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The #1 Computer Game Magazine

November 1993
Number 112

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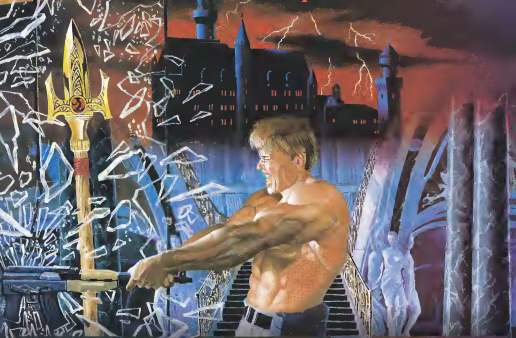
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SCORE	LEVELS	ITEMS	WOLFENSTEIN	ADLIB
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Dump The Excuses, Not The Cards



Illustration by Steve Harvey

State of the Industry: The following story is true. Only the names have been changed to protect the guilty (and to save space). Unfortunately, it is a story that is becoming more and more frequent. A gamer buys a copy of Way Late Software's *Oedipus Pies* graphic adventure and dutifully fills out her registration card. Being a smart consumer, she elects to change the spelling of her name just a trifle, so she can monitor the number of mailing lists to which the software publisher would sell her name. She plays the game over the course of the next few weeks, experiences a bug that will not let her finish the game, and erroneously believes that she just isn't smart enough to solve the game. She tries the Way Late Hint Line for any clues, but doesn't get an answer to her problem, since it is indeed a bug and not a puzzle that she is encountering. She erases the game from her hard drive in frustration and, since her local software store doesn't offer return privileges, files the game in the dusty box with her other disappointing purchases.

She suddenly starts to receive catalogs and contest offers from a half-dozen sources, all with the variant spelling of her name that she put on her warranty card. A couple of months go by and she picks up a copy of *Computer Gaming World*. She looks at the department we call "Patches" and discovers that there is an updated version of *Oedipus Pies*. Her blood pressure rises as she discovers that the patch has been available for weeks. Her warranty card had garnered a bonanza of junk mail, including the latest Way Late catalog, but no word of the patch.

The story is not isolated. One day, a gamer who knew that I was the editor of *CGW* simultaneously thanked me for having the "Patches" column in the magazine (ironic, because I wasn't sure that it was a very useful column when the rest of the editorial staff proposed the idea) and asked why a major software company had the time to sell his name and address, but not to let him know when there were major bug fixes (ironic, because the latter is exactly what I thought software companies did with the registration cards).

The same night, I spoke on Phoenix radio's "Talking Command of Your Computer" call-in talk show. Almost the first question from a caller was "Why do you have to have that Patches column in the back of your magazine? That's not your responsibility, that's the job of the software companies." I answered honestly that we provided the column as a service because most of the publishers were not updating their customers sufficiently. Since the information was not readily available, we provided it. I went on record as stating that I could see no excuse for the publishers not sending a notification of bug fixes and upgrades to their registered customers. I still don't.

I've spent a lot of time trying to figure out why many of the publishers do not follow through on providing information to registered owners. First, there is the damage control theory. They may be

afraid of adverse publicity and, consequently, hope that most gamers won't notice the bug, so they keep the patch a secret until it's needed. Unfortunately, this may mean a lot of negative "word of mouth" publicity from dissatisfied customers that might have been avoided if they had followed through in the first place.

Second, there is the greedy capitalist theory. Since the shelf-life of a game may not be very long (definitely much shorter than a business or productivity application), a company may decide that it is not worthwhile to continue to support a game after it is a "back list" item. Unfortunately, gamers do not look upon a game as having value for the length of time it is on sale. A game is of value as long as one owns it and plays it. So, when a company fails to support the gamer's software, that company is telling the gamer that it doesn't care about either his/her current satisfaction or future business.

Third, there is the value-subtracted theory. If a company can manage to sell the registration card names to a mailing list broker, it manages to recoup some of the money it spends on data entry. If a company can send out a catalog mailing, it can recoup some of the data entry expense in new sales. If a company sends out thousands of notices to customers who may or may not be continuing to play a given game, it stands to lose money for every customer who sends in for the free bug fix or upgrade. Hence, it does not seem to certain

When Are Software Registration Cards Going To Fulfill Their Promise?

marketing professionals that it is worthwhile to make the bug fixes too well-known among consumers.

What should be done? We honestly believe that software publishers need to bite the bullet and get the news about these patches to every registered gamer. We will continue to help get out the word with our "Patches" column, but we think it is time for the entertainment software industry to take a mature customer service approach rather than acting like a "fly by night" industry. There are some publishers, particularly small publishers, that have really done a good job of serving their customers, even when it cost them a significant amount. However, we think it is high time for all publishers to use those registration cards for what they were designed for rather than playing "hide and seek" with their own customers.

State of the Magazine: This issue features a record number of pages and we are rather excited about the amount of material we've covered. Our special section focuses on games which can be customized by the gamer. We take a look at *Origin's Wing Commander Academy* and *Digital Alchemy's Adventure Writer for Windows*. Then, we excerpt guidelines for creating *Empire Deluxe* scenarios from Alan Emrich's new book *Empire Deluxe: The Official Strategy Guide*. Emrich's co-author, Mark "Skulker" Cartroll, follows up with a look at New World's celebrity designer scenario disk for *Empire Deluxe*. Then, after M. Evan Brooks forms a line of battle and reviews *Simulations Canada's Man of War*, Johnny Wilson offers fresh scenarios for the new game of fighting sail. Designer Scott Hamilton offers designer notes on his popular *Aide de Camp* PBEM utility. We hope you enjoy...**cow**

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The Latest News From The Gaming World

Atari Jaguar Unveiled—Stalks 3DO

Using quotations from rival CEO, Trip Hawkins of 3DO Corporation, Sam Tramiel unveiled his company's answer to this Fall's 32-bit game machines. Atari's Jaguar will use a 64-bit RISC-based architecture with a true 64-bit data path. It will feature both a graphics processor and digital signal processor for sound at 27 MIPS (million instructions per second) respectively. Like the machines to be built by the competition, the Jaguar will feature a programmable object processor to handle sprites, pixels or character maps. It will also feature a "blitter," a piece of hardware that provides fast Gouraud shading. The Atari executive stated further that the machine would feature 32-bit true color graphics on NTSC screens and would feature 16-bit CD-quality digital stereo sound.

Tramiel seemed annoyed by Trip Hawkins' pre-unveiling speculation that the Jaguar was actually two 32-bit processors running in parallel. In classic debate fashion, Tramiel asserted that the Jaguar would be a 240-bit machine using Hawkins' logic. Atari also used Hawkins' assertion that the next level of game machine had to "provide a performance level that puts the stake way out there" in order to stress how much they believe the Jaguar's technology is beyond 3DO.

Atari revealed that the launch of the machine will take place during the holiday season of 1993 in New York, San Francisco, Paris and London. It will ship with a joystick and one



bundled cartridge from their library of five titles available at launch. These include *Club Drive* (wanking title, a driving game), *Dino Duels* (an enhanced version of Gametek's *Hemlock game*), *Treasure of the Crescent Galaxy* (a horizontal scrolling space shoot-'em-up), *Alien vs. Predator* (a first-person 3-D scroller with smooth-scrolling 3-D texture-mapped graphics); and *Cybermorph* (a flying shooter with gouraud shaded objects). The last three titles were demonstrated at the press conference with the first two actually playing

off cartridges (the Jaguar allows up to six megabytes of code per ROM cartridge) and the third playing off a custom development system.

The basic Jaguar system will be cartridge based and will sell for around \$200. The CD-ROM drive will cost an additional \$200 and will feature the Cinepak digital compression scheme from SuperMac that is being used on several platforms. Games are expected to retail between \$39 and \$69 per cartridge, and CD titles may cost less.

CGW reminded Tramiel about Atari's assertion that the Jaguar was capable of being a set-top box for the "digital highway" and asked if there were specific plans in the works for either interactive television connections or ISDN hook-ups. Tramiel responded by observing that Time-Warner

still owns 24% of Atari and suggested that a television test was on a future agenda. Then, Tramiel pointed to the numeric keypad on the joystick (controller) and said that they were having discussions with an unspecified phone system. Asked about modem links, Tramiel observed that there is a comm-link port for multiple machines to be connected via direct connect.

Does 3DO Live Up To Promises? 3DO Executive Responds To CGW Concerns

Prior to the Atari Jaguar press conference, CGW interviewed Trip Hawkins concerning 3DO's plans. In particular, CGW asked if 3DO had settled upon a storage scheme for their new game system, and why a disk drive or flash memory was not chosen. Hawkins responded that the designers had opted for a 32K battery storage capacity on the machine itself. This would allow for a gamer to store his/her preferences and perhaps one save game state. Asked if this wasn't too limited for storage capacity, Hawkins drew from anecdotal evidence concerning EA's heyday of interactive stories. He said that designers were always urged to get the save states down to well less than 32K. "Anything more," contends Hawkins, "is inefficient design."



Hawkins went on to say that disk drives were too expensive for the small benefit they would provide when the basic delivery system would be CD-based. He did observe that flash memory may be manufactured for the machine in the future, but said that nothing was definite.

Asked about the one port for a control pad and the seeming limited capacity for multi-player interaction, Hawkins pointed out that the control pads could be daisy-chained to allow up to eight controllers. Showing CGW a production model of the Panasonic machine, he observed that the control pad that ships with the machine has to be at the end of the daisy chain, but said that additional pads would allow for the daisy chaining.

CGW expressed concern about the need for an expansion module in order to take advantage of the many future peripherals expected for the 3DO. Hawkins affirmed that the expansion module is definitely being manufactured by Matsushita (and possibly other hardware manufacturers) and will reach the market around the middle of 1994.

Regarding the promised modem, Hawkins assured CGW that companies are competing for their designs to be the standardized tech-

nology for the 3DO. He did reveal, however, that the 3DO architecture has been established so that the addition of a modem or other peripheral will simply extend the bus so that they add to the data path of the machine.

Reminded that interactive television was part of the original promise of the 3DO machine, Hawkins explained something of 3DO's current strategy with regard to making the machines into set-top boxes for cable television delivery. He stated that the company could use the 3DO core technology with an analog television tuner, Genlock device with MPEG2 and a port for the CD drive. Providing a port for the CD drive saves on cost of goods (and many cable operators do not really want to spend the extra dollars per unit on a drive that they are not sure will enhance business).

Queried about a digital future, Hawkins



3D Adventures (left) and Crash 'N Burn (below) for 3DO.

unequivocally asserted that 3DO could provide for HDTV immediately.

He then noted that they would be way ahead of the growth curve on that technology to build the capability into 3DO now and questioned whether cable operators would be willing to implement very many HDTV channels ini-



tially, since there is a bandwidth problem (one would be able to broadcast less HDTV channels than NTSC channels). "Whenever there is a sufficient HDTV user base," Hawkins continued, "there will be a 3DO machine to serve it. We could do it now. We'll do it better in the future."

Questioned as to why 3DO is not the set-top box for any current interactive television tests, Hawkins observed that the company was not committed to manufacturing custom prototypes. "That way, you can easily end up with a 4,000 unit kluge that you won't be able to use anywhere."

After the interview, Hawkins demonstrated sampler programs on the Panasonic production unit. CGW was impressed with the Cinepak video performance and the firmware (permanently installed software). The performance was impressive on all counts, and we await the release this holiday season.

Can We Talk?

New Hardware Offers Voice Recognition And 3D Sound

"Mr. Chekhov! Fire when ready."

Star Trek fans who have dreamt of barking orders from the command chair of the U.S.S. Enterprise may soon have reason to shout out loud. Sierra Semiconductor's new *Aria* chipset, when teamed with Interplay's new version of *Star Trek: The 25th Anniversary*, may make cut, overacting Shatners of many computer gaming fans.

The new *Aria* chipset featured in a new wave of sound cards from Diamond, Computer Peripherals, Inc. and Prometheus offers several gaming enhancements, including a voice recognition system that actually works. The chipset's *Listener* voice recognition is unique in that it does not need to be trained to the user's voice. It uses a "database" of 70 different voices to allow for a wide range of pronunciations and verbal idiosyncrasies. One need only select the *Aria Listener* voice recognition option in their game setup, and the game is all ears. The system, as implemented in Interplay's *Star Trek* game, worked quite well and impressed a skeptical CGW staff. The first three episodes of the *Star Trek* game will be bundled with *Aria* products in the future. Several other companies have committed to supporting *Aria* as well, among them Bethesda, Id, Impressions, LucasArts, Maxis, Sierra, and Twin Dolphin.

Voice recognition is not the only *Aria* feature to speak of. In addition to provid-

ing OPL-2 (YM3812) FM emulation and wave table synthesis, the DSP offers *QSound*, a system that creates 3D audio with two speakers. A pilot in a flight sim using *QSound* could hear bullets stitching his tail from behind, and in a game like *Wolfenstein 3D*, one could hear the sounds of Nazi guards echoing from side corridors. With a decent set of speakers the effect is very realistic.

The hardware power behind these features is a non-proprietary DSP (digital signal processor) from Texas Instruments. The DSP delivers *Aria*'s sound enhancements without stealing additional processing power from games. Thus, a gamer could have *QSound*, digital audio, and wave table synthesis, or voice recognition, digital audio, and wave table synthesis running at once, without any degradation in game performance.

At a projected street price under \$200, the *Aria*-equipped sound cards may give gamers a tantalizing sound solution. And since the cards will be software upgradable, owners will not have to scrap the board in the future if they want enhancements to the FM emulation and wave table synthesis; they can upgrade with a simple software installation.

For more information on the *Aria* chipset, contact Sierra Semiconductor at (408) 263-9300.

Laptops Take Flight

Laptop owners grounded by their portable's lack of a joystick can finally get a grip. Two companies have released products which allow a joystick to be connected into a laptop's serial or parallel port. The two products already support a number of popular flight and racing sims.

Genovation's *Parallel Game Port* is a small adapter that enables gamers to plug a joystick into the parallel port of their portable computer. A 3 1/2-inch disk has "patches" for several games, making the product compatible with *X-Wing*, *Wing Commander II*, *Aces of the Pacific*, *F-15 Strike Eagle III*, *World Circuit*, *Wolfenstein 3D*, *Strike Commander*, *Red Baron* and *Stunt Island*. In addition, consumers receive a toll-free BBS line for downloading new game patches, bringing the total number of supported games to more than 50. The product performed flawlessly in a casual, two-hour test with Microprose's *F-15 Strike Eagle III*.

The Genovation joystick adapter offers the potential for a highly customized joystick. Because the product uses the laptop's parallel game port, 128 keys can be programmed for different functions in a



Notebook Gameport joystick adapter

30 Frames Per Second? Get Reel!

game. No joystick has that many buttons, but the trend towards more buttons and greater control on joysticks won't be lost with this product. Genovation's *Parallel Game Port* is available now for \$45. For more information, call (714) 833-3355.

The *Notebook Gameport* from Colorado Spectrum enables joystick and mouse connection through a laptop's serial port. A disk is included with a joystick driver; installation is painless. The *Notebook Gameport* is supported by *F-15 Strike Eagle III*, *X-Wing*, *Microsoft Flight Simulator 4.0*, *Mig-29* and *Falcon 3.0*. Support for other games is expected in the near future, including *Aces Over Europe*, *Speed Racer*, *World Circuit*, *Wing Commander*, *Strike Commander*, and others.

Colorado Spectrum's *Notebook Gameport* is available for a suggested retail price of \$49.95. For more information, call (303) 225-6929.

Those unimpressed by the video quality of current multimedia products should take a look at Sigma Design's *ReelMagic* card. The card attaches to a video card's feature connector and will allow gamers to view MPEG video at 30 frames per second at full screen resolution, whether on a 386-16MHz or a hot-rod 486. In a demonstration of the hardware, *CGW* saw a Bon Viv video playing as clearly and smoothly as on MTV, with CD-quality sound. The playback program ran in *Windows*, and the CD was playing off of a single speed CD-ROM drive.

ReelMagic achieves this incredible performance by doing MPEG video decompression on its own on-board processor. The processor chases away at the video decompression independently from the computer's processor. Even on a single speed CD-ROM, the result is high quality video without the annoying drive-access pauses associated with current CD-ROM titles.

The *ReelMagic* card also incorporates 16-bit sound with OPL-2 FM synthesis, making it Sound Blaster and Ad Lib compatible. Sigma Design plans to incorporate the OPL-3 in their next generation product.

Many multimedia game publishers who have had to degrade the quality of their video to deal with current hardware limitations are very excited about the card. Access, Interplay, Psygnosis, Readysoft, Sierra and Trilobyte, among others, are currently developing titles that will take advantage of the card's capabilities. Interplay's *Lord of The Rings CD-ROM*, featuring footage from the Ralph Bakshi film, and Trilobyte's sequel to *The Seventh Guest*, *The Eleventh Hour*, will both feature MPEG video footage. A special version of Activision's *Return to Zork* will be packaged with the initial release of the board.

As it is based on the MPEG video standard, the card will be compatible with an upcoming VideoCD standard. The standard will allow movies to be played from a standard CD-ROM. With the current compression algorithms, 74 minutes of S-VHS video and CD-quality audio can be packed onto one standard silver platter.

Look for the *ReelMagic* card this holiday season at a suggested list price of \$449. Sigma Designs can be reached at (800) 845-8086.



Commodore Puts In Its 32-Bits Worth

This September's *World of Commodore Amiga* show in Pasadena, CA saw the unveiling of Commodore's Amiga CD32. In their traditional low key fashion, Commodore quietly introduced its new gaming console, scheduled for US distribution in November. But don't expect to run down to your local Toys-R-Us and pick one up in time for the holidays. The limited holiday season distribution will only target key cities; mass distribution will not begin until January.

Commodore's Amiga CD32 is the first 32-bit game console available to consumers, and the only one currently employing a double-speed CD-ROM drive. Retailing for \$399, the Amiga CD32 also debuts several hundred dollars below the 3DO and the Jaguar with CD drive.

A CD-only gaming platform, the CD32 provides no cartridge slot. Based on an Amiga 1200, the CD32 employs a 14MHz 68EC020 Motorola processor; 2MB 32-bit RAM; custom processors for video, graphics and sound; and a double-speed CD-ROM drive. Outputs allow for connection to NTSC composite color, S-VHS and standard RF modulated TVs, plus stereo headphones and stereo audio jacks. The custom graphic chips allow 256,000 colors to be displayed at once, with an expansion

bus provided for an MPEG-1 full-motion video module (available by year end for about \$200). An 11-button controller fits out the package. Supported are standard audio CD, CD+G and the new VideoCD standard for movies on compact disc.

Third party support is provided for system expansion with ports for two game controllers/joysticks, a serial port, local and video bus connectors and several auxiliary ports. Inevitably, hardware additions will soon appear (mice, controllers, memory cards, keyboards and virtual reality headsets), provided the CD32 gains its necessary market penetration.

A significant amount of software will be available immediately. Limited compatibility with CDTV, Commodore's earlier CD-based machine, offers existing titles that will play in the CD32, including a mix of 24 games and educational programs. Many Amiga computer titles (from floppy-based

products) are being converted for the new console, too. As far as new CD specific titles go, several game developers are hard at work producing games designed to exploit the CD32's capabilities. These are, among others, Maxis, Ocean, Psygnosis and

Virgin. Look for *Jurassic Park*, *Zool 2*, *Diggers*, *Microcosm*, *Defender of the Crown 2*, *Dune* and *SimCity* in the upcoming months.

Will CD32 Succeed? As with each of the new systems ready to emerge (3DO, CD32 and Jaguar), the question of the CD32's future remains open. If Commodore sticks to their traditional marketing plan (of stealth-like, atrophic advertising), they could deliver their new gaming machine stillborn. Yet, as it stands, the CD32 has a good chance of getting an early lion's share of the 32-bit and beyond console game market. It's certainly the most cost effective alternative at present, and the most expandable console device to arrive thus far. For more information, contact Commodore Business Machines, Inc., 1200 Wilson Drive, West Chester PA 19382, (215) 431-9100. **cw**



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Between Dark And Daylight

Gabriel Knight
Explores The Shades of Gray

by Johnny L. Wilson

Life is full of contrasts: light and darkness, good and evil, pleasure and pain, sorrow and joy, life and death. Though most of us would prefer to focus on the positive side of these poles, the positive aspects would not be as attractive without the negative to cast them in relief. Sierra's *Gabriel Knight: Sins of the Fathers* takes seriously the juxtaposition of these contrasting elements. Everything about the game emphasizes the struggle between light and darkness, good and evil, love and betrayal. From color palette to soundtrack, background story to puzzle clues, this game emphasizes personal struggle within the context of this dialectic.

In other words, *Gabriel Knight* is that rarity in computer games, a work that is artistic enough to convey a message and present realistic characters so that the player really cares. It is more of a vicarious experience than it is intellectual exercise. The puzzles are integrated into the story line so effectively that the gamer genuinely feels like he or she is discovering more of the story, rather than jumping through a series of mental hoops to get to the next chapter. The conversation branches feature so much variety and so much characterization that one feels that there are authentic characters rather than game constructs in the story. The dream sequences that advance the story are psychologically consistent with the way our minds symbolize the problems with which our subconscious wrestles in sleep.

For Mature Audiences Especially

It is the kind of dream that causes stomach muscles to contract, pulling one into a sitting position from out of a restful sleep. The bon-

fire boils menacingly in the mind's eye. The leopard costume of the priestess blends the human and creature together, evoking the primitive, the dangerous and the sensual. Perspiration and grimaces accent the native drumbeat, beating subtly in sync with the dreamer's heart. The snake, that curious symbolic blend of evil and wisdom, death and regeneration, wraps around a neck. Suddenly, it is personal. The snake undergoes a metamorphosis into a hangman's noose tethered about the dreamer's neck.

Such is the dream sequence that opens Sierra's *Gabriel Knight: Sins of the Fathers*. It was the first time I've actually experienced fear when viewing a computer game and that's because the designer understands where real horror exists—within the human mind. Jane Jensen, co-designer of *King's Quest VI* and the designer of *Gabriel Knight*, understands horror. Shirley Jackson, Anne Rice and Stephen King are her inspiration. These novelists should be proud of their admirer's creation. It is a study in contrasts, a fascinating and, at times, frightening tale. Indeed, there is a possible cameo in which an Anne Rice character may appear at Napoleon House (a location based on an actual restaurant in New Orleans).

As Gabriel explores the immediate problem, the ritualistic voodoo murders in New Orleans, he discovers that his entire family has had a checkered past. Images of slavery, prejudice, superstition and hypocrisy blend together in the background story, a tale where betrayal conquers love. Fortunately, in the midst

of the psychological horror implicit in the game, Gabriel has the opportunity to reverse the deeds of the past.

Gabriel Knight is an exceptional blend of art, game and understanding. It is for mature audiences for all the right reasons. It does not use frivolous nudity, gratuitous violence or abusive language to garner this reputation. Rather, it offers an adult and refreshing perspective on the characters and situations within the game. Take, for example, the character of Gabriel himself. Gabriel is a bibliophile who wants to write a detective novel. As such, he unfolds as the kind of person who is willing to "use" people. Conversations reveal that he is not beyond considering women as



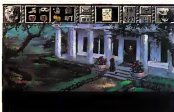
Sneak Previews offer early coverage of games still under development.

objects; one definitely gets the feeling that he doesn't mind being inconsiderate in the tasks to which he puts his lovely assistant, and he doesn't even consider the risks he takes with Detective Moseley's career (the supporting cast member who supplies him with official police information). As the realistic characters confront very difficult choices, one realizes the mature nature of the story. Before the game is over, the character may be well on his



way to a new career with new understanding, and the mature gamer may have more sophisticated perceptions of what love and sacrifice mean. The less mature will simply not get it.

The graphics underscore the entire theme of the game because the artists have used dark palettes for most of the backgrounds, enabling the use of numerous styles of light sources to illuminate the scenes. These tun the gamut from bonfires and torches through street lamps and refracted light. The theme is also visually enhanced by icon systems (the stake, the dragon, the medallion) which recur in unexpected places and implicitly remind the gamer of the quest itself. Further, the graphic artists on the game are aficionados of graphic novels, so they advance some of the story with transition screens resembling pages found in higher quality works of this nature. This, along with the talking profiles during the conversations and animated sequences (dreams and other free-running events),



breaks away from the familiar Sierra look and offers a nice change of pace.

The music is also thoughtfully integrated into the game. Bob Holmes is the primary composer and has a theory concerning scene-specific compositions. Each room in the game will have a specific theme, as will each of the free-running animated sequences. For example, Holmes will use piano instrumentation to catch the light side of New Orleans, but strings and pipe organ instrumentation in a requiem style for the scenes that emphasize darkness. In the dream sequences, there are lots of percussion, particularly timpani. Holmes gets tremendous assistance in the sound category from professional R&B percussionist, Orpheus, who not only orchestrates the percussion and rhythm aspects of many of the pieces, but is a master of sound effects, as well. The floppy disk version of the game will be faithfully rich in sound effects, but the CD version may well be the most sound effect-intense game product yet.

Finally, the care in which the chrome of the game is integrated with the substance can be illustrated by considering the casting of voice talent for the CD version of *Gabriel Knight*. Tim Curry of *Rocky Horror Picture Show* fame will play the role of Gabriel. Michael Doran of *Star Trek: The Next Generation* will play Dr. John. Long-time television star Efrem Zimbalist, Jr. will play Wolfgang. Mark Hamill will play Gabriel's friend, Detective Moseley, and Rocky Carroll of the television series *Roe* will play Willie Walker.

The interface is rather typical for the Sierra icon-based system, though it does offer some new features to enhance the conversational aspect of the game and a graphic look consistent with the old New Orleans setting. There isn't any revolutionary new technology in the game, just a smooth integration of existing tools around a remarkably well-rounded design. The game itself is divided into various days with a series of Must Do's which have to be completed before the game will advance. This keeps the pacing taut and the frustration level down.

There Is Nothing Like A Jane

The most refreshing aspect of the game, however, must be the marvelous perspective which Jane Jensen brings to it. As a female writing about a male protagonist, she injects a fair share of humorous needles into any male player's ego, but she brings the strength of a people-oriented way of looking at problems. Much of the game emphasizes conversations. Jensen says that the strength of this tool is the fact that gamers can glean as much or as little as



they want from the detailed background and subplots of the story in interactive conversation mode. These are not simply conversation trees built off key words that exist simply to advance the story. The conversations are real attempts to entice the concept of character in a computer game. For example, one can insult Moseley and flirt with Malia (the femme fatale, lady of mystery), as well as ask questions. As Jensen observes, the interactive approach to storytelling is ideal because one can fit in a lot of material that would have to be trimmed from a more linear approach because of pacing. Now, the gamer decides how much of the exposition will be unveiled at a given time.

As in the best fiction writing, the characters came to have a life of their own during the development of the game. There was a time when the plot required Gabriel's friend Moseley to be killed. Yet, as the conversations were written and Gabriel's relationship with Moseley became more integral to the story, Jensen elected to keep him alive. One of the characters was so real that she used the same name as a real voodoo priestess in New Orleans. Jane had to quickly change the name of the character after seeing the real-life namesake on television.

We like that. Art that imitates life is art that is relevant for those who enjoy living. *Gabriel Knight: Sins of the Fathers* stands a chance to be the kind of story we'll never forget. It certainly may prove a point as to whether gamers merely want new technology or whether they want an in-depth setting/story to explore. *Gabriel Knight* certainly exceeds the standard in the latter. **CGW**

THE FACE FRAME, THE HAND OF FETTER & THE LANGUAGE OF MOTIONS: COURTESY OF THE UNIVERSITY OF CALIFORNIA, BERKELEY. THE FACE FRAME, THE HAND OF FETTER & THE LANGUAGE OF MOTIONS: COURTESY OF THE UNIVERSITY OF CALIFORNIA, BERKELEY.



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THE HAND OF FATE

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Heechee Phone Home

The Legend Lives On In *Gateway II, Homeworld*

by Paul C. Schuytema

What starts out as a relaxing morning in 2112 AD San Francisco, slipping a little joe as you peruse the news-fax reports on the Phoenix cult, turns into an all-out sprint for your life. You thought that was all behind you; you have 50 million in the bank, a nice condo with a private elevator, and the smug confidence of one who has saved the world. Now, an alien artifact many kilometers long has appeared at the edge of the solar system, whipping the Assassin-loving Phoenix cult into a frenzy and forcing the United Nations into around-the-clock planning sessions... and now they want your help. Just as you begin to think it over, an anonymous informer tells you that you are the next target for a Phoenix cult hit squad, and they're making their way to your condo right now!



In *Gateway*, Legend's first offering based on the Hugo- and Nebula-winning hard science fiction of Frederick Pohl, Earth was blessed with the discovery of a space station left orbiting the Sun some 500,000 years ago. The space station, called Gateway, was a treasure trove of high-technology left by the race known as the Heechee. Sadly, this treasure came with a curse, for not only did the Heechee leave behind 1,000 faster-than-light

starships in perfect condition, but also evidence of the Assassins, a race of aliens whose hobby was hunting and destroying any civilization that had made the technological jump into faster-than-light travel.

Gateway followed the player on a series of prospecting missions in the ancient Heechee ships, and finally on a mission to set up a giant, multi-planet scrambling device, aimed at obscuring the entire Milky Way from Assassin sensors. *Homeworld*, Legend's latest game based on Pohl's Heechee saga, takes up where *Gateway* left off. *Homeworld* is not taken directly from one of Pohl's works, and he is only given a one line credit on the back of the game box, yet the game is a rich and fascinating story which maintains the proper feel of Pohl's original fiction.

Homeworld is an adventure game in which the player takes on the role of the story's protagonist, fleeing from an initial assassination attempt and falling headlong into a sweeping, galaxy-wide story centered on the mysterious artifact which has appeared near Pluto. Is it a Heechee ship, over half a million years old, or is it a tool of the Assassins, coming to wipe out the race?

Homeworld, with its rich prose and advanced input parser, feels like an extension of the old Infocom text-only games, even though it presents the player with crisp, Super VGA graphics. The game screen is divided up into a number of windows that provide access to a movement compass, a scrolling list of action verbs, a list of object nouns (essentially an inventory list of what the player is carrying and

what is in the immediate vicinity), a text box for descriptions, and a small window where the first-person graphics are displayed.

The interface is one of the most unusual I've come across in today's world of "icons everywhere," and it is at once a boon and a bane. The scrolling windows and "traditional" text



input line allow the player to assemble clear, but incredibly detailed actions, and pulling the verbs from a scrolling list ends the old-time "command not understood" headache of text adventures. On the other hand, the interface is rather clunky, requiring the player to scroll through a long list of verbs to see if one fits, with no easy way to switch back and forth, mid-command, between mouse selec-

Gateway II, Homeworld



TITLE: Gateway II, Homeworld
 PRICE: \$59.95
 REQUIREMENTS: 286-16MHz or better VGA or VESA VGA graphics; supports AIX, B, Roland, Sound Master sound cards
 PUBLISHER: Legend Entertainment Company
 14,000 Park Meadows Drive
 Chantilly, VA 22001
 (703) 222-8500

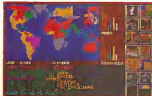
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tion and ryping. To my mind, the interface feels like a development tool, an interface used by designers to test the game rather than a polished and ergonomic finished product. It could be that I am just jaded from playing countless games with less imposing interfaces that don't dominate three-quarters of the game screen.

By blending the use of a first-person graphic with a text description, Legend has hit on a way to get the most information possible to the player. The graphics are static "slides" of what the character sees, and objects disappear from the scene when they are taken, but there is no animation in the standard interface. Each time the character enters a new locale, a new slide is presented along with a text description. The player can click the mouse on the graphic window to pull up a text description of the various objects, and a double click will serve as a "take" command, placing the object in the character's inventory.

While the command interface feels awkward to me, I enjoyed the picture/text combination used to present the game's data. I truly felt that I was immersed in a rich, complex world in which even the simplest observations, such as examining a leaf or a robot arm, yielded a detailed and complex description.

While the graphic "slides" are static, the game does provide some gorgeous cut-scene animations and scrolling pans across beautiful panoramas. Unfortunately, it's obvious that several different approaches were taken to render the various scenes and animations, resulting in a lack of continuity. An example is a gorgeous still painting of a probe ship ready to blast into space. The detail is wonderful, but later, when we see a 3-D animation of the probe ship flying, only by context do we recognize it as the same ship; the color, shape and lines are all different.

The heart of *Homeworld* is its prose, and there are two things to note about it: first, the detail and depth of the game truly shows in the multitude of objects the player can explore and examine, and never once did I examine something only to receive a one line "you see a bowl" or "you see a box" response. Every time something new appears, the de-

scription is intelligent and rich, and even the simplest objects have color, texture and weight.

On the other hand, it is obvious that the text wasn't written by Pohl, or a professional writer for that matter. While I was hard-pressed to find any technical errors, and while the descriptions were incredibly rich, the prose still had an amateurish feel to it. The language was often "chatty," and dialogue phrases like "What do I do when I get the stuff" didn't seem to fit the proper tone for a character conversing with an emissary from an ancient and highly intelligent race. The descriptions of the various alien lifeforms felt slightly ethnocentric, with phrases such as "aliens with beady eyes" belying the awe of discovering a new species. That type of flippancy goes against the grain of the hard science fiction of Pohl and brings the grade level of the game down a few notches. It is interesting to note, though, that this consistent flaw in the text of the game relates mostly to



window on the world. Motivation and personality seem to be entirely lost from the central consciousness. When he (I assume he is a he, only because I am) is catapulted out into space, there is no sense of hesitation, no sense of fear or regret in being forced out of one's home and life, and most importantly, no sense of awe or curiosity when the character encounters the many amazing objects and creatures in the game. A case in point is when

the character runs into a robotic spider who has a penchant for sawing open human skulls while the victim is still alive; there is no sense of the fear, the horrendous fear the character must feel when encountering this creature while trapped in an alien environment.

As far as general play goes, *Homeworld* is a science fiction lover's dream come true. While I may have my problems with the game, I liken the experience to participating in a good, and very interesting, science fiction novel. There is a lot going on in *Homeworld* that made me stop and think, and times when I just nodded my head and said "cool!" The plot is fairly linear, in which the player moves from one puzzle to the next attempting to escape situations and gather intelligence, and while the puzzles are not that difficult, they do require resourceful thinking.

Homeworld comes packaged with a hint book, which is a great idea. More games should have included hint books, since most players will "slam into the wall" at least once or twice in every adventure game, and having a well laid out hint book will provide the answer without breaking the rhythm of play, or incurring the nasty expense of a 900 number line ride.

For a die-hard sci-fi gamer, this game will provide many nights of wondrous entertainment. My complaints, while significant, do not destroy the character of the game; it is still quite an achievement. *Homeworld* has the feel of a good sci-fi novel, with all of the pleasures of exploration and wonder that curling up with a good book provides, and the "infocom-esque" feel of the interface is pleasantly nostalgic. When you sit down to play *Homeworld*, make sure you have a cozy chair and a bowl of pretzels, because you're likely to be "in there" for quite a while. **CGW**



You can hear and feel the dull burr as the powerful rocket engines below you thrum up. The ship trembles for a moment as the booster engines build thrust, and then the ship starts moving. It rises from Pod Tango Three, slowly at first, then picking up speed. As the ship accelerates, a giant hand begins pushing you into your seat.

encounters with living organisms. The "hard tech" of the game, the computers, alien interfaces and robots, are all described to the utmost detail, and the "pseudo-science" of the game presents us with a wealth of detailed computer readouts and measurements. Probably the best advice I can give to the prose authors of the game is to pick up a copy of Orson Scott Card's *Characters & Viewpoint*, since they have nailed the inanimate data pit.

This character problem spills over to the player as well. I felt as if my "player" was not an actual individual, but more of a moving



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Like Terry Brooks' novels and Steven Spielberg's films, Sierra's *King's Quest* games are probably beyond criticism at this point. *King's Quest* is one of computer gaming's few true brand names and, as with brand names in other fields, one has to deal with the tradeoff between comfort and recognizability on one hand, and freshness, novelty and excitement on the other. It's a choice everyone has to make for himself—go for the known quantity or try something different?—and for the most part people will make it according to habit. Those who liked the first five games will try—and enjoy—the sixth, while those who didn't, won't.

That said, there is a good deal about the CD-ROM edition of *King's Quest VI* to recommend it even to gamers who would not ordinarily pick up a *King's Quest* game. If *King's Quest* is the vanilla ice cream of computer games, at least this particular scoop



comes with some interesting toppings, such as the by-now-well-known introductory cartoon in which the brooding, hormonal Prince Alexander goes off on a sea voyage in search of his lost Cassima and finds, instead, shipwreck, intrigue and danger. This impressively rendered bit of computer cinema may be laughable in terms of drama, but visually it's incomparable—not quite worth the price of admission, but close.

Of course, the cartoon is a holdover from the original edition, as are the game's storyline and all its puzzles. What the CD edition adds primarily are voices, speaking every line of text in the game. (It also throws in a few bonuses, such as an "art gallery" in which players can browse through all of the game's background art and a short, full-motion mini-movie, accessible only to Windows users, describing "The Making of *King's Quest*

VI.) The voice actors pressed into service here are much stronger than the amateur crew Sierra assembled for *King's Quest V*, though one still has the sense that they are trying a little too hard. Sierra boasts of a cast of "internationally famous actors" but neglects to name even one; players are entitled, I think, to a measure of cynicism on this point.

The narrator sounds like the fellow who narrated every grammar school filmstrip ever made, over-emphasizing all the going-on in an awed, hushed voice. The actor who reads Prince Alex's lines was clearly inspired by Disney films from the "Escape to Witch Mountain" era. Everyone breathes too much and speaks with too many exclamation points. But so what? Kids will love it and indulgent adults won't mind.

In all other respects the soundtrack is fine, except for the odd claim Sierra makes that it is coupled with a "revolutionary, patented lip-synching technology." The technology may be patented, and it may even be revolutionary, but it's not lip-synching. At least half the time a character speaks, the voice goes one way and the lips go another. Still, the voices are solid and the graphics are good; the fact that the two are not perfectly coordinated is unlikely to send gamers back to the store demanding for a refund.

A word or two about the game's plot is necessary, I suppose—but that's all, since anything more will only expose the paper-thin storyline. Through the use of a magic map, Prince Alex bops around among the five "Green Isles," solving puzzles and collecting trinkets that will help him overcome obstacles. Quests are doled out in the most heavy-handed way imaginable ("I will give you the spellbook if you bring me a book that is rarer," "I will give you the rare book if you bring me a complete sentence," "I will give you back your ring if you bring me something of equal value"), yet many gamers will find this straightforward approach reassuring.

The overriding goal of the game is for Alex to rescue Princess Cassima from the evil Vizier Al-Hazared, who will otherwise

take a cue from *Prince of Persia* and marry her against her will. Note, however, that unlike *Prince of Persia*, *King's Quest VI* is not set in a world of relentless evil. Though Alex has many opportunities to perish, it is clear throughout that he has washed ashore in a fairly innocent fantasy land. Not only does the game have its share of gnomes, crying cabbages, and sassy, talking sticks, it also introduces the player to such mythical creatures



as an honest pawnshop owner and a sea captain who, though nominally a rogue, waxes rhapsodic over how "pure" the princess is. I kept waiting to meet a polite New York cabbie or a truthful politician around the next bend.

It should go without saying that players seeking copious bloodshed, mind-bending puzzles, or complex characters ought to look elsewhere. *King's Quest VI* is a heartily inoffensive game full of light touches and not a great deal else. However, gamers who enjoy light touches will find that few games pull them off with as much grace as *King's Quest VI*. This is not exactly the highest praise a game could receive, but, by all signs, it is the highest praise to which the *King's Quest* games aspire. For plain vanilla, *King's Quest VI* on CD-ROM is about as good as it gets. **AWW**

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TITLE	King's Quest VI
PRICE	\$47.95
FORMAT	CD-ROM
REQUIREMENTS	386SX or better, CD-ROM drive, ECR 5 or greater with 2MB RAM or Windows 3.0 or greater with 5MB RAM, mouse
DISTRIBUTION	Sierra
DESIGNER	Roberta Williams and Loren Liss
PUBLISHER	Sierra, CD-ROM
	Golden Valley, CA
	Q&A 124-9534

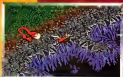
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Lands of Lore Doesn't Look Back

Westwood's New RPG Breaks With Tradition In Character Creation, Spellcasting and Gaining Experience

From the folks who brought us *Eye of the Beholder (EOB)* and *Legend of Darkmoon*, Westwood Studios' new *Lands of Lore* offers some familiar features to players of those earlier games. But *Lands of Lore (LOL)* also breaks new ground in a number of pleasantly surprising ways.



The player's mission is to seek out and destroy the evil hag, Scotia, who has the ability to change her form at will. She tried to wipe out King Richard of Gladstone, who survived the attack, but was left in rather bad shape. Most of your quest involves finding a cure for Richard, and then hunting down and terminating Scotia with extreme prejudice.

This makes the game a fairly linear one, with the group going from one location to the next in a pre-determined order. However, the structure is open-ended enough so that you can backtrack to most of the major areas, which may be necessary if you missed something important in one of them.

Interaction with other characters is limited; as with the *EOB* series, the focus is more on hack 'n' slash and puzzle-solving than anything else. Still, there are some people around, and they give the world a bit more depth, unlike the lifeless sewers of *Waterdeep* and the tunnels of *Darkmoon Temple*. A few outdoor areas and a town add reality to the world as well.

Graphically, the game is a step up from *EOB*. The detail, especially in facial close-ups, is finer. The animation is good, spell effects

have been improved with interesting visuals (my favorite is the Mist of Doom/Death Wand), and overall, *Lands of Lore* has a brighter appearance than previous games. The outdoors do need some work, however. When looked at sideways, trees and related scenery to have a 2-D appearance.

Happily, feeding your party is not a problem in this game. You can get on with your mission without having to fill up your inventory with supplies, or worrying about starvation. Considering how often the party will need to rest and restore themselves, this was a good design decision.

Since this is an original game, not based on *Advanced Dungeons & Dragons*, the experience system and character creation are quite different from *EOB*. In fact, you do not create a character at all. Instead, you choose one of four pre-created characters (all males, alas) to be your hero for the duration.

Each comes with three skills: fighting, magic and thieving. These skills increase as they are used. The more you fight, the better a fighter you become; the more you cast spells, the better a mage you become. In this regard, the game is closer to *Dungeon Master*, which used the same system. It is a much more sensible way of handling ability gains than giving improvements after 'X' number of experience points.

You do not, in fact, ever see any experience points at all, which is a pleasant change from most CRPGs. Of course, they exist under the surface, but the display only shows three bar graphs that chart each character's progress in the three abilities. This helps to keep the focus on "learning by doing," rather than trying to reach some numerical figure.

In another break from tradition, there are no attributes like strength, intelligence, dexterity and so on. You see only four stats: the character's hit points, which go up with fighter ability; magic points, which increase with magic ability; might, which varies according to the weapon equipped; and armor

protection, which changes depending on the types of armor worn.

Going even further from the well-worn rut, Westwood has stripped magic down to the bare essentials. There are exactly seven spells in the game: Spark, Heal, Freeze, Lightning, Fireball, Hand of Fate and Mist of Doom. These spells are available (once found) to the entire party at all times. There are no spell books to worry about, no frantic flipping through long lists to reach the desired incantation, and no need to give up a weapon or shield to cast a spell.



In a CRPG, that's almost all you really need. Most games burden the player with 30 or 40 spells, to little advantage. For instance, *AD&D* has Cure Light Wounds, Cure Serious Wounds, Cure Critical Wounds and Heal. All of those do exactly the same thing, except at increasing levels of effect. The single Heal spell in *Lands of Lore* replaces all of those and achieves the same results by using power levels, which go from 1 to 4. The higher the level, the more potent the casting.

The only thing missing in this otherwise estimable system is a protective spell or two:

TITLE	Lands of Lore
PRICE	\$42.99
SYSTEM	IBM
REQUIREMENTS	386 16MB or better, 2MB RAM, VGA/MCGA graphics, mouse, 23 MB hard drive space
PROTECTOR	Westwood Studios
DEVELOPER	Westwood Studios
PUBLISHER	Vega Games Inc. Irwinwood Irvine, CA 92620 875-1407



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a rather surprising omission, in fact. Some form of damage reduction or protection against physical or magical attacks would really have been useful.

Outside of this, the entire system has a pleasing simplicity that in no way detracts from the play of the game. It allows you to get on with it without having to worry about a lot of picky details. This is one instance where less really is more.



'Auto-mapping is available and is one of the best around.'

Inventory management follows along the same lines. Instead of each person lugging around his or her own items, all equipment sits in a sliding pool, making it easy to review what you have. Only weapons and armor actually in hand or worn are not part of this pool. (Undocumented command: clicking on either arrow with the right mouse button will move the bar a complete section to the left or right, rather than one item at a time. It's quite handy for quick scrolling.)

Auto-mapping is available and is one of the best around. While it cannot be sent to a printer and you can't write on it, the map will faithfully record all doors, stairs, buttons, chests, secret doors, pits, floor plates and special locations (shops, caves, etc.), both indoors and out. No longer do you have to scrutinize every wall for a button or switch, or fill up graph paper with your own hand-drawn cartographs. The map is also scrollable, allowing you to look back at any time at any location previously visited.

Most of the monsters in *Lands of Lore* are new, original and full of little surprises. Some can melt armor; others are "dumpeps," making the ground shake and thereby disarming everyone (nasty!); and there's one type that can stun you with a single blow. Always be careful when coming up against something you haven't seen before.

The party itself will never have more than three people; for a good chunk of the game, it will consist of one or two. Your hero starts out alone and a little later picks up Timothy, who stays for a short while. He is replaced by Baccara, a four-armed wonder who does stay for the duration (so it's okay to give him some of the good stuff). Much later, you also pick

up Paulson, and he too remains with you to the end.

As you can see, *Lands of Lore* has several very good features. But, it also has a few that are not so good. Combat, for example, has not improved much, if at all, since the *EOB* series. In one instance, I was disappointed that nothing along the lines of the *EOB III* "all attack" feature was implemented. While two or three people are certainly easier to manage in combat than four to six, it is still a pain to click individually on the attack icons. Some form of auto-attack for hand weapons really needs to be added to the engine.

Fighting tactics seemed more limited than in the *EOB* series; the two most popular methods, backing up and slip 'n slide (also known as the Dance of Death) usually did not work too well here. Many opponents have distance attacks of their own, so backing up to fight from afar just gives them the chance to hit you with missiles or spells. Not all critters can do this, of course, but there are enough around who can to make backing up (when you have the room) a poor choice.

Slip and sliding monsters did not fare any better in combat. Quite a few of the hostiles moved rather quickly, and there often wasn't time to hit and run. Further, in many areas, the opponents come in large groups of five, six or more, and waltzing around is a good way to become surrounded (and dead) in a very short time.

When critters gang up on you, expect some unusually difficult fights. After taking out the first two or three, you often have to run away quickly to find a safe spot to rest up and restore the party, because everyone is in bad shape and out of spell power. While there are potions to restore hit and spell points, they are quickly exhausted in heavy fighting, leaving you with little or nothing for later.

A few situations like this are acceptable, but *Lands of Lore* sports too many of them, adding unnecessary frustration to the game. Lots of monsters is one thing—lots of them coming at once from different sides is quite another.

Related to combat, there is one segment of the game that ought never to have been in there. Before you enter Scotia's castle, you come upon two races, the Xebos and the Knowles, who are at war with each other. The reasons for their spat is never given. Regardless, you are forced to choose to fight on one side or the other; there is no way out of it and no way to bring peace. With nothing to go on, most players will likely make their choice based on expediency: whichever race they find easier to kill is the one they'll go after.

This is disturbing for several reasons. First, it has nothing whatever to do with Scotia, so it does not advance the plot in any way. Second, this situation is forced on you, with no alternative. Third, and worst of all, you are committing genocide, wiping out a race for no reason other than to get on with your own business. Why Westwood felt it necessary to

include such an irrelevant and outrageous activity is a mystery, but we will hope that they don't do it again.

A sore point of a different kind is the plethora of fancy weapons in the game. Everyone likes Near Items, but we also like to know something about them. There are many named weapons here: Long Sword Entropy, Valkyrie Crossbow, Great Axe Master, Trident Mandible, Rapier Talon, Mace Thunder and Halberd Widow, to name only a few.

What's so special about them is often difficult, and usually impossible, to determine. You can learn something by equipping them; this will always have an effect on Might and occasionally on Armor Protection, as well. Beyond that, you have no idea, even with experimentation, what other abilities they might possess (except Great Axe Master, which adds +1 thief level when equipped, and the Valkyrie Crossbow, which raises natural thief ability quickly when used frequently).

There isn't any way to find out for sure, either. The game has no "Identify" spell and no one who can tell you about the item. There is a witch doctor in the swamp who says he can tell you about objects (for a price), but that is just so much fluff. I showed him the Entropy Sword, paid 50 crowns, and he remarks, "Ah yes, that is the Long Sword Entropy." End of identification. Wonderful.



'Most of the monsters in Lands of Lore are new and original.'

When fancy items, especially named weapons, appear in a game, there must also be some method for determining what, if any, special properties they have. It isn't enough to provide the things players need a basis for making intelligent choices about which weapons to keep and which to discard. Going only by the might/armor protection provided by the item may not be the best course.

Overall, *Lands of Lore* is a better-than-average game of this type. It does have some weak points and design flaws which need to be cleaned up in future products. Still, the improved game engine and graphics, and the move toward streamlined play make it a game worth playing, especially if you enjoyed the first two *EOB* adventures. **ctw**

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Tips For The Tillerman

Warning: Scorpia's game solving wit cuts to the quick! Among her general hints there may be specific solutions lying in wait. Visit her lair with care.

You have a choice of four characters at the start; of these, Conrad and Ak'shel are the best. Conrad is well-balanced, just as he says, and will develop nicely over the course of the game. Ak'shel is a dynamite mage; he starts with a lot of magic points, and frequent spell-casting will bring him up a couple of levels faster than anyone else.

If you do take Ak'shel, remember that hit points *only* come with fighter levels and he starts off somewhat low in hit points. After you've improved him a bit as a mage, switch around and have him do some fighting to beef up.

The auto-map is a valuable tool. Check it frequently to see if you've passed any wall buttons, switches or secret doors. There are a lot of these in *Lore*. Be sure to save before you fool with them, as some are traps.

There are several times when you will have to drop down into pits (the Dracule cave, for one). When there seems to be nowhere else to go, take the down express! Damage is always minor, so unless someone is badly injured before the drop, the party should be okay. Actually, everyone should be in good health before going down a hole, as monsters are usually waiting for you.

Aside from weapons and armor, there are a number of objects in the game with obscure uses. Soramas are one-shot weapons. Bazel cups both heal injuries and cure poison. Ace of Oblivion functions as a Mist of Doom spell, and Ace of Infinity restores magic points. To use such items or magic wands, pick up the object, hold it over a character's attack icon and right-click.

In the Upper Opinwood forest, inside one of the locked tree stumps, is the Valkyrie Crossbow, probably the best missile weapon in the game. Not only

does it shoot miniature fireballs, but frequent use of this weapon raises Rogue skill quickly...and I don't recall ever seeing anyone miss while using it.

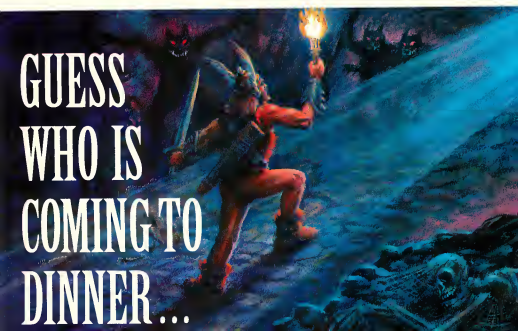
If you complete an area with keys remaining, you can dump them. Westwood indicates that some locks are harder to pick than others, and keys are provided in case you can't get them open.

The early stages of the game are pretty straightforward. Be sure to take all the good stuff Timothy may have (such as his tunic) before you enter the throne room in Gladstone Keep. That's where Timothy leaves you, and you need the good stuff more than he does.

It isn't necessary to buy anything at Buck's Skins: before long, you'll have quite a collection of weapons just from exploring, fighting and opening chests. Besides, you need Roland's money to buy passage back to Gladstone.

The Dracule caves are where things start to get tough. The rat men are nasty opponents, so try to fight them in narrow corridors where they can't gang up on you or surround the party. Keep your ginseng handy in case of poisoning. You can only use one eye (green or blue), so don't worry that you didn't get both wall sections open. The important things here are to find the silver cup (for the Desacide) and obtain the elixir recipe from the Dracule. Rest up if you can before leaving the caves—a welcoming committee is waiting outside.

When you reach Opinwood, go over it thoroughly, but be careful—there are other things besides Oets lurking about. Do not open the door leading into the mines until you have the green skull from Upper Opinwood.



**GUESS
WHO IS
COMING TO
DINNER...**

The critters who live in the swamp have something you need, so find the chief as soon as you can. The Witch Doctor can help with the riddle scroll. The freeze spell is useful for getting around. There isn't much you can do about the swamp gas, sorry to say.

The Urbahn mines are nasty, so take your time. The machine on level one must be fixed sooner or later. Be sure to pick up one red heart gem (dropped after a combat). You must leave here with Paulson in the party, as he has the Vaalen's Cube that can destroy Scotia's barrier. In the right circumstances, the cube can be duplicated endlessly, which will be very helpful in the White Tower and Scotia's castle. Save the game and experiment a little.

When you reach Yvel Forest, stick to the west side of the map. Greater Orcs are running around in the woods, and they are tough opponents. When you get to the city, be sure to go into all the houses as many of them have useful items.

The White Tower is another tough place. On level one you have to deal with the Amazons. Most importantly, you have to reach Jana, the queen, who has a mystic key you need. Remember "ring for admittance." Close the two gates to stop skag creatures from appearing.

Level two has the flying one-eyed chickens that toss fireballs; if you see one coming, duck around a corner fast. They only use them from a distance, so you don't have to worry about being fired in hand-to-hand fighting.

Level three is the worst, being inhabited by ghosts. Use Vaalen's Cubes (very effective) and emerald swords against them. The snakes are not affected by the cubes, and they can be deadly. Weapons work against them, but you have to be quick. Expect to take more damage from snakes than anything else. From this level, you want the ivory key that opens the door on level one leading to the sublevel. The "fifth door" is optional. Inside are two chests; you can only open one. Save and try both to see which one you like better.

In the Catwalk Caverns (after the big fight), check walls for hand marks and use the Dark Gauntlet on them. Go over the caverns thoroughly; you

need two keys (one from the West and one from the North) to open the door leading to the Knowle/Xoob confrontation. These caverns are the last time you'll be needing the lantern, so you can dump any extra oil flasks when you're done.

I chose to fight the Xoobs, as they were easier. The Knowles seemed impervious to any spell below Fireball, were extremely hard to hit, and they were also thumpers, making the ground shake. This disarms and causes damage, too. Xoobs can dissolve armor, but were still easier to kill than Knowles. Both sides give you the same reward, so you might as well take the easier one.

Scotia's is a mean place, as you might expect. Level one has ghosts (and the cube) and flying axes (freeze spell is good here). Level two has flying eyes (can dissolve armor, kill these fast) and scorpion-like critters who can stun. Level three has only giant toads, but they are thumpers. Fortunately, they do not regenerate and are gone forever once you kill them off. All other monsters do regenerate, so expect many combats as you make your way around the castle.

Be wary of traps. You may find yourself in a place from which there is no escape except the Restore option. Don't go putting things into niches; you may never see them again (there is an exception to this on level three).

On level one, there is a section where you lose your automap. Don't panic. The area you have to map (room of pins and spinners) is small, and the compass still works, just be patient and you'll get through this. The automap is restored when you reach level two.

You want to collect two figurines from level one, one from level two, and one from level three. Do NOT visit Scotia until after you have rescued King Richard.

At the final confrontation, only the whole truth can help you. You must stop Scotia from doing any transformations or you're done for. Once the Nether Mask has been neutralized, she can be killed with weapons and spells (save a Guardian for faster results). Good luck! **CSW**



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Strike Quickly Strike Hard



Tips and Tactics for Origin's *Strike Commander*

by Tom "KC" Basham

Strike Commander mixes elements of a role-playing game and a combat flight simulation to put the player in an action-packed, movie-like adventure. Because of the scripted nature of the missions, the player has a very well defined goal and must execute a linear sequence of intermediate accomplishments in order to realize it. Though somewhat constraining, *Strike* still grants its players considerable leeway in how they achieve these intermediate steps. Even though every *Strike* player has to complete the same goals in each mission, there is plenty of room for individual style to shine through.

Allocating Resources

Most mission briefings give the player very little information to work with. Vague details about the target are given, but no photographs or mission profiles are discussed. Anticipated threats are mentioned in passing, but the player is given no significant intelligence information. It's even difficult to know which weapons should be carried. Further, the squadron's tight budget makes it difficult to stockpile weapons. Weapons purchased immediately before a mission may deplete the Wildcats' bankroll while being insufficient or inappropriate for the planned mission.



The element of surprise is an intended part of the game, but those looking for flight sim fidelity rather than shoot-em-up action may find the surprises frustrating. Therefore, pre-

strike recon patrols are usually called for. I generally save games after completing each mission, then proceed to the next mission, read the briefing, and fly the mission with default armaments. Since each mission is identical every time it is played, this allows me to get a good idea of what I am up against. I then restore the last saved game, buy the appropriate weapons, and execute the mission. Is this cheating? By *Strike*'s rules, maybe. But remember: *Strike* hardly follows the real-world rules. A flight of F-16s would never attack a ground target without first going over the site in detail, noting enemy air defenses, and making some form of tactical decision on how to deal with said defenses. Besides, there's an old fighter pilot saying: if you ain't cheating, you ain't trying.

Air-to-Air Combat

As another old saying goes: Use the right tool for the job. In the case of *Strike Commander* air-to-air combat, the right tool seems to be the AIM-9M missile. Of the four air-to-air weapons available in *Strike* (the AIM-9J, AIM-9M, AIM-120, and 20mm cannon), the AIM-9M gives the best bang for the wargaming buck. Since *Strike* puts you in charge of the squadron's finances, maximizing available bang should be your top priority.

Why the AIM-9M? The AIM-9J is simply too unreliable. Although very cheap (in relative terms), its 60m range, rear-aspect-only targeting restriction, and poor hit ratio makes for a very unattractive purchase. The AIM-120, although more reliable than the AIM-9J, is the most expensive air-to-air missile at your disposal. At \$200,000 per unit, its 40nm range makes it ideal for long-range, BVR

(beyond visual range) intercepts. However, BVR engagements never happen. Bandits will always appear out of thin air about 8nm away, just inside the 10nm range of the AIM-9M.



Since the AIM-9M costs only \$60,000 per unit, has all-aspect targeting capability, and a reasonable hit rate, why waste an extra \$140,000 per potential kill using AMRAAMs? The 20mm cannon is far cheaper than any missile (it's free, you never put a dime for 20mm rounds), but due to the jerkiness of *Strike*'s controls, many users find it extremely difficult to saddle up for a guns kill. Although it is possible, it takes practice, a steady hand and a fast computer.

AMRAAMs have only one advantage: you can put two of them on the inside wing pylon which will only carry one AIM-9M. By using both types, you can carry up to eight missiles into combat, but by using only the AIM-9M you can only carry six. It's a tradeoff. You carry the potential for two more kills (if all missiles perform perfectly), but it costs 280,000 extra dollars. If you're rolling in cash, then maybe it's worth it, but I found most campaigns to operate on extremely tight budgets, and the AIM-120's combat performance not good enough to warrant the extra expense.

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AAS



Air combat in *Strike Aces* is too difficult if you know the secret: computer-controlled pilots rarely use the vertical. The AI loves horizontal turns and will crank high-g circles all day. Simple vertical maneuvers by the human will almost always confound the computer-controlled pilots. For example, if a MiG-21 slides in on your six and you just can't shake him, try pulling out slightly and execute a barrel roll. As you pitch up, the bandit will nearly always overshoot, and his six 'o'clock. Loops are also a great way to shake bandits.

Air-to-Ground Combat

Most missions are combination missions: fly to waypoint 1, engage fighters, proceed to waypoint 2, attack ground target, fly to waypoint 3, engage more fighters, etc. Since only a few mission failures (sometimes as few as one) can abruptly end your career, it's im-

perative to succeed on every sortie. This means the player has to be as proficient at bombing as dogfighting.

In bang-for-the-buck terms, the Mk 82 iron bomb is probably the best value for the Wildcat's dollar. These do a reasonable amount of damage, but require accurate bombing skills and overflight of the target. Most targets require multiple attack passes (always a bad idea in combat), and multiple passes over heavily defended targets will almost certainly mean damage to your aircraft (and more money out of the Wildcat's pocket).

In terms of effectiveness, the AGM-65 Maverick is the clear winner of the day. Although it can't destroy some of the larger targets, it's deadly against vehicles, air defenses and small buildings. Being fire-and-forget makes it especially useful. On the first pass at a given target, fire a barrage of Mavericks at the air defense batteries. This clears the skies for the subsequent passes and allows you to rain truckloads of Mk 82s down on the target with little risk to your aircraft. Mavericks aren't cheap, so they should be used sparingly to take out defenses, then followed by iron bombs to take out the high value targets.

The Target That Won't Die

Sometimes it seems impossible to complete a mission. You follow the instructions to the



letter, but still the mission was a failure. Anti-runway missions are the most commonly cited example. Many times, pickling Durandals until the entire runway is annihilated won't complete an anti-runway mission. The key is to destroy some of the surrounding structures. After bombing a few extra buildings you'll get the familiar "Mission completed, let's head home" message. In some cases, direct hits on the runway aren't even needed to complete an anti-runway mission. In one mission early in my career, all of my Durandals missed the runway, leaving me with only cannon and air-to-air missiles. I made several strafing passes on the surrounding buildings with the 20mm cannon. After destroying a handful of buildings I was told the mission was complete and to return to base! The moral of the story is: if you can't complete the mission, or miss with your primary weapon, don't give up! *Strike Aces* seems to always give the player a second chance. **cmw**

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Computer Gaming World

FIRST ROUND PICK

EA Recruits NHL Hockey From The Cartridge League

by Gordon Goble



“Well, Danny, these Canucks are certainly a game bunch. Losers of their first seven games, tonight they're giving the powerful Canadians all they can handle as they look for their first victory of this young season.”

“That's right, Foster. An early first period marked by Stephen LeBeau looked as if it would stand up until little Cluffy Rowing jammed home a rebound at the midway juncture of the third to send us into this overtime.”



“The crowd at the Coliseum is standing and roaring their approval as the referee gets set to drop the puck for this five minute overtime session...it's Rowing against Denis Savard on the face-off.”

“Maronelli drops the puck and Rowing flips it quickly to Linden. Linden winds up and slams a long blast...IT'S IN!!...HOLY TOLEDO!! THE CANUCKS HAVE WON THE GAME...THE CANUCKS HAVE WON THE GAME!”

Being a Vancouver Canuck fan for oh-so-many years has, until recently, been an exercise in frustration. Since their 1970 inception and prior to the esteemed Pat Quinn regime, the Canucks' record has been anything but sparkling.

In the real world the Canucks' fortunes have begun to change, but on my computer they remain submerged in the basement of the Smyrthe Division standings. It is just nine games into the 93/94 season and, aside from this glorious home ice overtime triumph over

“Les Habitants,” the fans at Pacific Coliseum (or “Pacific Mausoleum” to we Vancouverites) have had little to celebrate.

Although cautiously leading the league in penalty killing, the Canucks' real-life power play woes have been digitally intensified in this computerized league, and they currently sit 24th and dead last at a pitifully inept 6.1% success rating. Compare that to the 23rd place Hartford Whalers at 21%, and first place Quebec at 49%, and the sad story becomes quite clear.

But the courageous Canucks will continue to strive forward (and perhaps win some respectability through time and experience) for one key reason: the human master of this game is thoroughly addicted.

Electronic Arts has achieved with *NHL Hockey* a rare accomplishment in the realm of team sport simulations—a playing environment that is flush with realism, excitement and credibility. Players do what players do, action unfolds as it should, and victory is a constant challenge. Most importantly, *NHL Hockey* may prompt one to forget that he or she is in control of mere images on a computer screen, and not much, much more.

Licensed by both the National Hockey League and the NHL Player's Association, *NHL Hockey* is far from foible-free, and these misgivings will be explored later, but the major elements work together in harmony to produce a cohesive product. Essentially, EA has taken the quick reflex action of the Sega Genesis/Super NES version of the game (*NHLPA Hockey*), added coaching and league management functions, throws in a whole lot of statistics, and allowed up to 24 human competitors (one for each team in the NHL as of 1993) to compete in a full 84 game season.

NHL Hockey is immediately endearing. As the program opens, a crystal clear voice-over by EA sports announcer Ron Barr welcomes one and all, while a twirl-

ing puck sits on-screen, flashing glimpses of real player animations on both front and backside. The letters “N,” “H” and “L” are everywhere, the cursor used to access the pull-down “Windows” type menuing system is a hockey glove, and one is left with the impression that EA has spared no detail.

Following the opening ceremonies, one is plunked into Sports Central, the primary interface for accessing gameplay, updating statistics, and managing league transactions and play. Naturally, the first order of business is to leave the instruction manual on the floor and get into the game action as quickly as the whir of the hard drive will allow. *NHL Hockey* has an “exhibition game” mode for just such purposes. Pick a pair of likely candidates and begin.



As the amiable Mt. Barr introduces tonight's game, a scouting report listing the various weaknesses and strengths of both teams appears on the screen. Elements such as goaltending, power play and defense are analyzed, and an overall ranking is displayed. It is recommended that newcomers pick a

NHL Hockey



TITLE
PRICE
SYSTEM
REQUIREMENTS

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PROFECTION
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Electronic Arts
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powerhouse squad such as the Penguins or Canadiens, while offering Mr. Computer the lowly San Jose Sharks or Tampa Bay Lightning. *NHL Hockey* is anything but easy, and in the early stages any advantage is welcome.



Following a pre-game display of line-ups and scratches (which can be altered if one wishes), the final few strains of the American or Canadian national anthem are played, the appropriate billowing flag blown, and the contest is underway. The player has one view of the ice, and one view only, a 3/4 angle from the end of the rink, although when action moves down ice, the screen pans with it. As fans of Bethesda's *Wayne Gretzky Hockey* will tell you, this perspective (thought about just last year in *Wayne Gretzky 3*) conveys much more of the unfolding action than an overhead shot was ever capable of doing.

A joystick is highly recommended for *NHL Hockey* as almost every action can be controlled through the stick and its two buttons. The player will have personal control over just one of his players at any given moment (while his other charges will behave in an intelligent manner), but depressing Button 1 will shift control to the skater currently closest to the puck. Furthermore, anytime a player gains possession of the puck, he then will become manually controlled. Button 1 is also used to make a pass, and Button 2 to blister a shot. Unfortunately, *NHL Hockey* does not allow for velocity modifications to either the shot or the pass.

The pace of play is quick, and even the shoddiest of opposition will pass and sweep down the ice with remarkable precision. Early on, it behooves one to slow the play down when needed and get a solid grasp on passing without losing possession of the puck. Thankfully, there are no guaranteed set plays in *NHL Hockey* upon which one can always depend (as there seems to be in most team sport sims), and a full game with evenly matched opposition will tax the mind as much as the reflexes. Each athlete, team and game will have its own distinct flavor, and most players behave in much the same manner as their real life counterparts. Hockey fans may have the odd quibble with a specific attribute here and there, but overall, the Pavel Bures of the league are quick and deceptive, while the Bob Proberts are punishing and solid.

Speaking of Probert, there is no substitute for a crunching body check in both the real

and digital rinks. Getting a perfect line on a puck-carrying opponent and then forcefully closing the deal will most often result in a momentous collision, complete with a resounding "OOF!" or "UGH!" and the appreciative cheers or moans from the crowd, depending upon their allegiance. In some instances, a penalty may be called or opponent injured, but that's the chances taken in such circumstances. For the most part, penalties are obvious, although the actual infractions are quite randomly assessed, and the controversy of fighting does not seem to be part of the *NHL Hockey* world. Sadly, one of the most nail-biting elements of real hockey, the penalty shot, seems to have been excluded entirely from this program.

Thoughtfully included in *NHL Hockey* however, are such niceties as delayed penalties and offsides, the ability to "pull" a goalie at anytime for an extra attacker, referees that skate with the players, "Player of the Game" selections that actually make sense, and the ability to choose specific power play and penalty killing personnel combinations. Between periods, game stats are disclosed, highlights from other games shown, and an out-of-town scoreboard updates one on other happenings from around the league.



A fast moving sport like hockey is made for the instant replay, and *NHL Hockey* allows for 25 second segments. Replays can be viewed full speed or in slo-mo, then saved if wished, but are categorized only by game time and date. Therefore, one cannot, for instance, access "That great play when Lemieux waltzed around the entire Flyer team and popped it into the tight corner," or even LEMWALTZ.REP. When reliving incredible moments from the past, it may be hard to find the tight incredible moment.

Adding to the visual feast of *NHL Hockey* is an admirable audio selection, including musical selections and crowd-raising drum beats (such as the opening to Queen's "We Will Rock You") during stoppages of play, blaring horns mixed with crowd noise, goal signaling sirens, and all the appropriate thuds and bonks that players and pucks make when they do what they do. Never annoying, these sound effects only enhance the mood and stir the soul toward victory.

Several pre-game options are available. Infractions such as icing and a two-line pass offense can be toggled on and off, and one can choose between manual vs. computer con-

trolled personnel changes. Hockey purists will want to handle line changes themselves, and although keeping one's best players on the ice all night is a nice idea, even the game's superstars are human and will eventually tire. The energy level of current on-ice skaters is displayed on a small bar graph at the bottom of the screen, and the idea is to keep the best talent involved in play until weariness begins to take a toll. Line changes are accomplished via a single keystroke, and this procedure couldn't be simpler.

Once a little on-ice exactitude and knowledge has been attained, experimental exhibition contests will undoubtedly be shed for league play, and *NHL Hockey* provides a number of options. Although the default NHL setup will be the choice of many, one can custom-tailor any number of teams and leagues to their liking. The statistics of each and every 1992/93 NHL team and player (including a digital rendition of each player's photograph) is available to prospective managerial candidates, and they can be moved about and re-grouped as desired. One cannot, however, make up their own team names and players.

As league play progresses, *NHL Hockey* will update the latest stats on both players and teams, and if one shows considerable skill, a berth in the Stanley Cup Playoffs will be the reward. At any time during the season, the current team and individual leaders in a number of categories are at the ready, and this is helpful in determining who's doing what. After all, a forward with a lot of goals may be lacking in other areas, or a team (like the aforementioned Canucks) might get that much better with a little concentration on certain areas of their game, such as the power play. Individual trophies are also handed out at season finale, and judging by the level of competition in *NHL Hockey*, having one's own star forward snatch the Art Ross is certainly a feather in his or her cap. The bad news is that all this information will forever remain inside the computer, as no facilities have been allowed for printer connections.



Electronic Arts' *NHL Hockey* offers both the frustration and the glory of professional hockey's highest level. At times, players will lose themselves in the simulation and feel they are in control of a televised NHL broadcast. It simultaneously puts you inside the head of both coach and player...and that is an experience well worth the price of admission. **EW**



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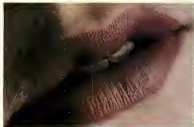
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A Story for The Jung At Heart

Symbols And Sorcery In *The Madness of Roland*

by Maxwell Eden

The *Madness of Roland*, a CD-ROM based multimedia novella by Hyperbole Studios, offers a dynamic medium for interpreting the written word, while exposing the intriguing tapestry of medieval knights, sorcery and romance to an entirely new, computer literate and mature (rated R) audience.

Combining an electronic book format with elements of a movie, *The Madness of Roland* is a pastiche of technology, interwoven with a rich use of language, classical works of art and contemporary images. Beginning with the siege of Paris in 778 AD by Muslim infidels, the reader is transported into the

medieval French legend of the paladin Roland, a knight in service to Charlemagne, king of the Franks.

The Muslims have surrounded Paris because they want revenge against Roland, the "demon" knight who won the magic sword Durandal in a battle with the Saracens. This begs the question: If Durandal was an enchanted weapon, how was it won over by Roland? Perhaps the sword magically transfers its ownership to the more deserving warrior as it goes about its life of merry "Widowmaking." Speculation is what *Roland* is all about, and trying to determine what actually happened, and why, is a major part of the story's appeal. For example, Charlemagne's account of why the Muslim's "really" laid siege to the city adds quite a different spin to the story.

Primarily text-based, *Roland* is creatively embellished and specifically designed to take advantage of the mass storage capability of CD-ROM, featuring QuickTime video (which lets the Macintosh play back movies like a VCR),

original film and music, 256-color graphics, Monty Python and MTV-style animation, sound effects, plus character narration performed by actors—a technique that made the radio dramas of the '40s come alive.

The opening title sequence is immediately gripping. A grating, lumbering noise of what could be a huge stone door slowly grinds open. Next, an ominous, war-like drumroll beats, setting the stage for passion, magic and madness.

The main screen displays finely rendered Tarot card icons for each chapter, and each chapter opening presents the reader with yet another set of individual Tarot cards. Each card represents a character and their distinct

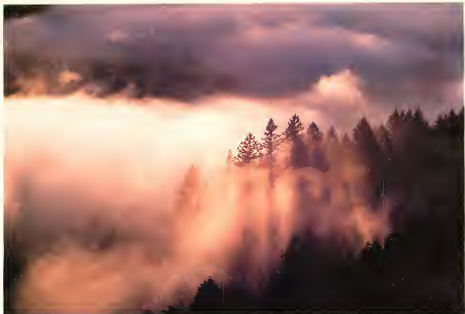


The Madness of Roland



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PRICE:
SYSTEM:
REQUIREMENTS:
PROTECTION:
AUTHOR:
DEVELOPER:
DISTRIBUTOR:

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**100% Organic
Opponents.**



point of view, including those of Charlemagne, Roland, the enchantress Angelica, and even Roland's magic sword Durandal—sort of a female Excalibur with a lust for Roland's hand.

Hearing of the characters' desires, doubts and experiences, which often provide conflicting accounts of events, the reader feels compelled to search out the truth, or perhaps all of the "truths" there are to consider. Presenting a dramatic account from different points of view has been done in classic films such as Kurosawa's *Rashomon* and, in literature, *The Alexandria Quartet* by Lawrence Durrell. But neither of these previous works enabled the reader to switch between characters at will, or to access special features like a brief film of *Roland's* writer and producer, Greg Roach, explaining how he came to develop this story.

Clicking on one of the Tarot icons begins a sequence of scroll-like pages that tell the story of the chosen character. Accompanying the text is a sound track with music, sound effects and actors reading their words as they appear on the screen. Bordering each page is a Tarot icon of the other characters in the chapter, plus tools such as bookmarks, text searching functions, and a map showing just where the reader is in the story. A special finale awaits those who read each page of every chapter.

Every time a new chapter opens, the Tarot icons shuffle about the screen into new positions, as if a new hand of cards were being dealt and the outcome might somehow change this time around. As the actors read



the story aloud, colored text on the screen indicates different types of speech: white-narration, blue-thoughts, orange-speech by the narrator of that chapter, and green-words spoken to the narrator of the current chapter. The main text also includes key words or phrases that are bold-faced. Clicking on a key word retrieves a pop-up hypertext link in the form of an explanation, a graphic or some amusing aside.

With so many potential enhancements to the tale, jumping about Multimedia Land can sometimes work against the reader. For example, it's easy to read ahead of the narration and start clicking on key words, an approach that interferes with the flow of comprehending the story. Reading on-screen text can also be tiring; listening to the narration is much more entertaining. With at least several hours



worth of storyline, *Roland* is best experienced in small doses. Going through the story several times while paying attention to each multimedia facet separately allows the subtleties and richness of *Roland* to surface.

As each character reveals their own perceptions of events, the reader can skip from one character to another for comparison. Which character the reader encounters first can be meaningful since readers can be easily swayed—the dialog and actors are very

convincing. Roland's courage in defending Paris from the superior Muslim forces may sound heroic until Charlemagne's version disputes not only the location of the battle, but calls into question Roland's level of intelligence. Of course, whose perception comes nearest the truth is anyone's guess. When Roland begins his spiral into darkness, readers can revisit the different points of view while trying to unravel the cause of his descent into self-doubt and lunacy.



In addition to the different points of view, there are two layers of commentary that enhance the dimension of the story. There is a Sun and Moon icon found at the beginning of every chapter and for each character within a chapter. Clicking the Sun icon brings up an eclectic range of textual commentary from Sun Tzu, Carlos Castaneda, Anais Nin and Carl Jung (characters in *Roland* are archetypal—king, knight, magician), that elaborate, often cryptically, on the story so far. Selecting the Moon icon takes the reader into the visual realm with QuickTime movies intended to evoke moods, and not necessarily illustrate the text.

A complex, adult tale, *Roland* is thoughtfully presented with provocative ideas and images that make the production artistically compelling. *Roland*, however, is no more technically perfect than is the technology. Depending upon the computer model, available RAM, and CD-ROM drive access speed, performance varies from near seamless to glitchy. A set of external stereo speakers such as MacSpeaker by Monster Design is a big plus in appreciating the audio segments.

In a marketplace known for pandering to the lowest common denominator and the almighty bottom line, the intellectually and emotionally stimulating experience *Roland* provides stands out as an example of artistic integrity and vision. *Roland* won't replace the concept of a traditional book or movie; it is an innovative multimedia form of expression, pioneering the evolution of electronic fiction.

CGW





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This Mech Is Made For Walker...

...And That's Just What It'll Do In Psychosis' Latest

by Jeff James



When most MS-DOS computer owners think of Psychosis, they think of Lemmings: the cute, cuddly, insufferably stupid critters that face certain extinction without the aid of a sympathetic gamer. Yet, as many Amiga owners know, Psychosis got its start doing entertainment products of a more mercenary nature—games in which the player destroyed everything that had the temerity to walk, crawl, fly, lurch or otherwise poke its pixels into view on the game screen. Underneath the warm, fuzzy exterior Psychosis portrays with such cutesy titles as *Lemmings*, *Lemmings II* and *Creeper*, there beats a dark, brooding heart of unmitigated arcade carnage. With the release of *Walker*, Psychosis returns to the gaming meanstreets from whence it came, giving Amiga gamers a healthy dose of non-stop arcade excitement.

Walker is essentially a side-scrolling shooter 'em-up, with the player's Walker (looking much like a steroid-pumped Locust 'mech from FASA's *BattleTech*) positioned on the right edge of the screen. This mechanical beast stomps into action with a unique bird-like gait reminiscent of a hungry *Jurassic Park* velociraptor, swinging its head to face the location of the targeting cursor.

The keyboard or joystick is used to move the Walker from left to right, while the mouse is the ideal control device to move the targeting cursor about the screen. A left-click of the mouse fires the cannons, while the right mouse-button locks onto an enemy unit, directing cannon fire onto the target until it is destroyed. To mete out punishment, the Walker boasts a gruesome twosome of death dealing appliances: twin cannons which spew depleted-uranium tipped 30mm shells, able to shred through the toughest enemy armor. As a secondary weapon, the Walker sports a pair of exceptionally large feet. Using what I call the "trampling two-step," the player's Walker can dash forward, squishing flat any



unfortunate enemy soldier who happens to be directly in the center of the Walker's path. Unfortunately, only a very narrow portion of the screen can be used for trampling; troops on the edges of the screen are immune to such a tactic.

The premise for the *Walker* game world—as laid out in the brief introduction in the 10-page instruction manual—is a murky setting that sounds like a bizarre cross between *Dr. Who* and *The Terminator*. The player must time-travel to four distinct time zones to battle the enemy. At the end of each level is a "boss" enemy that must be defeated to advance to the next time zone. The first level takes place in 1944 Berlin, where the player is assaulted by tanks, horse-drawn artillery, P-51 mustangs and other WW II-era military hardware. Next up is Los Angeles 2019 AD, where the player is pitted against hi-tech military hardware suspiciously reminiscent of the *Terminator* films. Finally, the last two levels involve trips to the recent Persian Gulf war and a final blast into the year 2420, respectively, to complete the game.

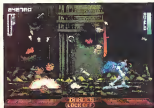
While each time zone has its own unique military vehicles, one assailant is ever-present: the infantryman. These tiny troopers can be seen in each of the four levels, coveting the game screen like insects and harassing the player with rifles, grenades and other hand-held weaponry. Ironically, the tiny hordes of soldiers that the player must obliterate *en masse* scurry about the screen in Lemming-like fashion, racing to their inevitable doom. It's as if the programmers at DMA Design cracked under the sickening sweetness of their previous games, and the ensuing psychosis traded the altruistic bliss of Lemming salvation with a bloodthirsty desire to exterminate anything under 20 pixels in height. This bloodthirsty zeal extends to the

digitized samples used in the game, with the pilot of the player's Walker occasionally shouting "Die, Scumbags!" after eliminating a particularly large batch of enemy soldiers.

Walker will run on any Amiga with at least 1MB of RAM, including the Amiga 1200 and 4000. Unfortunately, *Walker* does not support hard-drive installation, forcing players to swap the three program disks during play. One particularly irksome foible was the lack of level passwords or save game options; this would allow less-dexterous gamers (such as myself) and anyone over the age of 12 to complete the game without having to restate when the last continue has been used. The graphics and sound effects are up to the usual Psychosis standards, although the new AGA-chipset (found in the A1200 and A4000) is not used.



Fans of earlier Psychosis action classics such as *Menace*, *Blood Money* and the *Killing Game Show* will find that *Walker* employs the same frenetic arcade formula found in those games. It does eventually become tedious, as each of the four levels are remarkably similar in gameplay. With level passwords, hard-drive installation, AGA chipset support and a wider variety of scenarios, *Walker* could have been an outstanding game. In the final analysis, though, *Walker* ends up as a pleasant diversion long on gaming sizzle but short on gaming substance. **CSW**



Walker



TITLE: Walker
PRICE: \$49.99
SYSTEMS: Amiga
REQUIREMENTS: 1MB RAM; hard drive installation not supported
PROTECTION: DMA Design
DESIGNER: DMA Design
PUBLISHER: Psychosis
DISTRIBUTOR: New Line, MA
1-817-497-5457

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Actual IBM PC screen shown.

Circle Reader Service #96

That's Even More Incredible!

Dynamix Develops More Devilish Puzzles

by Ed Dille



Riddle: What do a bowling ball, a trampoline and an alligator have in common?

Answer: They are all puzzle pieces in *The Even More Incredible Machine*.

Anyone who has ever enjoyed the board game *Monstertap*, or delighted in Rubik Goldberg type machines that go to extravagant lengths to accomplish a simple objective, will appreciate the effort that Dynamix has put into *The Even More Incredible Machine (Even More)*. *Even More* is an extension of the original *The Incredible Machine*, offering 10 more playing pieces and considerably more challenging puzzles. Whereas the original had 75 pre-generated brain teasers, *Even More* offers 160. As before, there is also a free form mode that will allow users to design and save their own puzzles.

The Scientific Method?

For those who have never played *The Incredible Machine*, some background is in order. *Even More* adheres to the scientific principles of gravity and air density. The puzzles provided have preset values for these settings, which determine the physical behavior of the objects in the game, but users of the free form model can specify their own preferences. Gravity can be altered from normal to complete weightlessness, and atmospheric pressure, which determines air resistance, can vary from what one would experience on the bottom of the ocean to the vacuum of deep space.

Even More also respects the re-

lationships of kinetic and potential energy, though one need not be a physicist to appreciate these aspects of the game. The simplest example of the exchange of these energy forms as depicted in the game is provided via a fulcrum (see-saw) and two bowling balls. In addition to these types of energy transfer, players may also adopt some standard and non-standard motive forces. For the conven-

The Even More Incredible Machine



TITLE: The Even More Incredible Machine
PRICE: \$49.95
SYSTEMS: IBM, Macintosh, IBM Etravolt
REQUIREMENTS: 386SX or better, VGA graphics, 1.2MB hard drive space, mouse
DESCRIPTION: Documentation book-tp
DESIGNERS: Neil Townsend, Kevin Ryan
PUBLISHER: Dynamix
 Eugene, Oregon
 (503) 343-6772





tional, there are electric generators, motors, solar panels and similar devices. For the more esoteric, machines may be powered by rats running in a cage wheel or monkeys pedaling bicycles. The latter are motivated by a banana dangling in front of them, but the player must contrive a way of opening an intervening window blind to get them to start pedaling.

Brainstorming

Every puzzle begins with a stated goal (such as "make all five guns go off"), a preset arrangement of pieces on the screen which cannot be moved, and several pieces in a box. The player's goal is to find the proper arrangement of the pieces in conjunction with the existing arrangement to accomplish the objective. Sometimes, more objects than are necessary are provided, such that the "red herring" factor may come into play. Also, the more so-

phisticated puzzles require the user not only to find the proper arrangement of the pieces, but to employ elements of timing as well.

Many of the early puzzles are designed to allow players to learn the functions of different objects without having to consult the manual. The role of pulleys in translating the direction of pull for topees may seem apparent to most, but some younger players will appreciate the puzzles which illustrate them. Exclamations of "OH, now I get it," are not uncommon from these players. Indeed, though *Even More* isn't billed as an educational product, it is a valuable tool in developing analytical thought and an appreciation of physics in young minds.

Mind Warp

Every puzzle is presented with two bonus values. The first is for speed of completion, decreasing as time passes. The second is a preset value based upon the difficulty of the puzzle. Early puzzles are easy for most adults, later ones can be cruelly mind bending. Getting a bowling ball to progress over a series of trampolines may sound easy, but the angle of attack is the key (Pool players will love this game). One hint is in order here: in puzzles that require these types of actions, allow the machine to remain in motion as long as the ball is active. An incorrect first trajectory will often rebound along the series of obstacles

and find the correct path on the second, or even third pass.

The free form area allows players to hop on the other side of the screen, as it were, and release their creative side as designers. The potential objectives and types of machines one can create are virtually limitless. The only constraint seems to be that they must be confined to one screen size. With this feature, users design fully functional machines, then remove whichever pieces they desire to form the puzzle. After this, additional non-functional pieces may be added to the mix to throw players off track.

The Even More Incredible Machine lives up to it's billing, surpassing the original in terms of play value, if not presentation. Registered owners of the previous release can upgrade to the new release for \$19.95. **CGW**



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Circle Reader Service #86

Microsoft
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Not your Everyday Bug Hunt

Tips And Tactics For *Space Hulk* Exterminators

by Jeff James

As far as careers go, that of a Space Marine in Electronic Arts' *Space Hulk* can be one of the worst. After enduring years of back-breaking labor, mind-numbing training, and the sadistic ministrations of a commanding officer, they're unceremoniously stuffed into an interstellar spacecraft and sent off to do battle with a race of unfriendly xenofoms. Nor only are these aliens (called Genestealers) averse to polite small talk, they have a bothersome tendency to tear Space Marines into fish bait. To make matters worse, the Space Marines are often loaded into torpedo-like craft and launched into the depths of derelict spacecraft, known to be the favorite hangout for Genestealers the galaxy over.

As vicious as the Genestealers may be, a good Marine commander can even the odds for his troops. Staring aboard the command ship at a safe distance from the conflict, a commander sees with the eyes of his men, thanks to tiny cameras mounted in their helmets. This gives the commander the unique ability to direct his troops as he sees fit, matching the savagery and physical superiority of the individual Genestealer with sound group strategy and tactics. We offer the following tactical tips and strategic suggestions to aid prospective *Space Hulk* commanders in their fight with bug-eyed aliens everywhere.

1. The mission is everything.

Before accepting a mission, the player should fully understand the objectives of that mission. As part of this process, a thorough study of the information—especially maps—presented in the *Space Hulk* missions booklet

is essential. Once as much data as possible has been collected about the mission, an overall strategy should be formed to achieve the goals of the mission as quickly and effectively as possible. If the mission requires that an area be destroyed with a heavy Flamer, the mission should be structured around that goal: the Terminator with the flamer should be protected at all costs, shielded from enemy attack until the mission is completed. Tenderfoot Marine commanders must fight the urge to use random search and destroy tactics with every mission. Always keep the objective in mind and achieve it as quickly as possible.

2. Move it or get munched.

As advanced as the Space Marine combat exo-armor is, it possesses one glaring flaw: slow speed. Terminators may be able to wade through hordes of enemies with impunity, endure a cold vacuum with glee, and emerge from any conventional weapons attack unscathed, but they can only move at one of two speeds: slow and slow enough to be eaten.

Therefore, it is vital that a Space Marine commander keep his charges continually moving at all times. In any mission, taking advantage of a lull between Genestealer wave attacks to move Marines towards the objective is a sound strategy. Think of the duel between Space Marine and Genestealer as a tortoise vs. hare situation: Marines may plod, but persistent plodding serves them well.

3. Cover the brothers.

Learning how to advance a sluggish squad of Terminators towards their mission objective without having them gobbled by Genestealers is a skill essential for victory. Rookie commanders often will rush every Marine at their disposal helter-skelter towards the mission objective, hoping that enough Terminators survive the ensuing slaughter to complete the mission. Other players may adopt a rigid defensive posture, making it difficult to advance through the mission area. The answer lies between these two extremes.

Immediately upon arrival into the combat area, a defensive perimeter should be immediately established. Space Marines with long-range weapons (ideally Storm Bolters) should be moved to seal off all approaches to the entry point. After the entry point is secure, the remaining Terminators should be moved a distance past the Terminators providing covering fire to a new defensive position.



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Then the first set of Terminators should be moved past the positions of these Terminators in a tactical game of leapfrog. This tactic should be used all the way to the mission objective. Of course, some mission objectives require that the player adopt a more defensive posture, such as defending an area or killing a required number of Genestealers. For offensive operations, however, a fast-moving (well, relatively fast) squad of Space Marines that can simultaneously advance and provide covering fire will have the odds in its favor.

4. Master the planning screen.

Controlling Marines directly may be satisfying, but the slow reaction speed of any human commander ensures that some Marines will have to fend for themselves. When controlling more than one or two marines, using the planning screen is a must.

Using the planning screen, Space Marine commanders can essentially program individual Marines to perform certain pre-defined actions, such as moving to a certain location, opening a door, or flanking an objective area. Since a complete squad of Marines is impos-



sible to control all at once, having a well-programmed set of tactical instructions for the bulk of a player's squad is vital. It's usually a good idea to have the player directly control only those units that are under attack—Marines under human control fire more accurately and jam weapons less often than computer-controlled troopers do. Placing Marines on ready status—called Overwatch—will cause them to shoot at any enemy that crosses their line of fire. Without mastery of the planning screen, any aspiring *Space Hulk* captain will be sending the soldiers under his command on very short, very bloody and very unsuccessful missions.

5. Overwatch: use at your own peril.

As vital as mastering the planning screen is, players must realize that Marines in Overwatch mode fight poorly. Overwatch mode does have its uses: a Storm Bolter-equipped Marine in Overwatch mode at the end of a long corridor can destroy dozens of

Genestealers. Conversely, Marines in Overwatch seem to lack the intelligence to turn and face an enemy or plot a course around any obstacles. Players must learn to jump in and intervene when a Marine is in dire straits. Players with a Sound Blaster (or compatible) sound card get the added benefit of hearing the Marines call out their numbers when they're under attack, making rescue just the press of a function key away. Learn to balance Overwatch mode with direct control for success.

6. Trust your Storm Bolter.

Of all the ranged weapons in a Space Marine's armory, the Storm Bolter is the most vital. Other weapons are more glamorous: the Assault Cannon and the Heavy Flamer can eliminate aliens with awe-inspiring displays of destruction. As effective as those weapons can be, they both have the same fatal flaw: limited ammunition. Only the trusty Storm Bolter never runs out of ammo. Space Marines using Assault Cannons and Flamers are nothing more than quick and easy meals-on-the-go for angry Genestealers when their ammo has been expended. Storm Bolters can jam with continuous use, so they should be fired in short, controlled bursts to minimize jamming. Finally, wise Space Marines aim at the chest of an approaching

Genestealer when firing. Shots aimed at the head or extremities of the enemy are more likely to bounce harmlessly off their hard exoskeleton.

7. In hand to hand combat, the right tool is everything.

Every Space Hulk commander realizes that Genestealers are deadly in hand to hand combat. Simply put, the best tactic for fighting Genestealers hand to hand is—don't keep them at bay with ranged weapons as long as possible. If close combat with the aliens seems inevitable, equipping Space Marines with any hand to hand weapon is preferable to using Power Gloves, Lightning Claws and Thunder Hammers are ideal for mission areas consisting of short, twisting passages, where ranged weapons will have little effect. Chain Fists and Power Swords work well with Storm Bolters, giving a Space Marine both long-range punch and better odds in a melee. If the mission requires that an object be recovered



from the hulk, a Terminator equipped with Power Gloves is a necessary evil. Remember, Terminators (with the exception of those equipped with Lightning Claws or Thunder Hammers/Storm Shield) are destined to lose nearly every close encounter with a Genestealer.

8. Control is key.

Mastering the finer points of controlling Marines is key. Using a combination of the mouse and keyboard is the superior playing method: put a hand on the cursor keys for movement and one on the mouse for firing, switching squads and selecting objects. Hitting the function keys (F1-F10) is the best way to move between individual Terminators, while a tap on the 'F' key is an alternative to clicking on the 'Freeze' button. In addition to mastering the controls, developing good fire and movement tactics can also be helpful. Being able to fire while moving backwards is important, as is learning to pick Genestealers off by aiming at the corners of corridors, eliminating them before they have a chance to rush a player's Marines.

9. When all else fails—cheat!

For commanders who don't mind a little bending of the rules to achieve victory, making multiple copies of *Space Hulk*'s single save game file can be a godsend. In the Deathwing campaign, information about the squads used is contained in the file C:\HULK\DAT_DIR\SQUADINF.DAT. Making a backup copy of this file (renaming each backup something like SQDINF1.DAT, SQDINF2.DAT, etc. can be helpful) will allow Hulk commanders to venture into new missions with impunity. Some missions are impossible to complete at the first attempt, especially in the Deathwing campaign. Using saved games as insurance, players can run a squad or two through the mission to reconnoiter the area and get a feel for the strength of the enemy before bringing in the "real" troops. Since individual squads do gain experience (and commensurate increases in shooting and close combat ability) by surviving missions in Deathwing, backups can ensure a skilled and deadly squad of space grunts. **cow**

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Illustration by Michael Probert/EA



SEAL TEAM

Patrolling The Mekong Delta With EA's Elite Forces

by Jeff James

Computer simulations of small-scale infantry combat have not been a popular topic for game developers. While other segments of computer wargaming have experienced considerable growth in recent years, state-of-the-art simulations of small unit actions have been few and far between. MicroProse's *Airborne Ranger* and *Special Forces* leaned towards arcade action, foregoing realism for instant shoot 'em up gratification. Interstel's *D.R.A.G.O.N. Force* offered more tactical depth, but is now sorely outdated. Into this open genre, armed with state-of-the-art technology and backed by a veteran team of developers, jumps *SEAL Team (ST)*, a first-person, squad-level simulation of special team operations. With its excellent graphics, sound, and rigorous attention to detail, it seems that the genre has been "reborn hard."

Mission Briefing

In *SEAL Team*, the player directs the actions of an elite squad of U.S. Navy SEALs in Vietnam's Mekong Delta, from 1966 to 1969. The simulation begins with the selection of a character from a group of SEAL recruits to serve as the player's on-screen alter ego.

Once in Vietnam, the player and his squad receive their first mission. Each mission is

presented in the same order: first is the intelligence briefing, giving the player a brief summary of the forthcoming mission and its general location. The mission briefing screen is up next, offering more detail on the objectives of the mission and the latest intelligence report. A short animated briefing is available from this screen, visually displaying the objectives of the mission and describing the insertion and extraction methods used to get the team into and out of the area. Players can use the marching orders screen to choose which members of the team will be part of the four-man mission squad. Weapons and supplies can be selected for each SEAL from this screen as well; nearly two dozen types of pistols, machine guns, grenades and light anti-tank weapons are available for arming a SEAL to the teeth.

After the squad is armed and ready, the boys engage in a time-honored military tradition: the bull session. In this segue sequence, a digitized animation of SEALs preparing for the forthcoming mission is shown while a series of turnins, tactical tips and sordidly banter is displayed at the bottom. The advice presented during the bull sessions is worth paying attention to. Some of the SEAL chatter is somewhat ironic: in one bull session, the SEALs discuss what it would mean to fight in the Middle East. Aside from deciding that the hot climate would allow them to work on their tans, they conclude that the SEALs would be as fearsome a fighting force as ever. Although a relatively minor piece of the game, the bull session added considerably to the depth of simulation. As highly trained and disciplined as the SEALs are, hearing them dis-



miss their concerns and fears make them more believable—and more human. After the bull session ends, an animated sequence shows the team clambering onto the insertion vehicle, usually a river boat or helicopter. Soon after, the squad is inserted into the objective area. Here the program gives the player the option of re-inserting the squad at another map location, making it possible to make feints and false insertions to confuse the enemy.

In The Mud

After the player has accepted an insertion point, the game switches to an impressive viewing perspective: a first-person, mud-on-your-fatigues viewpoint where the player sees everything the SEAL point man would. Pressing the F1 key brings up this visual perspective, while a press of the F2 key calls forth an above-the-shoulder view of



SEAL Team



TITLE: SEAL Team
PRICE: \$49.95
SYSTEM: IBM
REQUIREMENTS: 386/33-33MHz, 2MB RAM, VGA graphics, 4MB hard drive space, disk compression not supported
NOTE: Arnie Gagnon, Howard Plays-Elects
PUBLISHER: Electronic Arts
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the player's point man. Using either a joystick, mouse or the cursor keys, the player can direct his SEALs to move at one of three speeds: stop, slow and run. Pressing the '1' key causes the entire squad to hit the dirt and crawl; a press of the '2' key calls for a crouch; and '3' causes the SEALs to stand upright.

For most missions, play involves traveling across some distance of terrain to reach the objective points. True to the varied real-life missions of the SEALs, a large variety of objective types are offered, including patrols,



ambushes, demolitions, rescues, recoveries, snatches and observations. Rescue and recovery missions require the SEALs to rescue downed U.S. pilots/POWs and recover certain supplies. Observation missions require the SEALs to designate a target—such as a bunker—for destruction by attack aircraft.

Depending on the mission, the player may have from one to several objectives, such as

having to patrol a village, demolish a bunker and snatch a high-ranking Viet Cong official, all in one operation. As the point man, the player's SEAL gives orders to the rest of the squad by the way of authentic SEAL hand signals. Since surprise and stealth are the hallmarks of a SEAL, these silent battle gestures ensure that the player can communicate with the rest of the squad noiselessly. Using these hand gestures, the player can make his squad assume one of four marching formations, issue a variety of firing orders, and perform a number of other commands. When used, a tiny window appears on the screen with an animation of the hand signal in question.

Combat is usually fast and furious, with Viet Cong (shown on-screen clad in black garb) soldiers usually opening fire—with every weapon at their disposal—on sight of the SEALs. When viewing the action through the first-person point man view, a targeting reticle will appear on the nearest civilian, Viet Cong soldier or building, indicating range to the target and the probability of a successful hit (indicated by the color of the reticle). Hitting the tab key advances the reticle through available targets, while a tap on the fire button, enter key or left mouse button fires the currently selected weapon at the target.

The Devil In The Details

The graphics used in *57* are taken right



from the leading edge of flight simulator technology, with polygon-filled graphics representing the foliage, buildings and geographical features of the game world. The SEALs, enemy soldiers and civilians are all rendered in bitmaps, making them more realistic. Several other graphic touches add depth to the game, including the addition of birds and insects which fly across the player's field of view. Occasionally a bomb-laden F-4 Phantom will streak across the objective area, en route to some off-screen target or objective. Although the polygon graphics are rather plain, especially of the foliage (vegetation seems scarce given the setting is Vietnam), the addition of the aforementioned graphic touches help draw the player into the game. This detail extends to other game elements as well; the SEALs are only allowed to use weapons historically available during the same time period. For added detail, the game offers eight difficulty and realism settings,

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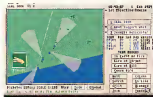
IS SITTING ALONE IN THE DARK,



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allowing adjustment from the effectiveness of enemy intelligence to the time it takes to reload. Sound and music (composed by George "The Fitz Man" Sanger) are excellent, with the digitized report of automatic weapons fire and exploding hand grenades. Turning off the music and leaving on the sound effects brings on a host of natural noises, such as the rustle of flying birds and the chirping of insects.



As mentioned previously, detail is a hallmark of *SEAL Team*. The designers reportedly consulted with Navy SEALs who served in Vietnam, in addition to consulting the UDT-SEAL Museum Association, for facts and mission details. The manual is filled with excerpts from the book *Poet Man*, a novel written by Chief James Watson, one of the first operational SEALs, describing his experiences in Vietnam. The excerpts add an immeasurable amount of substance to the game,

fleshing out the polygons and bitmaps of the game with real human drama.

As novel as some aspects of the game are, *SEAL Team* does suffer from a number of minor foibles. Screen updates can be choppy even on the fastest 386 machines. Although the game will run on most 386 systems (the designers recommend at least a 386 running at 33 MHz), a 486-level machine is almost essential. Although the game only occupies a frugal 3.8 megabytes of hard-drive space, disk access is often lethargic; thankfully, hard drive access is minimal once the player has his SEALs in the mission area.

I salute the artificial intelligence of enemy forces, which seem to act with almost human cunning, crouching behind obstacles and lying in wait for the ideal time to strike. Unfortunately, the same cannot be said of the player's support craft. On several missions, I watched my riverboat support team come under fire as it calmly stationed itself right next to a village full of VC. Although not a veteran of combat, I would think that having a support unit station itself tight in front of the objective area is an exercise in tactical suicide. Strangely, support units never seemed to take any damage from being machine-gunned or struck by grenades thrown by the enemy.

Debriefing

Admittedly, most of the aforementioned

deficiencies are minor ones. Through this product, designers Gagnon and Hay-Eberts have not only succeeded in making an enjoyable piece of computer entertainment, but an educational and enlightening one as well. Like many CGW readers, I wasn't yet born when the missions described in *SEAL Team* were carried out. For those of us who weren't there, *SEAL Team* offers a tiny glimpse at what the veterans of the Vietnam conflict went through. The designers adroitly sidestep any political stance on the Vietnam War, focusing instead on the men and the difficult missions they had to accomplish. Although not perfect, *ST* is unarguably a major tactical victory for the infantry-level computer command.

The author would like to thank Cpl. Kevin N. Lawson, U.S.M.C., for his assistance in preparing this review. **CGW**



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UNNECESSARY FORCE

A Performance Review Of Tsunami's *Blue Force*

by Charles Arday

Having "acquired" Jim Walls, the ex-cop who created the *Police Quest* series of games for Sierra, to write their first police game, Tsunami Media appears to be trying to go head-to-head with the big boys. And that's not just Sierra, but also ex-Los Angeles top cop Datryl Gates, whom Sierra brought in as Walls' replacement for the next *Police Quest* game. The jury is still out on how Gates will fare in the role of game designer, but Walls may not care for the verdict on *Blue Force*. It is simply not as strong as Walls' previous games.

Force Majeur

In *Blue Force*, the player steps into the shoes of Jake Ryan, rookie motorcycle cop in the town of Jackson Beach. Ten years earlier (or possibly 11, depending on whether one treats the game or the game box), Jake's parents were gunned down by a mysterious, long-haired assailant. Now, by a sequence of coincidences too enormous to describe, Jake is about to end up on the trail of their killers.



The game is divided equally between routine police activity (answering a domestic violence or drunk driving call, booking suspects and evidence, showing up for inspection) and Jake's personal investigation into his parents' death, for which purpose he enlists the help of his father's ex-partner, Lyle Jamison. When, midway through the game, Jake is in a random motorcycle accident, his subsequent time off from the force allows him (and the player) to concentrate on the latter. Not to worry, though: in the end, Jake's private investigation ties into the domestic violence call he was sent on at the start of the

game. A neat, little, improbable package—what more could one want?

A coherent story, to begin with, I suppose; and, second of all, a story over which the player has some control. In *Blue Force*, one rarely knows, between episodes, where to go next; but it rarely matters because some character or event always comes along to lead the player by the nose into the next sequence. Experimentation is discouraged. If the player tries to go anywhere other than where the computer wants to go, he either finds nothing when he gets there, or he isn't allowed to get there at all.

As in Electronic Arts' *The Lost Files of Sherlock Holmes*, one travels around the city by clicking on hotspots on a city map. Also, as in the *Hobbes* game, a trip to any location other than the one the computer wants the player to see is a waste of time. The player will only find a locked door or an empty room when he arrives, or an admonition from the computer and nothing else. Try to take Jake to the "Bikini Hut" while he is on duty and the computer says, "No time for pleasure." Try to take him there after hours and the computer says, "No time for pleasure." It sinks in slowly: the computer is just not going to let Jake in, ever.

Eventually, one realizes that many of the locations in the game simply don't exist except as prop-up facades. There is no bowling alley; one can go into the Alley Cat as far as the main counter and no farther. The police station consists, essentially, of one room. The jail consists of two. After a while, it becomes clear that Tsunami hasn't even bothered to simulate a game world.

Objects in the game get similar treatment. At one point, Jake opens the trunk of a car to reveal two boxes. The box on the right can be opened; as far as the computer is concerned, the box on the left does not exist. Opening the box on the right reveals some flares and a spring-loaded punch. If Jake tries to take the

punch, he can; if he tries to take the flares he is told, "You have no need for flares." Why put them in the picture, then?

Even characters must endure this disrespec. At one point, I spent several minutes trying to click on Lyle Jamison and wondering why the computer kept saying things like "That serves no purpose." Eventually, I figured it out: the computer didn't know Lyle was in the room, since in that room Lyle was merely part of the background graphics.



It gets worse. When one clicks on objects in a Sierra or LucasArts game, one usually gets clever or interesting descriptions. When one clicks on objects in *Blue Force*, one is lucky to get descriptions at all. (A bulletin board: "It's the usual boring stuff." Jake's badge: "It's your I.D. The Bikini Hut: "It's the Bikini Hut." A mobile home: "It's a delapidated [m] old trailer.")

Conversations with characters are mostly a matter of "Hello," "Gotta run," and "See ya," or else they are strings of silly obscenities handled clumsily and incoherently: "dman" is spelled something like "d'0!"; but "pig ass," "sheet," and "puck off" (when Jake is rebuffed by an air hockey player) stand as they are.

The planning and structure of the game's dialogue are also abysmal.

Blue Force



TITLE	Blue Force
PRICE	\$69.95
SYSTEM	IBM & IBM COMPAT
REQUIREMENTS	386-16MB RAM or better, VGA graphics, 11MB hard drive space, mouse, supports AdLib, Sound Blaster, Roland, External General MIDI
PRODUCTION DESIGNER	None
PUBLISHER	Jim Walls Tsunami Media, Inc. P.O. Box 790 Camarillo, CA 93604 (805) 245-7794 for orders only

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For example, if the player clicks the "talk" icon on the duty officer when Jake returns to the police station after recovering from his broken leg, the ensuing conversation is of the standard "Got things to do, see ya" variety. Only if Jake shows a cocktail napkin to the duty officer does the game produce the proper, "Welcome back, how's the leg?" dialogue. Later, Jake asks Lyle, "Does the name Cobb mean anything to you?" immediately after Lyle finishes telling him who Cobb is!

All of the above contributes to the game's generally cheap feel. It's sketchy, like a rough draft or a preparatory drawing. For the amount of money it costs, players deserve better.

Insufficient Force

From a technical point of view, *Blue Force* is more of a scooter than it is a policeman's Harley. Even on a 486/33 it runs painfully slow. In the amount of time it takes for Jake Ryan to walk across a screen, a real cop could

have arrested a perp, beaten him up, and stood trial for brutality. Making matters worse, when two characters are on a screen, each moves separately: first Jake begins the slow trek across the screen, and only when he is finished does Lyle start.

As in *Tsunami's Ringworld*, the command interface has all the icons placed on a pop-up window. This device is fine, but for it to work the pop-up window must pop-up immediately when one calls for it. There is no excuse for the game to chug along for up to three seconds before deigning to give the player his command options.

Nor is torpidity the game's only technical flaw. As in *Ringworld*, the player's character occasionally moves to locations on the screen other than the one on which the player clicked. In at least one sequence this is disastrous. I wanted Jake to look at a bookshelf. Instead, he exited a room a) that contains something the player needs in order to get further in the game, and b) that the player cannot reenter (without good reason) if he exits it prematurely.

In addition to its technical flaws, one has no choice but to take note of the game's appalling spelling errors and factual inconsistencies. Was *Tsunami* so hard up for cash or pressed for time that they couldn't hire an editor to change "your" to "you're," "parent's" to "parents," and "bartenders" to "bartender's"? Couldn't someone just decide



when the murders took place and make sure that the same date was used throughout the game? (The date is given, variously, as 21 March 1983, 14 June 1983, and 16 May 1984.) For a company that wants to be taken seriously to put out a product this shoddy—and needlessly so—is insane.

May The Force Not Be With You

While playing *Blue Force* I was reminded of Capstone's Stephen King-derived game, *The Dark Half*, which loyal *CGW* readers will recall I deemed the worst adventure game of the past ten years. While *Blue Force* is not in that category, that's a little like saying that pneumonia is not as bad as cancer—true enough, but one wouldn't want to get either. Jim Walls and Tsunami both have better work in them. I take comfort, as should they, in the knowledge that they have nowhere to go but up. **eww**

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New Horizons For An Old World

Electronic Arts Rediscovered *The Seven Cities of Gold*

by Ed Dille

Return with us now to those thrilling days of yesteryear still echoes in the minds of the "baby boomer" generation. The opening line from "The Lone Ranger" television series has just the right amount of nostalgia to re-introduce *The Seven Cities of Gold*. This classic game has a perfect combination of elegant design, intriguing subject matter and solid play balancing to hit the mark in today's market.

So, return with us now to those thrilling days of early computer games, ca. 1984. Bill and Dan Buntzen introduced a joystick-directed game of exploration, economics and conquest that captured the imagination of the computer gaming world and proved to be the Buntzens' biggest seller ever. The graphics were blocky, the colors were limited, and the interaction was basically limited to pixel avoidance (as one frantically tried to avoid natives) and number swapping (balancing the right number of gifts in order to purchase valuable commodities). Still, *The Seven Cities of Gold* managed to lure players repeatedly to the role of Christopher Columbus, "discoverer" of the New World.



In historical terms, the game begins in 1492 and may continue indefinitely if the player meets the required victory conditions. In essence, the player has 10 voyages to establish at least one Colony, one Mission and three Forts in the New World. If these conditions are met, the player may continue to explore

and expand the Spanish Empire indefinitely, provided one's voyages remain profitable.

Seven Cities has three levels of difficulty: Novice, Journeyman and Expert. Victory conditions are consistent throughout the levels, but the amount of support one receives from the Crown decreases at the higher levels. To start off, the player selects a desired difficulty level and determines whether the New World will be historically correct or randomly generated. The latter option exists to keep *Seven Cities* infinitely replayable.

With the world established, the player is transported to an adventure-game-like display. Here, the first order of business is to visit the palace and receive the Crown's charter. Upon each return from the New World, one must visit the palace for updated guidance and receive any promotions. The second step is the Commissioner's office. Here, one can view the latest map of the New World and review a written record of the voyages. The log book contains information on the victory conditions, profit records for each voyage, and a cumulative record of the percentage of New World discovered, the number of ships and men lost, and any special discoveries.

The final stop before setting out for Terra Incognita is the Harbor Master's office. Here, one can buy all of the provisions, men and equipment necessary to undertake the journey. Initially, it is best to stick with one ship and provision it well in lieu of leaving with half laden ships. Profits from the initial voyages should allow one to expand the transportation base rapidly. Explorers are the cheapest men to hire, though they consume food faster than their more stalwart compatriots, soldiers and clergy. Keeping in mind that explorers are necessary to map the new world, and one needs to establish settlements quickly, it is best to begin almost exclusively with these men and incor-

porate the others on later voyages. Several horses are important both as a mode of rapid transportation and to pack import and export goods more efficiently. As for Old World cargo, animals, old world plants and weapons



can be used for trade with tribal chieftains. Food can be used as a trade commodity as well, but is primarily used to keep the party on its feet.

Shoving Off

Leaving Spain, one is transferred to an overhead view which forms the backdrop for all navigation and exploration in the game. A single ship icon represents the group while at sea, but several men move across the terrain once landfall is made. Players use either the keyboard arrows or a joystick to control movement; mouse support is not provided.

Upon making landfall, a pop-up menu allows the player to drop off men and equip-

The Seven Cities of Gold



TITLE: The Seven Cities of Gold
PRICE: \$49.95
SYSTEM: IBM
REQUIREMENTS: 20K or better, VGA graphics, 3.3MB hard drive space
PICTURE: None
DESIGNER: Michael Buntzen (original design by Bill & Dan Buntzen)
PUBLISHER: Electronic Arts
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ment for the overland expedition. If some of the crew is to remain with the ship, one must ensure that there's enough food for both parties before departing. Once established, the expedition will begin movement ashore. If at least one explorer is present in the party, these travels will be mapped permanently. The rate



of travel is affected by the mode of travel (mounted on horses is naturally the fastest) and the various terrain types. Movement is fastest on rivers and over plains, desert and beach, slightly slower in forest or jungle squares, and very slow over mountains. The party's food is consumed based on the passage of days, so the more difficult the terrain to be traversed, the more time and food is consumed.

As the party travels it may stumble upon burial mounds or gold mines in addition to native civilizations. The desecration of burial mounds is an easy way to gain some artifacts to return to the Old World, but it can have a decidedly negative impact on the local populace. Gold mines are wonderful discoveries, yielding some quick profit as well as a new feature. In the old system, mines generally had more than the party could carry in one trip, so they were visited several times, but once the initial supply of gold was exhausted the mine was considered tapped. In the new system, the player may leave men behind to work the gold mine and keep it productive and profitable for a longer period of time. As before, one must ensure such groups are well provisioned such that they don't starve before the player returns.

"Savage" Culture

Interaction with the native civilizations is essential to success. On the overhead exploration map, their settlements are depicted by various icons ranging from crude huts for warrior and hunter tribes to the elaborate pyramids of advanced cultures. Upon colliding with one of these icons, the player's perspective changes to the tribal screen.

The tribal encounter is a close-up overhead view centered on the player character. Boxes in the lower right corner of the screen show

the party strength and whether or not they are brandishing their weapons. The latter is a decidedly hostile gesture, but it may be necessary when trying to establish trade with a tribe that is less than welcoming to the Europeans. The level of hostility or suspicion of the tribe is denoted by the tempo of the tribal drums; the faster the beat, the greater the levels of aggression and the speed at which natives will pursue the player icon.

The objective of the player is to explore the village, find the chief, and begin trade negotiations. Until the chief is approached, the other natives will pursue the player and try to "bump" into him. Such contacts cause casualties to both sides and increase the level of hostility. As such, players intent on peaceful trade will enter the village without brandishing their weapons and avoid all contact with the wandering natives until the chief is found.

Powwowing With The Chief

By approaching the chief, a separate screen pops up for negotiations. The player's objective is to develop the relationship to the point that the Chief will agree to trade. One can try to amaze the chief with technology (generally only effective against the most primitive tribes), threaten him with violence (usually not a good idea), or give him gifts. The chief's reaction to the gift can be seen in his facial expression. Animals and horses tend to be the most effective gifts for quick trade, as two or three usually constitute sufficient tribute. Old World plants are less effective, as the Chief may become too tired to continue negotiations before he has received enough of these items to allow trade. Arms should be offered only to warlike tribes, otherwise the passivistic, agrarian chief may be disgusted by the offer. Once trade is granted, the player has access to all the gold, artifacts, spice and new world plants of the tribe, as well as some food and native bearings. In this sense, it is not trade at all because it is unnecessary to provide any further Old World items to strip the tribe of all its resources.

This ability to get Manhattan for a string of beads, as it were, is the only holdover of the less than adequate portrayal of Native Americans in the original game. The first game made it somewhat easy, and even fun, to go on Indian pacification war parties, sometimes eliminating whole tribes. While some may justifiably argue that the Spaniards had a history of



rule by force, the design team at Electronic Arts has limited the player's ability to do so.

Tribes now possess a tribal memory that encompasses a fair portion of the area surrounding their settlements. If neighboring settlements are treated harshly, the player will receive a cold or hostile response upon return to other villages in the area; likewise if burial mounds are desecrated. Further, when players insist on remaining aggressive, one of two outcomes result: either the natives engulf and destroy the expedition or, upon return to Spain, the player is called up short for his un-Christian treatment of the native population and thrown in jail.



On the whole, much of the original design has been retained and those modifications which have been made enhance, rather than detract from game play. *Seven Cities of Gold* is still the fresh, simple, playable game that broke ground in the early days of computer gaming. Players will delight in exploring countless new worlds, building fame and fortune, and extending the glory of the Spanish Empire. **EW**



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Mindcraft's Dwarven Tale Comes Up Short

by Scorpio

Dwarves of legend—not of Walt Disney movies—are stout folk possessed of decidedly hot tempers. On the island of Tarq, the two largest Dwarven clans are warring for dominance and seeking allies among the smaller dwarf factions. They didn't pick the best of times for this dispute, as the land is being invaded by Taldor and other nasty creatures. Mindcraft's *Bloodstone* is the "epic Dwarven tale" of their battle for survival and control of the isle.

Your character belongs to one of the smaller clans that the larger ones are trying to win over to their side. In this case, the matter is a moot one, since the game begins with your clan being massacred by the Taldor. Only you and three companions make it out alive.

At this point, the player may feel a little aimless, but the introduction in the manual makes it fairly clear that the hero's destiny is to unite the clans behind one leader to repel the invasion. In fact, the game has parallel quests: finding the ancient artifacts to be given to the leader of your choice, and finding a way to reach the fabled home of Rohrkhad, God of Dwarves and Creation.

You'll learn the 'hows' and 'whys' of this as the game progresses, mostly by talking to people and doing some research. In between, there is the usual dungeon-delving for important items and treasure. The game plays much like any of the Magic Candles, and in fact uses the same engine as *Magic Candle III*. The events in *Bloodstone*, however, take place in the remote past, long before the lands of Deruvia are even known of.

As usual, your character comes pre-created with a set group of attributes and skills, but you do get to choose the gender and name. You also begin with a very nice magic axe, an heirloom of your clan.

Your starting companions you take also comes with 30 points that you allocate to his or her skills and attributes, allowing you to adjust them to your liking. Each companion you take also comes with 30 points that you allocate to his or her skills and attributes, allowing you to adjust them to your liking.

Magic is very important in this game, so at least two, perhaps three, companions should have decent magic abilities. All come with a limited number of spells and no spell books (called "totems" here); to make your friends truly effective, you'll have to buy some totems when you find the people who sell them. In the meantime, you can pass around your own totem to other members for spell learning.



The usual array of potions, mushrooms and herbs is available, and you certainly want to stock up on them, especially nift, gonshi, minger and scrmin. There are many new monsters in *Bloodstone*, and they are all nasty. Make no mistake, these critters will be tough.

Most come with hit points in the hundreds (some in the high hundreds) and high armor protection. Quite a few of them have spell casting ability as well. You are going to need all the help you can get, and without those herbs, you won't last long.

As you might expect,

these monsters also hit very hard. For example, Ranak (whom we picked up early on as another party member) had 51 hit points, Dwarven chain mail and a bronze helmet. He took two hits from a Taldor and was dead—just like that. Ouch!

This means you can't depend on your armor for much protection, at least not until you can afford steel plate and steel helmets. There is little point in upgrading anyone's armor before then; the party will have to rely on nift to keep them safe from physical blows. Nift should be active at all times for everyone, indoors and out.



Auto-mapping is present and still as crude as it was in the *MC* series, being a blocky, low-res display of the immediate area, with no scrolling. In dungeons, the auto-map doesn't work; you need a map flask and special pearls to get a look at your environs. You may want to draw your own maps on paper from the display on screen, as pearls can be used up pretty quickly in big dungeons where the map does not show the entire level at once.

Auto-notes are here, too, with user-selected detail levels allowing you to capture everything or just the most important

Bloodstone



TITLE: Bloodstone: An Epic Dwarven Tale
FILE: 3.50 MB
SYSTEM: IBM
REQUIREMENTS: 200-1,200 Hz or greater, 384K RAM for setup, 512K for graphics, 200K hard-disk space, mouse
PROTECTIONS: None
DEVELOPER: Anthony T. DiStasio
PUBLISHER: Mindcraft
 Torrance, CA
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conversations and information. Redundant entries can be deleted, and the notes are searchable by keyword. You can also insert your own notes at any time, as well as run off a copy of everything on your printer. While the auto-map may be primitive, the auto-notes (which very few games have) are quite good.



Dungeons follow the rooms/corridors pattern of *Magic Candle*, and you can bet that most doors will lead to hostile confrontations. It is best to be prepared for the worst before opening any doors. In fact, be ready for a fight at any time, as you never know when an ambush might occur. As before, dungeons that are cleaned out stay that way, so if you need to leave to restock supplies you won't have to fight your way back in again, and empty rooms are good places to rest up and memorize spells.

One major change from the *MC* series is that *Bloodstone* does not require eating. Another is that enemy levels do not drop while walking around. In previous games, the party usually tired rapidly during outdoor treks, requiring frequent rest stops or the use of mushrooms to revitalize everyone. Now, energy is used up only while fighting or casting spells. However, as many combats will be extended ones, a good supply of stamina for all is still necessary.

Teleporters are also in the game, although there seems to be fewer of them than in the *MC* products. Typically, there will be one on the last level of each dungeon to get you back out quickly, and a few teleporters can be found in the outdoors.

While the game ran cleanly, it had some minor and major flaws that, taken together, seriously detracted from the experience. For one thing, while my character was supposed to be a Dwarf, she looked distinctly human on screen. It's hard to take all this Dwarfen stuff seriously when you don't even look like a Dwarf.

The town of Rulzan is inhabited entirely by Amazons, and as you might expect, they have a low opinion of males. They also appear to be extremely near-sighted, since their remarks clearly showed they thought my character was male, not female.

This problem also shows up at the beginning, where the graphic of the axe being

handed over displays two male characters, and again at the end, where the concluding text includes such phrases as "Scorp passes his knowledge on..." Since the playtesters were all male, it is likely none of them tried a female hero; otherwise these gaffes would have been caught and fixed. If the designers are going to offer the possibility of a female main character, they should provide the appropriate text and graphics.

Further slip-ups occurred when I received wrong information at two points in the game. One person told me the magic Tlengle sword was in a certain dungeon, when it was actually in the possession of a hermit far from any dungeon.

In Harara, the Loremaster gives you a teleportal combination that is supposed to send you to Shudlam, but actually drops you into South Balat, not a good place to be if you have a low-level party.

Magic, as an offensive weapon, is hardly worth considering. What good is a spell that does 50 points of damage against a monster with hundreds of hit points, when one fighter, pumped up with midget and using a magically-sharpened weapon, can do 300+ damage with one blow? Even with turpin (a magic-enhancing plant), spells did nowhere near the damage they should have considering the power of the opponents.

Most of the time I used such spells as Disappear, Jump, See, Sharpen, Weaken, Quiver and Time Stop. On those rare occasions when offensive magic was used, it was mainly to polish off already-weakened enemies.

Poor design shows up again with the placement of a very nasty dungeon close to the starting town. No magic word is needed to enter; the party can just walk right in and get trashed by a succession of powerful monsters. This place was meant for an advanced group, not beginners, yet it sits right there where the party starts out, a vicious trap for the unwary.

The real "starter dungeon" happens to be Pradsiq Tower, halfway across the island, and it is much easier for a new party. It is thoughtless planning, to say the least, to put an advanced dungeon (easily entered, yet!), at the start, and the beginner dungeon so far away. It would not surprise me if some players give up right there, thinking, "If this is the *beginner* dungeon, what are the rest of them like?"

Another problem I had was finding the "all-weather canvas." You need several items to build a ship, and all but one are found in dungeons. For most of the items, someone, somewhere, will give you a clue to the location. But the canvas is not in any dungeon

and no one has a word to say about it. You might think it doesn't exist.

It turns out that there is one store that sells the canvas, and that's in a town you won't be visiting for some time in the game. You won't even know it's for sale until you actually ask to buy something; even the shopkeeper himself doesn't mention anything about canvas. An item this important (and it *is* important) should have been clued somewhere in the game; it is too easily overlooked otherwise.

The big flaw, however, comes at the end. Most of the party's activities have been directed to retrieving Dwarven artifacts to give to one leader or the other. That doesn't have to be done at once; you can hold on to them while you decide which one to favor. The last of these artifacts is the mighty axe Khamalhad, buried below Rohrlakhd's castle. You'd think that after getting the axe you would sail back and present all the items to the leader you want, who would then unite the clans, throw out the Taldor, etc.

No. It doesn't work that way. The moment you take the axe, the game is over. It goes automatically into the ending sequence, and you do not have the opportunity to give anything to anyone. If you have given even one artifact to a leader, he becomes the chosen one. If you still have them all, then the game makes a default choice which may not be the one you wanted.

When that happened, I sat there thinking, "I spent most of the game collecting these items, and for what? I still have them and the game is over." The whole focus of the game is made pointless, even irrelevant, by this gaffe, which is right down there with the "quit and win" finale of *Reabus of Arbatnia*.



To avoid this, you must hand off all artifacts collected to the clan leader of your choice before sailing to Rohrlakhd's castle. Mindcraft has put inserts into the game boxes, advising players of this same thing. Too little, too late, perhaps, but better than no warning at all.

Overall then, *Bloodstone* turns out to be a disappointment. The interesting story and improvements over *MCIII* are overshadowed by design flaws and inadequate playtesting. Very likely, only dedicated *Magic Candle* fans will want to slog through this one. **EW**

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City Planning And The Sword

SSI's *Stronghold* Moves The AD&D Line In New Directions

by H.E. Dille



D.E. Smith / E.D. Cover

Stronghold is a unique release for SSI, having a greater kinship to strategy games like *Populous* or *PowerManager* than to other titles in the AD&D line. As such, many fans of their role-playing games may be baffled by the play mechanics and objectives of *Stronghold*. Rather than lead a party of characters into another dank dungeon, players must direct five central characters as they build and support a vast kingdom. Computer-controlled opponents are building kingdoms in the same territory, and the player must expand and control the entire map to earn the title of Emperor.



The resources available to the player are extensive and exciting. Players can build over 100 structures, including a castle, factories, dragon hatcheries, armories, schools of magic, forges, guilds, outposts and temples. As players construct new buildings the populace and kingdom grow stronger. Factors such as the farmland, population and taxes can be controlled by the player or delegated to the computer, providing a flexible management system. Players will know how well they are doing based on morale. Content peasants are productive; demoralized peasants boo, hiss and throw tomatoes.

Laying The Foundation

When beginning a game, the player may

choose to play on a randomly generated map, or on one of five pre-generated maps, each of which poses a unique challenge. Unlike some other games with a map generator, the cohesiveness and logic of the maps created by *Stronghold* are sound. Using this feature, one can expect a lot of replay value.

With the geography of the world established, players must select the level of hostility they desire. The Peaceful, Aggressive and Hostile worlds have different starting values for initial gold, total gold storage, rate of promotion based on morale values, and whether or not auto-build features will be enabled.

A Custom option also allows the user to specify the total number of monster opponents which will appear in the world. Although the manual states that a maximum of 60 are possible, the addendum sheet contains a small note limiting this figure to 30.

With these preliminary issues resolved, the player begins the game on the main display. Two views are possible in this window-based interface. The first is an overhead map of the entire region; the second is a "postcard" type view of the cursor location. The latter is a first-person, 3-D polygon view with bit-mapped images of objects. An arrow between the two displays allows the player to quickly swap these views in the main window.

Human (and Elven and Dwarven...) Resources

The first task is to tour the terrain and select the location of the main castle. Once satisfied with the locale, selecting the "Create Baron or Baroness" option will create the

central character. Four other characters will be created subsequently; these are used to found Keeps to support the main castle. Standard AD&D rules are used in the character routines, though players must consider factors beyond the normal combat bonuses if they wish to succeed. Character alignment deter-



mines the final outcome of the game. Lawful characters must progress through nine promotion levels to reach Emperor or Empress status through proper management of their kingdoms. Chaotic characters must destroy all enemy strongholds to win. Neutral characters must achieve both objectives, making this option the most challenging scenario.

Each character race has different bonuses and liabilities. Successful players will balance their five characters to complement one another. Dwarves are a good choice for the

Stronghold



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 Documentation book: \$9
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first settlement, as their mining bonus will yield quick income if one places the settlement in a mountainous area. Halflings are wonderful food producers and are capable of supporting a vast kingdom if two conditions are met. First, their settlement should be built close to water, allowing a double bonus in food production. Second, other settlements must build granaries so that the food may be distributed equitably.

With a Dwarf settlement promoting cash flow and Halflings feeding the masses, the player may want to consider sending the Dwarf character to the Halfling settlement to build other buildings that they can subsequently claim. Ownership of buildings and resources ties the income and maintenance costs to the respective character. In this fashion, wealthy characters can aid struggling



communities. Also, one should make the third character an Elf and send him off across the land claiming every tree in sight. Trees produce money and resources for the owning player, but unlike buildings do not degrade if unattended.

The Planned Community

As one considers the types of buildings to construct in each of the settlements, several factors should be kept in mind. First, farms are necessary, but one should skew farm production toward the Halflings, who are the only ones capable of making bakeries. Second, Marketplaces are essential to every settlement. They are quick producers of income, they increase the productivity of farms, and they allow the distribution of goods from other manufacturers. If one only has 500 gold, then one could do a lot worse than produce five Marketplaces with these funds.

Some structures are never worth the resources required to build and maintain them. The two main culprits in this area are public baths and city walls. Public baths provide little

benefit to the populace (remember, this is similar to the Dark Ages) and are expensive to maintain over the long haul. Likewise, City Walls are only minimally effective against marauding monster groups, have an exorbitant construction cost, and their maintenance is debilitating to even the most productive kingdoms. As such, city walls are best placed in areas where their effect is maximized, such as strategic mountain passes.

The Power Of The Pyramid

With the five central characters in place and initial construction underway, the player must begin to influence events using control icons known as "pyramids." Each character has its own pyramid located on the right side of the screen. Each pyramid invokes one of three actions in the area the player is currently viewing: Recruit, Train and Build.

The yellow portion of the pyramid represents the amount of recruiting desired. The more intense the recruiting, the larger the existing units will become and the more new units will be attracted to the stronghold. The light red part of the pyramid represents the amount of training. The more power one allocates to this portion of the pyramid, the faster the units will increase in level. Naturally, higher level units perform better in combat, possessing more hit points and better spellcasting abilities. The final portion of the pyramid, colored dark red, controls the rate of construction.

Combined, these three settings reflect 100% of the populace's effort. As such, it is necessary to alter the settings to reflect the changing situation. In the beginning, a heavy emphasis on construction helps the kingdom get off to a good start. Later, one must allocate a major portion of the effort to building and training new units; that is, unless one wants to tempt neighbors with a wealthy, undefended kingdom ripe for plunder.

The Call To Arms

Considering that no kingdom has ever thrived through pacifism alone, it is no surprise that *Stronghold* requires a mastery of the combat arts. Combat occurs whenever units of opposing sides occupy the same block of the map; it continues until one side has control. From the overhead view, combat appears as flashing red and white dots. To draw additional friendly units into the battle, the player goes to the first-person view and turns up "magnets" that attract reeked units immediately and others as time passes. An overview of the battle's progression is provided via a red and white sliding bar, the dominant color depicting the side with the advantage.

Successful combat is essential if one has chosen any alignment other than Lawful. Unfortunately, the manual does not address a key

aspect of this process. If one is successful in destroying an enemy stronghold, any surviving monsters will rush off to storm the battlements of the player's kingdom in a mass kamikaze attack. As such, one should not draw off all of their armies to pursue these offensive campaigns and leave the kingdom undefended. Also, if one had to build bridges across the water to attack the enemy, it is best to burn the bridges before pursuing the main attack. In doing so, one delays the counterattack.

The Emperor's Diary

In addition to the situational strategies discussed thus far, the player will do well to keep three other considerations in mind. First, one should use characters in cooperation to de-



velop well rounded and self-supporting settlements. Second, it is better to upgrade existing structures than to build new ones; large, sprawling kingdoms tend to be unstable later in the game. Finally, one will lose if training halls are not built. The more training halls per character, the greater the rate of advancement. With multiple halls per character, levels will advance very fast. Also, one should ignore the incorrect annotation in the manual concerning a maximum of ten Marketplaces. While the farm bonus will only apply to the first ten Marketplaces, additional ones are still cheap sources of income.

If one builds a stronghold with Dwarves in the mountains and Halflings near water, and uses sound strategy, it is almost impossible to lose. This one play balance flaw is the only notable weakness of *Stronghold*. Players will have to avoid this powerful character combination as they become more skilled with the other portions of the program in order to maintain a challenge. Otherwise, *Stronghold* offers a new perspective to players of SS1's other AD&D products and is highly recommended. **EW**



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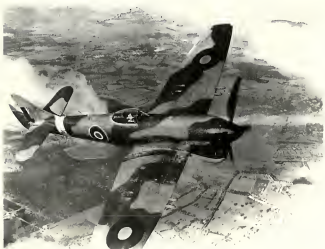
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Little White Houses For Grue And Me

Activision's *Return to Zork*

by Charles Ardai

There is a white house in the middle of the woods that adventure gamers know well. Unlike Robert Frost, they do not know "whose woods these are"—or whose house, for that matter, standing there all boarded up and abandoned. What they do know is who the Great Underground Empire located beneath the house belongs to. It belongs to all the creatures of the night who lurk in its dark tunnels and caves; it belongs to the Flatheads, lords and rulers of the land of Zork; it belongs to Marc Blank and Dave Lebling, the "great implementers" of Infocom who dreamt up the original *Zork* trilogy more than a decade ago; and it belongs to all the adventurers who have played the *Zork* games over the years, painting wondrous scenes in their minds to illustrate the words Blank and Lebling put on the screen.

In attempting to revive and modernize *Zork*, Activision is treading on sacred ground. It's a little bit like daring to remake *Casablanca*—or worse, since what Activision has undertaken is no mere remake. *Return to Zork* utterly transforms the most famous of Infocom's all-text universes, turning it into a cinematic showcase for cutting-edge graphics and sound. There's hardly any text at all in the game, which is sure to make diehard Infocom fans cringe; and the parserless, point-and-click interface resembles the latest offerings from *Tsunami* or *Sierra* much more than it does the classics from Infocom. Gamers have had every reason over the past several months, since advertisements for *Return to Zork* started appearing, to wonder whether Activision's wholesale renovation of their favorite fantasy world would render it unrecognizable.



The designers, aware of these concerns, devised an ingenious and satisfying manner to allay them in the very first scene of the game. Contrary to expectations, *Return to Zork* opens with white text on a black background, just as an Infocom game should. Nor is it just any text—it's text lifted straight from the opening of *Zork I*. A few seconds after the text appears, a full-screen image fades in behind it: the white house where the *Zork* legend began, drawn with such fidelity to the original description that no old-time gamer could fail to recognize it.



The text fades out shortly thereafter, never to return, but the point has been made: the writers behind *Return to Zork* haven't lost touch with their roots. Gamers who have been worried can rest assured that the *Zork* legacy is in good hands.

What of those gamers who are new to *Zork*, the graphics-hungry generation to which *Return to Zork* is presumably intended to appeal? They get their fix in the opening scene as well. After a moment, when the house starts to rotate, one realizes that the image is not static and flat, as in a conventional graphic adventure, but a detailed, three-dimensional rendering around which the "camera" is able to swoop and glide, as in the best scenes from *The 7th Guest*.

Following a bit of business suggesting a magical abduction (giving the designers a chance to show off a sample of the full-motion video and spoken-word audio em-



ployed to capture the human actors), one is left soaring over a fractal-rich landscape while the soundtrack throbs ominously and Hollywood-style credits roll.

It's a stunning opening sequence, on par with the opening of *King's Quest VI*, and it is sure to win even reluctant players over. By the time players land at the mountain pass where the game begins, they are ready to be taken on a fantastic ride. What follows is only occasionally fantastic, but when it falls short it is never the video or audio that is at fault. The designers could stand to hone their storytelling and puzzle-writing skills, as well as their game engine—but as for the game's multimedia rendering, producer Eddie Dembrower and his crew have pulled off a performance that leaves its competitors far behind.

Where Have All The Flowers Gone?

The game is divided into three sections. First, for a few screens, one finds oneself on a mountain by a river; then, for a few more, in what remains of a town; and finally, for most of the game, in the Great Underground Empire itself. The dominant characteristic of all three sections is emptiness: though one meets characters here and there, the bulk of the locations are deserted. This is more disturbing than it sounds, since according to the storyline the player goes to Zork expecting to find a flourishing community.

The player's task is to find out what is going on. The town of West Shanbar has vanished,

Return to Zork

	<p> TITLE: Return to Zork PRICE: \$49.95 SYSTEM: IBM, IBM with CD-ROM, CD-ROM 1-CLICKED UP: IBM and 100% compatible (DOS recommended), 500 Kbytes free RAM, DOS 5.0 or higher, VGA and sound card, CD-ROM drive REQUIREMENTS: 13M and 100% compatible (DOS recommended), 500 Kbytes free RAM, DOS 5.0 or higher, VGA and sound card, CD-ROM drive ICD-based version: or 3.5" HD floppy drive and 2 MB hard drive (space history-based version) Name: Eddie Dembrower Activision: Los Angeles, CA (800) 477-3630 </p>
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the Road to the South has become a pestilential No Man's Land, the "Valley of the Sparrows" has turned into the "Valley of the Vultures," and someone called Morphius has been terrorizing the few souls who are left by invading their dreams. Only a fearless and resourceful explorer—handy enough to wield a sword, dogged enough to map mazes, and clever enough to solve puzzles—will get past all the obstacles and uncover the land's secrets.

As in earlier *Zork* games, the storyline here is often incidental to the goings-on. One spends most of the time dealing with the random obstacles laid in one's path, which can usually be overcome by making clever use of the objects one finds along the way. A simple example: there are quite a few locked doors in the game, certainly more than there are keys. So, other objects have to be pressed into service.

Other puzzles include standoffs the player has to end, such as one between a blind archer and a petulant, frisky fairy (played by the aptly named Robin Lively) who is pelting him with acorns; and "relationship" puzzles which involve figuring out how to get certain characters (a staggering lush played by Harold Smith, a timorous wait played by Edan Gross) to part with objects in their possession. There are interlocked puzzles that the player has to solve in sequence, and one even encounters a few traditional puzzles, hearkening back to the likes of the treasure room maze in *Zork III*: a sliding-tile puzzle, two mazes, a boardgame, and two pop quizzes on GUE trivia.

Aside from some special interfaces for these "puzzle" puzzles, one interacts with the game in fairly conventional point-and-click fashion. One moves around by clicking on directional arrows that appear when the cursor passes along the border of a screen. One handles objects on the screen or in one's inventory by clicking on them and then selecting from the menus of action icons that appear; which icons appear depends on the situation. For instance, clicking on a whistle by itself will produce, among other icons, "blow" and "examine." Clicking the whistle on the cow will produce, among others, "feed whistle to cow" and "throw whistle at cow."

More general command icons, including "save," "restore" and "look at map," hide just off screen along with one's inventory, ready to be called up by clicking on any blank portion of the screen.

If the game's system of selecting icons from nested menus is not entirely comfortable, it is less because it is novel than because the designers define their commands in counterintuitive ways. One must "pick up" an object before one can use it, even if it is in one's inventory; if one invokes the "use" icon, one is given the choices "pick up," "drop" and "examine." Consequentially, one finds oneself "using" objects and then "picking them up." To further confuse matters, "picking up" an object is not the same as "putting it in one's inventory"—the latter requires a separate step.

According to Activision, these are deliberate choices made with the intention of mim-



icking the feel of a text adventure; but, deliberate or not, one cannot escape the feeling that they could have been better thought out. The fact is that no icon-driven interface, however complicated, can replicate a text parser. I can't count the number of times I wanted to type in a command that was not on my menu of options: one finds a box but is not allowed to "open" it, one finds a frame with hounds but cannot "push" them, and so on. Failing to offer the depth of a text-based parser, *Return to Zork's* interface regrettably also loses the too-simple-but-agreeably-intuitive quality of, say, Sierra's icon-driven system. It's the old story about trying to sit on two stools and falling in between: the intent was commendable, but the execution leaves much to be desired.

Similarly excessive is the complexity associated with movement which stems from Activision's ambitious attempt to simulate a three-dimensional environment. Each loca-

tion in the game has up to four "views" associated with it: at the location, facing forward; at the location, facing in the opposite direction; at a distance from the location, facing it; and at a similar distance, facing it from the other direction. Not all "exit" pathways are visible from all four views, meaning that one has to treat each view as a separate location. The main problem with doing so is that it makes mapping the game a real headache.

Tipping the player yet further is the fact that movement within mazes is different from movement elsewhere in the game. In general, clicking on a left-pointing arrow means "go left." In a maze it means "pivot to face left." One is not warned of this distinction, however, resulting in much unpleasant fumbling when the player finally gets to the mazes.

The third way the player interacts with the game (after using objects and moving) is by holding conversations with the characters he meets. In conversation, one is supposed to be able to influence the path one's discussions take by clicking on the emotion icons (fascinated, bored, threatening, apologetic) that appear on the side of the screen. Unfortunately, in the interest of realism, the designers deliberately do not have the characters stop talking to wait for the player's input—one just has to jump in and hope for the best. In some cases the icon one selects only alters the conversation by a few words; in many it has no effect at all. Alas, one is never sure that this isn't one's own fault: one might have selected the wrong icon or clicked on the right one, but at the wrong instant. So, one tries again, and again.

In time, one realizes that there just aren't that many different conversations in the game; much of the time, one can click all one wants and still never get a character to say anything substantially different. In the process of learning this, however, one ends up sitting through every conversation four or five times. No matter how exciting one finds the prospect of watching human actors in a computer game, and no matter how good the actors are (most here are excellent), four or five is too many times to hear dialogue that is



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not all that sparkling even the first time around.

None of the above makes *Return to Zork* unplayable, but the gameplay is less smooth, and the learning curve somewhat steeper, than one would ideally want it to be. *Return to Zork* takes some getting used to. Because of the game's good qualities it's worth it, but players should be prepared to invest some time in the process.

Zork, Sweet Zork

The new look of the Great Underground Empire also takes some getting used to. Gone, for the most part, are the dank caverns and convincingly subterranean settings of the original. In their place is a mixture of, on one hand, semi-Tolkienesque outdoor scenes and, on the other, fluorescent light-strips, modern furnishings, and giant signs saying things like "Welcome To The New West Shanbar."



The player's first clue that things are going to be different is that he starts the game in possession of a Polaroid camera, a pocket tape recorder, and a box of matches from "Chuck's Comedy Club." The camera and tape recorder are really just convenient ways to let the player keep track of where he has been and what he has heard, but they set an unexpectedly modern tone that persists throughout the game.

Mixed in with the usual ruins, forests and wooden buildings are an armorer whose sign includes a laser-sighted rifle, an inn which looks more like a Holiday Inn than anything that belongs in Zork, and a trailer with a refrigerator, oven and running water. The



comedy club, when one reaches it, looks just like the Improv, complete with brick walls, stand-up microphone, and patrons in modern attire.

The gag value of each of these scenes is considerable, but the net impact of so many anachronisms packed into a small space is somewhat disappointing. Again, the designers are trying to straddle two horses: they don't want to give up Zork's traditional fairies, trolls and dwarves, but they see no harm in repeatedly breaking the illusion with modern references and settings. Maybe other gamers will mind less than I did; I found the "anything we want to throw in" tone disorienting. It is hard enough to immerse oneself in a fiction unfolding on a computer screen without the added distraction of a milieu that shifts from Middle Earth to Middle America and back again in the blink of an eye.

Adding to the sense of disorientation is the confused storyline which continually leaves the player wondering just what he is doing. Is the game about finding Morphus? Is it about figuring out what happened during the much-talked-about Great Diffusion of magic? Is it about finding "Rooper," the fellow whose sweetstakes mailing is what lures the player to Zork in the first place? Is it about the disappearance of West

Shanbar? Is it about none of these things? All of them? Some? Which?

The answer, I think, is "all of them," which is example number three of Activision trying to do too many things and ending up with a muddle. If ever a game would have benefited from some judicious paring down, this is the one. Yet what a gorgeous muddle it is! For all the criticism the game merits, and for all its oddities and excesses, *Return to Zork* persists, scene after scene, in satisfying the gamer, largely because of its extraordinary effects.

The mix of digitized backgrounds, foreground action or videotaped computer-rendered or edited, full-motion video sequences, and genuinely thrilling computer-generated "movie" scenes will leave the most jaded player breathless. One's climb down the Cliffs of Depression, one's boat ride to East Shanbar, and even such simple sequences as one's trip across a gift shop to get to the cash register are all exquisitely tendered.

First-rate actors lend their



hand to the process as well. Though none except the prating Wizard Tremble (Will McAllister) has more than a handful of lines, all do a credible job of bringing their characters to life. Michelle Dahler is a fine witch, with a hint of Sigourney Weaver about her; A.J. Langer plays Rebecca Snoot, one of the good guys, with the role's requisite spunk and (mild) scissiness; Jojo Mart does a fine job as the peculiar, scruffy Canuck; and Howard Mann lends some welcome comic relief with his turn as the garrulous Lighthouse Keeper. There are plenty more, all of them fine, except semi-celebrity Jason (*The Wander Years*) Hervy who plays the part of a troll in a scene *TV Guide* properly singled out as embarrassing.

Beyond Zork

The good news: *Return to Zork* is not bad. It's a flawed game full of great visual moments, well worth the attention of anyone



who wants to see what the future of computer gaming looks like. If the Zork legend had to rest on this game alone, there probably wouldn't be any Zork legends; but as an addition to the series, *Return to Zork* is more than satisfactory.

The better news: Activision is still working on their design, their technology and their interface. They are learning from their mistakes and refining their successes, so that their next Infocom game should be even better.

The best news: their next Infocom game is going to be a sequel to *Planetfall*. I'd predict that with Steve Meretzky calling the shots, that's going to be one to see. **EW**

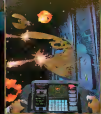
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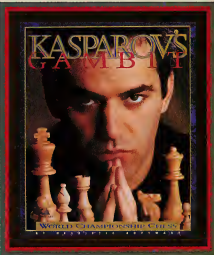
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An Old Hand Jaws About Maxis' *SimFarm*, *SimCity*'s Country Cousin

by Randall Black



Howdy! You're the feller who took over the old Sim homestead, aren't ya? Well, I've seen 'em come and go. Seems like some city slick... I mean sophisticated urbanite like yourself is always coming out here to try their hand at farming. Come on in and I'll try to give you an idea of what *SimFarming* is all about. Get off that chair, Freddy! Don't mind the hog, have a seat.

First off, you need to understand that farming ain't no dag-blasted hobby. It's all about money. You don't have any chew on you do ya? I didn't think so. Like I was saying, it's all about money. You start out with \$40,000 dollars, a homestead and nine plots of land. That's when you design your own. There's another way to get started and that's to take over one of the eight farm scenarios that're already up and running—from an apple orchard in Washington State to a cattle feedlot in Michigan to waves of amber grain in Iowa. But the best way to learn farming is to start from the ground up. There's a saying around these parts: "Teach a man to fish and you just might ruin him for farming." Freddy, I can hear you trying to get into that cookie jar! Can



you believe that dad-burned hog?

Now, what you want to do is make money by growing crops and livestock. "So what's the first thing I should do?" you're probably asking. Well, you're going to need equipment to farm your land, so you should buy a tractor. And you need something for the tractor to pull so you'd better buy a plow and a planter and especially a sprayer. You're going to be doing a lot of spraying, let me tell you. Do you like to spray? Well, that's good because you're going to be doing a lot of it. Fact

is, sometimes it seems like that's all you end up doing in *SimFarm*. But there's enough other stuff to keep it purty interesting.

Now let's see what else you're going to need. Well, you've got to harvest your crops so you'd better get a harvester, a truck and a trailer. That's the minimum equipment you'll need to get a crop in the ground and get it harvested. Once you've bought all that, you can turn off the "autolease" option. That's a bunch of fellers from town who'll come and do the work for ya if you don't have the equipment to do it yourself. But they charge a lot of money and farming is all about money. Did I say that?

Now, if you leave your equipment out in the rain, it's going to rust. So you'd better buy yourself a shed. While you're at it, get yourself a couple of silos to store your crops. If you don't have silos, you can't store whatever you've grown, and that means you have to take whatever price the dag-blasted commodities market in Chicago says your corn or tomatoes or sorghum is worth on the day it's harvested. You're going to find out that the price you get for your crops makes all the difference between makin' a go of it and having the tax man come and yank your land right out from under you. So buy some silos. That gives you a little time to think about how much they're offering and how much you want to get.

Now you're just about ready to plant your first crop. If you were smart, you'd put your sheds and the like off to the side, maybe near your homestead, so as they don't take up good ground that can be put into production. A big part of making your farm productive is laying it out right. You may not notice that your land is covered with rocks and trees. Before you can plant what you're going to have to bulldoze them. Unless, of course, you set your options for "autodose." In that case you can plunk down a crop without worrying about rocks and trees. But then there's those that like to do it themselves.

The next thing to do is click your mouse on the plant icon and

drag it over to the crop you want to plant. I'm partial to strawberries, but you can make money on just about anything. It's real important that you plop down your crop in a spot that gives you a little bit of elbow room around the edges for roads and irrigation ditches. The minute you plant a crop, your problems start. Nobody said farming was easy. There's a pretty good chance you're going to see a picture of a wave on one corner of your field. That's bad. Unless you and



Annette Funicello plan to go surfing, you've got to get rid of that wave. It means your crop is being flooded. The best way to do that is click on the picture of an irrigation ditch and run a line of trench around one edge of this field to drain it. The best place to put irrigation ditches is on the right side or the top or bottom of a field 'cause you want to leave the left side available for a road. If your farm is in a dry climate, you should hook up your irrigation ditches to a windmill or a water pump that you put in next to a river or lake. Figuring out how to connect up all your irrigation ditches can be a right interesting puzzle—kind of like hooking up electricity in *SimCity*.

Building roads that go to your crops is real important 'cause if you



TITLE	SimFarm
PRICE	\$49.95
SYSTEM	IBM
REQUIREMENTS	206 or better, VGA/EGA graphics, hard disk, mouse, suggests 486, 3270, Sound blaster, Roland, and Tandy sound card
PROTECTION	None
DESIGNER	Eric Albens
PUBLISHER	Maxis
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don't, your going to wear out your machinery faster. So click on the dirt road icon and run a stretch up the left side of your field and connect it to the shed where your equipment is stored. Just between you and me, the farm hands that operate your machinery are dumber than possums. They'll drive all over the damn looking for a toad, and half the time they can't figure out how to get around a darned silo and end up wearing out your tractor. But then again look at what your payin' them: room and board and all the electrons they can eat. Nobody said Sims were smart.

By now the irrigation ditches should have gotten rid of the wave, but there will still be a picture of fertilizer sitting smack dab on your field. That means the soil quality is poor and you need to spray your field with fertilizer. Do you like to spray? Here's your chance. Click on the spray button, drag over to the fertilize option and let go. Your pointer now looks like a spray can and any field you click on will receive a dosing of the very best electronic manure money can buy. You'll notice that your tractor will pull the sprayer



back and forth across the field real fast and then head back to the shed. Did I tell you to click on the hand icon and move all your equipment into the shed yet? Oh well, a little tux gives machinery that quaint, rustic look so beloved by city-s...sophisticated urbanites. You can also make the soil more fertile by rotating your crops. No, I don't mean going out and twirling your sugar beets. I mean planting different stuff, like soy beans, every few harvests.

Okay, now your crop is growing. You might want to check on how it's doing by clicking on the magnifying glass and then putting it on the field and clicking again. Up

pops your crop's time line with gauges at the bottom showing how it's doing vis-a-vis pests, weeds, disease, water and soil quality. You didn't think a clod hopper like me could use a phrase like vis-a-vis in a sentence, but there's a lot of things you don't know about us Sims. Depending on the kind of crop you selected to plant, about now you should be seeing some problems with pests or weeds or disease. There are a couple of ways to get your crops sprayed. One way is to just click on the spray you want and then on the field you want sprayed. Another way is to go into the crop's timeline and set up a schedule for spraying ahead of time, but golly if that ain't tedious!

But there's still another way to spray. When your farm gets big and the town has grown enough to get an airport, you can buy a crop duster airplane. You buy fuel and whatever kind of spray you want to put on your crops and then you fly it yourself using your keyboard. As a flight simulator, it's pretty primitive, but the first few flights are fun 'cause you have to worry about running out of gas and not crashing. Don't tell my wife, but I had a good time crashin' crop dusters into different stuff, just to see what happened. I blew up the town real good! Once you get the hang of it, though, spraying with the crop duster gets to be as much of a chore as any other way of spraying.

It's a darn shame there ain't no "autospray" option 'cause a body can sure get tired of it. Seems like what really keeps a person from buyin' lots more land and puttin' in lots more crops is knowin' that he's gonna have to spray it all. Heck, once my farm got big enough, I'd even be willin' to pay a percentage of the crop on each acre of land that was being sprayed for me, sorta like hiring a manager or a share-cropper. Maybe the folks who dreamed up this game might consider it.

Once you've planted the right kind of crop and irrigated and sprayed, there's a good chance the harvest will come in with a "high" or at least "fair" quality, and now we're talking pay dirt. If a crop is poor, you'll still make a little money, but if it's bad, you're not going to get diddley squat. To make any real money, you have to keep an eye on the commodities market. You can store your harvest and wait until the price for a particular crop goes up, or you can do something called a futures contract where you lock in a price while the crop is still in the field. A big part of *SimFarming* turns out to be checkin' prices all the time, and it would be nice to have a "business page" or a "broker" option that would let you know when the price for pecans or almonds or apples or whichever of the 24 crops has reached a high price. Still, it's not a big problem.

You can borrow money if you don't mind payin' some goll-darned banker 15% interest. But be careful that you make your loan payments and pay your taxes 'cause those

sons-of-guns will sell your assets, and even your land, and that's after they've blown up all the buildings on it. When you do manage to pay taxes, the town will grow and you get to vote on whether you want the Sims to put in residential or commercial districts or maybe a fairgrounds or airport. When you do real good, your homestead gets fixed up and you get to see a cow with fruit on her head do a little dance, which is something I hadn't personally never seen until that implement convention in Fresno.

Once you get a little money, you can try your hand at raising cows, sheep, pigs and horses. You build a corral and put in feed and



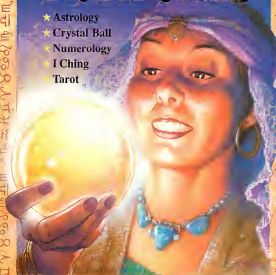
water troughs, which are kept full if you have a water tower. Keep 'em fed and watered until they're big enough to have babies—that's when the real money starts rollin' in, less-ways that's what I hear. Livestock are dumber than farm hands, so don't be shy about piling on the feed. Before they can eat or drink, they have to run smack into food and water and they move so randomly that a horse looks like a Brownie-in-motion. Livestock eat less and do better if they have a barn to go in. If they run out of food or water, watch out. They'll break down your fences and run through your fields, cuttin' up big patches and gettin' run over by farm implements.

Well, I've got chores to do so you're on your own, neighbor. It's not perfect, but learning how to *SimFarm* is a lot of fun. The manual's a humdinger, real top shelf, with plenty of advice and just the right amount of jokes. And somebody took a lot of time making *SimFarm* look real putty. Sometimes it seems like you can almost smell the gladiolus blooming. You'll appreciate the sound effects, especially if you know what a real pig sounds like, isn't that right, Freddy? **cow**



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Power Tools For Pilots

Organizing Your Flight Simulator Workspace

by Timothy Trimble

If you're like me, a die-hard *Flight Simulator 4* fanatic, then you probably own a horde of add-on accessories for the product. *Aircraft and Scenery Designer (ASD)*, *Aircraft and Adventure Factory (AAF)*, a bunch of scenery packages, scenery utilities and tons of flight adventures—in total, over 50 megabytes of files—overpopulate my hard drive real estate. Organizing this much data can be a real bear. Either you stuff everything into one directory, or you try to organize it through multiple directories. In either case, locating a specific file or group of files can be quite a chore. What we need is a utility that will organize all of our *FS4* files and free up some hard disk space.

The folks at Mollard Software, who happen to produce most of these *FS4* add-ons, have developed a good solution for managing scenery, aircraft, adventures and other associated *FS4* files. The package is called *Pilot's Power Tools (PPT)*, and it includes file management utilities, *ASD* utilities, *AAF* utilities, and the Mollard *Flight Planner* which has been previously released as a stand-alone package.

Zippidy Do Dahs

PPT uses PKWare's *PKZip* file compression utility to group and compress files into packages that are easier to manage. *PPT* will keep track of the files and will allow access and execution of any program within a "zipped," or compressed, file. For example, you could "zip" the entire directory containing Mollard's *Japan Scenery* and view the contents of the zipped file within *PPT*. You could then tell *PPT* to run *Flight Simulator* with the selected zip file. *PPT* will unzip the needed files, then load and run *Flight Simulator* with the selected scenery. When you're done flying, *PPT* will zip the scenery files and delete the uncompressed files. And you're not limited to just one file; a group of zip files can be selected and launched with *FS4*. So you could select the San Diego, Los Angeles and San Francisco scenery files, uncompress and load

the three files, and then fly from Mexico to The Bay.

ASD Utilities

PPT also provides a set of utilities and reports for use with *Aircraft and Scenery Designer*. Reports can be generated that will list all of the navigational aids within a specific scenery file. Another report will show the coordinates, radius and all of the navigational aids. The navigational aids include information on all of the runways, VORs and NDBs. Another report will show the amount of over-



lap between various scenery files. The utilities will allow a scenery designer to change the boundary radius and the center of a scenery file. A graphic plot can be produced that will show a single scenery file or multiple scenery files showing navigational aids and areas of overlap. This can be quite helpful for someone trying to trim down unnecessary tertiory within a scenery file.

AAF Tools

Owners of the *Aircraft and Adventure Factory* package will also enjoy a set of utilities and reports. The reports are designed to assist in "programming" adventures for *FS4*. *PPT* can generate a cross-reference report that shows a list of functions, variables, frequencies and North/East coordinates that *AAF* is using, and which lines of code the references appear on. *PPT* will also count the number of labels that are being used by an adventure, which is important to track since *AAF* will only allow 4000 labels for each adventure.

New Generation Of Adventures

One of my favorite aspects of *PPT* is its ability to convert flight plans into adventures for use with *AAF*. Using the Flight Planner portion of *PPT*, an armchair pilot can create a complete flight plan consisting of departure point, waypoints, destination point, speed and altitude en route, and weather conditions. *PPT* will then run this flight plan through the adventure generator that comes with *AAF*. The end result is an adventure in which Air Traffic Control will stay in touch with the pilot and issue directions for the planned flight. Deviation from the "filed" flight plan will result in a scolding from the controller unless the pilot has requested permission to deviate. The generated adventure allows for deviation, repetition of ATC instructions, ATC radar check, and flight plan autopilot.

Final Approach

PPT is a DOS-based program with its own graphical interface. It requires a minimum of 590K of available memory (more if it is going to be used as a shell for loading *Flight Simulator 4*). All of the program options are presented via pull-down menus and pop-up windows; a mouse is preferred but not required.

Before *PPT*, I don't know how I was able to manage 50 megabytes of *Flight Simulator* related files. I highly recommend it for anyone who is suffering under the weight of their Flight Sim fanaticism.

Until next time, this is the Timinator saying, "Remember to turn your head before spitting from an open cockpit biplane!"

For more information on *Pilot's Power Tools*, contact:

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Ah, it's autumn again, and none too soon. That wasn't one of the better summers around, and even Fred was grumpier than usual (and that's grumpy!). But if you think the weather was bad, you ain't seen nothing until you take a little trip out west to Coasegold, CA...now there's a place with problems!

Yessiree, buckaroos, it's time for high jinks and Lowe (very low) humor in the wild and woolly west (the wild is provided by the jokes, and the wool is provided by the sheep). There's more adventure in being a frontier pharmacist than you ever imagined.

One thing to keep in mind is that the mouse "bot spots" can be troublesome. Sometimes you have to click on exactly the right spot to get a reaction or accomplish something. If you're sure you're trying the right thing but nothing happens, move the cursor around and keep trying.

Okay pardner, before things start to get interesting, mosey on through the town. It helps to know where everything is, and nothing much will happen until Freddy enters the pharmacy, so take the time to learn your way around. And remember the Golden Rule of Adventuring: Snarf everything you can get your hot little hands on because you'll probably need it sooner or later.

So it's time to get cracking. There's not much to say about Act I of this saga. Freddy just does his job, filling prescriptions. It is all pretty simple—just look up the formulas in the handbook. All right, it was simple until Madame showed up with that illegible prescription (personally, I wouldn't trust any doctor who's drunk most of the time).

Better visit Doc about this one, Freddy. But ya still need to read what he wrote down, and Doc's no help there. Maybe there's some way you could see things the way he does. (Had your eyes checked lately, Freddy? Could be you need glasses, eh?)

Hold on, you're not done yet. Check your handbook on that stuff. Like I said before, this doctor isn't the most trustworthy physi-

cian around. Okay, now you can fix up Madame's medicine.

By golly, it's a busy day here at the pharmacy. No sooner does Madame leave than another customer walzes in. No mixing this time, though; off-the-rack stuff is what you need here. (Freddy *did* look over all his stock, right?)

Uh-oh, here comes the Sheriff...and he just closed down the pharmacy! Something sure is rotten in the town of Coasegold, and Freddy's gonna have to do something about that 'cuz no one else is.

But first it's time for Freddy Pharkas, Frontier Hero. You thought being put out of business was bad? Hah! Act II opens with the Deadly Equine Gas Attack...well, we know where flatulence comes from, so let's just move right along here.



First thing Freddy-boy needs is a way to breathe. He's not gonna last long in that gas-saturated air. Check out that blacksmith's very carefully, and drop in on Mom's, too.

Now ya gotta make the antidote, and that requires a sample (the things a hero has to do...and it doesn't get any better from here on). After that, just analyze the stuff and whip up the right medicine. Be careful where you put it, though. I wouldn't try stuffing it down a horse's throat.

Whew! Everyone can breathe easier now. Good work, Freddy! Wait, what's that? Someone just came running in with dire news: A snail stampede is heading right for the town! You gotta head on off at the pass, Freddy, or the whole place will be slimed!

The Scorpion's Tale is a warm and comfortable tavern of the mind, complete with a cozy fire of vibrant images. Our resident storyteller conjures up illuminating hints about games, so if our gentle readersi eschew hints, let them beware!

What do we know about snails? Well, salt would work, but there's none around. Nothing you can brew up in the lab for this, either. I tell ya, problems like this are enough to drive a man to drink, or maybe even religion.

Okay, the snails are taken care of, but now there's that Indian (a real, from-India-type Indian) you have to get off that anthill. This puzzle is more child's play, and soon Freddy has a devoted friend and assistant (optimistic, our Freddy, taking on help when his store is out of commission).

This is no time to take it easy, though, 'cause there's more problems ahead. All you gotta see is half the town lined up outside the single outhouse to know it's trouble on the run (ahem). Good thing your handy handbook has just the solution. Remember this is potent stuff, so make sure it's watered down.

It's been a busy day. Bet you're ready for a good night's sleep, eh? Forget it! You've got more work to do—like putting out the fire before the pharmacy (and maybe the whole town) goes up in flames.

Now, being a smart pharmacist, you probably figured out that's what the baking soda is for, and you'd be right. But simply tossing the sacks on the fire by hand isn't gonna help a whole lot. Using that method you can only do one sack at a time. You'll have to dump the load at once, so get into the swing of things and hop to it, because there isn't much time left.

After all that excitement, Freddy's too pumped up to sleep, and that's only natural. Hey, doesn't Madame owe you a little something? This could be a good time to collect on that debt.

So, the Big Boss, the person who's out to destroy the town, is gonna bring in some heavy guns. That doesn't sound too good, Freddy, especially for you. It's time to head into Act III, the big disguise extravaganza.

So whaddaya need? New clothes, a new car, a pair of six-guns...some ammo would help, and them shootin' irons could use a good

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cleaning. Whirlin' Willy can give you some advice—listen carefully to what he says.

See Freddy's had his eyes on Mom's pie for awhile now. Maybe a "trade" of sorts could be made here. What has no wheels and flies around? (An old joke revamped just for this.) That should do the trick.

Don't forget to do a little *dagging* (this is a grave matter, after all), and be sure to take a souvenir, too. Gun practice can be easy or hard (I went for medium difficulty and did okay), whichever you want, just so you get through it.

All right, Freddy's spiffed up, fancy outfit, new car, and all. It's showdown time!

Well, not quite yet, but at least ya made it to Act IV. There's a couple of things to take care of before meeting the Boss, like that cheating gambler in the saloon, for one.

Don't figure on a straight shoot-out with this guy—you'll never make it, Freddy. This is where trick shots are better. Put a little bounce into your bullet, so to speak. Ya never know what ya might bring down with it.

No sooner is Act over of action than a bunch of drunken cowboys decide to hurrah the town. You needed this, huh? Well, walking out the front door isn't the smartest move you can make, unless you're looking for lead poisoning. Once more, you gotta be devious (which reminds me, been to the barber's yet?).

Good, that puts the cowboys out of action. Hey, what's this? Yes! It's what you've been waiting for—the gunslingers. No more fooling around! This is real slap-leather time. And just because it's done up as a shooting gallery doesn't mean it isn't serious. Blow them varmints away!

That'll show the Boss that Freddy Pharkas is no one to fool with. Still got that old gunslinger touch, he does. Wait...coming up the street...it's (gasp) Kenny the Kid, the same guy who sent Freddy to ear-ly retirement way back when. Uh-oh. Can our boy handle this?

Not quite. Sorry Freddy, there goes that other car. And you got better things to do than lie there in the street, bleeding to death (you took *everything* from the bank box, right?). Kenny let slip who the Boss is, so you better skeddadle tight on over there.

Oops, the Boss got the drop on you. Good thing it's a one-shot gun; grab something quick, and maybe you'll still have a chance. Or maybe half a chance, 'cause now Freddy's down in the cellar, tied to a chair, and the building's about to go up in flames. Hey, after everything else so far, this should be easy. Right?

Right! So don't just sit there singing "Rock-a-Bye Baby." Get a move on to cut those ropes and vamoose before you're Freddy

Pharkas, Frontier Fat Spot. Remember, every cloud has a silver lining.

Finally, it's just you and the Boss in a fair fight. Well, kinda fair. What does a gunslinger know about swords? Not much, I'll bet. (I have to admit, I couldn't get through this one, even in easy mode, so I chickened out and bypassed it altogether. Perhaps you can do better.)

And just after you win over the Boss, who should sashay in but Kenny the Kid. There's no time to go looking for your guns; you'll have to take him out another way. Poetic justice, I call it.

Yay! It's done. You've saved the town, cleaned up the bad guys, and you'll even have customers again! Whew!

And that's about it for now. Remember if you need help with an adventure game, you can reach me in the following ways:

On Delphi: stop by the GameSIG (under the Groups & Clubs menu).

On GEnie: visit the Games RoundTable (type: Scopia to reach the Games RT).

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

Until next time, happy adventuring! **eww**

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POVERTY SUCKS

Go For The Green In Interplay's *Rags to Riches*

by Ken Hill

Financial games have been popular since the early days of computer gaming. I have fond memories of spending hours creating financial empires with such classic games as *Millionaire* and *Tycoon*. In recent years new entries in this field have been few and far between. Sure, a player could build a railroad empire, build a city from scratch, or conquer the known universe, but an updated financial simulation has not been forthcoming. Interplay's new financial market simulation, *Rags to Riches*, attempts to fill that void.

The premise of the game is simple. The player takes the role of a budding financial genius fresh out of college who borrows \$200,000 from his parents to get into the brokerage business. Starting with this meager capital, the player can start to build his or her financial empire.



The game offers a choice of two scenarios. The first is that of the 1929 stock market crash. This allows the player to participate in the giddy speculation and tragic disaster that occurred in that year. It's also a good scenario for beginners since there are fewer variables involved in the financial model. Players can trade four of the hottest blue-chip stocks from that era: GE, AT&T, RCA and U.S. Steel.

The other choice is a modern-day environment. In this scenario, players trade portfolios based on blue-chip stocks, bonds, oil and gold futures. Not only is the pace much faster than the 1929 scenario, but players can trade in one of three world-wide financial markets: New York, London and Tokyo.

Success cannot be had without a dedicated staff of professionals. The game provides the player with staff members who will perform their duties quickly and efficiently—for a price. Hiring personnel involves a call to your favorite head hunter; he'll send his candidate for each possible opening on your payroll.

Six types of employees are available, the most important for the budding J.P. Morgan being pit runners. These fellows actually make the transactions on the trading floor for the firm. You cannot play the game without pit runners. Secretaries are needed to run your office and screen or hold your phone calls if you can't be disturbed. Then, to keep on top of your financial position, you can hire an accountant. Having an accountant on staff allows you to get an up-to-the-minute financial statement for your firm on demand. Apprentices are needed, as well, to do some of the mundane trading activities and allow you to attract clients and additional cash to your company. Finally, on the seamier side of the business, you can hire informants, who will keep you up to date on your competitors and the SEC, and lawyers, who can keep you out of trouble if the SEC gets on your case.

The interface for the game is nicely designed. The main office screen provides access to all of your employees, trading information, telephone and other important objects. To use an object, such as the phone, the player simply clicks on the phone book to select the number to call and clicks on the phone to be connected. There are also keyboard equivalents provided for every possible command, but the interface is clearly designed for the mouse.

The office screen is where the major activities take place. The heart of the operation is the trading computer which allows you to buy and sell the various financial instruments and get



information about their performance. Clicking on the computer screen will cycle through the four types of securities available for trading. The screen also shows the current price of the security and information about the player's position in the market. A running graph at the center of the screen shows the daily price trend for this security. It's easy to tell at a glance how well this item is doing today by checking out this line graph.

Clicking on the graph portion of the screen takes you to another full screen of information about that item. It shows a daily price trend graph, a monthly trend graph, and a graph showing the player's current position in that security. Information on the player's profits over the last 30 days (as compared to the computer players) and his client base are also available.

The game mechanics work in a way very similar to life. You arrive at your office at 8 a.m. (or whenever you chose if you like a relaxed lifestyle) after a good night of sleep. Once in the office, you can take phone calls, watch the newspaper and television news reports, eyeball the ticker, and

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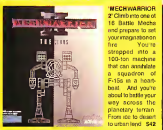
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be ready when the market opens at 9 a.m. During the day, prices of the securities go up and down based on the events of the day. The player can buy and sell by simply clicking the buy or sell buttons on his office computer. A trusty pit runner will execute the order if possible and inform the boss of the results. The player can leave the office at any time to take an early lunch, go to the mall, grab a newspaper, or hit the golf course. At 6 p.m., the alarm sounds, allowing the busy executive to head home after a satisfying day.

So, how does the player know when to buy and sell securities to increase his profits? In *Rags to Riches*, like real life, this is no sure way to predict the future. But the game provides hints and information in several forms. The model for the game is clearly event driven, and an astute trader must watch for signs that might signal a rise or fall in the price of a given security.



First, there is the ticker. This constantly moves across the top of the screen when the market is open. The information displayed ranges from the very helpful to the extremely silly. Next, there is the office television which in the modern scenario can be tuned to any one of four news channels which occasionally flash bulletins that can affect the market. Also, you can go out on the street and purchase a foreign or out-of-town newspaper. Sometimes these articles can tip you off to trends before they start to affect the market. Finally, you can talk to the insiders who specialize in the four issues being traded. Talking to insiders can be extremely rewarding, but players should be aware that they are not always right, and many times different informants will give conflicting information. If you spend too much time on the phone with insiders, the SEC can get suspicious and start an investigation on your firm. The SEC can fine you big bucks and even bar your firm from trading in certain securities for a period of time.

Players can take either long or short positions. A long position is the standard way to make money in the market. The player buys a security and hopes the price goes up so the shares can be sold later for a profit. A short

position is where the player sells shares he doesn't own and waits for the price of the security to fall so he can fulfill those obligations at a later date. In the early going, players will be forced to "go short" because they simply don't have enough money to buy many shares.

Once you've started to earn money, you can go to the mall and spend it on useful and useless items to flaunt your wealth. Nothing is out of your reach: expensive cars, newer and more elegant offices, electronic gadgets, vacation homes, even sport franchises are available for a price. The scoring system in the game actually takes into consideration how much conspicuous consumption you manage over your career.

The player needs to be careful not to spend beyond his or her means, because making money in this game is extremely difficult, and keeping it is even harder. Game time passes by quickly, and even at the slowest speed you must move fast to catch the profitable trends. One bad decision can put you out of business and out on the street sleeping under a blanket of newspapers, especially early on. This is not a game for the faint of heart or those interested in a light simulation. To succeed in *Rags to Riches*, you will be dedicated to the task and be willing to spend plenty of time to learn the game.

Rags to Riches has all the supporting elements of a good game. The interface is easy to use, and the screens are well-drawn and colorful. The sound support is top-notch with crisp music and excellent voices (particularly the secretary asking "Will you take a call please?"). The documentation is good and even includes a concise history of Wall Street. However, the game doesn't work as well as it should.

First, the game is entirely too long. It can take several hours to get a game underway, and to play an entire year of game time (the recommended game length) can take 40+ hours. There are many times, especially early in the game, when the player will spend an entire day doing nothing except waiting for the market. There are ways to waste time quickly (like catching some sleep in your office), but a weekly time scale might have been used to pick up the pace of the game and make it playable in an evening or two.

Also, the financial market simulation might be too realistic. You can have a hot tip from an insider, spot a news flash on your office TV (not an easy thing to do considering you have to be on the right channel and be watching it instead of some other part of the screen) and still be wiped out because a security did the opposite of what the pundits predicted. Realistic, yes, but it makes for a frustrating game. The cas-



ual gamet can become frustrated quickly with a game that is too hard to master despite their best efforts.

While realistic in some ways, *Rags to Riches* doesn't have enough options to be a true "financial market simulation." You can't, for example, use margins to leverage a good long position. Your initial stake of \$200,000 is woefully small and to make big money quickly (the kind you need to build a staff and get rolling in the game system) requires that you go short. This makes the 1929 scenario very difficult because prices are going up in a speculative bubble right from the first day. Interplay should have considered upping the initial stake in the beginner level to \$1,000,000 or more to help novice players get a better understanding of the system and avoid the initial frustration.

Clearly, the creators of the game walked a fine line between "simulation" and "game" when working out the details of the design. This balance is important in any complex game. Unfortunately, it is too difficult to attract the casual gamet looking to amass fortunes during an evening's relaxation, and it is also too simplistic to attract the attention of the financial enthusiast who wants the challenge of running a Wall Street portfolio. If you are willing to spend the time to learn the game and understand the limitations of the system, *Rags to Riches* can be a rewarding experience. For most players, though, the return on the time investment needed to enjoy the game will be too small to justify the expense. **CSW**



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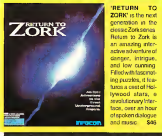
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EA COMES OUT WITH THE WALSH

Electronic Arts' Bill Walsh College Football

by Wallace Poulter

Though I can usually be found tethered to my computer playing one sports game or another, occasionally I have reason to venture into the living room. There resides the SEGA Genesis, and beside it a small stack of SEGA sports games that have earned my respect. Electronic Art's *NHL* and *NHLPA Hockey* for the Genesis are two of the better sports products on the market. In fact, if you have a friend around, the two-player version of *NHLPA Hockey* is excuse enough to purchase a Genesis machine. I've recently added another game to my stack, *Bill Walsh College Football*, the latest sports product from EA. Here is one more reason for sports junkies to consider the Sega Genesis, for *Bill Walsh College Football* provides the best sports action yet to be seen in a cartridge product.

While there were the occasional first round blunders (Todd Shell, anyone?), his ability to pull quality starters from the middle rounds was ultimately the foundation of the Niners' dynasty.

The return of Walsh to Stanford was something of a coup for the college tanks. In his first year, Walsh not only made Paterno and Penn State look silly in a Blockbuster Bowl blowout, but to the ever grateful millions of Notre Dame-haters, he well and truly put Lou "Give him some Stilton and he could have his own Whine and Cheese Party" Holtz in his place. As the biggest name in college football today, it was inevitable that we would see a Bill Walsh licensed game. Getting this license was quite a coup for EA and a great boon for cartridge sports games.

While EA took pains to point out this was a new engine, players of *John Madden Football* will feel right at home. Character animations and the effects of different field conditions are very similar to *Madden*, and the standard Madden all-time great and playoff options are included. However, it is the AI that sets this game head and shoulders above any other sports game. Simply put, it reacts. Most sports games, especially cartridge ones, have laughable artificial intelligence. Usually a single play can be found that will generate a first down, or even a touch down, every single time. In the case of *Bill Walsh College Football*, the AI adjusts to your play calling. If you continually try to run a play up the middle, you will soon notice that appropriate defensive formations will be called, and the linebackers will start to edge their way toward the line before the snap.

Moreover, each segment of the team has a rating. Some defensive backs will have excellent coverage, while others will be only so-so. This means that a play that is routinely successful against one opponent will not be so against another. In addition, some teams will be more aggressive at hitting a receiver

within five yards of the line of scrimmage, throwing off the pass pattern of even the best receivers.

Game options include Exhibition, Playoff and All-Time Playoff. In the latter, "All-Time" teams of the last 15 years match up. Here the Bulldogs of Wakelet and the Tigers of Jackson can be found, along with the Bos-



ton College team of Flutie and the Marino was pretty good, but I don't think his Pitt team could be called "great." There are some pretty nice matchups. The standard EA playoff tree is used. While this is enjoyable, it would be nice to have some kind of league option. Most fans wish to have a college playoff system with the Bowl Games being used as playoff sites. A number of ideas have been put forward which would include the top 16 teams in a Bowl-based National Playoff. This would seem an ideal format for *Bill Walsh College Football*.

Bill Walsh College Football



TITLE: Bill Walsh College Football
PRICE: \$39.95
SYSTEM: SEGA Genesis
OF PLAYERS: 1-4
DESIGNER: Jim Sensenbrenner and High Score Productions
PUBLISHER: Electronic Arts
 San Mateo, CA
 (415) 573-7175



Walsh, the man, has always been an interesting character. Known primarily as a tutor of quarterbacks like Ken Anderson and Dan Fouts, Walsh was passed over for the Bengal's head coaching position in one of Paul Brown's more forgettable decisions. His first stint at Stanford was a reasonable success, but it took Walsh until his third year as an NFL coach just to win more than two games per year. However, multiple Super Bowl victories later and an induction into the Pro Football Hall of Fame, the tag of Genius seems appropriate. Though a great coach, Walsh's greatest gift is his eye for player personnel moves.

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where the player would have to play well enough during the season to be ranked in the Top 16, and then would try to make it through the playoffs.

A number of options are available prior to the start of the game. The Walsh Report is part of EA's continuing and pretty hokey "EA Sports Network" idea. The lame "advice" and "information" that Walsh gives remind us all why he left the broadcast booth in the first place. Weather can play a significant part in the game, especially with a windy day and a passing team. Snow seems to be more like ice, as players slip and slide out of each others grasp. (As one who has played rugby in snow, I can attest to how little it affects the running and tackling; ball handling, of course, does not exist.)

The team Matchup report is a little more

useful. Here each segment of the team (linebackers, secondary, etc.) receives a rating. As you can see below, Michigan is given an overall ranking of 85, with an 83 on defensive line, 79 for the linebackers, and a team low 70 for the secondary. Obviously, an attack on the secondary should be in the Tallahassee game plan.

Michigan 85	Tallahassee 87
85	Quarterbacks 66
83	Running Backs 93
79	Wide Receivers 77
87	Offensive Line 79
83	Defensive Line 67
79	Linebackers 85
70	Secondary 89
75	Kicker 90
77	Punter 72

Once into the game, the animation is smooth and crisp. The standard EA format for choosing defensive and offensive plays is used. Eight offensive formations are available, ranging from the Shotgun to the Wishbone. Each formation has a number of plays available within it, allowing for a reasonable representation of the vast differences between college game plans. The interface in particular is well designed. To run a play manually, the QB snaps the ball (one button push), looks at the receivers (second button push), and throws the ball (third button push). It is simple, smooth and intuitive. Coaching is also an option. Plays may be called and run

with only the snap of the ball controlled by the player. The Wishbone is rather difficult to run manually, so coaching the wishbone can often yield more success. Receivers too can be manually or automatically controlled, and the ball handler has a variety of spins and dives up his sleeve to evade his pursuers.

Defense too, has multiple formations and plays. Unlike other sport cartridge products, an "all or nothing" strategy will usually leave the defense with nothing. Sound, defensive play calling must be used to out-play the computer opponent.

The replay mode has two standard perspectives: offense and defense. While useful and entertaining, the replay still has the tendency to "skip" a little too much. This is one of the few areas where EA could do some work.

Much to my chagrin during one game I had forgotten the College rule of not being able to advance a fumble. In this case a Wishbone QB had thrown the ball away and nothing stood between my player and the end zone. Other college rules, such as the two point conversion, are also available.

Sophisticated PC-based games still rule the roost in the battle of sports simulations. However, *Bill Walsh College Football* joins a growing list of quality sports products that make the purchase of a video game system more than worthwhile. **CGW**

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Play It

On The Line



Multi-player games via modems may be the next big wave in computer entertainment. How do you make the leap to cyber-space? Step in the virtual offices of the DataComm Council, your "off-line" source for "on-line" information.

by Jerry Golick

Greetings fellow travellers of cyberspace. Welcome to the DataComm Council, your friendly stepping stone into the new virtual realities. Here you will find techniques, advice, and useful tidbits to make your electronic explorations a more rewarding experience.

As this is our first day of operation we are offering, free of charge, a review of basic information that will be essential to the telecommunication novice. The recent *CGW* issue on telegaming (May '93) may have tantalized you with many of the game opportunities available through the networks, not to mention the ever increasing number of games that offer direct modem-to-modem play. The battle cry of the

Modem Gamer is "Artificial Intelligence stinks! Give us brains!" But hooking up brains requires that you "jack-in." Today we will show you how to get started.

How Do Computers Communicate?

Before choosing the right mix of hardware and software for communications, you should have some understanding of how computers communicate. While there are many variations, we will concentrate on something called "serial" communications.

In serial communications, data is transferred between computers one bit at a time. In other words, by changing some characteristic (generally the frequency) of the phone line linking

two machines, we can signal a binary value (1 or 0). Too complex? Think of it this way, back in the days of the telegraph the only data that could be sent was a dot or a dash. The "order" of the dots and dashes conveyed information.

The same thing happens with computers, only much, much faster. Instead of using dots and dashes, computers use tones. If you listen in on the conversation between two computers you will hear a high pitched warble. This is the computers varying the frequency on the line. One tone is used to represent the value "zero" and another is selected to represent "one." The speed of the computers' conversation will be governed by how quickly this transition can occur. Generally we refer to the

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speed of the line in terms of the number of bits we can send every second. So if you see 300 bits, you know that you are sending 300 bits every second.

Serial communications is divided into two broad groups: asynchronous and synchronous. Synchronous is used for very high speed, industrial-strength communications. We're not going to talk about it right now. Besides, 99.99% of all modem games are written for asynchronous communications.

In asynchronous communication, data is transferred in logical groups called bytes. A byte is normally 7 bits long. Surrounding the byte is a small "envelope" of three bits. The first bit, called the "start bit," signals the modem that communication is about to start. This is followed by the byte (also called the seven data bits). Following this are two more bits: one is called the "parity bit" and the other is called the "stop bit." The parity bit helps the remote computer verify that it has correctly received the byte, and the stop bit marks the end of transmission.

Why do you need to know all this? Cyberspace is a tricky place. At times you will be asked to set the communication parameters to access a particular network service. You may be asked to set the number of data bits, parity bits and stop bits. For example, "8-N-1" would mean eight data bits, no parity bits and one stop bit. In all communication software there will be an option to set these parameters.

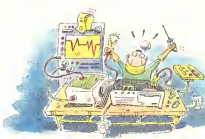
Okay, enough theory. After all, we're here to have fun. Let's see what we need to get started. Please have your credit card handy.

What Do I Need?

The critical piece of hardware is the modem. A modem is a device that MODulates and DEModulates (hence "modem"). It converts the digital signals from your computer into tones, and back again into digital signals. Modems come in many shapes and sizes, and choosing the right one is not always easy.

To start you should have some idea of the primary uses of your modem. In general, highly interactive gaming (such as flight simulators, car racing, etc.) will require a high speed modem. On the other hand, if your interest is in strategy/wargames (*Empire Deluxe*, *Command HQ*, *Conquered Kingdoms*, etc.) a slower speed modem will probably work well.

If you are considering connecting to a commercial service (CompuServe, GEnie, Prodigy, America Online, ImagiNation Network, etc.) a low speed modem is probably best. Most of the games on these systems have been designed to work with 2400 bit/s modems, so having a higher speed does not bring additional performance. In addition, all these services charge you extra for a high speed connection. The only reason to consider the



higher speed modems is if you intend to transfer (download) large files to your computer. Since the file transfer is done more quickly, your total time connected is reduced, and you will save a considerable amount of coinage that can be applied to the serious pursuit of game playing.

By the way, low speed modems are generally 2400 bit/s and slower. High speed modems start at 9600 bit/s and up. Expect to pay between \$50-150 for a low end modem and \$175-400 for the faster models. As a general rule, ensure that the modem you purchase is "Hayes-compatible." This means that the instructions used to communicate with the modem match an industry standard developed by Hayes.

Should you get an internal or external modem? Good question. Here at The Council we are traditionalists. We like to see lights flashing on our modems. It gives us a sense of security to know that something is happening. This will only be available with external modems. However they do take up desktop space, require more cables, and are generally more expensive than their internal cousins.

Internal modems are nice and tidy: one phone line connects directly to your computer. But you will have to open up your computer to install the internal modem, so if you're not comfortable with the inside of your computer, keep it simple and use the external type.

We also recommend considering a portable modem. These modems come in very small packages and can travel. If you have a laptop you may want a portable modem to stay in touch with cyberspace while you're on the road. Expect to pay a premium for these wonders of technology.

You'll need a few other things to link you into the world of cybergamers and other network travellers. You will need a telephone line. While it is possible to use your home line, you may want to consider a separate line just for the computer. Why? Because we have shares in AT&T that's why! Actually, the problems with using the house line are numerous. You will be on the computer for long periods of time; this will upset family members as well as make it difficult for people to call you. Other

people may pick up an extension in the house by accident and break your connection at some critical point. Also, when you are having a problem using the computer, a separate line allows you to get "voice" help while the computer stays on-line. A separate line should not cost too much and would be a worthwhile expense.

Do you own two computers? You may have heard of "direct connect" gaming. This is when two computers are physically adjacent to each other, and the two communication ports are attached directly to each other without the use of modems.

However a special type of cable is required. This is referred to as a "null modem" cable and should be available in any computer store for under \$20.

For the ultimate in high speed connections, consider a local area network (LAN). With a LAN you will be operating at speeds of 10 Mbit/s and beyond. Certain flight simulators (*Falcon 3*) and combat games (*Fobosport*, *Spectre*) already support LAN play. Unlike the null modem which limits you to two players, a LAN can support 30+ (assuming they develop games for that number of players and you happen to have 30 computers lying around). Those of you working in offices with LANs may have already experienced the thrill of high speed gaming. Expect to pay about \$400-500 to get started and about \$100-150 for every machine after the first two.

Do I Need Any Software?

While most multi-player games have built-in communication software, you may wish to consider buying a communication program. There are many of these available and they are generally less than \$100. A communication program will allow you to contact bulletin boards, other microcomputers, and may even allow you to access the computer at your office (assuming that you have any time after game playing). The selection of a communication program depends on what operating system you are using. Ask at your local computer store for advice.

While out getting your communication software you might want to consider a "starter kit" from America Online, CompuServe, GEnie, ImagiNation or Prodigy. Since all of these kits include some free connect time, the cost is minimal. These kits simplify connection to the service and generally provide introductory tutorials. A word of warning: Multi-player telegaming and bulletin board communication are highly addictive! Massive credit card charges are a distinct possibility. We saw one fellow post a note on GEnie saying that he had spent \$15,000 over a three year period playing games! While this might have been an exaggeration, the \$6/hour connect charge can add up in a hurry. Be careful. You've been warned.

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One thing that you may want to change is your operating system. If you use a Macintosh you may want to upgrade to System 7. IBM PC users should consider OS/2, Windows or Windows NT. Why? Preemptive multitasking that's why! We hear the groaning out there; okay, no long technical discussion. To make a long story short, the new operating systems allow you to perform more than one thing at a time. This is very useful if you are in the middle of a large file transfer and still want to play games, or perhaps play multiple games against multiple opponents. Here at the Council we've been using OS/2. It's not bad, but you should have a powerful machine with lots of memory to run it properly.

Ok, you have the hardware and the software. What's next?

Get Up, Set Up, Dial In

You have your modem, cables and software all ready to go. What's next? There are three steps that must be followed before you can jack-in. You must 1) Install the modem, 2) Install the software, and 3) Configure the software. Let's take you through it.

Installing an external modem is relatively simple. Generally there are three connectors at the back of the modem. Two of these are telephone jacks like the ones we use for the phone. These jacks are normally labeled "Line" and "Phone." The idea is that the modem will sit between your telephone and the wall connector. Unplug your phone from the wall and insert the jack into the "Phone" slot on the modem. Then, using the phone cable that is normally included with the modem, connect the "Line" slot to the telephone connector on the wall. Ok? Now it's time to connect the data cable from the modem to the computer. Take a look at the connectors and notice that they will only fit a certain way. Do not try and force these connectors or you will break them. The connectors on the data cable generally have screws on either side that you can use to secure the connector to its socket. We suggest that you use them. See the "Basic Connection Diagram" for details.

Installing an internal modem is a little more complex since you will have to open up your computer. Follow the manufacturer's instructions. You will see that the modem card only has telephone connectors. Install these as we described with the external modem.

A quick note about "COM ports": Almost all microcomputers come with one or more ports, or connections, for serial communications. On IBM-compatibles these ports are referred to as "COM1", "COM2", etc. If you are using a mouse on an IBM compatible, then you probably have it installed on COM1. Make sure that you follow the instructions and set your modem to operate on COM2.

That's it. Your modem is installed. Onto the software.

If you have purchased any communication software, follow the manufacturer's instruc-

tions on installation. If you have game software already loaded on your machine you may have to run the setup program again to get your modem working. For example, *Empire Deluxe* requires you to run ECONFIG.EXE to inform it that a modem is now available.

Regardless of the software you are using, there are a number of parameters that you must set before you can start playing. Make sure that the speed set in the software matches your modem. Also make sure that the software has selected the right COM port for your modem. Generally the setting of 8-N-1 will work for access to most services. All of these parameters can be adjusted through a single screen in most programs. Check your instructions.

Some programs also provide you with the capability of creating directories of commonly called numbers. This is a great place to keep all the numbers that you are going to call. With some programs you can even change how your modem will operate when switching between services. For example, you might use "2400 8-N-1" when calling a friend but "9600 7-E-2" when calling your office computer. It also means that you don't have to keep all these phone numbers on little pieces of paper that get lost.

Is there more? What do you think? Of course there's more! There are script languages, uploads and downloads, error protocols, data compression, and...well you get the idea. But we don't have time to cover all that today.

One last freebie. If you get connected, but can't see the letters as you type them, or each letter is showing up twice (ie DDOOUUB-BLLEE) then your duplex is not set correctly.

What's a duplex? It doesn't matter. What does matter is that you find the place in your software that allows you to change it (sometimes it's called "Local Echo" or just "Echo"). There are only two settings, so change to the other and everything should work fine.

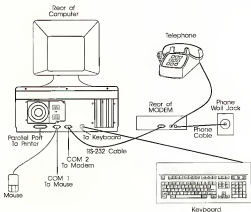
But I Have More Questions!

Of course you do. That's why the DataComm Council was formed—to help people like you jack-in to cyberspace. Drop us a line and we'll see what we can do to help. Once you're up and running, drop us a note on GENie or CompuServe. If you're having trouble then write us care of this magazine. Interested in a particular topic? Let us know. The services of the Council are available to all.

This is just the beginning. Already there are video conferences, audio conferences and combined multimedia networks up and running. How about 100+ players flying combat missions in WWII? How about football simulators where every position is played by a telegamer? How about strategy games where each side can have multiple generals? Tired of playing against computer logic that is either too easy or too hard? Jack-in to the net. We're waiting for you.

Jerry Golick is a freelance consultant and writer who specializes in data communication issues. He is based in Montreal, Quebec. He may be reached at 71175,1011 on CompuServe or J.GOLICK on GENie. GAW

Basic Connection Diagram - External Modem



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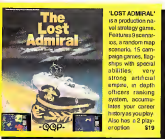
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GET YOUR KICKS ON ROUTE

666



Time Warner Interactive Group's New CD Takes You for a Ride

by Andy Eddy

The traveler's tales of New York City cabbies are well known: running through red lights, U-turns at 70 mph, and shortcuts over pedestrian-filled sidewalks are the horrifying stuff of which they're made. Even cabby names have come to possess a certain notoriety. Jerry Seinfeld described one as "something like the letter G and the symbol for Boron."



Anyone who's been there and paid the fare is certainly ready for a trip with Raul, the fast-talking hack who picks our jet-lagged adventurer up at JFK Airport in Time Warner Interactive Group's *Hell Cab*. Our computer has just arrived in New York City on his way back home, and the plane is late for the trip's last leg that will take him to his Budget Gourmet and a warm bed. When Raul shows up in the lobby and says he'd be happy to give the player a quick visitor's jaunt around Manhattan, he warms to the idea. "Heck, what would be the harm," he decides,

"and Raul seems friendly enough. I always wanted to see the Empire State Building." He apparently overlooked the 666 on the license plate and the company name, Hell Cab. This won't be the average, everyday white-knuckle thrill ride through the Big Apple.

When he's short a few bucks to pay the fare, the quick-thinking Raul (surely, he's done this before) whips out a piece of paper—a contract that pays his fare out of the player's soul. No, the local ATM won't help much, because money isn't the key to this payment plan. Just sign on the dotted line and enjoy a tour, one that spans the ages, from the cab's back seat in New York to the Roman Coliseum, from those roaring Jurassic days to the battle-scarred fields of World War I.

Hit The Road, Jack

Hell Cab, designed by artist Pepe Moreno, is constructed with a point-and-click interface that is reminiscent of previous multimedia adventures like *Manhole* and *Cosmic Ooze*—and that pair were less games than *Hell Cab*. Even with gaming elements, though, *Hell Cab* comes up short in providing durable entertainment for one main reason: It's v-o-o-y slow. Quicktime, Apple's "movie" extension, is a good application for



creating movies on the Mac, but even with a fast machine the access time can really bring the action down. This is no arcade game, to be sure. Every event hangs on each mouse click to be registered and new data streamed in from the CD. Maybe a lesson could have been learned from Drew Pictures' *Iron Helix* (by Spectrum HoloByte for the Macintosh), where certain essential files were held on the hard drive. All of *Hell Cab*, with the exception of the Quicktime extension, comes off the CD on the fly.

Hell Cab



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PROTECTOR:	None
DESIGNER:	Pepe Moreno/Pepe Moreno Productions
PUBLISHER:	Time Warner Interactive Group 2210 W. Olive Avenue Burbank, CA 91506 (800) 593-6334

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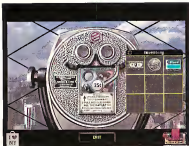
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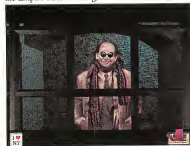


With that in mind, it's hard to categorize *Hell Cab* as a game, though it is certainly interactive. One starts with three lives, and lives are lost when poor decisions are made. The player also has a quantity of soul (registered on the Soul-O-Meter, Raul's dashboard device that measures one's fate) that must be carefully monitored. The interface requires the player to click at the screen edge to turn 90 degrees or click straight ahead to move forward. As in games like *The 7th Guest*, the pointer changes to another symbol when an action can be accomplished. At certain junctures, one can pick up items, click on text buttons to speak to other characters, and hit the mouse button to achieve a particular motion (like swinging a sword). It was disappointing to not have these few movements duplicated or expanded upon via the keyboard.

Graphically, most of the display is simply a two-dimensional image with characters laid over the top. Most characters move in jerky clip animation and their mouths aren't closely lip-synched with the audio. This serves to give *Hell Cab* a very surreal look and feel, but also weakens its claim of being a state-of-the-art CD adventure. And though the game is filled with digital audio, there are sections where the sound is sparse or non-existent.

Movie Magic

Even with those hindrances, *Hell Cab* has some highly entertaining moments. Visiting the Empire State Building, one can wander



the halls and click on picture frames to bring up Quicktime movies. These "films" range from plugs for other animators (such as John Ludrick, who helped on *Hell Cab*, but has also worked on another interactive CD, *The Freak Show* with the music group The Residents) to satirical clips from "The Dead Sullivan Show," to advertisements for upcoming products, and even one for *Wired* magazine. The trip through the Empire State Building also features accurate images from around the 86th-floor observation deck. If players pull out a quarter and toss it into a telescopic viewer, they might even be able to see Baltimore!



Overall, though, everything in *Hell Cab* tends to drag out. For example, when one reaches the Coliseum, no matter how the conversation with Nero goes the player ends up in jail. In jail, the conversations must take place with the same characters. At other times, one can't decide if timing of the mouse clicks is important or if placement of the pointer is the key. After a while, it all just seems to be a long, one-way street with little variation and not much in the way of entertainment. It's all a bit tedious.

A Journey Of Sight And Sound

It's hard to lump *Hell Cab* in the same group as *The 7th Guest*, *Iron Helix* and *Journeymen Project*, which were all actual games. *Hell Cab* is more like an interactive tour book and variety show lumped into one—the sights and sound of *Hell Cab* I had the most fun clicking on the Empire State Building's curtain displays to bring up cool Quicktime movies, but things really started to plod along when I started playing what I felt was the "game." This is not hard to understand when one reads Pepe Moreno's bio (located in any ATM in the game). His background is in comic books and stories, having been published in such magazines as *Heavy Metal* and *Epic*. He's also responsible for DC Comics' *Digital Justice*, a Batman



graphic novel created totally on the Macintosh. His expertise is the visual, leaving the reader to expand on the pictures in his mind.

But gamers have gotten used to having less left to the imagination and facing more immersion by the game software. A good game is one that makes the player forget he's at his computer playing a game. Too frequently, *Hell Cab* brings one right back to his seat in front of his keyboard. When one is waiting for a mouse click to bring about a new visual, the delays can be interminable.

The future of CD gaming is quite up in the air, though products like *Iron Helix* take the weaknesses of CD-ROM and push them to the back. Hopefully, the medium will quickly mature and Moreno will be able to create a world of sight and sounds that will truly entertain and offer smoother immersion into his creative vision. **cmw**

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Unidentified Flying Vegetables?



A New Spin On The Flight Sim In *Corncob 3-D*

by Bryan Walker

An avid computer game and flight simulator fan, the author is also an AH-64 Apache pilot and Armaments Officer for the U.S. Army. A combat veteran of Desert Storm, he's currently stationed at Fort Campbell, Kentucky. He can be reached at G.Emc at B.WALKER10, or America Online at WALKER34.

New ideas are hard to come by in flight simulator games. While, technologically, simulators have made huge strides over their ten years of existence, conceptually they haven't budged. With the commercial software houses starting to fly in loops, it's refreshing to see a new entry from the shareware sector, *Corncob 3-D: The Other Worlds Campaign*, putting a new spin on the genre.

Weird War II

Gamers who remember DC Comics' old *Weird War* title will feel a bit of déjà vu. In *Corncob 3-D*, the past as we know it never took place. WWII never happened. Instead, aliens swept down on the Earth in 1938 and rapidly began setting up bases. After a fierce war, mankind liberated the earth. Though winning a brief respite, humanity realized that total victory could only come by riding the cosmos of the alien scrooge. Now, the player takes the fight to the enemy on many different planets, flying wildly modified "Corncobs" (an old nickname for the Vought F-4U Corsair of WWII fame) and experimental Stealth Fighters against incredible odds and superior technology.

Virtually Unique

The term "virtual reality" has been abused like nothing else in computer entertainment. However, *Corncob 3-D* delivers one of the best attempts at a VR-like "living environment" in a flight sim so far. In the *Corncob 3-D* universe, destroying the enemy is all that counts. Rarely is there a required sequence, order, or technique to winning. Kamikaze attacks, dashing around on foot to place

satchel charges, calling in and protecting rescue vans, leaping from structure to structure, and even destroying friendly buildings are all possibilities in any mission, at any time. Total, *total*, freedom is perhaps the greatest strength of this game. Landing a chewed-up plane, climbing into another, and taking the fight right back to an enemy that doesn't magically regenerate provides a "suspension of disbelief" that few titles can approach.

The filled-polygon graphics of *Corncob 3-D* are rendered in 16-color VGA. Despite the limited palette, the animation is smooth as a soft-serve cone, and the effects simulating flak and secondary explosions may be the best I've seen. The outside world is displayed via the traditional external cockpit views, which are animated to simulate actual head-turning. A rear-view mirror is continuously displayed, making it easier to avoid the guided missiles and view the effects of a bombing run. An overhead "radar" view is also provided, giving the player a 360-degree perspective on the aircraft.

While *Corncob 3-D* has been released in smaller versions, the "Other Worlds Campaign" has 130 forays and a mission-building utility. There's also a "Secret Mission" for the truly determined player. The challenges of the numerous theaters of conflict range from the very easy to the astonishingly difficult. The different atmospheres and gravities of each planet require players to constantly alter their tactics. Though the number of enemy types is somewhat limited, the incredible variety of emplacements repeatedly calls for new tricks and fancy flying. Even the best sim jocks could spend weeks finishing the entire campaign.

At first glance, the small roster of targets might seem unimpressive. However, the game uses clever mixes of target types and qualities to challenge the

player. The static targets consist of fuel dumps, antenna arrays, construction facilities, and generator orbs that power various defensive force fields. While some players might consider these targets easy pickings, there are insidious booby-traps just waiting to snare the unwary pilot. The active enemies range from three-wheeled ground transports,



to flying saucers, guided missiles, and the aliens themselves. The formidable anti-aircraft defenses include invulnerable barrage balloons, flying debris called "bee swarms," articulating cannon turrets, mortars used to deny low-altitude approaches, and the persistent guided missiles. The quality and lethality of the alien devices is indicated by a variety of colors. For instance, a brown object isn't much of a threat, but bright white objects are simply bad juju. Despite the overwhelming superiority of the alien forces, a clever pilot can use the eager enemy's strengths to advantage. Nearly everything can be destroyed, and it doesn't matter whose weapon does the damage.

Corncob 3-D: The Other Worlds Campaign

TITLE	Corncob 3-D: The Other Worlds Campaign
PRICE	\$23
SYSTEM	804
REQUIREMENTS	286-12MB RAM, VGA graphics, 2MB hard drive space
PROTECTIONS	None
DESIGNER	Evrye Studios of Fire in the Sky Productions
PUBLISHER	MVP Software, Grand Rapids, MI 800-368-9884



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Cornucop 3D is not designed to appease those gamers who demand the utmost in realism. While both the easy and advanced flight models are smooth and believable, many technical details have been omitted (landing gear, for instance). Designer Kevin Stokes explained that the main effort behind *Cornucop 3D* was to make it challenging yet enjoyable for casual PC gamers. Effectively unlimited ammunition, forgiving flight characteristics, rechargeable rocket boosters, rapid repair, and even the ability to remotely control the plane after bailing out makes *Cornucop 3D* potentially unrealistic, but lots of fun!

With a \$2000 486 system required to truly enjoy most of today's flight sims, those with lower-end machines are getting the fuzzy end of the lollipop. If the cause of the lower-end machine could have a champion today, *Cornucop 3D* would be it. While it doesn't run with quite the smoothness of a higher-end system, it's still an enjoyable game on a 286 or 386SX.

There are many other minor features built into *Cornucop 3D*, ranging from comprehensive intelligence reports, time compression, teleport portals, a "boss" screen, sound editor, map mode, congratulatory sequences and others. They all contribute to a good game. Even so, there are some limitations and oversights that could be corrected to improve the quality of play.

Causes For Grounding

Perhaps the greatest weakness of *Cornucop 3D* is the total lack of terrain features. Each planet is, for all practical purposes, a big pool table rife with bad guys. While this keeps the game running smoothly on lower-end machines, the flat landscape is a step backwards for those of us spoiled by *Falcon 3.0* and *Casanova: Maximum Overkill*. With much of the game spent skimming the ground to avoid cannon fire, the absence of terrain features detracts from the experience.



The mission builder is powerful, but it's certainly not easy or intuitive to use. Gamers without programming experience will probably find designing scenarios for *Cornucop 3D* to be very tedious. Fortunately, the missions available on-disk offer plenty of variety and challenge.

Steely-eyed dogfighters might be dismayed

to find that *Cornucop 3D* doesn't offer anything resembling the air-to-air combat of other flight sims. Since the only aerial opponents are the erratically-maneuvering flying saucers, "turning and burning" doesn't happen.

While much of the simulator industry is embracing numerous control options such as the Thrustmaster accessories, *Cornucop 3D* has no provisions for anything other than a single joystick and keyboard control. This omission becomes significant when trying to land a badly damaged plane under the advanced flight mode option, or in the heat of battle when many actions need to be taken quickly. Hopefully, any future version of *Cornucop 3D* will make allowances for alternate control options.

Share And Enjoy

Those who think of shareware games as second-string entertainment will be pleasantly surprised with *Cornucop 3D*. This game is intelligently designed, easy to learn and just plain fun. While it lacks some of the chrome and graphic "wow-power" of high-dollar titles, *Cornucop 3D* offers some new ideas that will certainly be seen in future games. If some sort of price/challenge/fun formula was developed to measure the worth of today's games, *Cornucop 3D* could stand nose-to-nose with any flight simulator out there.

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BEST OF THE REST

If I Had A Hammer...

Building Your Own Games With Shareware Tools

by Chuck Miller

Unless you've been initiated into the mystic cabala of computer programming or have invested mega-bucks in software development tools, game design has been out of your reach. Game construction kits have appeared in various forms over the years, but all, with the possible exception ofSSI's recent *Unlimited Adventures*, have met with little success: either they are too difficult to use or they do not offer enough power to create anything resembling an interesting game. Fortunately, there are always exceptions. The exceptions in this case are two popular and powerful game creation systems that have cropped up among the grassy roots of the shareware realm.

Adventures By Number

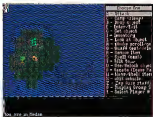
Adventure Game Toolkit from Softworks and *DC Games* from DC Software are two of the leading shareware gaming construction kits. They both allow the non-programmer to create computer games, though they approach the task from different angles.

The *Adventure Game Toolkit (AGT)* is primarily a text adventure construction kit, available in one of two versions: the *Classic Edition* and the *Master's Edition*. The *Classic Edition* has been available for six years, undergoing a constant process of refinement. It is relatively simple to use, requires no programming knowledge, and has a very dedicated following of designers and players. Hundreds of games have already been created with *AGT*, many still available on most major networks. Versions of this edition are available for MS-DOS, Macintosh, Amiga and Atari ST computers, and adventures created on one of these systems can be easily re-compiled for use on any of the others. A modest shareware fee of \$20 is required.

Those desiring more substantial creative options may be interested in the *Master's Edition of AGT*. Available only for MS-DOS machines at present (though compatible with all games developed for the *Classic Edition*), this version gives game designers the power to create larger games than previously allowed, includes graphics (EGA or VGA), AdLib and Sound Blaster music and sound effects, special fonts, pop-up hints, a customized interface and menu-driven player input. For \$50, the *Master's Edition* offers the game author more power and creative options. Aspiring designers with a yen for adventure games in the classical mode should contact:

Softworks, 43064 Via Monja, Mission San Jose, CA 94539. Orders can be placed by phone using MasterCard or VISA at (510) 659-0533, 9:00am to 5:00pm PST only, Monday - Thursday, Saturday and Sunday.

Fans of the early *Ultima* games should take a look at DC Software's game building system, *DC Games (DC)*. With it, gamers can build graphic adventure or role-playing games similar in form and function to *Ultima III-V*. While more difficult to use than *AGT*, it also allows the creation of more graphically pleasing productions (the reverse of *AGT*,



DC Games

textual richness is DC's weak spot). Support is provided for extensive worlds, over 500 objects and characters per world, virtual memory and VGA graphics (SVGA support will be available shortly). Also supported are Sound Blaster's voice, music and text-to-speech drivers.

DC has gathered a faithful band of users around its banner and is being continually refined to meet their needs. Future versions will support SVGA graphics, .GIF and .LBM graphic files, and data compression. If you would like to try your hand at developing an RPG in a style reminiscent of the earlier *Ultima* titles, DC may take the route to take. For a moderate registration fee of \$40, plus \$5 shipping and handling, you can skip the night school programming class and "create worlds" of your own. Registration should be sent to: DC Software, P.O. Box 866771, Plano, TX 75086-6771.

While neither of these construction kits will enable the fledgling designer to create an *Ultima VII*- or *Lands of Lore*-style game, they will provide the opportunity to learn the basics of successful design and create an original quest. If you want to get your feet wet, they provide safe wading pools.

Puzzled Expressions

With the remainder of this column we'll look at several puzzle games that have drifted across my desk. These games are *Boogle Deluxe* (a *Boogle* clone), *Trio* (a Solitaire card game) and *Puzzle Pits* (a logic puzzle), and they are addictive. You have been warned.

Those familiar with the classic word game *Boogle* will know exactly how to play *Seaboard Software's Boogle Deluxe*, a game of word construction against the clock. While the "trial version" is rather limited in play value (only four unique games are available) and soon becomes repetitious, it offers enough play for one to decide if he or she wishes to put up cash for the registered version.

As expected, play is similar to the original table version of *Boogle*, the goal being to "discover" as many words as possible within the set time limit. These words are constructed by connecting letters vertically, horizontally and diagonally and must be at least three letters, but no more than 18 letters in length. Each letter can only be used once per word.

Boogle Deluxe, however, does the old standby one better by allowing the player to adjust certain features. Grid size can be toggled between four-by-four and five-by-five squares, the time limit may be set from one to five minutes, and opponent skill can be selected from average, smart or genius. Being a relatively competent *Boogle* player, I easily beat the computer opponent on the lower two levels, though it severely annoyed me at genius level. Most players will find a "smart" opponent challenging competition.

The only major drawback is the \$30 registration fee—steep for what the game offers. Though the VGA graphics are pleasant



Boogle Deluxe

"The best simulator
I've ever seen!"
Rick Zaid, Computer
Game Review

"Makes the term 'virtual'
redundant!"
Dave Moskowitz, Video Games
and Computer Entertainment

"Sets a totally new standard for
helicopter simulations!"
Arie Katz, Electronic Games

"Redefines the state-of-the-art in
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realistic.)

- CREATED BY
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pack in a low-wave cabinet!
 - First simulator with real-time co-axial jet
RAH-66 Comanche.
 - Unsurpassed speed and maneuverability
 - Real-time fly-byz through actual terrain data
 - One-minute learning curve
 - High-wb. unusual score "red owl"

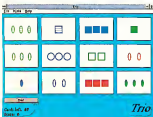


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MAXIMUM OVERKILL

enough, there is no music or sound effects, not even that of the letter blocks falling into place. Still, *Boogle Deluxe* is a good game, offering *Boogle* fans a capable computer translation of this "wordy" favorite. Registrations should be directed to: Seaboard Software, 302 North Jefferson Street, Adingron, VA 22203-1200 in U.S. funds, check or money order only.



Trio

Trio, a one-player card game from Torensoft Consulting, challenges the gamer to match groups of three cards comprised of symbols (circles, ovals and squares), colors (red, blue and green) and shadings (solid, striped and hollow) out of a hand of 12 cards from a deck of 81 cards (a short game of 24 cards, and a half game of 48 cards are also available). However, locating trios is not always clear cut. To form a trio, each attribute must be the same or different on each of the three cards. For example, one trio could be comprised of one each red, blue and green solid square. Thus, while shape and shading are the same, colors are different. Another trio might be made up of a red hollow oval, two green solid squares and three blue shaded circles. In this case, the shape, color and shading of each card is different. Scoring is based on the total number of correct trios located and the time it takes to complete each game. On-line hints are available, though their use will hurt the player's score.

Though *Trio* is a simple game with a simple presentation (it has no sound or fancy graphics), it is a fun and addictive diversion. Those wanting to sharpen their logic skills should give it a try. For a modest \$10 U.S. (\$12 Canadian), the player gains the registered version and the next release, *Trio Plus!*. Registration should be sent to: Torensoft Consulting, 475 Elgin Street, Suite 1007, Ottawa, Ontario K2P 2E6, Canada.

The third game, *Puzzle Pits*, is an Amiga game by Spartan Design. It could be described as a derivation of the old sliding-square puzzle, where the baffled player had to arrange numbered tiles in sequence. Though timed, the emphasis is clearly upon thinking one's way through each puzzle.

Puzzle Pits is comprised of 30 levels (additional levels are available) and is set in the

context of a quest to rescue the player's brothers from the evil Duhal, a wizard who has turned them into stone. Apart from the contrived fiction, *Puzzle Pits* is basically a series of logic puzzles in which the player must move barrels onto colored squares without blocking him or herself from future moves. Objects such as crates also need to be pushed out of the way, while gems possessing magical properties must be found.

In addition to the game itself, *Puzzle Pits* includes a level editor and a simple programming language to design one's own levels. A stock Amiga with 512K is required, though 1MB of RAM is recommended to enjoy the game to its fullest (and hear the music and sounds provided). To register and receive the complete version with 30 levels, send \$10.00 (in U.S. funds drawn on a U.S. bank) to: Abe Pralle, P.O. Box 2059, Chinle, AZ 86503.

Once again, this concludes our look at shareware titles. Games reviewed in this column are available through numerous distributors of shareware and public domain software, as well as on many national and private on-line networks. If you do not have access to these networks, you can usually write or call the game developer for an evaluation copy. And remember, if you find a shareware program enjoyable, please register



Puzzle Pits

it with the author. Until next time, great gaming!

Send Us Your Best

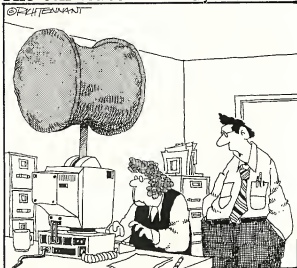
If you have authored a shareware or public domain game for MS-DOS compatible, Macintosh or Amiga computers and would like to have it considered for review in this column, please send two complete copies (preferably on 3.5" disks) with documentation and a cover letter to:

Best of the Rest
Computer Gaming World
130 Chaparral Court, Suite 260
Anaheim Hills, CA 92808.

CGW

The 5th Wave

By Rich Tennant



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THE GROUND, BOTH SIDES
TRYING TO SHOOT HIM DOWN.
WOUNDED IN THE ARM, KAPITAN
ALEXANDER ZUYEV GUIDED HIS
MiG-29 TO FREEDOM
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Turkish air defenses to land safely on a civilian airfield in Turkey.

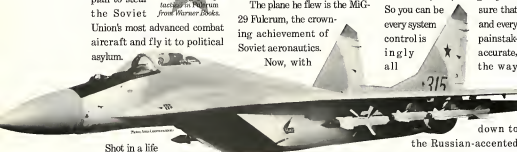
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Shot in a life and death struggle with the enemy, Zuyev managed to take off. Then, flying dangerously low to avoid radar, he eluded pursuing fighters and deadly Soviet and

MiG-29: Deadly Adversary of Falcon 3.0™ Spectrum HoloByte's add-on to Falcon® 3.0, you can climb into the cockpit of the F-16's nemesis.

down to the Russian-accented cockpit warnings.

IT'LL TEST YOUR SKILL AND YOUR PATRIOTISM

Unlike the F-16, the MiG-29 isn't a fly-by-wire aircraft, so a

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 For technical questions call (510) 622-1164 (M-F: 9AM-5PM Pacific Time).

computer never limits your control inputs, whether inspired or foolish. Its twin Isotov RD-33 engines produce 36,600 lbs. of thrust, to the F-16's 25,000. And superb aerodynamics make it controllable at low speeds and high angles of attack that would have enemy pilots

fighting to avoid a spin. The most fearsome opponent is a *Phoenix* one. With *EBS*, up to six players can go head-to-head.



THEY WON'T EVEN KNOW WHAT HIT THEM

Your MiG's IRST (Infrared Search and Track) system can track an F-16 without revealing your presence on his threat display. So you can get on his six o'clock before he even knows you're there. Once in range, you'll be able to lock on to the Falcon just

by turning to look at him with the MiG-29's helmet mounted sight. Then call "pusk" (launch) as you fire missiles or "ogon" (firing) as you ventilate him with your computer-accurate 30mm gun. Either way, his plane will make a satisfying crunch when it hits the ground.

Next time you have an F-16 glued to your tail, try the MiG-29's "Cobra" maneuver.

1) You pull up past a 90 alpha climb.



2) Your airspeed drops rapidly; the F-16 zooms past.

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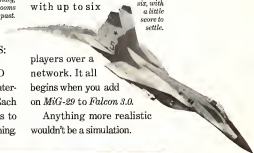
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3) You abruptly pitch the nose back to level flight. Now you're on his six, with a little score to settle.

players over a network. It all begins when you add on *MiG-29* to *Falcon 3.0*.

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Outlandish Tales and Fascinating Sights from Gen Con '93

To the right of the main entrance sits a classic black house. Standing beside it is a caped Old World noble, draped in black and adorned with both sideburns worthy of Elvis and a pallor that would befet Bela Lugosi. He admires his oversized canine teeth in the reflection of the hearse's window and, literally, vamps for anyone passing by.

Ten feet away the huge TSR castle that has dominated the exhibit hall for two straight conventions has sprouted a minor outpost in front of its main entrance. There, CapCom has prototypes of their new *Dungeons & Dragons* coin-op game. The game features large figures *a la Golden Age*, but has enough buttons to allow gamers to use special attacks and spells according to their *D&D* character class.



A squad of editorial yahoos (l to r, Mike Wekster, Alan Enrich, Johnny Wilson) holds down the CGW fort.

A Klingon guard escorts a prisoner past the front of the castle, herding her human charge through the crowd toward the detention facility. Ever mercenary, the Klingon service personnel have managed to get gamers to spend money to have their friends "arrested." Fortunately, all such funds will go to charity at the close of the convention.

Such, along with numerous rooms full of tournaments, open gaming sessions, used game auctions, seminars and film festivals, are the sights and sounds of the annual Gen Con Gaming Convention held in Milwaukee, WI. Thousands of gamers come from all over the

U.S. and Canada to check out the latest games and try their skills against other players.

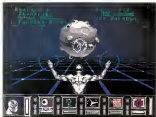
Who's Who In Computer Entertainment?

The computer game industry is becoming more and more of a presence at gaming conventions. Even software publishers who choose not to exhibit or sell at the convention have representatives present to scout the new boardgame and role-playing designs that are launched there. In addition, Strategic Simulations, Inc., Westwood Studios, The Avalon Hill Game Company, GENIE, MPG-Net, Data East, Sega, Hero Software, Thrustmaster, Virtual World Entertainment (*BattleTech Center*) and Dream Park (a virtual reality company) exhibited at the convention. *Computer Gaming World* also offered its usual seminar, but more on that later.

The SSI booth was packed with gamers who lined up around a bank of computers and avidly played a pre-release version of the long-awaited *Dark Sun* CRPG. SSI was taking advance orders for a deluxe edition and doing quite well. Event Horizons (now DreamForge Software) was demonstrating their *Dungeon Hack* game at the booth. It is a *Rogue*-like CRPG that is infinitely replayable since it creates random dungeons for gamers to explore. Of course, the new game that really had gamers oohing and aahing was DreamForge's upcoming *Ravenloft* game for SSI. This is a 3-D, first-person scroller based on the exploits of ultimate baddie, Strahd the Vampire.

Aaron Powell, leader of the *Dune II* design team, was both selling the current hit and talking about the new incarnation of the system at the Westwood Studios booth. As reported in an earlier "Rumor Bag," the new game will get away from the *Dune* license (mostly because the programmers are tired of sand) and feature new terrain and enemies. It also looks like the design team is serious about doing a multi-player version of the popular game, but details are yet to be determined.

The Avalon Hill Game Company was sporting a brand new image with regard to computer games. With Atomic Games (developers of Three-Sixty's *V for Victory* series) signed to develop *Squad Leader* for the computer and a new IBM version of *Third Reich* well on its way, the company is making a serious commitment to computer games. In fact, we are told that some of the new in-house programmers are not only long-time boardgamers, but experienced military simulation programmers. This bodes very well for Avalon Hill.



Sega's *Shadowrun* role-playing game for the Genesis mixes cyberpunk and fantasy.

At the MPG-Net booth, gamers were discovering the *Kingdom of Drabbar* multiplayer RPG. In *Drabbar*, gamers traverse a beautifully rendered world and tun into real characters as well as computer controlled ones.

One of the great delights of Gen Con is running into some of the folks you've already met on-line as various characters in an on-line game. This year was no exception. Although we didn't manage to meet any of the characters in our guild, we did meet some from other groups.

Other gamers were being introduced to the fastest way to play *Empire Builder* (on-line with MPG-Net) and the network's newest game, *Operation Market-Garden*. In addition, the network is expected to unveil a new title at this year's Fall Comdex.



Kesmai uses Thrustmaster cockpits to take players for a spin in their *SVGA Air Warrior*.

Sega and Data East had game consoles set up in the FASA booth, home of a large miniature city that had suffered so much catastrophic decay that it was immediately recognizable as a setting for their *Shadowrun* role-playing game. *Shadowrun* is a mixture of cyberpunk and fantasy that is tremendously successful among the Dark Future set. Both Data East and Sega have built products based on the *Shadowrun* universe. Data East's SNES game allows gamers to play a street samurai and traverse the city in top-down mode as in any action game. Sega's *Shadowrun* game for the Genesis has lots more role-playing elements and, in spite of the real-time combat, should have plenty of depth and appeal for traditional role-players. The skills definitely mean something in the Sega game and players can observe their character's improvement in each area. We were also impressed with the parrot-based missions and some of the open-ended opportunities for exploration.

Speaking of role-playing, the Hero Software booth was located directly across the aisle from the Hero Games booth. Naturally, the software booth featured demonstrations of the new *HeroMaker* character generator for the *Champions* role-playing system (see "Taking A Peck" in this issue).

The GENie booth featured representatives from both Simutronics and Kesmai. Again, it was interesting to meet some of the real people behind the characters one battles, cooperates with, or woos in the on-line cyberbuds of *Genzone III*, *CyberStrike*, *Multi-Player BattleTech*, *Federation II* and *SVGA Air Warrior*. New Games Manager Bruce Milligan, an experienced designer for both Avalon Hill and MicroProse, told *CGW* that the network version of *Harpoon* was rounding the last curve and heading for beta testing and that on-line *MegaTraveller* shouldn't be too far behind. Meanwhile, he expressed his desire to develop a more significant on-line *Diplomacy* community on GENie.

Meanwhile, Kesmai was using Thrustmaster cockpits to demonstrate the improved graphics for their *SVGA Air Warrior* game. Although they readily admitted that the modern cockpits might be stretching the envelope of suspended disbelief when gamers were flying in Spitfires and Mustangs, they were justifiably proud of some of the smoother curves and more authentic look of the planes.

Virtual reality was present in three modes. Virtual World Entertainment had several *BattleTech* cockpits set up in the computer gaming room for the enjoyment of would-be mech pilots. The set-up was essentially the same as in a *BattleTech* Center.

Dream Park had some new ideas for VR games with cruder graphics. In one, the player is trapped in a virtual spaceship and must escape before the time runs out. There were also *Daryl Terror VR* games in the computer room.

Finally, Simutronics was demonstrating the VR version of *CyberStrike* in the GENie booth. David Whaley had a prototype of their VR goggles which are designed for home use. The beauty of this approach is that one can play against *CyberStrike* players on GENie that do not have the goggles. So, Simutronics doesn't have to program an entirely new game in order for VR aficionados to enjoy their goggles. The VR players get to play in a virtual world, while the 2-D players get the same quality game that has already garnered *CGW*'s On-Line Game of the Year award for 1993.

Editorial Response

CGW's Johnny Wilson and Alan Emrich hosted the seminar on the future of computer games for the second year in a row at Gen Con. The duo concocted a bogus debate to introduce trendy topics in the world of computer games, trying to draw the audience into the discussion. Some said the presentation resembled Phil Donahue meeting Rush Limbaugh, but others said that the two hour program touched all the bases. This year, Wilson contended that the digital highway of interactive television would benefit even hardcore gamers, and Emrich suggested that the trend of developing for the mass media would steal the software industry's soul.

The bottom line, of course, is that everyone



CGW's editor is arrested by Klingons. The charge: assault with a deadly pen and failure to pay taxes on his 25-cent words.

seemed to have fun at Gen Con and that many of us left better informed (and with lots of new game goodies) and delightfully tired. Gaming conventions put the human factor back into gaming, and we particularly love meeting the folks who read our magazine. See ya' next year at Origins '94 in San Jose. **CGW**

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PYRAMID POWER!

Pathways Into Darkness Channels The Energies Of The Macintosh

by Richard Mulligan

Banshees and zombies and goo, oh my! Get back, Dorothy. The Wicked Witch of the West looks like Chiquita Banana next to these guys. Even Margaret Hamilton would be toast for a headless creature that shoots deadly green goo from its neck, much less zombies that throw femurs like Nolan Ryan throws the fastball. And there's so many of them!

If there's a motto to Bungie Software's visually beautiful new game for the Macintosh, *Pathways Into Darkness*, it would have to be, "So many monsters, so little time." Before you can solve puzzles or move on to another level, there always seems to be at least

one more creature to kill. And though the game features an incredibly fine graphic interface—more than faintly reminiscent of *Id Software's Wolfenstein 3D*—and a very sense of humor, getting past the early dangers to the actual game play can be tedious.

The Game's Afoot!

In the jungles of Yucatan, at the site of an ancient meteorite crash, sits a pyramid. It houses a dark secret, one that could mean the

ruin of Earth itself. An ancient god is beginning to awaken, and it has an attitude. If not destroyed before it can come to full consciousness, humankind is doomed to a life of slavery, if not worse.

As a member of the American Special Forces team, your mission is to take a tactical nuclear device into the bowels of the pyramid, set the timer, get out and then signal your pickup chopper with one of three radio beacons. Insertion day is Sunday; the team has until 1400 hours on Friday to detonate the nuke. After that, all is lost and you might as well sign up for your first class in Colloquial Zombie 101.

Unfortunately for you, the parachute drop is botched and you're separated from the rest of the team, landing hard in the bush. Your M-16 didn't land well, either; it looks like a steel noodle and you can't find the ammo for your .45. The spare ammo, as well as the tac-nuke and radio beacons, are with the team. All you possess is a map, a flashlight, a survival knife and your wits. As you arrive at the pyramid, you can tell that your fellow berets have been there before you. Now, all you have to do is find them. The door is open...

If It Looks Like A Duck...

Within the pyramid are creatures both fantastical and dangerous that must be overcome or avoided. There are also the remains of the poor souls who have gone before, most notably the mangled leftovers of some Nazi soldiers who tried to un-

earth the pyramid's secret for Hitler.

Though the action supposedly takes place in a pyramid in the Central American jungle, *Pathways* is a dungeon crawl, pure and simple. It exhibits all the standard features of that genre, but has a tendency to get bogged down with an array of monsters that must be fought or avoided—mostly fought. All the creatures



are highly aggressive and never wait for the player to attack first. If the player manages to elude a monster in the tunnels, it hangs around and may attack (read: "Probably will attack") later on. With only a survival knife for protection, things get hairy quickly. If one manages to successfully slice through the

Pathways Into Darkness



TITLE Pathways Into Darkness
PRICE \$69.00
SYSTEM Macintosh
REQUIREMENTS 44000 processor, 8-bit 256 color, 2MB RAM, System 6.0.5 or higher
DESIGNER Jonny Jones
PUBLISHER Bungie Software
PO Box 7477
Chicago, IL 60680-7477
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Available for the IBM PC and Compatibles (August 1993), Commodore Amiga (March 1994) and Apple Macintosh (May 1994).

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Circle Reader Service #53



waves of missile-throwing uglies on the first level, there is the body of a Nazi soldier to search, and what a bonanza he is; he's carrying a Walther P4 automatic pistol and several magazines of ammunition. Now the player can eliminate the Undead Threat in a more efficient fashion.

Of course, one must become familiar with the weapon before one becomes truly good with it. You can waste a lot of bullets that way, and every bullet you can lay your hands on won't be enough, believe me.

All The Old, Familiar Places...

The bodies of previous explorers are part of the mystery, and there are a couple of puzzles that must be solved to win. The first usable object the savvy player will locate is a yellow crystal; this crystal allows the bearer to actually converse with the spirits of the departed, each of whom has at least one important piece of information to impart. One might look about for other useful crystals, as well.

The problem, of course, is that each level must be cleared of nasties to get to the bodies; even then, there's a tendency for them to climb out of the mortar work, literally. And, with boring regularity, each of the first few levels of the pyramid contains an ever-increasing number of beasts, until it's easy to become overwhelmed by sheer numbers, regardless of the amount of ammunition available. Since there are at most two rooms on

each level where saving the game is allowed (usually placed about as far from the entrance to that level as possible), the player spends a lot of time looking at the same old walls.

After a while, the tedium of constantly having saved games restored might make even the most hard-core (or -cops) gamer wish for a cheat sheet to the higher levels. With some 30 levels in the game, getting past the 6th or 7th level can be a trial, even though that's where the puzzles begin to take off and the game begins to be fun.

The MacInterface Is A MacJoy

The true strength of this game lies in the graphic interface. It's simple, elegant and easy to use. Designer/programmer Jason Jones obviously knows his way around Apple's Macintosh Developer's Toolkit, and graphics man Colin Brent has done an excellent job on the art and graphic routines. Particularly well done are the dead bodies and the creatures;



they're so detailed, one can almost forgive that there are so darn many of them. The sound is also excellent, allowing configuration for either the one channel of the Mac's built-in speaker, or three channel stereo played through external speakers. As the sounds of approaching monsters give the player advance warning, the game should be played with at least one-channel sound.

The visual portion of the interface is a smooth-scrolling, 3-D point of view. Movement is accomplished either with the mouse or with the keypad, at the player's preference. Using the mouse to move is a bit tough to get used to; the keypad gives the player more control of facing, exact movements and combined movements, such as moving to the rear and tight simultaneously. This is important when it comes to combat, either hand-to-hand or with a firearm; a bullet or blade have to be very close to dead-on to get results.

Graphics resolution can be set at either high or low. The high resolution graphics are gorgeous, but they do cause movement and combat to be slow and jerky. The low resolution graphics are equally as lovely as the high, and using low-res speeds up the game enormously.

All The Old, Familiar Faces...

You'll want that speed when it comes to dodging creatures or objects thrown by them. There are specific commands to dodge left or right and, as the manual notes, practice early on with them can save a lot of testruns on the lower play levels. They are less useful in the higher levels of the pyramid, however. The manual and accompanying release notes emphasize the importance of dodging and the fact that dodging doesn't work in corridors; unfortunately, most of the higher levels are nothing but corridors or enclosed spaces that make dodging difficult. Creatures can and do approach from all sides. Amazingly, there is no way to look directly to the rear; at more difficult levels, this makes it easy to get ambushed from behind.

Round Up The Usual Suspects

In summary, *Pathways* is a technically well-tended product. It makes full use of the Macintosh and has a good sense of humor. However, it is somewhat weak on actual game play, especially in the lower levels. Players looking for depth and breadth early on could easily get frustrated with round after round of monster-bashing to teach the puzzles and endgame. Those looking for a simple product emphasizing hand-eye coordination and a sense of humor will enjoy *Pathways*; the initial promise of the interface kept this writer wishing for more game earlier on, however. To Bungie's credit, though, the game is honest and never pretends to be something it isn't. Overall, a job worthy of a strong recommendation. **cmw**



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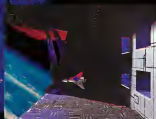
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A Captains' Guide To Space War In Rules of Engagement 2

by Hosea Battles



As the enemy's heavy cruiser closed on his ship, Captain Christoph de Cour ordered the behemoth to execute a Head Long Pass maneuver.

"Set EBW to 100 percent. Set Auto EBW at range 300,000 kilometers. Execute!"

The FW Dreadnought Lion Star targeted the enemy cruiser and began moving toward it. Captain de Cour continued, "Hebn. Set position at 39,000 kilometers, 180 degrees."

Within 300,000 kilometers both ships opened fire, launching missiles and EBWs. As the Lion Star overtook him, it inflicted heavy damage upon the enemy vessel. Tactics showed enemy shields down 40 percent, weapons down 45 percent and drives down 60 percent.



"Damage Control!" bellowed Captain de Cour, "Report!"

"Lion Star shields down 25 percent, weapons down 45 percent. Computer down 22 percent, Sir."

As the Lion Star wheeled around behind the enemy, tactics reported an enemy Dreadnought heading toward them bearing 225 degrees. Captain de Cour immediately ordered all other ships in the fleet to target the incoming Dreadnought while continuing his pursuit of the heavy cruiser, hoping they would protect his flanks.

This account is typical of the star battles fought in Rules of Engagement 2 (ROE2). Captain de Cour employed several different maneuvers that are essential for success in ship-to-ship combat. As you play ROE2, you will find a varied bag of tactical tricks that can

be used to exploit the enemy. You may also discover that the enemy will use some of those same maneuvers and tactics against you.

This article provides tactical hints that will work against any enemy. You may find that some work well against one opponent, but not another. This is because each enemy has distinct personality traits. Also, some tactics may not work well because you may have placed the wrong captain in charge of a ship. Captains, like opponents, have distinctive personality traits and react differently in each situation. Tables 1 and 2 give numerical assessments of both FW Captains and enemy factions. This information is invaluable when making crew assignments and when sizing up an enemy's force.

In general, you would do well to remember where you are at all times on the battlefield. Are you near an enemy outpost that can fire upon your fleet? Are crew members dying, but your ship has taken no hits? (You may be in a radiation field.) Above all, remember that your best tactics are only as good as your captains!

Basic Maneuvers

There are three maneuvers that have proven successful in most situations. Precisely how each fares depends upon which enemy you are facing and the number of ships in your fleet. There are times, too, when all three are needed in one battle. Before using any of these maneuvers, however, ensure that your shields have been raised, you have assigned missile point defense (EBW or Jamming), you have selected a target, and you have set the configuration panels. In all maneuvers, I usually set Auto EBW within 300,000 kilometers and communicate mission orders to the ships in my fleet.

Head Long Pass: On the TACMAN panel, set direction to 180 degrees and set distance to 39,000 kilometers. Target a ship at a range greater than 500,000 kilometers on the TACFIR panel and select the strongest General Damage missile in your arsenal. Click on position and head toward the ship. Then, select the Communication Transmit Panel

and order ships under your command to "Destroy Enemy Ship X." As you enter a range of 300,000, set EBW to Auto. I usually use the Pinpoint Weapons setting on the EBW and set it between 70-100 percent. At your closest point, (usually between 10-20,000) fire as many missiles as you can. Your ship will then begin turning to place you at 180 degrees behind the enemy. Continue firing until you destroy the targeted vessel, or you are forced to break off the attack.

The Switch: Target one enemy ship in panel A and another in panel B on the TACFIR panel. Set your direction on the TACMAN panel to a desired heading and the distance at 30-50,000 kilometers. Do not place TACFIR on Auto. Click on Position and move toward the ship in the panel setting. For this example, we'll use A as the first targeted ship. As you close to under 300,000 kilometers, set EBW to Auto and select the type of missile you want to employ. Once you are within 30-50,000 kilometers and have damaged ship A, immediately select panel B on the TACFIR panel and click Position on the TACMAN panel to move toward ship B. Turn off Auto EBW until you close to under 300,000 kilometers. After damaging ship B, select ship A. Continue switching until you disable or destroy one of the enemy ships, or until you have to break off the attack due to sustaining heavy damage.



Side Swing: Target an enemy ship on the TACFIR panel. Then, on the TACMAN panel set distance to 40,000 and helm to 90 or 270 degrees. For this example, we first use 90 degrees. Select a target on the TACFIR panel. Choose Pinpoint EBW, targeting

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Table 1 - FW Captain Personality Assessments

Name	Aggression*	Brevity*	Diplomacy	Experience*	Humility	Ingenuity*	Leadership*	Loyalty	Stamina*	Temperament*
Ahr Anndi	68	28	79	86	42	83	47	93	42	7
Akin Mustafa	70	74	85	75	61	62	77	86	80	60
Armbur Cozzan	44	80	87	39	13	53	29	33	82	84
Anna Quintana	67	80	22	27	76	23	34	99	68	81
Arnell Alejandro	76	89	67	43	46	48	39	81	74	77
Chanh Minh	82	87	91	78	49	97	99	93	82	11
Christophe De Gour	87	80	29	56	82	48	89	23	24	83
Cynthia Gibbs	44	36	48	52	59	42	52	56	05	35
Deneal Misbous	58	74	34	69	27	99	51	66	82	36
Dren Anderson	70	84	34	81	50	66	72	86	54	53
Francis Globet	73	62	81	66	85	70	86	65	89	64
Ignacio Moreno	75	83	27	09	73	20	18	96	35	38
James Chiappie	80	66	76	75	67	80	90	96	93	75
Jacques Quinte	44	53	37	07	20	83	50	09	91	57
Marcino Foote	99	99	89	84	16	99	89	97	43	73
Mikhail Adlan	69	75	68	59	65	82	75	80	64	64
Mishal Singh	42	98	85	99	66	67	76	99	50	33
Natasha Genov	82	76	37	75	55	70	92	80	70	84
Niles Garrouck	49	58	66	98	78	78	82	55	10	22
Ophelia Breshelian	99	28	74	58	20	32	88	16	40	46
Renata Kwila	18	95	20	62	72	64	36	67	72	26
Sharaz Qiana	72	76	67	62	70	80	85	82	70	75
Srini Patel	87	57	28	29	33	48	78	46	50	75
Takako Kurosewa	80	68	38	44	80	64	28	68	73	34
Tailpio Lawson	26	67	92	88	52	58	70	66	40	38
Thomas Gichowicz	99	44	12	00	10	44	32	84	94	44
Trevor Ender	88	88	36	46	50	91	90	74	34	79
Wilam Barnes	68	88	44	52	58	82	76	34	44	68
Wolf Charsten	80	77	62	86	72	90	90	91	85	74

Notes: * = Crucial traits for combat, Average rating = 50. HUMILITY: Affects Surrender Factor. The Lower the number, the higher the chance the Captain will surrender to the enemy. LOYALTY: Affects the likelihood of following orders. The higher the number, the more apt the Captain is to carry out orders. DIPLOMACY: Affects how the Captain interacts with neutral outposts. This determines if the neutral outpost will allow the ship to dock for repair and resupply.

weapons or drives, and select missile #6 (targets drive system). Set Auto EBW when you are under 100,000 kilometers and fire missiles at your closest point to the enemy. As you swing to the 90 degree setting, continue firing. After about one minute (game time) of firing on the enemy, set heading to 270 to swing around to the other side of the ship. Continue firing until you disable the targeted vessel or until you are forced to break off the attack.

General Tactics

Deciding which tactics to employ during a battle is one of the most important concerns in *ROE2*. As such, the first action of a good commander is to know the mission objectives. Read the mission briefing prior to each mission, and look for clues as to the size of your force and that of the enemy. Know the capabilities of your captains and make assignments according to your knowledge of the forthcoming mission. Also, give yourself several options in the first communications to your fleet. Finally, don't be a stationary tar-



get. You should begin moving as soon as your fleet is deployed.

Each ship in *ROE2* has pinpoint defenses. These defenses target incoming missiles. If it seems as if your missiles are not hitting their target, then the ship's pinpoint defenses (EBW and/or Jamming) are knocking them down. Knocking out a ship's weapons system will destroy the pinpoint defenses.

Ship-to-Ship Combat Tactics

This first discussion focuses strictly on ship-

to-ship combat. We will discuss ship vs. outpost tactics later.

Concentration of Firepower: Overall, this is the best tactic you can use. Even three small Scouts can overwhelm the best defenses of a Dreadnought if they all concentrate their firepower on the ship, especially if using Pinpoint. By ordering all your ships to target one enemy ship, this will ensure that the missile pinpoint defenses are overwhelmed, allowing many missiles to do internal damage. Give all your ships the "Destroy Enemy Ship X" command.

Pinpoint: This is lethal when used with Concentration of Firepower above. By pinpointing a system with your EBW, you ensure that all EBW fire is concentrated on a single area of the enemy ship. When this is used with the next tactic, you will make short work of an opponent's vessel.

Concentrate Fire On System: By giving this order to all your ships, you guarantee that they will concentrate fire on a particular system. I have found that concentrating fire on weapons first, then targeting drives works

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Actual VGA graphics shown.



and turn on shields and jamming. In TACFIR, choose an enemy ship as your target and use TACMAN to set a range between 20-30,000 kilometers. Click on Position or Shadow to go after the target ship. When you are at the desired range, select Auto EBW and turn off Stealth long enough to fire one shot, then immediately turn it back on again. If lucky, you will get a hit. When EBW's are fully charged, repeat the same tactic, continuing until you start taking hits. (Stealth is not perfect, so there is a chance you will be discovered. Certain emissions leak out allowing an enemy ship to discover a Scout.) If you are taking damage and hits, immediately click on Evade in TACMAN to escape. Scouts are the fastest ships in the game!

Suicide: This is a dangerous technique, but it may work as a last resort. The problem is that you may cripple or destroy your own ship in the process, and may even destroy other ships in your fleet. To employ this tactic, your ships must have mines. When several enemy ships are closing on you, under 500,000 kilometers, go to TACDEF and select Shield Reinforcement. Set Mines to 500,000 kilometers and drop one or two. If you survive, you will find you have crippled one or more enemy ships. You may have even destroyed one or two! However, you may find you have effectively crippled your own ship. Hopefully your communications will be intact and you

can order other ships in the fleet to finish off the cripples or come to your aid. If not, you may find some enemy ships targeting you and coming in for the kill. It's not called "Suicide" for nothing!

Always keep track of the condition of ships in your fleet. Ensure that you have requested



best. The most powerful Dreadnought is nothing without weapons, and is definitely a sitting duck with its drives gone.

Disabling: When outnumbered or outgunned, your best tactic is to disable one enemy ship at a time. Disable the first vessel, leave it, and go after the next. The following pinpoint EBW methods are effective for this tactic:

1. Pinpoint Weapons
2. Pinpoint Drives
3. Pinpoint Weapons, then Drives.

Hide and Seek: You can only employ this tactic if you command a Scout ship with Stealth Capability. Since a Scout only has EBW's as weapons, choose your ships carefully (some only have low powered EBW's). By using Stealth mode, a Scout can sneak up on and cripple a Dreadnought. When first deployed, immediately turn on Stealth from the NAVHILM panel, then go to NAVDEF

all ships to send updates every minute, and periodically bring up the DATAFLT panel. If a ship is close to being destroyed, order its evacuation. It is better to lose the ship, than to lose the captain. Daring any campaign, if a ship or captain is lost, they are lost for the duration of the campaign.

Evacuation, however, takes time. If, in your estimation, there is insufficient time to evacuate, order self-destruct. Self-destruction overloads the drives and will destroy or damage ships in the explosion radius. The drawback to this tactic is that you will lose the ship and

Table 2 - Alien Captain Personality Assessments

Name	Aggression*	Bravery*	Diplomacy	Experience*	Humility	Ingenuity*	Leadership*	Loyalty	Stamina*	Temperament*
Anteater	84	20	18	26	08	28	12	08	22	84
Antilles	84	84	00	52	50	16	16	99	70	50
Basaree	76	04	74	20	48	02	52	99	08	20
Belovee	44	80	60	52	44	56	90	72	90	56
Cybera	98	98	00	98	99	99	72	99	99	32
Erymiona	64	52	70	10	46	92	34	20	84	38
Feenzrook	50	82	90	28	68	86	38	80	22	38
FWRP	34	26	84	16	70	30	06	84	28	48
FWWF, Marine	80	70	82	80	44	70	70	80	70	60
Gomkolans	88	82	66	76	50	72	80	92	90	74
H's Plz	88	90	80	85	55	81	85	80	75	72
Introd	80	84	52	80	50	60	68	86	80	68
Karagheed	86	74	14	78	42	74	92	78	26	68
Marijan	82	64	20	58	99	75	64	99	37	70
Mutai LalerMok B	28	42	74	24	96	16	36	24	37	26
Mutai LalerMok G	66	70	32	41	64	42	54	72	82	90
Normaz	68	50	51	78	38	78	50	99	22	42
Oreogizard	28	24	82	88	34	90	22	16	64	46
Perevot	72	64	72	82	16	82	66	80	66	81
Trizan Alpha	94	91	65	75	55	76	75	93	86	68
Trizan Beta	84	89	75	85	60	80	92	95	70	55
UDP Military	80	68	28	74	38	66	84	64	68	14
Xenos Agnus (Aliens)	80	68	81	38	76	66	30	86	38	62

Notes: * = Crucial traits for combat. Average rating = 50; HUMILITY: Affects the Surrender Factor. The Lower the number, the higher the chance the Captain will surrender to the enemy. LOYALTY: Affects the likelihood of following orders. The higher the number, the more apt the Captain is to carry out orders. DIPLOMACY: Affects how the Captain interacts with neutral outposts. This determines if the neutral outpost will allow the ship to dock for repair and resupply.

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captain, and you may damage or destroy friendly vessels in the area.

Finally, never forget to pick up escape pods after ordering a ship to evacuate. Otherwise, you will lose the captain for sure.

Rabbits In Space!

A hidden "Easter egg" can be found in the FWAFF Shipyard screen. Pressing the F10 key at this screen will cause one of two famous science-fiction characters to cross the corridor. More famous science-fiction characters are hidden in the game. Try this to get a peek at the 12 hidden alien races: Create two alien races using the Alien Factions creations module. Don't worry about the graphic; it will be replaced with the hidden file. Name one Alien faction "ROBBY ROBOTS" and the other "MARVIN MARTIAN." After running through the tutorial, go back into the builder and load the Basree Cargo campaign. Replace the Hostile alien with one of the above created alien factions. Go back and Make a game using your new version. I am sure that you will recognize each of these famous characters.

— Stanley Trevena

Table 3 - Catalog of UDP Missiles: General Type

Number	Name	Damage	Range	Description	Damage
1	Type 1	52	980	General Damage	Light
2	Type 2	N/A	1,920	Anti Personnel	Light
3	Type 3	N/A	2,530	Damages Shields	Medium
4	Type 4	84	2,950	General Damage	Medium
5	Type 5	N/A	1,050	Anti Personnel	Medium
6	Type 6	74	830	Weapon System	Medium
7	Type 7	84	1,520	Drive System	Heavy
8	Type 8	142	740	General Damage	Medium
9	Type 9	181	565	General Damage	Heavy

Ship vs. Outpost Tactics

There are three types of outposts in *ROE2*: FW, Enemy/UDP and Neutral. They come in four varieties: Commercial (full shields and limited armaments), Settlement (limited shields and no armaments), Scientific (limited shields and limited armaments), and Military (full shields and full armaments). All outposts with armaments have unlimited missile supplies. Thus, a single ship, even a Dreadnought, will be hard pressed to destroy a Military Outpost.

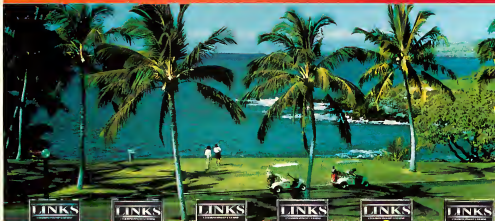
There are two ways to take an outpost: destroy it or capture it. Unfortunately, the only system that can be pinpointed on an outpost is shields. This is because outposts are located on large asteroids, planetoids, arti-

cial satellites, or on a planet's surface. Their weapon systems are shielded and too numerous to pinpoint. However, outposts can be destroyed after taking a heavy pounding from your EBW and missiles, following the methods below.

Capture: The best way to capture an outpost is to order all ships in your command to participate in the capture operation. All ships will concentrate their full firepower on the outpost. You can then issue the order to concentrate all fire on the shields. Then, pinpoint the shields with your EBW. Set it to Auto and fire shield damaging missiles (#1 and #9). Once the shields are down, immediately close to boarding range and board the outpost. Be sure that no enemy ships are near

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As the regular of many mission design veterans of the original *Role of Engagement*, Tom Carbone has offered a Developers Kit to the Computer/ROE players. This kit has all the tools needed to produce professional quality campaigns in much the same manner as Omnitrend. The kit includes the "Athena Document," a complete game universe history in an encyclopedia format (over 100-pages of text) all technical information on sound effects allowing the designer to replace the voice of A.N.D.J. with custom voice files; generic ship views in GIF format for inclusion in custom missions; all game graphic files in GIF format along with a GIF to ROE2 file converter; digitized picture data so the designer can import his/her own image files for captain's 12 "special" alien forms reserved for future use; mission and campaign editing forms to streamline the design process; ANSI debug support for monitoring game AI on a terminal or computer attached to a COM port in real-time during a game; and systems graphs of all FW and Enemy ships and their statistics. In addition, modifiable missile stats have recently been added, and rumors say that predefined *Breach 2* ships will also be included. Tom Carbone has stated that he will do a second production run of this kit if there is interest from CGW readers. This is only offered directly from Omnitrend. Their phone number is (203) 678-7679. The cost of the kit is \$49.95 plus \$5.00 shipping.

—Stanley Trevena

when you attempt to board, as you have no control over ship combat during boarding. Otherwise, your ship will continue to take damage either from the outpost or from any enemy ships within range. Once captured, the outpost's guns will cease to fire. You will then be able to resupply and repair your ship, provided the outpost is sophisticated enough and has supplies.

Destroy: If your objective is to destroy an outpost, you should order all ships to do so. However, your ship should never get closer than 30,000 kilometers to a military outpost or you may find yourself disabled and a sitting duck! Military outposts have plenty of armaments and can heavily damage your ship in a short period of time. When attempting to destroy an outpost, hold nothing back: fire all missiles and use Auto EBW on Normal Beam. Continue pounding in this fashion and you are guaranteed to destroy it (though, you will probably take heavy damage). Note that anti-personnel missiles do not affect outposts.

The best way to destroy an outpost is to capture it first. Use the Capture tactic described above. Once you have taken the outpost, take advantage of the resupply and repair facilities. When finished, pinpoint the shields and destroy it at your leisure. The outpost will not fire on you as it is now under your control.



Hosea's Last Stand

These are just a few tactics and maneuvers that I have found to work about 90 percent of the time. You will discover others as you play the game. Good luck, and keep the following close to your heart:

1. No enemy will react the same way twice, even when replaying the same mission.
2. Always be aware of the battlefield state, as situational awareness is critical to winning any battle. Many conflicts have been lost because a commander was not aware of what was happening on the field of battle.
3. Know the location of enemy outposts that can take pot-shots at your ships.
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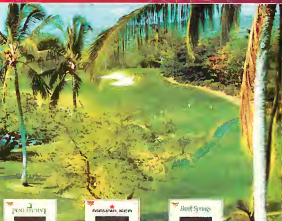
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A 3.1-Run Homer

Miller Associates' Baseball for Windows

by Wallace Poulter

Ah *Windows*. That curious little graphic interface from Microsoft that attempts to do what the Mac has been doing successfully for years. Like a lot of Microsoft products (DOS comes to mind), *Windows* is cumbersome and ugly, yet has sold a bazillion copies. I suppose it proves that Barnum was wrong: You can fool most of the people all of the time, including our intrepid reporter. The potential game market for *Windows*-based products has been overstated by many, yet a number of brave souls have ventured into the breach. Chief amongst these is APBA Presents: *Baseball for Windows* from Miller Associates.

Step Into The Box

First impressions from the box reveal more meat than marketing. While the front panel is an uninspiring crowd shot, the back of the box is one of the more complete and informative pieces of copy in the industry. There are six full-screen images with relevant information. How many times have we seen useless and inaccurate screen shots on the back



of a box? Here we get good representations of the ballparks, and screen shots showing league set ups and reports. Combine these with detailed descriptions of the screens and 24 bullet points of useful information, and you have a box back that should be studied by the industry. Before I opened the product I knew exactly what I was getting.

After such a well-designed package, I was rather disappointed to find an 80-page manual with all of two illustrations. This *Baseball for Windows* Tutorial is well written and pretty comprehensive, but there is no substitute for showing the user what to expect. Fortunately, there is a full-featured help pro-

gram within the game that answers any questions that arise. An extra couple of sheets have also been added which cover "Most commonly asked questions."

Installation of the game is smooth and easy. Once installed, a Miller Associates icon appears in the Program Manager window. Clicking on this icon will display four additional icons. These are Baseball, Advanced Draft, League Manager and Stat Master.

One of the highlights of *Baseball for Windows* is the main ballpark screens. In both 16 and 256 colors, the ballparks are created from paintings or photographs and are just gorgeous. Forbes Field in Pittsburgh is especially nice at night.

I was pleasantly surprised to see my all-time favorite team, the Pirates of '27, included as one of the all-time Great Teams. With the '27 Yankees considered the greatest of all time, usually the '27 Pirates are overlooked by companies, or individuals, compiling their all-time lists. I soon had the mighty '27 Pirates taking on the '82 Angels. The '27 Pirates has such all-time greats as Lloyd Waner, Paul Waner and Pie Traynor, with Kiki Cuyler on the bench. Against them the '82 Angels lineup of Jackson, DeCinces, Carew and company doesn't look all that hot. This should be an easy victory for the Pirates, I thought, prior to play. Pirates pitcher Lee Meadows carried a no-hitter into the 5th when suddenly the roof caved in. Bobby Grich homers with Fred Lynn on base and the Angels don't look back. Grich adds a second Homer, and Lynn contributes himself as the '82 Angels win comfortably 6-0 on Geoff Zahn's 7-hit shut out.

You Make The Call

The Baseball Module allows the user to make all the game related decisions that a manager would. Each team in *Baseball for Windows* has a primary lineup that is pre-programmed, but new lineups can also be saved. The tuning commentary is one of the best around and does a great job capturing the atmosphere of the game. DeCinces bobbles a ball for an error, followed later the

same inning by Boone racing back to the screen, getting a glove on a foul ball, but dropping it for a tuled error. That's a pretty tough scorekeeper. Carew goes into the seats to make a play. Jackson is called out looking at a strike three ball, Barnhart gets picked off at first with two outs and runners on second and third.

An easy-to-use interface makes all this possible and is one of the game's best selling points. The decision panel allows five offensive and five defensive choices, each illustrated with its own distinctive icon. The five defensive decisions are Pitch, Walk (intentional), Hold, Pitch from Stretch/Window



and Infield In/Deep. Good basic choices, but it would be nice to have some more detailed choices such as guarding the lines or bringing the corners in. This, combined with a lack of ballpark effects, is the biggest negative to the product. Batting in Oakland with its huge foul territory should be very different from Tiger stadium, for example.

Making managerial decisions is smooth and easy. Clicking on the bullpen will not only show the user who is there, but also the next four batters in your opponent's lineup. The introduction of righty/lefty effects in *Strike-o-Matic* would make this even more relevant.

APBA Presents: Baseball for Windows



TITLE: APBA Presents: Baseball for Windows
PRICE: \$69.95
SYSTEM: IBM with Windows
REQUIREMENTS: 386-25MHz or better, 3MB RAM, 128KB hard-disk space, Windows 3.1
PROTECTOR: Name
PUBLISHER: Miller Associates
11 Berlin Avenue, Suite 303
New Canaan, CT 06840
(203) 972-0777

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but this is a philosophical decision that ABPA seems content to stay away from. *Baseball for Windows* uses a "Dynamic Decision" concept to spice up play; that is, the user will sometimes be given options such as sending the runner, cutting off the throw, or trying for an extra base. Depending on the level of play selected, the user gets a set amount of time to make the decision. I tend to be a little too aggressive and run my way out of big innings.

A High Draft Pick

The Advanced Draft module is a pretty impressive piece of software. The smooth integration of the programs via the icons allows easy transfer to this and other modules. Most impressive is the ability to sort all the players by either their fielding position, APBA rating or name. Two new terms to me were Pankin and Markov: The Advanced

Draft module contains a Pankin Optimizer, which calculates the most efficient lineup. It would have been nice to get a full description in the manual of who or what Pankin is. Similarly, the Markov calculation deals with average run estimates and the lineup, but details are lacking.

The Seatmaster module borders on overkill. With over 2000 different statistical categories for players and teams, the scope is amazing. Added to that, a custom option allows the user to create a list of either best or worst performers in these categories. Finally, the League Manager controls all league functions for the team and season. Obviously this allows the creation of fantasy leagues and multiple series schedules. Within the League Manager is the Advanced Injury Management system. Player's roles are based upon their actual usage during the course of the season being recreated. For pitchers, roles affect Readiness Ratings, as well as Fatigue Status related to Readiness Ratings. For non-pitchers, roles affect the computation of Player Rating. This has caused some problems in replays. It appears that the routines are based on the number of games the player participated in and not the number of at bats. Therefore a pinch hit appearance is treated the same way as an extra inning game in determining whether a player is ready or not. This is something that Pankin Associates will need to address in future versions.

Windows Of The Year

The credits are not particularly specific, but either Rosewell Miller, Colby Duerk or Alan Pratt needs to be congratulated for making a true *Windows* product. This is not your typical "make a game and slap a *Windows* shell around it," or worse yet a "*Windows* Compatible" program which usually means you can only initiate the program from the *Windows* command line without crashing your system. Instead this is a fully functional *Windows* program with all the hot key options, screen minimizing, etc., that one would expect. A realistic representation of baseball with an excellent interface and multiple modules, *Baseball for Windows* comes through in the clutch. **CSW**



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Near-miss Nirvana And The Karmic Cabby

by Sarinbhari Singh

I was being beside myself with most excellent palpitations. It was my first day as a New York cab driver, and I was to be picking up my first fare at Kennedy Airport. It was wonderful! I was playing the horn like it was a tabla, my regular percussion beat so much more pleasing to the ear than the dissonant bleats and honks of my brother hackets. I cut off two other cabs and squeezed between two airport buses in order to change lanes. I was feeling like King of the Cabbies, I am telling you.

That is what I was feeling when I picked up this very strange man who played computer games for a living. I asked him if there were games where one could be playing the driver of a New York cab and book more fares than the other cabbies. He said, "No! You don't even do that in *Hellcab*." He did tell me that he had hoped for a game based on *Kingmaker*, some Avalon Hill boardgame where supposedly grown men gather around a map of England and pretend to be nobles during the War of the Roses. I asked him if I could play it on my new computer and he said, "No! The European designers of the boardgame sold the software rights to U.S. Gold. So, Avalon Hill isn't going to do a U.S. version of *Computer Kingmaker* until those European software rights expire."

My fare seemed most personally disappointed, so I tried to take his mind off it by rixing our lives more than four times before we got to the Queensborough Bridge. There, the traffic was slower than a mystic can attain oneness with the divine. Some guy in a cab next to us motioned for my fare to roll down his window and, since I did not have time to warn him, he did. With blessings all around, the other passenger told my fare that the stop and go traffic across the river reminded him of MicroProse's upcoming cartridge game, *Across The Rhine*.

It is supposed to be a World War II game for dedicated game systems with the depth of Sega Japan's advanced strategy game. The latter, in spite of its tactical excellence, was never released in the U.S. because one gamer essentially played Hitler. Anyway, the gentleman in the other cab was telling us that it had inspired the MicroProse game in terms of interface and playability, and that Arnold Hendricks was designing the product.

I asked my fare to roll up his window because there are so many strange people in New York. I also pointed out that there was going to be a full moon that night and hoped that he would be most careful. "Under A Killing Moon, eh?" he responded. Then, he filled me in on the most fascinating news that Margot Kidder of *Superman* fame (Oh, to be hoping I pick her up in my cab some day!) and Brian Keith of Disney movie and television fame were going to appear in Access' latest Tex Murphy game. I asked what game that would be and he said that strange phrase about *Under A Killing Moon*, again.

I reminded him to be rolling up his window and most fortuitously, he did. Although I overheard him saying something about the fact that everyone is wanting to do Windows these days." He asked me if I had heard of *Twin Dolphin Games*. I hadn't. He said that when their *Forgotten Cattle 3-D* first-person perspective game came out that everyone would know their name, but he thought they might even make more money with their *Windows* games.

I cut through a blinding maze of side-streets and he said it reminded him of one of those *Windows* games he was speaking of, *Nano-Tank*. This game has a hundred different mazes and is supposed to be something like *The Incredible Machine* on a circuit board. The

gamer has to figure out how to put the circuit back together with a little on-screen tank.

We had a near miss as we headed for 57th Street and he said, "I wasn't planning to tell you about *Winball*, *Twin Dolphins*' pinball game, but as long as we're driving bumper to bumper, I might as well let you know that they have a cute one coming out with six different pinball games."

When we ended up stalled in traffic due to sewer repairs on 57th Street, I told my fare that I was more concerned about getting my hands on that *Sinclair's Guns* shooting gallery game. It features six different theme settings and I was hoping that one of them was New York traffic. My fare didn't think it was available, but I told him to tell the developers.

Then I earned my stripes as a New York cabby by making an obscene gesture and calling a tourist the effluents by-product of a goat. I told my fare that I wished these cabs came equipped with anti-automobile weapons. He laughed and said that I would be better off seeking my fortune with a computer game where I could be my own boss and actually blow away the competition. "You are speaking of a Godfather game?" I suggested.

Actually, he explained that he was speaking of *Project Nomad*, a publishing partnership between Papyrus Design Group and GameTek. The game is sort of a *Starflight* meets *Space Rogue* where would-be interstellar traders build up funds by trading, improve their diplomatic skills by interacting with some fascinating aliens, and literally blowing away the competition in a simulation with 3-D polygon-filled graphics.

As I sat there in the traffic, in the stifling humidity of an East Coast heat wave, I wished I had that option. **CSW**



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Are These Guys Worthy?

Our Reviewer Hangs Out With Capstone's Wayne's World

by Gordon Goble

This reviewer has renounced the teachings of the Esteemed One...er, Wayne...and is now following a path that travels the straight and narrow. The following critical assessment of Capstone's Wayne's World will make no use of Illinois teenage slang, nonsensical expressions, nor any colloquialisms based on a "rock and roll" music doctrine.

In 1992, the cinematic release of *Wayne's World* capitalized on the popularity of a *Saturday Night Live* sketch of the same name. Two somewhat moronic and disheveled teenagers, brains addled by a touch too much "partying" and numbed with copious, car-splitting doses of the popular music of their generation, set out to regain creative control of their television program from commercial interests.

In 1993, the computerized release of *Wayne's World* attempts to capitalize on the notoriety of said movie, and no one really knows where this sort of reversed domino effect will stop. That this pair of slothful ne'er-do-wells could ever achieve such godlike status signals that something has gone horribly wrong with our society. That said, on with the review.

Having salvaged their television program



during the course of the *Wayne's World* movie, it is now the very existence of Community Access Television (in Aurora, Illinois, anyway) that rests upon the shoulders of Wayne and Garth in the Capstone's *Wayne's World*. Speaking of shoulders, did you notice the chestnut region on Madonna during her latest video? She is truly an epitomization of bawdiness. Hey! Someone cut that last remark—that is the old me...perhaps my therapy has not been 100% successful.

In an effort to reduce spending, the mayor of Aurora has announced that unless \$50,000

can be raised within the next 72 hours, C.A.T. is finished, and *Wayne's World* along with it. To make matters worse (or better, depending upon one's viewpoint), there also seems to be some form of evil influence threatening to censor or cancel the broadcast of *Wayne's World*. With cancellation and airwave oblivion looming ominously on the horizon, Wayne and Garth (*SHWIIIING!*, ignore that) must over their appropriate course of action.

The misdirected minds of this dynamic duo eventually hatch a plan to stage an offshoot of a telethon, a Pizzathon, wherein viewers pledge their money to the cause and receive a pizza or two for their donations. In typical Wayne and Garth fashion, this is a great idea in theory, but stands very little chance of practical application. Neither Wayne or Garth have \$50,000 worth of pizza ingredients on hand, nor a tote board, decent entertainment, volunteers, an advertising budget, or the necessary video equipment to stage such a monumental event. However, if they are able to enlist the assistance of a dedicated game player, the race to save Community Access Television and *Wayne's World* is on.

The *Wayne's World* interface features the typical adventure game side-view of the immediate surroundings (usually a single room although sometimes a tight outdoor shot), and both Wayne and Garth move about as they obey their various commands, inspecting objects, picking objects up, giving objects to others, pulling and pushing things, and verbally interacting with themselves (*Party on, Garth...Party on Wayne!*) and others. A row of icons resides at the bottom of the screen, graphically displaying these commands, and across the top of the screen appear visual representations of objects currently in possession. Pointing and clicking is the method of choice in *Wayne's World* and the keyboard rarely enters into play.

The "world" of *Wayne's World* is confined to Aurora, IL, and transportation from one location to another is accomplished through Wayne's vehicle, henceforth known as the infamous

head-banging Mirtlmobile. A full-screen city map appears when a specific area has been exited, allowing access to new locations. A musical score is present throughout, and it is delightful indeed...NOT! Perhaps a little digital sampling of Acrosmith or Alice Cooper would have been more suited, considering the tenuous tastes of these two.

Some specific chores that must be completed in order for Wayne and Garth to hold their Pizzathon include: securing Cassandra



(*Wayne's babe-alicious girlfriend*) a release from her contract with the snooty Eugene of Eugene's Video Emporium so she may entertain the viewers; talking or bribing restaurateur Pepe Roni into lending the use of his pizza making equipment; acquiring a large chunk of TV time, etc. These are not life or death situations, *Wayne's World* is not a battle to save mankind, yet the intrinsic humor and light-hearted conversations of the program make it, like, real fun.

Conversation is a valued art in *Wayne's World* (though language is given a real beating), and a multitude of problems can be solved by speaking to the right person at the right moment, including dialogue between Wayne and Garth themselves. At other times, though, Garth may say to Wayne, "How many marshmallows can you stuff up your nose?", or "Don't you think eventually we should change clothes?", or "I dreamed about

Wayne's World



TITLE
PRICE
REQUIREMENTS
PROJECTION
DESIGNER
PUBLISHER

Wayne's World
\$49.95
285 or better, VGA graphics, GAMB hard drive space, supports AdLib, Sound Blaster, and Roland LAPC-1 sound cards
None
Kelsey Simpson, Brent Smith
Capstone
7200 Corporate Center Drive, Suite 503
Moorpark, IL 331-26
(815) 591-5300

Madonna last night," to which Wayne responds, "You dream about Madonna every night." Like the *Wayne's World* sketch, the game never takes itself too seriously, and fans will find that the same level of humor pervades.

The game is not overly difficult. Uncharacteristic of this genre, issuing the wrong command will never result in disaster—one is simply not allowed to do it. The smacking sound of one's head against computer table will rarely be heard with *Wayne's World*, as nothing will be completely unraveled by a wrong move. Combine this with a limited amount of destinations and witty bantering, and *Wayne's World* becomes an obvious choice for the neophyte adventure gamer.

This is not to say however, that it's all, like, a piece of cake. More often than once, an apparently insignificant item barely discernible on the screen will be important to have. To make matters worse, combinations of nondescript items may be used in harmony in particular locations to provide incredibly profitable results. Also, the timing of arrival at a given destination may be paramount; exploring the local public television station at one moment will provide little but locked doors, yet later may result in a guest shot on a game show. In this way, the game has many of the typical adventure game frustrations. On the other hand, it has many unexpected



"perks" embedded throughout, like Garth's shocking "tongue tick" (sorry, no further explanation on this one!) and the appearance of the one and only "Gilligan" (that's right, the mate who was a mighty sailing man).

Game instruction is, to say the least, minimal, and one will discover the ins and outs of *Wayne's World* only through extensive experimentation. In these days of *War and Peace*-sized game manuals, it is refreshing indeed to see one that isn't. Yet, Capstone may have taken things a little too far with the *Wayne's World* manual, a lean offering that won't take more than five minutes to browse from beginning to end. Although this really bestows upon one a pioneering spirit, a pinch more detail and guidance would have been a welcome addition.

Movement though Wayne's Aurora-based world is expeditious thanks to the *ray cool* interfaces and solid programming. My copy

only once required the three-finger salute (CTRL-ALT-DEL), and getting both in and out of the program takes a matter of seconds, especially since *Wayne's World* sports no copy protection. Saving a game takes all of a millisecond, although some annoying delays will occur during conversations. Perhaps too much time has been allotted for the *Wayne's World* game player to real aloud each word on the screen. Perhaps Capstone believes that prospective users will more often than not be Garth clones. Perhaps Capstone believes we're all not worthy! Are they mental? Are we mental? Do monkeys fly out my butt on a nightly basis?

That's it...I've lost it!! *Wayne's World* is the greatest thing since MADONNA DROPPED HER TOP...not!! yes it is!! no it isn!! atuuuu!!! SHWHIING!! SHWHIING!! SHWHI-IIIHIIIING!!

So much for therapy.

Wayne's World, like, fun, man. It's here for a good time, not a long time, so experienced adventuring dudes and babes may want to look for something a little more enduring. Newcomers attracted to the game for its subject matter will find good humor, unexpected twists, and an odd setting, separating it from other efforts in this genre in these respects, while being rather typical in all others. **CGW**

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-Mike Douglas, *Anteek game player*

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Probe On The Run



Iron Helix Makes A Mad Dash For The CD State-Of-The-Art

by Maxwell Eden

Although Spectrum HoloByte's first CD-ROM release, *Iron Helix*, is the product of creative presentation more than originality, it is not another case of substance sacrificed for style. Drew Productions has pulled off a fine CD (coup d'état) by making the most of the CD-ROM's limitations and putting dramatic shortcomings to work for them, proving once again that good design still means less is more.

Inside Intricate

Sure, the science fiction story is secondary to the arcade action of the game, but it's worth a brief look behind the scenes at how the talented design team approached this project.

First, start by botrowing from some well-worn movie scripts. Reword these successful formulas and contrive a tension-driven game where the absence of characters becomes part of the story. Since the crew is dead, there's no



need for annoying load times and delays associated with complicated, character intensive games. To offset the lack of characterization, video logs of crew members provide a semblance of personal interaction.

Next, develop motion-picture quality graphics and animations to create a superb cinematic gameplay environment, reminiscent of such films as *Star Wars* and *Alien* where hardware and spacechips showed signs of "realistic" wear and tear. Then, lay out an unpretentious, yet believable, control interface that responds incredibly fast considering the existing limitations of CD-ROM technology.

And that's all there is to it.

The Scenario

Late in the 24th Century, a cold-war exists between Earth and an alien race called the Thanatosians. So, what else is new?

The game is lean and mean with no meandering subplots to get in the way of a 90-minute dash to avert an intergalactic war. Because there is no "click-and-wait," load times or other on-screen interrupts, the CD playback medium is all but transparent, creating the illusion of gameplay in real time.

Evoking anticipation and anxiety, *Iron Helix* immediately propels players into a nerve-racking drama. The addictive pace begins with the runaway, tenegade SS Jeremiah Obrian, an enormous starship destroyer carrying a secret doomsday weapon—code name: Iron Helix. The weapon is a virus that mutates the DNA of an organism and attacks the immune system, killing its host in the process.

During a wargame simulation, the Obrian's computer goes berserk and takes control of the dreadnought. The ship's computer isn't fooling around; it has targeted a peaceful Earth-like Thanatosian planet where it will drop its horrible payload, annihilating the inhabitants and igniting a galactic war.

Fortunately, for the purposes of entertainment, Murphy's Law still haunts the universe centuries from now. Not only has the computer failed to recognize the difference between a simulation and a real attack, but the dreadful virus has somehow escaped. The crew has become infected and their DNA has begun mutating.

Since the virus alters the unique DNA signature of an individual, the computer refused to acknowledge the crew's altered DNA-based recognition system. As a result, all hands, including the Captain, were unable to access the computer and override the attack plan.

If death doesn't come from the virus first, the

ship's computer has deployed a well-armed Defender Robot sentry to eradicate the crew, now perceived as a threat to the computer-controlled mission.

Distress Beacon

Who should receive the Captain's emergency video log, but you—the player—a scientist aboard an unarmed spaceship doing biological research. On board is the Darwin 5 Scientific Observer Probe, a weaponless zoological craft used to study alien life forms, including their DNA structure.



As both fate and the game's developers would have it, the player just might have a way of beating the odds. Interestingly, the Defender Robot and the Darwin Probe are machines that are opposites in purpose, yet cleverly and unequally matched: One built to destroy, the other to discover new life forms. Players must get into the cat 'n' mouse mind set of the game and outwit rather than outfight the Defender Robot.

Iron Helix

TITLE: Iron Helix
PRICE: \$39.95
SYSTEM REQUIREMENTS:

Iron Helix
\$39.95
Macintosh with CD-ROM
Macintosh Color Classic or better, 6MB RAM
(8MB recommended), CD-ROM drive
(30 I/O bytes transfer rate or better), color monitor with 256-color (8-bit) graphics capability,
750K hard drive space, System 6.07 (with 32 bit Quickdraw or System 7), incompatible with
NEC CD-R 25 CD-ROMA drive

PRODUCTION: Drew Productions, Inc.
DISTRIBUTOR: Spectrum HoloByte, Inc.
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— STRATEGY PLUS MAGAZINE



Screens shown: 640 x 480 256-color SVGA resolution.

IBM PC/Compatible: Available October 1993

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Sound by Martin Warner. Produced by Jim Tapp.
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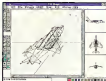
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IBM PC/Compatible. Available November 1989.

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Probe Able Cause

Once one accepts the mission, a feisty female Admiral explains, via video transmission, what action must be taken to stop the biological holocaust. The player must then complete four separate phases of gameplay: collect DNA, locate video clues, eliminate the Defender Robot and destroy the Obrian.

Via remote control, the player pilots the unmanned Defender Probe through the vast destroyer's eerie corridors, chambers and ladder chutes. One must steer the Probe in a deck by deck search for DNA samples that provide access to the video logs left behind by the dead crew. The video messages contain the clues needed to stop the Defender Robot and destroy the Obrian.

Searching for the proper clues necessary to advance to the next stage of the game is just the beginning. The player's Probe must constantly elude the ship's deadly Defender Robot sentry who relentlessly stalks the Darwin. If a Probe is destroyed, players have two more Probes, and thus two more chances, to win within the allotted time.

Student Driver

After a movie-like animation sequence of the Probe entering the Obrian's shuttle bay, the screen presents the player with Darwin's well-worn Control User Interface, a panel that's uncluttered, easy-to-learn, and functional in its simplicity.



Clicking on the navigation arrows or using the keyboard, the player moves the Probe in the desired direction, including up and down. A few mouse clicks are necessary now and then to access various controls and functions, as well as to activate the Probe's Robotic Arm for interfacing with the ship's computer terminals.

Contributing to the claustrophobic feel of the game, the control panel features three small screens: two video feedback monitors and a Map Display Screen, which offers various schematic views of the ship, including a 3D orthographic mode that locates the Defender's position in relation to the Probe's.

Staying alive means tracking the Defender's movements at all times. A Jam Signal Button is available for the most dire of situations; at close range, pressing this button will tempo-



rarily disorient the Defender. Though it does use a lot of precious energy, it's the only option when the Probe gets backed into a dead-end.

The clock is running and the Defender never stops hunting. The Probe can take elevators, fly up and down ladder chutes, and move through corridors of the six-story Obrian. One can check out the Science Lab and a lavatory for sights easily overlooked, and access the crew roster from one of the terminals. (Hint: There's a safety zone in Engineering where the Defender can't find the Probe.)

Briefing

Don't skip the well-written, meticulously slim manual that provides hard copy of the storyline, background information and nuances that make the game more enjoyable. The documentation also includes tips with a warning to players that further reading will reduce the challenge of figuring out the game on their own. Purists can struggle with this double-edged offering for themselves.

With five skill levels of increasing difficulty, the game offers excellent replay value. The scenarios don't just get harder; each skill level is another game, where all clues, videos and solutions are different with no discernible pattern. In the higher levels, the Defender is smarter and clues are harder to find. Players should use skill level one to familiarize themselves with the *Iron Helix* environment before moving on to serious tactics and gameplay.

Pumping Iron Helix

Iron Helix has much in common with the film *Blade Runner*. In both productions, futuristic set design and atmosphere dominate instead of characterization. Since the game's principle players, the Destroyer, the Defender



and the Probe, are all non-human, the scenario upon which the game is played becomes the star.

Iron Helix uses first-rate, realistic details to develop its neo-gothic, surrealistic world. The player sees Hollywood-standard cinematic sequences when the Defender Robot is defeated; the Probe uses a search light in darkened areas of the ship; the Probe's on-board computer randomly malfunctions, requiring a reboot to get the system on-line again; the Thanatosians come to life through the sounds of the opening sequence; and fine actors portray the crew members in the video logs.



Since the game relies heavily on believable sound effects and its metallic, techno-beat score to boost the mood of the savvy space opera, you shouldn't play the game without external stereo speakers.

On Probe-Action

There's one notable hiccup that the designers should be razzed for: When the player's time runs out, an animation sequence shows the Obrian deploying the deadly *Iron Helix*...and the Thanatosian planet exploding.

That's one hell of a virus!

This is a minor lapse in logic in an otherwise tightly-constructed script. The designers have rectified and enhanced this shortcoming for the upcoming PC release.

Video Log Summary

How well a computer-generated game draws the player into its artificially-induced reality is the final litmus test for a game of this type. *Iron Helix* racks up the kills here. The full-color, photo-realistic world and the seamless CD technology provide top-notch suspension of disbelief and an intensely satisfying experience. Any player carrying even a recessive gene for susceptibility to puzzles and fast-paced action will enjoy this cinematically superb game.

Note: Players should make sure they have the most recent release of their CD drivers. Also, players with color video display interface cards and a monitor capable of changing the display's resolution, such as an NEC Multisync FG monitor, should change the screen to 640 X 480 (53 DPI) mode for a larger viewing area of the Probe's control panel. **EW**

You stumbled back to your office after a long day of detective work. But before you can get cozy with a whiskey bottle, there's a message waiting on the phone machine.

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with 640K RAM;
hard disk with min.

8 megabytes of available space required, mouse recommended. Graphics compatible with EGA, MCGA and VGA (VGA highly recommended).

Sound support: Sound Blaster Pro, AdLib Gold

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The Russian Revolution

Spectrum HoloByte's *Mig-29* Rips Through The Iron Curtain

by Tom "KC" Basham

Climbing into the cockpit of a MiG-29 and locking onto a US fighter might feel strange the first time. The red stars no longer represent your mortal enemy, but your wingmen. The familiar F-16 is now your dreaded nemesis, and the technologically advanced US arsenal now focuses on destroying, rather than protecting, you. Yes, comrades, modern air combat is a whole 'nother can of borcht in Spectrum HoloByte's *MiG-29*, an add-on program for *Falcon 3.0*.

Behind The Iron Curtain

In *MiG-29*, the player lives the life of a Russian pilot in the Frontovaya Aviatsiya (Frontal Aviation), the tactical combat branch of the Voenno Vozdushnyye Sily,



the Soviet air force. The Soviet Union of old is gone, but somebody still has to keep those pesky Americans from nosing around in everybody's business.

The MiG-29 is a completely different machine from the F-16. In some ways, the MiG is clearly superior to the F-16, but falls short of the mark in other categories. Spectrum

HoloByte, with very little information available to them, have attempted to model both the strengths and shortcomings of the MiG-29.

To begin with, the MiG-29 lags far behind the F-16 in terms of avionics. The cockpit is littered with analog dials and small indicator lights. Though it bears little in common with photos of the actual cockpit, the overall "feel" of the analog cockpit is maintained. A combat pilot from World War II would probably feel much more at home sitting in a MiG-29 than an F-16. The HUD displays basic flight information, but is less informative than the F-16's HUD, especially when displaying information about locked targets. Since little public information on MiG avionics is available, *MiG-29*'s Radar Display is loosely patterned after the radar electro-optical display (REC) used in *Falcon*, but like the HUD, displays less information than its *Falcon* counterpart.

All is not archaic in the MiG-29 cockpit. Two features set the Russian aircraft far ahead of many of its opponents: the helmet mounted sight (HMS) and the Infra-Red Search and Track (IRST) system. The helmet mounted sight is exactly what the name suggests—a monocular mounted on the pilot's helmet that provides valuable targeting information when looking away from the HUD. Visible only in the padlock mode, the cir-

cular monocular overlays the target in the lower 3D window. Symbology is displayed within the monocular indicating the targeting and weapons status. The monocular can be used to acquire an off-boresight lock-on, meaning the target aircraft is not directly in front of the attacking aircraft, but on-board weapons are still tracking it. This allows the pilot to employ missiles against the target more reliably without switching out of padlock mode.

The HMS does have a few glitches. Although generally reliable, switching from padlock to forward view or vice versa usually results in the lock being momentarily broken. This can be annoying, especially when switching into padlock mode. Also, although missiles can be aimed by this off-boresight mode, they still suffer from poor hit rates unless fired from very low aspect angles.

The IRST makes the MiG-29 a silent, but deadly foe. The IRST works by tracking heat emissions from target aircraft instead of by radar. Since the IRST only monitors heat from the target and never emits any signals of its own, it is completely undetectable by radar

MiG-29: Deadly Adversary of Falcon



TITLE: MiG-29: Deadly Adversary of Falcon 3.0
PRICE: \$39.95
SYSTEM: IBM
REQUIREMENTS: 286-12, 1MB RAM, VGA graphics,
Falcon 3.0
PUBLISHER: Spectrum HoloByte
Alameda, CA
1000 095-GAME



warning receivers. A MiG-29 could have an IRST lock on an F-16, and the F-16's TWS will be dead silent. Only after a missile is fired and the launch warning sounds will the target know he has been stalked. Both radar-guided and heat-seeking missiles can be targeted using the IRST.

The IRST, which is limited to only a 10nm range, places the MiG's radar (code-named "Slot Back" by NATO) into standby mode. If the locked target moves out of IRST range or passes behind a cloud (which blocks the target's heat signature), the IRST will automatically activate the radar to maintain the lock. Although this can betray the MiG to its prey, it protects the attacker from losing a lock at some critical moment just before a weapon is launched.

The IRST does have a minor glitch, but it doesn't really affect play. As a result of the internal mechanism used to determine if a target is locked or not, sometimes targets at greater than 10nm ranges will briefly be locked on by the IRST when switching from standard radar scanning mode to IRST mode. These phantom locks last less than 1 second and provide no significant advantage to the MiG-29 player. This has led to some concerns that the IRST was supposed to work at longer ranges, but is broken. This is not the case.

Yeah, But Will It Fly?

The MiG-29 is an old-fashioned, stick-and-udder, thinkin' man's aircraft. Unlike the fly-by-wire F-16, in which a computer monitors the pilot's stick movements and thereby adjusts the control surfaces to steer the aircraft, the MiG-29 uses plain old hydraulics to link the control stick and rudders to the control surfaces. The F-16's flight computer is designed to monitor the pilot's commands and "keep him out of trouble" by ignoring or limiting "unreasonable" commands. The F-16 is limited to 9 Gs in this manner, and the controls automatically trim the aircraft to provide a smooth ride. Not so in the MiG-29.

As airspeed increases, so does the lift produced by the wing, causing the aircraft to naturally climb. As the aircraft climbs, the speed decays, lift reduces, and the nose drops. When the nose drops, airspeed and lift again increase, perpetuating the cycle. Trimming is used to make very small adjustments to the flight control surfaces to prevent this effect. At low speeds, the nose is trimmed up, to

counter the reduced lift. At high speeds, the nose is trimmed down to counter the increased lift. The F-16's flight computer handles this automatically, but the MiG-29 requires manual trimming. Trim settings are valid only for a single airspeed and flight profile. If the aircraft accelerates or decelerates, the trim must be reset to provide stable flight. MiG-29 allows for both pitch and yaw trimming.

Trimming the Realistic flight model has turned out to be one of the biggest complaints with the MiG-29 flight model. Although the actual impact of trimming may be reasonably modeled in MiG-29, sufficient trim controls are not. The trim controls are very sensitive, and the aircraft's trim requirements are a little over-done. The simpler flight models do auto-trim the aircraft to ease the flight difficulty, but the Difficult and Realistic flight models require constant trim adjustments. The trim keys make extremely fine corrections and are usually too slow to counter "nose boencing."

The MiG is far from unflyable, though. It does require a steady hand and a lot of thinking, but with a good joystick it is quite possible to adequately control the MiG. The secret is in two additional trim controls which are documented only in the MGREADME.TXT



file, not in the manual. The "T" key on the keypad immediately releases trim settings to neutral positions and the "S" key immediately locks the trim settings to the current joystick position. This allows users to set the trim instantly no matter where the stick is. Spectrum HoloByte recommends only using the keypad "S" to set the trim, but I found it works better to first release the trim with the keypad "T," move the stick to the desired flight position, and finally lock the trim at that position using the keypad "S."

This method has a few hazards one needs to be aware of. Be sure not to press the keypad "S" unless the nose of the aircraft is exactly where you want it. If you are diving, but want to fly straight and level, you must first pull the nose up. If you lock the trim as soon as the nose hits level, the aircraft will actually still be climbing and the trim will be set to continue that climb. It is necessary to allow the aircraft to stabilize in level flight before locking the trim. Also, if the trim is locked in extreme positions to counter very high or very low speeds, this effectively limits the available travel of the control stick and possibly limits



the amount of G available for maneuvering. If you have an airspeed of over 400kts, but are unable to pull more than five or six Gs, you probably need to release and reset the trim controls.

"G" Whiz

Another effect of the manual flight linkages is that there's no computer preventing you from over stressing the airframe. The amount of G that can be instantaneously generated by an aircraft is based on how much lift the wings can generate at a certain speed. But, with lift comes drag, and drag reduces speed. Reduced speed reduces lift. Therefore, pulling maximum G will cause airspeed to drop and reduce the amount of G the aircraft can sustain. At operational speeds, many aircraft, including the MiG-29, can instantaneously generate more G than the airframe can withstand. In the case of the MiG-29, at 500 - 600kts, a quick yank on the stick can generate 13 to 14G before the pilot can even blink.

The aircraft modeled in MiG-29 can withstand a respectable 13G. Pulling more than 13G, even for a few milliseconds, will damage the aircraft! At speeds of 700 to 800kts, a quick pull of the stick can generate as much as 18G and instantly disintegrate your aircraft. As with countering the manual trim effects, the "unlimited" G capability requires a very steady hand on the control stick.

MiG-29 does a reasonable job of modeling the complex flight dynamics of the real MiG-29. For example, the Spectrum HoloByte MiG-29 retains good control at speeds as slow as 100kts (a definite plus in a dogfight), and also handles high-alpha flight. Spectrum's MiG is capable of spins, tail slides, and even a reasonable approximation of Pugachev's

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Cobra. Under some circumstances (which were not readily quantifiable), the MiG-29 would enter a flat spin. Normally this rare event would happen only after being hit by a missile, but at least once I managed to enter a flat spin simply by wildly moving the joystick during high-alpha flight.

Reach Out And Splash Someone

In addition to the new MiG-29 stuff, the package also updates *Falcon 3.0* to version 3.02. In this new version, the communications programming has been completely rewritten to give players even more opportunities to blast their simulated friends



out of the simulated sky. Connections generally take less time to establish with improved stability during play. Warping (where the target aircraft seems to rapidly shift positions) still occurs at slower speeds (2400 baud), but this is a limitation of slower data transfer speeds and not a reflection on the program. At 9600 baud, warping is barely noticeable. Due to the rewrite, comms mode is not backwards compatible with older versions of *Falcon*. *Falcon 3.02* can only connect to *Falcon 3.02* or *MiG-29 1.00* players.

Players can mix and match comms play. In simple head-to-head mode, players can match F-16 against F-16, F-16 against MiG-29, and MiG-29 against MiG-29. Users should be aware that during F-16 versus MiG-29 matches, the F-16 player must be on the calling system and the MiG-29 player must be on the answering system. In allied play, players can fly as wingmen on either side of each theater. Network play is the champion of them all, though. Network players can engage in a multi-battler, head-to-head furball with multiple MiG-29s and F-16s screaming across the pixels. Better yet, networked allied play allows two teams to play a concurrent campaign against each other! Local *Falcon* groups have reported three F-16 versus three MiG-29 campaigns.

There is one downside to the new comms mode: modem play is only supported up to 9600 baud. Higher throughput standards V.32bis, V.42 and V.42bis are not supported. This was not an oversight, but a design decision by Spectrum HolyByte. Spectrum developers stated during a recent CompuServe conference that these protocols were not included because the design team was reluctant to introduce them until a more robust com-

The Tools Of The Falconer

Keyboard Commander Corps' Falcon/Mig Utilities

With a program as big and as complex as *Falcon 3.0* sitting on the hard drives of hackers around the world, it was inevitable that it be dissected bit-by-bit. It started with enthusiastic players taking stabs at fixing bugs, passed through a massive shareware stage, and finally hit the commercial arena. Keyboard Commander Corps (KCC), the makers of keyboard overlays for many flight simulators, has begun marketing a set of *Falcon* utilities designed to enhance gameplay and offer solutions to campaign-blocking problems.

A large number of freeware and shareware tools have been written to fix, hack, edit and decode *Falcon*. Most of the utilities provided from KCC trace their roots back to freeware or shareware origins, but it should be stated that all products listed in this review are now fully commercial programs. The KCC products are not available from BBS systems, and it is illegal to copy and distribute them without licensing from KCC. This review only

addresses the commercial KCC products, not the many other shareware and freeware programs available.

Since every version of *Falcon* has required a rewrite of nearly every user-made tool, KCC offers two separate packages: *Falcon Commander Utilities* for use with *Operation: Fighting Tiger* (*Falcon 3.01* and 5.01.1), and *MiG Commander Utilities* for use with *MiG-29: Deadly Adversary* (*Falcon 3.02* and *MiG-29 1.00*).

Both *Falcon Commander Utilities* (PCU) and *MiG Commander Utilities* (MCU) include the same five utilities, the only difference being version compatibility. All five tools use a simple, mouse-driven interface, and each have documentation files. Most of the individual authors, as well as the "Commanding Officers" of KCC can be reached via CompuServe for support.

F3MAPS

F3maps does many different things. First, as the name suggests, it lets the user change the default map used for Instant Action and Red Flag modes. Want to sightsee in Japan? Just switch the Red Flag map from Nellis to Kurile Islands and roam around freely. Second, it allows cus-

tomization of *Falcon* options. Want to disable the view shifting when the ILS is activated? Want to remove unused data from the HUD? *F3maps* takes the user's choices and permanently stores them. Third, *F3maps* allows customization of Red Flag armaments and automatic generation of random Red Flag missions. Want to equip a C-130 with Sidewinders and watch it take down a few unwitting MiG-29 *F3maps* allows this in Red Flag mode (but not in actual campaigns). Want to fly a surprise mission? *F3maps* will generate some doozies based on input criteria such as how many aircraft on each side, how many ground forces, etc. Lastly, it has a "remove all patches" option which will remove all changes and restore the *FALCON3.EXE* and *MIG29.EXE* files to their original, default configuration.

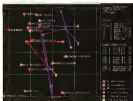
F3REQ

F3req is a squadron and campaign management tool. Similar in design to the shareware program *Falcon*, this new utility adds a few new twists for those who feel editing their squadrons is cheating.

F3req has two basic functions. As a squadron editor, it allows users to change every attribute associated with a pilot: name, rank, callsign, flying skills and even the number of sorties flown! Awards and promo-

tions can be given to pilots who distinguish themselves but are overlooked by *Falcon*, and rank can be busted from pilots who *Falcon* unjustly awards. Fatigue levels for every pilot in the selected squadron can be set to 100% with one keypress, which is great when the user wants to start a new campaign using an existing squadron. Dead pilots can be revived and missing pilots found. Best yet, users can print a list of their pilots showing their callsigns and abilities, saving time when trying to determine which pilots to send on a particular mission. As a campaign editor, *F3req* allows users to edit resupply dates, edit pilot replenishment rates, and edit the stockpiles of all weapons available in the campaign. Need a few more AM-RAAMs? A quick trip to *F3req* will do the job.

F3req allows users two modes of operations, cheat and simulation. In cheat mode, users may freely edit rosters and



An alternate view of the Red Flag map via F3MAPS.

I hope there will be a sequel...I will gladly buy it either this one!

— Computer Game Review

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munications package could be provided. Hopefully, high-speed transmission will be included in Spectrum's next generation products. As with previous versions, direct connections still support baud rates up to 57,600.

So What's The Downside?

Not everything is fixed or fully operational in version 3.02 of *Falcon*. Although *MiG-29* itself is very stable and relatively bug free, very few of the previous *Falcon* bugs have been fixed. Users should not be expecting a total re-write of *Falcon* (except for the comms code) in *MiG-29*. Wingmen may still fly into the ground, bandits still are created at random positions, and the padlock view still distorts the view angle through the HUD. *MiG-29* doesn't introduce new bugs, but it doesn't solve all of *Falcon*'s problems, either.

The most annoying aspect of *MiG-29* is the new redout/blackout model. Coming in four varieties (No Effect, Moderate, Difficult and Realistic), the new scheme, which is retrofitted to *Falcon* as well, tries to model several effects: rate of G onset, blackout and recovery. Unfortunately, the "more realistic" settings present the least realistic effects. At the hardest setting, the program makes no distinction between blacking out and GLOC (actually losing consciousness after losing all vision). Once GLOC has set in, it lasts for a minimum of 30 seconds according to Spectrum programmers. During this period, all flight controls are disabled. After that, depending on various flight conditions, the GLOC may continue or the pilot may enter a 30 second recovery period. During this recovery, any subsequent G loading, even as little as 1.5G, can cause total vision loss or more GLOC. Needless to say, once a pilot has entered GLOC under the Realistic setting, he's more likely to take a missile up the tailpipe than to recover.

This effect contradicts what numerous combat pilots have told me, as well as my personal experiences with G forces. Tolerance to Gs builds with exposure to Gs and anyone flying high-performance combat aircraft as a profession would have better recovery than this. Fortunately, Spectrum *HoloByte* has not imposed this scheme on players by giving three additional blackout models to choose from. Based on my personal flight experiences, I found the Moderate setting to be the most suitable.

The Wrap Up

MiG-29 is not a bug-fix patch. It doesn't increase the resolution of the graphics or speed gameplay on slower machines. What it does is provide a new set of challenges designed to broaden *Falcon*'s appeal. Flying the MiG takes a lot more skill and intervention than flying the F-16, but once mastered it really is a "deadly adversary." **CSW**

campaigns to their heart's desire. In simulation mode, however, things aren't so easy. Without *F3log*, users are at the mercy of the whims of high-level officers inside *Falcon* who run the war and distribute supplies. With *F3log* in simulation mode, the

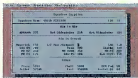
user is still at the mercy of those whims, but has a few contexts in the chain of command that owe a few favors. MIA pilots cannot be automatically restored to higher status in simulation mode, but a special SAR mission can be launched to search for the pilot. The odds are good, but not perfect, that the missing pilot will be found. Need a few more AMIRAMS? Fill out a requisition and go visit your old pal, the Stores Officer. How big is the request? Only a couple of missiles? Sure, no problem. What's that? You want 500 missiles? Don't let the door hit you on the way out. Maybe the Stores Officer remembers the 300 missiles he diverted your way last week and decides enough is enough. In simulation mode, the user has to be careful and not waste the limited number of favors available. Luckily, users can switch back to cheat mode at anytime.

FALCALC

Falcalk is a friend in the INTEL office. During campaigns, this friend knows almost everything about allied operations concurrent with your flights. Also, this friend has access to enemy intel and can provide a lot of information about enemy operations. With *MCU*, users get two separate executable files, *Falcalk* for use with *Falcon*, and *Mfalcalk* for use with *MiG-29*. We'll use *Falcalk* to refer to both programs.

Falcalk, like most tools in these packages, has two purposes. First, it gives detailed analysis of waypoint timing and fuel usage, helping users to choose between a centerline fuel tank or an ECM pod, and adjusting waypoint speeds to ensure all flights arrive on time. Second, it is an amazing source of strategic and tactical information.

In tactical terms, *Falcalk* lists every flight, both allied and enemy, occurring during the upcoming mission. Even the dreaded random-appear-out-of-now-here flights that plague Winchester pilots on the way back to base can't escape *Falcalk*'s attention. In strategic terms, *Falcalk* gives details on every node



With *F3log* you can edit campaign supplies.

in the campaign theater, listing how many and what types of units are stationed there, and which side currently controls it. Do we need a flight of SEAD aircraft to tackle SAMs before the strike package arrives? Check how many SAMs are at that sight according to *Falcalk*. *Falcalk* also lists victory nodes for each side, so users know exactly which nodes must be taken and which nodes must be protected.

SHOWF3

ShowF3 allows users to conveniently view *Falcon* screen captures. Undocumented keystrokes of ALT+ (when in menus), +ALT+ (when in flight), and Z (from the ACMU mode in version 3.01 or later) will capture the screen and dump it to the hard drive in a non-standard format, requiring a proprietary tool from Spectrum *HoloByte* to view. *ShowF3* will not only display these files for you, but will also convert them to standard .GIF or .PCX files. Catch those Kodak moments of flaming MiGs and perfectly pickled bombs!

KCC

KCC is a front-end interface for the DOS-listers out there. Using an open-ended architecture, *KCC* allows users to not only select utilities from the *FCU/MCU* packages, but to also add their own menu items. Like a good front-end program should, *KCC* completely unloads itself from memory before executing called tasks, leaving maximum resources for memory hungry programs like *Falcon*.

In addition to the five utilities listed above, *MCU* and *FCU* come packaged with over 20 Red Flag missions designed by Howard "Whiplash" Bornstein, author of *Falcon 3.0: The Official Combat Strategy Book*. *FCU* contains 28 missions, *MCU* has 30 different missions, both of which are accompanied by a file describing training objectives and tactics.

In summary, these tools are all quite useful. Keep in mind, they are not Spectrum *HoloByte* products and do not have the glamour and glitz of *Falcon* itself. They are all created by avid *Falcon* players using a straightforward design to provide useful features and information. The *FCU* and *MCU* retail for \$19.95 each and can only be purchased directly from Keyboard Commander Corps at 800-262-6066.

CSW



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All Aboard The Role-Playing Terrain!

World Creation Made Easy With DIGITAL Alchemy's Adventure Writer For Windows

by Chuck Miller

Easy Writer

Whether traditional "paper and people" role-players dream in hexes and squares or not, creating game worlds can often be a real nightmare, especially as their complexity increases. With this in mind, DIGITAL Alchemy designed *Adventure Writer For Windows (AWW)*, a map creation utility for non-computerized role-playing games. Thankfully, as a result, the Game Master's life has been greatly simplified.

A World Of Features

AWW allows players to create maps and documentation for adventures using both hex and square maps, providing 32 terrain types. The terrain is nicely varied and includes elements (water, air, earth and fire), indoor terrain (wall, door, stair, pit and trapdoor), outdoor terrain (castle, tower, village, archway, mountain, hill, forest and swamp), outer space (planet, star, asteroid and space station), dressing



(pentagram, body, debris and treasure) and specials (color, text, compass, and encounter). In addition to these built-in terrain types, several add-on terrain packs are available: *Natural Caverns, Medieval Arms & Armor, Possessions & Accessories, Great Outdoors and Ground Forces*. Scheduled for September is a sixth pack, *Cats-combs*.

Other features include a built-in document editor, text captions for hexes and squares, and B&W and color printing. The printing options support 15mm and 25mm scales, and allow one to print the entire 50 x 50 map on a single page. Print quality is good, especially from laser and ink jet printers. *AWW* is also a *Windows* MDI (Multiple Document Interface) compliant program, allowing multiple maps and documents to be open and edited simultaneously.

Map creation with *AWW* is relatively easy. One selects the desired terrain (from the built-in or add-on terrain types) and color (from a palette of 16 pre-defined colors), then "pastes it down" in the target hex or square. One click of the mouse drops the terrain in place; another click removes it—plain and simple. Text support is also provided and allows descriptions of up to 20 characters to be placed in a hex or square, with text size automatically adjusted to fit the available space. Larger blocks of text can be saved as documents through the built-in document editor, though it will not be dynamically linked to any particular location on the map. However, by selecting the Show Number option, the number of each hex and square can be displayed. This can then be associated with the written information in the document file.

Owners of IBM compatible computers should have no problem using *AWW* as long as they meet the minimum requirements (a 286 or better with *Windows 3.0* or greater, 1MB RAM minimum, VGA/EGA graphics, and a mouse). With *Version 1.0* available for almost a year now, no major problems arose during my testing of the program. However, I did detect several weaknesses which are described below. Fortunately, most are being addressed in *Version 1.1*, due to arrive just after the first of the year. *Version 2.0*, scheduled for release at Gen Con 1994, will offer even more significant improvements.

Dirty Windows

As capable as *AWW* is, it still needs a little smoothing of rough edges and a few cosmetic touch-ups. Of course, as a *Windows*-based program, it suffers from the same plight as any other graphic-intensive products—it creeps. Optimal use requires a 386/33 or better system and an accelerated graphics card; otherwise re-painting the screen when accessing the add-on terrain packs, zooming in or out on a map, and scrolling the terrain window can be tediously slow.

Access of add-on terrain packs also needs improvement. Presently, a second window must be opened in order to select

from these terrain types, making it a time-devouring process, especially with the larger packs.

The program could also use additional fonts and improved graphic representations for terrain types (the existing images are, for the most part, a bit crude). Easier color selection is also needed. At present, one must scroll through colors one at a time or select a color from the menu by description. A greater selection of colors and user-defined palettes (in the works), and a wider selection of zoom levels would improve *AWW*, too. Finally, adding the ability to save and output maps to a postscript file, and the ability to create one's own terrain types (scheduled for *Version 1.1*) and to edit existing terrain would increase the usefulness of *AWW*.

Mapping Out The Future

In its current form, *AWW* offers role-players a speedy way to produce their adventure and campaign maps. In spite of its weaknesses, *AWW*'s many tools make it an eminently useful program. With it, adventure and campaign design is easy, even for a novice.

In all, users of *Adventure Writer For Windows* will find their time used more efficiently and the quality of their finished maps much higher. This, in turn, will allow one to devote more time to the creative process itself.

For more information on *Adventure Writer For Windows* (or the DOS version), contact the publisher at:

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GET YOUR BLASTERS DEGREE

At Origin's Esteemed Wing Commander Academy

by Paul C. Schuytema

First, the bottom line on Origin's *Wing Commander Academy*: if you enjoy space combat simulations, you must have this game. Period.

While the game chucks up the standard fare of deficiencies and kudos, it has instantly become a mandatory element in any serious space combat library.

Wing Commander Academy is the third "primary" product in the *Wing Commander* universe created by Origin. In the timeline of their fictional world, in which the humans are continually battling the remarkably renacious Kiltrathi, it occurs after the conclusion of the *Wing Commander II* story line. The game is a simulation of a simulator, a combat simulator, that is. Colonel Jack A. Lombard is now employed as a flight instructor in the *Wing Commander Academy* after being nearly killed when his wingman, Maniac, didn't follow orders. He lost an eye in the battle and, reminiscent of "Jelly" in Heinlein's *Starship Troopers*, he has turned his attention to honing and improving the caliber of the Academy's recruits.

His first observation after coming to the Academy was that the combat simulator was good, but not nearly good enough. It needed to be improved. Putting the Academy's programmers to work, he created an entirely new combat simulator which used holographic projection technology to recreate, vividly and completely, the experience of flying a Tetrax star fighter. He also made the simulator customizable so that new cadets could create missions to test their classroom learning or work out problems and tactics. The Colonel stresses that while the simulator isn't as real as actual combat (you can't hit the pause key in real life), it's as close as it gets.

Wing Commander Academy (Academy) isn't a simulation of the entire training academy, but rather a concise simulation of Colonel Lombard's combat simulator, short and sweet. Working with the simulator, players can generate countless missions, from the retrieval of an ejected pilot

to taking on four Ralatha destroyers after weaving through a mine field.

Academy is a stand-alone game. Possession of the other *Wing Commander (WC)* games is not mandatory, but herein lies one of the faults of the game. While it is a stand-alone product, it relies heavily upon the fiction of the previous two games to set the tone and atmosphere. Just playing *Academy* without previous *WC* experience reduces the game to a dogfighting simulator (albeit an excellent one).



On the other hand, since it is a stand-alone product, it allows players to hone their combat skills before purchasing either *WC* game, and, most importantly, it allows players to enjoy dogfighting without the time commitment of a sweeping adventure game. A saved mission can be ready for play in the time it takes to boot up a computer, and I've found myself taking down a few Kiltrathi with my morning coffee before heading off to my nine-to-five. It gives me that killer edge that truly frightens my co-workers.

Before going into more likes and dislikes, let's discuss the nuts and bolts of the game. First off, the game is incredibly simple to play. The manual is optional since setting up and designing missions is very intuitive. When the game begins, the player is presented with a view of the

"holo room" in which the configuration controls make up the dashboard of the simulator. Clicking on the controls brings up a full-screen of the mission configuration computer. From here the player may load and save missions, create them from scratch, run the "gauntlet," or modify existing missions.

Each mission may have up to four "nav points," or theaters of action. Players of the other *WC* games will immediately recognize the nav points as the way the missions were broken up in those games, with players flying from point to point, to search, escort and battle the ubiquitous Kiltrathi.



Creating a mission is as simple as selecting a clear nav point and then clicking on one of the buttons representing an object, from friendly ships and Kiltrathi capital ships to data pods and asteroid fields. A small window on the left of the simulator presents the player with a rotating image of the object, and clicking on the nav point screen will place it in the mission.

Players may select their choice of ship,

Wing Commander Academy



TITLE: *Wing Commander Academy*
 PRICE: \$49.95
 SYSTEM: IBM
 REQUIREMENTS: 1MBK, 2MB RAM, VGA graphics, supports Sound, Ad Lib, sound Blaster, supports DOS 6.0+
 DISTRIBUTION: Origin
 P.O. Box 161750
 Austin, TX 78716
 (512) 328-0282

and whether or not to have a wingman (as well as the caliber and character of the wingman). Clicking on the "execute" button brings the player back to the holeroom; the walls dissolve away, and suddenly the player is in the cockpit of a fully-juiced interstellar fighter in the middle of a dogfight.

Combat is quick and breathtaking, with the welcome addition of a speed adjustment that allows the player change the pace of the simulator. With each successive *Wing Commander* game, Origin has refined the graphics of their bitmap/polygon three-dimensional space system, and *Academy* presents the best graphics yet, by far. Ships are sleeker and more defined with colored markings and subtle shading. Even the blaster discharge shifts color when the fuel mixture is changed during an after-burner kick.



The combat cockpits will be familiar to WC aficionados, with one display for communications and targeting information, another for damage assessment and weapons loadout, and a radar screen for tracking bogies. The technology in the WC universe has been steadily improving, and the player can control side and rear turret guns, as well as enjoy the benefits of IETS (Improved Targeting and Tracking System) tracking. When a target lock is activated with the new tracking system, the player's shipboard computer calculates the enemy's trajectory and presents the player with a leading reticle, allowing greater accuracy in landing blaster shots into a Kilarathi's hull. This is a great help since in space, where there is no absolute speed, only relative speed, it is often hard to tell how fast or slow the enemy is moving with visual cues alone.

A player may choose to fly the full range of WC ships, from the Volkswagen Bug-like Ferret to the advanced Morningstar, choosing between fighter and bomber types. Two additions are noteworthy. During the time since *Wing Commander II*, both the Terrans and Kilarathi have hit the drawing board to up the technology ante, and each have a new fighter in pre-production testing: the Wrath and the Jrethek. *Academy* allows you to fly either one of these experimental fighters, and flying a Kilarathi fighter against Terran bogies is more fun than a barrel of kirties.



The simulator also offers the "gauntlet" mode, essentially a training game which presents the player with 15 levels, three waves each, of attacking Kilarathi. A player's ship regenerates shields after each wave and is fully repaired and reloaded after each level. Like a good Nintendo game, he who chucks up the highest score wins, and his name is presented to all who enter the holeroom for combat training.

I found a lot to like in this game. In today's market of ultra-complex games it is a true breath of fresh air to find a game this simple and easy to play (or rather to set up to play—running the gauntlet or taking down four Rahrnis is next to impossible), and one that comes on only three disks.

On the most important criteria for any game, fun, *Academy* comes up holding five aces. This game is an absolute ball to play and presents the player with almost zero frustration (except from the challenge of attempting to complete a difficult mission). The simplicity of the interface means that 90 percent of the time will be spent in white-knuckled dogfighting, and the only potential hazard this game raises is trigger-finger calluses. Oh sure, some will argue that this game merely turns a several thousand dollar computer into a Super Nintendo system, but those will be the ones who haven't played the game and who tend to shun too much fun as bad for their health.

Taking this game at its fictional face value, as a training simulator to prepare you to better fight the Kilarathi, it makes a wonderful companion product to the previous WC games, and it is even possible (but not all that realistic) to head out on a WC mission, gather intelligence, then closely recreate the mission's hazards



in *Academy* to "safely" work out a successful strategy.

I also like the fact that the mission files can be copied and traded, uploaded and downloaded. This feature will help to bring the WC community closer together and will allow a player to assemble a library of truly great missions.

Perhaps the best aspect of *Academy* is that it can be a truly social game. Missions can be short and sweet, allowing friends to get together and play for a while without the cumbersome learning curve of a full-blown adventure game to get in the way of immediate playing satisfaction.

I did have some quibbles with the game, mostly things which I feel Origin should have included but didn't. Some of these I consider necessary, other make up more of a wish-list.

First, only the gauntlet mission keeps track of the player's score. Each mission should have its own scoring, allowing for more than a binary success/fail result. Ideally, since this is a training simulator for cadets, the score should be a detailed report of mission results: time taken, enemies shot down, kill percentage, fuel used, etc. Having this type of scoring system would allow more competition between friends and more relevance to uploaded and downloaded missions.

Second, since this is a training simulator, it should have some type of mission recording function, or at least an instant replay function. This would allow the cadets to replay their failures and successes and learn from their mistakes.

Finally, I would like the mission builder to be a touch more sophisticated, allowing the player to create such things as escort missions, delayed enemy encounters, and navigational flying.

In all, *Academy* is a tremendously exciting game, one which provides many, many hours of play and replay. One of my favorite missions, and one which I'm sure goes against the Academy's code of ethics, is to set up a mission with only a wingman and no enemies (flying a Ferret is best—they only have a single weapon, a mass driver). I start the mission and then turn on my wingman, going mano-a-mano until one of us blows. The combat is fierce, and the obscene shouts of "traitor!" really get the blood pumping.

Well, enough banter. Time to head for the holeroom and punch up mission number 23 to see if, this time, I can get through those three Drakhri and take out a Dorkathi transport with my lowly Ferret. Wish me luck! **cow**

"I Came, I Played, I Conquered"



Art by Roger MacGowan, Copyright 1993 IBM Graphics

How Goes The Battle?

by Alan Enrich

Our New World Computing *Empire Deluxe* tournament has moved into the semi-finals after some tweaking of the official CGW Tournament Scenario. For those who want to modify their *Empire Deluxe* game to keep it current with our tournament quarter-finals through finals, here are the changes to make:

1. Move the Green Capital 2 squares south to 51.28.
2. Decrease Troy @ 27.28 from 146% to 100%.
3. Increase Tobruk @ 4.31 from 100% to 147%.
4. Increase Turk @ 51.31 from 63% to 72%.
5. Increase Essex @ 7.42 from 128% to 147%.
6. Increase Bonapart @ 5.42 from 90% to 139%.
7. Increase Greyfriar Grass @ 36.6 from 102% to 120%.
8. Increase Limbaugh @ 30.10 from 100% to 129%.

These changes seemed to have eliminated the pro-blue bias that tournament testing has found in the scenario.

Moving into the semi-finals are Henry Gale (of Westwood, MA), who defeated Bob Frysbk (of Scarborough, Ontario, Canada) in a humbling display of superior luck. Mark Conder (of Littleton, CO) won a seasaw contest against Melvin Ellis III (of Tupelo, MS), who deserves a special award for being among the most complicated players by his opponents. Ray Matthews (of Assonet, MA) upset Bruce Marchesani (of Lindhurst, NJ). In this particular context, the computer player (commanding the red forces) came out strong and, when the smoke cleared, Bruce was in far worse shape than Ray. Finally, Michael A. Kohn (of Walnut Creek, CA) did one of his famous "MAK" attacks and defeated Walter Haberer (of Tucson, AZ).

Wargames And Rumors Of Wargames: Atomic Reaction

Following their recent announcement that they had signed a deal with Atomic Games (designers of the *V for Victory* series) to create a *Squad Leader* game for the computer, The Avalon Hill Game Company continues to push ahead with an ambitious schedule of releases for late 1993 and throughout 1994. Added to the list is a computerized version of their *Blackbeard* game, designed by Hall of Fame designer Richard Berg.

Rumors also has it that Avalon Hill will be publishing a second game from Atomic, due out in the first or second quarter of next year. Not surprisingly, it's an operational level WWII game covering the battles around Gazala in North Africa. Are there shades of what would be the next *V for Victory* game in an Avalon Hill wrapper? I think so. What happened between Atomic Games and *V for Victory* publisher Three-Sixty Pacific?

According to Three-Sixty's President Tom Frisina, "Atomic and Three-Sixty will not be

working together any longer on the *V for Victory* series. The collaboration we had was terrific for both companies, and we're really going to miss those guys and their talent. The split was basically over the strategic direction of our companies. I'm very proud of what we accomplished with Atomic." (Three-Sixty will continue to support the *V for Victory* games through *Gold-Juno-Sword*, including the new 4.0 upgrade for the entire series.)

It appears that in the separation between Atomic and Three-Sixty, the former got the *V for Victory* game engine while the latter got the *V for Victory* name and marketing rights. This means that the Atomic/Avalon Hill Gazala game is likely to have a very familiar feel to veteran *V for Victory* gamers. Tom Frisina continued:

"Games more along the lines of *Harpoon II* and *Victory at Sea* will be Three-Sixty's future. Less of the hex grid and more of the open, unrestricted presentations will be featured. However, we will be continuing to publish products from Colorado Computing, who did *High Command*."

Tom also said that wargames should look for an Atlantic/Med version of *Victory at Sea*, plus lots of *Harpoon II BattleSes* for next year.

Over The Horizon

On other fronts, Scott (*Aide de Camp*) Hamilton is busy on his sequel to *Point of Attack*. It is an as yet untried tactical WWII Eastern Front game using a "much improved" *Point of Attack* game engine, with several graphics, sound and interface enhancements. Scott is doing this even while Gary Craggsby (*War in Russia, Pacific War*) is busy working on a new game covering this same topic and scale, tactical WWII Eastern Front. I guess I'd better get out my old *Panzer-Blitz* boardgame and work out the rust.

Not to neglect the Western Front of WWII, *Clash of Steel* designer Martin Scholz will apply its engine to a new game covering the campaign in France, 1944. While the scale will telescope down a bit (from *Clash of Steel*'s grand strategic to a more strategic/operational level), the play will feel the same. He is also completing a Version 1.1 patch for *Clash of Steel* (see Part 2 of my *COS* strategy article in this issue for details).

Sid Meier's *Civil War* (yes, they negotiated with Avalon Hill to use that title, too!) is still on hold while he puts the finishing touches on *CPU Back* for the new 3DO system. However, *Impressions' Civil War* game from Ed (*Air Bucks*) Grabowski will be entitled (not to be outdone by Sid Meier in the name recognition department) *Ed Grabowski's The Blue & The Gray*.

See you in the trenches! **enw**

COMPUTER WARGAMING WORLD

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Empire Builder

Excerpts From *Empire Deluxe: The Official Strategy Guide*

by Alan Emrich with Mark Carroll

In addition to being CGW's On-line Editor, Alan Emrich has also become a prolific author of game strategy books. In his latest book, Empire Deluxe: The Official Strategy Guide from Prima Publishing, he and his co-author Mark Carroll include a chapter on designing scenarios for Empire Deluxe. While the wisdom imparted is particularly germane to the game in question, the discussion of game design philosophy can be applied to the general pursuit of scenario creation.

Just as there is a difference between teaching young people about sex education (read: "human plumbing") and sexual relationships (read: "love and emotions"), so there is in learning about creating scenarios for *Empire Deluxe*. While the game manual was long on "plumbing," it was completely lacking in the "love and emotion" aspects of scenario designing. Therefore, this article will focus in on the heart, the soul, the *portion* that makes for enjoyable scenario designs in *Empire Deluxe*.

Once your right brain is stimulated into creativity, you will also find a few things that your left brain will enjoy. Primarily, these are ways to complete your design so that your map contains many interesting and challenging features. Also, a few special nuts and bolts features are included in this article to supplement the game's documentation. As examples, we will refer to the scenarios we designed for *Empire Deluxe*, as included in the released version of the game.

Scenario Design Philosophy 101

Every scenario should set out to accomplish something before the creation process begins. You, the designer, must determine what design goals you want to

achieve and keep them clearly in mind as you place every unit and lay out every bit of terrain. The philosophy of your scenario design is the glue that holds it together as you construct it. It also gives you a yardstick by which you can measure your design's success or failure once it is completed.

To focus in on a clear design philosophy from the outset, here are some questions you should be asking yourself. The answers will clearly define the scenario's purpose and give you a goal to achieve when designing it.

Who will play this scenario?

How many players is it intended for, and how many of them must be human?

For example, the Sea Lion scenario is designed strictly for two human players. This is because of the weaknesses in the AI in dealing with large land masses, economic build up, and the need for some extraordinary cunning in maneuvers and combat tactics — all key elements in the game's design philosophy. When this scenario was conceived, the decision was made to make it a grand test of *Empire Deluxe* skills for two serious human players. Each faces his own dilemma, and the situation covers one of history's greatest "what ifs."

How long should this scenario be?

The answer will affect the size of the map and can influence the special rules included with your scenario design. The size of the map has a major effect on game length. If the goal remains, simply, world conquest, your experience will have shown you that larger maps increase the amount of time needed to conquer them. Not all scenarios require the largest map size available to be challenging.

You may also wish to impose a turn-limit on the game. For example, the German player must win the Sea Lion scenario by turn 200 or he loses. Similarly, the CGW Tournament scenario ends on turn 200 or immediately after one player controls all three starting cities.

Will this be a historical scenario?

If so, you will want to do some research. An atlas will help with the terrain, of course. A listing of the military units that fought (called the "order of battle") can be harder to find, but if the subject you've picked is also the subject of a board wargame, its pieces should be easily translatable into *Empire Deluxe* units. Designing historical scenarios can be challenging, but it is equally rewarding when you have finished them.

Or will I need to be really "creative"?

Whenever you're creating the map and unit set up (if any) from your imagination, this should inspire more questions. Without a historical situation to recreate, you must really focus in on what you're trying to achieve. Beyond your answers to the previous design philosophy questions, consider some of these:

- Will this be a "borrowed" or original map design?
- What size map shall it be?
- Will there be many or few land masses and what will their sizes be?
- What special terrain features, if any, will influence play?
- How will I paint the "economic landscape"?
- Where are players going to start?
- How strong will their initial forces be?

How will this scenario be won?

What other special rules, if any, should I impose?

This is where you can really define your scenario beyond the standards imposed by *Empire Deluxe's* inherent design of "discover and conquer the world from scratch." Between the possible variations on the sighting rules (nothing visible, all visible, or map only visible at all times) and defining what unit types are available, the designer is given lots of flexibility.

You can also artificially impose the game level played (i.e., require using the Advanced Game rules for your scenario) and what difficulty level the computer players must be (usually experts). Furthermore, you can even specify which players should have what degree of handicaps as part of your scenario's grand design scheme.

Map Design: Setting the Dimensions

The map will greatly affect the scenario being played. With so many variables to consider, ranging from its size to what you draw on it, it is crucial to have well-thought out plans. As many have discovered, one's enjoyment of a particular game of *Empire Deluxe* directly relates to how interesting the map is. Therefore, when creating original maps (i.e., ones not translated from an atlas), remember the types of terrain formations that you found interesting in previous games and try to include similar ones in your design.

Map Size

Generally, nothing defines the "natural" length of a game more than the map size, since a "natural" game requires a single player to spread out across the entire map and conquer it. Usually the map size also corresponds to the amount of time it will take to design a scenario.

You initially define the map dimensions as you begin to create a scenario. The height can range anywhere from 20 - 150 squares, while width may vary from 20 - 200 squares. This can create maps as small as 400 total squares or as large as 30,000.

Besides affecting game length, map size can also affect game play. The larger a player's borders become, the more units must be detached for securing them. This means more air and sea patrols. The size of the ocean and the distances between land masses and air bases also have a direct effect upon the viability of using aircraft carriers in a direct combat support role. Remember, units move slowly on the *Empire Deluxe* map; the larger the map,



Using an atlas, one user was able to design this incredible map of Scandinavia.

the more time a player will spend shuffling his forces around.

Map Design: Not Starting From Scratch

There is no rule that says every map you create has to be entirely original. In fact, many first time scenario designers get "artist's block" when they stare at the blank map of the scenario editing screen. It is very common that you simply will not know where to begin. Fortunately, *Empire Deluxe's* scenario editor has made this problem fairly easy to overcome.

Randomly Generated Maps

First, from the Map menu of the scenario editor's Menu Bar, you can always select Build World. This will fill your pre-selected map size with a typical, randomly generated *Empire Deluxe* world. If you don't like the look of it, replace it by generating another one until you find one that has the core map elements you're looking for. This will give you a good starting point for your map design that you can then modify to suit your exact needs.

Previously Saved Maps and Scenarios

Another way of instantly putting a map on the canvas is to start with a map that you previously played and enjoyed. For example, let's say that you want to design a scenario featuring the entire planet Earth. Well, since we already provided you with a map of the planet in the WWII scenarios, all you have to do is load one up and select Save. Just be sure to save the map, not the game. After you give the map a name, exit out of the scenario, re-enter the Game Editor and either select that map to start with or, from the File menu, select Load and then Map. Any time you're playing a scenario on a particularly interesting map, save it separately. It might inspire you to design a brilliant scenario for it.

Players can also import maps saved from the old *Empire* game. Once loaded into the *Empire Deluxe* game editor and saved, they become playable *Empire Deluxe* maps. Unfortunately, because of a bug discovered in the IBM 2.xx versions of the old *Empire* game, some maps might not load for owners of the IBM 3.0 version of *Empire Deluxe*. A "fix" program called "FIXEMAE.XE" is available on both GENie and CompuServe, and directly from New World Computing.

Translating a Map From an Atlas

Finally, another way to make sure that you're not simply drawing onto a blank canvas is to use an atlas and simply try to paint the map you see. Of course, you should work out in your mind some sort of scale when you begin ("Let's see, I want France to be about 12 squares across...") and then try to work things out proportionally.

Begin by drawing the outline of a chosen spot. Next, fill it in with clear terrain and then place the important rivers on it. After that, dot it with appropriate cities and then, finally, place the forests and mountains. Don't be surprised if your map doesn't look right after it is initially drawn from an atlas. It will probably take a bit of hating before it really works. In the heat of battle, however, *Empire Deluxe* players will easily overlook minor quibbles they may have about your map translation. So, do your best when interpreting maps for the game, but don't frustrate yourself trying to get it perfect.

Using Grid Coordinates

There is one undocumented map making tool that you will find particularly useful when trying to translate a map from an atlas. It is the grid coordinate system located on the Information Bar along the top of the screen. If you have no brushes selected (i.e., you are not ready to "paint" any new terrain feature) then you are in "information mode." In this mode, clicking either mouse button will show you both the terrain type and the grid coordinate for that square.

Each grid coordinate consists of two numbers separated by a comma. The first number is the location's horizontal position on the map that increases as the cursor moves to the right. The second number is the vertical position that increases as the cursor moves toward the bottom. Map coordinates always begin in the top-left corner at 0,0. This square is always an unplayable "border" square. If you are looking for square 0,0 on a map that wraps, you may have to click along the top edge a few times to find the map's

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actual "wrapping point" (horizontal zero coordinate), but it will coincide with the moment the lower scroll bar button jumps from one side to the other.

Using grid coordinate numbers when you design a map will help you place strategic terrain far enough apart to affect air operations. For example, you might place two cities across an ocean so that they cannot simply fly across and rebase there. Instead, players must build carriers or air bases to operate airplanes between them. You can also place cities so that they are 13 squares apart, keeping bombers from striking them and returning home.

Map Design: The Geographic Landscape

With the issues of map size and starting points decided, it is time to start filling all of those empty squares staring at you from the game editor screen. What are you going to put in them? If you didn't start your new map from scratch or used an atlas, you already know and it's just a matter of getting it adjusted the way you like it. When you're staring at a blank slate, though, what do you do?

Land Masses

While it is enjoyable to dot a map with many small islands, larger continents make the most interesting terrain features. Since they take longer to explore and capture, and they usually possess several cities, larger continents tend to become highly embattled focal points of a good game. Although games will take longer when larger continents dominate the map, they do add spice to old-fashioned "island hopping" scenarios.

A good variety of land mass sizes and locations are often the best way to go. However, if you have a theme for your world in mind, use it instead. Perhaps you want a world with only one-square islands or one that is solid land—if so, then build it! Only when you've created such worlds and tried them out will you know if they are fun to play or not.

Smooth Versus Difficult Landscapes

When deciding what type of terrain will be placed where on a land mass, ask yourself if you want it to be easy or difficult for armor to traverse. While difficult terrain (particularly mountain ranges) will create some interesting strategic problems, it also reduces player enjoyment if it dominates the landscape. If difficult terrain is your world's theme, such as a jungle planet or a desert planet, and you have planned other interesting things for players to experience around the dominant terrain type, then it could still be enjoyable to play on.

Since there are no roads in *Empire Deluxe*, it is interesting to cut through patches of difficult terrain with a path of clear terrain squares for armor units to move through. This is particularly useful through mountain ranges that are otherwise impassable to tanks. Although it does tend to channel the tank's movement, at least they can get through. If you want armor to get through a mountain range but not as quickly, run a river pass through it instead, as Figure 14-3 illustrates. Rivers aren't friendly places for armor to attack, but the tanks can at least bog through them if they want.

Strategic Interaction Points

Confluence points on the map where land masses and oceans connect are important strategic terrain features. Diagonal connections where land and sea units can both pass through or the more restricted "canals" each have their place on an interesting and enjoyable map design. Also important is the placement of ports, particularly "canal ports," as strategic interaction points. Remember, joining larger land masses and oceans at a nexus makes controlling it more crucial during play.

Computer AI Considerations When Mappmaking

If you have examined the Earth map closely, you may have noticed that the Panama canal is just an ocean square and that North and South America are not joined via the Panama isthmus. The designers did this in response

to a feature of the computer players—or "Artificial Opponents" (AOs). They will primarily concentrate their production on securing an entire land mass before gearing up to move off it. Thus, when these two continents were connected, an Allied computer player would always spend many turns conquering South America and building up a huge, lumbering land force to do so (and no navy). Because of this, a computer player would be playing the Americans quite historically. Their solution to



Though there are no roads in *Empire Deluxe*, you can simulate them by running strips of clear terrain or rivers through mountains and forests.

this problem was to sever North and South America.

Therefore, when designing a scenario map where you plan to have computer players competing, be careful not to connect all the land masses or the AOs will build few ships, if any. Also, remember that even when computer opponents do need ships, they will never build enough transports to conduct coordinated, large-scale invasions. Don't plan a map around this theme if computer players are going to be the primary participants. Large scale invasions and plenty of transport ships are something that the AOs simply will not deliver.

Finally, computer players are used to "knowing" that there will be a port on every land mass (as is always the case when the computer randomly generates a map). If you create land masses without ports, it will hinder the AO's ability to play a decent game. The net effect will be to further reduce a computer player's naval production and slow his ability to transport tanks and armies off that land mass.



The two units on this map sit at important strategic interaction points. You can bet that these two areas will see a lot of action over the course of a game.

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Map Design: The Economic Landscape

When we say the "economic landscape" of a world, we're talking about cities. Not only how many will be placed on the map (up to a maximum of 200), but also where and with what production efficiencies and specialties. Consider the following:

City Density

Cities can be more widely dispersed or clustered together in tight knots than they are on the randomly generated maps most players are used to. Multiple cities right next to each other can make for some interesting starting "capitals." When cities are more widely separated, air bases and carriers will become a more influential factor in the game.

Production Efficiencies and Specialties

When pondering the production efficiencies and specialties of the cities you place on the map, remember that you are trying to influence *future* production throughout the scenario (as opposed to any starting set up of units). Beginning with many cities at terrible production efficiencies (such as in the Sea Lion scenario) makes a player's starting units extremely important. It can also mean a long game if world domination is the goal.

Limits on Improving the Global Economy During Game Play

Another weakness of the computer's AI is that computer players do not play "the long game" when building up a low efficiency city. In other words, they will only keep a city off-line until its efficiency is somewhere between 20% and 50%. Seldom will they try to improve it beyond the 50% level (at that point, further raising of the city's production efficiency level drops from a high to a low priority). Similarly, most human players won't bother trying to raise a city's production efficiency much past 104% because of the diminishing return in efficiency for the time invested to raise it.

Therefore, high production efficiency cities must be placed by you, the designer, while creating the map. If not, the game will have no "super cities." Now, if a poor world is your plan, then that is fine. In practical, *Empire Deluxe* terms, however, a rich world can be played into a poor one, but a poor world's economy will only rise, at best, to mediocre.

The Philosophy of Starting Forces

A traditional game of *Empire Deluxe* begins with no starting forces. Scenarios, however, can be anything their designers want them to be. For example, the WWII

and Sea Lion scenarios both start with players' forces already dominating the map. In fact, some players begin with so many units (such as the Japanese in the WWII scenarios) that they are actually a drag on their global economy. The *CGW* Tournament scenario, on the other hand, features expansion out from a single city, but includes a few starting forces for each player to get things moving along quickly.

Therefore, you must decide what the initial military situation is going to look like. How strong will each player's forces be? Where will they be located? Is this going to overlap with the economic landscape (i.e., will players begin with more than one city)? Players' starting forces are a key element in creating balanced, exciting situations.

Computer AI Considerations: Starting Forces

If the first turn of the game is a crucial one, you will want to help computer players out. Here is the reason: Computer players will move units in the order that you placed them when designing the scenario on the first turn of the game. Therefore, if you know that it would obviously be better if a computer player sailed out of a port with armies on board the transport you have there, place the transport in the city first. If you don't, the armies may walk out of the city on the first turn before the transport takes its turn to move. Also, you will want the computer player to move its fighters first over an initially contested area, instead of its bombers.

When we designed the *CGW* Tournament scenario, each player's starting city had its "main island" land units placed there first, then their transport, then their transport's cargo infantry units last. In that way, the computer players will, on the first turn, move *some* of their land units across the mainland while sending all of the others out to sea on the transport. Thus, we have forced them into making a "balanced" move on the first turn of the game. Observe three computer players playing it and you'll see what we mean.

Playtesting Your Scenarios

After you have designed your new scenario, you are only halfway finished. Now begins the process of playtesting and balancing your scenario. The purpose of playtesting is to find if the game is true to your design goals or not—and fun to play. Ask questions such as these:

- If you created a historical scenario, does it bear enough resemblance to history and have enough of the right feel to it to satisfy you?
- Does the game move at the right

speed? When will players make "first contact" with each other?

- Should any players have forced handicaps? Perhaps the production efficiencies of their nearby cities should be adjusted?
- Are the computer players getting off to good starts?
- If two (or more) humans are supposed to play this scenario by modern, is it short enough to keep their phone bills down?

Playtesting Tips

The beginning game is crucial for computer players. If they get off to a bad start, they will probably never recover before they have to lock horns with a human player. Therefore, the best playtesting you can do is to simply run the game with all computer players and just observe their play, paying particular attention to their early moves. If you find something that needs to be changed, enter the game editor, make the change, and playtest the scenario again. Repeat this again until you are finally satisfied with the result.

If computer players move their starting forces in the wrong order, that means that you placed them in the wrong order. If they don't expand properly, bait them with easier access or closer cities in the direction you want them to go first. You must get computer players off on the right foot in your scenario design.

Of course, if your scenario is not designed for any computer players, then it will be harder to playtest. While observing the AO play such scenarios might help you to adjust it, only when you play all the positions yourself or get the required number of human volunteers to test out your new design can you really call it playtesting. Make a few phone calls and try to arrange a game. Be sure to get reactions from the other players and consider all of their suggestions for improving the scenario. If you agree with any of their comments and they work within your design philosophy, carry out those changes.

As you have learned, there is a lot more to making good scenarios than just knowing what the keystrokes are for laying out the terrain and units. The art of game design is one of philosophy. Yes, there will be a lot of time sweating over the keyboard, placing this terrain here and re-naming that city there. Playtesting will add even more time and effort to your scenario design burden. However, underlying the entire process will be your scenario's design philosophy. Keep sight of it and you will have scenarios that are far more interesting and enjoyable to share with your friends. **CGW**

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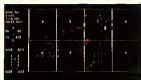
Man Of War

Grand Tactical Combat Under Sail, 1765-1815

by M. Evan Brooks

The Age of Fighting Sail...and Nelson! SimCan's *Man Of War (MOW)* is the first computer game in almost five years to recreate this period of warfare which, bitter though it was, has been romanticized in the eyes of 20th century gamers. While military historians debate the best general of history, opinion is virtually unanimous in naming Horatio Nelson as the best naval leader.

MOW is a simulation of fleet level actions from the viewpoint of the commander. The subtitle accurately describes the product's scope—grand tactical.



The simulation covers the era in which Great Britain succeeded in establishing a Pax Britannica through the use of sea power against the French Royalist and, later, Napoleonic Navies. Admiral Alfred Thayer Mahan's *The Influence of Sea Power Upon History* (1890) remains the classic text for the period. Also strongly recommended is *Cross Sections: Man-of-War* by Stephen Biesny, a 32-page book of how a ship-of-the-line operated, at all levels. Aficionados of Forester, Kent and O'Brien will still learn something from this work. For example, most people have heard that biscuits at sea were often infested with maggots. *Cross Sections* has the historical recipe to get rid of them (1. Place dead fish onto biscuit sack; 2. When maggots cover the fish, throw it away and replace it; 3. Repeat 1. and 2. until maggots no longer appear).

The Admiral Has His Orders

The documentation, in keeping with SimCan traditions, is a sparse 13 pages. Three pages consist of scenarios and notes, and three pages consist of tables and a map. Actual play mechanics are covered in less than seven pages.

The game is composed of two sections—the setup phase and the battle itself. The former is easily accomplished, but requires careful consideration. One must determine general guidance for his forces, e.g. when to engage, when to maintain range, when to open fire. A wise admiral will delineate different orders for the ships under his command; in a large fleet action, frigates should not engage in general melee against the massive ships-of-the-line. Similarly, smaller vessels such as sloops, brigs and transports should be kept out of harm's way.

Only after the commandet determines proper groupings of vessels and their general guidance should he commit to open battle. However, once contact is achieved, it is difficult for the fleet admiral to direct the actions of individual ships. Orders can be given from the flagship, but with the lack of radio, communications are limited to signal flags (which may or may not be obeyed, depending on the tactical situation and the ability of one's forces).

Oh, To See The Sea...

Along with SimCan's *Red Sky At Morning* (review on page 199), *MOW* is the first SimCan game to have graphics. They are not state-of-the-art, nor do they have to be. At the end of each four-minute turn, one may view the action from two perspectives: a bird's-eye view with each ship represented by a "sticks" and letters, or a view from the flagship, often obscured by smoke or other vessels.

The latter view is quite similar to Ralph Bosson's *High Seas* (1987). While somewhat interesting, it is not very useful and quickly pales. The bird's-eye view is the viewpoint that the player cannot live without. One will issue orders depending on the general situation depicted therein. However, the display is static; one cannot zoom in for a more detailed rendition of a particular

section, and this presents a problem. While one can order a unit to move to a specific location, determining the proper coordinates can be difficult; therefore, one will usually order a course change based on bearing (direction) only.

As for sound support, there is none. Given the nature of the simulation, this is not important. However, for the user who demands intensive graphics and sound, *MOW* is not for them.

Manning The Rigging

One cannot directly move ships in the fleet. Orders are limited to "Follow Me" (the credo of the American Infantry), "Conform to Flag," "Make/Reduce Sail," "Follow," "Rally/Pursue" or "Set Course." Thus, once the setup phase is complete, battle implementation is somewhat preordained.

As ships change course, they wear and tack. An intelligent commander ensures that crews of lesser quality avoid the latter maneuver, as it can result in losing headway and can lead to collisions.

It is obvious that the graphic representation of *MOW* has caused some confusion at SimCan. The documentation notes that "a single sheet of die cut counters...will be included in the initial release." These were to assist the user in determining positional references, but would be omitted in later releases." Since the map cannot be accessed until all ships have moved, the ability to physically see the opposing fleets in mid-turn would have been helpful. Also, it would have assisted one in determining proper orders for follow-through.

The most critical element of *MOW* is crew quality. A

Man Of War



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hard drive space
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None
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Clearing For Custom Actions



Simple Scenarios For SimCan's *Man Of War*

by Johnny L. Wilson

Although *Man Of War's* lack of a campaign game means that player-admirals and commodores do not get the thrill of the long-term chase, the "Build Your Own Scenario" feature makes it possible to plan and fight battles at will. This article will use two very simple actions to walk the gamer through the construction process.

Bay of Bengal (April 4, 1760)

In this relatively obscure action from the Seven Years War, a British escort commanded a French squadron that was trying to disrupt a convoy from Lisbon which the British were protecting. The British managed to fight off the French, but the escort ships were heavily damaged in the process. The British were heavily outgunned in this action, but as in most *MOW* scenarios, they should win because of the higher ratings for crew quality.



The British and the French square off in the Bay of Bengal scenario.

First, the player-designer establishes that there are two squadrons using the *MOW* menu system. Then, the player sets the wind as Brisk and the direction as NW. Storm conditions are not in effect. This would normally be followed by delineating the status (Land, Shoal or Water) of the map edges. Since this is an open water engagement, one need not bother with this step.

Next, one enters the forces for each

squadron. In this case, since this is an earlier engagement than those included in the *MOW* database, one may substitute any French 36-gun frigate for the *Malice* and any French 32-gunner for the *Opale*, as well as any 24-gun frigate for the *Flamborough* and any 20-gunner for the *Bideford* on the British side. Fortunately, the editor lets one name the ships for each scenario. The French squadron should be set for Average crew quality and the British squadron for Excellent quality.

Then, one sets the initial position and heading (put the French squadron slightly north of the British one, near or far away according to personal taste, and headed for certain interception). Then, it's time to set the doctrines as in the actual game and clear for action.

Battle of Porto Praya (April 16, 1781)

This battle from the Napoleonic era is relatively simple to set up. The scenario takes place in the Cape Verde Islands off the coast of West Africa where the British, anchored in Porto Praya, were caught off-guard by Suffren's French squadron. Though the British were taken aback by Suffren (he wasn't supposed to be in the area), they were still able to make it out of harbor and meet him in the open sea. One can set up the scenario to reflect the proximity to the islands by setting the northern screen-edge as Land. This is optional and represents the harbor of Porto Praya, but is not necessary. The crew quality should be only slightly in the British favor with the French at Poor and the British at Average. The wind is, once again, blowing from the NW and Brisk with no storm conditions.

Set the French on the west edge of the map and the British squadron to the east. This provides for plenty of sea room in setting up the engagement. British ships

include the: *Hero* (74), *Monmouth* (64), *Rowney* (50 gun frigate), *Jupiter* (50) and *Iris* (50). The French ships include: *Hero* (74 gun frigate), *Hambal* (64), *Artisan* (64), *Sphinx* (64) and *Vengeur* (64).

The scenario should be fairly well-balanced. Though the British flotilla took some serious damage, they managed to fight well enough to drive off the French and recapture a ship or two, but no ships are reported as having been sunk. The British expedition aborted their mission and returned home, while Suffren moved on to a successful campaign in the Indian Ocean.

After Action Report

The scenario builder for *Man Of War* is fast and efficient. The lack of a real map builder means that it is impossible to set up satisfying cutting-out expeditions or fireship missions, but the game is definitely suited for establishing simple or complex missions in the open sea. The ability to designate map edges as Land or Shoal is useful, but does not give the gamer the tactical satisfaction of deliberately forcing an opponent through the gauntlet of shoals, or to take the wind gauge while an opponent is leeward of the coast. Nevertheless, the scenario builder is useful for most actions and will add hours of play value to would-be admirals and commodores. **CAW**



Resolving the British fleet for the Battle of Porto Praya.

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An Expanding Empire

New World's New Worlds for *Empire Deluxe*

by Mark "Skulker" Carroll with Alan Enrich

Following on the heels of their *Empire Deluxe* and *Empire Deluxe for Windows*, New World and White Wolf Productions have produced an add-on disk boasting over 40 new scenarios to challenge the *Empire* buff. Designers Mark Baldwin and Bob Rakosky contributed their own scenario designs and enlisted contributions from various game designers, play testers, and other industry notables. With a cast of "celebrity" designers behind it, this disk offers more than just new worlds to conquer; it can also be seen as a set of lessons to teach scenario design principles.

Contributing to *Empire Deluxe: Scenarios* are such gaming dignitaries as noted board wargame designer Jim Dunnigan, science fiction author Jerry Pournelle, Trevor Sorenson of Interstel's *Star Fleet* series, Will Wright of *Sim City* fame, Gordon Walton and Don Gilman of *Harpoon*, and CGW's own Johnny Wilson, among others.

History in the Playing

There are 37 scenarios included on the disk, several of which have multiple versions for increasing numbers of players. The scenarios range from fairly normal, to historical, to outright bizarre. The historical scenarios, contributed primarily by Steve Barker and Mark Clouser, feature gorgeous real world settings for the American Civil War, the Bolshevik Revolution, WWII's Pacific Theatre, Ancient Rome, and several global conflicts. Emphasis in the scenarios runs from extreme naval to extreme land actions, and from single play to humans-only multi-player games. A number of special rules have been suggested for some of the games to give them character and add a good deal of gaming spice.

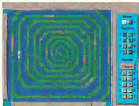


Jim Dunnigan's scenario is a single-player game with a science fiction motif.

Empire as Chess?

The most visually striking of the scenarios is Mark Baldwin's "Chess" which comes in two and four-player versions. It is played on a checkerboard map of alternating land and sea squares with only one city to a side. Each side starts with two lines of units along an edge of the board. This particular game is a fascinating exercise in unit conservation as there is little hope of reinforcements during the game.

The most bizarre scenario included is "Vortex" by CGW editor, Johnny Wilson. The map is composed of one long, thin spiral of land with cities dotting the land mass. As the players move toward the center of the spiral, the game becomes a logistical nightmare requiring some creative strategies.

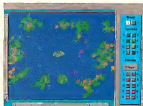


Johnny Wilson's spiraling design clearly reflects the author's state of mind.

One of Jim Dunnigan's contributions, "Red World," is a game for a single human player against five computer opponents within a science fiction motif. The map is solitary worlds (cities) in a space (ocean). Once the human player reaches a certain level of cities captured or battleships sunk, the computer player levels are enhanced to keep the game from ending too soon.

Bob Rakosky's "Win or Draw" scenario is ideal for modern play. On a map of three continents, each player starts with only two transports and cannot build more. The game ends in a draw if all the transports are sunk and each player has one continent to himself. It becomes a touchy game of cat and mouse with each player trying to protect his transports and expand, while committing resources to sink the enemy's transports.

Jerry Pournelle has produced a real slugfest in his "Naval Duel." The two play-



Jerry Pournelle's island and naval conflict sets the stage for a major naval conflict.

ces start out with both large initial forces and a large city count. The huge map has several main islands and huge expanses of sea. A few neutral cities are included to give the edge to a clever player.

Extra Extras

The scenario disk also comes with two utility programs, EMPSTATS and EMPSTATW. These are the DOS and Windows (respectively) versions of the same program. When given the name of a scenario or map file, they will print out statistics on the percentages of terrain types, and for scenarios includes the number and types of each sides' starting units. The look is quite spartan, but these programs are useful when designing scenarios, giving a quick overview of the design.

Another included utility is RANDMAP and RANDMAPW (again, the DOS and Windows version). Its purpose is to pick a random map file for a game, much like the original *Empire* did. With all the maps to the scenarios thoughtfully included on the disk, players will certainly have plenty to choose from.

Finally, *Empire Deluxe Scenarios* includes the latest, greatest version of program, Version 3.11, which fixes minor bugs. All told, *Empire Deluxe* fans, especially those into scenario design, will find a lot of value in this single, "start-studded" disk. **CGW**

Empire Deluxe Scenarios



TITLE:	Empire Deluxe Scenarios
PRICE:	\$29.95
SYSTEM:	IBM
REQUIREMENTS:	Original Empire Deluxe game
PROTECTIONS:	None
DESIGNER:	White Wolf Productions
PUBLISHER:	New World Computing P.O. Box 5322 Hollywood, CA 90028 (818) 999-0905

My son and I love this game!!!

Great work!!

Robert Struss, Berkeley



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

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

Outstanding program!!!! John Bernauer, Los Angeles

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 Ashkie, Canada

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

Thanks for creating such a challenging piece of software. Steve Branson, Canada

I'm completely hooked! Patricia R. Smith, NY

The game is a blast! Excellent graphics, extremely well done. Interesting challenges in each landscape aka. I look forward to the next 90 landscapes. David Morigio, 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 Jambik, 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 Wiscart, Minneapolis

My whole family enjoyed your game a great deal. Michael C. Moore, Colorado

Oxyd has to be the most artistically superb piece of programming that I have 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 tantalizing 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, frezlad etc. At this point, I'm already worrying that I'll run out of levels (assuming I keep solving the puzzles). Jeffrey R. Howe

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 Phoebe, Portland

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

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Scott Hamilton's *Aide de Camp* has been called the "Holy Grail of Computer Wargaming" by its most enthusiastic users. It is not a game, but rather a tool for making games. With it, board wargamers can computerize their favorite board games or design original games, and play them via e-mail with wargaming friends. In this short article, Scott offers some tips for the wargame designer.

There is a truism among board and computer wargame design: "The player can always do better." Even before the shrink wrap has hit the floor, most hard core gamers will find elements of a design that they could have done better if given the chance. *Aide de Camp* gives gamers just this chance—the chance to put their design talents where their mouse is.

Practically everything about a final *Aide de Camp* (ADC) game is determined by the user: how it looks, how it plays, and how detailed it is. In effect, the user decides where to go, and ADC provides the power and flexibility to get there.

Because the user is responsible for so many elements of the design, careful planning is essential. Sometimes knowing even a few "tricks" can be a real time saver. From the experience of users so far, I've been able to compile a list of often-heard suggestions.

Start Small

Everybody tells me this! Begin with a small game, or even a small portion of a map to get the hang of ADC before investing time in a larger game. In particular, experiment with different zoom level settings and secondary terrain symbols.

Plan Ahead

For games of any size, write down all of the necessary terrain and unit symbols beforehand. Decide what color they will be and what they will look like. Decide which unit and class values will be stored and what modifications they may need. If the values don't fit or don't display well, consider making "chits" or "markers" to go in the hex with the units. Above all,

planning should be aimed at keeping things as simple as possible.

Check The Map

Look over the entire map before placing terrain. Make sure it's the right size and the map sheets line up properly. If not, delete the map and start over.

Save Often

Save map and game sets often to minimize potential data loss. A good idea is to use a different name each time a set is saved. That way, if a mistake is made, a file saved previous to the error can be resurrected without losing a lot of work. If disk space is at a premium, clear out the unwanted back-up files at the end of each session. Note that the auto-save feature creates a backup file by overwriting the existing auto-save file.

Set Zoom Levels Appropriately

Redefining zoom levels for a game can be a real time waster. A little forethought can save many headaches. Normally, Zoom 1 should show the entire map, Zoom 2 should show enough hexes so that any unit can move its full movement allowance without scrolling, and Zoom 3 should show combat in detail.

Delay Unnecessary Map Entry

If portions of the map are not going to be used at the beginning of the game, leave them blank to save time. Maps and symbols can be changed at any time, so when the map portions are needed for later game play, they can be added.

Keep Contrasts Between Units And Terrain

Try to keep a color contrast between units and terrain so that the units show up at a glance. For example, use darker colors for units and lighter colors for terrain. If this is not possible, try to make a border of an opposite color around the unit symbol. For example, place a dark border around a light colored unit, and vice-versa.

The success that ADC is achieving is

Even The Aide Could Use A Hand

The Designer Speaks On Aide de Camp

by Scott Hamilton, President of HPS Simulations

very much due to customer feedback and support. Every improvement I've made since the introduction of version 1.0 has been the result of player suggestions. The single biggest change I've made was the addition of an optional hex grid overlay. This change didn't affect any of the game mechanics, but allowed ADC maps to look like the familiar hexes instead of squares.

For the "monster gamers" who use ADC to play games such as GRD's *Europe* and SPI's *War In Europe*, I made several changes. The number of unit symbols was increased from 200 to 250, and up to 12 units per hex are displayed at the bottom of the screen. I also introduced an auto-save feature to protect against data loss in case of power or system failure. From the suggestions of tactical gamers—like those playing Avalon Hill's *Advanced Squad Leader* and The Gamers' *Civil War Brigade Series*—I added built-in unit facing capabilities and the option to change the number of unit symbols displayed per hex.

The current version of ADC (1.14) includes all of these additions and more. Since I believe in supporting my customers the way they have supported me, I am offering this upgrade free to registered ADC users. All I ask is that they send me a blank, formatted, high density disk and a self-addressed stamped return envelope.

Version 2.0 is planned for next year. This upgrade will include a number of significant changes over version 1.14. My standard upgrade policy will hold for that version, which will be made available to registered users for \$10-\$15.

I've also begun an ADC Opponent's Wanted database. Each gamer registering with this service receives a list of others looking to play the same or similar games. The list will be updated and printed every four months. Each customer will receive an initial copy of the list for free.

Scott Hamilton may be reached by phone at (408) 554-8381 or by e-mail on GENIE (S.HAMILTON), Prodigy (KFH1008B) or NYN (SHAMILTON). He is a strong believer in product support.

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A Preview of Aces Over Europe from Dynamix

by Bryan A. Walker

An avid computer game and flight sim fan, the author is also an AH-64 Apache pilot and Armament Officer for the U.S. Army. A combat veteran of Desert Storm, he's currently stationed at Fort Campbell, Kentucky.

Military, civilian, or arm-chair pilot, one common thread runs through all aviation buffs: A passion for "Warbirds." There's something about the coughing rumble of a huge Pratt and Whitney radial, or the cultured growl of a Rolls-Royce Merlin that fires their imagination. They all dream of bravely striding out into the foggy English dawn to mount their trusty Thunderbolt, Lightning, or Mustang and roar off into the sky. Wherever a magnificent old Warbird flies, misty-eyed aviation enthusiasts of all ages and backgrounds dream of going back in time and being Aces Over Europe.



Of the computer game companies that have fostered these fantasies, few have been as successful as Dynamix. Fans of their *Red Baron* and *Aces of the Pacific (AOTP)* can look forward to climbing into the cockpit of *Aces Over Europe*, the newest title in the "Great War Planes" series. Building on the friendly interface, versatility and attention to detail that is their trademark, Dynamix has set its sights on the European theatre during the latter part of World War II. With surprisingly few good games addressing this influential period of air combat, the arrival of *Aces Over Europe* is a welcome addition that is sure to make a three-point landing in its genre.

Like many new simulators, *Aces Over Europe* has had rumors swirling around its development like vapor trails off of wingtips. The truth is there will not be modern support or a "Padlock" view resembling the one in *Falcon 3.0*. During discussions with Tucker Hatfield, Quality Engineer at Dynamix, I

learned that these features were considered, but judged too unwieldy for the current game system. While I was disappointed, the game's other improvements make up for these missing options. Rather than simply put a new coat of paint over *AOTP*, Dynamix has polished and refined their award-winning simulation system. Even with my early beta-test copy, it's easy to see that fans of both *Red Baron* and *AOTP* will find many familiar features, while being pleasantly challenged by noteworthy improvements. With a few mouse clicks, new missions, planes, weapons, graphics, flight models and other features will start showing the game's new muscle.

Shiny New Toys

Of course, a major attraction of any flight simulator is the number of new toys for the player to enjoy. *Aces Over Europe's* wine list has plenty of vintage, sporting 20 different aircraft, 14 ground vehicles and 13 ships. The P-51, -47, and -38, two models of Spitfires, Mosquitoes and Me-109s, three different Focke-Wulf 190s, and the Me-262 jet are all waiting for the player to climb in. The B-17, -25, -26, Arado 234B "Blitz" jet bomber, and Ju-88 are also represented and make appearances as either targets or friendlies to defend.

Perhaps the most impressive new feature in *Aces Over Europe* is what Dynamix calls the Tall Resolution Mode. With twice the vertical pixels of normal 320x200 VGA, the "Tall" mode looks great! The planes are now

sharper and more detailed than those of *Red Baron* or *AOTP*. In addition, the Tall mode helps the player discern what maneuvers the enemy aircraft are performing from a greater distance—a big plus in a dogfight. Switching between both resolutions provides a very clear example of how much better the Tall graphics



are in comparison to normal VGA. And, to the relief of technophobes who cringe when a new gimmick promises to crash a game every 30 seconds, the Tall resolution code seems quite stable, even in my beta-test version.

As impressive as the Tall resolution would be by itself, *Aces Over Europe* also introduces gradient shading to the aircraft models. Combine these two features, and players are going to be treated to possibly the best-looking Warbird models ever seen in a PC flight sim. The extra power has made it possible to clearly render multi-color camouflage, inva-



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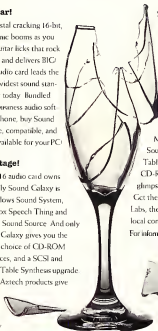
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sion strips, and even individual squadron markings on the aircraft. The sharp detail on the bombers is particularly impressive, and provides great suspension of disbelief as the player slashes through their formations. Without question, the aircraft models of *Aces Over Europe* are a new standard in excellence.

The Good Fight

Remembering the criticism *AOTP* initially received for its slow frame rate, Dynamix tried to keep the speed of *Aces Over Europe* as high as possible while including the new features gamers wanted to see. Bench-testing between *AOTP* and the beta-version of *Aces Over Europe* certainly bode well for the eager flight-sim public. Despite the fact that my beta-test copy still had some "rough" code and integral hardware/software-based copy protection, the game plays just as smoothly as *AOTP* with the 1946 upgrade. The actual release version may well run a tad faster.



The huge formations of heavy American bombers spew out a hailstorm of defensive fire, occasionally vaporizing attacking fighters in a single pass!

Another criticism leveled at *AOTP* was the "one size fits all" flight models that took away from each plane's own character. The flight envelopes and aerodynamics of *Aces Over Europe* have received some tweaking and are now noticeably more realistic than those of *AOTP*. The realism of external stores, flaps and landing gear have also been improved dramatically. A significant new feature is the addition of buffeting and spins, which were a deadly hazard to the pilots of real Warbirds. The flight model improvements are certainly more realistic, but still lack some of the nastier traits characteristic of the high-strung fighter aircraft of that era. The takeoff and climb characteristics are still overly generous, with even fully-loaded P-47s becoming airborne after rolling perhaps 200 feet! While *Aces Over Europe's* flight models don't approach *SYGA Air Warrior's* level of realism, they stand well above those of *AOTP*.

New-and-improved missions successfully convey the flavor of the European air war.

"Interdiction" and "Crossbow" missions challenge the player to destroy key facilities such as bridges, rail heads, V-1 launch rails and radar sites. The new "Close Support" missions may find the player attacking a column of panzers while trying to avoid Me-262s and intense ground fire. The "old" missions from *AOTP* are also present, including new *Aces* to tangle with. A major fix in *Aces Over Europe* has made the "Scramble" sorties much more exciting. Instead of trying to intercept high-altitude bombers, the player is now greeted by enemy fighters buzzing right down the runway! Even worse, the player's own plane may be loaded with bombs and external tanks in anticipation of a long-range strike.

Aces Over Europe also showcases new weapons and attack options. From the tactic of "Skip Bombing" to the tricky German GM21 rockets and new cannon pods, there's plenty of new spice in *Aces Over Europe's* gunnery stew. In addition, *Aces Over Europe* gives the player the ability to send his comrades after targets that didn't appear on the mission brief, which was impossible in *AOTP*. Still, the wingmen are tentative in the ground-attack missions, leaving the player to do nearly all of the work. While doing that ground-attack work, veterans of *AOTP* are going to find *Aces Over Europe's* heavier and more accurate ground fire aggressively "stitching up" their planes. The familiar exploding fak is now much more destructive and definitely adds to the "white knuckle" factor!

Attacking bombers in *Aces Over Europe* can also be a harrowing experience. The impressive formations of heavy American bombers spew out a hailstorm of defensive fire, occasionally vaporizing attacking fighters in a single pass! The cartoon image of a singed, wide-eyed pilot hurtling through the air in a seated position and gripping a twisted control stick came to mind often. Mr. Harris made it clear that, mercifully, the accuracy of the bombers' defensive guns would be reduced in the release version of the game. This is very good news for would-be bomber interceptors.

The Campaigns and Historic Missions of *Aces Over Europe* will again feel familiar to veterans of *Red Baron* and *AOTP*. The Historic missions are well-researched, providing 28 different aerial adventures of varying difficulty. The campaigns offer a wide variety of challenges while staying faithful to the actual progression of the war. Flying as a Luftwaffe pilot can be a humbling experience as the player's character comes to gripe with the futility of fighting huge numbers of Allied air forces.

Many other sharp refinements will come to light as players explore *Aces Over Europe*: an improved briefing/inflight map, new flight recorder functions, and controller options that include CH Flightstick Pro and notebook adapter support. Pilots who find them-

selves "out of airspeed, altitude and ideas" will be thankful for the ability to now bail out at any time. The animated sequences are particularly well done, resembling old WWII film footage. Personally, my favorite new bit of chrome was the small explosions that now appear when a plane takes a hit.

Not Necessarily the News

One of the few disappointments *Aces Over Europe* may have in store is the relatively boring terrain. The flat, lifeless terrain model of the game is physically much larger than *AOTP's*, but virtually identical. Compared to the terrain models of *Strike Commander* and *Comanche: Maximum Overkill*, *Aces Over Europe's* terra firma is a definite step backwards. It seems almost criminal that the game's gorgeous aircraft must zoom around over scenery that's only marginally more interesting than a putting green. Of course, there is always the graphic flash vs. frame rate trade-off, and it seems Dynamix has opted for the frame rate and its resulting playability—a decision that will do right by most gamers.



Along with a terrain model mired in yesterday's technology, the sound effects have also failed to challenge the state of the art. In fact, like the terrain, they seemed to have been simply ported over from *AOTP* with little noticeable improvement. With the heart-stopping digitized effects of games like *SYGA Air Warrior* on the market, the sounds of *Aces Over Europe* seem timid by comparison.

Off We Go...

Aces Over Europe is not a revolutionary game. Taking a proven concept and engine, Dynamix has skillfully woven small improvements into the system while leaving the best features of their previous games intact. The successful formulas of *Red Baron* and *AOTP* are very evident in the overall feel of *Aces Over Europe*. This evolutionary method of development may disappoint those expecting a quantum leap in technology. Regardless, *Aces Over Europe* certainly promises to be accommodating, playable, entertaining, and even educational to the majority of flight-sim fans. Without question, *Aces Over Europe* has the potential to be the best Dynamix Warbird game to date.

The author can be reached for further comment on America Online at WALKER34. ESW

Art Thou A Worthy Opponent?



SSG's Warlords II Will Cripple The Weak And Ill-Prepared

by Ed Dille

"In the survival of favored individuals and races, during the constantly-recurring Struggle for Existence, we see a powerful and ever acting form of Selection."

—Charles Darwin

"Though fraud in all other actions be odious, yet in matters of war it is laudable and glorious, and he who overcomes his enemies by stratagem is as much to be praised as he who overcomes them by force."

—Niccolo Machiavelli

Were these two great minds alive today, it is likely that they would appreciate how well *Warlords II* illustrates their points. In this latest offering from Australia's SSG, none but the fittest may survive, and inferior positions are only winnable with great strategic acumen.



Warlords II returns us to the moral state of the Dark Ages, where kingdoms were built on the backs of the peasantry and survived only through expansionism. Players who wish to survive in this environment must shed all civilized inhibitions and take to heart Dille's first axiom of combat: the greatest happiness is to scatter these enemies and drive them before you, to raze their cities, poison their

crops, and slaughter the innocent...all vicariously, of course.

The fictional background for *Warlords II* is brief but sufficient. After a long and bloody war, the land of Illuria entered a blessed reign of peace. While this condition was popular amongst the masses, the assembled Warlords who had created the peace grew bored and restless. As the saying goes, idle hands are the Devil's playthings. Realizing that trouble would soon erupt unless the warriors could be provided an outlet, the Sages of the land gathered to cast a mighty spell. Once wrought, all the heroes and other unemployed military units were plucked from the land and dumped, *ex mense*, in the new world of Etheria. Etheria is ripe for conquest, with three set piece campaigns and a random world builder, such that the most voracious appetites for conquest should be sated.

Warlords II is an eight player game of conquest. As in *Empire* and other games of this ilk, diplomacy is only a tool to allow one to choose the time and place of the ensuing war. There is no victory short of total victory but, as Hitler and many other would-be world conquerors learned, it is best not to support too many fronts at once. Less than eight players may be used, though it detracts from the complexity to do so, and any combination of the total may be human controlled.

Computer players have three selectable skill settings: Knight, Lord and Warlord. None of the

computer opponents are patsies. Instead, the chief difference between them is the degree of aggressiveness displayed toward expansionism. Knights are the most conservative, preferring to consolidate their holdings with strong defenses before venturing further. Lords are a little more opportunistic, willing to take a risk now and then to capitalize on an opponent's weakness. Warlords are naturally the fiercest opponents, attempting to drive you before them with well balanced stacks of units while jealously guarding those assets already won with the blood of their brothers.

Internal examination of the program reveals that the AI routines for each skill level are identical, but Knights and Lords are handicapped by special logic constraints. They are forced into more passive play by restrictions on the offensive options open to them and the number and types of units they may build. By opting for this approach, in lieu of designing three separate AI routines, SSG was able to devote more energy to making the Warlord opponents as cunning and ruthless as possible.

Full campaigns begin with 80 cities on the map, 72 of which are neutral and must be brought under control. Neutral cities never undertake offensive operations, so the player need not be concerned with strong defenses of new cities during the initial phase of the game. Succumb to the land rush

Warlords II



TITLE: Warlords II
PRICE: \$69.95
USA:
REQUIREMENTS: 386SX, 2MB RAM, VGA graphics, 5MB hard drive; space needed; supports A41-A, Sound Blaster, PMS, ME-32 and Sound Canvas cards
1-8:
None
DESIGNERS: Steve Lawler, Roger Kostar, Ian Sosa, Nick Subtopoulos, Greg Whaley
PUBLISHER: Strategic Studies Group (US Office)
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mentality and grab as much territory as possible before coming in contact with the other Warlords. Remain at peace with them for as long as possible while consolidating one's position after the initial expansion (more on that later). Alternately, players may opt for a quick start, which divides the neutral cities evenly amongst the sides prior to the start of the game. In practice, one generally receives less cities starting with this option, but they are more defensible once other Warlords begin to eye your territory greedily. Finally, for those who don't have the days necessary to do a full campaign, shorter scenarios with 40, or even 20 cities are possible.

Ambassadors From Abroad

Diplomacy is an essential component of the new system. A single display provides the current state of affairs between all the kingdoms. By referring to it frequently, the player can keep track of which nations are occupied elsewhere in conflict, as well as those who are presumably building up in a period of peace. As mentioned earlier, it is best to minimize the number of enemies one has at any given time. By keeping one's ambition in check, for the time being at least, it is possible to mass decisive force on one or two of the opposing Warlords at a time. In military terms, this is known as *defeat in detail*.

Three states of diplomacy exist: peace, limited war and total war. All sides initially begin at peace with one another, with one exception. If the player begins the game with the "I am the Greatest" option, then all the opposing computer players will come after him with a vengeance. Limited war is an agreement to allow armies to fight each other in the field, but cities are considered sacrosanct. Total war is inevitable if one wishes to win the game, but again, one should not rush headlong into this state of diplomacy (or lack thereof).

The initial period of peace allows one to build a military and economic base for the ensuing conflict. Defeat and occupy as many neutral cities as possible. Invest in the unit

types which may be produced by each city until there are at least three. With the potential to build three or more unit types, city walls will provide a defensive bonus of two instead of one. Players of the original *Warlords* will remember that, over time, it was possible to build city fortifications to a level of nine, which made them virtually impenetrable. *Warlords II* does not allow this. Two is the maximum defensive bonus of city walls, but several new and unique unit types more than make up for this difference.

When an opponent is encountered early in the game, the player has two options. First, garrison the border with at least three units in each city and expand in a different direction. Or second, focus on him in lieu of the neutrals to attempt to eliminate him from the game before he can become very powerful. If one chooses the latter option, the outbreak of hostilities may take one of two forms. The diplomatically correct way is to move units into position, then declare war on the diplomacy screen just prior to ending the turn. This gives the opponent a small warning of what is coming, but it preserves one's status as a fair player with the other opponents. The alternative is to strike without warning, conducting surprise attacks accompanied by treachery messages for the world to see. This may yield an immediate tactical advantage, but it may also prompt other leaders to become more hostile based upon that act alone.

The Military Advisor

When one is positioned next to an enemy, a sword icon appears to prompt the attack. By holding down the shift key, this icon changes to a question mark. Clicking on the mouse then brings up the Military Advisor screen. The advisor is important for several reasons. First, his advice is usually accurate unless one has the "intense combat" option enabled. Intense combat can even out the disparity between inferior and superior forces, allowing the former to win on occasion. Also, the advisor is important because of the manner in which unit stacks are presented.

The most powerful unit in a stack is always displayed as the map icon. A

staff which accompanies the unit changes to reflect the number of units in the stack. The banner on the staff becomes larger and longer as units are added (eight is the max per stack) and a second smaller banner appears below the first when the number of units exceeds four. What is important to understand from this is that looks can be deceiving. A fierce Demon unit with a double banner may be accompanied by other powerful units, such as Griffins, Giant Spiders and Minotaurs, or it may be the only strong unit in the stack, carried along by several units of Scouts with an Orcish Mob or two. The only way to tell the difference is to use the Military Advisor function.

The same logic applies when approaching cities. Each city is divided into four quadrants, which makes it capable of holding up to 32 units. It doesn't matter which wall is attacked, all the units in the city must be dealt with to capture it. The presence of certain units in the city, some of which may not appear visually, can negate bonuses in the attacking stack and vice versa. The next section will discuss these new effects but, for now, the important thing to remember is to use the Military Advisor profusely when planning attacks.

The types of comments one obtains from him range from "this battle should be as easy as butchering sleeping cattle" to "an attack here would be utter suicide." Between these two extremes are several other recommendations that reflect an even match and slight advantages by either side. Players must use their judgment as to how hard the attack should be pressed.

When a city is conquered, the player may either occupy, pillage, sack or raze it. Occupation treats it like all other player cities and retains whichever units were already being built therein. Pillaging eliminates the ability to build the most powerful unit in that city in return for an immediate cash benefit. Sacking destroys all production except the least powerful unit type, but yields the most cash to continue the campaign. As such, it is usu-





ally not a good choice if one is planning on keeping the city unless it is necessitated by a quest (see below) or the player is very cash poor.

Razing is the adoption of General William T. Sherman's scorched earth policy. In essence, the city is burnt to the ground and cannot be rebuilt. The player derives no money from razing a city, but there is a way to do it that is not explained in the manual. If one's intention is to raze the city anyway, don't do so when it is first captured. Instead, sack it for all it is worth and then move on. Prior to ending the turn, however, return to that city with the pointer and then raze it. This is an effective tactic when one is raiding behind enemy lines and cannot defend the cities from being recaptured the next turn. In essence, it fills one's coffers and denies resources to the enemy.

Rank And File

The expanded bestiary of *Warlords II* enhances the tactical model very nicely. Cities are initially capable of building 1-4 unit types, but the player may invest in new unit types as funds become available. Players must pay 10-1500 gold pieces to give a city the capacity to build a certain unit. Each unit type has a base combat and movement value, a set production time which ranges from 1-4 turns, and may have other movement or combat bonuses. Successful players will learn this system inside and out, such that they construct offensive and defensive stacks of mutually supporting units. Given that, let's examine some units and illustrate advantageous methods of employment.

Spiders are extremely effective units for defending cities. They cost 1000 gold to establish, but they have a two turn build time, a base combat value of 5 and a +2 combat bonus if defending a city hex. Given that, a spider supported by 2 or 3 expendable light units in a city with +2 defensive walls can withstand all but concerted enemy attacks. As such, it is best that the third city captured be put to work producing spiders to vector to all new conquests for quick defense.

Giant Bats are the best reconnaissance

units. They are cheap to establish (30 gold), which makes them a perfect choice to increase cities from two to three unit production, and they are built in one turn. Their base move value of 16 is the same as that of Scouts, but they suffer no terrain disadvantages to movement. Build several Bats early in the game and use them to uncover the map (which is hidden at higher levels) in advance of the conquering armies.

The most powerful units that may be built directly, instead of acquired through special actions (see the next section), are Pegasi,

Griffins, Unicorns and Elephants. Pegasi may move 20 spaces without terrain restrictions, have a combat value of 5 and provide a +1 combat bonus to all units in their stack. Griffins have the same movement value, a combat rating of 6, but have a +2 individual bonus when attacking cities. This makes Griffins an excellent choice to conduct interdiction operations deep in enemy territory. Unicorns do not move as fast as Pegasi and are subject to terrain restrictions as well, but their unmodified combat value is 7 and they have the same +1 bonus for stacked units. Elephants are a particularly nice addition, and not only because I happen to be a big fan of Hannibal's campaigns. They have a base combat value of 8, but more importantly, the presence of an elephant in an attacking stack reduces the combat value of every enemy unit in the battle by one point.

What Is Thy Quest?

As was mentioned, there are several other units which may only be gained through special action. Everyone begins with one Hero, but may receive offers from others if the coffers of the kingdom are full. Heroes have variable combat and move values which may increase as they gain experience. Heroes add leadership and combat modifiers to the stacks they command. Further, they can discover and carry items which increase their bonus levels even farther. Heroes obtain these items, as well as numerous other beneficial rewards, by visiting the ruins and temples scattered around the countryside.

Powerful monsters inhabit the ruins one discovers. By defeating them in single combat, the player may obtain a cash bounty or one of the aforementioned special items or combat units. The types of special units include: Wizards, Giant Wyrms, Undead, Demons, Elementals, Devils, Archons and Dragons. The presence of any of these units in a stack adds a +1 combat value to all units with the exception of Dragons, which con-

vey a +2 bonus. Special units are the most powerful in the game, so it is necessary to divert one's Heroes away from the battle to accomplish these explorations.

Temples are inhabited by non-secular priests who may either bless the Hero and his stack (another combat bonus), offer information about the location of certain items or allies, or offer a quest. Quests might entail the recovery of a specific item, destruction of a particular city or even a crusade, where one must sack a certain amount of gold from the opponents. The successful completion of a quest results in the temple bestowing several powerful supernatural units to your cause, typically Archons but not exclusively so.

In The Heat Of Battle

All battles in the game are decisive, continuing until only one group remains. The entire campaign may also continue as such, but if one becomes too powerful, the other sides may sue for peace. The player may opt to accept or continue on. Either way, by the time a full-scale campaign is completed, as much as 15-20 hours will have passed. Herein lies the single complaint I have about the game. Once victorious, one receives a brief fanfare and a single graphic image depicting the arrival of peace. Sorry gang, it was great getting there but the payoff could be a little more rewarding. If there is a *Warlords III* (one hopes so), some of the expanded graphics and sound capability might be used to jazz it up a bit.

Grumbling aside, every other aspect of *Warlords II* is worthy of respect and admiration. The digitized sound routines are handled very nicely and the AI engine is surely one of the finest on the market. Even if one is a highly skilled strategist and tactician, the game is going to win now and then. As in the real world, anything can happen to disrupt the best laid plans. If one's heartbeat keeps time with the rhythm of war drums, and a day in battle is more palatable than a day in the park, step into the *Warlords II* arena and be humbled. **eww**



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Prepare Thyself For Warlords II

by Robert L. Hayes, Jr.



This two-part strategy guide to SSC's *Warlords II* begins with an overview of the production of military units and the uses for each unit. Next month, we'll cover combat, grand strategy, and useful tips and tricks.

The Best Creature For The Job

The individual units in *Warlords II* can all be used for the same purposes: attack, defense or exploration. However, most units have special powers or characteristics that make them far more useful for certain tasks than others. The successful Warlord will be the one who makes sure his or her armies are performing the jobs for which they are best suited.

Each city has a selection of unit types available for production. Additional unit types can be added to existing cities by spending gold; when to buy new unit types and when to simply concentrate on producing what you can is one of the decisions that separates world conquerors from dogmeat. In general, purchase units when you can, but don't bankrupt yourself in doing so. Heroes that approach you during the game should always be bought, but generally each hero will want 1000 gold or more; try and maintain between 1000 and 1500 gold in your treasury at all times. Additional funds should be used to purchase new unit types at cities that are appropriately located.

Table 1 provides several categories of useful information on the various units. The first few



columns will be familiar to anyone who has played the game; they cover the same basic unit data provided in the rulebook. Number of units produced per turn is self-explanatory; this value provides a basis upon which to compare the strength added per unit of time.

Strength per turn indicates how many strength points the production of a given unit will add to your army in a given period of time. Of course, not all strength points are created equal: Eight one-point Scouts are not the equivalent of one eight-point Archon. However, these numbers can be compared to a certain extent. Special strength per turn reflects the special terrain or supernatural modifiers that certain units receive or produce. Some of these modifiers are very common (Dragons, for example, always get their two-point bonus unless fighting a Devil), others fairly common (cavalry gets a point or two while fighting in open ground), and some are quite rare (archers get their one-point bonus only in forests). Cost per strength point and cost per special strength point reflect how much gold is required to build each unit relative to how strong the unit is.

Unit values not easily tabulated are those powers which affect an enemy's stacks rather than your own; catapults reduce a city's defenders by one or by two depending on the strength of the city, while Devils and Archons eliminate the bonuses the enemy stack receives due to the presence of special units. Elephants, handy creatures that they are, reduce the enemy's strength by one regardless of the terrain or presence of special units.

Depending on the given circumstances of a game, some bonuses are not worth as much as they are ordinarily; if your opponent's army is simply swarming with devils then few of the bonuses will be worth anything at all, since your enemy's devils will negate the bonuses when you fight them.

Note that the table uses the normal values for units. Occasionally, a city will make units that are non-standard. These changes can be a one-point combat difference in either direc-

tion, a two-point difference in movement points, or a one-turn difference in production time. It is possible, then, for a city to construct heavy infantry with four combat strength points, ten movement points, and a one-turn construction time. For the most part, however, units will follow the rulebook values.

Usually, a country will be able to afford as many military units as it can build. This would seem to make the unit cost somewhat irrelevant, but this is not the case; a few gold pieces per unit times 100 units can make a remarkable difference in your overall gold availability. Since your treasury determines whether you can afford to hire another hero or purchase spiders at an important city, watch your unit costs!

Putting Units To Good Use



Scouts are good at exploring unknown territory, moving through hills and forests as though they were clear terrain. They are the best units for naval purposes, as they are the cheapest and the fastest to build. Since all navies have a strength of four, scouts can be used to take out huge quantities of enemy strength at minimal cost to yourself. But they are thoroughly pathetic fighters on land and contribute very little to any stack they are in, aside from their ability to guide stacks through bad terrain.



Bats make the perfect explorers; as aerial units they see an extra square in all directions in hidden-map games. They are very expensive relative to their strength (although not very expensive in an absolute sense) and make poor combat troops. Quickly produced at the beginning of the game (and only rarely thereafter), bats can survey vast amounts of territory very quickly.



Light Infantry are the grunts of most nations. Slightly stronger than scouts or bats, they are very inexpensive and can be built up quickly. They make good navies due to their inexpensive nature, and in a city with a defense of 2, they can make an

enemy attack an expensive proposition. They are not generally useful on the offense, but on occasion a powerful enemy stack will move within range of a vast number of superfluous light infantry, whereupon the enemy's high-powered troops will receive terrible casualties before stomping your infantry (a fair tradeoff, wouldn't you say?).



Orc Mobs are cannon-fodder; their only advantage over light infantry is that they can move through hills and forests like scouts. They are slow, take twice as long to produce, and cost more than light infantry; on balance, they are not the best unit to buy. If you need a guide, build scouts instead.



Light Cavalry are another unit of little worth. They are weak (though not so bad in open ground) and don't produce very quickly. They are exceptionally fast, however, and make decent explorers through large quantities of open terrain or on roads. They are fairly good companions for a hero questing after artifacts as well, as they provide sufficient protection against the occasional enemy army and don't slow down the hero. Don't build them if you have anything better available, but their replacement by heavy cavalry can be delayed if no funds are available.



Catapults are occasionally useful. Their ability to eliminate the defender's city bonus is helpful, especially when the defenders are tough city troops like spiders or griffins. They are extremely slow to produce and very vulnerable; on balance, I'd rather have a griffin or spider as part of an attacking stack. In any circumstance other than attacking a city, their expense, weak strength and extremely slow production time make them a poor investment.



Heavy Infantry are excellent defensive troops. They are inexpensive, reasonably strong, and reasonably quick to produce. They move very slowly, but once entrenched in a city their movement rate becomes irrelevant.



Archers are another special-use unit. They are wonderful to have in forests, as they move through forest normally

and get a combat bonus in woods. However, they are expensive relative to heavy infantry which is just as strong anywhere else. Reasonably fleet of foot, they can be used en masse in woods as a strike force, raiding enemy stacks that are ponderously trudging through the bush.



Dwarves have the same performance characteristics as archers, but are effective in hills rather than forests. They are also among the slowest units in the game. Heavy infantry is better for city defense and wolfriders are better for hill combat; there really is no reason to build dwarves if anything better is available.



Pikemen are good city defenders. They are strong, very inexpensive, and in a pinch can be used to sortie outside of a city, as they get a combat bonus for fighting in the open. The only problem with pikemen is that they are very slow to produce. Defend your rear cities with pikemen; once the city is adequately covered, start sending pikemen forward to hold cities on your frontier. They move slowly, but as with heavy infantry, defenders don't need to move.



Heavy Cavalry are the premier open-ground combat troops. Surprisingly cost-effective, they are reasonably fast movers. Don't waste heavy cavalry on city defense; send your heavy cavalry to the front and let the dogfights hold the masonry. There are better troops for city assaults, but heavy cavalry are strong enough to do it in a pinch, or if strongly led.



Wolfriders make good general-purpose troops. They are reasonably strong, reasonably inexpensive and quite fast. Their combat bonus is usable only in hills, a rather uncommon combat site in most games.



Giants are the ideal general-purpose troops. They are strong, reasonably priced and fast on the ground. They have no special bonuses. Quickly produced, they are excellent troops for the beginning of the game when taking neutral cities is the main activity.



Minotaurs have the same performance characteristics as giants, but are slower. Additionally, they have a small combat bonus while in cities, which makes them good attack and defense troops.



Spiders are the ideal city attack and defense troops. They are strong (VERY strong with their bonuses), extremely cost-effective when used in their proper role, and quick enough to move from city to city with reasonable speed. If you can build spiders, do so.



Pegasus are not much good in and of themselves; while strong and speedy,



they are slow to produce. However, they add an additional +1 to any stack they join, in addition to any other bonuses. This makes them very useful as part of attacking or defending stacks. Flight capability adds to their general utility and makes them good hero companions.



Griffins are the city-busters of *Warlords*. Fast and extremely strong when attacking or defending cities, their only problem is their slow production time. Their ability to fly makes them good for overseas operations.



Unicorns fall into the same category as pegasi, but are strong enough in their own right to make them a powerful main combat unit.



Elephants are extremely powerful and fast units whose special power is to reduce an enemy stack's effective strength by one point per unit. A slow production time is their only flaw.



Wizards are the fastest unit in *Warlords* 2, more than twice as fast as dragons. While not overwhelmingly strong, their incredible movement rate means they can move a third of the way across the map in a single turn. At the beginning of the game, this means a wizard may conquer several neutral cities simultaneously; later, this high movement rate means they can flexibly defend or attack in conjunction with other, slower stacks almost anywhere within your territory. The first of the supernatural units, wizards are well worth producing in any circumstances. Like all the supernatural unit types, wizards cannot be constructed; only a city already capable of making them can do so.



Worms are strong, cost-effective, and slow. They are wonderful defensive units, but their slow speed means that they will retard the progress of most attacking stacks.



Undead are identical to worms in every way, but are quicker. They are good general-purpose units, and their supernatural bonus means that mundane

(Continued on page 210)

At What Cost Victory?

An Analysis Of Economics And Production In Three-Sixty's *High Command*

by Robert L. Hayes, Jr.

High Command, Three-Sixty Pacific's grand strategic simulation of WWII's European Theatre, is a highly complex game system with a wealth of detail that, unfortunately, can overwhelm the would-be German Chancellor or English Prime Minister. To make matters worse, the game's manual is, to be as polite as possible, inadequate. This article is intended to clarify issues that are not well understood by many *High Command* players, as well as to discuss grand strategic issues involved in the game.

One look at the game's structure reveals that economics and production are the central points of any well-designed strategy. Though the economic and production systems are controversial, in that many gamers feel there are too many decisions to be made, it is possible to greatly simplify these tasks.



There are only three general types of resource-producing sites in the game. Oil and mineral production sites produce the raw materials needed for your war machine. Factories and shipyards convert these raw materials into the actual ground, air and sea units. National capitals provide the economic points that tie the entire system together. Economic points are an abstract measure of the manpower, efficiency, and civilian production of a given country. It is important to note that *High Command's* economic system follows a limiting-factor model; it generally takes all three components (raw materials, production facilities, economic points) to produce any given unit, but your unit production is limited to the smallest of the three contributing factors. So, if you have infinite raw materials and

infinite economic points, your production of tanks will be limited to the available factory resources. Conversely, all the production in the world will do you no good if there are no raw materials or economic points to produce with. Thus, to achieve optimal production increases it is not sufficient to simply increase your supply of raw materials, factories or economic points; you must maintain a balance between these three components or your ef-

Table 1 - High Command Production Table (1939 Data)
Nation: USA/Britain/Germany

Unit Type	Qty Built	Total Oil	Total Min	Total EP	Total Ground	Total Air	Total Sea	Total Factors
Infantry	72	360	360	360	1800	360	720	2880
Armor	18	360	360	180	900	180	90	1170
Mech Inf	36	720	720	360	900	360	180	1440
Airborne	24	600	600	360	600	0	0	600
Marine	72	360	360	360	1800	360	0	2160
Fighter	18	360	360	180	270	900	270	1440
F/B	18	360	360	180	900	270	900	2070
Bomber	18	360	360	180	270	270	270	810
Transport	36	180	180	180	0	0	0	0
Merchant	18	180	180	180	0	0	0	0
DD	12	120	120	120	180	180	180	540
CA	9	90	90	90	135	450	135	720
BB	4	60	60	60	200	60	200	460
CV	2	40	40	40	100	100	100	300
SS	12	120	120	120	0	0	600	600

Table 2 - High Command Production Table (1939 Data)
Nation: Russia

Unit Type	Qty Built	Total Oil	Total Min	Total EP	Total Ground	Total Air	Total Sea	Total Factors
Infantry	72	360	360	360	1800	360	720	2880
Armor	18	360	360	180	900	180	90	1170
Mech Inf	36	720	720	360	900	360	180	1440
Airborne	24	600	600	360	600	0	0	600
Marine	72	360	360	360	1800	360	0	2160
Fighter	18	360	360	180	270	630	270	1170
F/B	18	360	360	180	630	270	630	1530
Bomber	18	360	360	180	270	270	270	810
Transport	36	180	180	180	0	0	0	0
Merchant	18	180	180	180	0	0	0	0
DD	12	120	120	120	180	180	180	540
CA	9	90	90	90	135	315	135	585
BB	4	60	60	60	140	60	140	340
CV	2	40	40	40	100	100	100	210
SS	12	120	120	120	0	0	420	420



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Table 3 - High Command Production Table (1939 Data)
Nation: France

Unit Type	Qty Built	Total Oil	Total Min	Total EP	Total Ground	Total Air	Total Sea	Total Factors
Infantry	72	360	360	360	1440	360	720	2520
Armor	18	360	360	180	720	180	90	990
Mech Inf	36	720	720	360	720	360	180	1260
Airborne	24	600	600	360	480	0	0	480
Marine	72	360	360	360	1440	360	0	1800
Fighter	18	360	360	180	270	900	270	1260
F/B	18	360	360	180	720	270	900	1710
Bomber	18	360	360	180	270	270	270	810
Transport	36	180	180	180	0	0	0	0
Merchant	18	180	180	180	0	0	0	0
DD	12	120	120	120	180	180	180	540
CA	9	90	90	90	135	360	135	630
BB	4	60	60	60	160	60	160	380
CV	2	40	40	40	80	80	80	240
SS	12	120	120	120	0	0	480	480

Table 4 - High Command Production Table (1939 Data)
Nation: Italy

Unit Type	Qty Built	Total Oil	Total Min	Total EP	Total Ground	Total Air	Total Sea	Total Factors
Infantry	72	360	360	360	1080	360	720	2160
Armor	18	360	360	180	630	180	90	900
Mech Inf	36	720	720	360	540	360	180	1080
Airborne	24	600	600	360	360	0	0	360
Marine	72	360	360	360	1080	360	0	1440
Fighter	18	360	360	180	270	630	270	1170
F/B	18	360	360	180	630	270	630	1630
Bomber	18	360	360	180	270	270	270	810
Transport	36	180	180	180	0	0	0	0
Merchant	18	180	180	180	0	0	0	0
DD	12	120	120	120	180	180	180	540
CA	9	90	90	90	135	360	135	585
BB	4	60	60	60	140	60	140	340
CV	2	40	40	40	70	70	70	210
SS	12	120	120	120	0	0	420	420

forts will be wasted. Generally speaking, production is the bottleneck except at the very beginning of the war or when enemy action deprives you of large portions of your nation's natural resources.

Further complicating this tightrope act is the fact that different nations have different production priorities. Units cost the same amount of resources for all the nations in the game, but different countries' units have different combat abilities; German infantry is substantially superior to Italian infantry, while costing the same amount of resources. Thus, while what you *can* build is the same from country to country, what you *should* build is a question of strategic priorities and the varying unit abilities.

Tables 1 through 4 detail the various production capabilities of the major national groups in the game. The United States, Britain and Germany produce units with identical (and superior) attributes, while Italy, France

and the USSR each have their own national attributes. The tables presume a total available production (the amount of industrial production available at all factories or shipyards) of 60, a number that works well for purposes of calculating the total number of units that can be built. Obviously, a country with more or less production available will obtain different results; these numbers are provided as an international comparison. The tables are built with the 1939 start values in mind; the exact numbers will change as technological advances increase individual unit types' performance numbers. The number of units shown is the number of units that will be built in one year of production if the necessary resources (the few columns) are present. The columns listing combat factors display the total combat factors that will be obtained in each of the three combat areas (land, sea, and air) from the listed units. Note that some of the combat numbers are somewhat misleading (mainly

the anti-air columns) for reasons which will be made clear later.

The tables make two things very clear. One is that some classes of units are much more expensive in terms of raw materials and economic points than others. Mechanized infantry, for example, is staggeringly expensive in terms of oil and minerals, while capital naval vessels are very cheap. Note, however, that depending on the amount of raw materials you have, the expense level of what you build may be an irrelevant consideration; all that is important is how many combat factors you can field from a given turn's production. Secondly, some classes of units are overwhelmingly powerful in terms of how much combat power you can get out of them in a given amount of time, notably infantry.

The question of what to build, of course, depends in large measure on what you are planning to do. The vagaries of war and the vast number of military options available to both sides make generalizations almost useless. It would seem, for instance, that France should build nothing but infantry to forestall the inevitable blitzkrieg (or at least try and slow it down a little bit), but even that truism may not hold, depending on Germany's intentions. However, analysis of the combat factors involved can show which unit classes are best suited for various missions.

Naval Matters

The naval situation is fairly clear. The table provides a bit of misleading data here; in looking at the total combat factors (ground, air and sea) it would seem that there is a fairly wide selection of units, depending on mission role. This is not true. In a competently managed game, your navy will never conduct a shore bombardment (sea-to-ground) and will never engage an enemy air force (sea-to-air). This leaves only the sea-to-sea factors to consider, and in that category it is clear that submarines are the undisputed kings of the sea, with a year's run of submarines for any power producing at least twice the sea-to-sea combat factors of any other naval category. However, due to the special sub-killing properties of destroyer units, submarines should not be your only naval asset. I recommend a production ratio of two submarines to one destroyer versus the computer. If you are playing a human, the exact ratio of subs to destroyers will depend on what that player produces. If he is producing an all-sub force, then by all means produce an all-destroyer force. (And if he produces an all-destroyer force, then you still must do the same; however, for the major powers an all-battleship force is marginally better against an all-destroyer force than is another all-destroyer force.)

The reason that you will never conduct shore bombardment or engage an enemy air force with your naval groups has to do with the way the *High Command* combat system works. You cannot amphibiously invade or

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bombard any important site, only uninhabited coastline. The simultaneous movement of the ground combat system makes garrisoning the coastline a waste of forces; leaving powerful counter-strike forces one or two hexes inland of an endangered beach is a much better idea. This leaves nothing for the attacking naval force to bombard. (The computer player uses the counterforce-in-reserve defense as well).

Your ships will never fight enemy planes because ships at sea on missions are immune to enemy air attacks; only in their home ports (or, if left on an enemy beach for mysterious reasons) are they vulnerable. In both situations, your own air units should be providing CAP protection for the fleet. (You can almost always simply have a naval unit's home port be far out of reach of enemy air.) Only an isolated invasion site is going to be (or should be) out of reach of your own air units, so unless your enemy has total air superiority (in which case, shut the game down because it's all over) your navy is airplane-proof.

Ground and air units pose a more complex problem. Cursor reading of the tables would indicate that an all-infantry army is the way to go, but in reality this is not true. Infantry is the backbone of a defensive army, but almost useless to an invader due to its slow speed. Paratroopers look like a terrible investment, but their special power of dropping from a distance makes them far more effective than the raw numbers would indicate. I have experimented with an all-paratrooper army for Germany to use against England and France, with reasonable success. Paratroopers in the Mediterranean are priceless, and the Italian economy can be put to far worse use than churning out paratroopers full-time. As a general rule, build infantry and fighters if you are planning to defend.

If you are on the attack, then your air arm should consist of fighters and fighter-bombers in a proportion of about one to two. This ratio should vary depending on the fighter strength of your opponent. Unescorted fighter-bombers are doomed if they encounter significant enemy CAP; a strong fighter shield is a critical part of any offensive unless your enemy has been swept from the skies. Strategic bombers are expensive relative to the benefits proffered; only buy them if your other service branches are lying idle due to their vast numerical su-

preMACy over the enemy. The sole exception to this should be Britain; oftentimes strategic bombing of Germany is all England can do to help Russia against German aggression, and producing a small but steady stream of bombers can draw off valuable German fighter cover from the eastern front.

There are three primary offensive ground units. Armor is inexpensive (relative to the other two) but you cannot build very much of it. Mechanized infantry is just as fast, just as good on ground attack (since you can build more of it), and has the added bonuses of being highly resistant to enemy air attack and getting the defensive bonuses granted to infantry; its only drawback is the obscene expense in oil and minerals. If you have those resources, though, then mechanized infantry is the king of the battlefield. Paratroopers are probably too expensive for general use, though they are wonderful for cracking open critical parts of an enemy line or reducing a fortress not accessible by ordinary means.

Local Or Global Investment?

One issue that confuses many *High Command* players is that of local vs. global investment. Some purchases (military units and investment in factory production) are local; that is, they are built at a factory and appear at a factory, there being no vectored production in the game. Other purchases (research and economic investment) are universal, meaning that they can be built at any factory. If you spend one economic point on economic investment or research at each of five factories, your total investment is exactly the same as if you had spent five points at one factory.

A question which often arises is how much to spend on investing for future production. Fortunately, modest investment in future production and/or economic growth is quite inexpensive, and I highly recommend it for any power expecting to remain in the war for more than a year or so. (France, obviously, may decline to invest in production, since Germany will be the power that gains the advantage of French industriousness.) A one-point investment per turn in a factory's production and in economic growth yields impressive dividends over the course of the war. Table 5 shows the net effects of such investments.

Table 5 - Long-term Results of a One Point Investment Per Turn

Year	Factory Investment	Economic Investment
1940	20.0	200.0
1941	22.5	212.3
1942	25.3	225.4
1943	28.6	239.3
1944	32.2	254.0
1945	36.3	269.7
1946	40.9	286.4

Note: 1940 value is the initial size of the factory or the economy; subsequent yearly values show the production after 12 turns of 1-point investment.

One major error in the documentation asserts that failure to invest any economic points in your economy will result in a one-half percent decline in the economy size; this is a misprint. Failure to invest at all in your economy will result in a 50 percent decline in your economy. Under-investment in an economy will shrink it by an amount equal to one half of the deficit; that is, if you need 100 EPs of investment to maintain the status quo, then investing only 80 EPs will result in your economy shrinking by 10 points. Never under-invest, except in one situation: If you expect your opponent to capture your country in a turn or two, stop all production and start transferring all your raw materials and economic points to your allies, every turn. (France might consider doing this from the start against a strong German opponent). This means that your enemy will capture, not a rich country bursting with economic points to be plundered, but a pathetic shell incapable of paying for anything.



Note that when you are using captured production facilities, they produce units with the national characteristics of the factory they are made at. For example, German control of Brest will not cause Brest to produce German submarines; subs produced there will have German markings and coloration but will have French characteristics. If you are one of the naval great powers, produce as much of your navy as possible at your home shipyards. If you are a minor naval power, try and produce at captured, superior yards. Also note that technological advances only assist new units constructed; your old units derive no benefit from technology advances.

On 90 percent of your turns in *High Command*, you can allow the computer to allocate resource transportation and political investment. Minor changes to the computer's assignments (which are done reasonably well) are simple and will take far less time than doing the entire weary business yourself. Production should never be left to the computer, as (not being telepathic) the AI does not know what your production priorities are and will produce the wrong things. The best order in which to perform economic activities is:

1. Delegate political allocations to the High Command. Do this first, while you have a lot of EPs to spend. This gives you good diplomatic coverage and gathers your tribute from your vassal states.

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2. Delegate resource transportation to the High Command.

3. Conduct production activities. Do not forget to allocate research and economic investment points.

The question of which grand strategy to pursue can be a most difficult one to resolve, particularly for the Axis player. The Allies in many ways have it easier, in that their main objective (stay alive) does not change for most of the game, but even the Allies have to make many decisions about the relative priority to assign to each front and what offensives can be made from the limited stock of military force at their disposal. The Axis at the beginning of the 1939 scenario is faced with all of Europe to conquer; too much conquest can bring about early Allied intervention with the problems that this causes, but to be too cautious is also dangerous.

The Axis player has one enormous advantage over Hitler: The USSR is far less likely to become an Allied power than in the actual war. Careful German maneuvering on the eastern front and proper diplomatic allocations can keep the Russians off of Germany's back for a long time, if not indefinitely, making the conquest of England and France very simple, as only a small garrison force is necessary to provide a delaying action in the unlikely event of a Russian activation. The great weakness Russia has is that, unlike in the real war, she does not acquire any new forces (other than the Siberian units) until she activates; this means that Germany can build up a truly monstrous army and crush Russia in a very brief campaign.

The Grand Strategy

There are so many different ways to conduct the grand strategic war that it would require several articles longer than this to convey a basic discussion of each one. However, there are many techniques and operational maneuvers that are worth making public.

When fighting an enemy (computer) air force, mass your CAP over your most important formations rather than attempting to cover the entire line. The computer player tends to "piecemeal" its air assaults, and you can destroy large portions of his air wings a bit at a time as they fill into the maw of overwhelming numbers of air units. (Even the British and French air forces can nearly eliminate the Luftwaffe in this fashion.) If you have reasonable air superiority and a forward deployment of your air forces (dangerous, but often worth the risk) you can strike his air wings "on the ground" before they have a chance to merge by ordering one-box CAP over the enemy airfield. When his air force rises to begin its own missions, it encounters your CAP and is destroyed. This works very well on the Russian front for both sides. When fighting a human opponent, who is presumably wise to your tricks after the first time you use them, try and maintain a reasonably strong

air reserve; don't feel that you have to use every unit every time. If you have enough units to spare, use only your "green coded" (high organization) units in a given turn, giving the more tired units a chance to regroup.

On the ground, always coordinate major attacks by using the "delay an impulse" order. Five eight-factor armor groups arriving at the target simultaneously will do far more damage than five eight-factor groups arriving one per impulse. Unless an objective is at the end of your movement path, stop there. Don't continue onwards, as the computer player (and your human opponent) is tricky and will often schedule a small infantry unit to arrive in a contested hex at the end of the movement phase, after your conquering forces have captured the hex and then moved on. Cutting units out of supply is difficult on the western front but very easy for both sides on the eastern front; do it whenever possible, as then your smaller infantry units can very easily mop up the unsupplied remnants of your opponent's army.

Organization is returned to your units at the end of each turn as long as they are in supply; their actions during the turn do not have any effect on how much organization they have restored. Each unit's new organization value at the end of the turn is calculated by the formula:

$$\text{New Organization} = \text{Old Organization} + (100 - \text{Old Organization}) * (100 + \text{Old Organization}) / 200$$

Table 6 shows sample organization values. If the new organization is at 90 or above, there is a chance that the unit will return to 100 organization; the higher the rating is above 90, the better this chance.

Many of the strategies and tips presented here are made with the computer opponent in mind. As serious players of the game have realized, human opponents are far more challenging and make the game much more worth the time it takes. Most of the ideas presented here are either valid when applied to a human player or can be easily modified.

Table 6 - Sample Organization Changes

Old Organization	New Organization
10	88
20	88
30	76
40	82
50	87
60	92
70	96
80	98
90	99

I would be very interesting in seeing commentary on this article or suggestions on additional tactics and techniques. I can be reached via CompuServe at 70314,2302. cww

The Fog of War Can Sometimes Make You Choke

SimCan's Game of Naval War, *Red Sky at Morning*

by Terry Lee Coleman

Back in the Dark Ages of Wargaming, Steve Newberg and Bill Nichols were makers of board wargames. They had a reputation for interesting, if esoteric, games which they published under the Simulations Canada label, otherwise known affectionately as SimCan. Entering the Computer Age of Gaming, Steve and Bill designed games first on Amigas, then IBM platforms for a larger audience. In keeping with their company's idiosyncratic nature, the games contained no graphics, even though this ignored the immense graphic potential of the Amiga in particular.

SimCan carved itself a niche by releasing realistic naval games, heavy on statistics and "fog of war," praised by chess types and shunned by control freaks. *Red Sky At Morning* started as merely another boardgame conversion, but changed in some strange ways. In a major concession to the fact that people like to see what they are doing, *Red Sky* offers the first graphics to ever appear in a SimCan computer game, and suggests a VGA monitor!



For the astute readers who have avoided a heart attack thus far, what *Red Sky* concerns is worldwide naval warfare in the aftermath of the Cold War. It is possible to simulate a US-Japanese conflict, for those who have any doubt how such a campaign would turn out. The Falklands conflict can be recreated as can any actions of the past decade or so. The Big Bad Meanties, though, are still the Russians (Soviets), or whatever one wishes to call them. Thus does the design show its age. SimCan cannot be blamed for the fall of the Berlin Wall, or the Warsaw Pact demise. Still, a game touted as the most realistic of contem-

porary naval simulations gets off to a shaky start, as it is a plot in search of a villain.

"What's the special today?"
"It's right there on the menu, sec..."

One of *Red Sky's* strongest points is that it is fairly easy to learn. The biggest setback for most users is that SimCan refuses to live in the Windows-type world. There are no pull-down windows or "hot keys," all information having to be accessed through DOS menus which would have been familiar to users 10 years ago. There is, of course, no mouse support either.

The determined player will find a wealth of information at his command, despite the awkward interface. Felix Hack did the orders of battle, and has done a fine job of making *Red Sky* more than a rehash of *Jane's Fighting Ships*. When the player gives orders to his ships, he has a wide variety of armaments from which to choose. The old F-4 Phantom, still in use around the world, is quite useful in the game due to its versatility, but can't quite handle the newest Soviet (Russian?) interceptors. To simulate advances in technology, the player is allowed to increase lethality of weapons for one or both sides. Even as impressive as the database is, there are still some troubling questions. US ships seem to sink much more often in minefields than do their Russian counterparts. Russian weapons are also more effective than US, both in terms of how often they hit and in amount of damage caused. Given the performance of US/Allied technological weaponry in the Gulf War, one can't help but be skeptical.

"What's out there?"
"Can't quite tell. My glasses are all fogged up."

Reports are available from all over the globe, from P-3 Orions and stealthy subs, even from spies (actually, that's "highly classified" sources). What's interesting is that the "eyes and ears" often



shoot at the enemy after he is found out; it is amusing to see the old P-3s shooting Harpoon missiles at an opposing battle fleet (although not so amusing for the P-3 crews when the Mig-29s scramble to intercept them). In any "fog of war" simulation, the side with the best information generally has a huge advantage, *Red Sky* being no exception. Battlegroups (the basic unit in the game) are allowed to have radars and sonars active or passive. With large groups, such as US aircraft



carriers, the player learns quickly that the big ships cannot be hidden well, and as a result, should sail with everything active, hopefully to find the enemy first. Subs work fine with passive sonars, as should be likewise anticipated. All well and good, but nothing gamers haven't seen before in games such as *Harpoon*, or even *Red Storm Rising* for that matter.

Although it is difficult to find the enemy at times, once found, there are no more mysteries. The player always knows how much damage the enemy has suffered, with a "body count" of planes, ships, etc., ready to spring at the touch of a key. It's not difficult to imagine that the enemy captain's home phone num-

Red Sky At Morning



TITLE: Red Sky At Morning
PRICE: \$49.95
SYSTEM: IBM
REQUIREMENTS: 166-25MHz recommended, VGA graphics, 1MB hard drive space
OF PLAYERS: 1-2
PUBLICATION: None
DESIGNERS: W. Nichols and S.M. Newberg
PUBLISHER: Simulations Canada
P.O. Box 452
Bridgewater, Nova Scotia, B4V 2G6

bet is in there somewhere, if only I can remember which menu to look under. Where are the inflated reports of enemy kills, as in *Carriers At War*? Technology is certainly advanced enough to provide accurate reports, but pilot fatigue, over-enthusiasm, and plain old mistakes could have been factored in for even more "fog" and more player enjoyment.

Should the player move to the newfangled (for SimCan) graphic interface, he is liable to be more disappointed. The idea is great—provide situation maps for each region of the world. Thus, players can see how forces are arrayed in the Indian Ocean or the Western Atlantic. Enemy ships may also be seen if they have been discovered. The problem is that the maps are low resolution, with the ships appearing as blobs of primary colors. If SimCan used 236 VGA for these displays, then 253 of the colors are in shades of green. This might have been acceptable five or six years ago, but not anymore. SimCan would have done just as well without the graphics.

Certainly, the rest of *Red Sky* is bereft of color. Except for the opening screen, there are no color backgrounds for the gameplay results. So what the player sees for combat resolution is line after endless line of text on a blank screen. SimCan could take a cue from publishers of sport stat games, such as Lance Haffner, who use multiple colored backgrounds and a "split screen" look to spice up their games visually. Despite the wealth of information in *Red Sky*, the player is sometimes left with the uneasy feeling of manipulating a database, rather than playing a game.

"Strange-looking clouds."
"Yeah, rain looks kinda funny, too."

Red Sky assumes that tactical nuclear weapons are a necessary in the modern naval world. Players choose what level of nukes can be used by each individual nation. While the player has the option to prohibit their use, the game assumes that each side will use them frequently on major targets, such as airbases. With only minor victory point penalties incurred, there is every reason for the player who is behind to "go nuclear" in more ways than one. Such a casual attitude belies the realism and detail which exists in the rest of the design, especially since atomic weapons have not been used in combat in 48 years.

After nukes are used, there is a hidden ceiling where global thermonuclear war will



occur. In 12 games I never reached it, even with free and easy use of nuclear missiles and bombs by both sides. If the game were truly trying to be realistic, there would be some effect from electromagnetic pulse (EMP). EMP would affect both reports from the ates and all kinds of sensory devices around the world. Perhaps this would be too much "fog" even for SimCan.

What *Red Sky* could offer is a simpler alternative to the *Harpoon* series, easy to get into and quick to play. That all the research work herein goes to waste is only part of the sad story. As released, *Red Sky* lacks many player amenities which would make it more accessible for the person who might never buy a wargame again. The save game function simply does not work, and regardless of how quickly a patch is available, what does this say about SimCan playtesting and quality control? *Red Sky* wants so badly to be *Harpoon*—perhaps when it grows up. **CSW**



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More Steel Tips For Conqueror's Boots

Reich & Roll Techniques for SSI's *Clash of Steel*, Part 2

by Alan Enrich



Last issue I presented the keys to victory in SSI's *Clash of Steel* and even offered a "perfect plan" for the Axis conquest of Europe. Included were important tables to explain many of the "die rolls" in the game. In this installment, detailed tactical tips are presented for air and naval combat, while the economics and diplomatic game are both put under the microscope.

Tactical Tips: The War at Sea

Let's begin with the war at sea which, ironically, plays much like the board game *War at Sea* from Avalon Hill. Things to remember for the naval game:

1. The proper way to conduct an amphibious invasion is to move one's transport(s) to the "Transporter" box in the sea zone where units are to be loaded from. Load *all* units onto these transports before unloading *any* during the invasion impulse. Once any unit is unloaded by sea, no more units may be loaded onto ships for the rest of that turn.

2. Each fleet's formation (or "box placement" within a sea zone) is the most important part of the naval war. This is where using some strategy and "playing the percentages" really pays off.

The table on page 33 of the manual says it all. To avoid naval combat, send ships out as individual raiders. To preserve a task force, make it a transporter group. To hunt down the enemy, make fleets. By forming two distinct fleets in a sea zone, the chances are doubled of finding the enemy (although they might only be initially engaged in battle with those ships that were in the single, sighting fleet).

The down side to raiders is that, when they are discovered, they fight their first combat round individually. At least ships that cover as transports will fight their battles together as a team. Keep this in mind when deploying ships.

3. Note that only the best unit in each individual box (Fleet 1, Fleet 2, Transporter and each of the four Raider boxes) actually combat enemy convoys each turn. If one player has naval combat units in either of the Fleet 1 or Fleet 2 boxes, and his opponent does not, that opponent's convoy PPs from that sea zone will be completely eliminated. In this way, the Fleet 1 & 2 boxes can "blockade" enemy convoys.

4. When naval units deploy for a battle continuation decision, each of the eight rows where they might appear has significance. They serve to remind the player, when deciding whether to stay, retreat from, or reinforce a naval battle, what box in the sea zone those naval units are currently positioned in. The first row contains the ships in Fleet 1, the

second Fleet 2, the third is the Transporters, the fourth through seventh are the Raiders, while the last row is reserved for land based air units.

5. An undocumented feature is that damaged ships have one added to their combat die rolls. Thus, a damaged ship only hits if its attack die roll is *less than* (but not equal to) its combat strength.

6. Remember the nautical choke points located in Istanbul, Hamburg and Gibraltar. Control these cities for free access through their restricted passageways and to cut off enemy ship movements through them.

7. Computer players get twice the sea lift capacity out of their transports as human players do.

8. To better protect transports on invasion turns, sail them out of port with other ships from that same port. Putting all of your ships into one fleet sent from one port helps protect transports during any ensuing naval battles.

9. The Germans need to keep the North Sea in sea supply (i.e., have a surface ship there) to take advantage of their special Norway rule.

10. When playing the Axis, the Allied navy reacts to any Axis fleets in the North Sea by sending most of their navy there to engage it. If you want to engage in a big naval battle there, the computer Allied player will always oblige.

11. Shore bombardment is like getting a free, no risk air strike (see the note on the Air Strike/Shore Bombardment table from Part 1). Don't pass up an opportunity to use Shore Bombardment.

12. To keep naval losses down, don't sail surface ships out to conduct shore bombardment until impulse 3 or 4 of a turn. They will be able to shore bombard on the impulse they sail and won't be subject to naval combat on that turn (which only occurs at the end of impulses 1 and 2).

13. Ignore everything page 28 of the manual says about having a chance of being sunk in the convoy phase. That was written based on an old routine that is no longer in the program.

14. One dirty Axis ploy to upset a western Allied computer player's plans is to leave Palermo open. This invites an Allied invasion to which they will probably overcommit forces (say, 3-5 land units). One good army or headquarters unit on the toe of Italy, particularly one placed upon a fortification, can easily bottle up the Allies. Suddenly, Sicily is the largest, self-contained POW camp in Europe!

The Odds of Invasion

When land units attempt to hit the beaches during an invasion, there

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is a chance that they will be intercepted by nearby enemy naval combat units as explained in Table 1.

Table 1 - Amphibious Interception

Die	Where Enemy Naval Units Can Intercept From
1	Nowhere. There will be no interception of this invasion.
2	Fleet boxes 1 & 2 in the invasion target sea zone only.
3	All naval boxes in the invasion target sea zone only.
4	All naval boxes and harbors in the target sea zone, plus all Fleet boxes in neighboring sea zones.
5	The above, plus all naval boxes in neighboring sea zones.
6	The above, plus all naval boxes and harbors in neighboring sea zones.

After surviving enemy naval interception, invading land units have a base 70% of successfully landing on the enemy beach hex (not 80%, as indicated on page 35 in the manual). This 70% chance is halved for each of the following conditions:

- If the hex being invaded has a fort.
- If the hex being invaded is occupied by an enemy unit.
- If the weather on the hex is either mud or snow. (Note that invading units must *embark* from clear weather ports, but can land in adverse weather — with this penalty, of course).

If all three of these apply, that would mean a mere 8% chance for a successful landing! If a unit *fails* to make a successful landing (which places it on the invaded hex with 1 AP remaining), then it attempts a second invasion die roll (at the same percentage chance as the previously failed one). If it passes this final “do or die roll,” the unit still lands, but takes 50% damage and has its APs reduced to zero. If it fails this second roll, the unit is dissolved.

Important Invasion Note: Always make high risk invasions (those made directly against enemy occupied hexes, forts or in bad weather) with “cheap” units. A little corps unit has *exactly* the same chance to succeed as a big, beefy HQ unit. Therefore, where the odds of succeeding in an amphibious landing are low, reduce your risk by invading with a relatively crummy land unit in the “first wave” and, after the beaches are made friendly, follow up the next turn with larger, more expensive land units. Note that “Mulberry” units always have the maximum (70%) chance to succeed against *any* target hex (even a fortified, enemy occupied hex in bad weather — can you say “Mulberry”).

Victory Through Air Power

Some techniques for the proper use of air units include:

- Remember their range: seven spaces for conducting ground strikes, four spaces to defend against enemy ground strikes, on or adjacent to a friendly city (ironically, *any* friendly city) to defend against strategic bombing attacks, or on any coastal square to operate in the adjacent sea zone.

2. Note that the computer players never use their air units to defend against strategic bombing attacks. Human players can take advantage of this when waging a strategic air war.

3. Note that an air unit on strategic air defense is *also* available for naval air operations if located on a coastal hex. Thus, they can perform double duty. They will not, however, intercept enemy air strikes against nearby friendly land units.

4. Air units placed out of the reserve can be placed on *any* friendly controlled, supplied hex. They don’t have to appear within a supply block or adjacent to a friendly city. This gives them amazing flexibility when combined with re-basing (if they start in a clear weather zone) and operational movement.

5. Remember, depleted air units cost 2 PPs per strength point to replace each turn, where all other units cost only 1 PP. Pushing too hard with airplanes is expensive!

6. The manual states that the combat strength is *halved* for air units based in the mud or snow. (on page 32). This is incorrect. They are reduced to *one-third* of their strength (as stated on page 41 of the manual). This reduction won’t appear on the unit’s face value, but it will be factored in to any air strikes they make.

7. There is a (undocumented) 50% chance that an air unit will not intercept an enemy strike mission when it has the opportunity.

Conquest Quirks

When does France offer a Vichy Government for surrender? At the end of the impulse in which a French city falls to the Axis for the first time, there is a 40% chance of a Vichy offer when Paris falls, while each of the three other cities in France add 20% to the Vichy offer total. Therefore, even the unluckiest player will get a Vichy offer when the last French city falls.

Note that the computer player will always accept a Vichy surrender and will never declare war on Vichy. Players who reject a Vichy offer allow all French units on the board to remain in the Allied force pool (units available for play) for the rest of the game. French units not currently in play each have an 80% chance of being removed from the game (and the Allies can build the rest).

Spain and Turkey, unlike other nations, do not surrender when their last city falls. Instead, they surrender when they lose their capital (Madrid and Ankara, respectively) plus *one* other city.

The Politics of it All

Many players have wondered what their actual chances of success or failure are when they attempt to “press” a neutral country diplomatically. Here is super-secret formula used for determining diplomatic success in *Clash of Steel*.

First, a d(100) roll must be *less than* the pressing player’s current political points. Players always want to have as many political points as possible before starting a diplomatic full court press.

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Then, a second d(100) roll must be *greater than* pressed country's break value (including the Balkan Pact value, where applicable). Note that the computer rolls a d(150) here, thus "cheating" and getting a better shot at diplomatic success.

If either of these two die rolls fail, then the attempt fails and the pressing player loses some political points. If both succeed, then the pressing player loses no political points and the pressed country loses further to his side in the war.

For example, in the Fall of 1940, the Germans, flush from their conquest of France and the low countries, have 80 political points. If they press Spain, with a break value of 75, there will be a 20% chance of success (80 x 25%).

There are two levels of diplomatic success that can be achieved. If a country can be brought to lean between 50 and 99 points in one side's direction, they will lend the production value of their cities and resources to that side (assuming that they are within a supply partition that connects up to the receiving player's capital). When a country equals or exceeds 100 points, it declares war and joins that side as a full ally, placing its own army on the board and allowing both sides to maneuver through its territory.

Political Notes

1. Interestingly, political points are only awarded when a country is conquered, not when it joins a player's alliance through diplomatic pressure. Thus, coercing Spain to join one's alliance does not raise one's political status.

2. When Paris is captured by the Axis, Spain will move 20 points in the Axis direction if a d(100) roll is *less than* the Axis current Political Point total. Note that the Axis political point level will be significantly higher if the Axis accept a Vichy Government which might occur with the fall of Paris. (The computer does *not* cheat in favor of itself on this die roll when playing the Axis.)

3. Italy begins the war by leaning 80 points in the Axis direction, but is still neutral. The Axis can raise Italy's status by +25 points (and, thus, usually secure their entry into the war) if either:

- a) Paris is captured by the Axis,
- b) At least two hexes of the Maginot Line are captured by the Axis, or
- c) At least six Russian cities are captured by the Axis.

4. The Axis never have to declare war on the Benelux countries in order to get them to surrender. When France surrenders, so will the neutral Benelux countries!

5. If the Germans favor the Russians over the Rumanians in the "diplomatic wars" and maintain their eastern front garrison level each year, Russia's chances of entering the war are extremely small if Turkey is never invaded.

6. To help insure diplomatic success, use an old computer gaming cheating technique. Specifically, before making the first diplomatic press, save the game. If it fails, restart the game and try again until it succeeds. If it succeeds, save the game (and that successful attempt) and keep plugging away until things are arranged to suit.

Stacking the Chips of Production

The economic system in *Clash of Steel*, on the surface, fairly simple. Each city produces a single Production Point (PP) per turn, while each resource produces two. However, there are some important variables to consider when checking the math on one's economy.

First, only *major* cities produce a production point every turn. Fortunately, there are only three minor cities (all of which are Italian at the start of the war): Palermo, Tripoli and Tobruk.

Second, production points are only added if that city or resource is within the same supply partition (see p. 38 of the manual) as a player's capital. This means, for example, that even though the Axis starts the war with Helsinki as a friendly city, because it is not in the same supply partition as Berlin, no PPs are received for it until after Leningrad falls (similarly, Italy cannot collect for Tirana until it is connected to

Rome's supply partition). Conversely, Rumania and Hungary are both leaning 50+ points in the Axis direction in 1939. Because they are in the same supply partition as Berlin, their combined 4 PPs are added to the German total each turn.

There are also key economic cities. Saratov, for instance, controls the Russian's Ural convoy of 8 PPs per turn (as well as its own PP). An undocumented feature increases the German's Swedish convoy from two to three points if the Axis control Oslo (as they do at the beginning of all but the 1939 scenarios).

The most important thing to remember about production is that one "keeps the change" after units on the board are rebuilt to full strength at the end of each turn. During summer turns, in particular, after the long impulses of battle, many units will find themselves depleted of a strength point or two. Every supplied unit becomes fully recharged before the next turn begins, but those strength points are paid for out of one's PPs. Air strength points, remember, cost *double* (i.e., 2 PPs per strength point). Fortunately, unused PPs from previous turns are saved and available for spending at the next opportunity, so players can "save up" for the more expensive unit types.

Finally, page 22 of the manual is incorrect. The cost to rebuild a dissolved unit (one lost while still able to trace a supply route or while conducting an invasion) is only 33% of its current price, not 40%. However, the price of units is always subject to increase due to enemy bombing activity.

Weather, Goest Thou!

The Combined Weather Table included in this article is fairly self-explanatory. Each campaign game turn of two months sees the computer rolling a die on that table to determine the weather in the various Weather Zones. Note that the weather in the Mediterranean Weather Zone is always clear, as is every Weather Zone during the May/June and July/August turns.

Table 2 - Combined Weather Table

Die	Jan/Feb	Mar/Apr	May/June	Jul/Aug	Sep/Oct	Nov/Dec
1	CCMS	CCCC	CCCC	CCCC	CCCC	MCSS
2	MCSS	CCMM	CCCC	CCCC	CCCM	MCSS
3	SCSS	MCMM	CCCC	CCCC	CCMM	SCSS
4	SCSS	MCMS	CCCC	CCCC	MCMM	SCSS
5	SCSS	MCSS	CCCC	CCCC	MCMM	SCSS
6	SCSS	SCSS	CCCC	CCCC	MCMS	SCSS

C = Clear; M = Mist; and S = Snow

Notes: The first letter represents the weather in the Temperate zone, the second is the Mediterranean, then the Arctic with the Arctic Circle zone listed last.

Turn continuation is based on the weather in the Temperate zone, while the Russian Winter rule is based on the Arctic zone.

V.E. Day

That's it from the bunker, folks. Now that I've given you the keys to *Clash of Steel*, I hope that you will enjoy it even more. Above all else, I strongly urge that you schedule a game with a wargaming buddy in the near future. It is no idle boast when I say that it's the most fun, multi-human-player-at-the-same-computer-screen game that I've played since *M.U.L.E.*

Finally, producer James Young at SSI has been working with the designer on a patch file for *Clash of Steel*. Besides some bug fixes, there will be at least a few changes made to the game. The strength of the Gibraltar garrison unit is likely to rise from 1 to 3 (which, when added to the fort bonus of +3 strength points plus an additional 70% for computer players' units in forts, will make Gibraltar a tough nut to crack) and it appears that one will be allowed to rebuild lost naval transports. **enw**

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A Pearl Of A Plan

A Winning Stratagem for SSG's Carriers at War

by Roger White

Carriers are, in more than one sense, the name of the game in SSG's *Carriers at War*. You score most of your points by damaging ships and destroying planes. When you sink a carrier, you double your pleasure by scoring points for both the ship and planes it carries. Carriers are easy for airplanes to sink, so the formula for success is easy to derive: Your Planes + The Enemy's Carriers = Victory.

The "Sunday Punch" Tactic

The Japanese attempted this at Pearl Harbor, so I call this the Sunday Punch tactic. The Sunday Punch is a dawn attack against the enemy's main carrier force, and it should be your first carrier-based air attack of the scenario.

1. Cluster your carriers.

Step one is to concentrate your carriers. Order your faster carrier task groups to join the slowest carrier task group. If the slowpokes travel about five knots faster than the lead group, they will travel as a tight bunch. If any of your groups are short on fuel, with less than 20 days left, spend some time in port or rendezvous with the oilers. When the time comes to strike, you'll be doing a lot of sailing at flank speeds, and full tanks will bring you peace of mind.



2. Spend the first day on patrol.

Let your search planes tell you where the enemy is located. Top priority is finding his main carrier force. In most scenarios this is two carriers cruising together; in Midway, it's four. Don't get distracted by the light carrier task forces (only one carrier in the group) or the seaplane tenders (a task group with one carrier hanging around reefs and shoals). You want the full-size carriers.

3. Position your carriers and your cover force.

By noon the day before the Sunday Punch, you want your carrier group about 400 miles from the enemy's main carrier group if you're American, 300 miles if you're Japanese. If you arrive early as the party, keep your distance. This will keep you out of attack range.

4. Unleash the cover force on enemy carrier task group.

At about 16:00 the day before the Sunday Punch, put your cover task groups on flank speed and rush the enemy. The goal of these groups is to worry the enemy carrier group during dawn of the Sunday Punch. Ideally, one group will be in contact with the carrier group an hour before dawn so that you can launch an at-dawn attack. Even if contact is made after dawn, the cover forces will be distracting targets for enemy air strikes.

5. Have your carriers follow an hour or two later.

At 17:00 send your carrier task group after the enemy carrier group. It will be late enough in the day so that, even if the enemy knows your location, it will be too late to send an air attack before dark.

6. The clouds are your friends.

Storms are a closing carrier's best friend. The enemy search planes have a hard time spotting through the clouds and attacking planes miss a lot. Maneuver so your carriers spend daylight under heavy clouds when you are within striking range of enemy carriers. When you rush the enemy carriers, actually rush for the cloud bank nearest them.

7. Position your carriers close to his about an hour before dawn.

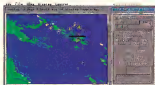
If you're American, close means within 170 miles—the extended fighter range. The ideal is 90 to 120 miles. If you're Japanese, all your planes can go 280 miles, but if you're closer, say 100 miles, your planes will arrive much sooner.

If your cover group has served well and the enemy carriers are within sight, launch your planes at night so they arrive at the first moment of dawn. There will be little oppos-

ing CAP, and even if the carriers don't go down on the first attack, those gaping holes you'll leave in their decks will prevent any retaliation. From then on the scenario becomes a turkey shoot.

8. Load and fuel your planes. Don't put up CAP.

If dawn is coming and you're absolutely sure you're close, but the enemy carriers are not in sight, then load and fuel your planes anyway and pull down your CAP so they can join the assault. This is risky, risky, risky because armed and fueled planes on deck are an invitation to uncontrollable fire if there's a hit, but they also allow you to get your planes off the moment the sighting is made.



Start passing time in five minute increments and watch for the first sighting to be reported. However, don't launch on the first sighting. It's likely to be wildly inaccurate in both ship description and position. If your carriers haven't been spotted, wait for a second and third sighting before launching the Sunday Punch.

After the Sunday Punch

Once the enemy's main carriers are out of action, your carriers won't be subject to massive airborne retaliation and you can cherry pick targets to run up your score. Carriers are the best choice, transports are next best, then capital ships and destroyers. Try to avoid capitals and destroyers because they will cause too much damage to your planes. Keep your carriers away from enemy cover task groups, and chase enemy transports and carriers with your own cover task groups. Do these things and decisive victories will be yours. **com**

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(Continued from page 191)

units stacked with them will fight more effectively.



Demons are identical to undead in most respects, but are more expensive and even faster. This makes them excellent attack units.



Elementals, like worms, are slower than most of the high-powered units they would ordinarily stack with. This makes them very strong defensive units but of limited value on the offensive.



Devils are possibly the most useful single unit in the game. Powerful and fast, they have devastating effects on enemy stacks: all non-hero, non-city bonuses are removed from a stack facing a devil. This can halve the effective strength of an enemy stack. Devils are ideal for all combat activity, offensive and defensive.



Archons vie with devils for utility. Strong and quick, archons negate all hero bonuses. A stack with a devil and an archon is a formidable opponent, and excellent for killing enemy heroes. Their flight capability makes them flexible over any terrain.



Dragons are the single most fearsome unit *Warlord 2* can boast. Second in speed only to wizards, only the strongest heroes can meet (but cannot exceed) their basic combat value. Giving all units stacked with them a +2, dragons can be the key component to any killer stack. Don't waste your dragons defensively; use them offensively in conjunction with lighter troops to fly waste to your enemy's armies. Their wings make them excellent overcast troops.



Heroes are the lifeblood of your army. Attacking stacks should be led by a hero whenever possible, and enemy heroes should be eliminated at almost any

cost. You generally do not have enough heroes to use them defensively; try and keep your heroes on the attack or out exploring ruins and temples. Whenever the opportunity to purchase a hero arises, take it.

We Shall Meet Again, Warlord

Next time, we will take a look at how the combat system works, (or, why your hero keeps getting killed by the enemy's light infantry), how the stack strength calculation process works (or, how to wipe out an enemy country with a dragon, a unicorn, a pegasus, and five scouts), and other ways to reduce your enemies to hamburger. **cow**

The screenshot shows a 'Build Production' window with a grid of unit icons. Each icon is accompanied by its cost and production time. The units and their values are as follows:

Unit	Cost	Time
Scout	200 gp	1:00
Bat	500 gp	1:00
Light Infantry	200 gp	2:00
Orc Mob	400 gp	2:00
Light Cavalry	300 gp	2:00
Catapult	1800 gp	0:50
Heavy Infantry	300 gp	2:00
Archers	400 gp	2:00
Dwarves	300 gp	2:00
Pikemen	500 gp	1:33
Heavy Cavalry	800 gp	1:33
Woolfiders	200 gp	2:00
Giants	1000 gp	2:00
Minotaurs	1000 gp	2:00
Spiders	1200 gp	2:00
Pegasi	1200 gp	2:00
Griffins	1500 gp	2:00
Unicorns	1500 gp	2:00
Elephants	1500 gp	2:00
Wizard	1500 gp	2:00
Worms	1200 gp	2:00
Undead	1200 gp	2:00
Demon	1500 gp	2:00
Elemental	1500 gp	2:00
Devil	1500 gp	2:00
Archon	2000 gp	2:00
Dragon	2000 gp	2:00

Table 1 - Unit Attributes

Army	Unit Strength	Special Strength	Time	Cost	Unit/Turn	Strength/Turn	Special Strength/Turn	Cost/Strength	Cost/Special Strength
Scout	1	1	1	2	1.00	1.00	1.00	2.00	2.00
Bat	1	1	1	5	1.00	1.00	1.00	5.00	5.00
Light Infantry	2	2	1	3	1.00	2.00	2.00	1.50	1.50
Orc Mob	2	2	2	4	0.50	1.00	1.00	2.00	2.00
Light Cavalry	2	3	2	6	0.50	1.00	1.50	3.00	2.00
Catapult	2	2	4	18	0.25	0.50	0.50	8.00	8.00
Heavy Infantry	3	3	2	5	0.50	1.50	1.50	1.67	1.67
Archers	3	4	2	7	0.50	1.50	2.00	2.33	1.75
Dwarves	3	4	2	7	0.50	1.50	2.00	2.33	1.75
Pikemen	4	5	3	5	0.33	1.33	1.67	1.25	1.00
Heavy Cavalry	4	5	3	8	0.33	1.33	2.00	2.00	1.33
Woolfiders	4	5	2	8	0.50	2.00	2.50	2.00	1.60
Giants	5	5	2	10	0.50	2.50	2.50	2.00	2.00
Minotaurs	5	6	2	10	0.50	2.50	3.00	2.00	1.67
Spiders	5	7	2	12	0.50	2.50	3.50	2.40	1.71
Pegasi	5	6	3	12	0.33	1.67	2.00	2.40	2.00
Griffins	6	8	3	15	0.33	2.00	2.67	2.50	1.88
Unicorns	7	8	4	15	0.25	1.75	2.00	2.14	1.88
Elephants	8	8	4	15	0.25	2.00	2.00	1.88	1.88
Wizard	6	7	4	12	0.25	1.50	1.75	2.00	1.71
Worms	7	8	4	12	0.25	1.75	2.00	1.71	1.50
Undead	7	8	4	12	0.25	1.75	2.00	1.71	1.50
Demon	7	8	4	15	0.25	1.75	2.00	2.14	1.88
Elemental	8	9	4	15	0.25	2.00	2.25	1.88	1.67
Devil	8	9	4	15	0.25	2.00	2.25	1.88	1.67
Archon	8	9	4	20	0.25	2.00	2.25	2.50	2.22
Dragon	9	11	4	20	0.25	2.25	2.75	2.22	1.82

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Circle Reader Service #38

Taking A PEEK

Access Software, Inc.
4910 West Amelia Earhart Dr.
Salt Lake City, UT 84116
(800) 800-4880

INNISBROOK - LINKS CHAMPIONSHIP COURSE: The next stop on the *Links* championship tour takes the desktop golfer to Tarpon Springs, Florida and the Copperhead course at Innisbrook. Ranked as one of "America's Greatest" courses (*Golf Digest*) and Florida's #1 course for six consecutive years (*Golfweek*), Copperhead, host for the J.C. Penney Classic, offers world class challenge in the comfort of one's own home. Whether one is preparing to play the original "green" or simply teeing off at home, this latest *Links* course provides the golfer "hazard free" play. The fifth Super VGA championship course, *Innisbrook* requires *Links*, *Links 386 Pro* or *Microsoft Golf*. IBM (\$29.95). Circle Reader Service #1.

Amtek Software
P.O. Box 572
Belleville, Ontario K8N 5B2
(613) 967-7900

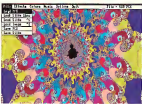
EIGHT-BALL DELUXE: Pinball Wizards and all other denizens of pool halls, beer halls, bowling alleys and backroom arcades will find a lot of high-scoring action in Amtek's second pinball game. One look at the game's features, documentation, and packaging extras reveals the designer's true love, perhaps even fanaticism, for the topic. In the box one finds a real flipper and steel pinball, a manual with a detailed history of the pastime, a section on general pinball strategy, and a break-down of the specific machine's scoring possibilities. In the midst of all these googahs one can almost forget the game, which is a fine rendition of an actual Bally's machine. The screen only shows one-third of the playfield at one time, but scrolls smoothly with the ball's action; the only flaw might be that one has to guess at some skill-shots because of the limited view. From the main screen—a cafe patronized by a digitized cowgirl in clinging denim—the player can glance at a Top Ten chalkboard, preview the next two Amtek games, and even get behind the machine to tinker with its settings, changing the playfield's slant and bumper power to personal taste. As a whole, this is a lovingly created package that is sure to send pinball fans into bonus overtime. IBM, Macintosh (\$49.95). Circle Reader Service #2.



Innisbrook - Links Championship Course



Eight-Ball Deluxe



Fractures



Discover Space



Grandmaster Chess Deluxe Edition

Bourbaki, Inc.
P.O. Box 2867
Boise, ID 83701
(208) 342-5823

FRACTURES: If you were in with the In Crowd during the 60s, you may have run across the Light Organ, a device that emitted colored light in response to music (usually while the audience ingested flonidius botanicals). The 90s response to this 60s invention is a cup of coffee and *FracTunes*, a program that alters the colors of fractal images to the beat of any AdLib, SoundBlaster or Midi sound file. If you own a Midi instrument, you can even take control of the show and create your own sight-sound psychedelica. The package includes 250 sound files, 150 fractal images, and tools with which you can create interesting slide shows. While the execution of the "Light Organ" falls a bit short of expectations (it's just not as neat as the concept), it may still be an interesting tool for the creative fractal hobbyist. IBM with CD-ROM. (\$49.95). Circle Reader Service #3.

Broderbund Software, Inc.
500 Redwood Blvd.
PO Box 6121
Novato, CA 94948-6121
(415) 382-4400

DISCOVER SPACE: The final frontier is hot these days, with "billions and billions" of software titles heading for the stars. This new program is another solid-fueled educational booster from Broderbund. It offers a galaxy of information and stellar views, with graphical planet cutaways, animated orbital paths, comparisons of planets in size and mass, constellation charts—you name it. Pick a year, month and hour, and view the night sky in any direction you choose. Click on a star to see its name and position in degrees. Animate the whole swirling maelstrom like you've always wanted to, and see exactly how eternity spins above our humble roofs. Learn about the space program, comparing rockets and shuttles of the U.S. and U.S.S.R. And, our favorite, designate the size and speed of an asteroid and see what effect it would have when slammed into a U.S. state; quite literally, it would rock our world. A 70-page companion book and glossary are also provided. IBM (\$39.95). Circle Reader Service #4.

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

GRANDMASTER CHESS DELUXE EDITION: Billed as "The World's Most Powerful Chess Program", Capstone's *Grandmaster Chess Deluxe Edition* offers the chess aficionado a multitude of options to customize the game in-depth. Super VGA graphics provide an attractive array of chess boards and pieces to choose from (seven unique chess sets on eight different boards) in

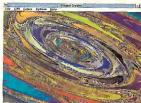
either 3-D or 2-D perspectives (with 180 degree board rotation). An easy mouse-and-menu driven interface makes play a simple matter. Multiple skill levels are supplied (from beginner to grandmaster), as are several time control options. As expected, an opening moves library is available with hundreds of choices to draw upon. Multiple chess sets, instant replays of individual moves or entire games, help and analysis features, and modern and network play fill out the package. Of the chess sets from which one can draw are traditional, fantasy, abstract and space pieces. IBM (\$59.95). Circle Reader Service #5.

Deep River Publishing
P.O. Box 9715-975
Portland, ME
(207) 871-1684

FRactal ECSTASY: This is definitely the flashiest fractal program on the market today. Running under Windows 3.1, the program uses Microsoft's *Video for Windows* to display an hour of animated fractal "movies." The movies dive in and explore the "infinite resolution" of fractal images, weaving around the image space to uncover beautiful configurations. What's more, at any time during a movie, the user can stop and pull the current image into a free-form exploration mode where he or she can do their own delvings. While perhaps not as sophisticated or as fast as other fractal programs, it is certainly the most beautiful and accessible product of its type. Definitely recommended for the fractal novice. IBM with CD-ROM and Windows 3.1 (\$49.95). Circle Reader Service #6.

Hero Software, Inc.
PO Box 699
Aptos, CA 95001-0699
(408) 662-0536

HEROMAKER: So, who's your hero? Colossal Man? The Cruncher? MegaNinja? Well, it doesn't really matter as *HeroMaker* allows you to create the hero of your choice, usable with all Hero System genres. Characters can be loaded and saved (thus, exchanged with other *HeroMaker* owners), printed out in several different formats, and exported to a word processor. *HeroMaker*, however, goes beyond a simple spreadsheet for manipulating character data. It is an intelligent character creator that knows all "people and paper" *HeroMaker* rules, making character generation a relatively easy and error-free process. *HeroMaker* calculates all values according to established Hero System rules, contains the complete Hero System rules database, and allows the user to create his or her own powers and skills. All aspects of hero creation are user adjustable: characteristics, skills, powers, advantages, disadvantages, limitations, talents and more. Stop waiting for the ideal hero to appear. Create your own with *HeroMaker*! IBM (\$25). Circle Reader Service #7.



Fractal Ecstasy



Heromaker



Gear Works



Uninvited



Lord of the Rings, Enhanced CD-ROM

HOLLYWARE Entertainment
13464 Washington Blvd.
Marina del Rey, CA 90291
(310) 822-9200

GEAR WORKS: Here's a puzzle game that runs like clock-work. By placing gears on pegs in the correct sequence, the player can build time pieces from different parts of the world. As if the spatial puzzles weren't hard enough, the player must also race the clock and avoid two villainous birds (actually "puffins"). One puffin tries to knock the pegs off the board while the other will rust the gears if given a chance. As defense against these fowl deers you can shoot the puffins off the board, or oil the gears they have rusted, but there's no way to replace missing pegs. You can also use bombs to clear up your own missteps. Success earns points, and if you get bonus gears you have a chance to yank the limb of a "one-armed bandit" and try for more points or bonus items. While an interesting brain-banger, the documentation doesn't quite agree with the actual game play. Amiga and IBM (\$49.95), Commodore 64 (\$39.95). Circle Reader Service #8.

ICOM Simulations, Inc.
648 S. Wheeling Rd.
Wheeling, IL 60090
(708) 520-4440

UNINVITED: Fans of the gothic horror genre who don't mind playing a graphic adventure with closer ties to the simpler, older titles of the past may enjoy this Windows version of ICOM's classic adventure. Though this graphic puzzler offers a return to the less complicated quests of days past, the potential player should not think that this translates into an inferior product. On the contrary, the *Windows* conversion of *Uninvited* captures all the atmosphere and enjoyment of the earlier releases and enhances play by providing a high resolution, mouse-and-menu-driven interface employing full 256-color images and smooth spot animations. *Windows* sound support is also provided for digitized sound effects, including requisite thunder, screams and howls. So, if the player is up to the challenge of uncovering the mystery of House Abtaxis, *Uninvited* will provide a good dose of ghostly fun. Just pick up everything that isn't nailed down and watch out for that swarthy Southern Belle: She's no lady...at least not anymore. IBM with *Windows* (\$49.95). Circle Reader Service #9.

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

LORD OF THE RINGS, ENHANCED CD-ROM: Frodo never had it so good, at least not until the enhanced CD-ROM version of *The Lord of the Rings* spun off from Interplay. Featuring 25 minutes of footage from the Ralph Bakshi film (playing in the largest full-motion video window of any en-

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tainment title to date), over 40 minutes of high quality CD audio sound effects and music, plus digitized speech from the film, Tolkien's epic tale plays better than ever. As in the original release, the player assumes the role of the hobbit Frodo Baggins, leader of The Fellowship on a quest to destroy the One Ring that has the power to enslave them all. Featured are real-time, party-based combat, and characters with unique personalities and behavior. Also provided is an entertaining eight minute tutorial to help players acclimate themselves to the CD-ROM interface. Tolkien fans will be drawn to this game like Gollum to his Precious. IBM with CD-ROM (\$79.95). Circle Reader Service #10.

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399
(206) 882-8080

MICROSOFT GOLF FOR WINDOWS, MULTIMEDIA EDITION: Golfers wishing to refresh their game, at least visually and audibly, may find this new edition of *Microsoft Golf* to be just their cup of "tee." Among the enhancements offered in *Microsoft Golf for Windows, Multimedia Edition* is the ability to call up a video "flyby" of each hole, similar to that provided by television golf coverage. This flyby provides the player with an overhead view of the particular characteristics of each hole. Requesting a "tip" before taking a shot allows the player to "consult" with a video golf pro and gain some helpful on-line advice. More detailed instruction is also available through on-line video demonstrations of stroke technique. Sound capabilities have also been enhanced, allowing the desktop golfer to select and assign their own sounds to specific golfing events. Both male and female commentators are available, and the player can add their own audio comments, too. Other features include instant replays of each shot, playing with up to eight partners, and a driving range and putting green for practicing one's shots. IBM with *Windows* and CD-ROM (\$64.95). Circle Reader Service #11.

Multicom Publishing, Inc.
1100 Olive Way, Suite 1250
Seattle, WA 98101
(206) 622-5530

AMERICANS IN SPACE: Armchair astronauts can now get their ticket to the stars with Multicom Publishing's *Americans in Space*, an in-depth presentation of the United States' space exploration program. Included on this CD-ROM disc is a complete video and photographic tour of America's space program beginning with the early experimental rockets and continuing through the current space shuttle missions. Projects and missions can be tracked in chronological order or accessed by launch date. The "Mission Control" style interface supports zooms of photographs and the printing of any text displayed in the main viewer. With more than 500 photographic



Microsoft Golf for Windows,
Multimedia Edition



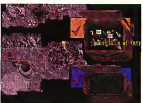
Americans in Space



Time Traveler CD



More Vegas Games



The Silver Seed

images, over an hour of full-motion video and narration, and text descriptions of every American manned space mission, *Americans in Space* offers an entertaining and educational adventure for the whole family. (\$69.95). Circle Reader Service #12.

New Media Schoolhouse
390 Westchester Ave.
Pound Ridge, N.Y. 10576
(800) 672-6002

TIME TRAVELER CD: We have CD's the future of History, and it is ROM. Here's a history of the world, from 3900 B.C. to 1992 divided by five geographical regions and three categories: history, culture and innovation. The *Time Traveler* interface lets you select a year and jump to it with the "GO!" button, or search a time by subject. Every period features at least one attractive, photographic image, some accompanied by a short caption, to illustrate a brief text description of that year. The CD is billed as "A Multimedia Chronicle of History," yet features no animations, and only a smattering of audio clips. And though the overall package is well-polished, someone should have noticed that Jackie Robinson couldn't have been "Wookiee of the Year" in 1947, 30 years before *Star Wars*. A decent program, but we're not sure you couldn't get more book for less bread. Macintosh with CD-ROM (\$159). Circle Reader Service #13.

New World Computing, Inc.
20301 Ventura Blvd., Suite 200
Woodland Hills, CA 91364
(800) 325-8898

MORE VEGAS GAMES: Wannabe gamblers who like to play it safe, where the only "high stakes" are one's time and energy, will find New World's *More Vegas Games* an enjoyable mix of traditional casino games for *Windows*. Designed by The Dreamers Guild and featuring high quality graphics (in 256-color, high resolution Super VGA) and excellent digitized vocal samples (for both male and female dealers), this collection of five casino favorites will assist the player in beating the odds at Craps, breaking the bank at Video Poker and Blackjack, winning and placing at Horseshoe, and hitting it big at Baccarat. Each of *More Vegas Games*' offerings is a multi-player version of the famous pastime, allowing digital gamblers to play alone against the computer or with up to three additional players. Assisted by pertinent on-line help, *More Vegas Games* offers a Window to bet at (and for pretty low stakes). IBM with *Windows* (\$29.95). Circle Reader Service #14.

Origin Systems, Inc.
12940 Research Blvd.
Austin, TX 78750
(512) 335-5200

THE SILVER SEED: Snaking its way from Lord British to *Ultima* players everywhere is the latest add-in module for *Ultima VII Part*

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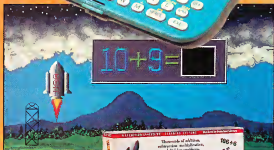
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Two: Serpent Isle. The *Silver Seed* allows those still in *Serpent Isle* to discover new quests (which take place in a mysterious, war-torn past), explore another land and acquire additional magical items to employ within the game proper. These new adventures can be embarked upon at any point in the original game, enabling the player to increase his character's power and experience. New features at the Avatar's disposal include a magic key ring upon which keys are placed as they are acquired, and from which they are used as needed. Also provided are the Belt of Strength, Gauntlets of Dexterity, Erioon's Magic Axe, the Helm of Light and the Ring of Shal (a source of endless reagents). Other niceties include single button commands for feeding party members, employing the magic key ring, telling time and picking locks. The accompanying Play Guide offers the player maps and solutions to the new quests. The latest version of *Serpent Isle* is included, *Ultima VII, Part Two: Serpent Isle* is required. IBM (\$29.95). Circle Reader Service #15.

Pygnosis, Ltd.
675 Massachusetts Ave.
Cambridge, MA 02139
(617) 497-5457

ARMOUR-GEDDON: Once again the future is painted dark and steeped in devastating warfare. After the Balkan War of 1997 devastated the earth, two factions survived which developed into hostile surface dwellers and a subterranean society. As a member of the underground dwellers, it is the player's responsibility to defend his or her society from the marauding survivors on the surface and, ultimately, to destroy their sapient weapon, a deadly laser cannon, before the underground is vaporized. Basically a combination of flight sim and arcade action, *Armour-Geddon* offers the player solo play against computer opponents or head-to-head serial link permitting two EDEN warriors to launch a combined attack on the surface scam. Gathering and assembling components into an ultimate weapon are key to success in this post-holocaust game of action and strategy. IBM (\$49.99). Circle Reader Service #16.

SDJ Enterprises, Inc.
1551 Fawn Valley Dr.
St. Louis MO 63131
(314) 966-5602 (Evenings only)

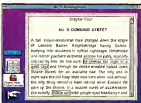
DRACULA IN LONDON: Based on Bram Stoker's original novel, this modest vampirish tale involves tracking down the infamous Count Dracula, reported to be hiding somewhere within the confines of London. Assuming the role of Professor Van Helsing (or one of five other vampire hunters), the player must put an end to the Count's bloodlust. Too many mistakes, however, and one will certainly cross over to the land of the living dead. Designed for *Windows* (acceptable, but by no means flashy) and definitely more a game of thought than action, possessing the feel of a board game in play, *Dracula*



Armour-Geddon



Dracula in London



No. 11 Downing Street



Crosswire



Blaze

in London's greatest appeal will be limited primarily to vampire and gothic horror buffs. Each game takes about an hour to play depending on the number of players involved (up to six, though two to four are recommended). The game claims to have been designed in an "unstructured problem" format, so that what works in one game may not work in the next. So, if the idea of tracking down Dracula over and over again with slight variations is appealing, *Dracula in London* may work for you. Those who enjoy longer, more traditional quests may want to stake out some different territory. IBM with *Windows* (\$29.95). Circle Reader Service #17.


Silicon Alley
8693 Wilshire Blvd., Suite 215
Beverly Hills, CA 90211
(310) 289-1237

NO. 11 DOWNING STREET: Non-linear storytelling is the key concept behind *Silicon Alley's* first episode in *The Adventures of Ninja Nanny and Sherlock Sheltie* series of interactive fiction. Branching storylines and ancillary information enhance the learning value of this title. Available in versions for both Level 1 and Level 2 MPC systems, *No. 11 Downing Street* introduces children to two unusual characters, Ninja Nanny (a mischievous cow) and Sherlock Sheltie (a budding computer criminologist). Designed as a series of chapters, this literacy adventure features linked "horwords," animated sequences, enhanced video and music, and museum-quality antique clip art. Help Ninja Nanny and Sherlock Sheltie defeat the plans of the evil Baron Von Moribund and learn interesting new facts at the same time. However, make sure to purchase the correct version. The MPC Level 2 product is virtually unplayable on Level 1 systems. IBM with *Windows* and CD-ROM (\$69.95 for MPC Level 2, \$34.95 for MPC Level 1). Circle Reader Service #18.

SilverSun, Inc.
100 Jersey Ave., D-1
New Brunswick, NJ 08901
(800) 8-silver

CROSSWIRE: Think back to a High School History exam. Anyone who can smell the stench of mimeographed paper may also remember the "matching" part of their History tests. This was where a list of names or dates appeared in one column, and a list of related information appeared in the other. The object was to match the item in the first column with the corresponding item in the other. Okay, now return to the present and think of a computer "game show" program that plays in the same manner of that History exam. Pretty exciting, eh? Well, in *CrossWire!* it's actually kind of fun. One competes against an artificial opponent who has inherent strong and weak areas of knowledge. Qualifying rounds must be completed each game in order to compete in the final round. While the pressure of the clock makes for tense

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plays, the bizarre game show host and off-the-wall prizes make solving the 4,000+ puzzles all worthwhile. IBM with *Windows* (\$39.95). Circle Reader Service #19.

SoftStream International
10 Twin Ponds Dr.
S. Dartmouth, MA 02748-1166
(800) 262-6610

BLAZE: Those who still enjoy running around a little maze gobbling up pills will probably find SoftStream International's *Blaze*, a full color *Pacman* clone for the Macintosh, appealing to their taste buds. The goal of this rather simple arcade game is to guide a drop of water through a maze while putting out small fires in its path. However, some local "bumouts" are determined to turn the player's heroic little droplet into vaporized H₂O. As such, there is no recourse but to head for the nearest fire hydrant and cool down the overheated opposition. A very cute and modestly addictive (though somewhat overpriced) game, *Blaze* offers Mac owners some classic desktop entertainment. Macintosh (\$59.95). Circle Reader Service #20.

MICROCOSM II: Another Mac game from SoftStream, *Microcosm II* is designed to appeal to the more strategically-minded player with quick reflexes. In this 16-color title, gamers adventure into the microscopic world of viruses and DNA controlling a minuscule robot reminiscent of Wesley Crusher's Nanites from *Star Trek: The Next Generation*. The object of *Microcosm II* sees the player maneuvering his or her robot around a maze, shooting DNA-filled pills at spawning and mutating viruses in an effort to free the system from the viral threat. In the process the player must collect computer chips that will enhance their robot, adding special functions to increase their effectiveness at viral annihilation. A level editor has also been provided, allowing gamers to create their own mazes. Macintosh (\$49.95). Circle Reader Service #21.

OPERATION INTERCEPT: The third of SoftStream International's recently released titles, *Operation Intercept* brings *Galaga* (and its numerous clones) to the Mac desktop. As the story goes, the player's solar system has been invaded by an evil board from the Spook Empire. The opposition is great, but the stellar pilot is certainly up to the task. Piloting one of several fighters, the player must destroy wave after wave of attacking enemy vessels, all intent upon his or her complete and utter destruction. Destroying an entire attack wave provides one with a special bonus item that can be spent at the upgrade-repair stations to improve or repair one's ship, adding such options as double- and triple-shot lasers, spawn-shot, special shields and more. A Challenge mode has also been provided, allowing two players to fight the opponents head-to-head. Macintosh (\$59.95). Circle Reader Service #22.



Microcosm II



Operation Intercept



Space Shuttle



V for Victory: Gold•Juno•Sword



PC Graphics Animation Festival (Volume 1)

The Software Toolworks
60 Leveroni Ct.
Novato, CA 94949
(800) 234-3088

SPACE SHUTTLE: This true multimedia product will soar right to the heart of space exploration lovers. Climb into the cockpit of any past Space Shuttle mission and blast off to deploy satellites and conduct experiments. *Space Shuttle* offers a tour of the Johnson Space Center, including NASA footage, photos, diagrams and video. A number of intriguing, though pixelated, videos show what it's like for the astronauts to live, work and sleep in space. The audio portion of the program is professionally written and narrated. A Personal Digital Assistant-style interface offers a unique and simple method of getting around. There's even a quiz-style game for testing your Space Shuttle knowledge. Overall, an exquisite-looking offering, though low on the gaming factor. IBM with CD-ROM (\$49.95). Circle Reader Service #23.

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

V FOR VICTORY: GOLD•JUNO•SWORD: In this fourth, and perhaps final installment of the popular *V for Victory* series (see the Wargaming World editorial on page 164), it's back to the beach for Ike and his shrapnel snuff. Where *Utah Beach* featured the Yanks, now we have a broader Allied contingent storming Hitler's Fortress Europe. With an upgrade of the entire series to a 4.0 version, *Gold•Juno•Sword* is the finest tuned of the popular, detailed, hex-based wargaming series. Super VGA graphics are required; math co-processor and sound cards are supported. IBM (\$54.95). Circle Reader Service #24.

Wizardware, Ltd.
918 Delaware Ave.
Bethlehem, PA 19105
(800) 548-7969

PC GRAPHICS ANIMATION FESTIVAL (VOLUME 1): Those who enjoy computer graphics may want to take a look, and listen, at Wizardware's CD-ROM collection of computer animations, many with Sound Blaster soundtracks. Operation from both DOS and Windows is supported; VGA graphics and hard drive are required. Unfortunately, only those with cutting edge systems (486 or better with double-speed CD-ROM drives and 4MB or more RAM) will be able to enjoy these animations at anything greater than grass growing speeds (on 386 systems with single-speed CD-ROM drives it can take several minutes for each animation to load). While quality is mixed, there is a good selection of animations to view on disc, including scenes from *Lanometer Man* and *Stem*, plus a 3-D "virtual reality" game. IBM with CD-ROM (\$39.95). Circle Reader Service #25. *caw*

COMPUTER GAMING WORLD HALL OF FAME

The games in *Computer Gaming World's* Hall of Fame have been highly rated by our readers over time. They have been rated for their impact on the computer gaming hobby during their peak period of influence and acceptance by our readership. Note that the dates listed for each game are the copyright dates and may precede the actual release dates. Specific formats listed are those which CGW has in its possession.

- The Bard's Tale* (Electronic Arts, 1985)
Many Formats
- Chessmaster* (The Software Toolworks, 1986)
Many Formats
- Civilization* (MicroProse, Inc., 1991)
Amiga, IBM, Macintosh
- Dungeon Master* (FTL Software, 1987)
Amiga, Alan ST, IBM
- Earl Weaver Baseball* (Electronic Arts, 1986)
Amiga, IBM, Macintosh
- Empire* (Interstel, 1978)
Amiga, Alan ST, C-64, IBM
- F-19 Stealth Fighter* (MicroProse, Inc., 1988)
IBM
- Gettysburg: The Turning Point* (Strategic Simulations, Inc., 1986)
Amiga, Apple, C-64, IBM
- Groundship* (MicroProse, Inc., 1989)
Amiga, C-64, IBM
- Herpooa* (Three-Sixty Pacific, 1989)
Amiga, IBM, Macintosh
- Kampfgruppe* (Strategic Simulations, Inc., 1985)
Many Formats
- King's Quest V* (Sierra On-Line, Inc., 1990)
Amiga, IBM, Macintosh
- M-1 Tank Platoon* (MicroProse, Inc., 1989)
Amiga, IBM
- Medb Brigade* (Strategic Simulations, Inc., 1985)
Many Formats
- Might & Magic* (New World Computing, 1986)
Amiga, Apple, C-64, IBM, Macintosh
- M.U.L.E.* (Electronic Arts, 1983)
Atari 8-bit, C-64
- Pirates* (MicroProse, Inc., 1987)
Many Formats
- Railroad Tycoon* (MicroProse, Inc., 1990)
Amiga, IBM, Macintosh
- Red Baron* (Dynamix 1990)
Amiga, IBM, Macintosh
- SimCity* (Maxis, 1987)
Many Formats
- Starflight* (Electronic Arts, 1986)
Amiga, C-64, IBM, Mac, Sega
- Their Finest Hour* (LucasArts Entertainment Company, 1989)
Amiga, Alan ST, IBM
- Ultima III* (Origin Systems, Inc., 1983)
Amiga, Apple, Alan ST, C-64, IBM
- Ultima IV* (Origin Systems, Inc., 1985)
Amiga, Apple, Alan ST, IBM
- Ultima VI* (Origin Systems, Inc., 1990)
C64, IBM
- War in Russia* (Strategic Simulations, Inc., 1984)
Apple
- Wasteland* (Interplay Productions, Inc., 1986)
Apple, C-64, IBM
- Wing Commander* (Origin Systems, Inc., 1991)
Amiga, IBM, Sega
- Wizardry* (Sir-Tech Software, 1981)
Many Formats
- Zork* (Infocom, 1981)
Many Formats

Railroad Tycoon MicroProse, Inc., 1990 Amiga, IBM, Macintosh



Sid Meier holds the record for having the most titles in the CGW Hall of Fame. One of the reasons for this is because he refuses to be stuck in a game design rut. Instead, he looks for new subjects and new approaches. Inspired by a combination of admiration for *SimCity* and a love for model railroading, *Railroad Tycoon* successfully blends elements of a "software toy" and a game of economic competition into something new and vital.

Red Baron Dynamix, 1990 Amiga, IBM, Macintosh



Red Baron may well be Damon Slye's masterpiece. Damon is the designer/programmer who has been pushing the edge of 3-Space since his first vectored graphics game of space-age tank combat, the original *Stellar 7* on the 8-bit computers. At Dynamix, Damon moved the company through the *Skyfox* and *Airfix* series of 3-D action games (published by Electronic Arts) and on toward their current success with *A-10 Tank Killer*, *Red Baron* and *Ace of the Pacific*.

Red Baron not only features terrific graphics that dress up the traditional polygon-filled look with occasional bit-maps and shading, but offers campaign play from both sides, the largest selection of aircraft in a WWI air combat simulation, and a multitude of quick-combat missions. It is a rich, satisfying simulation that not only held a prominent position in the top ten of CGW's Top 100 for more than a year, but still stands as the high watermark of realistic air combat for many games.

Top Adventure Games

RANK	GAME	COMPANY	SCORE
1	Day of the Tentacle	LucasArts	10.15
2	Monkey Island 2: LeChuck's Revenge	LucasArts	9.91
3	The Seventh Guest	Virgin	9.80
4	Indiana Jones and the Temple of Doom	LucasArts	9.72
5	Quest for Glory III	Sierra	9.55
6	Shogun Warriors CD	Accolade	9.41
7	Star Control II	Accolade	9.28
8	Lee Minsky in Last n L.A.	Electronic Arts	9.20
9	Lost Files of Sherlock Holmes	Electronic Arts	
10			

Top Role Playing Games

RANK	GAME	COMPANY	SCORE
1	Ultima Underworld	Origin	10.29
2	Might & Magic: Darkside of Xeen	New World Computing	9.37
3	Ultima VII	Origin	9.31
4	Eye of the Beholder II	Origin	9.51
5	Might & Magic III	Origin	9.51
6	Ultima VII	New World Computing	9.34
7	Might & Magic: Clouds of Xeen	Origin	9.24
8	Warlord VII: Crusaders of Savant	New World	9.24
9	Warlord VIII: Crusaders of Savant	Sir Tech	9.25
10	Eye of the Beholder	SSI	9.10
	Ultima VII: Part Two: Scepter Isle	Origin	9.26

Top Simulation Games

RANK	GAME	COMPANY	SCORE
1	X-Wing	LucasArts	9.83
2	World Circuit	MicroProse	9.66
3	Falcon 3.0	Spectrum Hobby	9.59
4	Acas of the Pacific	Dynarex	9.52
5	Commander: Maximum Overkill	Novologic	9.42
6	Star Control II	SSI	9.19
7	Check Your Six: Air Central	Electronic Arts	9.06
8	Red Storm Rising	MicroProse	9.04
9	Shut Island	Darewy	8.64
10	F-15 Strike Eagle II	MicroProse	8.63

Top Strategy Games

RANK	GAME	COMPANY	SCORE
1	Solitaire's Journey	Virgin	9.85
2	Syndicate	Virgin	9.85
3	Syndicate	Electronic Arts	9.66
4	Chessmaster 3000	Sobusha Toolworks	9.32
5	Hong Kong Mahjong Pro	Electronic Arts	9.13
6	The Last Admiral	ODP	9.05
7	The Incredible Machine	Dynarex	8.98
8	Match Winner	Amrason	8.94
9	The Island of Dr. Brain	Sierra	8.91
10	Hoyle's Book of Games, Vol. 3	Sierra	8.76

Reader Poll #110

Top 100 Games

RANK	GAME	COMPANY	TYPE	SCORE
1	Links 365 Pro	Access	SP	10.43
2	Ultima Underworld	Origin	RP	10.29
3	Day of the Tentacle	LucasArts	AD	10.15
4	Wing Commander II	Origin	AC	10.10
5	Solitaire's Journey	ODP	ST	9.97
6	Front Page Sports Football	Dynarex	SP	9.94
7	V for Victory: Valkyrie Lady	Three-Sixty Pacific	WG	9.93
8	X-Wing	LucasArts	SI	9.93
9	The Seventh Guest	Virgin	AD	9.91
10	Monkey Island 2: LeChuck's Revenge	LucasArts	AD	9.91
11	Dune II	Virgin	AD	9.86
12	World Circuit	MicroProse	SI	9.86
13	Conqueror Kings	ODP	WG,ST	9.83
14	Indiana Jones: Fate of Atlantis	LucasArts	AD	9.80
15	The Perfect General	ODP	WG	9.75
16	The Secret of Monkey Island	LucasArts	AD	9.72
17	Syndicate	Electronic Arts	ST,AC	9.66
18	V for Victory: Urban Beach	Three-Sixty Pacific	WG	9.63
19	Falcon 3.0	Spectrum Hobby	SI	9.59
20	Wolfenstein 3-D	Id Software	AC	9.58
21	Might & Magic: Darkside of Xeen	New World Computing	RP	9.57
22	Quest for Glory III	Sierra	AD,RP	9.56
23	Sherlock Holmes CD	ICOM	AD	9.55
24	V for Victory: Market Garden	Three-Sixty Pacific	WG	9.52
25	Ultima Underworld II	Origin	RP	9.51
26	Eye of the Beholder II	SSI	RP	9.51
27	Links	Access	SP	9.47
28	Warlords	SSG	WG,ST	9.43
29	Acas of the Pacific	Dynarex	SI	9.42
30	Star Control II	Accolade	AD,AC	9.41
31	Might & Magic III	New World Computing	RP	9.41
32	Commander: Maximum Overkill	Novologic	SP	9.39
33	Hardball III	SSG	WG	9.37
34	Might & Magic: Clouds of Xeen	New World	WG	9.34
	High Command	Three-Sixty Pacific	WG	9.34
	Ultima VII	Origin	RP	9.34
38	Centra at War Construction Kit	SSG	WG	9.33
39	Chessmaster 3000	Sobusha Toolworks	ST	9.30
40	Lee Minsky in Last n L.A.	Accolade	SP	9.28
41	Jack Nicklaus Signature Golf	Accolade	SP	9.27
42	Warlord VII: Crusaders of Savant	Sir Tech	RP	9.25
43	Lemmings	Bytefront	AC,ST	9.25
44	Lost Files of Sherlock Holmes	Electronic Arts	AD	9.19
45	Secret Weapons of the Luftwaffe	LucasArts	SI	9.17
46	Second Front	SSI	WG	9.17
47	Tatsumi Chasot	Sierra	AC	9.14
48	King's Quest V: Vile Village	SSI	AD	9.14
49	Cash of Steel	SSI	WG	9.14
50	Hong Kong Mahjong Pro	Electronic Arts	ST	9.13



Top Wargames

RANK	GAME	COMPANY	SCORE
1	V for Victory: Valkyrie Lau	Three-Stay Pacific	9.93
2	Conquered Kingdoms	QQP	9.63
3	The Pelican General	QQP	9.75
4	V for Victory: Utah Beach	Three-Stay Pacific	9.63
5	V for Victory: Market Garden	Three-Stay Pacific	9.52
6	Warfare	SSI	9.43
7	High Command	Three-Stay Pacific	9.34
8	Pacific War	SSG	9.33
9	Games at War: Construction Kit	SSI	9.33
10	Second Front	SSI	9.17



Top Action Games

RANK	GAME	COMPANY	SCORE
1	Wing Commander 3	Origin	10.10
2	Wolfram 3-D	Id Software	9.58
3	Lemmings	Psygnosis	9.21
4	Demolition Man	Spectrum HoloByte	9.14
5	Space Hulk	Electronic Arts	8.92
6	Oh, No! More Lemmings	Psygnosis	8.92
7	Flashback	SSI	8.74
8	Prince of Persia 2	Broadsword	8.64
9	Out of This World	Interplay	8.37
10	Lemmings 2: The Tribes	Psygnosis	8.40



Top Sports Games

RANK	GAME	COMPANY	SCORE
1	Game Boy Golf	Electronic Arts	9.85
2	Front Page Sports Football	Dynix	9.84
3	Lines	Access	9.47
4	HairBall II	Accolade	9.37
5	Jock MacKaus Signature Golf	SSI	9.27
6	Tony Danza Baseball II	Micro Sports	8.97
7	NFL Pro League Football	Accolade	8.90
8	The Games: Winter Challenge	Electronic Arts	8.89
9	Pro Golf	Electronic Arts	8.87
10	4-D Bowling	Electronic Arts	8.37



Pool is based on reader survey cards in each issue of CGW and published two issues subsequent. Data on more than 100 games is analyzed and top ten lists may contain games which scored below the Top 100 cutoff!

51	The Castle of Dr. Brain	Sierra	9.11
52	Eye of the Beholder	SSI	9.10
53	The Dragon of Alton Ra	Sierra	9.09
54	Confucius	SSI	9.09
55	Ultima VII: Part Two: Serpent Isle	Origin	9.08
56	Empire Deluxe	New World	9.07
57	Chuck Yeager's Air Combat	Electronic Arts	9.06
58	Bases of the Cosmic Forge	SI	9.05
	Quest for Glory I (VGA)	SI	9.05
	The Lost Admiral	QQP	9.05
61	Shunt Island	Disney	9.04
	Red Storm Hiding	MicroProse	9.04
	Eric the Unraced	Legend	9.04
65	Conquests of the Longbow	Sierra	9.04
	Silent Service II	MicroProse	9.03
	F-15 Strike Eagle III	SI	9.03
67	Quest for Glory II	SI	9.02
	Gunship 2000	Sierra	9.02
69	Police Quest 3	AD,RP	9.01
70	Ultima V	AD	9.00
	Battles of Destiny	Origin	9.00
	Space Quest IV	QQP	9.00
72	The Incredible Machine	Sierra	8.98
	Western Front	Dynix	8.98
75	Tony La Russa Baseball II	SSI	8.97
	Carriers At War	SP	8.97
	SSG	SSG	8.97
77	The Adventures of Willy Beamish	Dynix	8.96
78	Alone in the Dark	I-Motion	8.95
79	Mech Warrior	AD	8.94
80	F-117A	SI	8.92
	Oh, No! More Lemmings	SI	8.92
	Ch. No. More Lemmings	Psychonosis	8.92
	Electronic Arts	ST,AC	8.92
83	The Island of Dr. Brain	Sierra	8.91
	Freddy Pharkas Frontier Pharmacist	ST	8.91
85	Rise of the Dragon	Dynix	8.89
	Marfan Memorandum	AD	8.89
87	Indiana Jones 500	Access	8.88
88	Elvins	Electronic Arts	8.88
89	Command HQ	Accolade	8.88
91	Flex Nebular	MicroPlay	8.81
92	Spacezoo 301: Spring Break	Legend	8.81
93	Gateway to the Savage Frontier	MicroProse	8.80
95	Populous II	SSI	8.79
96	Heart of China	Electronic Arts	8.78
95	Hoyle Book of Games, Vol 3	Dynix	8.78
96	Flashback	SSI	8.75
98	Val of Darkness	AD	8.74
	Battletorch	RP	8.74
100	Starlight II	Legend	8.72
	Electronic Arts	RP	8.71

Games on unnumbered lines have scores equal to the line above. = Top game of type. **Legend:** New Game, AD=Adventure, RP=Role Playing, SI=Simulation, ST=Strategy, WG=Wargame, AC=Action, SP=Sports

The Computer Gaming World Poll

A monthly survey of the readers of Computer Gaming World Magazine.

PC Research Hits List Of Top-Selling Software

July, 1993

PC Games (MS-DOS)

Rank	Title and Source
1.	X-Wing: Imperial Pursuit (LucasArts Entertainment)
2.	X-Wing (LucasArts Entertainment)
3.	Betrayer at Krondor (Sierra On-Line, Inc.)
4.	Pirates Gold (MicroProse, Inc.)
5.	Syndicate (Electronic Arts)
6.	Torpedo (Spectrum HoloByte, Inc.)
7.	The 7th Guest (Virgin Interactive Entertainment)
8.	Links 386 Pro (Access Software, Inc.)
9.	Hardball III (Accolade, Inc.)
10.	Might & Magic: Dark Side of Xeen (New World Computing)
11.	Wolfenstein 3-D/Spear of Destiny (Formgen)
12.	Prince of Persia II (Broderbund Software, Inc.)
13.	Links - The Belfry (Access Software, Inc.)
14.	Railroad Tycoon Deluxe (MicroProse, Inc.)
15.	Flashback (Strategic Simulations, Inc.)
16.	Take A Break Pinball (Sierra On-Line, Inc.)
17.	SimCity (Maxis Software)
18.	Strike Commander (Origin Systems, Inc.)
19.	Links - Maunz Kea (Access Software, Inc.)
20.	Realms (Virgin Interactive Entertainment)

Amiga Games

Rank	Title and Source
1.	688 Arniek Sub (Electronic Arts)
2.	A-Train (Maxis Software)
3.	Lemmings II (Psygnosis, Ltd.)
4.	AD&D Gateway to the Savage Frontier (Strategic Simulations, Inc.)
5.	Medieval Warriors (Merit Software)

Macintosh Games

Rank	Title and Source
1.	Prince of Persia (Broderbund Software, Inc.)
2.	Microsoft Flight Simulator (Microsoft Corporation)
3.	SimCity Supreme (Maxis Software)
4.	PGA Tour Golf (Electronic Arts)
5.	Kang's Quest VI (Sierra On-Line, Inc.)

CD-ROM Products

Rank	Title and Source
1.	The 7th Guest (Virgin Interactive Entertainment)
2.	ROMaterial (Moon Valley)
3.	MPC Wizard (Aris Entertainment)
4.	Kang's Quest VI (Sierra On-Line, Inc.)
5.	Indiana Jones and the Fate of Atlantis (LucasArts Entertainment)
6.	Corel Art Show (Corel Corporation)
7.	Compton's Encyclopedia Upgrade (Compton's New Media)
8.	Cincinnati (Microsoft Corporation)
9.	Street Atlas U.S.A. (Delorme)
10.	Jet Pack F117A/F15II with Scenario (MicroProse, Inc.)

What You've Been Playing Lately

This 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. 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 #10, September 1993

1.	Art of the Game: In Perfection
2.	Battlestar K'nar (The Ego Matrix, Inc.)
3.	Civilization (for the Mac, Inc.)
4.	Lord of Lire (Weswood)
5.	Falcon 3.0/MiG-29 (Spectrum HoloByte)
6.	Syndicate (Electronic Arts)
7.	Might & Magic: Darkside of Xeen (New World Computing)
8.	Dune 2 (Virgin)
9.	Clash of Steel (SSD)
10.	World Circuit (MicroProse, Inc.)

Even More Recipes From The Readers

Our short-answer query in issue 109 asked gamers to act as Game Design Alchemists with the power to extract elements from their favorite games and recombine them to create The Ultimate Gaming Experience. Here are more great responses.

"Recipe for Game in Perfection (series 900,000)

1 part Strategy of Civilization

2 parts Perspective of Underworld

1/2 part Flying of Aer

Dash of Phatso

Mix the above in a bowl made from the egg shells of Dejah Thors & John Carter's first born. If necessary, add Rights from Burroughs estate."

- Anonymous, Denver, CO

"I would take the mapped terrain of Falcon 3.0, the posture of Art of the Pacific, and the ability to assign personality traits, such as in RPGs, and allow the player to choose a squadron, plane type, and customize one's plane with arms, markings, etc., and require the player to keep the plane maintained. Name: Hybys - The WWII Combat Pilot Simulator."

- Don Smith, Kingwood, TX

"A role-playing game with the overhead perspective of Ultima 7, cut scenes like Wing Commander II, dungeon perspective of Ultima Underworld 2, and with a general Anglophile tone."

- Lord British, Austin, TX (actually, postmarked Brooklyn, NY)

"Take the graphics from Wayne Gretzky Hockey 3 (one of the few things done right), the implementation, customer support, and on-game print capability of Power Page Sports Football, the statistical basis from True Hockey, and the season scheduling, regularity, and league set-up option from Hockey League Simulator 2. Name: NHL - The Complete Game. (Sigh) Only in heaven, I guess."

- Maury Hittow, Skydell, IA

"First, I'd take the character generation from Windows, the firepower from Galaxy 2000, and the evil Empire of Xeen. Then, I'd mix in the death scenes from Terminator 2025. We'd need a couple of bugs from Ultima 7 (to keep the phones ringing), and the music from Wing Commander when you're running to the ship. We could call it '486 Demander' and label it 'Super Hi Tech' and sell a few copies to a few people."

- Anthony Feloni, Iolife, NJ

"I would combine the humor of Freddy Pharoa with the great gameplay of X-wing, throw in a great racing sim like World Circuit and the always enjoyable Links 386 Pro. I would call it Phatsoy Phatsoy and Drives Phatsoy Phatsoy to the Top."

- Jon Wilson, Landis, NC



The Patch File

Computer game programs have grown so massive and the number of possible configurations has become so huge that incompatibilities and glitches seem to be breeding at an exponential rate. Consumers and publishers are both frustrated at the need for adding patches into "buggy" programs, but they seem to be an interim solution that is going to be with the hobby for a while (presumably, until a standard platform configuration is agreed upon). So, until the golden age of standardized platforms and bug-free programs, *Computer Gaming World* will publish a regular list of the latest updates of which we are aware.

These patches can usually be downloaded from most major networks (e.g., CompuServe or GEnie), but can also be obtained from individual software publisher's own BBSs or direct from the publisher with proof of purchase. We continue to urge publishers to keep us updated on the latest versions/patches to their games.

(* ** indicates new files)

Air Bucks Version 1.21: Corrects lock-up and mouse compatibility problems. 8/06/93

Ambush at Sorinor Version 1.02: Adds a speed control option for fast machines, replaces several bad mission descriptions, and fixes the AI for VIPs and escorts. 6/17/93

Battles of Destiny VI.1 Patch: Enhancements and bug fixes include: Patrol Mode, Map Editor, and two player modern enhancements. 5/06/93
Buzz Aldrin Race Into Space Version 1.0b: Fixes a lock-up bug and allows the removal of some files from the hard drive. 7/06/93

Caesar Patch: Allows players to use Impressions' game with disk compression utilities, and corrects the "culture" problem. 5/19/93

Carriers at War Construction Kit Patch: Fixes the "CAP" bug and a few other minor problems. 7/13/93

Dune II Patch File: Fixes problems with the delivery of items from CHOAM. 4/18/93

Empire Deluxe Version 3.1: This new version makes a myriad of feature changes and bug fixes to Version 3.0. 4/30/93

F15 Strike Eagle III Version 3 Update: Corrects minor errors in earlier versions. 4/25/93

Harpoon Version 1.32A Upgrade: Makes changes to the Harpoon game system. 5/18/93

Imperial Pursuit Fix: In the original version, it can be difficult to lock-on to a target with missiles under certain system configurations. This patch should correct this problem. 7/08/93

IndyJones/Atlantis Mac Patch: Corrects the "desert balloon" crash bug in the Mac version. 4/15/93

Indy Jones/Atlantis 486 Patch: Allows one to play the game on a 486 without color problems or errors. 5/26/93

Jordan in Flight SVGA Patch: Allows owners of Diamond Stealth, Diamond Stealth 24 and Orchid Fahrenheit 1280 Plus video cards to run the game in SVGA. 5/21/93

Jump Jet Update: Corrects the joystick problems some players are reporting and some other compatibility problems. 5/18/93

Kings Quest VI CD-ROM Patch: Fixes the problem with the disappearing ball in the Endless Desert Temple Stone Wall trap. 8/24/93

Lands of Lore Version 1.11 Patch: Corrects various problems including the inability to retrieve Dawn's second key. 8/25/93

Lands of Lore Sound Card Patch: Allows multiple sound cards to be used at one time. Now includes Waveblaster/SB16 support. You need this patch only if you use more than one sound card. 8/16/93

Omar Sharif on Bridge Upgrade (IBM/Windows): The latest version of Interplay's bridge game for Windows. 9/03/93

Pacific War VI.1 Upgrade: The official SSI upgrade to Gary Geigley's Pacific War. 4/18/93

Patriot Version 1.1: The long-awaited patch to Three Sixty's Gulf War simulation. 7/27/93

Pirates Gold Patch: Corrects the "evil person in the city" crash, the "mission from the governor" crash, and the VI switch should now function as

stated in the README file. 7/19/93

Realms of Arkanis Disk 3 Fix: The first print run of this game was missing some data from disk 3. You only need this file if your BLADE directory has 48 files and 3,030,380 bytes in it. 6/23/93

Realms of Arkanis Update #1: Corrects the "Skeletarium" problem among others. 7/01/93

Rules of Engagement 2 Version 1.05: Latest version of the Omniredux/Impressions' space war simulation. 8/01/93

Rules of Engagement 2 Campaign Disk Update: Updates Campaign Disk 1 to version 1.01. This update adds 9 new Breach 2 IGCS links to the campaign "Operation Hammer." This update is only useful if you're playing the game in conjunction with Breach 2. 8/30/93

Shanghai II Version 1.04 Update (Mac): Resolves incompatibilities with After Dark and SuperClock, and fixes a 32-bit addressing problem. If you are getting random crashes or freezes, this update is for you. 8/20/93

The Seventh Guest Fix: Updates sound cards drivers, installation program and player program (requiring only 450K memory). 7/28/93

Tony LaRussa II Patch: Fixes bugs in SSI's baseball simulation. 5/21/93

Unlimited Adventures Version 1.1 Patch: In addition to new files for the software, this patch contains a supplement to the game's manual. 5/21/93

V For Victory 3.1 Upgrade (IBM): Upgrades Utah Beach, Veliikyie Luki, and Market Garden Versions 2.0 to Version 3.1. 8/19/93

V For Victory: Veliikyie Luki Version 3.1 (Mac): Upgrades the Macintosh version 2.0 to 3.1. 7/09/93

V For Victory: Market Garden Version 3.1 (Mac): Upgrades the Macintosh version 3.0 to 3.1. 7/08/93

V For Victory: Gold Juno Sword Version 4.01 (Mac): Upgrades the Macintosh version 4.0 to 4.01. 8/28/93

The PRODIGY Weekly Top Ten

Computer Gaming World is Prodigy's on-line games expert. Look for us in their Game Center, a forum where users read articles posted on-line by CGW and exchange messages on the bulletin boards (we can be reached there at EXPJ40B). 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 games 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.



CONVERSIONS RECEIVED

AMIGA:

A-Train Construction Kit (Maxis)
Desert Strike (Electronic Arts)
Syndicate (Electronic Arts)
Virtual Reality Studio 2.0 (Domark)

MACINTOSH:

Bridge Master (Capstone)
Carriers at War (SSG)
King's Quest VI (Sierra)
Lemmings (Psygnosis)
Oh No! More Lemmings (Psygnosis)
Where in the USA is Carmen Sandiego? (Broderbund)

MACINTOSH CD-ROM:

Putt-Putt Joins the Parade (Humongous Entertainment)
Putt-Putt's Fun Pack (Humongous Entertainment)

MS-DOS CD-ROM:

Eric the Unready (Legend)
Eye of the Beholder III (SSI)
Future Wars (Sony Electronic Publishing)
Great Naval Battles: North Atlantic 1939-43 (SSI)

Putt-Putt's Fun Pack (Humongous Entertainment)
Ultima Underworld I, Ultima Underworld II (Origin)

MS WINDOWS:

Deja Vu I & II (Viacom New Media)
Empire Deluxe (New World Computing)
Sim Life (Maxis)
Solitaire's Journey (QQP)
Uninvited (Viacom New Media)



Oh No! More Lemmings



Carriers at War



Empire Deluxe

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