making a digital recording and playing it back through your sound card would guarantee that every sound would come out the way it was intended. The new VESA standard provides faster, easier transmission of audio and video data from your disk drive to your sound card while requiring less from your CPU, leaving it free to calculate and construct to its heart’s content.

So why do we need synthesizers on our sound cards in the first place? The answer is fairly simple: digital audio isn’t quite there yet. The size of a good quality digital audio file can be thousands of times the size of a MIDI file of the same tune and requires much more effort from your CPU which may already be overburdened by your favorite flight sim or driving game. The digital audio handling abilities of most of today’s sound cards are pretty much of the “record it or play it back” variety. New cards with sound processing computers called DSPs (Digital Signal Processors) will eventually allow lots of fancy interactive things to be done with your sounds instantly as they are needed, like changing the sound of the room with adjustable reverb or changing where a sound seems to be coming from in 3D-space using a surround technology like Q-Sound. A flight simulator is not simply a few predetermined movies, so why should sound be treated that way? The possibilities of interactive sound effects and music are staggering, but until recently the lackluster quality of sound cards has not made it worth the trouble to do anything fancy. This year may see a dramatic change. Stay tuned...

Donald S. Griffin is the owner of Computer Music Consulting in San Francisco. He has been a musician for over 20 years and has been involved in MIDI and computer music for 10 years. He has composed music for over 20 games, including Aladdin for the Sega Genesis and Mario’s Time Machine and Rules Of Engagement 2 for the PC. Don will be back next month with a chip-by-chip analysis of 94’s sound card lineup. CGW
Holy Sphin

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Over 500 megabytes of brilliant SGI graphics and an original sound track by Rick Wakeman, formerly of YES, crank up the intensity to levels you’ve never before encountered.

Step into the latest high-tech micro-submersibles and pilot your way to the edge of your imagination. But don’t forget to pack an extra pair of shorts.

Available for Sega CD, PC CD ROM, and 3DO at your local retailer.
It seems that European designers have caught that distinctly American disease—sequeitis—as a rash of "part-twees" have broken out across the continent. Perhaps we should more carefully quarantine U.S. game imports and check for viruses.

Coktel Vision with the imminent release of Inca II: Wiracocha. Most players of Inca I are still trying to work out all its subtleties and hidden symbolism, but Inca II continues its unique and bizarre mixture of science fiction, ancient Incan mythology and arcade action. The graphics passed muster in Inca I, but the plot and, to a lesser degree, the interface left much to be desired. Coktel has apparently addressed this, and Inca II should be a more "commercial" release. The game will be released first as a CD with full digitized speech and an enhanced soundtrack, with a disk release padding rapidly behind.

Another French outfit, Kalisto, has unleashed Fury of the Furries upon the U.K. The shop carefully selected a title for this international product, offering a choice of languages in English, French, German, Italian or Spanish. These Furries are cutey little balls of fluff that have arrived here from another planet. Upon their arrival the expected civic reception didn't materialize, and their King was abducted. Through 90 levels of platform action with lots of bonuses and animations, you control the four remaining Furries in their attempt to recover His Huffiness. It sports an awful plot and totally unoriginal gameplay, but it has good graphics and is quite addictive.

Worth noting of the last three items is that both Infogrames and Coktel Vision show every-

Infogrames has just released the French-language version of Alone in The Dark II (AITD II)—with the English version almost certainly available as you read this. The sequel boasts more animation, a larger gaming world, better NPC artificial intelligence (they now chase you!) and a plot involving bootleggers and gangsters. No longer set in one location, the keenly awaited thriller now includes a garden maze, underground mines, and a wonderfully drawn pirate ship in addition to the trademark creepy house. AITD was a surprise hit for Infogrames and established them on the world stage, but AITD II looks rich enough to meet gamers' expectations for a solid sequel. AITD II will be released in the U.S. by Interplay partner, I-Motion.

More Gaelic news marches in from Coktel
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NEW!

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- Full table tilt
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- RealMotion™
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— PC Entertainment

“Many pinball games have appeared, none are so purely enjoyable as the one from 21st Century.”
— Electronic Games

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For Ordering Information”
will many other soccer fans—a small consolation for those who will not see their team in the forthcoming USA World Cup!

Krusty’s Super Funhouse is a spin-off from the Simpson’s cartoon series, and features as its hero Krusty the Klown. His house has been invaded by packs of rats, and using a patented Pied Piper device he must lure them to their doom. More like a combination of Lemmings and Push Over, this is an above-average arcade/strategy game that is ideal to burn away half an hour or so.

Digital Integration of Tornado fame has released a little stocking filler with a flight simulator called Merlin. A very simple and limited game, it revolves (it’s a helicopter sim you see...) around landing your chopper on the deck of a frigate. Designed for the Royal Navy and subsequently used on a British TV game show, it is being sold in the U.K. for the equivalent of about $10. With three levels of difficulty and percentage scoring, it’s best left for a short diversion or team competition.

On the arcade front there aren’t many bigger titles than Street Fighter. Totally rampant and almost undefeatable on virtually every console and non-PC format, Street Fighter II now enters the PC ring rather late and with a touch of weak wrist. Arcade action games have not been the PC’s strong point (which is no longer understandable considering the quality of graphics, sound support and sheer processor speed of new PCs). Unfortunately US Gold’s in-house production of Street Fighter 2 is unlikely to be a title contender. Despite all the basic ingredients—the competitors, the special moves—and all the hype about playability, the atmosphere and the impact of hefty welts and bone-crunching action is just not here. The usual lament of many PC gamers about arcade conversions is once again true: too late and too little. Mortal Kombat should be a more powerful release, but in the meantime Street Fighter 2 remains merely a “wannabe.”

---

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Carey DeVuono's Hollywood Mogul

by Johnny L. Wilson

Anyone who thinks that great games and great films need blockbuster graphics and THX sound should move on to another review. Anyone who thinks that a fascinating game, like a great film, depends on design or story should read on.

Carey DeVuono's Hollywood Mogul (Mogul) does what no other computer game has ever done before: put you in charge of a Hollywood studio. This seems an untapped source of game ideas, and I'm surprised it hasn't been done before. There have been similar games, like the BASIC program from Softside magazine that I typed into my Apple II. With it I played the role of a Broadway producer by making less than a dozen decisions per show on some simple spreadsheet-type pages. Later, I tried Prime Time, a TV network executive simulation from now defunct First Row Software. Like these ancestors, Mogul doesn't have any special effects, but like the hero in Damn Yankees, it has both heart and soul.

Just to get the negatives out into the open, Carey DeVuono's Hollywood Mogul has a crude visual look, since it was written in Visual Basic, and your primary task involves balancing studio and production spreadsheets with creative concepts, of more expensive and graphically sexy games on my shelves.

Why? I think it is because the game gives me an opportunity to create imaginary movie packages as I think they ought to be created, then sit back and watch the results that I can influence, but not control.

High Concept

The game immediately places you in the most powerful post at a major film studio. At the easiest difficulty level, the studio is worth a billion dollars and has $150,000,000 in the studio's working ac-

Hollywood Mogul

TITLE: Carey DeVuono's Hollywood Mogul
PRICE: $39.99
SYSTEM: IBM
REQUIREMENTS: 286 or better, VGA/EGA graphics, 2MB hard drive space; supports mouse
PROTECTION: Documentation look up
DESIGNER: Carey DeVuono
PUBLISHER: DeVuono DeVuono Games
Los Angeles, CA (800) 350-5550
count with which to start making movies. At the toughest level, the studio's worth is only $200,000,000. Naturally, you start the game by deciding to make a movie. The game allows you to buy an original screenplay (scripts with a generic quality value pre-selected by the designer), purchase rights to a blockbuster novel (with a random quality value), develop a custom idea (a random chance based on the game's concept), or later in the game, develop a sequel based on an earlier success.

If you buy an original screenplay, the game will tell you that other studio executives think the script is okay, good, or very good. Based on that evaluation, you will be ready to move to the budgeting process. If you elect to buy rights to a novel or develop a custom idea, you will have to select a screenwriter and wait for a script to be written. Screenwriters may be excellent in one particular genre or tremendous with any script. After matching the cost and the talent you need with the screenwriters available, you can get a script in two game months.

If you elect to develop your own idea, you get to try some extra activities before hiring a screenwriter. You select a title, write a three-line synopsis of the movie, determine the genre, and decide the casting requirements (number of actors, actresses, and supporting characters). Then, you can select the screenwriter.

No matter which you choose, you will get the consensus opinion of the executives and be able to move from your initial high concept of the film to the budgeting process. The budget, of course, is crucial.

**Let's Do Lunch**

In the budgetary process, you get to determine the shooting locations, total production budget and special effects budget. Then, you can hire a producer (they are listed in the order of their box office success ratio) and director (they have different areas of expertise; see the accompanying chart to avoid excessive right-mouse clicking). Directors, like actors and actresses, are hired by "doing lunch" with their agents and negotiating a deal. You "do lunch" a lot in *Carey DeVarona's Hollywood Mogul*, and the negotiations have a lot of impact on your movie's bottom line. An actor or actress may demand a luxury trailer on the set rather than a personal trailer; expect the studio to foot the bill for a personal make-up artist, trainer or hair-stylist; ask for a charter jet to location sites; or force the studio to pay for a hotel suite for his/her lover. You get the privilege of trying to talk the agent into asking for lower salary, per diem

<table>
<thead>
<tr>
<th>Director</th>
<th>Genre</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Spangus</td>
<td>Comedy</td>
<td>Most successful in genre</td>
</tr>
<tr>
<td>David Holloway</td>
<td>Budget</td>
<td>4 of Top 10 All-Time Money Makers</td>
</tr>
<tr>
<td>Wayne Flannigan</td>
<td>Budget</td>
<td>Cream of the crop</td>
</tr>
<tr>
<td>Wild Bill Caver</td>
<td>Action</td>
<td>King of action/adventure</td>
</tr>
<tr>
<td>Millie Siegel</td>
<td>Comedy</td>
<td>Woman director, comedic genius</td>
</tr>
<tr>
<td>Quentin Kunklswarth</td>
<td>Drama</td>
<td>Award-winning British director</td>
</tr>
<tr>
<td>Arthur Arthure</td>
<td>Action</td>
<td>Two big hits, former actor</td>
</tr>
<tr>
<td>Thomas Moroti</td>
<td>Action</td>
<td>Orson Welles-type wunderkind, hit or miss</td>
</tr>
<tr>
<td>John Barry Hill</td>
<td>Action</td>
<td>Journeyman director, still packs punch</td>
</tr>
<tr>
<td>Hash Jones</td>
<td>Action</td>
<td>Militant NYU film school graduate</td>
</tr>
<tr>
<td>Tommy Boxman</td>
<td>Action</td>
<td>Australian wonder, Great eye for action</td>
</tr>
<tr>
<td>Gwendolyn Hughes</td>
<td>Action</td>
<td>Former assistant director, ready to solo</td>
</tr>
<tr>
<td>Roland Verde</td>
<td>Comedy</td>
<td>Comedy's heir apparent</td>
</tr>
<tr>
<td>Bud Quirk</td>
<td>Action</td>
<td>3rd generation director</td>
</tr>
<tr>
<td>Lori Wheeler</td>
<td>Action</td>
<td>Television commercial director</td>
</tr>
<tr>
<td>Christopher Pell</td>
<td>Action</td>
<td>Wants to do big budget</td>
</tr>
<tr>
<td>Johnny Divolie</td>
<td>Action</td>
<td>B-movie action king</td>
</tr>
<tr>
<td>David Houston</td>
<td>Sci-Fi</td>
<td>Ambitious Sci-Fi director</td>
</tr>
<tr>
<td>Zack Splatt</td>
<td>Horror</td>
<td>King of Horror, Wants to do big budget</td>
</tr>
<tr>
<td>Steven McShane</td>
<td>Action</td>
<td>Former screenwriter, 6 huge action hits</td>
</tr>
<tr>
<td>Rachel Bormstein</td>
<td>Action</td>
<td>Young hot director just out of film school</td>
</tr>
<tr>
<td>Larry March</td>
<td>Action</td>
<td>Former bartender to the stars</td>
</tr>
<tr>
<td>Ernie Shankman</td>
<td>Action</td>
<td>Ear for dialogue, putting audience inside the film</td>
</tr>
<tr>
<td>Monica Li</td>
<td>Action</td>
<td>Former Miss Taiwan</td>
</tr>
<tr>
<td>Squid Keel</td>
<td>Rock</td>
<td>Kid Squid rocks to a different drummer</td>
</tr>
<tr>
<td>Stephen Wadsworth</td>
<td>Horror</td>
<td>Macabre movies/blood and gore</td>
</tr>
<tr>
<td>Andrea Down</td>
<td>Comedy</td>
<td>TV director moving to big screen</td>
</tr>
<tr>
<td>Charles T. Wells</td>
<td>Action</td>
<td>Fast and efficient. Suit buzz: A winner</td>
</tr>
<tr>
<td>Tim &amp; Jim Stone</td>
<td>Action</td>
<td>Twins who do everything together</td>
</tr>
<tr>
<td>Edmar Soriano</td>
<td>Action</td>
<td>Former 7'6&quot; basketball star</td>
</tr>
<tr>
<td>Todd Howe</td>
<td>Action</td>
<td>Former script doctor, strong on dialog</td>
</tr>
<tr>
<td>John Banks</td>
<td>Comedy</td>
<td>Wants to move to other genres</td>
</tr>
<tr>
<td>Chyna Almendine</td>
<td>Horror</td>
<td>Eye for dialogue</td>
</tr>
<tr>
<td>Brick Moore</td>
<td>Sci-Fi</td>
<td>Wants action/adventure</td>
</tr>
<tr>
<td>Christine Plenty</td>
<td>Action</td>
<td>Romantic Comedy</td>
</tr>
</tbody>
</table>

**Memo To The Executive Producer**

(Strategy)

Some very basic strategies have assisted me greatly in bringing my studio into the black. First, I make a conscientious effort to follow the famous Karstenberg memo (a famous Disney internal memo that said, "The story is the key!"). I try not to produce scripts that are "Okay," but try to find the right screenwriter to rewrite them until they are "Very Good" or "Excellent." Sometimes, the most expensive talent will see an "Excellent" script and decide to work for scale ($50,000) plus points. This is worth shooting for. Second, I spend considerable effort matching the creative talents of screenwriters and directors to the appropriate genre. The charts which accompany this article should enable you to do this at a glance. Third, I try to keep costs low. Obviously, the less money at risk, the more likely you are to turn a profit. Finally, the most important advertising in the game is newspaper advertising. Most movie-goers get their information from their local paper, and I have never had a successful box office hit without heavy print advertisement.
or points (percentage of profit potential to be realized from box office net). DeVuono says there are more than 150 different variables in the success or failure of each movie.

After supervising the production through simulated months of development, pre-production, production and post-production, it's time to test screen the movie. You don't get to choose your demographics or the setting for this test, but you do get some instantaneous figures on the potential for each film. This will enable you to decide how many screens will show the film and how much money will be spent on broadcast and print advertising. Then, you determine billing above and below the title for each of the stars and sit back and wait for the world premiere. The premiere shows credits for the film (simple reversed out ASCII characters coming out of a black screen) and segues into a U.S. and world map to display the domestic and worldwide box office grosses. DeVuono deliberately drags out the credits with some random additions in order to keep the "world premiere" showings from becoming commonplace. If you make money for the studio, you end up in the Hall of Fame. If you fail, you are destined for the backlot of movie history.

What Carey DeVuono's Hollywood Mogul does not let you do is to mirror reality by starting with a small, limited release and expanding distribution should the movie catch on. It also doesn't let you tailor a re-release around the award season. There is, of course, a practical reason for this. Mr. DeVuono couldn't get actual industry awards into the program without licensing the names of the awards from the groups that own those awards. However, award sequences may be added to future versions of the game, assuming the original release does reasonably well in the marketplace. Further, it does not let you make up any of your losses in the theaters with video distribution (or selling licenses to toy manufacturers and computer/video game publishers).

**Thumbs Up**

Even with these minor limitations, Carey DeVuono's Hollywood Mogul is a fascinating exercise for the detail-oriented strategy gamer. Gamers who prefer statistics-based strategy games over action-oriented, visually rich games should love the quality design and unique subject matter of Hollywood Mogul. It gets my box office dollars, in spite of the low production values. 

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**Writing Talent**

<table>
<thead>
<tr>
<th>Writer</th>
<th>Genre</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe LaBriz</td>
<td>-</td>
<td>Former child star, best writer in town</td>
</tr>
<tr>
<td>Stephen W. Hull</td>
<td>-</td>
<td>The out of there stories</td>
</tr>
<tr>
<td>Margaret Fosely</td>
<td>Romance</td>
<td>Queen of Romance Comedy</td>
</tr>
<tr>
<td>Binky Eversin</td>
<td>Rock</td>
<td>Sex, Drugs and Rock 'n Roll</td>
</tr>
<tr>
<td>Melvin Dainty</td>
<td>Action</td>
<td>Big action, big violence</td>
</tr>
<tr>
<td>Buck Macklin</td>
<td>Action</td>
<td>King of action/adventure</td>
</tr>
<tr>
<td>James Tiniaqta</td>
<td>Comedy</td>
<td>Architect of quality comedy</td>
</tr>
<tr>
<td>Lisa Wull</td>
<td>Drama</td>
<td>Three hanky, edge of seat drama writer</td>
</tr>
<tr>
<td>Andrew Brace</td>
<td>Sci-Fi</td>
<td>Extremely gifted scripter</td>
</tr>
<tr>
<td>George Montgomery</td>
<td>Action</td>
<td>Action writer</td>
</tr>
<tr>
<td>Bradford Tradewell</td>
<td>Mystery</td>
<td>Great drama and mystery writer</td>
</tr>
<tr>
<td>Powder Renford</td>
<td>Action</td>
<td>Great dialogue, rewrites for big stars</td>
</tr>
<tr>
<td>Howard Gay</td>
<td>Mystery</td>
<td>Terrific mystery writer</td>
</tr>
<tr>
<td>Thomas Dunningham</td>
<td>Comedy</td>
<td>Great comedy writer, book adaptations</td>
</tr>
<tr>
<td>Susan Adams</td>
<td>Drama</td>
<td>Terrific drama writer</td>
</tr>
<tr>
<td>Flip Stevens</td>
<td>-</td>
<td>Hot-shot college kid with flair for crazy antics/break neck pace</td>
</tr>
<tr>
<td>Melody Brook</td>
<td>Drama</td>
<td>Drama and comedy, difficult to work with</td>
</tr>
<tr>
<td>Roger Drake</td>
<td>Action</td>
<td>Action/adventure with funny banter</td>
</tr>
<tr>
<td>Connie Zimmer</td>
<td>-</td>
<td>Rewrite specialist, recommended</td>
</tr>
<tr>
<td>Jake Powr</td>
<td>Comedy</td>
<td>TV writer, strong comedy, action, sci-fi</td>
</tr>
<tr>
<td>Brydal Dawes</td>
<td>Romance</td>
<td>Former super model, romantic comedy--Bet on it</td>
</tr>
<tr>
<td>Terry &amp; Teri Thandle</td>
<td>-</td>
<td>Husband/wife action team</td>
</tr>
<tr>
<td>Paul Martin</td>
<td>Drama</td>
<td>Great script doctor-use for all rewrite needs</td>
</tr>
<tr>
<td>Lora Wadsworth</td>
<td>Drama</td>
<td>Drama, book adaptations--keep away from sci-fi</td>
</tr>
<tr>
<td>Steve Le Mau</td>
<td>Action</td>
<td>English major fresh out of school--action, action, action</td>
</tr>
<tr>
<td>Robert F. Marquee</td>
<td>Action</td>
<td>Best-selling novelist-- prima donna</td>
</tr>
<tr>
<td>Caroline Darolme</td>
<td>Comedy</td>
<td>Great comedy writer, superb on rewrites</td>
</tr>
<tr>
<td>Crazy Joe Spiff</td>
<td>-</td>
<td>The rewrite maniac--maybe</td>
</tr>
<tr>
<td>Andrea Towlel</td>
<td>-</td>
<td>Heir apparent in the book adaptation department</td>
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<tr>
<td>Mark Durk</td>
<td>Comedy</td>
<td>Former mailroom assistant, knack for comedy and action</td>
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<tr>
<td>Martin Howard Shellup</td>
<td>Suspense</td>
<td>Sci-Fi and suspense, rewrites</td>
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<tr>
<td>Marina Rosovodskovik</td>
<td>-</td>
<td>Former Russian poet--hmm?</td>
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<td>Tanya Ooo</td>
<td>-</td>
<td>Former Zack Zimmer mistress</td>
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<tr>
<td>Francis Mark Powell</td>
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<td>Bartender-turned-waiter-turned-actor-turned-writer</td>
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<tr>
<td>Marina Ooo</td>
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<td>Former Zimmer mistress, angry enough to be great</td>
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Strat-O-Matic Basketball Drives Hard To The Hard Drive

by Jim Gindin

Strat-O-Matic, the company best known for their text-intensive and statistically sound baseball simulations, has recently taken to the court with version 1.0 of Strat-O-Matic Basketball. Like the company’s other titles, this game is a coaching simulation that uses icons and a crude representation of a basketball court for graphics. During play, a basketball dances between player names on the court; and when the human coach needs to make a decision, a nest of icons appears in the corner of the screen. Decisions are required for shot selection, some pass selection, and offensive and defensive alignment.

In sports games of this sort, three aspects stand out as being necessary for success. The game must, of course, provide statistical realism, but it must also have enough flexibility to give the player a true feeling of coaching and an interface that captures the flow of the game.

Of these goals, statistical realism is perhaps the easiest. If you provide the correct percentages, random number generation tends to allow statistical accuracy over the course of an entire season. SOM Basketball does fairly well in this category. In simulations of the 1992-93 NBA season, the same players routinely led the league in scoring. Chicago’s superhero Michael Jordan always led the league, with Dominique Wilkins of Atlanta and Houston center Hakeem Olajuwon trading the second and third positions. Of the top 10 scorers in the NBA, only Olajuwon was consistently a couple of points better than in real life.

SOM Basketball garnered similar results in most major statistical categories, except in field goal percentage. There, the great performances seemed almost random. Pervis Ellison of Washington led the league at .577 in one replay, but dropped to .536 the next season, while Charlotte’s Johnny Newman rallied from .565 to a league-leading .597. Three-point shooting provided even more variation. In every season simulation, one player shattered the NBA record for shooting percentage. Team shooting percentages remained constant with NBA results, both on offense and defense. When Newman improved, teammate Larry Johnson faltered. SOM Basketball operates under a situational system, with shooting percentages calculated individually for every play.

If you are playing full seasons, you don’t necessarily want players to duplicate performance after game. The best attitude to bring into season replays is that the real-life statistics are just one manifestation of bringing 300-plus athletes into an NBA schedule. When I coach Houston, I might experiment with my game plan to see what combinations of players and strategies will improve the team’s winning percentage. The strategy that yields a few more wins might be one that limits Olajuwon’s point total a little. It might also require stretching Olajuwon’s talents to get his point total past 30 per game.

This is why flexibility is so crucial in good game design. Altering a game plan must produce differing results. Many games achieve statistical accuracy by using players’ exact shooting percentages and assigning them a certain number of allowed shots per game. Once those shots are taken, the player is “exhausted” and will completely lose his effectiveness. In SOM Basketball, because shooting percentage is not the sole mechanism for achieving scoring accuracy, more options are available when coaching. Fatigue is a much more complex system as well, with several factors leading to the gradual loss of a player’s effectiveness.

Despite Strat-O-Matic’s flexibility, the design still commits some flagrant faults. For instance, strange things happened during the first game of a crucial playoff series between Houston and Chicago. Apparently, the game’s algorithms decided Chicago wasn’t going to play defense, and Houston racked up 20-for-26 shooting from three-point range. Even though Kenny Smith was 9-for-
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10 all on his own, the Chicago defenders never guarded him closely. Olajuwon wasn’t silent, either, hitting 20-for-38 from the field, grabbing 14 rebounds and blocking nine shots in a 45-point performance. He was only double-teamed when teammate Robert Horry played the small forward position.

In this case, the game outsmarted itself. It gives the human player more tools than it affords the computer coach. No NBA team has ever hit 20-for-26 from three-point range, nor because NBA players aren’t capable of shooting that well, but because a coach will play closer defense against perimeter shooters if a team is making three-pointers early in a contest. The trade-off of closer perimeter defense is that a coach can’t then double-team a player like Olajuwon as effectively. But SOM Basketball’s computer coach neither stopped Olajuwon nor the three-pointer, and the result was a 27-point Houston rout.

In the other games of the series, the three-pointer was not falling (26-for-69 in five games), and the offense relied much more on Olajuwon. The defense still didn’t double-team, and Hakeem averaged 39 points in the series. Because of this, Houston won four-of-six games against the NBA Champion Bulls.

The flexible design allows more positive results, however. Chicago played one game without Jordan entirely, but still won as Scottie Pippen scored 21 with 10 rebounds and eight Chicago players scored eight or more points. A less flexible game would never allow an entire team to compensate in that manner.

In another game, Horry scored all 13 of his points in the fourth quarter to rally Houston to a come-from-behind victory. Again, less flexible games don’t have room in their algorithms to allow for streaky play. This greatly increases the “feel” a coach has for being in a real basketball game. Is the three-pointer going to work today? Does Jordan have his shooting touch? Who do I go to in the fourth quarter?

**A Full Key Press**

SOM Basketball also provides a feel for coaching through its innovative interface. During game play, most of the screen depicts a half-court offense with labels for each player. After a few passes, the coach is given options to shoot based on the situation. Inside shots give the option to make a “power move” toward the basket. Sometimes the player must choose between an outside shot, penetrating towards the basket, or pulling up for a three-pointer. The bottom of the screen shows a graph representing the probability of success with each of the available shots.

Sometimes the choice is obvious. Sometimes it isn’t.

On occasion, the player with the ball has the option of passing to a teammate, and this is where coaches can concentrate on exploiting weaknesses in the computer defense. With Houston, the temptation is to feed the ball to Olajuwon at every opportunity, but Olajuwon does have his off games, in one case only making 12-of-34 shots. Concentrating on another player on offense might have turned a 14-point loss into victory.

During breaks in play, coaches can change defensive assignments. Coaches may use half-court or fast-break offenses, and half-court or pressing defenses. On offense, you must specify two players to remain mostly in the key area. On defense, one player is assigned to the key as an intimidator. Defenders for the three offensive players in the perimeter may individually choose to play close, normal or sag defense. Any player can “play it safe” on defense when in foul trouble, allowing baskers when they would usually contend a shot. All these options lead to enormous variety during play.

Unfortunately, the computer AI will not take advantage of many of these options, especially on defense. The AI generates a game plan at the start of a game and does not deviate, even if it means calling a time out while Jordan has the ball on a fast break in order to make a substitution.

According to Strat-O-Matic’s designers, team defense is much more important than individual defense. Thus, there are usually very few differences between defenders’ individual ratings at the same position. For example, Phoenix’s Charles Barkley scored 28.9 points per game in a season’s worth of games against Charlotte, whose Larry Johnson is not considered a good defender. But he scored 28.1 points against Cleveland, facing an excellent defender in Larry Nance. Scoring is not affected by individual defensive abilities, although they do influence shot selection; Barkley attempted 242 outside shots against Nance, but only 115 against Johnson.

**A League Of Your Own**

The game comes with an automatic league play option that allows you to import individual games played on another computer, making multi-player leagues a possibility. Each team has a small set of profiles which set rough estimates for player assignments at each position. Before each league game, the computer uses these profiles to generate a game plan. On a 486-33MHz, SOM Basketball can recreate one game in about three seconds and a full NBA season in about 50 minutes. It keeps a full set of statistics for each player and team, and can quickly generate leader boards for both raw stats and per-48-minutes-of-play stats.

The league option will also create a schedule for your new league, but the program has trouble with divisions having different numbers of teams. The program cannot create a playoff schedule, so you must figure out the playoff teams and manually add the games to the schedule. Injuries are possible in Strat-O-Matic but last only a couple of games. They are not recommended for league simulation, since the computer can not generate a game plan without players eligible at each position.

The game’s copy protection is another sore point, though it is better than previous Strat-O-Matic releases. The original scheme allowed only one installation from the master disk. The copy protection also failed when users upgraded to DOS 6.0, an event which upset many customers. In response, SOM Basketball uses key disk copy protection, so you must pull out the original disks every time you play.

Overall, Strat-O-Matic Basketball has made a solid entry into the computer basketball simulation market. Play is entertaining and provides a type of realism which effectively simulates the decisions made by NBA coaches. The game provides a strong level of statistical realism as well. If the computer AI was better at adjusting to game situations, especially defensively, I would unreservedly label this product a “must-have” for any sports simulation buff. As it stands, playing against the computer is a little like going one-on-one with a one-armed man: he might be a challenge on half of the court, but you always have a weakness you can exploit. 

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BY GAMERS FOR GAMERS

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STAR TREK
25TH ANNIVERSARY
While the NFL season will be over by the time you read this, the playoffs for the best computer football game will still be on. Accolade's latest entry into the goal-line pileup is Unnecessary Roughness, a game that loudly boasts of rotoscoped 3-D SVGA graphics and unlimited camera angles. For crazed football fans who could care less about the hype, the obvious question is whether Unnecessary Roughness is tough enough to play with Dynamix's Front Page Sports: Football Pro and MicroProse's Coaches Club Football.

A Rough First Quarter

From the beginning, Unnecessary Roughness' stability was in question. The product installed easily, but getting it to run was tricky. Sound effects and music played properly, but the voice of Al Michaels lacked the smoothness it enjoyed in Accolade's own Hardball 3. On-line help suggested Pro Audio Spectrum 16 users switch to Sound Blaster mode, which helped, but Michaels' dullest tones were still marred by scratches and pops.

Once running, Unnecessary Roughness opens with an interesting introductory sequence (which has nothing to do with football, or roughness, for that matter!) and then reveals its main menu. The menu of game options is similar to other football games, including exhibition games as well as season-long replays. The mandatory playbook is included, offering you the option of creating new plays, and an editing function allows you to input statistics for teams and individual players or create teams from scratch. With the exception of a few new conventions, the interface is easy to navigate. The play options screen, for example, lists categories such as graphics level, passing mode, playcoach mode and sound levels. Each item is easily accessed, and the flexible interface supports keyboard, keypad, joystick and mouse. After familiarizing yourself with the pre-game formalities, you will find that like its primary competitors, Unnecessary Roughness attempts to appeal to a variety of users by offering both coaching and arcade modes. After selecting which mode to use, the screen switches to a zoom-in of the inevitable coin toss.

Up to this point the graphics are standard fare, but the actual game graphics are much more impressive, assuming that you run it on a fast enough machine (at least a 486-25MHz). The high resolution visuals are very nicely detailed, but the graphics at the lower detail levels are so reduced, it's like playing a different game. In high-res, uniforms are embellished with stripes on pants and jerseys, a dash of color spices up the helmet logos for each team and, best of all, the uniforms sport player numbers that can actually be seen during play. In other football simulations, the numbers must be called up as an option, floating above the player, rather than being readable on the jersey itself. Unnecessary Roughness' numbers, while not always visible from certain angles, stay on the jersey and don't obstruct the view of the field. The uniform editor allows modification of all the colors and even includes an icon painter to create a logo, though the logo doesn't appear on the uniforms. The gridiron itself has clearly defined hash marks, sidelines and end zones.

Another of Unnecessary Roughness' strong points is the Accolade Infinity Cam. It offers excellent views of the action, similar to those found in CC Football. During gameplay, the camera can easily be zoomed in and out, or rotated around the field, and the program pauses when you shift views so that play is not interrupted. The Infinity Cam is a neat feature that makes this game much more enjoyable than most, especially on an IBM or compatible system.

Unnecessary Roughness

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<td>PRICE</td>
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<tr>
<td>SYSTEM</td>
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<td>REQUIREMENTS</td>
<td>386-33MHz or better, 4MB RAM, 4MB hard disk space, SVGA/GA graphics, supports all major sound cards.</td>
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<td>Documentation look up Accolade, Inc.</td>
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by Bernard Dy
ture, especially when you can pan to a receiver while the ball floats in mid-air! The replay feature of *Unnecessary Roughness* also uses the Infinity Cam and allows the focus to be shifted to the player of your choice.

As nice as the graphics are, they are unfortunately spoiled by sparse animation. Compared to *Football Pro*, *Unnecessary Roughness* appears to have much fewer animation frames per second. Player movements are choppy, and tackles are a two-step process—one moment the running back is hitting the hole, and the next he’s on the ground. Upon further review of the instant replay, the defensive player looks like he falls in front of the back, then the back goes down. This is hardly as realistic as *Football Pro*, where the backs sometimes straight-arm, lean forward, or spin as the defensive players drag them down. The linemen are a laughable example of the lack of detail, crouching motionless until someone nears them. They actually do a decent job of picking up the blitz, but are nowhere near as impressive looking as in *Football Pro* or even *CC Football* when forming a protective pocket for the quarterback.

**Are You Ready For Some Action?**

Despite the animation problems, *Unnecessary Roughness* matches up fairly well with its competitors from an arcade standpoint. When using the joystick, the players aren’t constrained by some mathematical equation which limits movement based on weight or momentum, as they are in *Football Pro*. *Football Pro*, as a result, is a much more realistic coaching game than *Unnecessary Roughness*, but as many have discovered, it is difficult to play in action mode. The quick joystick response makes things possible in *Unnecessary Roughness* that are almost absent in *Football Pro* or Coaches Club, such as reversing direction quickly, throwing on the run, or following lead blocks through heavy traffic.

*Unnecessary Roughness* arcade passing modes are numerous, offering a level of competitive play for each type of gamer. In the basic mode, action freezes while the quarterback checks each receiver, with the computer controlling the receiver until the pass is either caught or incomplete. Intermediate passing is more complicated, as you gain control of the selected receiver as soon as the pass is thrown, and it is up to you to get him to the reception point. Advanced passing opens up three passing windows where you can see the receivers running their routes, with real-time action bringing the added pressure of the pass rush.

Pro mode is much like Advanced, but also includes the receiver control elements after the pass is thrown; it is by far the most difficult to master.

One major problem with *Unnecessary Roughness* is that it does not seem to matter what the speed ratings are for players. Defensively, all the players can run faster than the offensive players, which despite Lawrence Taylor’s remarkable attributes, simply isn’t the case in reality. In *Unnecessary Roughness* you will see defensive backs catch receivers like John Taylor from behind, even with a 15-yard lead! The value of an NFLPA license resembles football, even from an arcade standpoint.

In coaching mode, the play editor is easy to use and allows for a myriad of possibilities, without any programming. After basic formations are loaded, each player can be individually accessed. A series of pop-up menus allow assignment of routes, run speeds, delay instructions and blocking direction. After all assignments have been set for selected players, a defense can be loaded and the plays can be practiced. During a game, plays are selected from the playbook built by the coach. Though each page is limited to displaying six plays, each team can have up to ten play books, which should be enough for most aspiring coaches.

**There’s A Flag On The Play**

The AI is going to be a disappointment for those familiar with the competition. *Unnecessary Roughness* seems to choose plays based solely on down situation, completely ignoring opponent tendencies. I created a custom play where Flipper Anderson would fake an inside cut before breaking back to the sideline, finishing out the pattern as a fly route. Despite my repeating it on multiple down, the computer stopped it only intermittently, allowing me to pile up an unrealistic share of 60-yard gains. Big plays are fine once in a while, but sometimes *Unnecessary Roughness* gets ridiculous. If a QB can evade the rush for more than four seconds, the entire defense suddenly abandons coverage and starts running after him, allowing him to toss a long ball to an uninsured receiver. Although a pending patch will hopefully address the issue, it is unbelievable that such an obvious error was allowed to appear in a supposedly finished product.

The program supports printouts and trades at the individual team level, but it doesn’t match the competition’s features for league trading and multiple season play. Ultimately, then, I have to flag Accolade for an illegal procedure. Even judged solely on its own merits, ignoring the competition, *Unnecessary Roughness* obviously lacks testing. For whatever reason, Accolade did not collaborate this time around with MindsSpan Technologies, the creative talents behind two prior PC hits, *Hardball 3* and *Joe Montana Football*. The result is a game which fails to score on either the arcade or the football simulation fields. *Unnecessary Roughness* could have been a contender, if it had only spent a few more months in training camp. ❛❜
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Letters from Paradise

Thin Dolphin
Although Twin Dolphin Software did go out of business in December of last year, there are a few important points in your article [READ.ME, February '94] that I'd like to clarify since they relate directly to myself and a number of people that I work with.

In particular I'm concerned about the impression given that the sales performance of the Windows games might somehow have been responsible for the failure of the company. In October of last year, almost half the production staff of Twin Dolphin (including myself) were laid off. After the completion of Smoking Guns, all remaining work was to be directed toward Forgotten Castle, which killed all Windows game development at the company. It is important to note that up until the layoffs, all the Windows games were on schedule, and in fact Naustank had been completed, but was unable to ship on its original date due to management not having contracted the cardboard boxes in time. Even when the games were shipped, only 5,000 copies of each were produced, hardly enough for the company to use as a revenue base, especially since they reached the shelves less than a month before the company's demise. This lack of intent is also made clear in a business plan released to the employees around the same time as the games went out to the retailers. If any other proof of Twin Dolphin's lack of support for its Windows products is needed, simply note that there was no advertising budget for these products, games which were already produced! At the same time, they were contracting full page ads for Forgotten Castle, which was and continues to be vaporware.

These two games were the only products that ever reached the shelves, each created in four months by a small team of dedicated professionals. Since the layoffs, myself and four other members of the Windows development team have started JACKT Design. This small company is committed to producing the kind of quality Windows entertainment product that Twin Dolphin seemed incapable of recognizing and exploiting in the marketplace.

Andrew Mayer
JACKT Design
San Francisco, CA

Thanks for the additional information. The CGW article merely stated that the Windows products were unable to keep the company afloat. We appreciate your insight as to why it was neither possible for the Windows products to sustain the company nor actually to be expected by the business plan.

Where's The Bucks?
Start pushing the game producers to explain why a read-only, uncopyable format such as CD-ROM costs $10-$20 more than regular floppy games, since they claim that the costs are so high mainly due to pirating?

Brian Eshelman
Bremerton, WA

What a shame! If it had modem support, I would have to vote it best game of the year! Sob, I wish I had access to a PC network.

Unsigned
Orlando, FL

Id's technical geniuses are trying to exercise the demons from the modem routine and expect to have modem play fully implemented in the version 1.2 update.

New Riftwar In Kronodor?
Is a sequel planned for Betrayal at Krondor?
Dana Harmel
Izmir, Turkey

As it presently stands, Dynamix has no intentions of doing a sequel to Betrayal at Krondor, although the company has the option to do a sequel should they begin work prior to 1995. A significant amount of design work had already been completed on the sequel, but Dynamix elected to terminate both the project and the project's guiding force on the computer side, John Cutter. Cutter and his game design talents are currently looking for home.

The 5th Wave
By Rich Tennant

"I'm afraid I don't understand all the reports of our upgrade having a delayed release date. Unless... wait a minute - how many people here DIDN'T KNOW I was speaking in dog months?"
Terror has been unleashed!

And now...the violence that plagues a distant research colony threatens the planet Earth.

As British military agent Blake Stone you're thrust into deadly combat against the malevolence of a mad scientist and the insidious mutant army under his command. Dr. Goldstern, driven by his insanity and bent on the annihilation of mankind, won't rest until he rules the known universe.

The forces of heroic good and villainous evil collide in this life-or-death struggle to control Earth's future.

Sign up to fight as Agent Blake Stone. The fate of humanity is in your hands!

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For the cost of shipping and handling, only $5.00, you'll receive Episode One, The Star Institute. Or download Episode One and pay no shipping and handling. Call the Software Creations BBS and check out the FREE Apogee file section. The BBS phone lines are:

- (508) 365-2359: 2400 BAUD
- (508) 368-7036: 9600-14.4K
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Episodes two through six are sold separately and can be purchased by calling Apogee's toll-free number, shown above.

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Blake Stone: Aliens of Gold requires an IBM or 100% compatible computer with 640K RAM, a VGA graphics card, and a hard disk drive. Extended memory (XMS), expanded memory (EMS), joystick, mouse, Adlib, Sound Blaster or compatible cards are optional. Trademarks belong to their respective owners.

Circle Reader Service #37
There are two good reasons why CD-ROM products have cost more than floppy products. First, they usually require more art, story and game to fill up the CD. This raises the production budget. Second, there has been a smaller installed base (total number of CD-ROM equipped gamers) for CD-ROM products than there has been for floppy products. So, publishers had to make more money off each individual unit.

That trend seems to be changing. The good news is that companies like SSI and New World Computing are selling games on CD for significantly less than the floppy versions. Take, for instance, the World of Xeen game by New World Computing, a compilation of Clouds of Xeen and Darkside of Xeen. While each game is sold individually for over $45.00, I have seen the CD title, World of Xeen, sold in computer stores for under $38.00. As I mentioned before, things might be different in Australia, as opposed to here in the continental U.S.

The purpose of this letter is not to say that we should overlook software produced primarily for floppy disks. I have played (and re-played) countless games off my hard drive such as Quest for Glory: So You Want to be a Hero?, SimCity, and the original Might & Magic during my 14 years of life and I still enjoy them, even in the shadows of the many “speech-endowed” (etc., etc.) CD games we have today.

Jamie M. Spencer
Herndon, VA

The Merits Of Marketing

Just an observation...

It’s one thing to go to a new car dealership and find a slick salesman willing to croon like Harry Connick Jr. over a below-average sedan whose base sticker price is inexplicably two thousand dollars more expensive than last year’s model largely because its new “Duro-Splatter 2010” patented paint finish is now guaranteed to resist the nuclear heat generated from a 20 megaton explosion at a distance of half a mile. You have to almost expect the hard pitch.

However, computer gamers should not be subjected to the same insidious sales and marketing screen shots (providing you own either video card A or video card B), live action animation stills that make it look like you’re in complete control of the greatest thing since Voxel Space (when it would actually require a Cray to handle the graphics), support for 30 sound boards (except for SoundBlaster, as you later woefully observe in the README.DOC), and seemingly endless drivels like “Fake Your Own Funeral and Get Ready for the Most Incredible Role-Playing Game Ever to Hit the PC!!!” (when in reality, the discs in the box house a flight simulator, and a rather poor one at that). Even worse are the air-filled, ultra high-gloss, tetra hexagonal-shaped boxes they’re coming out with these days (Greenpeace’s worst nightmare), designed to prolong software outlet shelf life at the expense of a bona fide marketing scheme.

So, two thumbs up to Martin E. Cirulis in his February review of Command Adventures: Starship for letting the Big Kahunas at Merit Software know that the public is not as benumbed as they obviously think. There’s absolutely no excuse whatsoever for “...spicing[ing] control panels along the bottom of the animation screen shots to give the impression that you actually play against that kind of graphic splendor [p. 112].” And, in all fairness, don’t even begin to think that Merit Software is the only publisher guilty of such practices (How about that box for the original Wing Commander?).
Join your kids on an adventure they'll never forget!

Take them to Tuneland*, a magical place of fun, music and laughter!

Tuneland stars Howie Mandel as Lil' Howie, a loveable, animated playmate, in the first fully-animated interactive cartoon. Join your child and Lil' Howie for hour after hour of playing, singing and learning that computers can be fun. Ooh! By the way, Mom and Dad, when you play with Tuneland by yourself, Lil' Howie promises not to tell!

See your nearest software dealer today!

Circle Reader Service #31

7th LEVEL

Available at: Best Buy • COMP USA • Computer City • Egghead Software • Software Etc.
Remember those "Crazy Glue" UHF-only television ads back in the late '70s and early '80s when the fearless construction worker would place a drop of super adhesive on top of his special helmet and suspend himself from the bottom of a girdle a few seconds later to the amazement of thousands of Star Trek fans (only to fall and be hospitalized for the next six months after the director yelled "Cut!"). Let's hope today's computer entertainment marketing gurus don't have the words "adhesives manufacturer" printed anywhere on their resumes.

Jim Corbin
Lowell, MA

Pardon the short answer, but we seem to have super-glued our fingers to an old Wing Commander box.

Ass-inine Answer

Will Electronic Arts ever make M.U.L.E. for IBM compatible machines?

Emory Gerhart
Bad Aibling, GERMANY

No. Electronic Arts was working on a videogame version of the game, but the design was terminated because of creative differences between the publisher and the designer. Many of us would love to see a version of M.U.L.E. for an up-to-date machine, but it looks like we'll have to wait.

Committed To An Institution

Sid Meier says that a multiplayer version of Sid Meier's Civilization isn't cost feasible because the base of modem and E-mail users isn't large enough. What happened to that pioneering spirit that inhabits all those Civ settler units, Sid? A "hacked" version has been out on the Internet, and the crazed mob puts up with its clumsiness until Sid sees the gold, I guess. Sid Meier's Civilization is a classic game; by allowing users to play vs. each other (instead of only vs. the "cheating" computer), it could well become an institution!

Glen Cox
Ft. Collins, CO

And here we thought Sid Meier's Civilization already was an institution. There is always talk of a multi-player version of Civ, but we are still waiting to hear whether or not such a project has been green-lighted. We know there is interest within the halls of MicroProse, but we don't know whether there is commitment or not.

Give Peace A Chance

It is enjoyable that Master of Orion has made efforts to make diplomacy and peace profitable. Maybe having people learn alternate solutions to war, even at the computer game level, will move the human species forward.

Albert Rosenfield
Denver, CO

Philosophically, we believe that games have a multi-faceted impact. Sometimes, it is cathartic to be able to do what you would never do in real life. At other times, it is interesting to explore options that you could have in real life. Sometimes, you learn what isn't good to do and sometimes you learn what is efficacious. We feel that when more options and paths to success are included in a game, it allows gamers the freedom to explore many different possibilities and enhances the value of the gaming experience. This month's editorial explores this subject further.

The Last Word

We thought we'd let a reader have the last word for a change.

I have recently started reading CGW and find it a very informative resource. It has helped me in many instances lately to make informed decisions about which games to purchase. I also appreciate the way it covers many different types of computer-related gaming subjects, both hardware and software.

Ron Dunning
Milton, FL
Ten years in the making, but available for a very limited time. The Classic Collection contains ten extraordinary DOS games from the ten most exciting and influential years in computer game development from Interplay. And they’re all together—on one CD-ROM. These are the games that not only won your respect, but the attention and accolades of computer game critics all over the world. The games that made history. The games no gamer should be without.
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An ancient betrayal must be unveiled. Secret books concealed on the island of Myst lead the way to worlds born of a master storyteller's imagination. Yet one by one, they're being destroyed through the treachery of his sons. But which one?
Lost is an adventure (imagine it must be like)

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- Original soundtrack
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Myst
The Surrealistic Adventure That Will Become Your World

MacUser Editors' Choice Award
1993

Circle Reader Service #115
THE PRINCE OF Bribes

Renaissance Entrepreneurship in QQP’s Merchant Prince

by Tim Carter

"...for a man who strives after goodness in all his acts is sure to come to ruin, since there are so many men who are not good."
— Machiavelli, The Prince

So did Machiavelli rationalize the need for immoral actions in order to succeed in politics. As one might expect of a strategy game based in The Prince’s era, QQP’s Merchant Prince is rife with opportunities to cheat, murder, and otherwise undermine one’s opponents. Of course, skullduggery is only a subset of the successful Renaissance businessman’s tasks. As the leader of a trading faction in Venice, the player must develop trade routes by land and sea to reach 44 cities with 18 different commodities.

Competition is offered by three other trading factions, each of which can be controlled either by a human or the computer. As winning and losing are judged through one’s popularity, the key to victory is generally politics, rather than wealth; money alone will win neither people’s hearts nor their respect. Of course, it is here, in the realm of politics, that the worst in players will come forth; backstabbing, blackmail, underhanded trickery and other delights of intrigue will be the player’s constant companion...and threat.

Terra Incognita

Technically speaking, Merchant Prince is a well constructed program. The graphics, while not particularly dazzling, are effective and easy on the eyes—a real plus during those late night campaigns. Like many empire-building games, the world is only revealed through exploration. Unlike most games, the terra incognita is not represented by blank regions of game screen, but by an overlaid renaissance-style map of dubious accuracy—becoming more prone to error the farther one is from Venice. This is an extremely original touch that not only makes the map more attractive than would an empty screen, but strongly evokes the flavor of the period.

The interface for Merchant Prince is natural and easy to learn. All of the commands can be given by mouse, and it is relatively easy to reference information on cities and commodity prices. This makes trading a simple business once enough money is generated to build the necessary roads, fleets and caravans. The manual is useful and plainly written, although it lacks a section on tips or strategy. Each of the designers gives a few suggestions, but an extensive discussion is conspicuously absent.

The mechanics of trade are straightforward once the world has been extensively explored. The base price for each commodity is fixed in each city for the entire game, though special events, such as plagues, sieges or excommunication can temporarily alter the price of goods in a particular city.

Only a few commodities are available in each city, and then only in limited numbers. However, once a profitable trade route has been established, the units involved can be programmed to follow a set route, buying and selling pre-determined amounts of goods in each destination city. This keeps the player’s maintenance time to a minimum, as “milk runs” can be established and then largely left alone.

Trade is not an entirely safe endeavor, as bandits on land and pirates on the seas can capture valuable cargoes and destroy trading units. Storms in deserts and on the oceans can also wipe out traders, although natural calamities tend to be easier to avoid than their man-made counterparts. Protection through hired guards uses precious funds and cargo space—commodities in limited supply early in the game—but if pirates or bandits are allowed to succeed in a given area, their strength will increase enough to require offensive military action.

The cost and availability of commodities does vary from game to game, even if the historical map is in use. Some cities will be well supplied with a particular commodity in some games and not in others. This lends the trading process a degree of uncertainty and forces players to adapt to the particular conditions of each game. If the historical map becomes dull, alternative world maps can be generated by the computer and saved for re-use. These random maps usually present the biggest challenge to players, as a newly-generated world is rarely as conducive to profitable trade as the historical model.

Once a few trade routes are up and producing a steady supply of cash, it is time to enter the political arena. Make no mistake about it,
My son and I love this game!!!

Great work!!

Robert Strauw, Barbeak

---

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

This is, without question, the most impressive game I have ever seen. I am amazed at the audio, visual and action. George L. Tomy, Arlington Heights

Outstanding program!! John Bernauer, Los Gatos

Wow! That's all I can say about Oxyd. What an incredible game! Hurry! I can't wait to play!!

This game is highly addictive. Stuart Ritchie, Canada

One of the nicest games I have seen in a long time.

Thanks for creating such a challenging piece of software.

Steve Breunten, Canada

I'm completely hooked! Patricia B. Smith, NH

The game is a blast! Excellent graphics, extremely well done. Interesting challenges in each landscape also. I look forward to the next 90 landscapes. David Mangini, CT

The game is really slick, well designed. Those first 10 levels alone were worth paying for!

One of the most elegant games I've played. Thanks a lot for a great game. Jeffrey Jandohl, San Diego

OK so we got hooked!

---

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

My whole family enjoyed your game a great deal.

Michael C. Moore, Columbia

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

Even our 3yr old enjoys the game.

I just had to write to tell you how much fun I've had playing Oxyd. The attention to detail - the sounds, the textures of the surfaces - really adds to the fun of the game. It invites the imagination for a ride.

Thanks also for making all of the landscapes challenging but not impossible. At first I thought that landscape 76 was unfairly difficult, but when I found the way through it, I really admired the ingenuity. Tom Phoenix, Portland

It is rare to find such a visually appealing, addictive and playable game.

Kathryn Wilson, Australia

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

---

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Game of the Year
Computer & Video game 06/93
"A" rating - Wow! Exquisite.
A must for your games library.

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100 new landscapes.
New objects: new game.
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Oxyd magnum! is an entirely new and exciting challenge for Oxyd experts and beginners alike.

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Send $5.00 for shipping & handling for 10 challenging landscapes of Oxyd to Dongeware, 35 Howard Street, Cambridge, MA 02139.
Send $5.00 for a 5 level teaser of Oxyd magnum! (PC or Mac only)
politics is dangerous and terribly expensive, but the payoffs are potentially huge. As one might expect of a game that quotes Machiavelli throughout its documentation, nice guys definitely finish last.

The Unhappy Marriage Of Church And State

The building blocks of political power in Merchant Prince are senators, and they can be bribed in order to control their votes in the Venetian Senate. If you buy enough votes to command a majority in the senate, you may be elected Doge. The Doge has the ability to nominate members of the other factions to the four executive positions in the government: Council Head, Admiral, General and Roads Commissioner. Each of these positions provides the player who occupies it with particular opportunities and advantages. The faction which holds the title of Doge may also occupy one of the executive positions, but they must assign the other three to their competitors. This makes for some interesting political bargaining, particularly when playing against human opponents.

The Council Head has the power to accuse other senators of treason, leading to their removal and execution. He therefore has the ability to control who has influence on the senate—an important position if one wishes to remain as Doge or rise to that position. The Admiral and General command Venice's armed forces, essentially providing players with a free military force to use at their discretion, provided that Venice is always adequately protected.

Bribing and maintaining senators is an expensive business. Each senator requires a yearly salary, as well as the occasional lump sum payment, to keep him loyal. Furthermore, senators are extremely vulnerable to dirty tricks. They can be assassinated, accused of treason, or simply die of natural causes. In a competitive game, one can also exploit the other factions to offer one's politicians large payments to switch sides, requiring similar payments to keep them loyal.

Owning politicians is not to everyone's taste and is hardly affordable at every turn. A more profitable, though less powerful alternative is to buy a chunk of the Church. Cardinals go on sale periodically, depending upon how desperate the Pope is for money (The Pontiff's Black Collar Sale, perhaps?). The Pope is elected somewhat like the Doge, except that there are considerably more cardinals to buy off than senators, and each costs a lot more up front. Unlike senators, however, cardinals pay back their employers through a percentage of the indulgences they collect. Over time, cardinals tend to make good investments, provided that one of the other factions doesn't serve them poison cocktails.

The position of Pope, while not providing the political clout of Doge, does provide more immediate gratification in financial terms. The Pope sets the indulgence rate, which controls the income from cardinals, as well as the number of cardinals for sale. Fifty percent of the income from the sale of cardinal ships goes straight into the pocket of the Pope. Furthermore, the Pope has the power to excommunicate a particular city. This radically increases the cost of goods in the city, so that a trading fleet selling high-value goods can increase its profits greatly if its destination is excommunicated immediately before it arrives.

Rent-An-Army

Unlike most strategy games, Merchant Prince players do not build their own military forces. They may rent mercenary armies where available, provided they can afford the price. Those with grander ambitions can get themselves appointed Admiral or General of Venice, which gives one command of the Home Fleet or Army respectively. Military forces can attack cities which refuse to trade with Venice in the hopes of overthrowing the hostile regime and thus opening new trade routes. They must also defend Venice from enemy armies and marauding brigands, and they may hunt down and eliminate pirates or bandits who threaten the trade routes.

Players can also assign mercenaries to attack the ships or caravans of their competitors, although if they are caught in the act, they stand to lose considerable popularity. In the dirty tricks department, players can hire arsonists to burn their opponent's villa, rumor-mongers to ruin the reputation of their competitors, or assassins to kill local politicians, cardinals or even the Pope. Dirty tricks are definitely an effective way of reducing the popularity and influence of your opponents, but the penalty for getting caught can be far greater than the potential payoff. Furthermore, it is impossible to defend against dirty tricks from the other side, and often all sides end up losing if things get out of hand.

The Good, The Bad And The Very Rich

There are a few bugs in the initial version of Merchant Prince. The game tends to lock up occasionally, particularly when exploring the extreme eastern edge of the map. (An update file is available from QQP which solves this problem.) The computer opponents are competent and can occasionally be pretty sneaky, but like most AI opponents, they aren't much of a match for a human in the long run. The main problem is that the computer is not very good at building trade networks, which is odd since this is the simplest aspect of the game. Those who consistently defeat computer opponents with ease can take heart, as Merchant Prince can be played by modem or via E-mail, where the opportunities for both alliances and backstabbing are plentiful.

Because the emphasis in Merchant Prince is on trade, rather than conquest, not all gamers will find it to be a particularly satisfying experience. Furthermore, with victory tied to total popularity, rather than the destruction and abject humiliation of one's opponents, the game may not appeal to the purely militaristic. Nonetheless, Merchant Prince is a finely balanced, well presented, and intensely enjoyable game. The random map option and the changes to commodities each game give it considerable replay value. With games lasting up to 40 hours, players can look forward to more long days and nights in front of their PCs.
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INFINITE CHEAT GENERATOR
Action Replay has a powerful CHEAT GENERATOR feature that actually scans through the game’s FROZEN STATE and finds locations that control lives, ammo, objects etc. in fact anything within a game that can be counted. The unique CHEAT GENERATOR then gives you a cheat code for that game. Simply press a key to restart the game and you are invincible! Cheats can be saved to disk or entered again at a later date.

PROGRAM SAVE
Freeze your program at any point and save entire contents of memory, including extended memory, floppy or hard drive. When you reload the program it will resume at the point it was frozen. Ideal for saving a game at a difficult point or for programs with tedious “password” loading systems.

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SLO MO FUNCTION
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Circle Reader Service #121
WHY THE 'F' IN FM SOUND BOARDS MEANS 'FAKE.'

With a headline like the one you just read, you might think an ad such as this represents a slanderous assault on the makers of FM synthesis sound boards.

Well, it isn’t.

It’s really more of a story about how all good things must come to an end. If only to make room for better things. Like the UltraSound MAX™ sound board.

Until recently most, if not all, PC sound boards used a technology developed in the 1970s called FM synthesis (frequency modulation). In fact, the most popular sound board on the market today still generates sound via FM synthesis.

However, UltraSound MAX (also known as just the MAX), the newest sound board from Advanced Gravis, incorporates a higher technology called wavetable synthesis.

What’s the difference?

Put simply, FM synthesis fabricates or “mimics” sounds with tone generators using mathematical formulas, while wavetable synthesis creates sounds using digital recordings of the actual sounds, known as samples.

Therefore, the sounds created by the MAX are real, while the sounds created by FM synthesis boards are fake. (Thus, the impetus for this advertisement.)

And whether it’s a guitar or a gorilla, the digitally-recorded sounds you hear will come straight at you in 16-bit, 44.1 kHz sound with over 90 dB of dynamic range. In essence, compact disc quality. (Say goodbye to those horrible, tinny game sounds you thought you were stuck with.)
Recording with the MAX exceeds industry standards as well -- 16-bit, 48 kHz and 4:1 ADPCM hardware compression. Which means your recordings sound remarkable, yet use only a quarter of the disk space.

Then there's also the general MIDI patch set included with the MAX. Basically, it's like having a 192-piece orchestra in your computer. What's more, the MAX's unique RAM-based system lets you modify any existing instrument, as well as create entirely new sounds. (Try that with a ROM-based sound board.)

Now for those a little less into music and a little more into gaming, rest assured our engineers haven't forgotten you. UltraSound MAX features two technological breakthroughs destined to radically change the nature of gameplay for years to come.

The first allows you to experience 32 digital or synthesized voices at once, a feature exclusive to the MAX. The second is a revolutionary new concept called 3D Holographic™ Sound, which is simply the audio equivalent of virtual reality. Together, they will not only add substantial depth and dimension to your gaming experience, they will revolutionize how games are developed from now on.

Imagine. You're on night patrol, deep in the jungle. It's pitch black. When suddenly, you hear the rustle of leaves above you and to the right. It's the enemy. You immediately turn and act, as if on reflex.

Now that the MAX is here, such encounters can and will happen. No wonder Psygnosis, SSI, Sierra On-Line and LucasFilm are only a few of the developers starting to capitalize on the MAX's vastly superior performance.

Of course, it's going to take some time for all software developers to unleash the powers of Ultrasound MAX. But until then, you'll be happy to know the MAX will run games designed for prior sound board technologies like Ad Lib®, Sound Blaster™ and Roland® MT-32.

In fact, PC journalist John C. Dvorak wrote, "...the UltraSound has a Sound Blaster emulation mode so good that it sounds better than the Sound Blaster itself."

So if you have yet to put sound on your computer, or you're simply looking for the best way to gear up for the future, visit your favorite computer retailer and take home the UltraSound MAX.

You'll discover that while imitation may indeed be the highest form of flattery, it doesn't remotely compare to the real thing.
Deep inside every wargamer lurks a wargame designer. Just as we love to play with the possibilities of history, so we’d love to tinker with the possibilities of our games, injecting our game philosophy and understanding of history into an existing design. Unfortunately, most computer gaming strategists are not programmers, and even if they were, they wouldn’t have access to the source code written in C or Greek or some other foreign language. With a paper boardgame, it is a fairly simple matter to jot down a few rule changes and make up a few new counters, but in their digital form, games exist in a closed box.

That computer games lack such freedom is particularly bitter pill for readers of this column, as we are a bit more educated than most. A love of history combines in wargamers with the desire to explore “what ifs,” quite often those not touched upon by the game’s designer. While people and paper role-playing games (and increasingly computer role-playing games) abound with adventures and scenarios easily exchanged among enthusiasts, comprising an almost limitless gaming universe, computer wargamers are, for the most part, stuck with the scenarios and game systems that come in each game box.

If They Build It, Will You Come?

Many computer game companies and designers have recognized the limitations of a computer game’s enclosed universe, and this is particularly good news for computer wargamers. On the one hand, we have the open-ended “anything goes” of a do-it-yourself kit like Aide de Camp. Looking at games recently released, Empire Deluxe, Campaign II, Flight Commander and War in Russia, to name only a few, all have built in scenario builders. These designers had the foresight to include, from the first release of their product, the tools we need to answer our own what-if questions.

Other notable games, including Global Conquest, Carriers at War and Harpoon, had scenario builders available separately after they were published. Down the road, future war and strategy games that will break through the enclosed universe barrier include Command HQ, Warlords II, Harpoon II, Wargame Construction Kit II and The Perfect General II. Although most of their scenario editors will be sold separately, we at Computer Gaming World wish to heartily commend those designers and their companies. Placing power in the hands of the players is a wonderful trend, one that we hope continues.

I Came, I Played, I Conquered

Finally, let me remind you that CGW is still waging its own war against the enclosed universe phenomena. We encourage our readers who have a wargame article that provides strategy, game replays and analysis, new scenarios, player’s aids or other supplemental “non-review” material to step forward. I want to hear from you, and can be reached at our various on-line addresses (see the magazine’s masthead) or directly by telephone here at CGW, (714) 283-3000 ext. 25. Your hobby needs you! CGW
It took 1400 years, but we finally got them together!

Picture this, two of history’s most ruthless and ambitious leaders in the same room. Now, throw in the fact that both are looking towards world domination with massive armies following their every command. Sounds interesting, doesn’t it? This winter, KOEI’s bringing Genghis Khan and Cao Cao together to a store near you, and it’s going to be exciting. After all, Genghis Khan is out to lead his Mongol hordes victoriously across Asia and Europe in GENGHIS KHAN II: CLAN OF THE GRAY WOLF and Cao Cao’s devising new ways to reunite China after the collapse of the Second Han Dynasty in ROMANCE OF THE THREE KINGDOMS III: DRAGON OF DESTINY. The contest for world domination is about to begin.

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In Order to Form a More Perfect General

An Early Look At QQP's The Perfect General 2

by Alan Enrich

When The Perfect General was still a board wargame played on an old wooden tabletop, it included machine-gun units, versatile engineer units, and aerial bombardment. When it first appeared as a computer game, the difficulties of programming a well-balanced game and getting it to market had forced those elements out of the game. Leaving game features on the cutting room floor was not a decision with which designer Bruce Williams Zaccagnino was ever comfortable.

Yet, when The Perfect General made its debut, the gaming public ate it up, and QQP was fixed on the map of strategy gamers everywhere. The Perfect General was widely regarded as having the right “look” and “sound,” excellent gameplay (albeit without strong AI support) and, best of all, modern play. For wargamers who couldn’t keep up with Command HQs real-time action, The Perfect General stepped in at just the right moment to give them a turn-based triumph, and they all seemed satisfied.

Of course, Bruce, ever the perfectionist, wasn’t satisfied. As for any good game designer, the time following the release of a game is time for dwelling on the things he wanted to include, if there had been just a little more time. The ideas and features which he longed to incorporate, plus feedback from Perfect General enthusiasts over the past few years, have evolved into a list of design specifications that are presently being forged into The Perfect General 2. Although Mark Baldwin and Bob Rakosky of White Wolf Productions are not returning to program the sequel after doing the original Perfect General, QQP has put their own boy-wonder, Andrew Vischer (Solitaire’s Journey), on the task.

Initial Scouting Report

For Andrew, the journey is no longer solitary, since he collaborates heavily with Bruce. As a result, he is building the game in stages and, at the time of this writing, it had not yet evolved into a working beta version.

Most notably absent were the modem/serial play features and the AI, so I cannot comment on those. However, most of the nuts-and-bolts gameplay features are in, and there is plenty there to see.

To begin with, there are new things to see on the map. Objectives are now color-coded to indicate player possession, and there are little flag symbols next to them when the point values are not displayed. No longer will you have to guess who controls larger city objectives. Airfields are another important new addition. They are the fixed locations where planes can be based, as I’ll discuss when I get to the new units.

Bridges now have individual levels of strength assigned to them; each can take from one to three hits before being blown away, and these are indicated on the map. Man-made terrain features also have some new twists. Players can select minefields to be either hidden until found or openly displayed. Other pre-game selections allow for variable weather and the repair of units in cities.

Engineers will be busy working the land in The Perfect General 2. Not only can they build and destroy bridges and minefields, but now they can destroy roads and improve fortifications (every unit can now, with time, fortify its position) to fortresses. Look for engineers to be able to clear forests, repair railroad tracks and fix roads. With so many wonderful...
Fresh Troops

For players who remember heavy tanks and artillery as the queens of the battlefield in The Perfect General, its sequel addresses this perceived imbalance. Among the new unit types is the "Elephant" tank. This pricey, super-heavy armored unit packs a lot of firepower and takes considerable damage (when playing with the Partial Kill option), but only has two movement points per turn. While great for defending a town or hill, it has major problems keeping up with a driving attack.

The antidote for artillery seems to be airplanes. Air units can only be based on airstrips (limiting their operating radius and making them vulnerable to being overrun) and fly one mission per turn, plotted pretty much like an artillery strike. The main difference, besides the probabilities used to resolve the airplane’s attack, is that players have much more precise control over an airstrike. While artillery (especially Mobile Artillery) is prone to scatter, when an airstrike is conducted, a player can specify any hex within a two-space range of the pre-plotted target hex. Once the final target hex is selected, airplanes never scatter and always strafe that hex. This makes them more reliable for blowing bridges and attacking specific units. For fans of the old artillery units, though, some scenarios now provide "off board" artillery support.

For those, like me, who enjoy a good infantry slugfest, behold the machine gun. Both machine gun infantry and armored car units have been included in The Perfect General 2. While they don't pack the oomph of bazooka units against armored targets, present playtesting gives them the advantage of being able to fire once during each Fire Phase. That, friends, makes for some interesting situations.

No longer can shear numbers of armored cars whiz past a defender simply because he could not kill them fast enough. Now, it seems, intermeshing machine gun nests with adequate artillery support can make a defender tough, but the attacker has tools available to work through such defenses. In other words, a balance in the unit mix has been achieved that, I expect, wargamers will heartily enjoy.

Campaign Games

At QQP they think big, so The Perfect General 2 will include "campaign games" that link up several scenarios.
The great thing about lurking on computer bulletin boards is that you can "listen" to other people's conversations and not feel the eavesdroppers' guilt. I love listening to people debate the finer points of the latest game, but I especially like reading bulletins where gamers tell the software publishers what they'd like to see in the next game or even in an update of a current game.

Imagine my pleasure, then, when a "wish list" from the collective consciousness of online gamers actually became a real product. Unlike many games these days, where sequels are begun almost as soon as the original product has shipped, the Warlords II Construction Kit was not something that Strategic Studies Group (SSG) expected to publish. But when hundreds of Warlords II players spoke, urging SSG to create a powerful editor for aspiring strategy game designers, SSG listened.

One Size Fits All

The main screen in Warlords II Construction Kit is divided into windows of roughly the same size and shape as in the original Warlords II game, giving it an immediately familiar feel. The main display will be the site for your game creating Genesis—where you will separate the dry land from the water and place castles with the command "Be fruitful and multiply Catapults." You can start your new worlds using an old Warlords map as a template, or you can start from a blank slate. As in any computer paint program, the features of the landscape are selected from a palette and drawn with the mouse using a combination of clicks and drags, but instead of painting in pixels, you paint in whole terrain squares.

When initially placed, the terrain tiles are ugly and squarish, lacking the smooth contours of natural geography. With the selection of the Smoothing option from the menu, coastlines, forests, mountains and hills take shape with a crisp, ready-for-play look. You can only paint continents with generic terrain types, but you can individually select from the 20+ specific tiles for each type of terrain in the palette. If you want a volcano in the middle of your island, the proper look is a click or two away.

Read All About It

After the main geography is in place, you can sprinkle the landscape with castles. These can be customized with your own names and descriptions. After clicking on a button and then selecting the castle you want, a screen pops up that allows you to type in text on a set line, each with a fixed length. In addition to this personalized chrome, there are choices that must be made in order to make a scenario playable. Castles require that their income level be set, with the default at 20 gold pieces per turn. You can also determine the types of tiles a castle can produce (up to four), keeping in mind that the castle's defense level will be based upon those selections.

Like castles, temples and ruins can also be named and given descriptions if desired. There are also little road signs that can be used to give hints to players or as billboards for one-liners or other readable frivolity. (I entered my first scenario with Burma Shave billboards.) While I experienced some difficulty getting the on-map icons for these objects to look right, they've always functioned properly in my test games.

Cutting The Muster

The unit editor is where we amateur artists will really get our pixel's worth. Every attribute of a unit, including its combat strength, movement allowance, time to build, cost, special movement and combat features can be changed. The really fun part, though, is that the built-in icon editor allows players to modify, copy or create from whole cloth every unit icon in the game. Do you want Amazons? Modify the old Orcish Mob a bit, and you got 'em! For a World War II motif, simply draw tanks and bombers. The paint tools are very easy to work with and can become quite addictive playthings.

Every new unit type can have its characteristics very specifically defined.
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It also features morale, hidden movement, communications, airstrikes, night fighting, forest fires, and much more. Designed for all levels of wargamers, Tigers On The Prowl includes 5 scenarios, a flexible scenario builder, and three levels of complexity. Orders are given to platoons or sections, with a maximum of a supported combat brigade on each side. Can be played solitaire against the computer, or by two players - either face to face or by mail/e-mail. Tigers On The Prowl can use maps and symbols created with Aide De Camp. Tigers On The Prowl is as real as you can get without being there.

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Power To The Players

Once a new scenario starts to fall into shape, you can set the final parameters of your grand design. The number of players, their colors, starting funds and initial city (each empire's capital) are all defined by the user as part of a completed custom scenario. Naturally, the scenario should have an original name and a brief description, and you can even import an original picture for the scenario's introduction screen, as long as the file has been saved in .pcx or .ibm format.

During playtesting, it's useful to have the computer players challenge each other while you sit back and observe the results. Keeping an eye on even castle/ruins placement and making sure there are enough ports will obviously be important factors in designing new scenarios.

As powerful as the Warlords II Construction Kit is, there are a couple of trifling limitations to its design. First, the map size is fixed at the original Warlords 2 map size. Larger worlds are not possible, and smaller worlds may pose problems. While you don't have to use all of the area available on a map, the computer AI will still assume the large map size and may waste time scouting the empty areas during play.

The other concern involves the time required to update the information on the strategic overview map (to the right of the main playing area), so that its information coincides with the operational map. It does not update as you paint, so some significant processor power and a bit of patience are required whenever you smooth or redraw the entire map. However, since only paranoids (like me) save every few moments, this shouldn't bother most users.

Overall, Warlords II Construction Kit is shaping up to be an elegantly designed tool for strategy gamers who, like comic actor Tim Allen, want "more power!" All the power a Warlords player could ever want is here, waiting for creative gamers to pour their creative juices into empty Warlords worlds. Wargamers may even reach the unsettling conclusion that creating worlds can be as fun as conquering them.

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Many times has the tale of The Three Kingdoms of Old been spun. At all times it was told with sincerity and with a clear heart. Yet there was a confusion in the earlier tellings, a blurred vision of those happenings that kept those in the West from understanding fully the struggles of that tumultuous time. The great tale-tellers of Koei spin the tale for a third time, so let us listen carefully to this view of The Romance—the lure of power, of greatness....

There were in that time many great men aspiring to be Emperor of all they surveyed. Cao Cao was the most famous, and the most misunderstood. His grandfather was a eunuch, yet Cao Cao rose above his humble beginnings to carve out a great kingdom from the heart of China. Perhaps you could be as great as Cao Cao, but you must follow carefully the path Koei sets for you. *Dragons of Destiny* offers a wondrous look at 33 of the great leaders of this tumultuous age. Some are great warriors, others are great diplomats, while still others have more subtle skills, often hard to discern. You must put aside your noble instincts and even learn to use assassins against your enemies. Great armies must be raised, bitter sieges must be won, and the seas must be mastered, or ultimate success will not find you.

Learn the Land, Know the People

Many histories leave off the hardships of home—but from where does the strength of the strong ruler come, if not from the happiness and health of his people? Benevolent rule in *Dragons of Destiny* will bring glory and inspire loyalty among your officers and villagers. Know still that there are those who float as leaves on the winds, ready to change allegiance or incite rebellions among the unruly. Even the most quiet and beneficent peoples are subject to raids from the dreaded Yellow Turban Rebels. The prudent leader is ever vigilant.

And what of the good earth itself? *Dragons of Destiny* allows the arrogant leader to make mistakes. As leader, will you benefit from a bountiful harvest, or will your lands fall prey to typhoons and famine? What will you charge the people in taxation? In real life, Kong Zhou fought many wars, and mercilessly took more than his people could give.

A game that allows you to make the same mistake is an honorable one. Entering the game of *Dragon of Destiny* requires that you not only think as a warlord, but as a leader in times of peace.

You must first build an economy by selecting the right men to develop and cultivate the land. Trade routes must be established, excess goods must be sold for the accumulation of gold. Unscrupulous types must be dealt with in a manner which heightens your reputation. Knowing to whom and when to delegate authority is a game within a game, but is essential for the ruler to expand his sphere of influence.

Unlike most wargames, *Dragons of Destiny* has elements of role playing, its characters having many traits to add more richness to the tale. It takes an experienced eye to discern Loyalty, War Ability, Political Acumen, Training and Morale, and where best to employ men with these attributes. The game is most helpful, in that appointed governors issue decrees and run their cities without your involvement. Advisors will explain the complicated issues of the lands you control and the rulers with which you interact. Even so, the gamer should be wary, as bad advice and bad governors will betray you and your people.

Scattered Like Tea Leaves

Upon the Waters

The men of *Dragons of Destiny* are numerous as the grains of sand, and they will sift through your hands unless they are molded like clay into a single unit. After your men are trained, you cannot simply set out to conquer your enemies, such is the depth of the game. Advisors may be sent to threaten the weak or to make secret alliances, to crush the stubborn foes who insult you with their resistance. The game pits silicon fiends against you, which take on the form of great men and move against you in intelligent and devious fashion, severely testing your skills.

Koei goes to great lengths to make this a fitting tale for the warrior's delight. Devils paint pictures in 256 colors before your eyes, the beauty of the changing seasons threaten...
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ing to sway you from your conquests. The terrible spectacle of conflict is brought near with deep, stereophonic sounds, and the martial beauty of the troops arrayed in full lines, is resplendent with color, awesome to behold.

In order to understand combat, we will look at the battle of one would-be conqueror versus Liu Bei near the great Yangtze River. Terr Tso was a mighty warlord, having built a mighty host which scattered his enemies before him. In the fields near Feihe, Terr Tso deployed his great army against Liu Bei's lesser force. At the crucial stage of the battle, Tso unleashed his deadly crossbows, their accuracy a telling blow to the defenders. Firebolts demoralized the enemy camp, victory seemed at hand. Unbeknownst to our hero, Liu Bei had bribed two of Terr Tso's lieutenants. The shameless ones changed sides and drove their former comrades from the field, inciting rumors and causing Terr Tso's remaining loyal units to fight amongst themselves in the confusion.

His army crushed, Terr Tso left for home. Slowly, he rebuilt his forces from the wealth of his lands and paid tribute to Liu Bei. Working on the loyalty of his people, Tso eventually brought his kingdom near its former prominence. After dealing with lesser warriors, Terr Tso knew it was time to face Liu Bei again, and he stopped paying tribute to his hated enemy. The war began anew.

Knowing of Liu Bei's prowess on land, Terr Tso felt that the winds of fate had to blow differently upon the seas. Secretly, his fleet crept to the coastal city of Wu, finding Liu Bei there with his fleet. Liu Bei stood high on the flagship 'Dragons Fire', his 7-foot frame laughing at Terr Tso's smaller fleet. Terr Tso was unafraid. He had built wisely—his galleys were armored, unlike those of Liu Bei. Eventually, Tso's ships caught up to Bei's smaller, quicker ships, and Tso had his revenge, though the fighting was bitter. The troops then landed and captured the city, the defenders of Wu having little stomach for further bloodshed. Perhaps Liu Bei could have defended better, but for a silicon demon, he fought well and bravely.

In Dragons of Destiny, the enemy is not always found in the open, but must often be besieged in mighty fortresses. If the enemy is ill-prepared, he may be starved out. More likely is that the assaulting army will soon have scant rice for the bellies of its warriors and must conquer the town by force. The citadel will be surrounded by walls, but these are only one of the obstacles which will confront you. Many questions arise:

Should we use fire and risk damaging the precious citadel?
How loyal are the troops of the enemy?
Can we climb the walls or must the attack be through the gate?
Should the cavalry charge when the walls are breached?
Has the defender dug pits to trap my valiant warriors?
Do I walk headlong into an ambush?

What do I know about my enemy and his generals?

The variety of tactical decisions make for a game which will cause even the veteran gamer to tire his nails from the tension. Triumph in Dragons of Destiny is a most fulfilling experience for any would-be general.

It Is The Teller Who Makes The Tale

To know why Dragons of Destiny is so successful, one need merely look at the careful details spread throughout. The 33 historical characters become much more than a series of numbers, each having his or her own personality. Battles can be waged on 22 historical sites, plus many more at sea. Six different periods of China's history all have a different story to tell, of feats performed over three generations. You may pit your forces against Lu Bu, the greatest martial warrior of the age, avoid the assassination of Yan Baniu, or the disgrace of Meng Huo, who lost eight battles. The cast of history is talented and eclectic, and all are worthy opponents.

The journey would not be complete without chrome, and Dragons of Destiny has plenty to spare. Hua Tuo may be sought for his famous healing abilities. Political emissaries may be imprisoned, spies put to death, or spared by your beneficence. A ruler may be forced into sudden exile or desponded by his kinsmen should his conduct be unworthy of a true leader. You will hear tales of great Books by Sun Tzu, Meng De and others, which, when found, show the way of Peace (or War) and raise Intelligence and Political Acumen.

Mighty Stallions, such as Gray Lightning and Red Hare, add mobility to a leader's forces. A commander riding one of these historic steeds need never fear capture, even in defeat. The lucky general wields the Sword of the Seven Stars or the Black Dragon, whose menacing blade strikes fear into one's enemy. It is the calm ruler who holds the Hereditary Seal, where peace reigns. The generous ruler may even give these powerful items to his subordinates in his quest for victory.

Many paths, then, make for a rich and evocative tale of the journey to the Emperor's chair. Koei has brought many spices to this, their third telling of the tale. For the first time, it is possible for the worthy gamer to envision himself as one of the many heroes, so true is the telling, so rich the background of the tale. Those marginal warriors who wish a simple fight, devoid of passion, lacking in subtleties, will be overwhelmed by the experience. On the other hand, those with fire in their blood, who relish the thought of battling the best leaders of Chinese antiquity, will find rapture in The Romance of the Three Kingdoms. Go now, and conquer...
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Miami, FL. player throws down his gauntlet to anyone who challenges him in a game of Battle Chess (either disk or CD-ROM). If you have a network with Internet access, respond at CHM22M@PRODIGY.COM or call Stephen Hertz at (505) 485-8406. Seeks local opponents for modern gaming. Will play The Perfect General, F-15 III and many others, Call me in Syracuse, NY at (315) 622-2204. Ask for Jerry any time between 9am and 10 pm.

Looking for a local opponent to meet for face-to-face games of Clash of Steel, Warsfords II or other board and computer wargames. I’m in Hartford County, MD, Call Josh at (410) 939-1021.

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Local players of Falson 3.0 and MIG-29 are being sought in the Austin, TX area. I have never played either of these games by modem, but an eager to try. Modem speeds up to 14,4k supported. Call Mark Mills at (512) 474-5105.

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Seeking local opponents for Command HQ, 688 Attack Sub, The Perfect General on other games. Contact Paul Dare at the DDC in the Vancouver/York Mainland area and let’s do battle. Phone me at (604) 264-7998.

Seeking local opponents for Command HQ or The Perfect General in the Chicago area. Contact Joe at (708) 782-6272 evenings.


Local opponents sought for The Perfect General, Falson 3.02 and other games in the NYC area. Contact Lorenzo “Wren” Lamberty at H-718-597-3599 any time after 4pm.

Seeking opponents for modern play in the Colorado Springs, CO area. I would love to play The Perfect General, Empire Deluxe, Modern Wars, Knights of the Sky or anything, you’ve got a hangover to lose (hahaha). Contact Steven Woodcock at the following: H-719 392-3975 or by email via the InterNet: at wwooodeckoxodooco.

Local opponents wanted for Falson, F-15 III or Tornado. Call Red in Memphis, TN at (901) 527-8764 or W-901 525-2557.

Opponents wanted in the Longview, TX area for Conquered Kingdoms by modern, I am also interested in any type of modern strategy game. Call Bill Anderson at (903) 665-2120.

Medicines Empire Deluxe player seeks same for modem or email contest. Ask for Johnny at (910) 676-7251.

Looking for PBEM opponents for Second Front, Carrier Strike or just about any other wargame. Contact Ernest Carriage in the Toronto area after 6pm at (905) 238-8283.

Seeking local opponents for modern game playing. Will play F-15 III (soon to get Falson 3.0). Call me in NYC. Beehive 4, call anytime (917) 858-6496. Will call back as soon as possible. CBB
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By Vivid Video
A fascinating interactive adult video game of chance. You score the points and a host of Vivid megastars like Rachel, Josie, Lexy, Ginger Lynn, Addy, Giselle will pay off in exciting ways that will leave you breathless! Round and Round you go, risking it all for a host of stunning beauties...and they're worth it! CD ROM $39.

STRIP POKER PRO
By Artworx
Combines the strategic play action of 5 Card Draw Poker with some very different table stakes. Lauren, Kimm and Gina are three gorgeous gorgeous who are willing and able to bet it all for the chance to "Beat the Hands Off You. You can play against one, two or three opponents simultaneously. 5 Card Draw Poker... CD ROM $34.

NEURODANCER
by Pixis Interactive
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ORUTSUUKIDOJI
By New Machine
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Compton’s New Media
2320 Camino Vida Roble
Carlsbad, CA 92009
(619) 929-2500

USA WARS—WORLD WAR II: No, Compton’s hasn’t suddenly decided to start marketing wargames. What we have instead is BlitzQuiz, a multimedia quiz show for 1-2 players, where your knowledge of WWII can make the difference between winning and losing against historical personalities. While the trivia is interesting, the game seems more suitable for those with a historical bent. 2,000 photographs give a good overall pictorial view of U.S. involvement in WWII, backed up by the biographies and battle descriptions you expect from a multimedia product. A good attempt at making history accessible to the masses. IBM, IBM Windows ($39.95). Circle Reader Service #3.

Deadly Games
275 Community Drive
Great Neck, NY 11021
(516) 482-4000

U-BOAT: This submarine simulator for the reflex-challenged is a fine addition to Deadly Games’ stable of Macintosh “strategy simulators.” Like their Bomber and M4, U-Boat gives you a command perspective with a full, simulated crew in support. As it was during WWII, operations on a submarine are a game of patience, once described as “long stretches of monotony punctuated by minutes of sheer terror.” Fortunately, time can be compressed so you can quickly get to the “sheer terror” of your tours of duty and confront what lies on the ocean’s surface. Easily learned, with a strong “you are there” feel, U-Boat incorporates the details in such a clever way that the challenge always lies in using proper techniques rather than fighting the simulation’s mechanics. The terrific sound effects particularly enhance the game play experience. Macintosh ($59.95). Circle Reader Service #4.

Digital Empires Inc.
313 East Willow Street Suite 314
Syracuse, NY 13203
(315) 479-6244

SHIH DAO: Certain games have the insidious quality of suspending time while you play, and Shih Dao is one of them. Tiles, randomly selected, must be placed by pattern or color in order to form sets of four and make the highest possible score. Much more difficult than it sounds, the game is good both for those short coffee breaks, or simply for those who have trouble sleeping. Fans of other tile-based games such as Ishido should find that their game-playing pattern will make a perfect

Bethesda Softworks
PO Box 7877
Gaithersburg, MD 20898-7877
(301) 963-2002

THE ELDER SCROLLS—ARENA: This role-playing epic looks like a cross between Ultima Underworld and Might and Magic: World of Xeen, and continues a tradition of involved, in-depth role-playing games while pushing the edge of the 3D envelope, especially in the realm of light-sourced graphics. This may well be the “biggest” world, in terms of game play, that will reach store shelves this year. Not only is the game world huge, but Arena is only the first chapter of a series of games that will connect to each other a la New World’s World of Xeen. Although its interface is less than fully intuitive, role-playing fans will find the storyline and game world rich and compelling. IBM ($69.95). Circle Reader Service #1.

Capstone Software
Airport Corporate Center
7200 Corporate Center Dr., Suite 500
Miami, FL 33126
(800) 468-7226

TRUMP CASTLE 3 CD-ROM: The CD-ROM conversion of Trump Castle 3 might offer extra glitz with better SVGA graphics and modern/network play, but it is still the same game found on the floppies. Like the original, the package gathers a gaggle of gambling games, including poker (both video and table), blackjack, roulette, keno, baccarat, craps and a variety of slot machines. A custom face maker lets you define the look of the character that interacts with the toys at Donald’s palatial pad. IBM CD-ROM ($59.95). Circle Reader Service #2.
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match with this game. IBM Windows (Shareware, registered version $20.00, offering more screens and tile sets). Circle Reader Service #5.

Dongleware Publishing, Inc.
35 Howard St.
Cambridge, MA 02139-2909
(617) 497-1130

OXYD MAGNUM: When Oxyd was first released, it gained much acclaim from brain gamers. Now, this new, enlarged version for 1994 offers more, and more vicious, puzzles. The goal is to "mouze" your marble in the right direction and speed in order to hit bumpers in a maze. These bumpers must be properly matched, which means discovered and remembered, much like the classic game Concentration. Of course, perilous abound, so you must roll over helpful objects while avoiding nasty marble killers. The puzzles begin easily enough for those new to Oxyd, but they are absorbing and will quickly pull players deeper and deeper into its 100 devilish mazes. IBM and Macintosh ($59.95). Circle Reader Service #6.

Expert Software
P.O. Box 144506
Coral Gables, FL 33114-4506
(305) 448-2074

EXPERT QUIZ SHOW FOR WINDOWS: When there is a trivia game going on, everyone seems to have the answers. Fortunately for those who enjoy the more trivial of pursuits, this product has two things to recommend it. First, the questions are not of the all-too-easy, lowest-common-denominator type. They are, in fact, a good assortment of questions that a college-educated player would have known the answer to at one time. Its second strength is its price, a pirated at $14.95. Unfortunately, the answers must be perfectly spelled and hyphenated or the program will count them as incorrect. While this can be annoying, the game's approach and its ability to create a database of correct answers for each game make it a cut above the average trivia game. IBM with Windows ($14.95). Circle Reader Service #7.

Gametek, Inc.
2999 N.E. 191st Street, Suite 500
North Miami Beach, FL 33180
(305) 935-3995

FRONTIER—ELITE 2: The universe of space games continues to expand with this long-awaited sequel to Elite. In the tradition of Sun Dog, Space Rogue and Starflight, Frontier offers up an EMORMOUS universe in which you can explore, fight, trade and establish a reputation with various political alliances. Though its polygon graphics and icon interface have some rough edges, there are many, many hours of exploratory game play here, putting Frontier in that category of insidious adventures that can become less of a game, and more a way of life. Amiga, IBM ($64.99). Circle Reader Service #8.

NFL '94: For those gamers who wish the football season would never end, Konami has revamped its old NFL game to include VGA graphics and better sound. Be careful installing though, as even the myriad of sound drivers included fail to solve all of the compatibility problems. Additionally, the game tries so hard to be a faithful reproduction of NFL football, that it takes almost as much time to play a game as it would in real life. A mouse is supported, but the keyboard is the true interface here. All the obstacles a potential coach could face are included, with penalties being handled pretty well, as they are supposed based on individual team tendencies. Injuries afflict not only a single game, but can have far-reaching effects in league play, a nice touch—provided it happens to the other guy's team, of course. Front Page Sports Football fans will probably punt, but others might want to give NFL '94 a second look. IBM ($59.95) Circle Reader Service #9.

Interplay Productions, Inc.
17922 Fitch Ave.
Irvine, CA 92714
(714) 553-6655

THE CLASSIC 5: They play more than Checkers next to this virtual pot-bellied stove. From the 17th Century comes Backgammon, offering a choice of offensive or—dare we say it—defensive styles of play. The main problem is that it doesn't really matter which style the computer plays—it lacks depth. Bridge is the token card game, and while it isn't bad, we would have preferred Rummy, or even Whist, dahling. The Chess algorithm here will hardly be confused with Interplay's Battle Chess engine, but it does play an entertaining game. Go was a pleasant surprise, and kept our interest for a while. Would-be casual strategists would enjoy Checkers the most, as it features an engaging and opportunistic AI. The VGA graphics are largely wasted, as are the sounds, which are primarily Sound Blaster wake-ups in PC Speaker-land. For those tired of shuffling cards and rolling dice, it offers familiar gaming friends in a single package. IBM ($49.95). Circle Reader Service #10.

Mallard Software, Inc.
3207 Justin Rd.
Flower Mound, TX 75028
(214) 539-2575

FAST ACTION PAQ—THE FIRST CHALLENGE: Long known for their aviation and space simulation products, Mallard
has just hatched a new line of games called Quackers. The premier offering is a compilation of four Windows action games entitled Fast Action Pak: The First Challenge. Included in this quartet of titles are: Flak Attack (a Paratrooper clone) which puts you in charge of a flak cannon defending a military outpost; Bubble Trouble (a variant of Asteroids) placing you at the helm of a starship caught in the midst of roving subspacv vortices; Mole’s Quest where you direct the antics of Monty the Mole as he hunts for his misplaced belongings; and Bot, which pits you against heavily armed robots. Of these four action games, Mole’s Quest is the only truly memorable title. All of the games have a decidedly shareware look and feel to them, but for the price, it is an interesting collection. IBM with Windows ($34.95). Circle Reader Service #11.

Masque Publishing, Inc.
P.O. Box 5223
Englewood, CO 80155
(303) 290-9853

SOLITAIRE ANTICS: There are ants on my desktop! Ants on my desktop! Quick, hand me the Raid!! Whoa! Wait just a minute. Those ants are supposed to be there. Solitaire Antics is full of them and you don’t have to be an ant eater to enjoy them. This humorous collection of solitaire card games, 21 in all, offers some of the most popular solitaire games (Klondike, Golf, Canfield and Yukon) with three levels of difficulty to choose from. Win a game and you’re treated to one of 55 entertaining animated “ants-ics” on screen. Four card decks are available to choose from; four Windows wallpapers are provided for backgrounds. You can even play music CDs through the game’s interface. Whether you’re an entomologist or not, Solitaire Antics is one fun, quality title guaranteed to “kill ‘em dead.” IBM, IBM with Windows and Macintosh ($24.99). Circle Reader Service #12.

MicroLeague Interactive Software
University Office Plaza, Bellevue Bldg.,
Suite 201
262 Chapman Rd.
Newark, DE 19702
(800) 334-6572

HANNIBAL: Scipio Africanus and Jesus didn’t exactly have the same definition of “salt of the earth.” The former used salt to destroy the fields of Carthage and the latter used the expression to talk about enhancing life. This product, a German import from Starbyte Software, meets neither definition. An unbelievably detailed examination of the Second Punic War, the game certainly qualifies as a magnum opus with its daily (yes, daily) game turns, and circa 700 towns through which one must move armies (and elephants) in an intricate point-to-point web of movement. Leaders can do everything from counting noses in the ranks to setting diplomatic, economic and taxation policies. This in-depth examination of this broad reaching ancient war has put a lot of power in the user’s hands, but the gamer is forced to wear so many hats that movement of troops is virtually impossible, much less combat. Even devout followers of the subject will find that Hannibal had an easier time getting elephants over the Alps, than they will have in figuring out this muddled simulation. IBM ($49.95). Circle Reader Service #13.

Octave Systems Inc.
504 A Vandall Way
Campbell, CA 95008
(408) 866-8424

PUZZLEMANIA: If you and your pet have a standing disagreement about whether you can leave jigsaw puzzles unattended, this product may help you out. 24 cartoon frames have been immortalized, from Bananaaasaur Blu to Sam’s Secret Sauce, in classic puzzle form for your Windows delight. A nice touch is that the puzzles are cut in large pieces for youngster, medium-sized for intermediates, and eye-strainingly small for fanatics. To keep interest after all the puzzles are finished, a “mythical puzzle” offers no clue as to which cartoon it is, requiring a bit more time to finish. On-line hints, partial solutions, and the obvious convenience of saving the puzzle to the hard drive make for a fine tension-relieving product. If something seems to be missing, you can always let your pet chew on the game box. IBM Windows ($29.95) Circle Reader Service #14.

Raymond Lueders Studio
P.O. Box 755
Streamwood, IL 60107
(708) 697-9400

THE JOKER: Pranksters of the computer world, rejoice! Out of Raymond Lueders Studio comes a sneaky program that will make all your friends believe they’ve crashed their hard drives. This manically grinning program surprisingly supports SVGA and requires 11MB hard drive space. After installation, you gain the ability to quickly download virus-like joke routines onto other computers via floppy disk. After your (former?) friends calm down, you can assure them that, unlike real viruses, these programs go away. An interesting side-effect of The Joker is that you may use it on your own system as a security measure. Humorous, although not for the faint- of-heart. IBM ($29.00). Circle Reader Service #15.
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CITADEL OF THE DEAD: What a flashback! Some of us actually remember the very first Wizardry game, where a brave party of adventurers returned again and again to a single dank dungeon. In this bit of budgetware, players will enjoy a similar romp, although in 256 colors. Like the Wizardry games of old, graph paper is required as there is no auto-mapping feature. Real CRPG gamers can make their own maps, and for 13 levels of exploring, hacking and puzzling fun, your party of four can be playing with nary a scant look at the docs. For those seeking instant dungeon gratification at reasonable prices, a new gauntlet has been hurled. Macintosh ($24.95). Circle Reader Service #16.

Swift International, Ltd.
Stone Mill Office Park
722 Yorklyn Rd.
Hockessin, DE 19707-8701
(302) 234-1740

THE NEW BICYCLE CD-ROM COLLECTION: This very respectable collection of four basic types of card games offers more than might first appear. In each category (cribbage, bridge, poker and solitaire), there are options and variations that provide a comfortable amount of personal "suit"ability for any player's taste. With a typical Windows interface, the sounds and animations are sharp, and game histories, rules and next-play suggestions are always just a mouse click away. We were particularly impressed with the unexpected breadth of the poker game (where you can choose to play baseball and define your own wild cards) and the inclusion of 50 different solitaire games. Now all we need is more time to kill. IBM CD-ROM ($49.95). Circle Reader Service #17.

Three-Sixty Pacific, Inc.
2105 S. Bascom Ave., Suite 165
Campbell, CA 95008
(800) 653-1360

VICTORY AT SEA: Amid great anticipation, James F. Dunnigan's epic on the Pacific Theatre in WWII finally makes it to your local software store, but only on the Macintosh for the time being. Hard to argue with the research, since it was done by Al Nofi, noted historian and long-time associate of Dunnigan since their Strategy & Tactics magazine days. Despite the obvious similarities to Gary Grigsby's Pacific War, Dunnigan's work is certainly spiced differently. Lots of digitized military film footage gives, at times, a neo-documentary feel. Mac graphics, especially in wargames, are often overblown, but here they are detailed and effective while still gorgeous. As one might expect, the scope of the game is so vast that it will take some time to assimilate the experience. Even with the intuitive icon-driven interface and a hefty reference manual, figure on a long learning curve with this one. Mac ($79.95). Circle Reader Service #18.

21st Century Entertainment, Ltd.
P.O. Box 415
Webster, NY 14580
(716) 872-1200

PINBALL FANTASIES: The European pinball wizards of 21st Century sure play a mean, fast and frenzied pinball. Fantasies has the colorful sights, sounds and intricate table designs of the original Pinball Dreams, but also includes new features that make the games easier to play. Among these features are a hi-res mode that enables you to view half of the table at a time (as opposed to only a third) and several screen scrolling options (soft, medium, hard) that allow you to customize the scrolling motion to your tastes. The four tables in this package include Partyland, with its amusement park atmosphere; Speed Devils, with a road racing motif and appropriate looping ramps; Stones n Bones, in a typical horror setting; and Billion Dollar Game Show, with its take-off on Wheel of Fortune (and its lovely hostess). IBM ($49.95). Circle Reader Service #19.

Virtualari
via Rasori 8
20145 Milano, Italy
Contact: Laura Maestri
Tel: 31/300.174 Fax: 31/300.214

SCENERY ITALY 1.1: Many US gamers grow upon European products, because of the difference in interfaces, as well as the emphasis on arcade products. This scenery product for owners of Microsoft Flight Simulator 4.0 and 5.0, may cause many American flight sim addicts to change their minds. Italian navigational aids, such as VOR, NDB, TACAN and ILS are included, in addition to over 150 real Bottlang and Jeppesen charts, allowing for real IFR and VFR flights. Some 160 different scenery files combine with over 5MB of data to provide smooth transitions from one area to another during flight. The 100-plus airports for landing include one in France and three in Switzerland for those hardy pilots willing to fly over the majestic Alps. You might even buzz the Vatican and wave to the Pope. IBM. Circle Reader Service #20. cgw
Welcome to the Cooperstown of Computer Games. Here, raised upon pedestals, you’ll find the games that broke the records, established the benchmarks, and held gamers in delighted trances for hours untold.

*The Bard’s Tale* (Electronic Arts, 1985)  
*Chessmaster* (The Software Toolworks, 1986)  
*Sid Meier’s Civilization* (MicroProse, Inc., 1991)  
*Dungeon Master* (FTL Software, 1987)  
*Earl Weaver Baseball* (Electronic Arts, 1986)  
*Empire* (Interstel, 1978)  
*F-19 Stealth Fighter* (MicroProse, Inc., 1988)  
*Gettysburg: The Turning Point* (Strategic Simulations, Inc., 1986)  
*Gunship* (MicroProse, Inc., 1989)  
*Harpone* (Three-Sixty Pacific, 1989)  
*Kampfgruppe* (Strategic Simulations, Inc., 1985)  
*King’s Quest V* (Sierra On-Line, Inc., 1990)  
*M-1 Tank Platoon* (MicroProse, Inc., 1989)  
*Mech Brigade* (Strategic Simulations, Inc., 1985)  
*Might & Magic* (New World Computing, 1986)  
*M.U.L.E.* (Electronic Arts, 1983)  
*Pirates* (MicroProse, Inc., 1987)  
*Railroad Tycoon* (MicroProse, Inc., 1990)  
*Red Baron* (Dynamix, 1990)  
*SimCity* (Maxis, 1987)  
*Starflight* (Electronic Arts, 1986)  
*The Secret of Monkey Island* (LucasArts Entertainment Company, 1990)  
*Their Finest Hour* (LucasArts Entertainment Company, 1989)  
*Ultima IV* (Origin Systems, Inc., 1985)  
*Ultima VI* (Origin Systems, Inc., 1990)  
*War in Russia* (Strategic Simulations, Inc., 1984)  
*Wasteland* (Interplay Productions, Inc., 1986)  
*Wing Commander* (Origin Systems, Inc., 1991)  
*Wizardry* (Sir-Tech Software, 1981)  
*Zork* (Infocom, 1981)

When Interplay’s *Battle Chess* was released on the Amiga in 1989, it shot straight to the top of the CGW Poll. Its beautiful and funny animations showcased the Amiga’s sound and graphic capabilities, and put an interesting new twist on an ancient game. Not only did *Battle Chess* become a perennial in the CGW Poll ratings, but it became a showcase product for the first level of multimedia standards. It sold hundreds of thousands of copies covering just about every game platform imaginable, and spawned an entire genre of animated chess products. By introducing *Battle Chess*, Interplay became the Franklin Mint of computer chess publishers.

Interplay has improved the chess engine and animations in several updated versions, the most recent of which is their claymation *Battle Chess 4000*. Attention to detail has always been a key factor in the Interplay success formula and has been a hallmark of each of their sequels to *Battle Chess*. We welcome this innovative product into our showcase of computer game history.
## Top Adventure Games

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>Day of the Tentacle</td>
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<td>Draakus Unleashed</td>
<td>Viscov</td>
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<td>Quest for Glory II</td>
<td>Sierra</td>
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</tr>
<tr>
<td>Sherlock Holmes CD I</td>
<td>Viscov</td>
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</tr>
<tr>
<td>The Seventh Guest</td>
<td>Virgin</td>
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<tr>
<td>Star Control II</td>
<td>Activision</td>
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## Top Role Playing Games

<table>
<thead>
<tr>
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<td>Virgin</td>
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## Top Simulation Games

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<td>X-Wing</td>
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<td>MicroProse</td>
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## Top Strategy Games

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<td>Soldier’s Journey</td>
<td>GGP</td>
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<td>Virgin</td>
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## Reader Poll #115 Top 100 Games

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<td>Origin</td>
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<td>V for Victory: Valyrie Luki</td>
<td>Three-Sixty Pacific</td>
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<td>Virgin</td>
<td>RP</td>
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<td>WG</td>
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<tr>
<td>Privateer</td>
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<td>WG</td>
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<td>SP</td>
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## Top Wargames

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<tr>
<td>Wargods II</td>
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<td>V for Victory: Velikye Luid</td>
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<td>The Perfect General</td>
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<td>Three-Sixty Pacific</td>
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<td>Conquered Kingdoms</td>
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<td>War in Russia</td>
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<tr>
<td>Pacific War</td>
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## Top Action Games

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<td>Wing Commander II</td>
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<td>Lemmings</td>
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<td>Tetris Classic</td>
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<td>Oh, Not More Lemmings</td>
<td>Psygnosis</td>
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<tr>
<td>Out of this World</td>
<td>Inplay</td>
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## Top Sports Games

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<td>Field Pro Sports Football Pro</td>
<td>Dynamix</td>
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<tr>
<td>Hardball III</td>
<td>Accolade</td>
<td>9.37</td>
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<td>NHLPA Hockey</td>
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<td>Jack Nicklaus Signature Golf</td>
<td>Electronic Arts</td>
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<td>Tony La Russa Baseball II</td>
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<td>Wayne Gretzky Hockey II</td>
<td>Bolshaya</td>
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*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.*

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**The Computer Gaming World Poll**

A monthly survey of the readers of Computer Gaming World Magazine.
### PC Research Hits List
#### Of Top-Selling Software

**December, 1993**

**PC Games (MS-DOS/Windows)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Title and Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><em>Microsoft Flight Simulator 5.0</em> (Microsoft Corporation)</td>
</tr>
<tr>
<td>2.</td>
<td><em>Star Wars Rebel Assault</em> (LucasArts Entertainment)</td>
</tr>
<tr>
<td>3.</td>
<td><em>The 7th Guest</em> (Virgin Interactive Entertainment)</td>
</tr>
<tr>
<td>4.</td>
<td><em>Police Quest IV</em> (Sierra On-Line, Inc.)</td>
</tr>
<tr>
<td>5.</td>
<td><em>Star Trek: Judgment Rites</em> (Interplay Productions, Inc.)</td>
</tr>
<tr>
<td>6.</td>
<td><em>Aces Over Europe</em> (Sierra On-Line, Inc.)</td>
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<tr>
<td>7.</td>
<td><em>Leisure Suit Larry VI</em> (Sierra On-Line, Inc.)</td>
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<tr>
<td>8.</td>
<td><em>SimCity (Maxis Software)</em></td>
</tr>
<tr>
<td>9.</td>
<td><em>X-Wing: B-Wing</em> (LucasArts Entertainment)</td>
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<td>10.</td>
<td><em>Wolkenstein 3D/Spear of Destiny</em> (Formgen)</td>
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<td>16.</td>
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<td>18.</td>
<td><em>Master of Orion</em> (MicroProse, Inc.)</td>
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<td>19.</td>
<td><em>Return to Zork</em> (Activation)</td>
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<td>20.</td>
<td><em>Comanche: Over the Edge</em> (NovoLogic, Inc.)</td>
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**Amiga Games**

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<th>Title and Source</th>
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<tr>
<td>2.</td>
<td><em>Road Rash</em> (Electronic Arts)</td>
</tr>
<tr>
<td>3.</td>
<td><em>The Secret of Monkey Island</em> (LucasArts Entertainment)</td>
</tr>
<tr>
<td>4.</td>
<td><em>King's Quest V</em> (Sierra On-Line, Inc.)</td>
</tr>
<tr>
<td>5.</td>
<td><em>PGA Tour Golf</em> (Electronic Arts)</td>
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**Macintosh Games**

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<tr>
<th>Rank</th>
<th>Title and Source</th>
</tr>
</thead>
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<tr>
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<td><em>SimCity 2000</em> (Maxis Software)</td>
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<tr>
<td>2.</td>
<td><em>Mys</em> (Broderbund Software, Inc.)</td>
</tr>
<tr>
<td>3.</td>
<td><em>Chessmaster 3000</em> (The Software Toolworks)</td>
</tr>
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<td>4.</td>
<td><em>SimCity</em> (Maxis Software)</td>
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<td>5.</td>
<td><em>Microsoft Flight Simulator</em> (Microsoft Corporation)</td>
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**CD-ROM Products**

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<tr>
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<th>Title and Source</th>
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<td>1.</td>
<td><em>Star Wars Rebel Assault</em> (LucasArts Entertainment)</td>
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<td><em>The 7th Guest</em> (Virgin Interactive Entertainment)</td>
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<td>3.</td>
<td><em>Microsoft Encarta</em> (Microsoft Corporation)</td>
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<td>4.</td>
<td><em>Return to Zork</em> (Activation)</td>
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<td>5.</td>
<td><em>Gabriel Knight</em> (Sierra On-Line, Inc.)</td>
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<td><em>King's Quest VI</em> (Sierra On-Line, Inc.)</td>
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<td>7.</td>
<td><em>WolfPack</em> (Electronic Arts)</td>
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<td>8.</td>
<td><em>AD&amp;D Dungeon Hack</em> (Strategic Simulations, Inc.)</td>
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<td><em>Dracula Unleashed</em> (Viacom New Media)</td>
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<td>10.</td>
<td><em>Might and Magic: World of Xeen</em> (New World Computing)</td>
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**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 receiving our latest issue we can expect to see cards pouring in with suggestions, encouragements, trades 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 #115, February 1994

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<tr>
<th>Rank</th>
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<td>2.</td>
<td><em>Master of Orion</em> (MicroProse)</td>
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<td>3.</td>
<td><em>SimCity 2000</em> (Maxis Software)</td>
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<td>4.</td>
<td><em>X-Wing</em> (LucasArts Entertainment)</td>
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<td>5.</td>
<td><em>Front Page Sports Football Pro</em> (Dynax)</td>
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<td>6.</td>
<td><em>Warlords II</em> (Strategic Studies Group)</td>
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<td>7.</td>
<td><em>Aces Over Europe</em> (Dynax)</td>
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<td>8.</td>
<td><em>Indy Car Racing</em> (Papyrus)</td>
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<td>10.</td>
<td><em>Betrayal at Krondor</em> (Dynax)</td>
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**What Do You Think?**

"Doom! Doom! Doom! No other game even compares to the addictiveness of NetDoom with four devoted players! Too bad all those overpriced entertainment systems (SEGA. 3DO...) can't network. When was the last time you chainedaw your best friend? The only game I've stayed up 72+ straight hours to play."  
— Anonymous, Doom Fiend, Flagstaff, AZ

"Linking four people together for a game of Doom is the quickest way to destroy a productive, boring evening of work. Live those guys at id."  
— Greg Jack, Indianapolis, IN

"The only thing missing in football simulations is the ability to place bounties. I'd really like to see eleven defensive players rush to the sidelines and bury Buddy Ryan... Pass this on to MicroProse and Dynamix."  
— Mark Francis, Richmond, VA

"Been playing MOO till the cows come home—fortunately, I don't have any cows, so I'm getting a lot of games in!"  
— Mike Brenner, Fairfield, CA

"Help! My space empire has fallen and I can't stop playing!"  
— Emperor In Exile, Worcester, MA

"Can't talk. Playing Master of Orion."
— T. Madden, St. Louis, MO

"Indy Car Racing is the best race sim ever. The handling is superb and it has the best graphics of almost any game on the market. It's like you can feel the car go around the track and when you're going to lose control. There are some minor things that would make it better, like choosing your own car colors and the ability to look left and right."
— Marty N., Grande Prairie, Alberta, Canada

"Frontier II: If you have a life outside the house, forget it. This game is very, very addictive. It's out of this world!"
— Lost In Space, Omaha, NE
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., CompServe 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)

Clash of Steele V1.1 Update: Fixes a number of small bugs. 11/18/93
** Comanche: Maximum Overkill Update: Includes several hardware fixes, including a fix for the Pentium and the Diamond Stealth Pro video card. 1/27/94
Companions of Xanth V1.1.0 Update: Corrects graphic corruption problems associated with Microsoft (V3.2+) and Logitech (V6.13) mouse drivers. 12/23/93

Conquered Kingdoms Update: Fixes some save game problems that have been reported. 12/22/93
** CyberRace CD-ROM V1.2 Update: Lowers the base memory requirements, fixes the save game problems, and remedies joystick problems (especially with Phoenix BIOS). 1/20/94
Empire Deluxe V3.11a Upgrade: Updates Version 3.11 to Version 3.11a. Corrects a number of minor bugs and extends the sound card support. 12/02/93

Fantasy Empires V1.1 Update: Fixes the Multiplying Siege Engine Bug, the Disappearing Hero Bug, and eliminates most random crashes. 11/25/93

Gabriel Knight Floppy V1.0A Patch: Corrects various memory allocation and "fatal -2 errors" that some players have encountered. 12/16/93
** Gabriel Knight CD-ROM Update: Fixes all known problems and speeds up the game restoration process. 1/21/94
** Hornet Patch: Fixes many bugs and adds several new features to Spectrum Holobyte's new combat sim. 2/07/94

IndyCar Racing V1.02 Update: Fixes random crashes/hangs and low memory problems. 1/15/93

Kasperov's Gambit Version 1.1: In addition to restoring the chess engine to the full strength of the original 32-bit Socrates II program, this patch also improves driver setups, low-memory detection, time controls, ratings and much more. 12/3/93
** Legend of Kyrandia V1.3 Update: Fixes random lockups and corrects some of the phrasing used by the characters. 2/04/94
Leisure Suit Larry 6 Update: Fixes the "Oops errors" that occur while playing. Also contains the bonus sound effects for 8-bit sound cards. 11/24/93
** Links 386 Pro Version 1.21: Corrects many major and minor bugs. 1/28/94
** Lost In Time CD-ROM Update: Fixes problems with several CD drives (Mitsumi, Orchid) and certain Sound Blaster-compatible audio cards. 2/09/94

Lucky's Casino Adventure Update: Enables the program to recognize most VESA drivers, and allows the users to set the IRQ and Base address for any sound card. 12/30/93

Master of Orion V1.3 Upgrade: This patch features tougher opponents, adjusted playbalance, and legions of minor combat tweaks. 1/06/94

Merchant Prince Update: Corrects some minor bugs in QQP's latest. 12/29/93
** Metal and Lace V1.4A2 Update: Fixes a few minor bugs and adds an Easy and Hard mode. 1/20/94
** Mortal Kombat PC Update: Improves sound card support, fixes crash bugs, and requires less conventional memory. 1/21/94
NFL Coaches Club Football V2.0 Update: Corrects some rare problems, improves the AI, and adds some new features. 12/14/93
** Police Quest 4 Floppy Patch: Corrects the memory allocation errors and lockups, and speeds up the game restoring process. 1/21/94
** Police Quest 4 Floppy Handcard Patch: Allows more time to handcuff Walker. 1/21/94
** Quest For Glory 4 Patch: Corrects various memory allocation errors and lockups that some player have been encountering, in addition to a few puzzle bugs. 1/21/94

Railroad Tycoon Deluxe Version 2: Fixes a few problems and adds some features. 11/23/93

Rebel Assault V1.4 Upgrade: Fixes joystick control and calibration problems, as well as some random lock-ups. 12/16/93

Rules of Engagement 2 V1.07 Update (Amiga): Update to the Amiga version of Infraction's game. 12/02/93

Solitaire's Journey For Windows Patch: Corrects minor bugs in the Windows version of SJ. 11/11/93
** TFX Patch: Fixes the unexpected interrupt error message due to hardware conflicts, in addition to unexplained crashes. 1/24/94
** War in Russia V1.1 Update: Makes many adjustments to the game mechanics and fixes minor bugs. 2/08/94

World of Xeen CD-ROM Patch: Fixes the problems with swapping CDs and with the boat ride into Rivercity. 1/03/94

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 online by CGW and exchange messages on the bulletin boards (we can be reached there at EXPTF408). 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.
Pot Of Hops

by George Bernard Swytte

It was out by Christ Church and down by the levee that my vivacious blonde informant and I encountered the Guinness Brewery. We walked in the door on the other side of the famous sign of the harp and were immediately assaulted by the scent of hops.

Sure and I know you're not going to believe me, but we saw the little imp long before we reached the tasting room. Indeed, we had just walked by the exhibit in the Guinness Museum that showed how they used to rake the grain bins by hand and I had just told my lovely companion that it would make a great set for Serf City from SSI. It's supposed to be a puzzle/management game that's somewhere in the Lemmings meets Stronghold vein.

He was sitting on a bag of hops and, even though he wasn't as small as one of those special effects-induced characters in the old Disney film (Darby O'Gill and the Little People), he was smaller than standard issue and, as I was to discover, significantly smaller than same. I would have thought he was part of that rumored Dungeons & Dragons movie that has apparently advertised for special effects technicians in the Hollywood trade papers, except they only have little people of dwarven descent, and I couldn't imagine this fellow with the traditional beard.

My companion must have been thinking the same thing because she asked me if I knew that SSI and TSR were parting ways, and that SSI was working on its last two projects under the Ad&D license. Then, she told me that Nick Belaff, former New World producer and producer extraordinaire at SSI for many years, was also leaving the SSI fold. She told me he was joining Northstar Studios and working with ex-New World financial guru Ron Spitzer. The plot thickened, however, when she told me that Interplay had a stake in Northstar.

The diminutive gentleman entered the conversation at this point. "Sounds rather like colonial days doesn't it, what with the bigger game companies takin' a stake in the smaller companies and motion picture companies takin' a stake in them."

I complimented him on his astuteness and asked him if he was interested in computer games. "Of course, I am," was his reply, "I'm a leprechaun I am and we're interested in all sorts o' mischief."

Since he was so interested, I told him that MicroProse is working on a game like Sid Meier's Civilization that covers the Age of Colonization. I had no sooner told my news, however, than my companion said, "And if you want multi-player conquest, I heard Kesmai is working on Empire Deluxe for a major on-line network."

Suddenly, with a wicked grin, he said, "Ya know, your ladyfriend is so lovely that I'll make you a bargain."

"What kind of bargain?" I asked.

"Leprechauns have special powers. If I can grant you three wishes, he chuckled, "you have to let me kiss your lady."

Since neither of us actually believed in leprechauns, she thought it was a harmless pastime to play along with the good-natured fellow. So, I started out with something easy, something I could check. "I wish I knew what Papyrus was up to." He said that was probably easy, but we both had to close our eyes and believe. After a moment, he told us to open our eyes and said, "Did you mean the NASCAR stock car racing simulation or the remake of the Tom Snyder Productions Math Mysteries Series?"

I wasn't sure that he really knew about the new IBM versions of the latter with SVGA graphics and enhanced audio soundtrack, but when he went on to say that Secrets of Vincent's Museum would precede the Mystery of Hotel Victoria, I knew that he knew what he was talking about. So, I proceeded to wish for what nearly every CGW reader would wish for, "I wish MicroProse would publish a multiplayer version of Sid Meier's Civilization."

He had us close our eyes again, and I thought I heard the brief flutter of flipping pages, but it was only a moment before he replied, "Shore and it's done."

I was thrilled. I had only heard from my sources that they might be doing the product. In fact, I had it written down in my notes to check at a later time.

"Want to know anything else?" he asked.

"The name of SSI's upcoming tank game, Wargame Construction Kit II: Tanks instead of Rolling Steel? The name of the fantasy game coming out of Texas from SimTex, Masters of Magic? They're gonna' call it MOM for short. Maybe that Interplay's bringing back the original cast of Star Trek for the Judgment Rites CD? The fact that they've started work on their fourth Star Trek product?"

I was amazed. The man was at least as well-informed, maybe more, than I was. I changed my last wish to a desire for an appearance on the Letterman show. "Done!" he said and jumped up on the bag of hops and planted a wet and wild kiss on the sensuous lips of my lovely companion.

"How old are you?" he asked me as he walked quickly toward the tasting room.

"Fifty-three," I replied, "Why?"

He shook his head and shouted back down the hall, "Fifty-three years old and he still believes in leprechauns." He tossed my notebook back toward us and laughed as the barmaid drew a stout from the tap.
DOOM is a trademark of id Software. ©1993. Other trademarks are the property of their respective companies.

Sound effects require a 100% Sound Blaster® compatible card. Gravis Ultrasound™ or Pro Audio Spectrum™ 16-bit sound cards must be used. A network interface card requires local link capabilities only.

Readme: 386DX PC compatible or better. Hard disk drive: 5MB of memory. A 486 is recommended. Multiplayer option requires a network which uses the RCP protocol. A modem or serial link is required. For details on obtaining a network, contact your local id Software representative.

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Half-disking demonic enemies of Hell
Blood-draining effects for sound effects
Incredibly detailed 3-D worlds
Two-player action over modem
Four-player combat over network

DOOM is a lightning-fast, virtual reality adventure where the base of the invasion, your mission is to survive the crisis. With the help of the DOOM Marine, you must navigate through the depths of Hell, facing off against monstrous enemies. With its groundbreaking graphics and sound, DOOM is a true pioneer of the first-person shooter genre.

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