BANTAM
COMPUTER
BOOKS

DVORAK'S GUIDE TO PC GAMES

JOHN C. DVORAK AND PETER SPEAR

Dvorak's Guide to PC Games

John C. Dvorak
Peter Spear

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To Jose Frag, the best friend a man could ever have
and
To Jeremy Spear, the best son a man could ever hope for

Peter S.

For Mimi, John, Aric, Phyllis, and Jan

J.C.D.

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Acknowledgments

Putting this package together was a much bigger project than we had imagined. It took the efforts of literally hundreds of people besides ourselves—everyone from the folks around the country who tested out game disks, to the scores of PC game company people who sent us titles to play and evaluate, and scoured the bottoms of filing cabinets to provide us with information and artwork on their products.

How This Book Came Together

The book component of this package could not have happened at all without the substantial contributions of a number of talented and experienced game players, researchers, and editors. All contributed time, expertise, ideas, and often words to what we wrote about specific games and game categories. We can't thank or praise them enough. Here's who they are:

Nels Anderson is a very respected and, he claims, successful, shareware author. His encyclopedic knowledge and insights on the shareware game world are used throughout Chapter 17. His extensive shareware library provided many of the games we looked at. We have included two of his masterpiece games on the disks which come with this book.

Robert Angone specializes in arcade/action games, is an adult, and somewhat proud of both accomplishments. He opened our eyes to a number of games we hadn't previously considered, and contributed substantial effort to Chapter 9. He also writes for a number of Atari ST magazines. Make of that juxtaposition what you will. Robert works three jobs, and hopes to someday have enough time, money, and prestige for season tickets to (1991 NBA Champs) Bulls, games.

Alan Emrich is the assistant editor of *Computer Gaming World* magazine. He did invaluable work on the wargames covered in Chapter 13. He claims that the history of war games is the history of computer games. Alan also contributed to the chapter on board, parlor, and solitaire games.

Richard Heimlich is the president of Top Star Computer Services, a quality assurance testing firm that specializes in entertainment software. This means he knows a lot about games. Richard made sure we had our hardware facts together in Chapter 2, and looked over large parts of our preliminary manuscript for errors and omissions.

Carol S. Holzberg, PhD, is an anthropologist and computer journalist. She writes for several publications, works as a computer consultant, and serves as the computer resource person at the Shutesbury Elementary School. Carol is an acknowledged expert on children's and educational software, and after working with her as we wrote Chapter 14, we couldn't agree more. She is also married to a former roommate of one of our best friends. This is a fact none of us knew until we had begun working together, and it proves conclusively that it is indeed a small world.

Joan McKeown is a scientist and the Director of Safety and Radiation Safety at a large innercity medical center. Her first job was proofreading telephone books, and her last job was as the department head of Nuclear Medicine Technology at a local college. In the absence of anything really important to do, she agreed to share her hard-fought knowledge about computer role-playing games. Chapter 4 would not have been the same without it.

Assembling the Software

Actually, we pretty much had to go along with whatever Joan wanted. What else do you do when dealing with a woman who's on-line handle is BigBad Mama, and keeps a pet dragon named Matilda in her wine cellar?

R. Andrew Rathbone is the editor of *ComputerEdge* magazine in San Diego. A book author in his own write, Andy rounded up sound boards, joysticks, and a lot of other odds-and-ends type facts we tossed around in Chapter 2.

Scorpia is the official mystery woman of the PC game world. She refuses to reveal her real name to anyone, even if they have a check in their hand. Scorp is the game guru on GEnie, and writes a monthly column for *Computer Gaming World.* She dipped into her years of game playing to walk us through the adventure games in Chapter 3, and was especially knowledgeable about the classic games we look at in Chapter 16.

Russell Sipe is the editor-in-chief and publisher of *Computer Gaming World* magazine. Russ has kept *CGW* going for over ten years now, making it the country's oldest PC game mag. He consulted with us on selecting many of the games we chose to include, and also contributed specific information on the planes, trains and automobiles looked at in Chapter 7 and the air/space combat simulations of Chapter 5.

Jeremy Spear should get a good grade on his "What I did on my summer vacation" paper when he returns to high school. He started as our graphics researcher and file minder, but ended up making more substantial contributions. He amazed all with

his way with words, and his talent for spotting writing gone wrong. He ended up helping edit copy, smithing words during crunch time, and acting as our arbiter of good taste. His work on the air/space and land/sea chapters was especially valuable.

Carrie Washburn is the administrator of the Multiplayer Games RoundTable on GEnie. Before that she spent many years working at much the same thing on CompuServe. Her knowledge, experience, and contacts in the on-line game world seems bottomless. She even met her husband through on-line games. Chapter 15 would have been a lot shorter without her help.

Johnny Wilson is the editor of *Computer Gaming World*. Besides getting the magazine out the door on time each month, he contributed facts and insights on sports games, money games, land/sea combat simulations, and god games. In his spare time he updated us on some computer game history, and wrote his own book, *The Sim Earth Bible*.

Nick Anis is a long-time collaborator of John Dvorak, well-known computer author, and general all-around talented person. Nick is the one who made sure the game disks that came with this book work, and he designed the custom programs that come with them. It's one thing to discover cool games and decide to put them on disk. It's quite another to make the final product look polished and professional. Nick took our ideas and pulled them together. It was a difficult job, but someone had to do it. While Nick has no regrets, he has billed us for several months of back sleepy time. We've informed him that the bed check is in the mail. (He doesn't think the line's funny either.)

Keith P. Graham pioneered the idea of the BossKey several years ago. We called him out of retirement from the BossKey Hall of Fame to create ours. Both Keith and BossKey are awesome. In his spare time, Keith also wrote our menuing program, GMENU, and the Lava Lamp. We also want to thank Keith's super-understanding wife, Erica, for lending us her husband, even though we didn't give him back for a long time.

Nick also assembled an outstanding group of programmers for this project:

The Beaner, John Bean, wrote the Install program. For that we install him in the Dvorak & Spear Hall of Fame. A niche is also reserved for Chuck Guzis of Sydex Software for both technical wizardry and outstanding custom disk bootup messages. Scott Miller and the people at Apogee Software were able to modify Commander Keen so that it would work with BossKey, and Christy Gersich was able to round up enough Microsoft programmers to help us figure out how to use a graphics cursor in text mode and other technical stuff.

Nick also pulled our game testers together, and there were hundreds of them. Shareware guru, Dr. FileFinder (aka Mike Callahan) found some major bugs for us to squash, and computer consultant Dan Kelpach donated heavy hours for finding more of the critters. Dan has an immaculate home with three computers, one snub-nosed cigar, and a lovely wife. We can understand how she puts up with the computers, but the stogie is a complete mystery.

Other important testers include Craig Menefee and the detail-oriented youngsters Brian Hinch, Mike Simmons, and Jason Burris. All books about computer games are supposed to have kids involved in them somewhere—it's included in the Game Book Writers Rules of Order and they fit the bill perfectly. Some of the older kids that

helped us include Mike Catapano, who was our network tester, and David Allen, who, besides being a guy with two first names, gave all his free time to test the programs on dozens of different and sometimes obscure computers. He hung out with Nick while they traveled from computer store to computer store, looking for all manners of exotic systems on which to test the software. Sometimes the people they met were more exotic than the hardware, but every time the response was "this is great!"

On the subject of computer stores, we would like to give a special thanks to the CompUSA Superstore in City of Industry, California. They allowed us at times to practically take over the place as we looked for new test machines. Imagine, if you will, 45 different computers playing the theme from Klondike at the same time, and almost together. Imagine Lava Lamp cycling its magic on a 35-inch big screen monitor. A pre-teen stands in front of it watching the patterns go round and round. He keeps watching. He watches some more, and some more still. Finally he has to be led away by the hand, his eyes still fixed on the screen. There's a lesson there somewhere—Lava fever?

Ray Kopczynski and his entire PC club in Sheridan, Wyoming, took the time to check out our software thoroughly. We bet you thought there were only horses and cowboys in that part of the world. To them and all the other folks around the country who lent us their time, opinions, and observations, thanks a million.

We also would like to thank the Software Publishers Association, and especially Jodi Pollock for providing us with numbers, answers, research, and the information that makes up Appendix C.

Corporate Support

A number of other companies provided us with significant help during the writing of this book. Kris Technologies is a relatively new computer manufacturer in the United States. Their reliable and slick 386s are among our favorite computers, and they are one of the few quality manufacturers that have the vision to sell a properly configured PC game machine—386 chip, sound board, speakers, and all. We used their equipment to look at scores of different games. Not only did it work flawlessly, Peter Spear moved away from his own PC to use the Kris exclusively. He said he never thought he'd ever admit to liking a DOS machine.

CompuServe provided us with a lot. Patti Fitzgibbons of The Electronic Gamer suggested a number of superbly qualified people for us to tap as contributors. She has good taste in people with brains. Sharon Baker Magee provided us with an electronic mailbox so that we could efficiently communicate with our contributors and have a place where they could file their various materials with us. Much of this book came together because of our CompuServe maildrop; and many times research would be finished, filed, and received crosscountry in an extremely short time frame and in the middle of someone's night. Why more people and companies don't take advantage of commercial e-mail systems is beyond us.

We would also like to thank Apple Computer and Keri Walker for the loan of a Macintosh computer. While this is a PC game book, we did a lot of evaluation of

Macintosh and Apple 2 games for reasons too complicated to go into here. The Mac LC made that chore easy and efficient.

And Finally...

Joe Fragola helped us out when he was sick, but we were overwhelmed.

Lynn Ryder helped us out when we needed editing help and needed it quickly.

As always our wives Mimi Dvorak and Virginia Soper told us where we were going wrong and how to do it right.

Finally, we will not mention our tireless editor at Bantam Electronic Publishing, Michael Roney. He gets mentioned in every book, so we won't do it here. But if we were to mention him we would say he's terrific.

Read Me First
Why This Book Came To Be

In a way, this book is about guilt. Not the deep, soul-wrenching kind, which sends us either to tears or the shrink's couch. We're talking guilt that's deeper. We're talking the kind of guilt that prevents grown men and women—some of them highly educated, successful professionals, survivors of corporate wars, academic in-fighting, and the street-tough attitude needed to earn a living in the 1990s—from admitting to certain secret things. Things like an inordinate fondness for microwave burritos—for breakfast. Harlequin romances. A favorite shirt or pair of slacks always worn a day or two too long. Biting our nails. Brady Bunch reruns. The Philadelphia Phillies. The music of Barry Manilow. The guilt of pleasures outside of the mainstream of adult, professional life. The pleasures we shouldn't indulge in because they are perceived to be somehow *beneath* us.

We all have little secrets, and while most of them are nothing at all to be ashamed of, we hesitate to admit them in public, or in polite company.

Playing computer games falls into the category of secret pleasures. Few people admit doing it, yet millions of PC games are bought each year, and all the research done on who is doing the buying agrees on the same fact. Computer games are mostly purchased—and played—by adults. Children and teens buy their share, to be sure; but the average PC game player is well into adulthood. That person could very well be you.

Think about sex after marriage for a moment. That's long enough. Few people come right out and talk about doing it, but babies are born all the time. It's the same situation with PC games; adults don't come right out and talk about playing and enjoying them, but more and more are being bought all the time. We're not psychologists or sociologists able to draw fine theory out of contradictory evidence. We're just two guys who work with personal computers in order to make a living.

We don't know why PC games are a secret sin and a guilty pleasure. We do know that we spend more time playing them than we can comfortably confess. We suspect the same could be true for you.

Don't worry about it. It's okay for grown-ups to relax and have fun occasionally. It's good for you. It relieves stress. It's healthy. It makes you more productive in the office (see below). There's absolutely nothing to feel guilty about.

We can hear some of you right now. You're saying that you never play computer games. Never. Well, sometimes a little bit of "fill in the name of the game you're thinking of here."

And that's the point of this book—nearly everybody can fill in that blank. Many of us can fill it in more than once. A book that made sense of all those names, and all the different kinds of PC games was necessary, and there was none available.

What We Cover in this Book

This book takes that much-needed look at the games we play on our personal computers—at work or at home. We'll take a close look at well over 300 different titles that were available in autumn 1991. The field is massive and dynamic; the moment you think you have it all in your grasp, it simply enlarges some more and goes its own way. Because of this, we have placed limits on what we've written here.

Most important, this is a book about *PC* games. By that we mean entertainment software that runs on IBM and compatible computers. Nintendo, Sega Genesis, GameBoy, and the other dedicated game consoles aren't computer games by our definition; they are video games, and not listed here. Likewise, we have omitted Macintosh, Amiga, and Atari ST specific games. We did this reluctantly, because some excellent titles are being published for those computers. However, the vast majority of PC games have been written for the DOS world, and the DOS world is the vast majority of the personal computer world.

We have also placed some restrictions on what titles to include. While we have tried to encompass the entire breadth of the field, new titles are being published almost daily, and each Christmas season brings a new onslaught. Instead of attempting to be so encyclopedic as to include those scores of *surely this is going to be one of the best titles ever published* games that will hit the stores around the time this book is published, we have limited ourselves to good solid representative games that are proven winners.

About a dozen or so of the newest PC games scheduled for Christmas 1991 release are scattered throughout. These are titles that we, or our staff and researchers, have seen and/or played in prerelease versions and like a whole lot. Vaporware—software that is announced but not released when promised—is just as prevalent in the PC game world as in the PC productivity software world. We are sure that the titles we've included will be on the shelves when you have this book in your hand. If they are not, we'll admit we blew it. The game publishers will take their knocks in the marketplace.

Games in the Office: Dvorak's View

Games in the office are too often condemned by management. The litany is simple: You can probably find better things to do with your time. Worse, you may accidentally release a nasty virus on the network thus upsetting corporate bigwigs and fellow employees, especially if files are destroyed.

The fact is that in most places the sanction against game playing in the office is a result of a general prudishness and underlying fear that an employee may actually be enjoying his time there.

When I was the editor at *Infoworld*, I'd encourage the reporters to play games as much as they wanted and as often as they wanted. Writer after writer, when feeling burned out or suffering from writer's block (or just plain bored), would traipse into the so-called "game lab" and play games for as long as she or he wished.

The first thing we discovered was this simple fact: When people take time out from their workday to relieve stress, they make up for it with better quality work, and they work longer too.

Since then, I've talked to over 1000 people who play games in the office and, without exception, they are the most productive employees. I've sensed increased sensitivity and improved intelligence among them. I suspect that their IQs have somehow increased through this activity too, although I can't prove it. Perhaps a government study should look into the matter.

Games *do* exercise the intellectual facets of the brain. They require problem-solving, hand-eye coordination, and complex thinking. These aspects are fine tuned and carried over to humdrum day-to-day office work.

The game player is more creative and a more forward thinker in the modern office. He or she is destined to go to the top. Almost all multimillionaires who run today's gigantic software companies are avid game players: Ask them.

Executives take note: Games in the office are a route to improved productivity. Employees should be required to take as many game breaks as they can manage. In fact, while we don't condone spying on the minute-to-minute activities, we recommend that corporations make their employees log into the game machines and show a certain minimum number of hours per week of game playing. It's the patriotic thing to do.

As for the fear of viruses, a company can set up computers dedicated to games and place them throughout the office.

If we are to beat the Japanese in the world marketplace we are going to need to play more computer games. It's just the way it is, so let's enjoy it.

How to Use This book

Breaking down the expanding universe of PC games into logical and coherent sections is neither a task for the timid, nor especially logical. We have put this book together in a way that makes sense to us, and is easy for you to use. Here's how it works:

The first two chapters cover PC games in a broad sense, and you should read these first to get a good background on them.

Chapter 1 shows what the games are and are not, describes the different PC game categories, explains how to buy games cheaply, talks about copy protection, the history of computer games, and provides some insights into the PC game business.

Chapter 2 examines the hardware questions that must be understood when dealing with any kind of personal computer software, but is especially important in the game world. There is also an extensive look at the many ways, hints, tips, game answers, and software support can be obtained.

The rest of the book will look at the PC games themselves. This is where to turn to get specific information on specific games. It is also where you'll discover the names and descriptions of hundreds of the very best PC games you can play. There is something there for everyone.

We'll be looking at almost 350 different PC games selected from over 1000 titles available at any one time. We'll look at the commercial games that come shrink-wrapped in attractive boxes, shareware games, and games that can be played while connected to the major commercial on-line communications services.

We have broken the different games into 13 different categories, some traditional and some of our own invention. We tried to do our best. Some people will quibble about just what categories we've chosen, and just what games should go where. Fine. They can write their own books.

The games we've chosen to include in each category are representative of the variety of different approaches you'll find in these games. They are also some of the very best of their type.

About three-quarters of the games covered in each category are looked at in some detail. Included is information such as the publisher, suggested retail price, the form of copy protection used (if any), and the minimum hardware requirements to successfully play the game. There is also a listing of other computers for which the games have been published.

We'll tell you what we think is special about each title, give a description of what the game is like, and even drop a few secret tips on getting past some of the toughest spots, or some special strategy.

The remaining titles, the other games of note in a category, get covered in a brief precis.

In the chapters on adventure, role-playing, and classic games, we've also included an indication of difficulty level. This is very important. In these categories, as some titles are much tougher to play than others. It can be extremely frustrating to start playing one of these games and discover that it was designed to challenge an expert player.

There are two appendices of special note in the back of the book. Appendix B is a listing of the companies who have games covered in this book. If a title intrigues you and you don't know how to find it, look up its publisher in back.

We've saved the best for last. By now, you've probably opened the package of disks, which contains the games that come with the book. You may have even installed and started to play them. If you have, great. We hope you like them as much as we do. We think we've picked some of the best shareware games in the world.

If you haven't started with the games, Appendix A explains the installation procedure, describes the games themselves, and contains other information about the various programs, which we've crammed onto the disks.

We are especially proud of the incredible Dvorak/Spear BossKey program. This was put in especially for those of us who like to slip in an occasional short game session while we're working. If someone drops by, and you don't want them to think you're flaking off, just press the special key combination. It will look like you're doing some serious spreadsheet work. That's why it's called a BossKey—it's there to fool your boss. Or your spouse.

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Are We Having Fun Yet?

The book you're holding in your hands right now is a rare book indeed. It's a computer book that tells you nothing at all about being more productive. Think about that for a second.

- There are no obscure tricks for simplifying and understanding spreadsheets.
- There is nothing in here that will make your hardware run any faster, or your network run at all.
- There are no tricks for optimizing or organizing your hard drive or for turning it into a frisbee.
- You will not be able to use it to publish a company newsletter (either with or without video); or, design an airplane; or, an office building; or even a wonder knife which slices through frozen logs as easily as it does an overripe tomato.
- And it will not give any step-by-step instructions for turning DOS 5.0 into an attractive throw rug.

We hope you're not disappointed by this.

On the other hand:

- This book will expose you to hundreds of opportunities to become rich, famous, or both.
- It will show you how to get to exciting, exotic places inhabited by scantily dressed men and women.
- It will provide you with opportunities to be enshrined in many different halls of fame.

- You'll learn where to fly planes, race Ferraris, or beat the Russians at their own game - with no experience or up-front cash necessary.
- This book will even show you where to pick up sure fire ways to pick up girls. Or, guys. Or, both!

Let's face it, computers can be awfully boring. Software can be boring. Deadly dull, like screwdrivers, staplers, water coolers, fax machines and postage meters. Business, too, can be boring. Your job can be boring.

None of these have to be dull, and often aren't. For example, water coolers are a great place for swapping rumors and making dates, fax machines and postage meters have been known to caress the best resumes, and screwdrivers have helped many to unwind after a particularly bad week. On the other hand, we've never had an emotionally satisfying experience with a stapler. At least not yet.

Things get to be as boring as they are because we take things too seriously, we take them too seriously too often, we take too many things too seriously, and we take too many things too seriously too often.

Business is serious. Computers are serious. Software is serious. We're even serious about being serious. Seriously. But we digress.

It's time to lighten up, America. All work and no play make Jack and Jill dull people. That's what this book will cure.

PC Games

PC games are games that you can play on your personal computer as opposed to the games that are played on what are called "dedicated game machines," such as Nintendo, Sega, Genesis, and the like. Between 75%-80% of all computer games bought are for the IBM and compatibles market—the machines we use for working. These are the PC games we're writing about; they are the games that adults buy, and they are the games that we have been known to relax with when we're supposed to be working.

PC games provide us with a chance to relax through play, throw off stress, and decompress. What PC games do best is create alternate realities in which we can lose ourselves. Sometimes these realities try to duplicate our everyday "real" world, and other times they can take us into totally alien or fantastic environments. From piloting a hot jet fighter, to managing an NFL football team, to fighting dragons, to creating worlds, to building railroads, to recreating history, to exploring space, to scoring with the gender of our choice, to being the star in an animated adventure, to whatever our imaginations can conceive—PC games can, and do, take us there.

Before you say that adults don't play computer games, let us give you some facts which might surprise you:

The largest single category of personal computer software sold in the United States and Canada is games—not spreadsheets, word processors, databases, DTP, or graphics packages, but games.

Nearly four out of every ten pieces of personal computer software bought are floppy disk games.

Over 8,000,000 computer games will be bought in 1991, and over 6,000,000 PC games will be bought for IBM and compatible computers.

"Okay," you say. "That's a lot of games. But, still, only kids play games." Think again. The largest percentage of PC game software buyers are people 35 years of age or older, and it's mostly men doing the buying.

Let us put it to you another way. Take the Dvorak & Spear Challenge. Look around at work, in your office, or on the home computer or home office computer that you or a friend own. Check out the hard drives. Nearly every PC you examine, no matter if it lives in the workplace or in the home, will have some sort of a game available to play. The games may be hidden in a subdirectory but one or more is likely to be there.

Everybody plays games. We grew up playing games; everything from make-believe "let's pretend," to stickball, to schoolyard basketball, to back alley crap shoots. There was Monopoly, and Scrabble, and Risk, old maid, checkers, and maybe even Dungeons & Dragons. We golf when we can now, or play tennis, poker, softball, bridge or backgammon. We even drop a few quarters in the video arcade machine sometimes, even if we only get thirty seconds of play before we're blown away.

Almost everyone who uses a personal computer plays computer games at one time or another. Casual computer game play is a part of life in the mainstream. Don't worry about it. It's okay to have fun occasionally. Are we having fun yet? We must be.

PC Games by the Numbers

Breaking PC games down by numbers is difficult. We can only estimate the number of different game titles available on the market at any time, and at present it is well over 500. Nearly 400 different games are covered in this book, and we probably omitted as many as we included.

We can only guess at the number of PC games bought and sold each year. The approach we took was to get the Software Publishers Association's (SPA) tabulation of the retail dollars spent by people on games. For 1991 that will be about $400,000,000. If we assume that the average price paid by consumers is about $40, then we can say about 10,000,000 games will be sold. We've taken a more conservative tact and used a $50 average game price, because that's about the average suggested retail price. If you use that price you come up with about 800,000 games sold.

The rate of growth in the PC game market is very high. There were almost 40% more MS DOS games sold in the first quarter of 1991, for instance, than in the first quarter of 1990. While the percentage changes from quarter to quarter, the overall growth rate of the game market is well into double digits.

We deal with smaller numbers when we break down PC games by category.

Different Kinds of Computer Games

PC games are not all joystick driven shoot-'em-ups. In fact, arcade style games are only one of a number of different genres of computer games. We've broken the hundreds of different titles available at any one time into 15 categories.

- *Adventure games:* PC games can be an incredible storytelling medium. These games are animated stories where you see and control a main character (occasionally more than one) in a highly detailed story. They are the computer game version of novels, and relate all kinds of stories from pulp fiction, to techno-thrillers, science fiction adventures, fantasies, and R-rated spoofs. Adventure games revolve around various puzzles and obstacles which you, and the character you're playing, must overcome as the story unfolds.

- *Fantasy role-playing games:* These are best described as Dungeons & Dragons on a computer, but they aren't always set in a barbarian-infested medieval world. Often they'll take place in outer space or in some future setting. In these games, you usually control a group of characters who grow stronger and smarter, and a lot of other things, as the game progresses. So do your enemies. The stories in these games are usually sketchier than in adventure games, with more emphasis on beating up monsters than on solving puzzles.

- *Air and space combat simulations:* Not arcade games where you might have endless ammo and endless enemies, these games attempt to be accurate simulations of the experience of flying and fighting real warplanes. These are for those of us who want to fly big machines with lots of fire power. Cockpits look and act like actual cockpits, the instrumentation functions as in real combat, the weaponry is authentic, and the flight characteristics of the plane (and the enemy) are lifelike. The space combat simulations are fictional, but they're designed to mimic the reality of maneuvering in a space.

- *Land and sea combat simulations:* Other big pieces of military hardware have had games designed around them. This category includes simulations of real submarines, ships, and tanks, and allow players to experience realistic combat scenarios, and survive to figure out how to employ the proper tactics the next time.

- *Planes, trains, and automobiles:* The other categories of simulators all are military and have a heavy emphasis on combat. These games don't. Sure, you can race a Maserati up the coast road in California at better than twice the legal speed limit and perform stunts on (and off) four wheels. But you can also use these to learn to fly peaceably among the clouds, and sightsee and enjoy the freedom of flight. You can even do things like build and operate your own railroad.

- *Sports simulations:* Here's your chance to coach and manage the pros. These games are more than rotisserie baseball leagues with pictures; in some of them you can control the actual action. Sports simulations give us all the opportunity to run that trick play at just the right time, prove that we can win with the run-and-gun, have statistically accurate Henry Aaron bat cleanup behind Ted Williams, or out-manage Tommy Lasorda.

- *Arcade/action games:* These are the classic "action" games—how fast your reflexes can jerk a joystick. Usually referred to as mindless, they often are. On the other hand, there are many times when we may want or need to put our brains on hold. Many of these games can be played on the keyboard or with a mouse, so joysticks are not always necessary. Fast reflexes are, just like in the arcades.

- *Board, solitaire, and parlor games:* Many of the old favorites have been converted to computer games. No longer is it necessary to find partners in order to play chess, backgammon, Scrabble, gin rummy, or Risk. Some of these games will even teach you how to gamble in the privacy of your own monitor, and without the risk of wearing a barrel home after an unlucky night.

- *Reality simulations (god games):* There are games that let you create entire worlds out of digital nothingness. Others allow you to play a bout of dueling deities, create your own computer adventure world from scratch, run a city, a country, or (dare we say it?) rule the world.

- *Money-making games:* These simulate and teach the higher forms of gambling such as the stock, securities, and real estate markets. They also let you try your hand at running corporations. Play them for fun, or play them to get an edge in the race up the corporate ladder.

- *War and strategy simulations:* Fight in the great battles of history. Command the Germans at Leningrad, or be Napoleon at Waterloo. If military strategy—past, present, or future—fascinates you; if you like history; or if you're just curious to see if you could have changed some of the great turning points of the past, these are the games that will do it.

- *Children's games:* If you bought a home computer so that your children could learn how to use one, these games are well worth looking into. The reality of our culture seems to dictate that as soon as young folks become coordinated enough to use a mouse or keyboard correctly, they want to jump right into playing games like Wing Commander, Populous, or Eye of the Beholder. However, there are dozens of excellent games around that children can play for fun, and even learn something.

- *On-line games:* It's a mistake to think that all PC games come packed on disks inside of shrink-wrapped boxes. There is an entire interactive world of fun and games available just a telephone call away. These games come in all types, and are available to be played on almost all of the commercial on-line services and local bulletin boards. Some of the best on-line games are designed to be played by many people at the same time. This interactivity and the role-playing that often goes along with it, often make playing these kinds of games an addictive experience.

- *Shareware games:* It is also a mistake to think that all PC games come in shrink-wrapped packages with list prices of $40 to $80. Many good games don't come packaged at all, and cost $10 to $30. Typically, you are able to try them out for little or no cost for several days and, if you want to legally own a copy, you're requested to mail a check to the person or small company who created it.

- *Classic games:* The PC game world is a lot like popular music and movies; many different titles are released, some become hits and hang around for a time, and the others disappear. Eventually the hits become hard to find, and are replaced by current favorites. Very few PC games survive beyond two or three years. Of the ones that do remain, some are so good, and so timeless, that they deserve new audiences. A few, like Flight Simulator or King's Quest, are updated often enough so that they can be looked upon as essentially new titles. Others remain the same, selling just enough copies to stay in print, but not enough to be actively promoted by their publishers. These are the often overlooked, golden oldies— the classic PC games.

How to Buy a PC Game

Mainstream Commercial Games

Prices of the different titles are included with the various game descriptions in this book. You will notice that they range from about $40 to $80. PC games are not cheap; however, these are retail prices. Shop discount stores and chains, or buy via mail order for savings. In a store, however, you can often try before you buy. Mail order costs less, but you're often buying blind. If you have a problem with your purchase, it's a bigger hassle to return it to the mail order company than to your local Egghead, Software, Etc., or Spear's Food Market & Discount Software Deli.

However, many shoppers like to try at a store and then order via mail. This doesn't make the stores or their salespeople happy, but many folks defend the practice on the grounds that they save substantial amounts of money this way.

Here's how to figure out if you're getting a good price on a PC game. As a general rule, the wholesale price of the game is half the suggested retail price. A $50 game costs the store or the mail order warehouse about $25, an $80 game is $40. To the wholesale number add 10% to cover the merchant's overhead costs and perhaps a small profit. For example:

Suggested retail price:	$50.00
Wholesale price:	$25.00
10 % overhead:	$ 2.50
Fudge factor (chocolate nut):	$ 1.00
Lowest price available:	$28.50

In reality, this lowest price will be a few bucks more because businesses do have to make a profit, and the actual wholesale price will be slightly different; but you get the idea. If you keep this formula in mind, you will always be able to save money on your PC games.

We are not recommending any specific chain or mail order firms. We'll leave that to you and to what stores are available in your area. There are, however, several mail order companies who specialize in selling games. Their ads appear with regularity in most computer game magazines. The larger, more general mail order companies also normally offer PC games at excellent prices, but their selection of titles is not as broad as the specialty companies.

If you do purchase by mail order, always pay by credit card and only to a company who bills the card at the time they ship your product. With a credit card, you can always stop payment if there is a problem with the shipment, and you retain specific legal and contractual rights if there is a dispute.

Shareware Games

Shareware games come a lot less elaborately packaged, and generally have a retail price much lower than most shrink-wrapped games. Even the most discounted boxed games are more expensive than almost all shareware, although some backlisted titles from major publishers can be found for under $20. (More about shareware in Chapter 17.)

Shareware games are most typically created by individual independent programmers or developers. The cost of these games ranges anywhere from absolutely free ("freeware") to about $30. The common price is $15 to $20, and often a three or four game series is available for $25 to $30. The neatest thing about shareware is that you can take these games and play them on your own computer for a period of time before you have to pay. There will be a screen inside the program that will tell you how much the game costs and where to send the check, if you decide to keep the program. Enforcement is via the honor system. If you keep the game, you're expected to pay for it. If you don't, it's a matter between you and your conscience.

Public domain and shareware games are obtained differently than other PC games, and you basically have to look for them. Here are some typical sources.

Mail order: There are a number of mail order companies that specialize in selling disks crammed full of shareware. You'll find ads for these companies in the back of just about every computer magazine. Many of these disks contain several different games, so this method can be very cost efficient.

Expect to pay from $2 to $5 per disk; but this price does not include the cost, if any, of the games themselves—the shareware fee. For your initial few bucks, you purchase the disk that includes the programs. As always, if you decide to keep the game, you are required to mail the author a check.

Some mail order houses are beginning to distribute shareware on CD-ROM disks, and are able to include thousands of different titles at the same time. For those of you who have CD-ROM players, you can get more than enough titles for prices that range from just under $100 to about $200.

A few companies even act much the same as the better-known entertainment software companies. Not only do these companies distribute games developed by independent authors, but they will sometimes publish their own games or help in the development of third-party titles.

On-line: Most of the national commercial on-line services, and many local bulletin boards (BBSs) maintain large libraries of public domain and shareware

games. These can be downloaded directly to your computer for the cost of the time it takes to do this. This can be the most expensive way to obtain these games, but it is extremely convenient. It takes a half-hour or more to download a title. So you can expect to pay on the commercial services anywhere from $3 to $15 in connect time charges, depending on the time of day you do it, and how long it takes. Local BBSs rarely have connect time charges, so downloading games from them can be very inexpensive.

Many games obtained this way are compressed by their authors to make them faster to download. This is great, except that if you do download a compressed file, you'll need a program to decompress them for use. The two most common decompression utilities are PKUNZIP and LHA (formerly LHARC). Both of these programs are usually available on the same services where you find games. Make sure you download these also.

The biggest advantage of getting shareware games on-line is that you'll find the latest versions and the newest titles there. In fact, on-line is where many of the mail order shareware companies actually get the games they distribute.

Computer stores, electronic stores, and supermarkets: You read that right—supermarkets. This is the newest and potentially one of the more exciting ways to get shareware, although the supermarket outlets are just beginning to catch on in certain parts of the country. Here's how it works.

Some companies collect shareware games on disk and then wholesale them to many computer and electronic stores, some combination bookstore/software stores, and even supermarkets in some places. These disks are found most often in small cardboard racks or bins, with small stickers indicating what the various titles are on each disk. These disks seldom retail for more than $5.

Users groups: Every community has one or more groups of people who get together on a regular basis to share their personal computing problems and experiences. Many of these groups maintain software libraries that contains all different kinds of public domain and shareware programs including games. In many cases, members of users groups can copy these programs free of charge, or for the cost of replacing a floppy disk. Smaller users groups, however, often do not have the newest shareware or the latest titles.

One last reminder about public domain and shareware games. Freeware costs you nothing beyond the expense of obtaining the disk containing it. Sometimes freeware games are the first title in a series of games, the rest of which are shareware. Most are not.

Shareware game authors ask you to send them money if you like their game well enough to keep. Please remember that those $15 or $20 checks are the way many of these people make their living. It's a good, cost-effective system, but it only works if people respect it.

Copy Protection

In the world of word processors, spreadsheets, databases, DTP, utility programs, and the entire range of "straight" software (also known as productivity software), the issue

of copy protection is basically dead. Those of us who have been using PCs in business for only a few years, or who have never played PC games, may never have encountered it at all.

Copy protection is used to prevent illegal copying of computer software—software piracy. Once upon a time, virtually all PC software was copy protected in such a way that the diskettes themselves could not be copied. This "on disk" copy protection didn't survive the introduction and universal acceptance of the hard drive, and the subsequent screams of businesses and businesspeople everywhere. Despite fears that software publishers would go broke in droves, the marketplace won out, and copy protection disappeared in nearly every area of PC software. There is still one major exception—PC games.

To play PC games generally means that we must deal with copy protection, except shareware. Publishers say they are forced to copy protect because of fears of losing vast amounts of money due to piracy. Indeed, it has been claimed that Sierra On-Line sold more copies of the Leisure Suit Larry hintbook than they sold actual copies of the original noncopy protected game. This may be true, but we have never seen any evidence that says PC games are pirated any more often than other software. This is not to excuse software piracy, which is both wrong and illegal. Why, though, are games still protected?

We have to deal with copy protection at the present time. There are five basic approaches to it today, most of which are a heck of a lot less obnoxious than they were a few years ago. In many cases, the copy protection is made part of the game itself. As the lesser of evils, this is to be commended; but nonetheless, copy protection, in even its most benign form, always seems intrusive. Here are the kinds of copy protection to expect.

On disk: This is the oldest and, thankfully, least common form of copy protection. It only appears on older, classic games, which have not been updated in several years, or on some European imports, especially British games. Special code is put on the diskette to prevent the disk being copied or duplicated. Not only are you unable to install games protected this way on your hard drive, but typically you must also boot your PC using the game disk. As an added attraction, the copy protection forces your disk drives to clatter all over the place while it's working. Folklore spoke often of disk drives knocked out of alignment after too many hours of copy protected programs.

Key disk: Another less common form of protection, the key disk method allows you to copy the disk onto a hard drive. However, when it becomes time to run the program, you are asked to insert one of the original diskettes. Without this "key" the game will not run. Since the key disk itself is copy protected, if you lose or damage it the game on the hard drive becomes useless.

Documentation based: This is the most common kind of protection used, and it comes in several flavors. In this method, there is no problem making as many copies of the original games disks as you'd like. All of them will work the same as the original. However, at some time—either in the opening screen or sometime later inside the game—you are asked a question that can only be answered by looking something up in the documentation that was enclosed with the disk. The idea behind

this approach is that it is easy to duplicate the software, but it isn't so easy to duplicate a 30 or 60 page manual. This method is sometime called "documentation look up."

A common example of this might be, "What is word 7 of paragraph 3, on page 18 of the instructions?" If the question is not answered properly in a certain number of tries, you are unceremoniously returned to the DOS prompt, sometimes accompanied by a nasty message.

Code wheel: One very common variation of the documentation lookup is the code wheel. Just like a secret decoder device, you are asked to line up a number of words or symbols on a cardboard thingy (a scientific term) that consists of a number of concentric wheels that turn independently around a common center. As the wheels turn, slots reveal the words or symbols in question.

Again, the original diskettes may easily be copied. The idea, of course, is that people will copy a manual at the time they pirate a disk, and that the code wheel is either too complicated or too much trouble to copy.

Nonreproducible paper: As you may have deduced, people will, and do, copy code wheels. In this variation of the lookup, you are asked to look up a word, a number, or match symbols on paper that cannot be duplicated on a copier. As is normal, the disks themselves can be copied.

There are two ways that this particular type of copy protection is implemented:

Low contrast paper: Think brown ink on maroon paper, set in a very tiny type size, and with lots and lots of stuff on the page. Now think about glare. Now remember that eyesight degenerates after the age of 40, and those people have a lot of trouble with focus, contrast, and glare. Now remember the running gag in segments of the PC games business which states that the average game buyer is a 40-year-old man.

Invisible ink: It probably has a more formal name, but this is how we describe it. To read this stuff, you need to hold a piece of red cellophane over an essentially blank page. Like magic, printing appears. It's just like we were all five years old again. Of course, besides being stupid, the cellophane gets smudged, crinkled or lost, and you are the one out of luck.

Besides the implied insults to your honesty, all forms of copy protection have the same major weakness—if you lose or damage the documentation or protected disk, you can't use the program and you can't play the game. Unless you can do something to fix the situation, the money you paid for the game might as well have been massaged in the trash compactor.

Consider this scenario: To fix that situation, you are forced to contact the software publisher.

"Hi, I bought a copy of Scratch and Snark—the Dog Flea Simulator, and my dog ate the documentation. How can I get a replacement?"

"Sure, buster. If you want to replace the documentation, you'll have to buy a new copy of the game. We'll be glad to sell you one for the full $70 retail price. Don't you know it's illegal to copy someone else's software? Have a good day, thief!"

Sound a little harsh or unfair? Try trashing a protected disk or misplacing the documentation sometime. In the world of copy protection, few allowances are made for inherent honesty, honest error, or terminal clumsiness.

End of diatribe.

The First Computer Games

Computer games are not a recent invention with a history that only goes back to the late 1970s or so. A much better place to start is much earlier than that; a time when John Kennedy had been President of the United States for just a few months.

In a very real sense, it all began with a model railroad set. Students at M.I.T. were fascinated with all the ways various switches could be integrated into their master layout in order to make their miniature railroad run better. Later, when they finally got their chance to work directly with the school's mainframe computers, their work in binary—which is what model railroad switching really is, switches that are either on or off—put them in good stead to make creative use of the computers.

Steve "Slug" Russell was one of the members of M.I.T.'s "Hi-Tech Model Railroad Club." A wizard at programming, he was working in summer 1961 at Harvard's Littauer Statistical Laboratory when he and some friends hit upon an idea for bringing E. E. "Doc" Smith's pulp science fiction novels—The Lensman and Skylark series—to computers. In 1962 Steve developed the program on the PDP-1. That very console today is on display in Boston's Computer Museum at M.I.T.

In Spacewar, as the program came to be known, two "B" movie-style computer-ized rocket ships (one shaped like a fat cigar and the other a long slender tube) could fly across a computer-generated section of space. Players could flick toggle switches in order to make the ships change direction in much the same way coin-op and Atari game machine players were later to control the ships in Asteroids. Each ship carried 31 torpedoes, and as they flew across the computerized sector, a player could fire a dot from his rocket's nose in the direction of the other ship. If the dot managed to actually intersect the shape of the other ship, the program ruled that the torpedo had hit its target successfully and the other ship "exploded." The other ship disappeared from the screen and was replaced by a mad scramble of dots, which represented the debris of the destroyed ship.

Naturally, the community of programmers and hackers could not be satisfied with the status quo of any program, no matter how entertaining or functional. Changes were inevitable. One friend, not satisfied with the random dot star map which Russell had originally placed in the game, took a celestial atlas and managed to program in our actual galaxy, all the way down to fifth-magnitude stars. Another student added gravity, and yet another added a hyperspace escape option, complete with a nifty stress signature to show where the ship left the system.

Even Slug made some changes. Knowing that real torpedoes do not have a 100% success rate, he decided to give the space torpedoes a certain failure rate, and to add randomness to their respective trajectories and time of detonation. His friends hated the new version because they wanted the same kind of dependability they were getting from their experiences at computer programming. Slug changed things back and, before anyone realized what had happened, Spacewar was a fixture on college mainframes all over the country.

In fact, Spacewar had become such a fixture by the midsixties that Nolan Bushnell, the founding father of Atari, became addicted to the game while he was attending the University of Utah. By 1970, Bushnell had built his own machine, using 185 integrated circuits to connect to a television set and perform one function. That one

function was to play Computer Space, a variant of Spacewar in which a rocket fought flying saucers instead of another rocket ship.

Spacewar wasn't the only predecessor of commercial computer games to appear on college mainframes. Some anonymous hacker had also started playing around with a StarTrek game in the sixties. No one knows who created the first such game—he or she would probably be sued if anyone did—but that game too was in college computers nationwide by 1969.

StarTrek itself was not very elaborate. It had grid maps to allow starships to travel from point to point, used symbols to identify the ships, provided shield information in numerical percentages, and allowed for both faster than light and sublightspeed travel. The Klingons were fast and numerous, and the Romulans had cloaking devices. By the mid-1970s, almost every home computer system (there weren't a lot of them, of course) had some type of Trek game available for it. There was an IBM game based on this program in the early Eighties called Star Fleet. It featured Krellans in place of Klingons and Zaldrons in place of Romulans. The game was basically the same, though. Indeed, we have even included newer version on the disk that comes with this book, Nels Anderson's EGA Trek.

Last, but not least and possibly most important, there is Adventure. Around 1970 a Stanford programmer named Donald Woods was nosing about the Xerox research computer and discovered a prototype computer game. This game used two-word commands to communicate with the program, and featured a Tolkienesque setting. The game was called Adventure, and the name of its designer was Will Crowther. It was the first computer adventure game.

Not only did Adventure introduce a number of people to computer adventures, but it eventually became a commercial game in its own right, Colossal Cave. Its importance is the fact that was the inspiration for the groundbreaking commercial adventure games to come.

One such inspirational event in the late seventies was when a young programmer named Ken Williams brought home a computer terminal that only printed hard copy instead of a video display. His wife Roberta played the original Adventure on that terminal, anxiously waiting for the mainframe to print out the results of her last command. She credits the playing experience as providing much of the inspiration for creating her own games—a classic case of someone saying, "I can do better than that." She and Ken did, and that company today is Sierra On-Line.

In addition a group of M.I.T. hackers in the very late '70s began to create an adventure called Zork, which also owed its original inspiration to Adventure. It went its mentor one better by being able to understand complete sentences, not just two-word commands like "take gold," "look door," or "eat dragon" which was all Adventure could handle. Zork became available on home computers in 1981 when the hackers formed a company called Infocom, and released the game for the Apple II. Zork, although often difficult to find, can still be purchased today.

The Rise of the PC Game Industry

By 1979 and 1980 a revolution was beginning Automated Simulations, soon to become Epyx, published Starship: Orion in 1979, and began work on The Temple of Apshai, a role-playing game in the tradition of Dungeons & Dragons. The same year saw Richard Garriott, who even today likes to call himself Lord British, sell zip-lock packages of Akalabeth, the predecessor to the Ultima series. And Scott Adams unleashed a torrent of text adventures on the market.

In 1980 Ken and Roberta Williams laid the foundations for the graphic adventure game with their first "Hi-Res Adventure," Mystery House. Roberta was inspired by Agatha Christie's *Ten Little Indians,* as well as the game Clue, and decided to bring the experience to the computer. Ken had purchased a graphics tablet that allowed Roberta to draw images on the pad and save them as graphic files. After Roberta drew the pictures, Ken had to figure out how to pack 70 images onto a diskette. This was a far cry from today's games which come with megabytes of animated VGA graphics.

By summer 1980, a familiar name in war-gaming circles had entered the microcomputer arena. Avalon Hill Game Company, publishers of board game-style wargames since 1958, unveiled its initial five titles, which included B-1 Nuclear Bomber and Midway Campaign.

In 1981 another entertainment software company appeared, almost by magic. When Robert Woodhead was hired fresh out of Cornell by a New York and Canadian-based concrete business, he was not hired to write computer games. He was hired to computerize the accounting system of Fred Sirotek's construction company. Robert proved himself to be such a hot programmer that he was able to convince Fred to underwrite the publication of a fantasy role-playing game designed by himself and his friend, Andrew Greenberg. In 1981 Sir-Tech Software—a pun on the Sirotek family name and the medieval era that the game was based in—published Wizardry: Proving Grounds of the Mad Overlord. The publication was a tremendous success and the Wizardry series remains, along with Ultima, one of the benchmarks of computer role-playing today.

By winter of 1981, computer gaming had become both an industry and a full-fledged hobby, with dozens of different companies trying to entertain—and make their fortunes—by creating games for the Apple 2, Commodore, Radio Shack (Tandy), and Atari markets. The IBM PC had just come on the market; but with the exception of Flight Simulator, NFL Challenge, or the Infocom titles, there would be relatively few games, or good games, released for the DOS market until late 1984. At that time we saw the release of King's Quest, The Ancient Art of War, and Gato for the IBM, and most significantly, for the IBM before being released for other computers.

This trickle of games, boosted by the about-to-explode IBM clone market, the EGA graphics standard, and the emergence of the AT/286 class machines, soon became a stream.

In 1986 an individual could honestly say they could know and play virtually every PC game on the market. By 1989 that same person would find it virtually impossible to even know how many games were available, much less know their names or play them.

In 1986 most games showed up first on the Apple or Commodore C-64 or Amiga. By 1989 the IBM market was so strong, and so many people were buying PC games, virtually all computer games were published initially for DOS.

The stream had become the mainstream.

Perhaps the most curious phenomenon to evolve in the development of PC games is the fact that the game publishers are no longer in the computer software business. There are no WordPerfect-, PageMaker-, Lotus 1-2-3-type products that departments or businesses standardize upon and depend on. The economy of the industrialized world would not be effected if they were forced to change from Earl Weaver Baseball to Tony LaRussa Baseball.

The PC game industry depends on hit titles and a lot of them. In that way, it is much, much closer to the music business or the film industry. PC game publishers crank out entertainment—they just happen to be played on computers.

Most computer game publishers today are not small companies, and they think of themselves as entertainment studios. They perceive the various talents assembled around projects (not games), the writers, producers, graphics artists, musicians, and composers, as part of a creative team.

One metaphor that underscores the studio mentality that now pervades the entertainment software industry is in the words of Electronic Arts founder Trip Hawkins, "The New Hollywood." Film studios are enamored technological things such as special effects, new sound techniques, and film sizes; targeting and positioning, packaging and distribution; talent and box office recognition; trends, fads, and hot topics; and, of course, stories. Software publishers are equally concerned with hardware trends and capability, marketing, artistic growth, consumer interest, and playability. The tensions between art and commercial success are just as prevalent in the computer game industry as they are in film, recording, or broadcast media. Games come and go as quickly as popular music, network series, or movies. Good games and games that sell good are not necessarily the same. The marketing and bottom line drives to have a title released in time for the Christmas buying season, in whatever medium, are enormous.

And still, despite it all, they do manage to turn out magic on a regular basis.

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Techno Talk, Hard Choices, and Good Advice

"Oh, that's just a game machine."

You've probably heard that putdown a few times before now. It is usually used to imply that the computer in question is an underpowered piece of, if not junk, then something even less savory. Real computers need awesome power to do serious work. Power users need powerful iron to crunch big numbers fast, sort enormous lists in less time than it takes to say "mail merge," lay out annual reports using innumerable typefaces, and keep local networks running—at least most of the time. This kind of raw computing power is much more than what is needed to run mere games.

It is certainly ironic, but some of the most demanding kinds of personal computer programs today—the ones that squeeze maximum performance from not just the computer itself, but from all its parts and peripherals—are PC games.

You read that correctly. PC games ask more from a computer than just about any other kind of common application.

"How can this be?" you might ask. The answer is pretty straightforward. Modern PC games are really multimedia extravaganzas. They combine full motion animation, realistic sound effects, full musical scores, and high resolution color graphics. All of these must be smoothly and seamlessly combined to resemble an animated film, but one which you can control, in real time. Spreadsheets and databases don't stand a chance against such competition. DTP, CAD/CAM, CAE, LANs, and most other alphabet soups that make up the often incomprehensible world of PC applications and terminology should try to do so much, so fast, and at the same time.

It is true that not all games use this much power, but more and more do. Last year this was only true of the state-of-the-art, top-of-the-line games; today it is becoming common. Tomorrow it will be commonplace.

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The PC you have on your desk, the PC you use in your office or at home, is most likely more than adequate to play nearly every PC game available. Publishers may be optimizing their games for the latest and greatest hardware, but they do try to make sure that the widest number of people will be able to play them. On the other hand, many older PCs, machines which are perfectly adequate in a business environment, will fall short when it comes time to hit the digital greens and fairways in LINKS, or take to the skies in Falcon 3.0.

The SRL

"Not another acronym," you moan.

SRL stands for System Requirement Label. If you've ever bought a PC game or even looked at a game box, you've seen one of these, even if you didn't know it had a name. This is the small label that you find on every box, and it lists the *minimum* hardware you need to play a specific game. Before you purchase any game, look to make sure your computer meets or exceeds these requirements.

Here are some things you will typically see on an SRL. (If you don't understand some of this stuff, relax. We've included a short section a little further on to explain the terminology. It's not very difficult; you just may have never had to deal with it before.)

The first thing you will notice is the type of computer system the game was designed for. For IBM and IBM-compatible computers (including Tandy), this will show a large IBM. If the label says AMIGA, MAC, C-64, or ATARI-ST, you've got the wrong box unless, of course, you are shopping for one of these versions.

The SRL will also tell you what type of video standard the game supports, such as CGA, EGA, VGA, or Hercules monochrome. If it says, for example, VGA ONLY, that means you must have a VGA (or multisync) monitor and graphics card to run that game. Virtually all PC games support CGA, EGA, and monochrome.

You will also find the amount of total memory required to run the game. This generally is 640K, but may be lower. If your PC has 512K, you won't be able to play.

Some games are now require 1 Meg or more of memory to run. For these, you will also need some form of expanded memory manager such as QEMM. This fact is not always mentioned on the SRL.

You may also see a recommended computer speed like 8 Mhz or faster. This is the lowest chip speed that this game should be expected to run at. If you have a CPU slower than this, you probably won't be satisfied with the speed of the game.

Sometimes you will see "hard drive required." This is self-explanatory, although sometimes the requirement will be something like 10 megs of available hard drive storage.

Optional peripherals are also shown on the SRL, such as sound boards, joysticks, and more.

Finally, you can find the type of diskettes that are contained in the box. Make sure that the version of the game you are buying contains the same type of disks that your computer can handle. Don't take home the 3 1/2-inch disk version if you only have a 5 1/4-inch drive. Also check to see if the disks are high density or not.

Hardware Issues

PC games use a computer to its fullest potential. Nothing pushes a computer harder or demands complete compatibility more than a computer game. With this in mind, let's look at some hardware issues and peripherals that could make a real difference in the quality of your game playing.

Memory

It's important to understand a few basic things about memory, as it relates to games.

First, there is a big difference in the amount of *total* memory in your computer, and the amount of *free* memory there. Everything your computer runs requires some amount of memory. Just turning a computer on requires a small amount of memory. If you have a mouse, that takes more memory. If you have a menu system, that also takes memory. The more things you have running in your system before you run a game, the less free memory will be available for it.

Many people experience the problem of having 640K of memory—maybe even 2 megabytes or more—in their PC; and although the game they bought only needs 512K, it just won't run. This means that you don't have enough free conventional memory. Here's why.

In the days when IBM first developed the PC, the most popular computer was an Apple II. It used 48K of RAM. IBM decided that they would sell the PC with a whopping 64K of memory, and make it expandable all the way up to 640k.

Wow! , the world gasped.

This seemed like an outrageously large amount of memory at the time but, of course, things rarely ever work out the way they're originally planned. Eventually even this amount of memory proved extremely limiting.

This 640K limit on memory is imposed on every computer wanting to run DOS-based applications, from the 8088 to the 80486. Until a few years ago, it was never a problem, but technology continued forward and finally, computers started running out of this *conventional* memory. As an answer, designers came up with ways to allow PCs to use memory above the 640K limit.

Because of this, you will sometimes hear or read terms like extended, expanded, and high memory. They all refer, in different ways, to the memory beyond 640K.

Until recently, PC games ran with only a minimal amount of memory. Not any more. People demanded, and got, more sophisticated games—games that require more available memory. A few games even require as much as 2 megabytes. While this is unusual, we guarantee it will be less so in the future.

Even if you have enough memory installed in your PC to run the big games, you'll still need to have some sort of an expanded memory manager in order to use it. There are several of these on the market, with QEMM being the most popular and the one we recommend most often.

Almost all games available today still run in conventional memory, that is, the memory from 0 to 640K. Even if you have a PC that has 1, 2, 4, or 8 megabytes of memory, it is still that first 640K that's the key to running, much less playing, the game.

However, you still need to free up as much free memory as you can for many games. A typical game can require as much a 580K of free memory out of the 640K of conventional memory. Keep this in mind if you use TSR's Terminate and Stay Resident programs. These programs consist of menu programs, spelling checkers, mouse drivers, and more. These load into your system when you turn it on, and stay there the whole time you are running the computer. Along with DOS itself; these use memory, and many games depend upon having as much free memory as possible. You may have to give up some of these programs temporarily to run a specific game.

DOS version 5.0 is a good way to approach this situation. It includes a memory manager for very large programs; much of it can live outside of conventional memory that frees up room for your programs; and it also has the ability to run your TSRs without using up your 640K. Combined with an expanded memory manager, it is an efficient solution for getting memory problems off of your mind.

Color and Video Adapters

While PC games are sometimes playable on monochrome systems, the best games are more fun—and sometimes only work—with color displays. Color standards and monitors have progressed greatly since the first ones became available for the IBM PC. When you play PC games, you should know what kind of color graphics (if any) your computer can display. All PC graphics come on small circuit boards called graphics cards, and must be installed in your computer.

CGA was the first color standard. CGA stands for Color Graphics Adapter, and is capable of displaying 4 colors on the screen at once, chosen from a total of 16 possible colors. Games played in CGA are better than playing in monochrome, but still are not very sophisticated when compared to the newer standards.

The color graphics standard, which was developed after CGA, is called EGA. EGA stands for Enhanced Graphics Adapter, and it's capable of displaying 16 colors at one time, chosen from a total of 64 colors. Also, the resolution or sharpness on EGA systems is significantly better than what is available on CGA systems. Games look much better on EGA systems.

The color video graphics standard of choice today, however, is VGA, or Video Graphics Array. VGA systems can display 256 colors at one time from a total of 256,000 colors, and its resolution is better even than that of EGA systems. Playing a game that is designed for VGA looks as good—and often better—than games you see in arcades. It is definitely sharper and more detailed than even the so-called "16-bit" game machines such as the Super Nintendo or Sega Genesis systems. Due to the extended number of colors and enhanced resolution, games that use VGA tend to be much bigger than games written for EGA or CGA. This is a major reason why you need more room on your hard disk and more free memory to play today's newer games.

The fourth video standard is Super VGA, otherwise known as SVGA. Super VGA is an extension of the VGA standard and provides much higher resolutions. These higher resolutions are important to applications like Microsoft Windows or CAD programs, but are not currently utilized by games. It may be a few years before games

routinely use SVGA. SVGA is included with many VGA video cards, but this will not affect game play at all.

There is also the noncolor standard. Monochrome displays consist of one color displayed against a black background. Occasionally this is shown as black and white, but amber or green screens are more often seen. The monochrome standard is usually called the Hercules standard, after the company that first developed it.

You need a monitor that supports your video card. You need a VGA monitor to run a VGA card, and an EGA monitor for an EGA card. However, video cards and monitors are what is called downwardly or backwardly compatible. This means that a VGA card and monitor will run EGA and CGA games; and an EGA setup will run CGA. It does not work the other way around.

The exception to this rule is the multifrequency, or multisync, monitor. These monitors can support several standards at one time, and are usually considered upwardly compatible. Most new video standards are just a small step up from the old standard, so often multifrequency monitors will support the new standard. If you have a multsync monitor, you don't need to buy a new monitor when a new standard emerges.

Modems

While a modem is not an absolute necessity for playing PC games, try playing an on-line game without one.

A modem is a device connected between your computer and a telephone line, through which you can connect to computers in entirely other locations. To use a modem, you need some sort of telecommunications software.

The two most important features of a modem are speed and standards.

Modem speed is measured by the baud rate. The most common speeds today are 1200, 2400, and 9600 baud. A 2400 baud modem is twice as fast as a 1200, and a 9600 baud is four times as fast as a 2400. For anyone interested in games, the choice comes down to 1200 or 2400 baud modems, although if you plan to download games, a 2400 baud will do that job in half the time, which will save you money in connect time charges.

Most games and on-line services only give limited support to 9600 BPS modems, and that situation is still a few years away from changing. However, if you're buying a modem for business purposes, and also want to use it for games, go ahead and get one. Virtually all modems can be operated at slower than their maximum speed.

When it comes to modem standards as they affect PC games, there is really little choice. Make sure your modem is "Hayes compatible." This is, by far, the standard for 2400 baud modems. Unfortunately 9600 baud modems are not this lucky. Today, there are several standards for 9600 baud modems with two being the most popular. Those are the Hayes standard and the U.S. Robotics standard also called USR. The USR standard provides for a faster modem, but the Hayes standard is more widely accepted. It is fast becoming the standard 9600 baud modems.

Modems can be either internal or external. Internal modems come on a computer expansion card, and are placed directly into one of your computer expansion slots.

An external modem connects to your computer through a serial or COM port, which is short for communications port. External modems are popular because they don't require you to open your computer, you can take them with you if you have a portable computer, and they don't take up an expansion slot. Externals also have displays—flashing lights—that allow you to make sure the modem is functioning properly.

Internal modems are cheaper than external models because they don't need all the extras, like a case and power cord, and they don't tie up one of your COM ports.

Modems and telecommunications can sometimes seem confusing, even to computer pros. For a complete description of modems and telecommunications software, check out *Dvorak's Guide to PC Telecommunications* by John C. Dvorak and Nick Anis (Osborne-McGraw Hill). We think it's the best book on the subject.

Did you expect us to say otherwise?

Optional Equipment

These suggested (or, recommended) peripherals are almost always listed on the outside of the game package alongside the game's specific requirements.

Sound Cards

Just about every computer brand on the market—Tandy, Atari, Amiga, Commodore, and Macintosh—can play music. Unfortunately, the designers of the IBM PC left sound off the spec sheet. So did the designers of all the clones. Instead, the designers treated sound as something unpleasant, or best left ignored. The IBM PC doesn't even Snap!, Crackle!, or Pop! It just beeps to signal that something's gone wrong. It rings as a warning that your spreadsheet figures don't add up, or that you're trying to move the cursor past the last word in your document.

Game designers have been as creative with the beeps as they can, but there's just not much there to work with. The tiny speaker on a PC lies buried beneath circuit boards and other hardware, muting its sound. There's not even a way to adjust the volume. Some PCs can barely be heard, others blare like a car alarm. Game players, after listening to a game's soundtrack once or twice, usually end up turning it off. Their screams quiet a little later.

Luckily, sound card manufacturers stepped in where the IBM PC's designers left off. Game players now have a wide variety of options, from inexpensive to too costly. Some come in the form of add-on boards, others plug into your computer's printer port, and others don't require any hardware at all. We'll start with the least expensive, but for most cards we will not give prices. Competition is such that they are too volatile.

RealSound™

Access Software, creators of high-tech animated games like CountDown, CrimeWave, and the Links golf game, patented RealSound. RealSound is not a board or external

peripheral, but a software solution to sound support. It comes included with their games.

Access records actual sound effects and music, and converts the sound waves into digital information that can be stored on a disk. RealSound then converts the digital information back into sound waves, and plays it through the PC's internal speaker.

This digital/audio converter (DAC) works well. Unfortunately, this DAC concept requires a little extra hardware to work best. RealSound by itself sounds a little tinny, and at times, it's barely audible. If you run a set of wires from your PC's speaker to an external speaker it sounds much better.

Hey, the price is right.

Disney's Sound Source

Disney takes RealSound's ideas one step further. Disney's Sound Source is a small $40 box that contains a DAC, a separate speaker, and a small amplifier. It all fits into a small box with a volume control. A cable connects the box to your printer port where the Sound Source grabs the game's sound information. Since you'll probably never print and play computer games at the same time, there's no conflict.

The Sound Source adds real sound effects to your games. Unfortunately, only a few software companies besides Disney support it at this time, although that situation looks like it might change. With its external speaker and amplifier, The SoundSource sounds better than RealSound, but it's still a little tinny.

The Disney characters, especially Mickey Mouse, however, sound great on it.

AdLib

Created by a Canadian company in 1987, the AdLib card plugs into a slot inside your PC. Instead of recreating previously recorded sounds, the AdLib card uses frequency modulation (FM) technology to create tones that resemble musical instruments. By blending tones, the card can synthesize hundreds of different instruments and an occasional explosion.

The first sound card on the market, AdLib currently enjoys support from every major game manufacturer. It is considered the de facto sound board standard, and many of the other sound cards now on the market include AdLib compatibility as part of their packages.

The original AdLib card has no DAC, so it can't play back voices or realistic sound effects. However, AdLib has begun to market its AdLib Gold card. This does support DAC, but costs much more than its standard card.

SoundBlaster

SoundBlaster took the approach now used by just about every sound card maker: Build a card that's compatible with the ones built before it, add a few more features and a few more dollars to the price tag. The SoundBlaster uses the same synthesizer chip as the AdLib, so it can play the AdLib soundtrack from any game. But it also has a DAC. The alien beings in Dynamix Stellar 7 can speak, for instance. It also adds

a nonstandard MIDI (Musical Instrument Digital Interface) port for amateur musicians.

For a long time, AdLib and the slightly-more-expensive SoundBlaster ruled the sound card market, but a new generation of cards has arrived. Most have remained compatible with earlier cards, but have added features and price.

MediaVision

MediaVision's Pro-Audio Spectrum mimics the SoundBlaster, but adds a better, industry-standard MIDI port. It also has a second AdLib chip to mimic stereo sound. The Pro-Audio Spectrum's DAC works in stereo, and provides better sound quality than the SoundBlaster's single channel.

MediaVision also offers a lower-priced card called the Thunderboard. The Thunderboard is basically a lower-cost SoundBlaster remake without any MIDI capacities. It is both SoundBlaster and AdLib compatible.

Covox

A bit player in the sound card wars, Covox finally downplayed its own standards and picked up AdLib's. Covox's SoundMaster II aims directly at the SoundBlaster market. It improves the SoundBlaster's MIDI approach, and adds slightly better sound quality to the DAC. Like Disney's Sound Source, the SoundMaster II comes with its own small amplified speaker.

The SoundMaster also comes with something none of the other sound cards have—a headset/microphone gadget. Using this and the card's software, you're able talk to your PC instead of issuing keyboard commands.

Roland

This is the high-priced spread. Roland's sound cards try to skip the game market, aiming instead toward professional musicians who have, they hope, a lot of money. But since Roland's cards sound so good, envious game designers support them anyway. It started with Roland's MT-32 Sound Module, which uses the MIDI MPU-401 interface, a standard among musicians. Roland's newer LAPC-1 card adds a few prerecorded sound effects to the synthesized music.

But you don't need to know all this. Just know that Roland's cards sound great, but cost lots more than most of the other cards. They don't have a DAC, so you won't hear any voices or specialized sound effects.

ATI

ATI, a leader in low-priced video markets, slid into the sound market in fall 1991 with its AudioFX card. It's AdLib, SoundBlaster, and MIDI compatible, and it's also the least expensive stereo card on the market.

ATI's VGAudio card combines the AudioFX features along with a mouse and video card. With this card, you can stuff three peripherals into one slot.

Once you've played a PC game on a computer equipped with a sound card, there's no turning back. You'll want one. But which one?

It's really a simple question of how much you want to spend. The most expensive sound cards usually sound the best, but the fact is that you should get one that sounds good to *you*. Once you start using it, all sound comparison will become moot.

Listen to the sound cards at the store, if possible, or on a machine that has one installed before making a decision. You might want to make sure the card has a DAC to play back voices. That way, if you upgrade to a CD-ROM drive in the future, you'll be prepared for the next generation of games.

Check if the sound card has a game port for a joystick; you might want one some day. And if you'd like to check out your own musical skills, look for a MIDI port so you can plug in a keyboard synthesizer.

Most cards contain a small on-board amplifier but no speakers. Either run a cable from the card to your stereo, or buy a set of small-powered speakers to place near your computer. Keep the speakers off your desk, however, because they contain powerful magnets that can destroy any data on your floppy disks.

When it's all hooked up, you'll probably wonder why you waited so long to buy a sound card in the first place.

All computer stores do not have all the different kinds of sound cards on the market. Many carry none at all. Here are the names and address of the sound card manufactures we've just covered.

AdLib/ AdLib Gold
AdLib Inc.
50 Staniford Street
Suite 800
Boston, MA 02114
(800) 463-2686

AudioFX/ VGAudioFX
ATI Technologies, Inc.
3761 Victoria Park Avenue
Scarborough, Ontario
Canada M1W 3S2
(416) 756-0718

SoundBlaster/ SoundBlaster Pro
Creative Labs, Inc.
Brown-Wagh Publishing
2050 Duane Avenue
Santa Clara, CA 95054
(408) 378-3838

Pro-Audio Spectrum/ ThunderBoard
MediaVision, Inc.
47221 Fremont Boulevard
Fremont, CA 94538
(415) 770-8600

SoundMaster II
Covox, Inc.
675 Conger Street
Eugene, OR 97402
(503) 342-1271

Roland MT32/ LAPC-1
Roland
7200 Dominion Circle
Los Angeles, CA 90040
(213) 685-5141

Disney Sound Source
Walt Disney Computer Software, Inc.
500 South Buena Vista Street
Burbank, CA 91505
(818) 567-5340

Joysticks

Joysticks are the most typical PC game peripheral and don't need to be investigated as thoroughly as sound cards; but they should be a careful purchase, nonetheless. All joysticks do more or less the same thing; they tell the computer where to move certain things on screen. The more expensive ones perform this function better than others.

Joysticks contain two devices called potentiometers, a scientific term for knobs that turn. Moving the joystick vertically turns one of the knobs, moving it back and forth turns the other one, and moving it diagonally turns both. The potentiometers tell the PC how far they've been turned, and the PC controls the on-screen action accordingly. If the potentiometers aren't rated at exactly the same capacity, they'll send conflicting information to the PC, with disastrous results. Cheaper joysticks have this problem. They won't center well, leading to less-than-lifelike action.

Apple joysticks use potentiometers just like the PC joysticks do. In fact, some joysticks have toggle switches so they can be used on both Apple and IBM machines. Don't try using an Atari or Commodore/Amiga joystick on your IBM compatible, though. Those joysticks use on/off switches, not variable knobs, so they're simply not compatible. (They're called "digital" rather than "analog.")

Tandy joysticks aren't compatible with anything other than Tandy.

Today's IBM PCs run much faster than their predecessors, yet the joystick port standard has remained the same as in the XT days. Since games involve at least three

different manufacturers—the computer, the game, and the joystick maker—the conflicting designs and standards can cause performance problems. That's why companies like Kraft, CH Products, and Advanced Gravis sell adjustable game cards. By turning a knob on these cards, you can fine tune your joystick's performance, compensating for any problems caused by differing standards among manufacturers.

Here's what you should look for in a joystick.

Take the joystick out of the box and see if it feels "right" in your hand. Check the stick's tension, and the feel and placement of the buttons. The better joysticks have recessed calibration knobs, so they won't be knocked askew during rough action.

Finally, check the price. With joysticks, you usually get what you pay for. That's why many joystick pros like the Advanced Gravis MKVI. It's sturdy; Sierra On-Line's developers use it in-house to test new games. It's also the only joystick that allows the user to adjust the tension, whether the stick moves easily or with varying degrees of resistance. It also has a large pistol grip—just like in the arcades—although some people feel that this type of grip is less sensitive to the touch. Finally, its "A" and "B" fire-buttons can be configured in any combination you choose. Kraft and CH also make good quality and reliable sticks.

Joysticks are a *necessary* option if you like flight and air combat simulators. For new heights in flight simulator performance, check out the Maxx Yoke and pedals. This contraption looks like a steering wheel, but it slides toward and away from your desk to control altitude. You can also get rudder pedals, which sit on the floor, so you can turn left or right without banking the plane. They add immeasurably to the flying experience, but are not good for much else. Let your pocketbook be your guide.

CD-ROM

PC games are now becoming available in the CD-ROM disk format. As of Christmas 1991 there are just a few titles, but many more are planned for 1992. Many people in the PC game publishing business are predicting that by Christmas 1993 virtually all the major PC game titles will come out of the box as CD-ROM disks. This is mainly because most big games today require as many as 10 or more high-density floppies to hold them. That's *after* the games are compressed. And don't forget, PC games are getting larger each year, not smaller.

The cost of many floppies, and their duplication, is one of the reasons PC game prices are high, although not the major reason.

CD-ROM looks to be the wave of the future for all computer software. A CD-ROM drive reads CD-ROM disks. These disks are virtually the same CDs you find at any music store, and in fact, most CD-ROM drives can play CDs as well as run CD-ROMs. CD-ROMs seem perfectly suited for storing PC games for several reasons.

First, a CD-ROM disk can hold as much as 600 megabytes of data. This is equivalent to 1700 low-density floppy disks. One can only imagine the types of games that could be possible with that much storage potential.

Second, CD-ROM disks currently cannot be written to, so it would be nearly impossible to make and give away illegal copies of the games stored on them.

Third, audio reproduction is digital, just like CD-audio. With the trend to more elaborate soundtracks and sound effects in PC games, CD-ROM is the perfect medium for delivering the audio experience.

There are currently some drawbacks to CD-ROM technology. Cost is the first barrier, although this should not be a problem much longer. 1991 saw the beginning of major price reductions on CD-ROM equipment, with some manufacturers lowering suggested retail prices into the $400 range. This is way down for the $1000 prices of the past. Competition will lower these even more.

The next problem is speed. Many people think of a CD-ROM drive as a large hard disk. This is not correct. A typical hard disk has a speed rating (called access time) of between 25 and 10 milliseconds. CD-ROM drives can run as slow as 1000 milliseconds (a full second), and even the fastest ones run at just above 300 milliseconds. This is a far cry from even the slowest hard disk drives.

The final problem with CD-ROM drives is the need to swap disks. Every CD-ROM program you want to run will have to be placed into the CD-ROM drive, thus replacing the one already there. Remember what it's like to change floppies a lot? For those of us used to the efficiency of having everything stored on a hard disk, this can become an annoyance. CD-ROM changers do exist, but they are still too slow and too expensive.

The Ideal PC Game Machine

The PC that you have right now, the one on your desk, in your office, or at home, is perfectly capable of running computer games. Heck, it probably does already. However, if you've read through this chapter to this point, you are likely to be wondering just what might make up an ideal PC game machine. Not a no-expenses-barred, price-be-damned, state-of-the art, hunk of iron to induce hardware envy, but a real world, real life, affordable solution for real people. Maybe something your kid can use to do his or her homework with, and also be available to play games.

Let us phrase the question another way. If you were thinking of replacing or upgrading you PC for your work or business needs today, and wanted to ensure that what you bought would adequately fill your needs for the next few years, what should you buy?

The answers to these two question are not mutually exclusive. In fact, they are nearly identical.

CPU—Fully animated color VGA graphics take a lot of horsepower to execute smoothly and quickly. Forget the 286 family of CPUs. The minimum computer should be at least a 20Mhz 386SX. A 25Mhz 386DX would be better. Unless you are designing airplanes, or recalculating spreadsheets the size of an S&L bailout, this should be more than adequate for most businesses. If you want to spend a few more bucks, go for a 33Mhz model. Forget the 486 machines. They're just big 386s with a math coprocessor. They basically work the same as a 386, just faster.

Memory—Get as much as you can afford; it's cheap and useful. You'll need two megs minimum for Windows, anyway. Get an expanded memory manager like QEMM to take advantage those extra megs.

Floppy drives—Software programs today are so large that they're often shipped on high density floppies. Games can be purchased in either 3 1/2- or 5 1/4-inch formats. Of course, the store always has the disk format in stock that you don't have. Get one of each size drive, and you'll never have a problem exchanging data with friends or other businesses, or installing that hot new PC game.

Hard drive—Games are big. Word processors and spreadsheets are big. Don't even think about getting a hard drive that's less than 80 megabytes.

Graphics card and monitor—VGA or SVGA with at least 520K of video RAM. This will allow you to use all the EGA games that are out there, and the VGAs will be the color standard of choice for the next few years. VGA is a much better resolution for text than anything else, and a little color on the monitor makes working much more enjoyable.

Mouse—Most games support them, and Windows practically demands them. Many games that once used a joystick are better played with a rodent.

Joystick—Why? Because a PC game machine without a joystick is like a rock band without a guitar. A synthesizer can duplicate the sound, but it's still not the same thing. There are very few rational business uses for a joystick.

Sound board—The combination sound board/video cards have started to arrive. If you get a sound board with DAC support, you can voice annotate your files. OK, we're stretching a bit for a business rationale for the card. Get one anyway.

DOS 5.0—Because it's there, it's good, it frees up a lot of conventional memory, and it has a DOS shell that works (for those of you who don't want to deal with DOS).

CD-ROM—Like they say in the sports, world, "Wait 'til next year."

This system is powerful and flexible enough to run most businesses for years to come. The irony is that you'd probably outgrow it as a PC game machine much sooner than as a business tool.

Software Support

Getting PC games to work on your computer isn't usually very hard at all. Most personal computers will run most PC games, and installing those games onto your hard drive is usually a process no more complicated that typing INSTALL at the DOS prompt. Like any software product, once the game is up and running, you may encounter an occasional problem, or have questions about it.

There are always going to be hardware/software compatibility quirks, and memory considerations plague all programs that run under DOS's 640K memory limitation. A phone call to the publisher's customer support number can usually clear up these problems. While very few of the PC game companies have 800 numbers to call— and a few have pay-by-the-minute 900 numbers—they are all extremely responsive to customer needs.

For many companies, customer support is among their most cost-consuming activities. The number of people it takes to answer phones, their salaries and benefits, the cost of training them, the cost of the space they take up, and the equipment they need all add up to staggering amounts. You might feel that this is understandable when it comes to supporting big, complicated spreadsheets, DTP, design, and

database programs that come complete with manuals hundreds of pages long. After all, these programs contain hundreds of obscure and seldom used, if not totally unnecessary, features. And, you will recall suddenly, the manuals are seldom written in any known dialect of the English language.

With PC games, however, there is a completely different category of problems and questions to be addressed, which are unique to the nature of the beast. Questions like how to get a time machine to take you to *when* you want to go, how to make the universe safe from insurance salespeople or Vogon poetry, how to pitch to the 1929 Yankees, and so on abound.

It seems obvious that PC games are not all that complicated to use. The manuals and documentation are thin and often contain humor and cartoons. They even have big print and small words.

As the next 15 chapters will demonstrate, the purpose of many PC games is to give you a good time, while making you bang your head against the wall trying to solve elaborate and tricky problems of logic, dexterity, or both. Almost all games, not just the ones that run on computers, contain elements of strategy and problem solving. It's just that computer games were originally invented by programmers, and it happens to be their life's work to solve problems.

In the programmer's world, one-upsmanship is achieved by being cleverer than your peers, and by solving problems that they can't crack. Some of the very first computer games were exercises in posing problems to stump the only people playing computer games at the time, other programmers. It's a tradition that continues even today, although programmers tend not to be the ones doing the game writing anymore.

It's not uncommon at all in business settings to see a group of people huddled around a computer, deep in thought, brainstorming ideas. Sometimes they're working. Often they're trying to figure out how to not get killed at the beginning of Space Quest, how to land that darn Flight Simulator plane ("Taking off was so easy"), or how to neutralize those nasty enemy helicopters on the ninth level of Armor Alley.

Many PC games can stump people. Often they are designed that way, other times it's because something that is quite clear to one person is impenetrable to another. Often that person is you. It can be quite frustrating to have spent $30 or $40 on a game only to find that you can't get more than a few screens into it before you can go no further. Likewise, it is even more frustrating to have played through an adventure or role-playing game until your are near its end, and then discover you have no idea how to finish. It's not that you're stupid, you just feel that way. Like a name or a fact on the tip of your tongue, sometimes the answer or solution just won't come out.

One major PC game publisher contends that the majority of computer adventure games purchased are never finished. This may well hold true for many of the PC games that contain endings—role-playing, arcade/action, and many combat simulators and wargames. Some people run out of time, others may run out of interest, but many run out of answers.

All PC game companies will provide you with clues, hints or answers if you call them. However, there are several other good sources of information about PC games, and using them can be an enjoyable way to enhance your PC game-playing experience.

On-line Game Support

One of the best places to learn more about PC games, to get accurate information and tips, and to share game experiences with other people, is on-line. Most of the major on-line services provide some amount of support for people who play computer games. CompuServe and GEnie have the most extensive support available for PC game players.   Most PC game publishers provide support to players by having ongoing forums on-line.

CompuServe

CompuServe has lots of places, called forums, where PC games are supported.

The Gamers Forum provides different areas to talk about adventure games, war and strategy games, sports simulations, computer role-playing games, and action/arcade games. Associated with each type of game is a message board, conference area, and library of files with hints on the games, shareware games to download, and game demos. In Gamers, players can get hints on how to answer problems with various games, talk to other players to find out what games to play next, and simply find out more about the games available.

The Game Publishers Forum allows game players to talk to the designers of the games.   In particular, players can get information from the game companies themselves—Electronic Arts, Spectrum Holobyte, Lucasfilm, Accolade, Sir-Tech, Sierra On-Line, Origin, MicroProse and Interplay along with other game publishers. In this forum, you can get questions answered about what the equipment requirements of the games are, as well as get ongoing information on what stuff is being developed.

The Flight Simulation Forum is the place to discuss the wide variety of flight and flight combat simulators available for the PC market.   As with all CompuServe forums, support is divided into three areas: a message board for short term discussions, libraries, and conference rooms for interactive discussions of air and space combat.

The newest addition to the on-line areas for game players is the Modem-to-Modem support area. Players can link up with other players, and compete head-to-head using the modem features of their single player games, locate other people with whom to play, and schedule matches. The Modem-to-Modem Forum provides an area where players can get questions answered, discuss tactics, and join tournaments.

GEnie

GEnie's support for on-line games is provided in Scorpia's Games RoundTable. The RoundTable has product information for adventure games, action/arcade games, sports simulations, strategy and war games, and board games. Within the RoundTable are a bulletin board, a real time conference facility, and a software library.   The Bulletin Board provides a place to get hints on all sorts of games, discuss tactics, and get information on upcoming events and contests.   Games and hints can be found in the software library.

In addition to the general discussions in the Games RoundTable, there are areas for discussions about the games produced by many of the leading publishers. Here you can ask questions about the games, find out about the latest releases, discuss conversions to other systems, and learn about software updates.

A second place to learn more about PC games is the Journal of Computer Game Design RoundTable. In this RoundTable you can join in and listen to the discussions of the professional game designers as well as the editors of several leading computer gaming magazines. You can also listen to the leading game designers discuss the latest trends in computer gaming.

America Online

Support for PC game players on America Online spreads over a wide area of the service. People can both leave messages asking questions about various games in the Gaming Forum, and discussions can take place on the message boards. These discussions range from hints on getting ahead in various games to discussions of the best new games on the market.

Long term information about games, as well as game programs for downloading, can be found in the Gaming Forum Libraries. From time to time, players will get together in the Gaming Forums Chat area to discuss various games. These real-time discussions are planned either on the message boards or through e-mail.

Learning More About PC Games

Like pop music, new PC game titles are published every month. Sometimes it seems like every day. The major game crop, though, comes out in time for the Christmas buying season. If you want to stay current and keep up with what's new, good, or hot, there are two main ways to do so.

Magazines

You'll find no shortage of glossy magazines screaming "Games!" on the cover at your local newsstand. These publications generally contain reviews of new games, hints, and answers to specific games and information on new releases. Many also contain articles on hardware, new technology, and roundups of what is available in specific game categories. The problem comes in identifying which ones carry specific information about PC games. Some magazines cover dedicated game machines only, and are geared in both tone and layout to a teenaged audience. There are several others, however, that exclusively cover games that run on personal computers. Some publications toss in a little bit of everything, hoping to snag everybody.

PC game magazines vary in look, format, and approach. They range from being aimed specifically at adults to looking like, and appealing to, the Nintendo, Sega, Game Boy game buyers. Check out a few; you'll probably find one that suits your taste.

Here's a list of magazines currently covering the IBM PC and compatibles game market. PC game magazines, while not rare nor difficult to find, don't appear

everywhere magazines are sold. For that reason, we've included their addresses and phone numbers.

Computer Gaming World
Golden Empire Publications
130 Chaparral Ct., Suite 260
Anaheim Hills, CA 92808
(800) 827-4450

The definitive source of computer game information for the past 10 years, *Computer Gaming World* has certainly paid its dues. Dedicated game systems like Nintendo, Sega, and TurboGrafx currently outsell computer games by a wide margin, and many game magazines have shifted their coverage accordingly to follow the big bucks.

But *CGW* sticks with PC computer games through thick and thin. Each monthly issue provides step-by-step walk-throughs of games, hints and answers to many of the toughest game problems, full-fledged features on the best sellers, peeks at games under construction, first impressions of new releases, and updated information on translations of games to other computers. They do pack a lot inside their covers.

Readers continually rate games on a mail-in card, and *CGW* prints the ratings of the top 100 games each issue. *CGW* is geared toward the mature game player who expects depth in both games and magazines.

Game Player's PC Strategy Guide
Signal Research, Inc.
300 A South Westgate Drive
Greensboro, NC 27407
(800) 222-9631

Signal Research prints hordes of specialized magazines catering to every aspect of computer gaming, from Game Boy to PC games. This bimonthly magazine calls itself a "strategy guide," meaning it's the place to look for ways out when stuck at an alien cul de sac or inescapable dungeon. You'll find hints more than walk-throughs and reviews for a wide variety of IBM PC compatible games.

Game Player's is a very colorful magazine, and contains loads of screen shots to illustrate their articles. They call this "storyboarding" a game. The technique really lets you get the look and feel of a product more so than the other game magazines. *Game Player's* is aimed at an adult game players, whom they describe as enthusiasts, not hobbyists.

PC Games
IDG Communications
80 Elm Street
Peterborough, NH 03458
(800) 227-7585

PC Games is pretty much a cross between *Game Player's* and *Computer Gaming World.* The content of this quarterly magazine resembles the others; reviews, features, and occasional hints and tricks. It is neither as colorful as *Game Player's* nor as in-depth as *CGW*, however it is aimed at adults, and will appeal to anyone who finds the other two magazines not to their liking. *PC Games* covers MS-DOS games exclusively.

Video Games and Computer Entertainment
L.F.P., Inc.
9171 Wilshire Blvd., Suite 300
Beverly Hills, CA 90210
(213) 858-7155

This monthly manages to cram a tiny bit of PC information into a magazine dedicated to Nintendo, Sega, NEC, Atari, IBM, Apple, Commodore, and Amiga. It contains an occasional walk-through, a few features, and reviews of both computer and video games. It's the best choice for people seeking a wide variety of computer/video game information, and who have both a PC and a game console

PC information can be a bit skimpy, though, so look elsewhere if you don't care what the Mario Bros. are doing. This magazine is not primarily aimed at adult game players.

Computer Game Review and 16-Bit Entertainment
Sendai Publications, Inc.
1920 Highland Ave., Suite. 222
Lombard, IL 60148

Computer Game Review and 16-Bit Entertainment covers mostly PC games with a dash of dedicated system information. It brings reviews, previews, strategies, and rumors four times a year.

CGR&16BE (whew!) prides itself on running screen shots to accompany reviews and features. Instead of just telling readers about incredible graphics and backgrounds, the magazine shows them, often using full-page spreads.

CGR&16BE looks as if it's aimed at video game machine players, and is written as if it wants to reach teenagers as well as adults. Since it is a new magazine as of the summer of 1991, changes in tone, style, and format could happen. Right now, its approach could be somewhat of an acquired taste for adult game players, but it is worth checking out.

Newsletters

Pro-Gamer
P.O. Box 1638
Spring Valley, CA 92077
(619) 463-5764

Here, you won't find colorful screen shots on glossy paper. Instead, you'll find a 30-page, stapled-together, laser-printed newsletter. But if you're into sports games, you'll find this amateur magazine packed with the most timely and pertinent information available.   One issue told where to find on-disk baseball statistics reaching back to 1908, and mixed in a review for Accolade's Jack Nicklaus Unlimited Golf and Course Design, and other commercial sports releases. This highly specialized publication will appeal to the hard-core sports game enthusiast.

QuestBusters
P.O. Box 5845
Tuscon, AZ 85703
(602)743-3709

Another black-and-white, plain paper masterpiece of doing one thing and doing it well. *QuestBusters* calls itself "The Adventurers' Journal," and it covers computer adventure and role-playing games exclusively. Each monthly issue usually includes detailed maps and walk-throughs for several games, plus the usual reviews, news of upcoming titles, rumors, and occasional opinion pieces.

Shay Addams has been publishing and editing *QB* since 1984. His bizarre sense of humor and skewed outlook on the world of PC games—and the world in general—makes this newsletter unique in the entire world of PC game publishing. Some people get his put-ons, others don't. If you like adventures and role-playing, it's worth deciding for yourself.

Simulations!
P.O. Box 5845
Tuscon, AZ 85703
(602)743-3709

Simulations! is Shay Addams' attempt to do for (or to) combat and other simulations, what he does in *QuestBusters*. The first issue should be available by the time this book is published. If it is up to the *QuestBusters* standards and attitude, it will be worth examining. It will be the only publication that will cover the popular area of PC games exclusively and in depth.

Books

Just about every PC game publisher will sell you a hint book about a specific title. Sometimes you will find them available in software specialty stores at prices of between $6 and $10. They contain maps, hints, and answers, and often you need red cellophane or a special pen to reveal what you want to know. If you don't see hint books in stores, they are available directly for most game publishers. Often they will be advertised in the product catalogues which are packed inside the game box. Recently, game hint books have begun to become a little more elaborate, adding background and color to the games along with the hints.

Over the past few years, computer book publishers have begun giving PC games the same kind of attention they have shown to productivity software, computer

hardware, and languages. Several major book publishers have started entire lines of books dedicated to PC games. While there are more books published on titles like Lotus 1-2-3, WordPerfect, or even programming in the C language than there are titles in the entire PC games field, this number is growing rapidly.

These PC games books are good values and can do several things. They can cover comprehensively an entire series of games in one volume, and do it in more depth than the typical hint book. This is very handy if you become hooked on, say, King's Quest. Instead of having to purchase several hint books, you buy just one. This is also a lot cheaper.

These books can also cover a single game in much more depth. A book on a jet combat simulation written by a fighter pilot adds a lot of depth to the experience of flying one of those monsters at you desk. Not only do you learn how to succeed at the game, you might also learn air combat strategy and tactics.

In some cases, the authors of PC game books write entire fictions—short novels and stories detailing the plots of the games. In reading the stories, you get the solutions to the game. You also get a lot of color, plot development, and background in the kind of realistic detail which is nearly impossible to do on disk. This approach offers both specific answers to the stumped, and an entirely different way to enjoy the game, its story, and its characters.

There are also more general PC game books available that cover specific game categories or offer solutions to a number of unrelated titles.

Here are a few PC game books we especially like. They should be stocked in the computer section of you favorite bookstore, but sometimes can be found on the game shelves.

The King's Quest Companion
Peter Spear
Silicon Valley (Osborne/McGraw-Hill)

King's Quest might be the all-time largest selling adventure game series. The book gives a full fictional treatment to all of the games, and also includes maps, walk-throughs, and a King's Quest encyclopedia. It probably is the largest PC game book ever written.

The Authorized Uncensored Leisure Suit Larry Bedside Companion
Peter Spear
Bantam Books

You've probably noticed that Peter is the co-author of the book you're reading and also wrote *The King's Quest Companion.* It doesn't matter, his Larry book just might be the funniest computer book ever written. On the other hand, there haven't been very many funny computer books written. All the games are covered from the point of view of Larry's personal diary, and the book includes an original story about Larry's "first time," how he first donned his polyester threads, and why.

Sim City Planning Commission Handbook
Sim Earth Bible
Johnny L. Wilson
Silicon Valley (Osborne/McGraw-Hill)

These are two books that cover this pair of enormously popular simulations, and are more than just strategy guides to the games. The Sim City book includes a short course on city planning; the Sim Earth title contains a good explanation of the ins and outs of Dr. James Lovelock's GAIA theory, which is what the game is based upon.

Sim Earth: The Official Strategy Guide
Rusel DeMaria
Prima Publishing

More lavishly illustrated than the book above, it contains hundreds of screen shots and photographs from NASA and the U.S. Geological Service. DeMaria worked with Lovelock during the book's preparation, and goes beyond bare GAIA theory into a number of real world ecological situations.

Harpoon Battlebook
James DeGoney
Prima Publishing

Harpoon may be the definitive naval warfare simulation. It may also be the most complex. This book contains everything you ever wanted to know about naval warfare at the end of the 20th century, from both the points of hardware, weapons, and strategy. Author Tom Clancy, a Harpoon booster, contributes a foreword.

The Ultimate Unofficial Carmen Sandiego Companion
Corey Sandler and Tom Badgett
Bantam Books

The Carmen series is probably the most popular educational game series ever. Sandler and Badgett cover all five of the games; provide geographical and historical glossaries , and suspect profiles; and lists all the stolen items. Not just a treat for parents and children, this is also a good source book for teachers who use Carmen in their classrooms.

The Official Guide to Roger Wilco Space Adventures
Jill Champion and Richard C. Leinecker
Compute Books

This is a fictional treatment of the four Space Quest games narrated by their hero, Roger Wilco. The book contains maps, pointers, many of screen shots, and an interview with Roger. It also includes a chapter on how the games were developed and programmed.

The Big Book of PC Sports
Peter Scisco and Keith Ferrell
Compute Books

A look at over 60 different sports simulations, from baseball to miniature golf. All the games are described, reviewed, and rated with some tips for playing each game included. It also contains short notes by the designers of the games. This an excellent source book for anyone who likes sports games.

Falcon Air Combat
F-19 Stealth Air Combat
Peter Bonanni
Silicon Valley (Osborne/McGraw-Hill)

These two books are on different air combat simulations. The strength of these books lies in the fact that Bonanni has been both a fighter pilot and a flight instructor. The information in them is the right stuff, and the boods are filled with first person anecdotes and perspective.

Railroad Tycoon: Master Strategies for Empire Builders
Shay Addams
Silicon Valley (Osborne/McGraw-Hill)

The Official Guide to Railroad Tycoon
Russell Sipe
Compute Books

Railroad Tycoon won a number of best game awards, and is a very detailed and complete simulation on building and running a railroad in the 19th century. Both books cover the tactics and strategies of playing this game in depth, and are quite similar. Sipe's book is dense, heavy on the history of the rails, and packs a lot of information in fewer words. It is well-illustrated with old drawings. Addams' book is looser, breezier, and even funny in spots.

MicroLeague Football Power Bundle
MicroLeague Baseball Official Field Guide and Disk
Bill Gutman, Dave Weiner, and Jonathan Markson
Bantam Books

The games allow you to manage all-time great teams and players, along with current ones. These books contain scouting reports on teams and players, coaching tutorials, records, and unique facts about the greats of the games. The disks contain fully playable game software.

The Computer Gamer's Bible
R. Andrew Rathbone
Computer Publishing Enterprises

Rathbone's book covers some of the same ground that we do here, but does so in far fewer pages. He includes backgrounds on the major PC game publishers, interviews with game programmers and developers, material on how to write a game and get it published, and extensive technical trouble shooting tips.

Hackers
Steven Levy
Dell

This is not a PC game book, but it is the classic work on the beginnings of the personal computer revolution. There are several chapters devoted to PC game companies and the personalities that started them. This is must reading for anyone who's interested in how PC games started, where they've been, and what they're all about.

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Play Me a Story: Adventure Games

You're in a hot tub with a beautiful woman, and she's naked and rich. No matter what you say or try to do, you're not getting anywhere with her. You've got to score before dawn, or you'll die from either shame or a broken heart. How can you rise to the challenge?

A dragon sits in front of a boulder. You'd like to get rid of him, because you want to move the boulder. The dragon, however, is not cooperating. In fact, he's opening his mouth to fry you where you stand. What are you going to do about it?

While watching a movie or TV show, have you ever shouted or said, "Don't go in there!" just when a character was about to enter that seemingly abandoned hunting lodge in the woods by the lake (with the ax-wielding demon in a chainsawed hockey mask inside).

Adventure games are about stories and puzzles. The ability to interactively experience a neat moment of fiction—the amorous adventures of a sex god wannabe; a young king's quest for a bride imprisoned in a tower; a girl's desperate search for the piece of magic fruit which can save her father's life; an ordinary man stranded on an alien planet; or *Alice in Wonderland*—is what makes these games so attractive. Unlike book, film, or video fictions which you experience passively (and shout unheard advice), computer adventures allow you to control the character you play, make the characters do what you think they should do, and see the consequences of your decisions. You can explore the road not taken, and act on the impulse of the moment, or just do nothing and see what happens.

Using your head to overcome obstacles such as the dragon is a main feature of these games. Violence is usually not the answer. In a role-playing game you might wade in and chop up the dragon with a sword, but adventures require a more subtle

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approach. Mind, not muscle, is the key to success.　Charm and a glib tongue also are helpful.

Puzzles, like stories, come in all shapes, sizes, and varieties. In a game like Countdown, guiding the conversations the right way is as much a puzzle as overcoming the dragon blocking the boulder in King's Quest I. In Leisure Suit Larry, using the proper tool at the proper time is usually effective. Different games have different approaches, but you have to think about what you're doing all the time. Reasoning and imagination, along with a fair amount of game saving and restoring, is what gets you through the adventure.

A Little Bit of History

These cerebral workouts have been around since the advent of the home computer, but they got their start on a mainframe. Two men, Crowther and Woods, became bored with the few games available on the mainframe, which were mostly Star Trek shoot'em-ups, variants of Mastermind, and lunar landers. They believe a large computer could support games which were more interesting and more involved.

So they created a game that encompassed an entire genre—they called it Adventure. Adventure proved an instant hit, and spread everywhere. Before long, the same could be found on virtually any mainframe anywhere, college or business.

The main features of Adventure were the exploration of a vast underground region and grabbing the treasures found along the way. What made the game so interesting, aside from the puzzles, was the amount of textual description. It really gave you the feeling of wandering through an immense series of caverns and provoked a sense of wonder.

When personal computers hit the market, Adventure made the transition to the smaller machines, and not long after, similar games appeared.　These were essentially puzzle showcases. Plot was minimal at best, and the descriptions were definitely "no-frill": "You are in the living room. Visible exits: North, South, East". There were no graphics, and everything was subordinated to the puzzles, which were often tough and sometimes diabolically devious. Then Zork appeared.

Where Zork shined was in the parser. The parser is the part of the program that understands the commands that are typed in from the keyboard. Until then, most games had a "two-word" parser. They could handle only a verb and an object, so commands were of the "get axe, drop bag, open door" variety. Infocom's parser was far more sophisticated, and understood commands such as "put the red ball in the third basket" or "get the sword then examine it."

All this was great, but people (even people who use computers) like pictures. Taking a cue from what TV did to radio, other companies began going the graphic route. These new games still used keyboard input and parsers, but they featured full-screen pictures instead of pages of print. The pictures were static, but they were there.　Being more visually appealing than text, graphic-oriented games slowly began pushing text-based adventures out of the market. Text games still showed up, but they tended to languish on the shelves awhile before disappearing altogether.

Which brings us to Sierra On-Line. In many ways, Sierra has defined the computer adventure game as we have known it for more than a decade. They were the first company to add pictures to adventure games (Mystery House, and Wizard and the Princess in 1980); but they were also among the first companies to write games for the DOS market, and they were the first publisher to take the next big logical step—animation.

In 1984 the company came out with King's Quest and released it first on the IBM. Previously, all Sierra products had been for the Apple II first, and in fact, almost all games were being produced for the Apple or the Commodore C-64 at that time. The success of King's Quest helped change all of that.

King's Quest was not only all-graphic, but for the first time, the main character in an adventure game was visible on the screen, and could be manipulated around various obstacles. King's Quest was the first of what we like to call interactive cartoons. Today, virtually all computer adventure games follow this approach to one degree or another.

Sierra was also the pioneer of music in games. No one had ever given much thought to adding musical sound tracks to games. Maybe some sound effects came through the horrid little PC speaker, but not music. Sierra, however, pushed sound cards tirelessly. Game players responded with enthusiasm. Sound cards suddenly began appearing everywhere, and music and sound effects in games have become a standard. Even digitized speech is starting to come on strong.

Today, parsers are rapidly disappearing. The switch is to mouse-driven, point-and-click commands using icons. These have the advantage of being easier and less frustrating to use, as well as eliminating much of the redundant typing needed for parser-driven games. Some people criticize these interfaces as either having negative effects on literacy in our culture or making adventure games "too easy." Nonetheless, they are here to stay until a better way of communicating with the computer is invented.

Ten Rules for Playing Adventure Games

Today's modern adventure game features superb graphics, excellent music, compelling storylines, and a simple command structure. For all that, they remain adventure games, and the rules of adventuring that held for the earliest games still work today.

Rule #1: Read the manual—carefully. Not only will you learn how to communicate with the game, you can often pick up some important information on playing the game itself. Many manuals contain tips for playing, and a "walkthru," takes you through the first few steps in the game. The answer to the game's copy protection is often in the manual.

Rule #2: Save often; save well. This cannot be stressed enough. Every time you accomplish something in the game, save. Whenever you are about to try something that looks dangerous (such as climbing a beanstalk), save. Save every once in awhile just on general principle, because the unexpected can always happen. Be sure to use different save positions too. Don't overwrite an earlier save unless you're certain you really won't need it. On the other hand, you can never really be certain.

Rule #3: Examine everything. Look inside, under, behind, and on top of objects. Move things whenever possible. Pay careful attention to the screen to be sure you haven't overlooked anything. Try everything two or three times.

Rule #4: If it isn't nailed down, take it; if it is nailed down, look for a hammer. Getting through an adventure requires having certain items. You never know what will come in handy, so grab everything you come across.

Rule #5: Experiment. Don't be afraid to try weird things or to fool around with the objects in your inventory. The worst that can happen is you'll die (digitally speaking), at which point you can restore and try again.

Rule #6: Talk to everyone you meet in the game, and read everything too. In Leisure Suit Larry I, the writing on the lavatory walls is most important, and most game characters have something important to say. What this stuff *means* is up to you to figure out.

Rule #7: If you get stuck, leave that problem and do something else in the game. Usually, being stymied means you don't have the right item in your inventory yet, or perhaps you have to do something else first. For instance, in King's Quest IV, there is no way you can get into the Ogre's hut until Lolotte sends you there.

Rule #8: Make a map (if there is no automapping feature). Some games have many locations. You can easily become lost or confused if you don't chart your way. Graph paper and a pencil work nicely.

Rule #9: Don't despair. When all else fails, bring in a friend or two, buy a hint book, call the company's hint line, or log on to a computer network for assistance. No matter what, there's almost always a way to get help.

Rule #10: Save the game. This rule is so important, it's worth listing twice.

Some Computer Adventure Games of Note

There are more than a million stories in this naked universe, and a lot of them have been put on floppy disk already. What follows is a look at some of the best. You won't have to look long though before you notice a lot of game series. Adventure games (and role-playing games) are no different than Luke Skywalker, Perry Mason, James Bond, revengeful nerds, alien terminators, Halloween the 13th, and Indiana Poltergeist: All are afflicted with "creeping sequelitis." Like their cousins, this is not necessarily a bad thing; once you've met and become entranced by a character or person, it's only natural to want to know more. So you'll want to hear (or play) another story about them.

However, some of these stories are more challenging than others, so we've noted our best guess as to their difficulty level. We've also thrown in a number of hints. You'll probably need them.

Altered Destiny

Accolade
$59.95
640K IBM/Compatibles/Tandy (10Mhz or faster)
EGA/VGA; AdLib/Roland/CMS/Tandy Sound
COPY PROTECTION: Match symbols on a code wheel
DIFFICULTY: Expert

Why This Is Special

What sets this adventure apart from most others is the way it evokes an alien world. Fantasy games may be set in mystical lands and space games on far-off planets, but none of them really bring out the sense of strangeness of being in a truly exotic land the way Altered Destiny does. Information drips from the skies in rainbow colors. Crystal flowers grow in dark caverns. A graveyard holds the remains of a species whose entire life experiences are engraved on their bones. Balloonlike creatures drift by on the wind. It's very different from anything you've seen before.

A Taste of the Game

Sometimes the most remarkable experiences can begin in the most mundane way. P. J. Barrett, Yuppie middle manager, stops off at a repair shop to pick up his TV. Somehow, he gets the wrong one. When he turns it on at home, P. J. is pulled right through the screen into a bizarre, unfamiliar world. He's not the hero that was expected, but there's no time to get anyone else.

After finding out he's been summoned to stop an evil wizard, P. J. is left to fend for himself. Exploring this alien world, he finds much to marvel at and puzzle over. From

the Order of The Jewel, through the Canyons of Fear, into a dream world, up to the Isle of the Diviner, P. J. follows the path that will bring him to the crystal palace and the final encounter.

INSIDE INFORMATION

The single biggest difficulty is finding the right place to stand to do something. Often, P.J. must be positioned on exactly the right spot or the command will not be accepted. This is especially the case in the Yula graveyard, where P.J. has to climb up the bones, and again in the Weird Woods, where he has to climb up to the second level. This can only be done from one of two particular locations.

When fighting the ArraArra, use the keypad; do not type in commands. P.J. should be holding a weapon (a sword or axe) to do this, and it needs to be ready before the combat begins.

Countdown
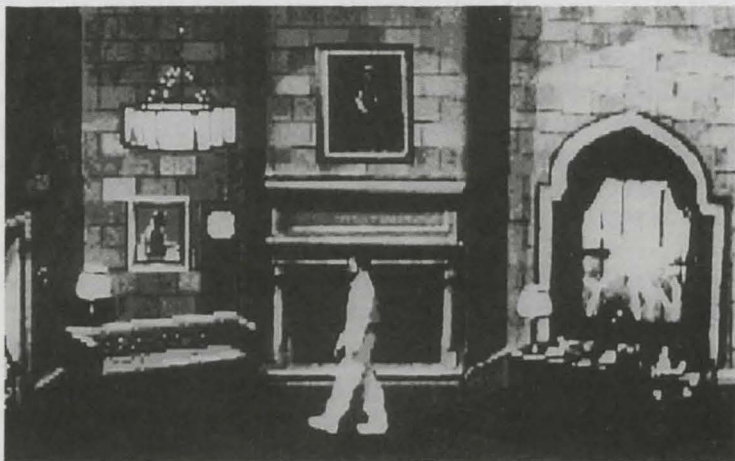
Access Software
$59.95
640K IBM/Compatibles/Tandy (8 Mhz or faster)
VGA/MCGA/RealSound (included with game)/AdLib/PS/2 Speech Adapter/
SoundBlaster/mouse
COPY PROTECTION: None
DIFFICULTY: Expert

Why This Is Special

As current as today's headlines, Countdown's story is intense and fast-paced; you're pulled in right from the start. One of the more interesting features is the use of flashbacks. As Powers carries out his mission, little things trigger his memory. Special sequences pop up to reveal more of the story and slowly restore Powers' memory. While this is not an entirely new device, it is done well here.

Aside from the puzzles, there is heavy time pressure involved in this game. Everything has to be done in 96 hours, and the seconds are always ticking away.

A Taste of the Game

Mason Powers, CIA agent, wakes up in a dreary hospital room with no memory but a strong sense of foreboding. The door is locked, and the chart on his bed shows he's scheduled for a lobotomy in the near future. He has to get out of this hellhole fast. At least he remembers what "lobotomy" means.

After an elaborate escape from the hospital, Powers makes it back to his apartment and starts picking up the pieces. Before long, he finds himself on the trail of a terrorist group called Black December. From Istanbul to Venice, Cairo to Barcelona, and points in between, Powers races against time to uncover the plot and stop an assassin from carrying out a terrible plan.

All the commands necessary in the game are shown on screen in a single line. You click the mouse on the command and then on an object to do something with it: look at it, move it, get it, use it, and so on. There is also a command to talk to someone, which brings up a submenu of approaches to the conversation: Pleasant, Help, Bluff, Hassle. Using each of these (sometimes more than once) provokes different responses from the characters in the game. The correct approach is vital for obtaining information and help.

INSIDE INFORMATION

Escaping from the hospital is no easy matter. Powers has to do a lot of running around the corridors and snooping in rooms without being caught by guards, so careful timing is necessary. They all have appointed rounds, so keep an eye on the clock in the upper-right corner of the screen.

To make sure Powers' personal guard doesn't notice he's missing from the room, find a dummy to put in the bed.

Examining everything is crucial but time-consuming. Save often, search everywhere, restore the game, and go straight to wherever you need to go. Do the same thing before talking with anyone, and restore if things don't go well.

Heart of China

Dynamix
$59.95
640k IBM/Compatibles/Tandy (12Mhz or faster)
VGA/mouse or joystick recommended/hard drive/high-density floppy drive/Roland/
AdLib/SoundBlaster/PS1 Sound
COPY PROTECTION: None
DIFFICULTY: Novice

Why This Is Special

Take off for adventure and romance with "Lucky" Jake Masters in 1930's China and beyond. Visit exotic locales, rescue maidens in distress, drive a tank, escape enemies by the skin of your teeth, and win the heart of a very pretty lady. It's all in a day's work for "Lucky," definitely a pulp-style hero.

Heart of China is a very cinematic game; it's much like playing a movie. Graphics, including those of all the characters (which are portraits of real people), are digitized throughout, enhancing this quality.

A Taste of the Game

Jake runs an air service out of Hong Kong: or he used to, until E. A. Lomax closed him down. Lomax's daughter Kate was kidnapped by a Chinese warlord, and naturally Lomax wants her back. Lomax decides Lucky is the man to rescue her, and coerces

our hero into doing the job. Lucky teams up with a ninja called Chi, and heads out for the fortress at Cheng-Du. The rescue comes off, but Kate is poisoned, and the only cure is in Kathmandu. There, they help overthrow the local tyrant, then fly on to Istanbul, where Jake finds himself in big trouble over a previous visit. It's up to Kate to do the rescuing this time. The pair make a last-minute getaway on the Orient Express to Paris, where Kate is finally reunited with her father, and perhaps marries Jake in the bargain.

Most of what happens depends more on actions and conversations with people than anything else. This is especially true of the romance between Jake and Kate. How well that turns out depends entirely on their conversations with each other. Properly handled, the two will marry in Paris, which is the best ending—assuming the couple lives happily ever after.

INSIDE INFORMATION

After the plane skids to a halt just at the edge of a chasm in Tibet, Kate is in no shape for a trek through the snow. One of the men must go for help while the other stays to tend the sick woman. Chi is the best person to stay. He should check the interior of the plane for a few important items. His healing arts will also come in handy here. Kate must be kept alive, or everyone will die.

A trouble spot is in deposing Bojon, who has Kathmandu in an iron grip. Lucky needs to see the lama twice, and talk to the boy who has gasoline for sale.

Sending a telegram might also be a good idea. After his second visit to the lama, Lucky might want to stop off in the tavern for a little refreshment and chat with the locals.

Indiana Jones and the Last Crusade

Lucasfilm
$44.95-$49.95
384K IBM/Compatibles/Tandy (8 Mhz or faster)/Macintosh, Amiga
CGA/EGA/VGA/MCGA/Tandy 16 Color/AdLib/mouse recommended
COPY PROTECTION: Look up word in the manual
DIFFICULTY: Intermediate

Why This Is Special

Straight from the movie to you, Indiana Jones and the Last Crusade takes you on Indy's quest to find both his father and the Holy Grail. The plot of the movie is

followed pretty closely, and will be familiar to everyone who has seen it, with a few minor changes for game purposes. Most puzzles, however, are unique to the game.

It is not often that a movie is successfully adapted into an excellent computer game. Indeed, movie tie-ins seem to breed mediocre products. This game is a happy exception.

A Taste of the Game

Just when you thought you might never see another bullwhip, leather jacket, and Fedora again....

Indy returns to his college with the Cross of Coronado, deals with perturbed students, then sneaks out to visit his father's house. The mess he finds does not bode well, but it's an added incentive to accept the mission of picking up where his father left off, and perhaps locating dad as well. Then it's off to Venice for a tour through the library and the catacombs below (unlike the movie, he does this alone). Next, it's Germany for the big rescue of his father, which includes riding the blimp, flying the biplane, and getting Hitler's signature on a very important pass.

Then comes the finale: Indy reaches the resting place of the Grail, where he must pass the Three Tests (just as in the movie), followed by choosing the real Grail from among the fakes. All in all, a good game based on a good movie. Now if they could just get the real Sean Connery on disk....

INSIDE INFORMATION

A "real" diary, written by Henry Jones, is included in the game box. This little book is critical to success. It contains clues and information for several puzzles. Keep it handy while playing.

Finding a key in Henry's house is tricky business. The key is hidden on the back of something and is not easy to see or recognize. Push over a piece of furniture and look carefully to find it; then take it back to the college, and dissolve the tape.

Getting through Brunwald Castle is mainly a matter of guile, bribery, impersonation, and disguise. In a few instances, Indy will have to haul off and sock a Nazi.

The Leap from the Lion's Head requires clicking the mouse on the exact right spot on the other side of the chasm. You must keep trying until you find the correct area; there is no other way to do it.

King's Quest Series I–V

Sierra On-Line
$49.95-$59.95
IBM/Compatibles/Tandy, Macintosh, Amiga (KQ V is IBM-only)
Hardware requirements vary by title: 512K-640K RAM, 8-10Mhz or faster, CGA/EGA/VGA/MCGA/Hercules; mouse (for King's Quest V); hard drive recommended; Roland/AdLib/SoundBlaster/Game Blaster
COPY PROTECTION: Look up a word or symbol in the manual
DIFFICULTY: varies by game

Why These Are Special

There is something magic about the King's Quest series that has been with it since the first game (King's Quest) was published in 1984. Perhaps it's the strong fairy tale quality to the games. Perhaps it's warm tradition like Thanksgiving, family reunions, and Monday Night Football. Perhaps it's characters so strong that people have been known to weep when King Graham almost dies in KQ IV. Or maybe it's because there isn't a dud game in the lot.

Whatever the reason, King's Quest is the premier adventure game series in the world, and the standard by which all others must be judged.
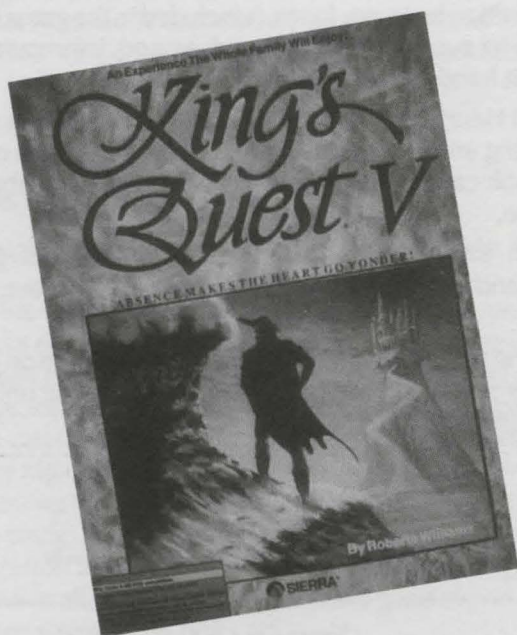
A Taste of the Games

King's Quest chronicles the exploits of King Graham and his family in the mythical land of Daventry. There is a very strong fairy tale quality to the games, but don't be misled—these adventures are not particularly oriented toward children. Rather, they're a way for adults to recapture some of the wonder and imagination of the old tales, which were violent and brutal at times and as much for adults as for children.

While the games tell a continuing story, it isn't necessary to play them in numeric sequence. You can start anywhere, as each adventure is complete in itself. KQ V: Absence Makes the Heart Go Yonder is by far the easiest; it's a novice game and a good place to start if you prefer not take on a bigger challenge first. However, you might also become spoiled by the interface, since the first four require typing at the keyboard, and V is completely icon based.

KQ I: Quest for the Crown

DIFFICULTY: Intermediate

The story begins with King's Quest I where Sir Graham, a loyal knight, is sent to search the land for three magical objects. These items have been stolen from the king, and without them Daventry will wither away. Graham's hunt brings him strange and

wondrous experiences: climbing a magic beanstalk, meeting the king of the leprechauns, dealing with a dragon, hitching a ride on a giant bird, defeating a wicked witch and a troll, and avoiding a giant. If Graham is successful, the king will proclaim Graham the new king of Daventry.

KQ II: Romancing the Throne

DIFFICULTY: Intermediate

Every king should have a queen. In King's Quest II, we find Graham thinking about marriage. Looking in his magic mirror, Graham sees a beautiful woman and falls in love immediately. He quickly learns his ideal is being held captive in a quartz tower by an evil witch. Graham must deal with a wolf, Dracula, King Neptune, a genie, the world's worst bridge, a flying horse, and other fabulous beings in order to find the tower that holds Valanice prisoner—assuming he can get by the hungry lion. Of course he has to find the way home too.

KQ III: To Heir is Human

DIFFICULTY: Expert
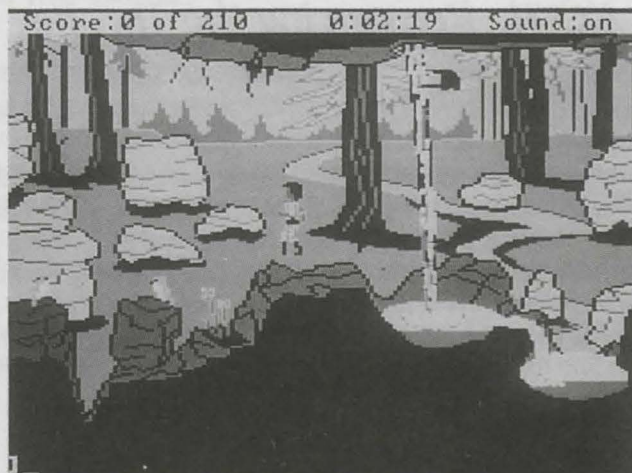
King's Quest III starts off a little differently. It's the story of a poor boy named Gwydion who's leading a wretched existence as slave to a nasty wizard. Most of this game is centered around the boy's efforts to escape (permanently) from the evil mage,

carefully, gathering the necessary items that will free him from servitude. Finally, he manages to turn the wizard into a cat and escape. He also learns he is no mere slave, but a prince: Prince Alexander, the long-lost kidnapped son of King Graham.

He has to find his way home, survive pirates and a yeti, and rescue a beautiful princess from being crisped as a sacrifice to a multiheaded, fire-breathing dragon. Then he can meet his parents. By the way, the princess is his twin sister, Rosella.

KQ IV: The Perils of Rosella

DIFFICULTY: Intermediate

King's Quest IV is the tale of Rosella's attempts to help her dying father. Desperate to save his life, she accepts a bargain from the fairy queen Genesta. Rosella needs to find a magical healing fruit on her own, and Genesta needs help too. The evil Lolotte has stolen the talisman that keeps Genesta alive. To get back home, Rosella must retrieve the magic item, or she'll be stuck there forever and King Graham will die. Even worse, Rosella is captured by Lolotte and forced to go on three quests for the witch.

It's a very tangled tale, which also includes ogres, the hen that lays golden eggs, Cupid, a unicorn, a walking mummy, the belly of a whale, and the seven dwarfs.

KQ V: Absence Makes the Heart Go Yonder

DIFFICULTY: Novice

Out picking flowers for his wife, Graham returns to find his home is gone. Castle and family have vanished completely; a lone owl is the only witness to the evil deed. The owl flies Graham to another land, where Graham must begin his search to rescue his loved ones. There is an evil witch to overcome, an abominable snowman and a Roc to defeat, bandits to avoid, a desert and an ocean to cross, a maze to solve, and, of course, the big showdown with the evil mastermind behind the kidnapping.

KQ V marks a big departure from the previous games in the series, with the addition of an icon-based graphic interface and hand-drawn VGA graphics. It's a stunning game to look at and a real treat to play.

INSIDE INFORMATION

Always save the game before climbing something or walking across a rickety bridge, or any similar action. Every game features a climbing or maneuvering death trap.

In KQ I, Graham must guess a gnome's name. This is the most asked problem in all the KQ games. The answer is: Ifnkovhgroghprm, although in later versions "Rumplestiltskin" spelled backwards sometimes works.

The bridge to the magic door in King's Quest II is tricky. You have to walk very carefully to cross it, and you can cross it just seven times before it collapses— and you must cross it that many times.

In KQ III, you can only explore when the wizard is away or napping. He is always away for 25 minutes of game time. Use the time wisely. The only place to hide things is under Gwydion's bed, but you can't hide the book or wand there.

In King's Quest IV, pay close attention to the wreck on the right-hand side of the screen. Rosella should take an up-close look at it; the bridle to catch a unicorn is there. In the graveyard, you can only use the shovel five times, and you must use it that often.

In King's Quest V, make sure you search the Roc's nest. In the desert temple, save before you go inside. There are two items to grab, and there is only enough time to get them and get out before the door shuts.

Leisure Suit Larry Series I-V

Sierra On-Line
$59.95
IBM/Compatibles/Tandy, Macintosh; Amiga (LSL 5 is IBM-only)
Hardware requirements vary by title: 512K-640K RAM, 8-10Mhz or faster (AT class machine for VGA LSL 1); CGA/EGA/VGA/MCGA/Hercules; mouse (for LSL 5 and VGA version of LSL1); hard drive recommended; Roland/AdLib/SoundBlaster/ Game Blaster
COPY PROTECTION: Look up a word in the manual or documentation
DIFFICULTY: Varies by game; see below
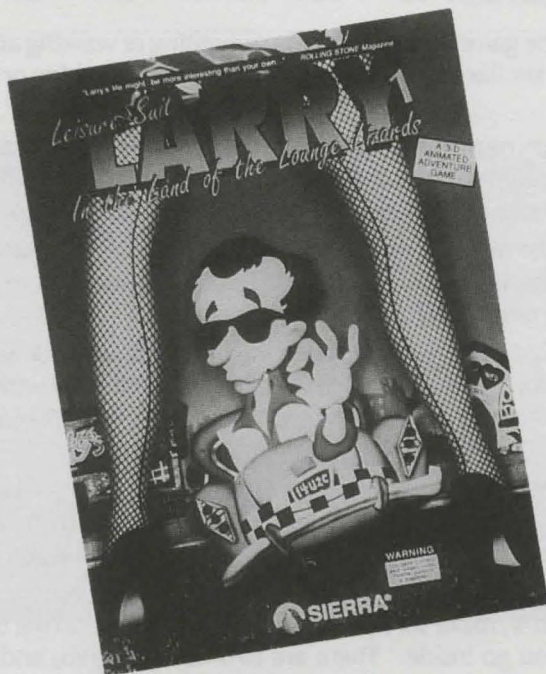
Why These Are Special

When *Newsweek* magazine ran its hottest Christmas gifts for a 1990 story, the first item mentioned in the headline was "a naughty computer game." They were writing about Leisure Suit Larry. *Newsweek* knows that sex sells. So does Larry—these games are among the most popular computer games ever published.

Sex is one subject guaranteed to get almost anyone's attention, and that's pretty much what the Leisure Suit Larry series is all about: Larry's attempts to find true love and make it with women, not necessarily in that order. Not that we're dealing in pornography here. The material is absurd, self-mocking, comical, and somewhat risque; but you're not likely to come across anything you wouldn't see on prime time television, or, for that matter, a bad joke you haven't heard before. However, people who are not comfortable with this subject may prefer to skip these games, since they all have the same theme. It's their loss.

A Taste of the Games

We don't know about you, but we wouldn't want to be psychically stuck in the polyester, leisure-suited, disco-dancing seventies. Larry Laffer is, and he is not a prisoner of those times, but a volunteer. He is also a loser of the highest order—one who doesn't know he has lost. The combination is often hilarious.

As with the King's Quest series, these adventures can be played in any order. It's more fun, though, to do it by the numbers, as you can follow the story line and Larry's misadventures from game to game.

LSL I: In The Land of the Lounge Lizards

DIFFICULTY: Intermediate

Leisure Suit Larry In the Land of the Lounge Lizards opens with our hero in the sleazy town of Lost Wages, looking for a good time and bad women. He's there to correct a problem: He's 39 years old and still a virgin. Stalking through casinos, bars, discos, and penthouse suites, Larry does his damnedest to impress the women whenever and wherever he can find them. Wine, flowers, breath spray, disco dancing, witty conversation, aphrodisiacs, marriage, and no sense of tact are some techniques at his disposal. If he can avoid the muggers, win enough cash to stay flush, and remember to practice safe sex, he might get out of town alive. If he doesn't score by dawn, he won't.
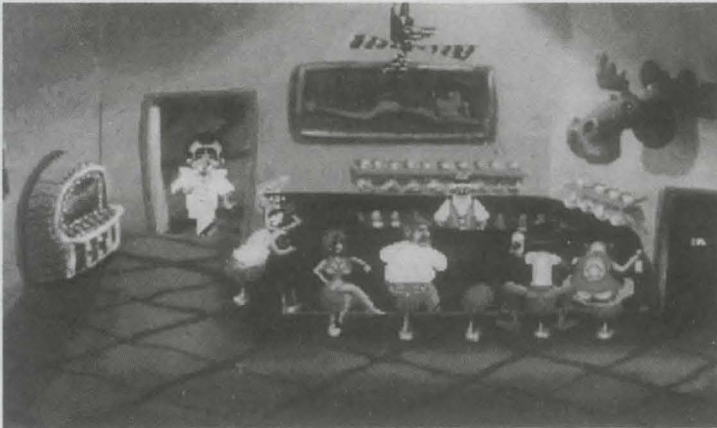
LSL II: Looking for Love in Several Wrong Places

DIFFICULTY: Novice
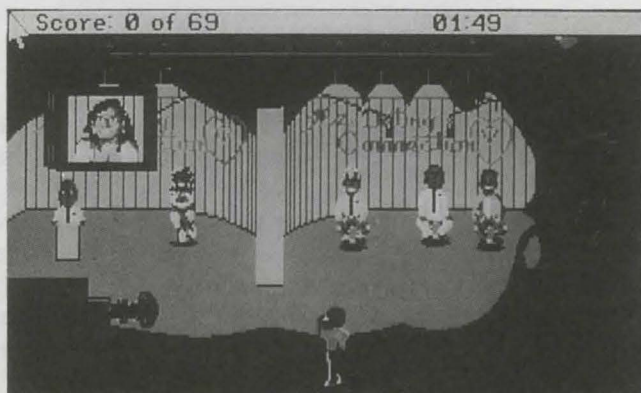
LSL II opens with our hero getting the boot from the true love he found at the end of the first game. Bad luck, though, never stops Larry. He buys a lottery ticket with his last dollar, wins, and also wins on a TV dating show. He has a million bucks and a cruise with a beautiful babe—and it's not even lunch time. At the same time, without realizing it, he becomes entangled with a spy ring.

To survive, Larry must deal with spies, KGB agents, convenience store clerks, hair stylists, his date's mother, spinach dip, quicksand, escaping from an airplane, a full body wax, Rodeo Drive, too many rays and, the fearsome Dr. Nonookie and his combination Amazon love slaves and back-up singers. We think we've got that right. Larry gets a tropical island chief's daughter—and, she's topless!

LSL III: Passionate Patti in Pursuit of the Pulsating Pectorals

DIFFICULTY: Intermediate

LSL III opens with a familiar scene—Larry getting the boot once again. Fed up with true love, he ditches his bad Hawaiian shirt, gets his leisure suit out of storage, and decides to score as many women as he can, as quickly as he can. There's Tawni, a shopaholic sunbather; Cheri Tart, the exotic dancer; Bambi, the aerobics instructor, and Suzi, a lawyer with a fondness for men's underwear. Of course, there's Passionate Patti herself, lounge pianist extraordinaire.

Now comes the switch. A mistake sends Larry wandering off into the jungle, and the action shifts to Patti and her frantic attempts to find him. Shedding her clothes as she goes, Patti must trek through the jungle; climb up, down, and over obstacles; and find an unique use for her bra, not to mention shooting the rapids on a log. She finally catches up to Larry in a village of cannibal lesbian Amazon biker broads and slot machine repairwomen. They're invited to stay for dinner as the main course.

LSL V: Passionate Patti Does a Little Undercover Work

DIFFICULTY: Novice

You may ask, what happened to LSL IV: The Missing Floppies? Good point.

As LSL V begins, Larry has come down in the world to being nothing but a videotape rewinder for a sleazy TV show. Why? He doesn't know. His mind is a little foggy as to what happened after he and Patti set up house by the lake at the end of LSL III. Since the floppy disks for LSL IV are missing, so is his memory. So is Patti, who has gone on to other things, namely a singing tour of airport cocktail lounges.

The TV show is looking for "America's Sexiest Woman" and sends Larry off to "audition" the three finalists. They figure the woman who is willing to make it with this nerd just has to be the sexiest. Meanwhile, Patti is recruited by the FBI to investigate mob influence in the music business. Both Larry and Patti go their separate ways until they meet again at a White House dinner. There Patti exposes the mob boss, who also has the missing LSL IV floppies, and is reunited with Larry.

This game also features switching between Patti and Larry, although here it alternates between them. As they travel between cities, one falls asleep and the action switches to the other person. This happens several times during the game, and makes for an interesting dual thread. It's almost like playing two games in one.

INSIDE INFORMATION

In LSL I, always practice safe sex with the hooker. Read the men's room wall several times. Always save the game before you gamble. If Larry's broke, the game ends.

In LSL II, don't worry about Larry's lottery number. Take the ticket to the station, and remember the number the receptionist mentions. Then tell her it's your number. Also, don't eat the spinich dip, and throw it away when you're on the lifeboat.

In LSL III, give the credit card to Tawni and the deed to your land to Cheri. Patti won't be interested in Larry until he shows her he's divorced. She shouldn't drink her water in the bamboo maze until she's absolutely desperate, and don't forget the magic marker.

In LSL V, keep Larry's batteries charged.

Loom

Lucasfilm
$59.95
512K IBM/Compatibles/Tandy (10 Mhz or faster), Amiga, Macintosh
CGA/EGA/VGA/MCGA/Tandy 16 Color/mouse recommended/AdLib/CMS sound
COPY PROTECTION: Find symbols in manual using red cellophane
DIFFICULTY: Novice
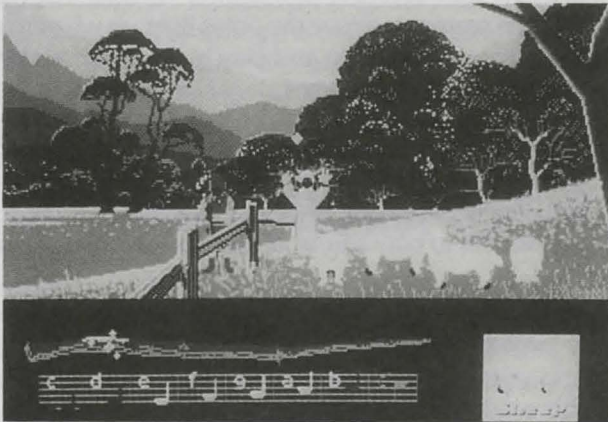
Why This Is Special

Loom is a unique, beautiful game. Epic in concept with dazzling graphics, a terrific sound track, simple interface, and a captivating story, it is a joy to play. In particular, the use of music as an integral part of the adventure is outstanding—not the music in the soundtrack, but the music needed to "spin the drafts" that create magical effects. Bobbin must learn these as he progresses through the story, then play them back as needed. There is no other game quite like it.

Included in the game package is a well-produced stereo audio cassette that sets the tone, mood, and background for the story.

A Taste of the Game

Bobbin Threadbare is an outcast among his people, the Weavers, who perform tasks through the magic of music. Bobbin was not born in the usual sense—his "mother" brought him into the world by weaving his existence into the Pattern on the Great

Loom. For this crime, she was transformed into a swan and banished forever from the Weaver's island. Now it is time for Bobbin to leave, for he has a great destiny to fulfill. He must learn spells, cross the ocean, visit a city of glass, outsmart a dragon, and sneak into the Blacksmith's Guild to learn the terrible plan of the evil Bishop Mandible. Mandible wants to conquer the world by raising an army of the dead. But the scheme goes horribly wrong, and only Bobbin can save the world by destroying the very Loom that gave him life.

The magic in Loom is unique because it's created using musical notes as opposed to words. On the screen below the main display is a picture of Bobbin's distaff and a musical staff with notes. Each segment of the distaff corresponds to a particular note.

For Practice mode, the staff lights up, and the notes of a tune are recorded below it. In Standard mode, the segments above the notes light up when a tune is heard or played. In Expert mode you must learn and play by ear only; nothing lights up on the display to help you figure out the notes.

INSIDE INFORMATION

Any draft can be played backward as well as forward. At some points it will be necessary for Bobbin to play a tune in reverse—for instance, at the giant waterspout.

The Blacksmith's Guild is a very noisy place, especially in the area where the sword is being forged. Bobbin cannot do any spinning until there is some quiet. Be patient, and wait until the clanging stops. This will happen several times during this sequence.

Rise of the Dragon

$59.95
640K IBM/Compatible/Tandy (10 Mhz or faster)
VGA/MCGA/hard drive and mouse highly recommended/high density floppy drive/
Roland/AdLib/SoundBlaster
COPY PROTECTION: None
DIFFICULTY: Intermediate

Why This Is Special

"Blade Runner" brought to the movie screen a dark vision of America's future, and set it in a Los Angeles that was familiar enough to be plausible and alien enough to frighten. Rise of the Dragon is soul brother to Blade Runner, down to the name of the main character—Blade Hunter. The game features stunning hand-painted graphics throughout. They capture perfectly and bring to life a city in the midst of

decay. The pictures complement perfectly the dark and brooding mood of the game as does the excellent soundtrack.

You'll find more mature subject matter than in most adventure games, a fact noted right on the game box. However, there is no nudity (although there are scenes of Blade in bed with his girlfriend under a blanket), and the language doesn't get much stronger than the occasional "hell" or "damn."

A Taste of the Game

Blade Hunter, an ex-cop who's now a seedy private eye, is hired to investigate the death of the mayor's daughter. He soon picks up the track of an illicit drug ring with connections in Chinatown. Following the trail through the seamy underside of the city, he learns things are worse than he could ever have dreamed. There is much more then mere drug running going on. A terrible ancient prophecy is about to be fulfilled, and only Blade can stop it. As precious minutes tick away, Blade hunts for informants, bugs telephones, does some casual burglary, encounters a mysterious Chinese sage, and foils a plot to poison the Hollywood Reservoir. He must also rescue his kidnapped girlfriend held prisoner in the mastermind's stronghold and about to die a terrible death.

There are three points in the game where you must go through arcade sequences. One is at the reservoir and involves shooting it out with the team trying to poison the water. Blade stands in place, aims his gun, and hopes for the best. The second sequence comes at the warehouse when Blade attempts to rescue Jake. The final one comes at the end when Blade confronts the villain. Except for the first sequence, if Blade fails (dies) five times, you're given the opportunity to skip the arcade and win anyway. It takes some of the edge off victory, but for the fumble-fingered among us, at least the game can be completed.

INSIDE INFORMATION

Time is important. Blade must be in some locations at a specific hour. If nothing seems to be happening or if you can't think of anything to do, use the "fast forward" feature to speed up the passage of time.

Blade starts off the game in trouble with his girlfriend for standing her up the previous night. It's important that he make up with her.

Always save the game before talking to someone in case you say something wrong. This is particularly true of dialogs with Jake and the mayor. If the outcome is undesirable, restore and try again.

Secret of Monkey Island

Lucasfilm
$59.95
640K IBM/Compatibles/Tandy (10 Mhz or faster); Amiga
EGA/VGA/MCGA; hard drive required/mouse recommended/Roland/AdLib/
SoundBlaster
COPY PROTECTION: Make a pirate face on a code wheel
DIFFICULTY: Novice

Why This Is Special

One great thing about the adventure game category is that many titles are comedies. This is in vivid contrast to the various kinds of simulations, strategy, and role-playing titles where things are usually taken dead serious. In computer adventures, there is probably more humor per cubic floppy than in any other type of game.

The Secret of Monkey Island is a wild romp where everything is played for laughs. Pirate duels are fought more by exchanging insults than crossing swords. Stan, of Stan's Previously Owned Vessels, is the stereotypical used car salesman to the life. Buccaneers loot the governor's mansion by reservation only. The cannibals are concerned about too much cholesterol in their diet. Humor is everywhere. Is this anyway to run a computer game? Darn right it is.

A Taste of the Game

Everyone wants to be a pirate, especially if your name happens to be Guybrush Threepwood. Guy is an amiable sort who arrives on Melee Island™ looking to join a pirate crew. It's bad times for the buccaneers of the island who've been chased ashore by the ghost pirate LeChuck. They're so desperate they'll take on anyone, even Guy—provided of course that he passes the Three Quests of thievery, swordsmanship, and treasure hunting.

That's just the start of his adventures. Before long, he's haggling with used ship salesmen, breaking pirates out of prison, and setting sail to rescue the kidnapped governor of Melee Island. After reaching Monkey Island, LeChuck's hideout, Guy has to deal with Herman Toothrot and the Monkey Island cannibals; then he must stop the wedding of LeChuck and stop the governor. Plus, he has to make sure he has enough bananas.

INSIDE INFORMATION

Obtaining enough bananas for the monkey on Monkey Island is a tough chore. You can get one from the beach and a few more from the cannibal village, but that's one hungry monkey. Check out the "native art." Pointed in the right direction, it can solve your problem; but be careful you don't sink your ship.

To get the navigator's head from the cannibals, you have to trade something for it. They're very interested in navigation.

Guy needs a crew of three for his ship. Getting two of them is no problem, but the third is in jail. Getting him out is something of a mug's game. Guy should ask the Important Looking Pirates early on about the ingredients of grog. It's pretty rugged stuff.


Space Quest Series I-IV

Sierra On-Line
$49.95-$59.95
IBM/Compatibles/Tandy, Macintosh, Amiga, (SQ IV is IBM-only)
Hardware requirements vary by title: 256K-640K RAM, 8-10Mhz or faster, CGA/EGA/
VGA/MCGA/Hercules; mouse (for Space Quest 4)/hard drive recommended/Roland/
AdLib/SoundBlaster/Game Blaster
COPY PROTECTION: Look up a word or symbol in the manual
DIFFICULTY: Varies by game

Why These Are Special

When you want an adventurous break from the everyday world—and who doesn't?—but not fantasy, the Space Quest series may just be the reality that refreshes.

Space—the last career! Set far in the future with tongue firmly in cheek, these games follow the adventures of Roger Wilco, janitor and occasional galactic hero. There's just something incredibly comical about a lowly, nerdy janitor who stumbles from place to place and keeps managing to save the universe time and again.

A Taste of the Game

The Space Quest games do not have to be played in numerical order. However, it is fun to follow the continuing story line, and some plot and gag elements refer back to previous games, especially in SQ IV.

SQ I: The Sarien Encounter

DIFFICULTY: Novice
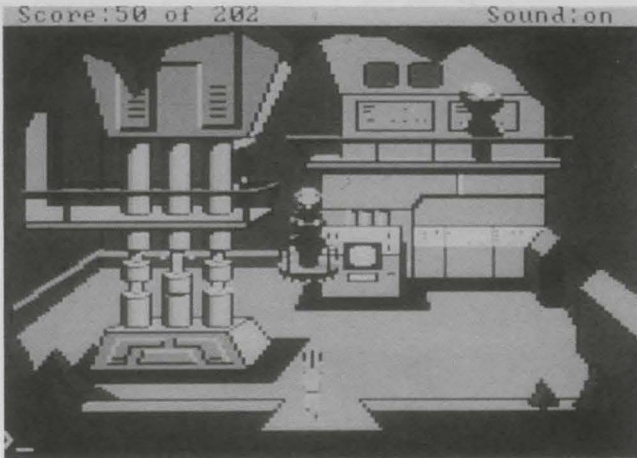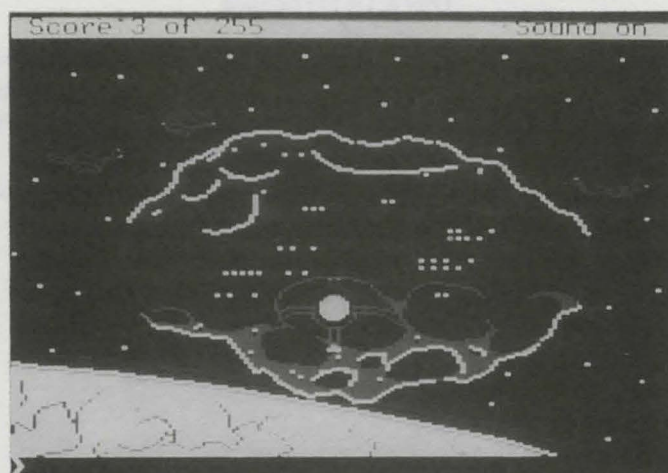
Roger gets started on the way to fame and glory by taking a nap. While he's snoozing, aliens take over the spaceship he's on (as the janitor), killing everyone else on board. He escapes to a desert planet, encounters strange creatures, has a wild ride across the sands, picks up some quick money gambling, and buys a spaceship of his own. With the help of his trusty navigator droid, he flies to the Sarien mother ship, makes his way to the main generator, and enters the self-destruct code that will blow the Sariens and their evil plot to smithereens. Not bad for a janitor.

SQ II: Vohaul's Revenge

DIFFICULTY: Intermediate

All that hero stuff doesn't help much. When SQ II opens, Roger is still a janitor. He's kidnapped by Sludge Vohaul who wants revenge. Sludge was the mastermind behind the Sariens in SQ I, and he isn't very happy. Roger escapes, but ends up in even deeper sludge (or is it deeper Vohaul?), travels through a deadly jungle, narrowly escapes from nasty critters, and takes a final journey to Vohaul's lair. These are just some of the things he has to endure before putting an end to Vohaul's latest vile scheme—flooding the galaxy with insurance salesmen.

SQ III: The Pirates of Pestulon

DIFFICULTY: Intermediate
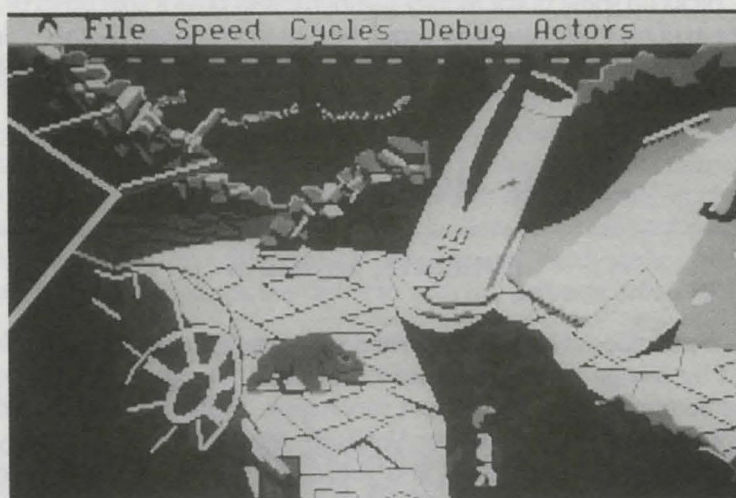
SQ III presents Roger with his most desperate mission yet: find and rescue the Two Guys From Andromeda from the clutches of the dreaded Sequel Police. The Two Guys just happen to be the authors of the Space Quest games themselves—no Guys, no more Roger. This is a great incentive for Roger to get moving. Starting from a garbage dump where he cannibalizes parts for a spaceship, he journeys to a tourist trap with a dreaded Terminator on his trail. After eliminating this menace and an encounter with a Monolith Burger, Roger continues on to the planet Pestulon, where the Guys are prisoners of the infamous Scumsoft, producers of trash software games. Nasty hombres, indeed.

SQ IV: Roger Wilco and the Time Rippers

DIFFICULTY: Novice
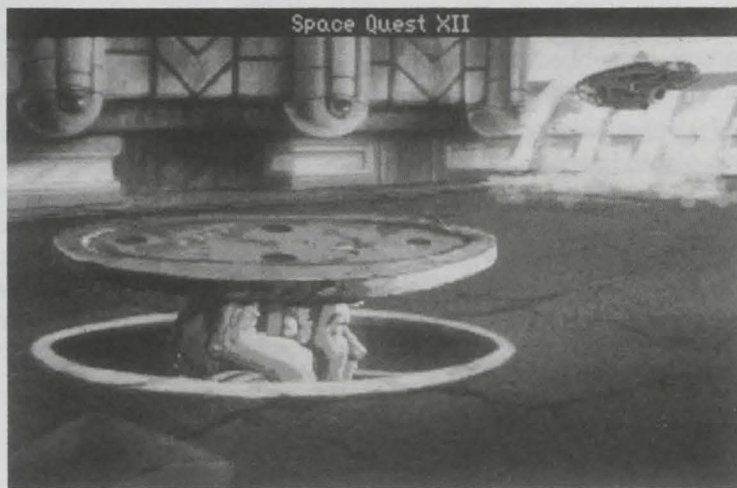
By now, Roger has had enough for awhile. He just wants to hang out and enjoy a little vacation. While boasting about his exploits in a local bar, Roger is captured by the Sequel Police who are in the service of none other than Sludge Vohaul—you can't keep a good villain down.

Roger is saved in the nick of time by two mysterious men who open up a hole and push Roger through. Now in the far future—Space Quest XII to be exact—he must find his way to Vohaul's hideout. Stealing a time machine, he goes on a rollicking journey through several time periods. He encounters the Latex Babes Of Estros, shops at a galactic mall, revisits part of Space Quest I, meets his son who isn't even alive in the present yet, and, of course, has a big showdown with Sludge once again.

INSIDE INFORMATION

In SQ I, once you leave a location (like the spaceship) you can't go back again. Save a game position for each new area in case you miss something and have to restore the game. There's a tape in the ship's library that Roger must take with him; it is crucial to finishing the adventure and is easy to overlook.

In SQ II, be certain that Roger takes everything he can at the start, no matter what the item may be. Carefully search in and around the crashed shuttle. Don't forget to turn off the homing device.

Save the little pink critter, and when you're in the dark and need to use both hands, remember Roger's big mouth. Also remember that robots and water don't mix.

In SQ III, getting the Aluminum Mallard in shape for space flight is no easy task. The diagnostic computer on the ship is handy for indicating what needs to be fixed. If anything gets stolen from you, track it down and take it back (this happens only once).

Terminators and pods don't mix.

At Scumsoft, remember to clean the trash as you go, and you'll need to shoot up four ships when you escape.

In SQ IV, always make note of the symbols on the time machines, so you can return to places later.

You'll need some of the slime from the sewers.

Make sure to look at the back of the bunny.

Eluding the Sequel Police at the mall is tough; enter the rink from the east, and remember you can float up.

Wonderland

Virgin Games
$59.95
640K IBM/Compatibles/Tandy (8 Mhz or faster)
CGA/EGA/VGA/MCGA Tandy 16 Color/Hercules/mouse recommended/hard disk recommended/AdLib/Roland
COPY PROTECTION: Look up a word in the manual
DIFFICULTY: Novice

Why This Is Special

This is Lewis Carroll's classic story brought to life. Many people forget that *Alice in Wonderland* was not just a story for children. Full of puns, word play, and satire, it

was clearly meant for adults as well. This game is much closer to the book than the classic Walt Disney cartoon.

Wonderland is a good game for anyone, especially children. It's nonviolent; the worst that can happen to Alice is that she wakes up prematurely from her dream; she never dies or gets hurt. Another fine touch is that it can be solved by anyone, because it comes with built-in help. All the puzzles have clues, ranging from gentle nudges to outright answers. If you become stuck on a particular problem, you only have to reveal as much, or as little, as you need to get you going again.

A Taste of the Game

Alice dreams of the White Rabbit and follows him down the rabbit hole to a strange and marvelous land. Animals talk, playing cards are living beings, hares hold tea parties, chairs dance, and anything can happen. Alice explores Wonderland, meeting many of the odd characters from the book while unraveling puzzles to collect playing cards. When she has all the cards, she can attend the trial of the Knave of Hearts, which is the successful conclusion of her dream.

The game's interface is one of the best. It has an automapping feature, which keeps track of every place Alice visits; so becoming lost is virtually impossible. In addition, just clicking on a place on the map will send Alice there automatically, making travel very easy. While basically a text-with-pictures adventure, the graphics are very good and some scenes are animated.

Wonderland follows the book fairly closely, although some parts, such as the pool of tears, are left out. Most of the puzzles are original to the game, so reading the book isn't necessary to playing the adventure. Still, it's much more fun if you've read *Alice in Wonderland*; being familiar with the story adds a great deal of enjoyment to the Wonderland experience.

Other Computer Adventure Games of Note

Circuit's Edge
Infocom
$49.95
DIFFICULTY: Intermediate

Futuristic mystery based on science fiction books by George Alec Effinger (*When Gravity Fails* and its sequels). Set in an Arab world, you must solve a murder in the Budayeen and prevent another before time runs out. This is not for the squeamish.

Codename: Iceman
Sierra On-Line
$59.95
DIFFICULTY: Intermediate

Techno-thriller type adventure. Guide a U.S. secret agent through international intrigue, and rescue a kidnapped U.S. Ambassador. Pilot a nuclear sub under the polar ice cap, sink enemy vessels and learn CPR along the way.

Conquests of Camelot
Conquests of the Longbow
Sierra On-Line
$59.95
DIFFICULTY: Intermediate

In Camelot, a mature King Arthur sets out to rescue three of his knights and recover the Holy Grail. Points are awarded not just for puzzle solving or winning fights, but for acting in a moral manner. Interesting variation of the Arthur legend.

In Longbow, we are treated to a non traditional Robin Hood story where Maid Marian is a nature spirit who can speak to plants and trees. King Richard has been kidnapped and must be ransomed, of course: Kevin Costner is nowhere to be seen—but there are druids.

Future Wars
Interplay
$49.95
DIFFICULTY: Intermediate

Lowly window washer stumbles on an alien plot of vast magnitude. Travel through time (past and future) to foil their designs. There's a very tough arcade sequence at the end. This is not to be confused with Space Quest where a lowly janitor foils alien plots of vast magnitude.

Mean Streets
Access Software
$59.95
DIFFICULTY: Intermediate

Futuristic mystery story of a private detective who is hired to investigate a suicide and uncovers a plot to control minds by computer. Character graphics use actors, and the RealSound software allows them to talk on occasion. There's even a small flight simulator thrown into the game.

Police Quest I-III
Sierra On-Line
$49.95-$59.95
DIFFICULTY: Intermediate

The Police Quest titles are police procedural mysteries and heavy on actual police methods.

In PQ I, cop on the beat Sonny Bonds solves crimes and is promoted to detective. The game has the nitty-gritty feel of the everyday life of a police officer, and Bonds is forced into a final confrontation with Jesse Bains, the Death Angel.

In Police Quest II: The Death Angel, Bains breaks jail and is out for revenge, kidnapping the detective's sweetheart. Detective Bonds must track him down before she's killed.

In PQ III: The Kindred, Bonds investigates a series of bloody ritual killings and mutilations. The trail ends in a shoot out with a Satan-worshipping crack cocaine ring.

Quest For Glory I: So You Wanna Be a Hero?
Quest For Glory II: Trial by Fire
Sierra On-Line
$59.95
DIFFICULTY: Novice

These games are a hybrid of role-playing and adventure games with lots of humor.

In QFG I, fresh out of the Famous Adventurers Correspondence School, you perform feats of derring-do in the town of Speilburg and rescue the Baron's daughter. It can be played three different ways as different characters—Magician, Thief, or Fighter. There are even different puzzle solutions for each character, which, makes game replays possible and enjoyable.

In QFG II, our hero visits an Arabian Nights landscape where he must defeat an evil Vizier. The trouble is you don't know who your enemies are—or your friends. Players can transfer characters from QFG I or create a new one.

Spellcasting 101 (Sorcerers Get All the Girls)
Legend Software
$59.95
DIFFICULTY: Intermediate

These are the wild and wooly adventures of Ernie Eaglebeak, a freshman at Sorcerer U, as he tries to prevent the end of the world. Funny, punny, and lightly sexy, it can be played in either a nice or naughty mode. There's no animation, just text and still pictures, like a finely illustrated novel with sound effects.

Timequest
Legend Software
$59.95
DIFFICULTY: Intermediate

A rogue Time Agent tampers with history and threatens to destroy civilization. Your job is to follow his trail through the centuries and make sure history happens as it should, or at least, has, happened. Caesar, Cleopatra, Hitler, Mussolini, Attila the Hun, and others head this all-star cast. Another text-with-pictures game.

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There's a Dragon in My Computer: Computer Role-Playing Games

Remember the first time you wondered, "What do I want to be when I grow up?" Whatever you decided then, you're probably not doing it now. But whatever role you're playing in life, you may wonder:

"Oh, to slay dragons and rescue fair princes in distress."

"Of course I could go away and become a soldier of fortune."

"I want to become more than just a man. I want to become a barbarian."

"I coulda been a contender."

"What do I want to be when I grow up?"

Most of us cannot, or will not, ever come close to fulfilling or living our fantasies or daydreams in real life. That's why role-playing games, especially the hack-and-slash dragons-and-dungeons types, are so popular. And that's why computer role-playing games are always among the top-ranked and best-selling titles. They allow you to create a new you; adventure through dungeons, the wilderness, outer space, or other dimensions; and never worry about skinned knees or the need to round up a dungeon master and other players.

If you're unfamiliar with role-playing games in general, what follows are important things to keep in mind.

Things You Need to Know About Role-Playing Games

Consider the following generic opening scene:

You are draped over the bar in a rowdy tavern located in a dark and creepy ruin of some unknown civilization, or just outside the entrance of the local castle/

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spaceport/library/town hall. Fortunately, you have forgotten how to blush because you are naked, defenseless, confused, and probably broke. You must find or create some companions, earn or steal enough money to provision the party, acquire and equip all with suitable weapons and armor, find out who (or what) the Ultimate Bad Guy (UBG) is and how to find him or her, discover how to use and hone the skills available to you, and learn how to defeat the UBG and how to save the universe. Then you can catch your breath.

You and your companions are what you actually control in these games. This group is known as a party, and is usually (but not always) from four to six characters in size. There are three basic kinds of parties:

1. You operate on your own. In these lone adventurer type games, a single character is created by the player, and sallies forth to smite evil and collect vast rewards.

2. The player creates a character to lead a group of already available followers. A variation of the alter ego with followers is seen in games that permit the creation of a group with interchangeable leaders.

3. The quintessential format, the classic approach, permits the player to create and control a full group of characters.

Creating a Party (As Opposed to Throwing One)

In most games you must roll a party. This doesn't mean mug the kids. It means you get the computer to roll phantom dice to determine the strengths and characteristics of each party member. You will live and die with this crew, so create your companions with care. What kinds of friends you choose will vary with the game you're playing.

These characters have professions or occupations. Depending upon the occupation you choose for a character, some skills will be more important than others, and you should keep rolling for the highest value in special skills. If you're careful, you can create excellent characters to start with, and this will make your game life a lot easier in the beginning. As your characters go along, they will gain experience (or something like that). The more experience, the higher their level becomes; they become stronger, smarter, and more powerful.

Your basic party should consist of a fighter, a healer, a magic user, and (perhaps) a thief. For your other characters, choose extra magical types. When things get real tough later in the game, a universe-shattering spell is usually much more effective than a sword. Race and sex also can be a powerful moderator of character skills and attributes. How this works depends on the game you are playing.

Thieves should be dexterous and quick. In some games, a thief can hide and is most effective when stabbing the enemy in the back.

Magic users (mages) should be dexterous and wise. Mages are weak, cannot use most armor, and are severely limited in choice of weapons. Consider their spells as your offensive fire power. In games that do not allow magic, magic users are replaced

by telepathic entities or beings with special abilities such as starship navigators or timewalkers.

Priests, clerics or healers are good at defensive spell casting and backup fighting. Consider them your defensive firepower and medical corps combined. In fact, in space-based games they tend to be called Medics.

Fighters value speed more than dexterity and strength above all. They are the classic hack and slash shock troops.

Combat

Combat in computer role-playing games is varied. The major approaches are:

- Real time with specific weapon use—the nasties keep moving as you decide what to do.
- Tactical rounds that allow the player to select weapons, skills, and target groups—the universe waits while you decide what to do.
- Strategic rounds that allow all tactical round choices plus repositioning of forces and individual targets—the universe waits while you decide what to do with (and to) each of your characters and the nasties.
- Automatic conflict resolution. Some games even have an automatic setting which allows the computer to run the round for all or selected characters.

Mapping

It's half past the dungeon hour—do you know where your party is? Mapping the game world is important and sometimes critical. For many people mapping is part of the fun and challenge of playing.

Several games have a feature called automating, which allows the player to see the position of the party relative to surrounding structures or terrain. For many folks, this is the only way to go, so to speak.

Many games do not have automating. The best approach to mapping these games is with pencil and a supply of graph paper. If a game does not provide you with coordinates, assume the center of your location to be 0,0 (0 north/south and 0 east/west), with the top of the screen being north. Mark a square on your graph paper as 0,0, and map away one square for each step. Other games provide sets of coordinates and compass directions on screen. This makes mapping much easier.

A wide-view overhead perspective reduces mapping requirements to merely noting the direction of other locations from some chosen point.

Finally, a large number of games provide spells or items that permit a limited view of the area immediately around the party. This is usually a big help.

Resource Management

In many respects, all role-playing games are exercises in resource management. If you lose all your hit points or food, you die—just like a business running out of stock in time for Christmas. Obtaining, retaining, and the appropriate use of the attributes of your characters, along with the objects found in the game, is essential if you are to survive. Resting, eating, inventory control, and how much you can carry are the bugaboos in most systems. Armor class, hit points, and spell or energy points are significant statistics, which must be monitored carefully. If a statistic is low or highlighted, you'd better worry about it.

Remember: The greatest heroes are usually the best managers.

Saving Yourself a Lot of Grief

Save the game, save often, and save well. Save as soon as you've created your party, every time you win a battle, every time you score some goody, and every time your characters raise an experience level. Save just before you do anything puzzling or dangerous.

Don't rely on just one save; have several saves at different spots. If the game only allows you to have one save, rename and copy the save files to another directory, just in case your gang makes a fatal error or misses a critical item.

Saving is especially crucial in the games that save automatically when your party moves from one location or game segment to another.

When in doubt, save.   We hope we've made ourselves clear.

Some Computer Role-Playing Games of Note

Like marriage and jobs, role-playing games should not be entered into lightly. If you're hooked, it can easily take over 100 hours of playing time to finish one, and that's not even the longer titles. As an escape from what passes for reality around these parts, they're hard to beat. In a well-balanced game combat is interspersed with puzzles or quests, which challenge the player and add depth to the game. It can take years to discover the nuances and breadth of some role-playing games, but just a few hours to get so involved in one that you forget the world around you.

The games we have selected for this chapter cover most of the different styles and important titles of this large and extremely popular category. Each is a unique universe in its own way. However, some of these universes are more challenging than others, so we've noted our best guess as to their difficulty level. We've also thrown in a number of hints. You'll need them. Now go out and save the universe.

Dark Spyre

Electronic Zoo/Event Horizon
$49.95
512K IBM/ Tandy/Compatibles
CGA/EGA/VGA/Tandy/SoundBlaster/AdLib/Tandy 3-voice sound
COPY PROTECTION: Match symbols with manual cover artwork
DIFFICULTY: Adjustable
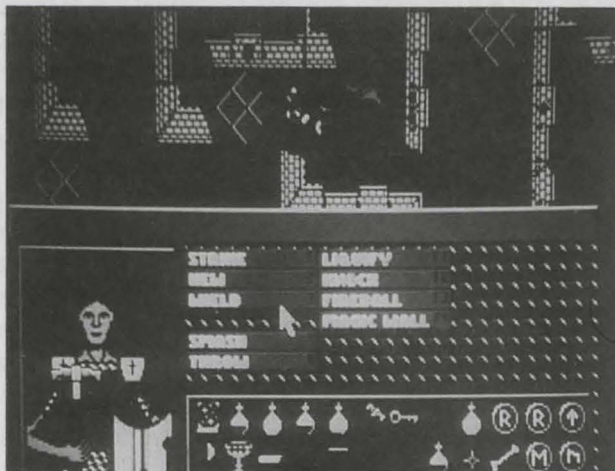
Why This Is Special

Dark Spyre and the companion program Dark Spyre Drawing Board are a unique combination. Without the Drawing Board option, Dark Spyre is an extremely well-executed role-playing game with a unique look, real-time combat, and spectacular mazes. With the extra cost option, you have the mother of all utility programs at your fingertips. In addition to allowing you to create entire maze levels, the program also allows you to edit the playing mazes. If the game seems too easy, add a dozen monsters of your choice. If you reach an impasse, remove the monster or door from the maze. Salt the dungeon with fabulous treasures, weapons, armor, scrolls, or whatever you like. Any way you choose to play Dark Spyre will be fun.

A Taste of the Game

Mankind has been dealt a dirty deal but you are the wildcard. Destined from birth to champion the race and conquer the tests laid before you by the gods of war, you

must take arms and courage and find your way through the vast mazes of the Dark Spyre, an interdimensional tower of confusion and challenge, rampant with monsters and treasure. You must prove that the race you represent is worthy. The fate of the worlds rests upon you, Champion.

This is a single adventurer game, and the mechanics of character advancement and skills improvement are quite good. Armor and weapons are well classified, and there is actual impairment of motion on screen when the character is overloaded. Skill improvement is obvious and realistic. The most unusual aspect of the game is the character creation scheme. It is so detailed that you can be right- or left-handed, and it is presented as an interactive tale that is written as you type in various facts about the character you are creating. Another neat thing is that there is not endless combat; the fights are spaced out, and you can often see them well in advance. There are over 40 levels filled with puzzles and traps before you meet the UBG. Dark Spyre is unique, refreshing, and a nice change of pace from more traditional quests.

INSIDE INFORMATION

Poison is the only method of attack that can be used to defeat Slime.

The GEBO rune reveals a map of the level you are on, but disappears after it's invoked. Save the game first; invoke; check out the map; restore the game. This way you see the map and keep the rune.

To run swiftly near the Rune of Strength, drop everything and don't worry about nasties waiting for you.

Near the end of the game you will be asked to give up everything you've found. Do it.

Eye of the Beholder

Strategic Simulations (SSI)
$49.95
640K IBM/Tandy/Compatibles
CGA, EGA/Tandy Color/VGA(256 colors)/AdLib/Sound
Blaster; hard drive required
COPY PROTECTION: Look up symbol in the manual
DIFFICULTY: Basic

Why This Is Special

From a technical achievement point of view, this game has everything. A runaway best seller, Eye of the Beholder introduced hands-on interactive game play with an interface that allows smooth mouse control over each object on the screen. The perspective is full forward 3-D, and movement is easy and swift. Dropped items

remain where they are dropped and are visible until removed. The real time combat is realistic and quick, and a mage who fumbles with a spellbook too long will soon be mageburger. The dungeon graphics are highly detailed, and the sound support is eerie. Chittering spiders can be heard long before they appear on the screen, and that sound is also scary.

A Taste of the Game

Powers have been corrupted, and the Beholder rules and must be destroyed. The Dwarven prince has been kidnapped, and the Dwarven king lies poisoned and dying. Your party is the only hope, and you must fight your way down 12 levels of sewers and dungeons to face the beholder himself. Enroute to the final conflict you must rescue the prince and find the antidote for the king. Success in these quests will bring you the perfect weapon against beholders.

Eye of the Beholder is a full party, full participation game. Six characters are allowed in the full party, but only four are player created. Additional party members are picked up along the way. Only the first two characters can engage in hand-to-hand combat. While you explore, several items must be found to give you access to the built-in transit system.

As an added feature, there are special miniquests or activities hidden on each dungeon level. While the game can be played successfully without them, completing these quests gets the adventurer special weapons, magic, experience points, and information. While not the longest or most complicated computer role-playing game around, Eye of the Beholder looks great, plays well, and is an evolutionary step in the way these games will be played in the future.

INSIDE INFORMATION

A pile of bones can be resurrected by the Dwarven Cleric on level 5.

Of the 12 special quests in the game, one requires 12 darts. Each time you place darts in the dart rack, you should return to the first pressure plate in the hallway where you will find two more darts.

Keep at least three eggs—they are what the Kenku value.

To kill the beholder, become invisible and use the wand of Silvius to back it up into the spiked pit. Use the keyboard to move the party and the mouse to operate the wand.

Gold Box Series: AD&D™ Adventures

Strategic Simulations (SSI)

Why These Are Special

Computer role-playing began as an attempt to play Dungeons & Dragons on a computer. It was a perfect marriage of concept and technology, and Computer role-playing games have always been among the best-selling titles since they first appeared. However, the name Dungeons & Dragons and its successor Advanced Dungeons & Dragons (AD&D), are copyrighted and trademarked properties. As a result, dozens of Dungeons & Dragons-style computer role-playing games were created and sold to great financial and critical success, but none could use the name legally.

That changed in 1988 when SSI licensed the AD&D name from TSR, Inc. (the owner of AD&D) and began publishing two series of games based on AD&D settings, while sticking closely to AD&D rules. These games are packaged in gold-colored boxes; so they are known as SSI's Gold Box games.

The AD&D universe is very complex at first scan. While the rules of creation and combat are somewhat fixed, the events and stories take place in different AD&D universes—each with its own unique reality. The Gold Box games consist of two separate series, each set in a different universe. One very nice feature of both of the two series is that characters can be transferred from one game to the next within each series. That way you don't have to start a party from scratch each time you start a new game. The games don't have to be played in order, but playing a continuing story is part of the fun.

A Taste of the Games

All of these games adhere to the strict rules of Advanced Dungeons & Dragons gaming, and present players with a large selection of spells, weapons, armor, monsters, mapping challenges, and characters. Race, sex, orientation (good, evil, and neutral), and age all affect the game play and the permitted skills. Locations, characters, and actions are tied to the games' settings, and character development is an art that is learned.

A unique feature of these games is the combat. Automatic control by the computer is possible, but the player can control movement, weapons, spells, targets, and all other aspects of combat. This is complete implementation of strategic and tactical combat. Each and every combatant is shown in detail on the screen, and fallen comrades are there in plain view to remind you to patch them up before they die.

Three of the games, including the innovative and archetypical Pool of Radiance, are set in the Forgotten Realms universe. The second group is based upon the Dragonlance novels and set in Krynn.

All these games are good, but If you play only one of them, make it Champions of Krynn.

The Forgotten Realms Series

Pool of Radiance

$49.95
384K IBM/Tandy/Compatibles/1 meg Mac Plus or later
CGA/EGA/Tandy
COPY PROTECTION: Look up word symbols on code wheel
DIFFICULTY: Intermediate
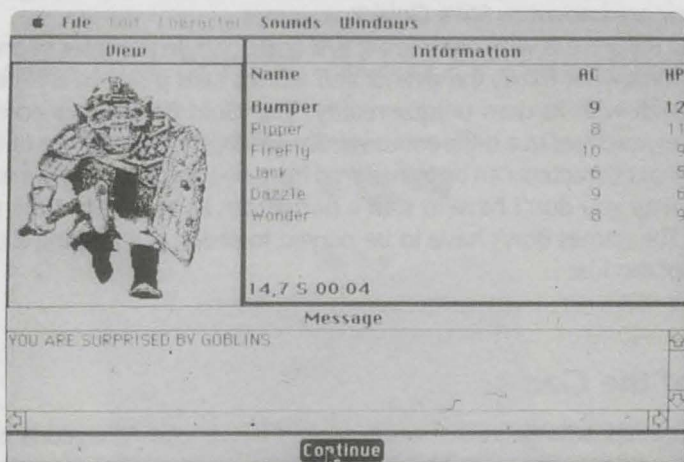
The city of Phlan is hiring heroes to overcome the monsters that are overrunning it. Guess who they've called? While you're at it, take care of the monsters in the surrounding areas, find out who's controlling them, and survive. The pay's good though.

Curse of the Azure Bonds

$49.95
512K IBM/Tandy/Compatibles/1-meg Mac Plus or later
CGA /EGA /Tandy 16 Color
COPY PROTECTION: Look up a word in the manual and rule book
DIFFICULTY: Basic
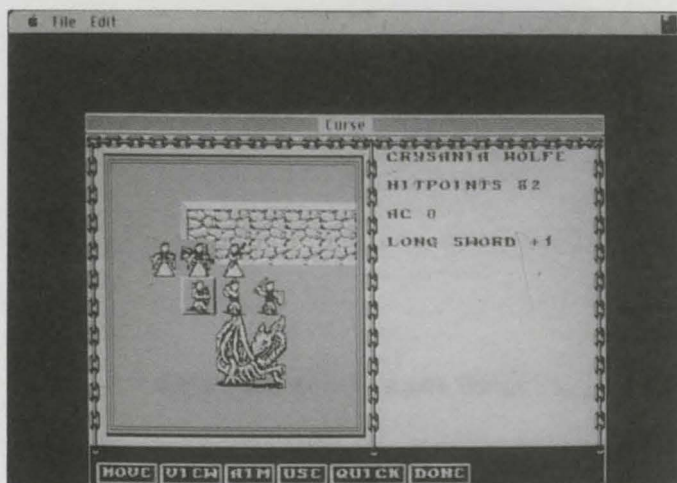
Okay, you saved Phlan. In this game you have been ambushed, captured, branded and your will has been mystically ensnared. The enemy is called the New Alliance and you have to find them to free yourselves. Of course the monsters are tougher in this game: They always are.

Secret of the Silver Blades

$49.95
640K IBM/Tandy/Compatibles
CGA/EGA/Tandy 16 Color/CMS/ AdLib sound
COPY PROTECTION: Look up a word in the manual and rule book
DIFFICULTY: Intermediate

Some miners have unwittingly dug up your basic terrifying and probably unstoppable horde of horrific creatures. It's time to dust off the swords and spell books again and protect the Forgotten Realms. There are more new monsters and spells to deal with as you try to solve the mystery. On the other hand, when the game starts you're unarmed, unconscious, and naked.

COLD AIR ASSAULTS YOU AS SHEETS OF
ICE MELT FROM THE WALLS. BEFORE YOU
AN ANCIENT FIGURE BEGINS TO SHAKE OFF
THE HOAR OF THREE CENTURIES. SLOWLY
ITS ARM REACHES FORWARD AND THE EYES
FOCUS ON YOU.

PRESS (ENTER)/(RETURN) TO CONTINUE

The Dragonlance Series

Champions of Krynn
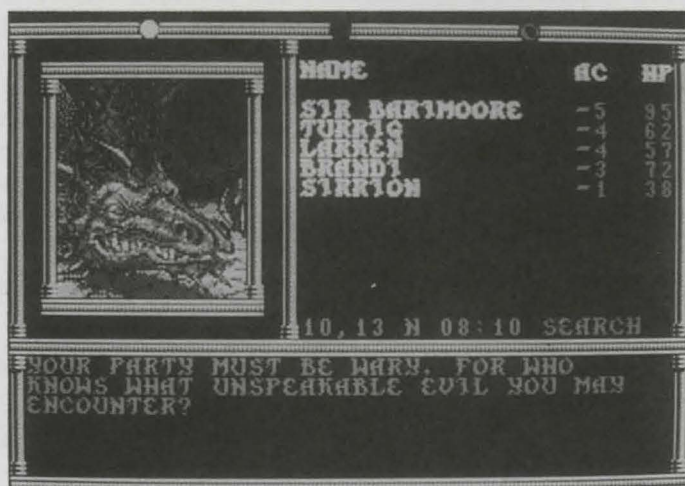
$49.95
512K IBM/Tandy/Compatibles
CGA/EGA/Tandy 16 Color/CMS/Roland LAPC/AdLib
COPY PROTECTION: Look up a word in the manual and rule book
DIFFICULTY: Intermediate

The Dragon Wars are over, and the Dragon armies are defeated. This is never a good sign. Fight dragons and worse as you attempt to keep the forces of evil from establishing the Dark Queen as mistress of Krynn. With any luck you'll get some Gold Dragons to help you. On the other hand, luck is in short supply. We can't say the same for the monsters.

Death Knights of Krynn

$49.95
640K IBM/Tandy/Compatibles
CGA/EGA/ Tandy 16 color/CMS/AdLib sound
COPY PROTECTION: Look up a word in the manual and rule book
DIFFICULTY: Advanced

You've only had a year to recuperate since defeating evil the last time. So who's calling for you and Krynn? Lord Soth and his Death Knights. This game is real tough, and these dudes have no sense of humor.
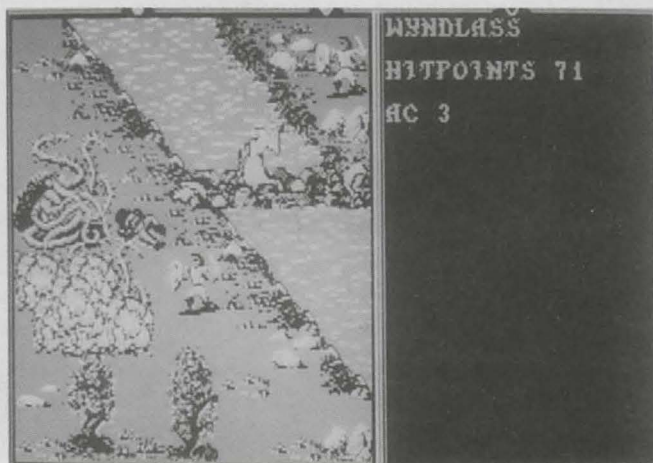
Hard Nova

Electronic Arts
$49.95
512K IBM/PS1/PS2/Tandy
EGA/MCGA/VGA; AdLib/SoundBlaster/Roland MT-32/PS1/Tandy/
hard drive recommended
COPY PROTECTION: Look up a definition on color map
DIFFICULTY: Basic

Why This Is Special

Hard Nova breaks new ground in several areas, but most notably on the distaff side because Hard Nova herself is the first female lead in a computer role-playing game. A male lead, Stark, is possible for the player that does not wish to play a female character. The graphics in this game are spectacular.

A Taste of the Game

You're making a good living as a mercenary, mostly on the wrong side of the law. Then you discover someone has cloned you, and lots of identical yous are working for free around the frontier. This is not good for business.

Hard Nova is set in an alternate universe and is hard science fiction. Some of the game play is in space, some in orbit, some in flight at low altitude, and some on the ground within various locations. Combat is real time and occurs in space, in the air, and on the ground. Each of the combat modes requires different skills and tactics.

There are four separate planetary systems to explore and a multitude of puzzles to solve. The interactions between the party and other characters rely upon a highly detailed conversation system. Space trading, puzzle solving, information gathering, mission accomplishments, and conquests advance the player. While there is no magic in Hard Nova, one of the races available has the special ability to sing the Navigator Song, which allows a ship to pass through the various stargates.

INSIDE INFORMATION

Zero-G roulette is a game within the game, which can be played in several locations. Odds are 24-1 for a straight bet, and several other combination bets are possible. It's a good way to build up funds.

Don't be totally mercenary. At the end, go with the "humanitarian" choice.
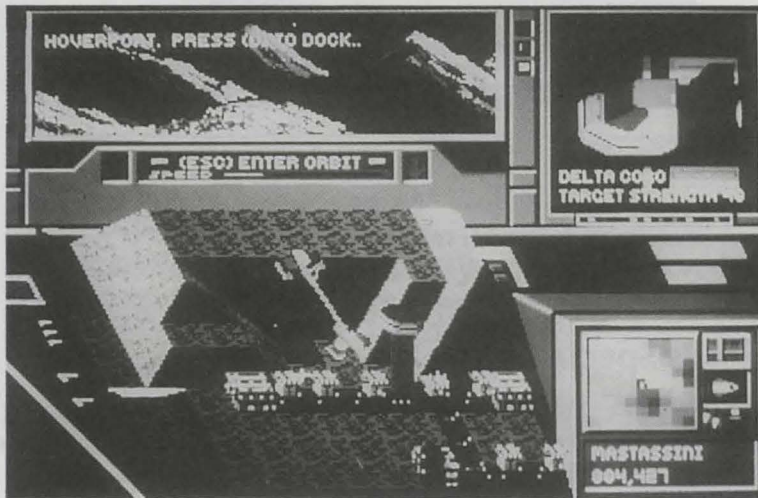
Keef the Thief

Electronic Arts
$14.95
512K IBM/Tandy/Compatibles (640K for VGA/MCGA)
CGA/EGA/VGA/MCGA; AdLib/CMS/Roland/2 drives or hard disk recommended
COPY PROTECTION: Look up word groups; low contrast paper
DIFFICULTY: Basic
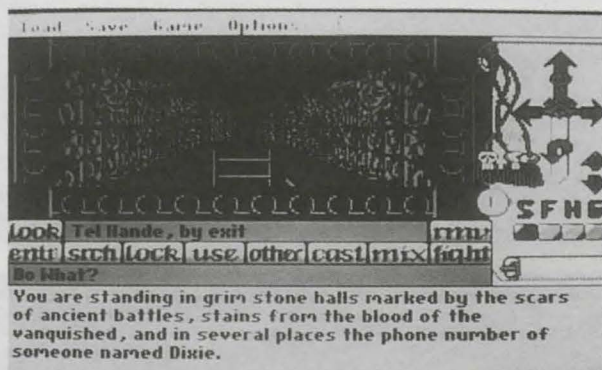
Why This Is Special

Keef the Thief is a rare commodity. It is a parody of computer role-playing games that actually works on two levels. It is hilarious when played as a put on and intriguing when played straight with innovative magic and combat modes.

This game can be hard to find (and the cover looks somewhat juvenile when you do find it), but it's well worth the search. The publisher rates the game PG-13—Pretty Gonzo 13th-century humor.

A Taste of the Game

Keef is a ne'er-do-well kid who steals his way through the game and into the heart of his beloved. On the way, this lone adventurer fights hand-to-hand battles in real time against some gruesome opponents. Keef must take advantage of terrain and speed, and acquire appropriate armor, weapons, and skills. In an unusual format, combat is viewed through the eye slit in Keef's helmet, and each blow landed on the

opponent shows as a graphic splat. Both an overhead view of the battle field and the helmet view are available during combat and positioning strategy is important. Tactical weapons choice can be crucial.

Regents are required in order to develop spells. There are several "magic circles" that must be obtained, and a dozen ingredients that must be acquired—preferably stolen—in order to mix all the available spells. In a world where most computer games take themselves so seriously, Keef is a refreshing change.

INSIDE INFORMATION

Only a ranged combat weapon can do in the bridge guard.

Seek the eggs at the end of the world often.

Talk is not cheap, therefore you should steal conversations. Here's how: Save the game, pay for the information, then restore the saved game.

The princess is wooed by a flower—a very expensive flower.

Lord of the Rings I
Lord of the Rings II: The Two Towers

Interplay
$54.95
640K IBM/Tandy/Compatibles (10mhz of faster)
CGA/MCGA (16 colors)/TANDY/EGA/ 256 colors in VGA
COPY PROTECTION: Look up paragraphs in manual
DIFFICULTY: Intermediate

Pursued by the deadliest servants of
the Dark Lord...

Why This Is Special

This is based on J.R.R. Tolkien's Lord of the Rings trilogy. Over the years several computer adaptations have been attempted, but none have been totally satisfying. Perhaps, none can ever be. You have to pick a lot of nits, though, to dislike these titles.

Lord of the Rings (LOTR) is an experience not to be missed in computer role-play game. To those familiar with the books, there is a feeling of déjà vu accompanied by the slight feeling that the player is intruding upon a set piece. To those not familiar with the books, the games are wonderfully inventive and not at all linear, which permits much exploring and discovery. The games are true to the spirit of the original books, yet presented in a way that allows the player to see and experience things differently.

A Taste of the Games

Journey with all the major Middle Earth characters as you attempt to keep the one true ring from falling into the hands of the evil Sauron. In volume I there are approximately 9000 screens to explore and hundreds of puzzles to solve. Magic is very rare in Middle Earth so there is a dearth of spells, but magical items are available. Because of the nonviolent nature of hobbits, Bagginses in particular, the combat in LOTR is secondary to game progress.

There are two types of characters available to the party. Player Characters are those that are of the Fellowship of the Ring, and these may be either permanent or temporary. Permanent Fellowship members are drawn from the trilogy and are transportable into other game scenarios. Temporary player characters may join the party, serve a special function, and depart. All characters can be killed or maimed, but permanent characters will remain true to the quest.

Interplay is attempting to cover the entire scope of the Rings trilogy over the course of several games. This is a huge task. To the Tolkien faithful who play these games and find some fault, we say: judge it not by its inevitable omissions, but by its enormous successes.

INSIDE INFORMATION

Keep hobbits out of battles if possible. Many situations can be resolved without combat.

It takes a great sacrifice to defeat a Balrog.

Do not be too quick to restart the game or revert to previous saves. Many apparently devastating happenings will be corrected in the course of the story.

Neuromancer
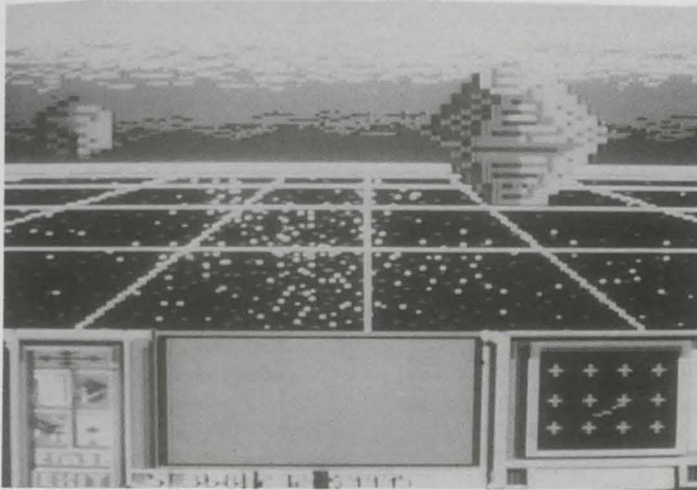
Interplay
$49.95
512K IBM/Tandy/Compatibles
CGA/Tandy 16 Color/EGA/VGA/MCGA/color monitor required
COPY PROTECTION: Look up a word on code wheel
DIFFICULTY: Basic

Why This Is Special

Yanked directly from the pages of William Gibson's novel of the same name, Neuromancer is an amazing game. Unlike most computer role-playing games, and much like most adventure games, the player controls a character provided by the game. What is so fascinating about Neuromancer is the realistic interactions between the character and various databases and on-line services that need to be infiltrated.

Neuromancer is a vision of a cyberpunk future with a sound track by DEVO. Never a great commercial success, it deserves to be exposed to a bigger audience. This is another title that is getting hard to find. Search it out before it disappears.

A Taste of the Game

The "hero" is a cyberpunk hacker given to cracking databases (icebreaking), stealing software by downloads, and defeating Artificial Intelligence (AI) systems. Combat in Neuromancer is between the character and several AIs that inhabit databases in the Matrix—Gibson's version of a vast electronic wasteland. Successful combat requires selective use of icebreaking software and assorted virus programs. Skills are implanted into the protagonist by chips that can be acquired in any of several ways. Icebreaking skills increase with each successful combat.

The whole thing sounds more complicated than it really is. Neuromancer is an original tour de force that does justice to the excellent novel that it's based upon.

INSIDE INFORMATION

Neuromancer is the ultimate AI in this game, and can wear many faces.

Be wary of anyone or anything that is too helpful.

Yonderboy holds the secret to great wealth and to needed ROM constructs.

Ultima VI: The False Prophet
Ultima VII: The Black Gate

Origin Systems
$69.95-$79.95
640K IBM/Tandy/Compatibles (Ultima VI);2 megs expanded memory for Ultima VII
Hercules/CGA/EGA/VGA/MCGA/Tandy 16 Color/Roland/AdLib/CMS/Innovation/
Covox sound/hard drive required (minimum 15 megs available for UVII)
COPY PROTECTION: Look up a word or symbol in the manual
DIFFICULTY: Advanced
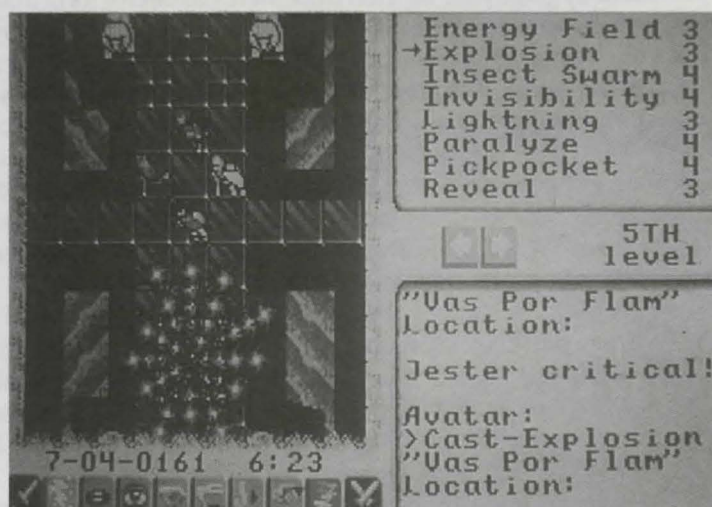
Why These Are Special

If you want to be technical about things, in 1980 Ultima I was arguably the first computer role-playing game, having been published a little before Wizardry. Wiz made the bigger splash at the time and was closer to the role-playing ideal than Ultima, so it is often credited with being first. It was in Ultima I that the idea of the Avatar first appeared.

The Avatar character has developed since Ultima I and has become more righteous with each reincarnation. The Avatar is totally unique in role-playing: chaste, moral, pure, virtuous, devout, ethical, honorable, and pious. With a guy like this in charge of the party, how can you go wrong? Ah, that is the hook in these games—you must succeed in conquering evil and not lose your virtues.

A Taste of the Game

The Ultima series has developed into a series of trilogies, and Ultima VI: The False Prophet ends the second of these. Games III through VI are all morality plays.

You are the Avatar and you return to Lord British's castle in Brittania only to be immediately attacked by gargoyles. As it turns out there has been a lot of trouble with these creatures, and it's up to you to make things right. Nobody likes gargoyles, and they don't trust you. However, things are not as black and white as they seem.

This is an ideal game world. The graphics are gorgeous. Just about everything on the screen works, and in combat your party can do nearly anything it can do in noncombat situations. The world of Brittania is so fully realized that you can do things that are not possible in any other game. You can plant, grow, and harvest wheat, then take it to a miller to make flour and use the flour to make bread, which can be sold to get money. You don't want to do this, but you can. As in all the Ultima titles, this game is large in scale and takes a long time to play.

Ultima VII begins 200 years after Ultima VI. You return there to find a world ravaged by AIDS, drugs, and ecological disaster. A wave of murders also adds to the mess. There's a big bad guy named "The Guardian," but not everyone thinks so.

Ultima VII is the first game to reject the 640K barrier and requires 2 megs of RAM just to load and play the game. That's a lot of hardware for a game. It is also voluntarily rated MP-13, for mature players 13 years old and above.
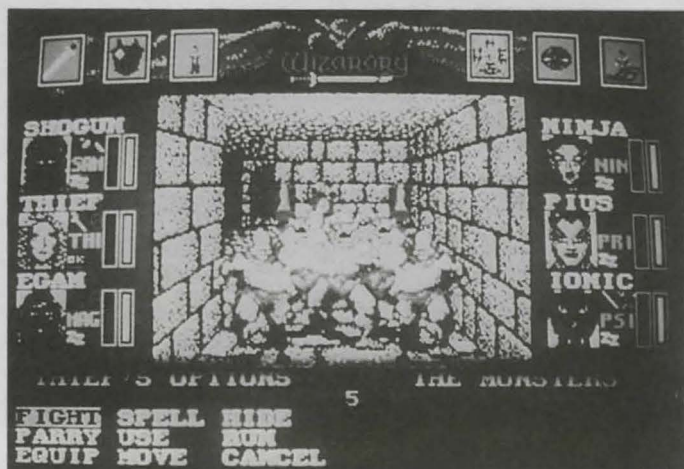
We have seen only previews of Ultima VII. However, what we have seen is spectacular. Combining this with Ultima VII's ground-breaking technological demands and the consistently high quality of the series, we felt it appropriate to include Ultima VII among our choices.

INSIDE INFORMATION

In all these games, always remember: never fight anything that doesn't attack you first. Also never steal, and never lie.

In Ultima VI, the first thing to do is get all eight moonstones. This will take some time. Then look for the nine pieces of treasure map.

Wizardry VI: Bane of the Cosmic Forge

Wizardry VII: Crusaders of the Dark Savant

Sir-Tech Software
$59.95
640K IBM/Tandy/Compatibles/Macintosh, Amiga
VGA/MCGA/EGA/CGA/Hercules/AdLib/SoundBlaster/Covox/Tandy Sound
COPY PROTECTION: Look up symbols; low-contrast paper
DIFFICULTY: Intermediate

Why These Are Special

Wizardry has been the role-playing series against which all others have been judged
for over a decade. However, the technology and graphics of the games were also
stuck in the early '80s. The games survived on great characters, interesting storylines,
and an incredible balance between playability and challenge. Bane of the Cosmic
Forge brought Wizardry into the '90s in world-class fashion, and Dark Savant should
be one of the true standard setters for the future.
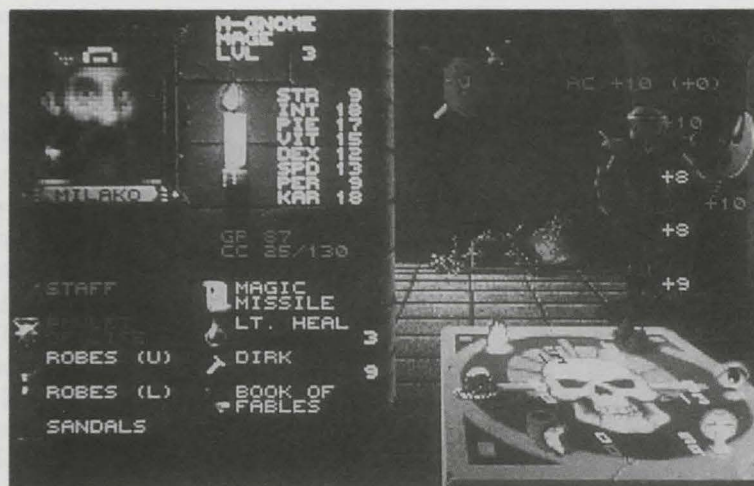
A Taste of the Games

When Bane of the Cosmic Forge was released, it took a choke hold on the imaginations of most hardcore computer role-playing game fans. As you wander the world of Bane, you discover a dark and dirty story of incest, murder, evil, and revenge. The Faustian legend is the impetus of the story, and a pair of truly nasty villains will dog the steps of the party throughout. This story is among the best ever for a computer game. The graphics are exotic and blatant; teenage boys may lock themselves in the computer room, real men will weaken, and real ladies will chuckle.

There are castles, dungeons, mines, swamps, underground rivers, crypts, jails, jungles, and temples that stand between the party and the Cosmic Forge—a pen that can rewrite reality. It's a long, hard quest, but the game is so well-balanced that a party can progress through to the end of the game with all characters still enjoying their original lives. There are a vast number of races and professions available; and off-the-wall characters, like Faerie Ninjas, become possible and surprisingly effective.

Bane has three "official" endings based on certain actions the players take (or do not take) during their journeys. Each concludes the story in a more or less satisfactory manner, but are also set-ups for the game's sequel, Crusaders of the Dark Savant.

Crusaders of the Dark Savant is unique in that it has four separate beginnings: one for new players, and one each for folks who finished Bane. It's some time later, and your heroes and heroines find themselves on another planet in another universe. The search is for an ancient artifact, which contains the Secret of the Universe. Your heroes are a little rusty, and a number of other characters are attempting to beat them

to pieces of a treasure map, and the treasure itself. This game was still being completed as we wrote this, but based on what we saw (and on the strength of Bane itself), we felt Dark Savant needed to be included here.

INSIDE INFORMATION

The key to the four endings is on the Isle of the Dead. Save the game once you have been given the silver cross, because what you do with it is the trigger.

The Ultimate Bad Girl (UBG) can be conned out of an engagement ring by a little sweet talk, but only in the nonviolent set of endings.

Don't let all the gates and doors in the castle get you down. Some need special keys, some open later in the game, and some will never open. Patience and stick-to-it-tiveness are advised.

Always travel with the "Detect Magic" spell active.

Other Computer Role-Playing Games of Note

B.A.T.
Ubi Soft
$49.95
DIFFICULTY: Intermediate

Comic book graphics in a seedy spaceport setting, which begins in the toilet. You have 10 days to save the City of Terapolis from total destruction from nucturobiogenic bombs controlled by a crook and a mad scientist. It's controversial game insofar as many players and reviewers love it, while others hate it. There seems to be no middle ground, and it's worth checking out for that reason alone.

Dark Heart of Uukrul
Broderbund
$24.95
DIFFICULTY: Intermediate

A classic computer role-playing game that is beautiful to look at and is full of puzzles to be solved. It utilizes the AD&D conventions, and combat strategy is remarkably detailed.

Dragon Wars
Interplay
$49.95
DIFFICULTY: Intermediate

A huge game with a smooth and exciting interface and an Ultimate Bad Guy that just won't die. These folks created the Bard's Tale series for Electronic Arts, and this game is Bard's fourth.

Dungeon Master
FTL
N/A
DIFFICULTY: Advanced

To many, possibly the best graphic computer role-playing game ever; the inspiration for many current games (especially Eye of the Beholder), and a standard against which other games are judged. It is relegated to this section because, as of this writing, it's still not available for DOS systems.

Elvira, Mistress of the Dark
Accolade
$59.95
DIFFICULTY: Intermediate

Sometimes a concept is enough. Elvira is a TV and film personality known for her cleavage. The object of the game is to help Elvira find her chest, but what a wonderful implementation of such a simple task! The combat is so realistic it can be sickening, and the bugs—yeech.

Magic Candle I, II
Mindcraft
$49.95-$59.95
DIFFICULTY: Intermediate

A marvelous pair of games that rely as much upon conversation as upon combat. It uses an Ultima-style point of view and allows the use of fully functional multiple parties.

Megatraveller II: Quest for the Ancients
Paragon Software
$59.95
DIFFICULTY: Adjustable

An Ultima-style game, but with 100 out-of-this-world settings and a Hard Nova appearance. Overhead point of view and sophisticated combat are the strong points of this one, which is based on the Game Designers Workshop pen-and-paper game.

Might and Magic I-III
New World Computing
DIFFICULTY: Basic, Intermediate

From early previews, M&M III: Isles of Terra is a graphically stunning winner. It's two predecessors have been around for some time and are quite good themselves.

M&M I has a handy teleportation spell that takes a lot of the travel tedium out of the game. M&M II introduced hirelings, secondary skills, and a superb automapping system that builds a map of all the places you have been, step by step. Might and Magic III tops off the trilogy with spectacular style, digitized speech segments, and extraordinary realistic graphics.

Worlds of Ultima: Savage Empire/Martian Dreams
Origin Systems
$59.95
DIFFICULTY: Intermediate

The full Ultima VI look and interface adapted to adventure worlds inspired by pulp fiction. These mini computer role-playing games (at least compared to Ultima) are every bit as good as the real Ultimas, but have tighter stories, less character restrictions, and more fun.

Savage Empire: Lost in the jungle wearing shades of A. Conan Doyle. Lost civilizations, beautiful near-naked damsel, dinosaurs, restless natives and all the other necessities of a Lost World adventure.

Martian Dreams: A time-and-space warped H. G. Wellsian adventure that takes historical and hysterical figures to Mars circa 1895. The Avatar mixes it up with Nellie Bly, W.R. Hearst, Thomas Edison, Dr. Blood, Lenin, Sigmund Freud, Admiral Peary, and dozens of other luminaries of the 19th century. By the end, the Avatar has been a mediator, engineer, miner, explorer, hero, and villain (in a noble sort of way).

Wasteland
Electronic Arts
$14.95
DIFFICULTY: Intermediate

Abandon all magic, ye who enter the Wasteland, but prepare to immerse yourself in a vision of what could be the near future. Wasteland manages to take the well-used format of role-playing and place it in a Road Warrior-type environment. The time is the late 21st century. Something (and some *things*) strange is going on in the wasteland of what's left of America's West. Of course it's your job!

·5·

Big Toys for Big Boys and Big Girls: Air and Space Combat Simulators

Air combat games have had hearts pounding and guts tightening since the early days of personal computers. Even the original Flight Simulator included a dogfight scenario. Flying at Mach 3 with all guns blazing and dodging bogies at six Gs all in the comfort of your home or office sends goosebumps up a lot of spines and warm bodies to many software stores. These games appeal to anyone for whom terms like F-16 Fighting Falcon, F-14 Tomcat, F-18 Hornet, A-10 Thunderbolt 2 "Warthog," or F-23 Black Widow are sheer magic and excitement. These are the ultimate flight simulators.

A large part of the appeal of flight simulations is the feeling that you are doing something you otherwise couldn't do: fly a plane, dogfight, save the universe, and more.

The rest of the appeal is in being able to command your own destiny in a realistic fashion. Where action games give you unlimited ammunition, the ability to perform impossible maneuvers and too-many enemies to defeat, simulations try to introduce limited ammunition, fuel, and performance along with a reasonable number of enemies.

This category has become even more popular today due to the vast amount of news coverage during the Gulf War. Much of the coverage was centered on the importance of air superiority, and the few reports we got from the Gulf reflected this in detail. After seeing videos of combat planes returning victorious or bombs hitting targets with pinpoint accuracy, is it any wonder that many of us now have a desire to hop in a plane and seek out the enemy? On the other hand, it would be a nice change if we were offered somebody other than a Soviet-supplied underdeveloped third world nation to devastate. Why not give us earth-bound top guns some

uniquely different combat theaters? Space combat games like Wing Commander do this.

Politics aside, games of this nature make realizing certain desires possible. Now strap yourself in for the ride of your life with some of the most high-tech software around.

A-10 Tank Killer

Dynamix
$59.95
640K IBM/Tandy/Compatibles
VGA/EGA/Tandy/MCGA/CGA; Roland MT-32/LAPC-1/CM-32L/AdLib; 286/386
required/joystick recommended
COPY PROTECTION: None
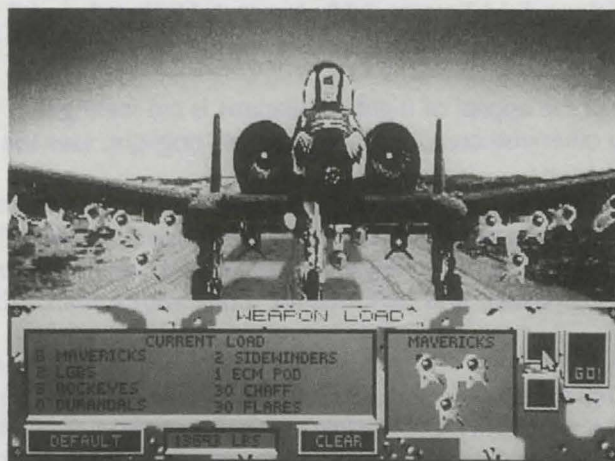
Why This Is Special

The A-10 is a ground attack aircraft developed to kill armor, and that's just what it does. It is capable of taking out any tank in the world. A-10 puts you in the driver's seat of a 25-ton monster, low over the battlefield and up close and personal with the enemy. You'll be flying the most advanced antitank aircraft ever, with enough fire power to turn a 60-ton tank into steel hamburger. Ten camera viewpoints, including a victim's view, let you watch the action up close or from a safe distance.

A Taste of the Game

Don't expect a rock 'n' roll, kick-in-the-afterburner ride when you take this baby out for a drive. A-10 pilots joke that the rear canopy of the A-10 is reinforced to withstand the impact of pigeons overtaking the aircraft. Flying at less than one-third the top speed of an F-16, the A-10 has been called "a '57 Buick with a big gun in it." You may be the slowest plane in the air, but who needs speed when you turn anything on the ground or in the air into scrap iron.

Fly the gamut of air-to-ground missions, everything from tank busting to taking out bridges and installations. You'll get on-the-job training on engaging ground targets with your gatling cannon and air-to-surface missiles like the Maverick. Take hits that can cripple a tank with impunity as you roar in low over the enemy formations with all guns blazing....

You have your choice of 21 separate missions. Included are seven Gulf War missions. The goals of each mission in the campaign game are connected. Poor performances will affect missions later in the campaign and vice versa. A-10 Tank Killer is a game that's easy to use but hard to master, much like the aircraft itself.

Chuck Yeager's Air Combat

Electronic Arts
$59.95
640K IBM AT/PS2/Tandy/Compatibles
CGA/EGA/MCGA/VGA; AdLib/SoundBlaster/CMS/Tandy DAC/Covox Speech Thing;
286/386; 10 mhz or faster required
COPY PROTECTION: Documentation look up

Why This Is Special

Chuck Yeager's Air Combat stands apart from other air combat games. It is the only simulation ever to attempt to encompass air-to-air combat across three decades and three wars. The game follows the military career of America's flying hero, Chuck Yeager, who occasionally shows up to give you hints. Yeager puts you in the middle of air-to-air dogfighting in World War II, Korea, and Vietnam, with planes that perform the same as they did historically.

World War II has been covered often in many other games, and there have been a few games on Vietnam. These simulations, especially the new missions for the Korean War, provide a different challenge for those tired of the more modern, state-of-the-art jet fighter simulations and campaigns.

A Taste of the Game

The game allows you to fly one of six aircraft: the WWII P-51 Mustang and FW-190; the Korean War F-86 Sabre and MiG-15; and the Vietnam-era F-4 Phantom II and MiG-21 fighters. Each performs as it did historically, so the game will challenge you to learn new air combat strategies for each war you fight. The missions you fly cover the gamut of possibilities: dogfight the enemy, attack bombers, defend bombers, strafe roads and airfields, protect reconnaissance aircraft, and so forth. A VCR instant-replay feature lets you play back your encounters from a variety of angles.

The game gives you a number of helpful features. You can target an enemy aircraft and get a display that constantly updates you on his position. You can turn on a Yeager window to seek advice from Chuck himself. Yet another help screen displays your flight envelope, which is a good way to study the aerodynamics of each plane in flight.

This game will take hundreds of hours to master as you work your way through each war and explore the capabilities of each aircraft. Battle to become the best of the best in the skies over the course of three different decades and three different wars.

Falcon 3.0

Spectrum HoloByte
$69.95
IBM AT/Tandy/Compatibles; 12 Mhz or faster 286/386; 512K EMS (expanded memory) required for 286 machines/ 1 meg with EMS for 386 machines/VGA/EGA;
PS1/AdLib/SoundBlaster/Roland
COPY PROTECTION: None

HEADING = 331°   SPEED = 0265 KNOTS   ALTITUDE = 07242 FEET
ZOOM = 00   VIEW = TRACK
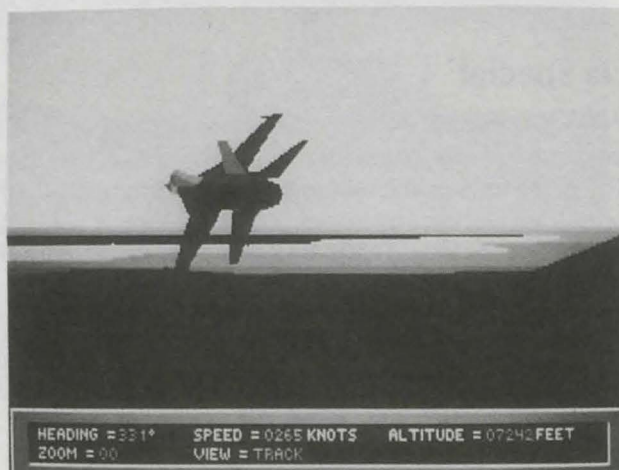
Why This Is Special

Falcon 3.0 is a consumer version of ASAT (Advanced Situational Awareness Trainer), which is used to train pilots for the F16A Fighting Falcon used by the U.S. Air Force. Spectrum Holobyte, which developed ASAT for the military, retained the rights to produce a consumer version. When you sit at your screen, you're flying software so accurate that even the military uses it. Let's face it: You're playing with the Big Boys with this one.

A Taste of the Game

The entire game is played from the point of view of the pilot in an accurate reproduction of an F-16 cockpit. As you fly this state-of-the-art fighter at speeds of up to Mach 2, you pack weapons from the 20mm gatling cannon to air-to-air sidewinder missiles to smart bombs. You'll need it all if you want to kick in some tailpipe and not take that final, hard landing. If this isn't enough for you, in campaign mode you can command up to eight aircraft at a time. Up to eight players can participate on a network also, either fighting each other in a free-for-all or flying together as a squadron.

One of the most exciting features in Falcon 3.0 is the padlock view, which is just the military term for keeping your eyes on the target. When you lock on to an aircraft with the padlock view, the screen will pan to follow the aircraft, simulating the turning of the pilot's head to keep his eye on the bogey. In addition to this, Falcon 3.0 sports a 100% realistic cockpit layout, something that is overlooked in most simulations. All of this gives you the feeling that you're really there.

You can get 3-D replays of encounters from your "black box." Use the replays to improve your flying by watching your mistakes, or just sit back and watch your victories. Replays can be displayed from any one of nine different viewing angles. With Falcon 3.0 you can fly missions over Baghdad as well as the Persian Gulf, Panama, and Israel. Pick your country, load up your weapons, and go.

Falcon 3.0 is a modern air combat simulator that is a challenge to master but will provide both novice and master players with hours of realistic in-the-cockpit excitement. When you select the "High Fidelity Flight Model" in the game setup (and have a 387 math coprocessor) you will be flying as close to an actual F-16 fighter as declassified information can allow. We hope you can handle it.

F-19 Stealth Fighter/F-117A Stealth Fighter 2.0

Microprose
$69.95
384K IBM(F-19)/PS2/Tandy/Compatibles
CGA/EGA/Hercules/VGA/MCGA/Tandy 1000/joystick recommended
COPY PROTECTION: Documentation look up

Why This Is Special

F-19 Stealth Fighter is a simulation of what used to be known as the Lockheed F-19 single seat "Frisbee" Fighter. When this game first came out, the government was in an uproar thinking that manufacturers had access to top secret information.

When the real aircraft was finally unveiled it was called the F-117A. So F-19 was updated to F-117A Stealth Fighter and enhanced to reflect the difference in design. F-117A has all the features of F-19 along with more theaters of operation such as Cuba, North Korea, Kuwait, Central Europe, and so on. Now even the most humble office worker can experience what it's like to fly a billion dollars worth of high-tech machinery. You don't even have to worry about breaking it.

A Taste of the Game

In both games you will learn dive bombing, level bombing, low-level bombing, and toss bombing. You'll even learn how to conduct air-to-air attacks using fire-and-forget missiles like sidewinders, and air-to-ground attacks with missiles such as the harpoon, HARM, and maverick. Discover how to avoid missile attacks using not only hardware such as chaff, flares, ECM, and the like but also by maneuvering. You can perform various maneuvers to avoid missiles once you know what you are doing up there. Slip through enemy radar cover using your stealth technology, and bomb the enemy by surprise. Get them before they get you.

To master this program you're going to have to do your homework—all 192 pages of it. The documentation includes tutorials on aerodynamics and flight principles,

radar, stealth technology, air-to-ground tactics, and air-to-air tactics. It provides everything you need to know to survive up there: everything, that is, but experience.

The rulebook sums it all up: "Modern air attacks are a complex dance of different machines, each with its own specialty and role: scouts, electronic warfare planes, strike planes, fighter cover, and airborne controllers. The stealth fighter is the exception: It relies on stealth and subtlety as opposed to brute force." Now the modern fighter pilot, you, can be a lone wolf stalking its prey.

Gunship/Gunship 2000

Microprose
$49.95–$59.95
256K IBM/Compatible
CGA/Hercules/EGA/Tandy 16 Color
COPY PROTECTION: Key disk

Why This Is Special

A popular game for the past several years, Gunship puts you in the pilot seat of the Apache AH-64A helicopter as you blast your way through opposing forces. Scream down tree-lined ridges staying out of sight of the enemy while you set up your attack. Pop up and unleash your hellfire missiles at a Soviet T-72 Main Battle tank. Antiaircraft guns and SAMs are ready to take you out. Your weaponry includes the 30mm chain gun, hellfire antitank missiles; aerial rockets; and sidewinder air-to-air missiles. You're loaded for anything that moves.

A Taste of the Game

In addition to the Apache, you can choose from among five other helicopter types: the AH-64B Longbow, which can peer over hills with mast-mounted radar while keeping the main body of craft hidden; the OH-58D Kiowa Warrior scout ship; the UK-60K/L Blackhawk multipurpose assault/transport craft; the AH-1W Cobra gunship; the AH-66A Comanche; and the MD530G Defender.

In Gunship you're given both a primary and secondary mission. You configure the armament of your craft according to what kind of target you're hitting, turn on your two engines, engage the rotor, raise the collective, and you are on your way. Fight in Central America, Europe, and Southeast Asia.

In Gunship 2000 you fly with a five-copter troop, with options to fly in the Middle East or Central Europe. It is important to develop your ability to fly low to the ground. For combat helicopters in the modern combat environment, altitude often means death. Ribbons, medals, and promotions await those who stay low and pack a big punch.

Jetfighter II

Velocity
$69.95
640K IBM PC/Compatibles/Tandy
VGA/EGA/CGA/Tandy 4 Color; AdLib/SoundBlaster
COPY PROTECTION: None
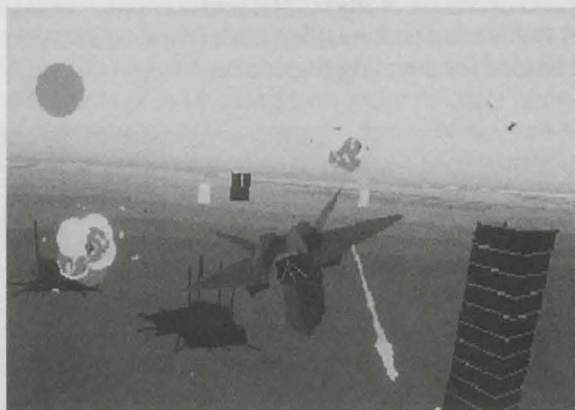
Why This Is Special

Jetfighter II just might be the ultimate flight simulator. Some 125 missions are included in the game. These are based on a fictional story, which places you in a war that broke out when the Latin American Revolutionary Alliance (LARA) gained control of southern California. So rather than slug it out in Kuwait or dive on your opponent in Korea, you soar at supersonic speeds down the Santa Ana Freeway seeking to stop an enemy missile from hitting Long Beach.

You have the option to fly an F-23, an experimental plane known as the "Black Widow," which lost to the F-22 in a bid to become the aircraft of the future for the U.S. Air Force. You can even do high yo-yos with it over the Transamerica Building in San Francisco.

A Taste of the Game

This game can be a change of pace for those tired of playing Rambo.

In JFII, you fly with America's Air Elite, a Delta Force of the sky, the antiterrorist fighting force that does battle with the LARA who are equipped with the latest in Soviet aircraft and equipment. The aircraft at your command include the F-14, F-16, F-18, and F-23—all of which are more than suitable for unleashing bombs and missiles on the forces of the LARA. Carrier landings play a big part in JFII and are very difficult. If you can land on the carrier you know you are a good computer pilot.

So what are you waiting for, soldier? Get out there and defend some of the best vacation resorts in our beloved country.

Knights of the Sky

Microprose
$59.95
640K IBM AT/PS2/Tandy/Compatibles
CGA/EGA/VGA/Tandy 1000; 286/386 recommended/2-player mode requires 1200+
BPS Hayes compatible modem
COPY PROTECTION: Documentation look up

Why This Is Special

Knights of the Sky takes you on a complete tour of World War I combat flying. Every mission you embark on will help determine the outcome of the war. If you really want to experience what World War I combat felt like, this is a good place to look.

The game includes 20 different World War I aircraft and dozens of enemy pilots to fly against, the most awesome being the Red Baron himself. With its head-to-head feature you and a friend (or enemy, for that matter) can fire your machine guns at each other's plane, and duel it out in the skies.

A Taste of the Game

These old planes feel realistic. The flight dynamics and the sounds of the sputtering engines are constant reminders that these early aircraft were mere minnows of canvas and wood compared with the killer sharks found in jet combat games. Altitude is king in World War I air combat—gaining it is hard and losing it is all too easy.

Head-to-head dogfighting is what makes Knights of the Sky stand apart from other World War I flight simulations. In this game you and your opponent both attain sufficient altitude, then square off a few miles from each other, engines roaring and machine guns blazing. When you down an opponent, the game goes into replay mode and lets you observe your victory from three different viewpoints.

In the campaign game, you begin as a corporal and work your way up through the ranks. As time progresses (the campaign game begins in May 1916), better planes become available. Of course, the Germans are developing better aircraft as well. When you reach the rank of captain, you have the option of moving the location of your base. In between flights, you learn of the activities of other "knights of the sky," both friendly and hostile.

Your goal is to be the Ace of Aces, the flier with the most confirmed kills. As part of reaching that goal or staying on top once the goal is attained, you will probably want to challenge other high-scoring enemy aces to personal combat. Of course, they can challenge you as well, and may the best flier win.

Red Baron
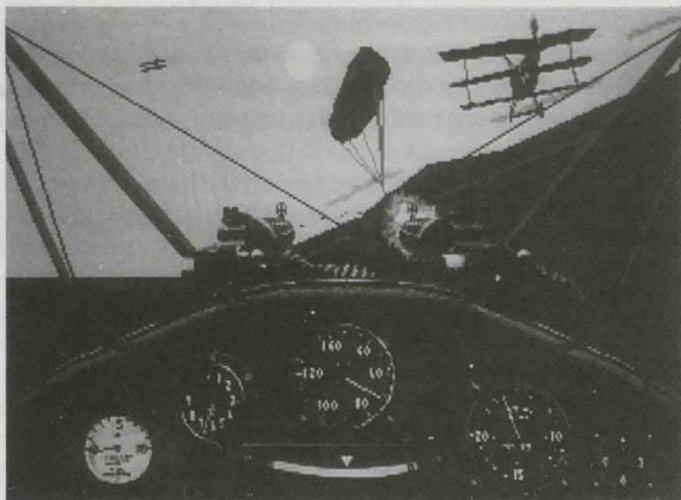
Dynamix
$59.95
640K IBM/Compatibles/Tandy (10 mhz or faster)
VGA/EGA; Roland MT-32/PS1/LAPC-1/AdLib/SoundBlaster recommended
COPY PROTECTION: None

Why This Is Special

More then just another simulation, this game is done in the spirit of a great World War I movie. You feel like you are there in combat against the Red Baron—terror of the skies, ace of the German air force and, of course, Snoopy's archenemy.   The animation is smooth and very cinematic.

As an Allied flier, you can try to bring down this legendary terror, or as a German pilot you can try to become a Red Baron, Ace of Aces. Either way you'll learn what it was like to fly, and possibly die, in "the good old days."

Red Baron includes the option to fly as a German or Brit, to fly single missions, or embark on a career. It has a great instant replay system to boot. Need we say more?

A Taste of the Game

When the game begins, you choose between single missions or the campaign option, called Career. The single missions include: patrolling the front, taking down a Zeppelin, escorting a bombing raid, dogfighting a famous ace, and many others.

When you embark upon a career you begin as a 2nd lieutenant. You are assigned a duty station somewhere in Europe and issued an aircraft. With success in battle comes promotion, a better choice of planes, and assignment as the squadron commander. Then you can give general assignments and commands to the planes in your group.

The terrain you patrol includes all of the Western Front, Paris, Verdun, and the Somme. The campaign game is progressive; as action at Verdun heats up, the chance of being assigned there increases. This adds a nice touch to the game, and makes it all the more realistic.

The various aces in the simulation perform as they did in real life. The Red Baron was very cautious; he would not expose himself unnecessarily, preferring to stalk his opponents. On the other hand, British ace Albert Ball fought with reckless abandon. Ball would not think twice about diving alone into a group of enemy planes. He survived only because he was a great shot. Learn to adapt, or take a nose dive straight down.

All the important elements of World War I flying are here. When you fly toward the sun you are blinded. The screen goes yellow-white, and only objects close to you are visible. When you fly into a cloud, your visibility is also greatly reduced. As in real life, you will learn to use the sun and the clouds to your advantage.

Secret Weapons of the Luftwaffe

Lucasfilm
$59.95
640K IBM/Compatible
EGA/VGA/MCGA; AdLib/SoundBlaster/joystick recommended
COPY PROTECTION: Code wheel
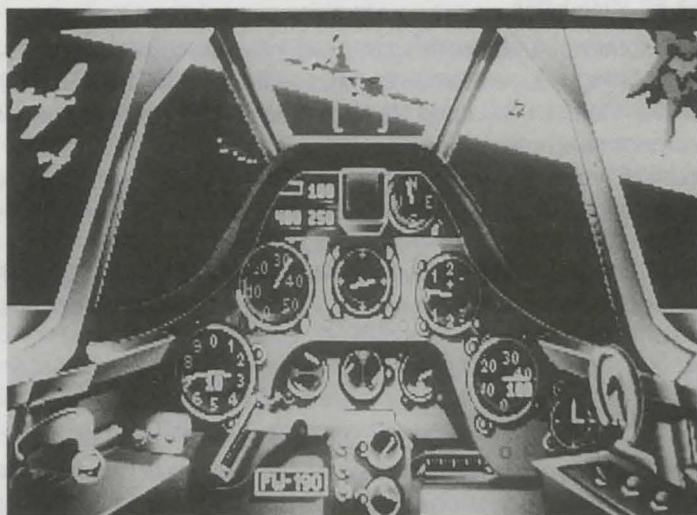
Why This Is Special

Secret Weapons of the Luftwaffe is a World War II dogfighting game with a unique approach. The game uses the so-called secret weapons, experimental jet fighters, which the Germans were perfecting during the war but never really had a chance to use. This game gives you a chance to fly with, or against, some of the most feared weapons of World War II. This game is so historically accurate that it lets you explore not only the history that was, but the history that might have been.

A Taste of the Game

Secret Weapons recreates the daylight bombing raids in Germany from 1943 to the end of the war. Although other games let you fly against the Me-262, Me-163, P-47, and B-17, Secret Weapons lets you fly those German planes yourself. Damage is allocated to various aircraft systems, and flight and combat performance changes according to the type of damage you sustain. So if your engine is damaged, you have less speed and control.

You can fly as either an Allied or German pilot. Feel up to a little challenge? Try flying a German Me-163 rocket plane. These were so unstable that more pilots died learning to fly them than were killed in combat.

What makes Secret Weapons unique is the detailed strategy game that is tied closely to the cockpit game. Your strategic decisions will ultimately affect the skilllevel of the enemies you face. As the German player you will have the task of doing the research and development necessary to bring new technologies such as jet aircraft into the war. The Germans must also position aircraft where they expect the Allies to attack. The U.S. player targets German industries. You can strike oil, transportation, aircraft assembly, and engine manufacturing—take your pick.

Wing Commander/Wing Commander 2

Origin
$69.95
640K IBM(12 mhz or faster)/Compatibles/Tandy
VGA/MCGA/EGA/Tandy Sound/Roland/AdLib/SoundBlaster/2 floppies or hard drive
required/expanded memory highly recommended
COPY PROTECTION: Documentation look up

Why This Is Special

The runaway hit of 1990, Wing Commander has set the standard for other space action simulations to follow. If playing the part of a futuristic galactic warrior and flying starfighters appeals to you, you'll probably enjoy this game.
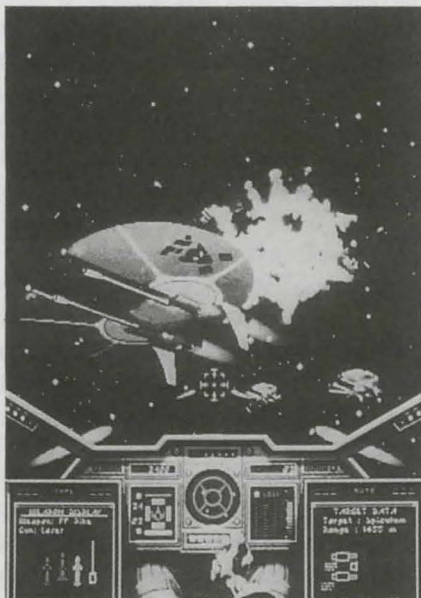
Wing Commander features one of the better cinematic stories ever brought to a computer game. You find yourself beginning to develop feelings for the characters in the story. Respect, hate, love, and other complex emotions begin to creep into your reactions to your crew and the enemy opponents. These themes are carried on in the add-on products to Wing Commander: Secret Missions Disk One, Secret Missions Two, as well as the second full-fledged game in the series Wing Commander 2: Vengeance of the Kilrathi.

Wing Commander also makes some of the finest use of sound available in computer games today, although you must run expanded memory to fully appreciate the lifelike effects.
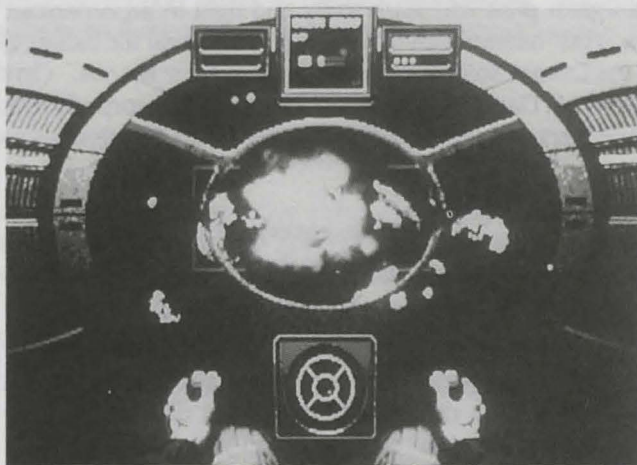
A Taste of the Game

In Wing Commander you begin as a rookie starfighter assigned to the most decorated spacecraft carrier in the Terran fleet, Tiger's Claw. The enemy are catlike creatures called the Kilrathi. They're good pilots—determined, maniacal, and hostile. You wouldn't want it any other way.

You begin the game with an assigned spaceship and a wingman or wingwoman to fight at your side. You soon form a relationship with your wingman as you proceed from star system to star system doing battle with the Kilrathi. The action is fast and furious from the beginning. Constant attention to your screens is a necessity, although your wingman or wingwoman does keep a lookout for you too.

As the game advances, you are promoted in rank and assigned better spacecraft to pilot. The farther you progress, the more of the plot is revealed, and further details of the Kilrathi invasion become apparent.

The excellent graphics and state-of-the-art sound contribute to a well-designed story line to make this simulation a joy to play as you blow away fanatical Kilrathi opponents on your way to becoming the best fighter in the sector.

Wing Commander 2 picks up the story several months after the events of The Secret Missions 2: Crusade. You have been promoted to lieutenant colonel and are now in command of the Tiger Claw's fighter squadron. But as you fly your first mission the Kilrathi unveil their newest war technology—Dralthi stealth fighters. Using these new fighters the Kilrathi evade you and destroy the Tiger's Claw and all its crew members.

You are court-martialed for your apparent cowardice under fire. When you attempt to prove your innocence, you discover someone has stolen your flight recorder disk from that mission. It contained the only information on the Kilrathi stealth fighters. The plot thickens with the realization that there is a traitor in your midst. Without proof to convict you, you are acquitted of all charges, but your career in the navy is finished, or so it seems. As you might expect, by the time it's over, you get a chance to save the human race yet again by flying new missions and spacecraft against the fiendish Kilrathi.

The sound and graphics that made the first Wing Commander famous are continued in Wing Commander 2. The sound support, in fact, is so advanced that much of it will be shipped on a separate disk. Some people will probably get as much enjoyment out of the soundtrack as they will out of the game.

Other Air and Space Combat Simulators of Note

Battlehawks 1942
Lucasfilm
$49.95

This air combat game covers air warfare in the Pacific during the momentous year of 1942. As a fighter pilot you learn to fly and fight in an American Wildcat or a Japanese Zero. Your missions involve four pivotal naval air battles of 1942: Coral Sea, Midway, the Eastern Solomons, and the Santa Cruz Islands. On dive bombing missions you fly a U.S. Dauntless or a Japanese Val, and on torpedo missions you soar in American Avengers and Japanese Kates. More than 30 missions are included in the game.

Blue Max
Three-Sixty Pacific
$49.95

Blue Max is a World War I simulation game. It can be played as either a simulation or as a war game on a hexagonal map. The game also allows players to fight each other or fly as a team. You can choose from eight different aircraft and perform missions with or against the great aces of World War I.

Flight of the Intruder
Spectrum HoloByte
$59.95

Modeled after the novel by Stephen Coonts, Flight of the Intruder puts you in the driver's seat of the A-6 Intruder or the F-4 Phantom II. The historical situation is just prior to the Vietnam Linebacker bombing campaign of 1972. The object is to fly assigned missions, hit your targets, and get out with a minimum loss of personnel and material.

Unlike most air combat games, where your main goal is watching out for yourself, Flight of the Intruder requires you to deal with wingmen and accompanying flights. In fact, you can control and/or direct up to eight aircraft during a mission.

F-15 Strike Eagle II
Microprose
$54.95

This game is a modern dogfighting simulation based on the original F-15 Strike Eagle, which appeared in 1985. This game has several upgrades including a "no crash" mode that lets you try new maneuvers without risk, and an instant replay of dogfights with 11 different camera angles. A director option will automatically select the best camera angle to replay the action. The game includes four scenarios: Libya, the Persian Gulf, Vietnam, and the Middle East. Desert Storm scenarios are available in the F-15 Strike Eagle II Scenario Disk.

LHX Attack Chopper
Electronic Arts
$59.95

LHX was the designation of the experimental helicopter that now goes by the official designation AH-66A Comanche. LHX Attack Chopper lets you fly its namesake as well as the Osprey Tilt-Rotor, Apache, and Blackhawk on hundreds of different missions—everything from air-to-ground strikes to medical evacuations. Basically LHX Attack Chopper is an easier-to-fly version of Microprose's Gunship/Gunship 2000.

Starglider II
Microplay
$44.95

Starglider II is a first-person perspective air/space flight simulator with exciting and fast moving action. You are the last hope of free civilization. You must do battle against the evil Egron Empire with the odds hopelessly against you. (You're saying to yourself "I've seen the movie.") Explore five planets and nine moons, and navigate asteroid belts as you waste hordes of space pirates.

Their Finest Hour
Lucasfilm
$59.95

This game is based on the World War II Battle of Britain, where the badly outnumbered RAF fought off the massed might of the Luftwaffe. On the British side you will fly Hurricanes and Spitfires against computer-controlled Germans as they seek to destroy the RAF. As the German you fly fighter patrols as well as make bombing runs against the English. The game features an instant replay system that allows you to save your best moments on disk, and a system for creating your own missions.

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One If by Land, Two If by Sea: Land and Sea Combat Simulators

With the publication of the original Silent Service, a World War II submarine simulation of action in the Pacific, in 1985 the player was finally able to get away from aircraft simulators and experience the adrenalin flow of commanding a submarine from the bridge and sinking steel mountains of Japanese tonnage. The simulations of combat vehicles like submarines, destroyers, and tanks that were to hit the market from that point until the present, were to change the image of computer games. They are exciting to players because they offer new challenges and new restraints, requiring the player to perform competently in a real-time environment. These games open up new vistas of historical perspective to replay, and build through career tracks and campaign games, a vicarious identity for the gamer. Game players can gratuitously dispose of enemies in games that kept track of their successes and failures over the course of numerous scenarios, and tours of simulated duty.

Combat simulations in general, and land/sea combat vehicle simulations in particular, are satisfying because most of them have scenarios in which players can automatically contact the enemy and start firing. Booting up a simulation offers a "quick fix" for combat action. Scenarios are usually limited enough so that they are not time-consuming like larger scale strategy, war or role-playing adventure games.

They also allow players to step into a historical role and envision the limitations, opportunities, and historical importance of what the commander being simulated faced in an actual situation. In short, they allow you to role-play a historical commander or even one who never existed!

688 Attack Sub

Electronic Arts
$49.95
384K IBM/Compatible
CGA/Hercules/EGA/Tandy 16 Color/MCGA/VGA; hard drive recommended
COPY PROTECTION: None
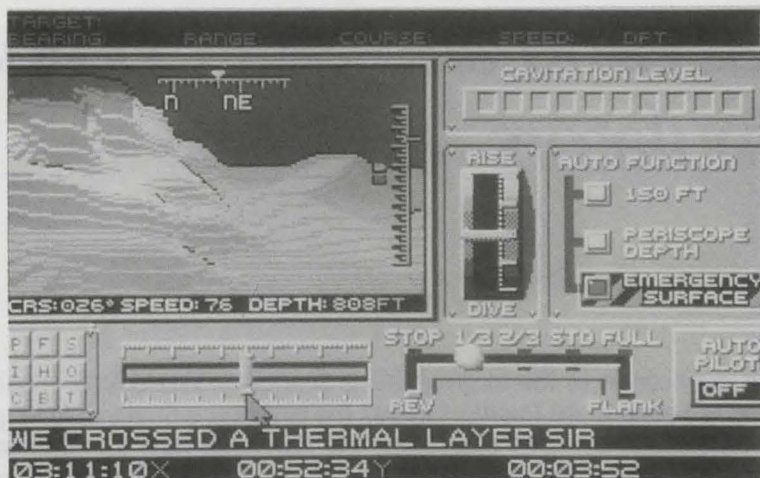
Why This Is Special

688 Attack Sub allows you to become the commanding officer of a modern U.S. Los Angeles class or Russian Alfa class attack submarine. Nine different missions will keep players active, but it lacks the campaign, or career, option of other submarine simulations. 688 does allow you to go one on one with a friend via Hayes, compatible modem or null modem cable, and this helps keep the missions fresh.

A Taste of the Game

Players navigate the various duty stations from a main menu screen, which pictures various crewmembers at their stations. By moving the cursor over the various stations and clicking, one can move to the various control screens and input appropriate orders. It is important for players to access the navigation board in order to learn how to change course, speed, and depth frequently enough to keep the enemy from tracking them. Frequent the weapon control panel in order to make sure

the tubes are loaded and ready to fire, and access the sonar room regularly to make sure that optimal use is being made of the sub's "eyes and ears."

Some of the most impressive graphic displays include the realistic 3-D display of the ocean floor provided when using sonar, detailed images of surface vessels, great explosions when watching your targets head toward the infamous Davey Jones' locker, and digitized pictures of crew members responding to your orders. It is a scaled down simulation which, at times, seems like more of a World War II submarine simulation than a representation of a modern vessel. Indeed, many players will use the periscope to target rather than rely on the more sophisticated radar and sonar equipment available on a modern boat. It was scaled down, however, to make it more playable and, in that sense, it is a success.

INSIDE INFORMATION

Submarines are vulnerable to the aft of the vessel for two reasons: (1) the bow of the ship acts as a directional microphone for the sonar reception, and (2) the propulsion system is located in the stern and makes enough noise to foil most sonar clues one could otherwise glean from this area. So, you should frequently reverse your course in order to regularly check this vulnerable area. Also, try to take shots at the enemy's rear if you can.

Das Boot

Three-Sixty Pacific
$49.95
512K IBM/Compatible
CGA/Hercules/EGA/Tandy 16 Color/MCGA/VGA
COPY PROTECTION: None

Why This Is Special

Das Boot seeks to place the player in the Atlantic theater of World War II. It is a relatively simple submarine simulation with arcade sequences. Players who are looking for a game with colorful graphics and a little bit of historical flavor without getting bogged down in too much complexity may want to opt for Das Boot.

A Taste of the Game

Das Boot includes a basic game where you command a German U-boat by moving from duty station to duty station throughout the submarine, occasionally being

interrupted by arcade sequences where you must maneuver your boat through falling depth charges and the like. Fortunately, the game also features a "Realism" toggle switch that allows you to turn off the arcade sequences, which is good if you're a stickler for realism.

The game allows you to choose between three different types of U-boat and three kinds of historical or nonhistorical torpedoes. Nonhistorical torpedoes always perform correctly, while historical torpedoes are full of hidden design flaws and may not always function.

One of the more interesting aspects of the game is a targeting system that requires one to use a series of "marks" to plot the path and range of the targeted vessel. Impatient players, however, will find themselves estimating the target's path and range and may often find themselves successfully sinking a great deal of tonnage without using the archaic targeting system. They will miss part of the flavor of the period, however. Those of us who prefer realism will probably opt for the targeting system.

MechWarrior
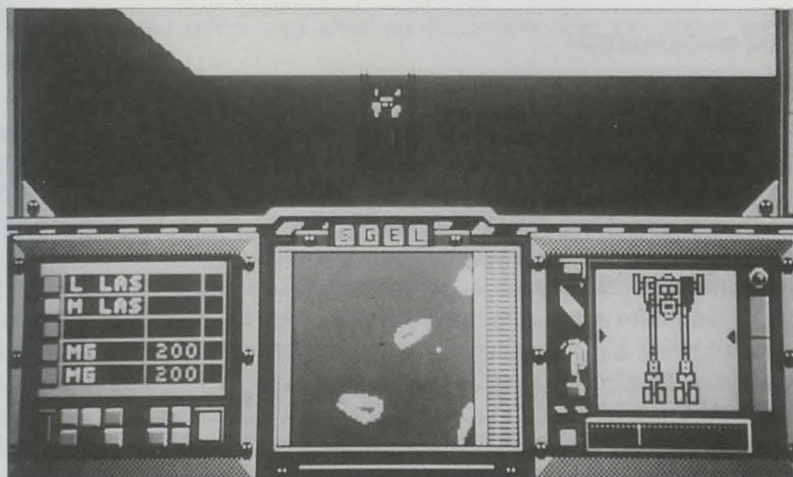
Activision
$49.95
512K IBM/Tandy (with 640K)/Compatibles
EGA/Tandy 16 Color/VGA
COPY PROTECTION: None

Why This Is Special

MechWarrior is something completely different. It is a vehicle simulator, but it is based far in the future in the BattleTech universe created by the FASA game company of pen-and-paper role-playing fame. The vehicles are prodigiously armored humanoid war machines that are piloted with the 31st century's equivalent of the knights of the feudal era.

A Taste of the Game

Players negotiate for mercenary contracts and move off to fight mechs (the war machines mentioned earlier) who are loyal to other houses (dynasties equivalent to feudal houses) with weaponry appropriate to their own mech model. Some models are strictly armed with machine guns, and others have arrays of missiles and lasers. At the same time, some models are very mobile across land and others are rather slow because of their heavy armor.

Part of the game's satisfaction is saving the profits from successfully completing one's mercenary contracts (defending a power source, relieving a besieged unit, rescuing a kidnapped person, and so on) and salvaging the mechs of defeated foes in order to purchase a better mech, or recruit other team members (and equip them with the salvaged mechs). Hence, the simulation has more role-playing than most other standard military simulations.

MechWarrior can be played mission-by-mission by negotiating contracts, or it can be played as a campaign game by following a built-in story line. If one is simply playing mission-by-mission, it is possible to sit down at the computer and blast one's way through a scenario in five to fifteen minutes. MechWarrior offers the satisfaction of a simulation without requiring the time expenditure necessary to play a long, convoluted campaign simulation.

INSIDE INFORMATION

When fighting a Locust, do not EVER let it get behind you.

Try Peterson's Prodigious Punch-Out. Leave every available weapon hooked
to the Automatic Weapon Switch (the TAB key). Line up on one leg of the
enemy mech as you enter into short range and hit the TAB key. This will fire
every one of your weapons in sequence (faster than you could) and should
cut the legs out from under your opponent's mech.

M-1 Tank Platoon
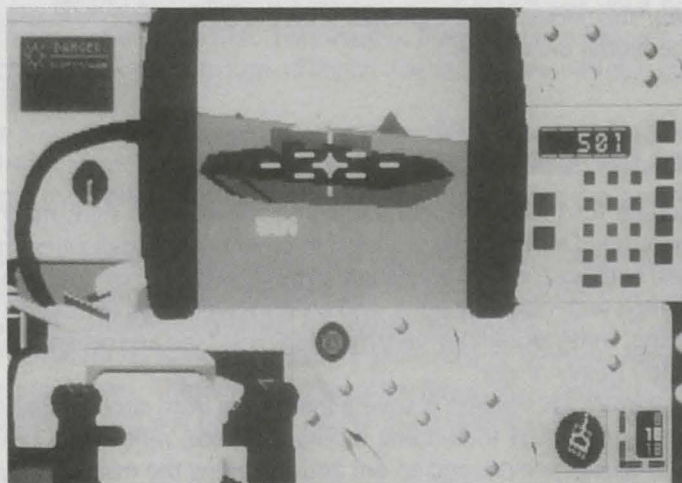
Microprose
$69.95
512K IBM/Compatible
CGA/Hercules/EGA/Tandy 16 Color/MCGA/VGA
COPY PROTECTION: Documentation look up and key disk

Why Is This Special

M-1 Tank Platoon accurately simulates the targeting system of the M-1 Abrams Main
Battle Tank and allows the player to view the action from three "in tank" positions
(driver, gunner, and commander), or from the perspective of any of four tanks
operating as a unit. It also includes an outside or "chase plane" viewpoint. As an

extra goody, it also offers well-detailed documentation on armor tactics and deployment.

A Taste of the Game

The game can be played on a mission-by-mission basis (blitzkrieg, meeting engagement, hasty attack, assault, and so on), or in the context of an overall campaign in which the missions are placed in a chronological context. Players can earn medals and commendations, which reflect their performance in the missions or campaign.

The graphics opt for the faster, smoother polygon-filled presentation of true simulations rather than the pretty bit-mapping of Steel Thunder. The polygon-filled graphics look "blocky" and less than realistic in most cases (particularly smoke), but they are very functional. The terrain is based on actual military maps of West Germany and is presented very well. So is the scenery. You can destroy buildings with cannon fire, and use terrain features to hide your tank or reduce the parts of it that are vulnerable to enemy fire.

INSIDE INFORMATION

Call for air and artillery support wherever possible.

Always leave some units behind to cover you when you move.

Red Storm Rising

Microprose Software
$59.95
384K IBM/Compatible
CGA/Hercules/EGA/Tandy 1000/MCGA/VGA
COPY PROTECTION: Documentation look up and key disk

Why This Is Special

Red Storm Rising features a campaign game in which players can strive to accrue various medals and commendations in the midst of events based on those in the best-selling techno-thriller from Tom Clancy. The game is an extremely fascinating simulation of modern naval warfare in which the player becomes the commanding officer of a modern nuclear submarine.

In Red Storm Rising combat can be efficiently managed without using the periscope. This gives a realistic feel to the simulation and offers considerably more flexibility in terms of outmaneuvering one's enemy. This aspect certainly underlines

the differences between modern submarine warfare and that associated with World War II operations.

A Taste of the Game

Players have the choice of commanding one of several U.S. nuclear submarines instead of simply being assigned a Los Angeles class, but you cannot play the Soviet side of the engagements. You do not have to move "physically" from station to station in order to accomplish the tasks; rather, you use command keys from the keyboard (or joystick) to enter your orders. Various displays will appear to let you know how the orders are progressing. A keyboard overlay is provided for those who cannot remember which keys to hit in order to accomplish certain actions.

Some claim a weakness of the simulation is the fact that, even on the highest difficulty levels, the submarine can take multiple hits from enemy torpedoes without sinking. This was a design concession to make the game fair because, according to the designers, very few players would make it through the game if the sub could only take one or two hits as in real life. Besides, who wants to play a game they can't win?

INSIDE INFORMATION

Since there are no friendly ships or subs in this game, once a target is identified, fire at will. Remember: Shoot first and ask questions later.

Silent Service II

Microprose Software
$59.95
512K IBM /Compatible
CGA, EGA, Tandy 16 Color/MCGA or VGA
COPY PROTECTION: Documentation look up

Why This Is Special

The setting is the Pacific Theater of World War II. The vehicle can be anything from an old "S" class submarine that seems to barely stay afloat to a new Tench class. You can truly experience the thrill of surfacing in order to pummel helpless freighters to the bottom with your deck gun, or wait in silent ambush for that brand new Japanese aircraft carrier to come into range.

A Taste of the Game

As commander, you can function largely from a periscope's eye view of enemy ships, and use a system of command keys to order changes in course, speed, depth, and readiness. The enemy ships take shape in very realistic silhouettes as they near your on-screen position in the submarine, and one can easily identify the kinds of ships being targeted. It's always nice to know what you're sinking!

You will also experience a sense of helplessness when being savagely brutalized by sustained depth charge attacks. Fortunately, the program lets you to discharge debris and use that old trick to mislead the enemy into thinking one's "sardine can" has been popped.

One of the best aspects of the game is that it allows players to role-play entire careers as submarine commanders as well as individual patrols. It requires strategy (locating and approaching enemy vessels), tactics (determining where and how many torpedoes to fire) and patience (stationing yourself in shipping lanes and waiting for the enemy to come to you) to be successful in the patrols and career games. But it's worth it for the satisfaction of seeing your commander advance through the ranks.

INSIDE INFORMATION

Enemy destroyers are often too fast to outmaneuver. Head directly at the destroyer. Quickly launch a spread of two or three torpedoes at the oncoming enemy before veering off hard to port or starboard. This not only provides for some pulse-pounding excitement, but it sometimes provides some spectacular results as well. Of course, if the sub does not get the destroyer, the destroyer often gets the sub.

Steel Thunder

Accolade
$39.95
384K IBM/Compatible
CGA/Hercules/EGA/Tandy 16 Color/MCGA/VGA
COPY PROTECTION: Nonreproducible document look up

Why This Is Special

Steel Thunder was the first tank simulation on the market that tried to realistically simulate modern U.S. armored vehicles. You can select your crew from rosters of available drivers, loaders, and gunners, each with different strengths and weaknesses. Sound effects offer important cues about how close shells come to hitting the player's tank. Graphic silhouettes emerge as recognizable enemy targets, beginning as black squares and gradually scaling into easily identifiable shapes. With their distinctive perspectives of four different combat vehicles, these are rather impressive.

A Taste of the Game

Each mission begins with a command briefing. The player chooses the best route to the objective by placing Xs on the map as checkpoints (or waypoints), and ordering the driver to proceed to each checkpoint in succession. The briefing map can be accessed at any time and will show the present position of the player's tank. This helps tell you just how close you are to the objective and how far you have left to go.

Once the enemy is engaged, you usually operate from the gunner's position, using a thermal sight that allows you to see the target, even through smoke, fog, or darkness. Be warned that if you fire at a tank with canister antipersonnel rounds, you're in for a nasty surprise.

INSIDE INFORMATION

Use the map to locate the tank's current position. On missions that require deep penetration behind enemy lines, you can usually skirt the edge of the map and avoid enemy contact until you are near the objective.

Be aware of the ammunition effectiveness chart on page 33 of the manual. It can save lots of ammo and shorten some engagements by having you match the right ammunition load to the target.

Tank

Spectrum HoloByte
$59.95
640K IBM/Compatible
EGA/VGA; 286/386 required
COPY PROTECTION: None

Why This Is Special

Spectrum HoloByte is part of a larger corporation and has done some subcontracting work on the SimNet system of the U. S. government. SimNet allows one military unit to use vehicle simulators linked together by a computer network to engage in simulated combat exercises with other units on the network. In Tank, the company has taken the unclassified aspects of their defense subcontracting and turned this understanding into a very playable simulation of armored combat.

Tank offers five scenarios in each of three different combat theaters (Fort Knox, Kentucky, the Central European site of NATO exercises known as Fulda Gap; and the confluence of Israel, Syria, and Lebanon in the Middle East). The scenarios are built on top of each other in a progressive order in which players begin with command of a single tank and end up commanding a battalion.

A Taste of the Game

As in M-1 Tank Platoon, polygon-filled graphics are the order of the day for Tank. However, there are some interesting touches like the shell casings being expended from the machine gun and the way pieces of enemy units come flying off when those units are beginning to take significant damage. Also, the terrain has a two-toned look, which helps players discern between slopes and open terrain.

Fuel consumption is important in this game. Tanks are not fuel efficient, and it is entirely possible to run out of fuel in the middle of a Tank scenario. One can use a fuel depot to refuel, but the scenario continues and time is of the essence. Another feature Tank offers that is unavailable in most tank simulations is the capacity for head-to-head competition via modem. Unfortunately, such competition is strictly one tank versus one tank and doesn't involve the same level of strategy as the rest of the game.

INSIDE INFORMATION

Use smoke to conceal your movements from the enemy. Remember, only NATO has the thermal sight.

Remember that side armor and rear armor are always more easily penetrated, so keep your front to the enemy and try to nail him in the side or the rear.

Other Land and Sea Combat Simulators of Note

Abrams Battle Tank
Electronic Arts
$39.95

Abrams Battle Tank puts the player in command of an M-1 tank. Although the player is a tank commander, who does not have command of support units, the game offers eight different missions and a "World War III" campaign.

Gunboat
Accolade
$39.95

Gunboat allows players to experience the same type of role-playing and graphics utilized in Steel Thunder, but the vehicle simulated is a gunboat like the one used in the film *Apocalypse Now*. The 20 missions feature guerrilla warfare in the jungles of Colombia, Panama, and Vietnam.

Wolfpack
Broderbund
$59.95

Wolfpack is an attempt to create a World War II submarine simulation with VGA graphics and modern sound support. It allows players to compete on both sides of the ocean's surface and features action in the Atlantic Theater. This game is ideal for novice computer gamers, because one does not have to utilize complex lead angles in order to fire torpedoes upon enemy targets. Indeed, many gamers believe Wolfpack is the easiest submarine game to play.

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Planes, Trains, and Automobiles: Transport Simulations

Most of us only dream of driving 200+ mph in the Indianapolis 500, street racing in a Porsche or Ferrari, or flying and landing a plane—thus the popularity of a genre of computer entertainment called vehicle simulations. Here's where you can live out your dreams inexpensively and safely. But one thing these games don't do is relieve stress.

As the title of this chapter suggests, we are about to take off for an overview of planes, trains, and automobiles. It's a category that we invented. In these games you don't have to shoot at anything, or get shot at. These are not war machine simulations. They may be big, fast, hot hunks of metal, but they're big, fast, hot nonviolent hunks.

Airplane simulations, such as Flight Simulator, have been around since the birth of personal computers. These games are among the most complex of computer simulations and are generally played by truly serious computer game players.

Airplane simulation games have large followings and have launched many groups who get together several times a year to talk about the latest plane products and, of course, to play the games. It's not uncommon to find these people linking up their personal computers so that they can fly together in the same airspace, in the same game, at the same time. They have even spawned a sort of cottage industry, with companies formed just to provide peripherals for these games. You can buy flight sticks, yokes (akin to a steering wheel), and rudders to increase the feeling of the reality of flying. You can buy designer kits to create your own planes, or purchase scenery and add-on disks that give you new destinations to fly over. It costs a lot less than a ticket to Hawaii.

For those who get airsick, there's railroading. Since the 1820s, when the railroads began opening up much of America, trains have had a large and loyal following.

However, compared to the quantity of plane and auto simulations, the number of train simulations is relatively small. Face it, simulating the act of engineering a train offers limited possibilities, and trains don't do barrel roles. Then again, many of us have great memories of the fun we had building and running model railroads, even if it did consist of duplicating the head-on collisions performed by Gomez Addams in *The Addams Family*.

For a lot of us they remind us of Christmas past, with the Lionel puffing its smoke pills under the yule tree. However, simulations like Railroad Tycoon bring to life another side of trains and railroading—the competitive and strategic aspects. These games give you the chance to build a railroad rivaling the empires built by great railroad tycoons.

If you really don't care about building empires and crave raw speed and power instead of chugging along a track at low speeds, auto simulations are for you. These simulations appeal to young and old alike. And where else can you drive as fast as you want in the car of your dreams without having to worry about running over grandma? Your personal computer can put you in the driver's seat of a Corvette, Ferrari, Lamborgini, Lotus, Porsche, and many other models. Snicker at the cops as you blow by them in any of these hot rods.

You'll also find the best of professional racing here. You can drive Indy, stock, and Formula One cars. Simulate racing all over the world in the most famous races of all time. Finally prove to all those Sunday drivers that you've got what it takes to force 'em off the road once and for all. This chapter is dedicated to the most truly realistic *nonviolent* action simulations that are available.

Indianapolis 500

Electronic Arts
$49.95
384K IBM/Tandy/Compatibles (8mhz or faster)
CGA/EGA/VGA/Tandy 16 Color; Roland MT-32/LAPC/AdLib/Tandy sound; joystick highly recommended
COPY PROTECTION: Documentation look up
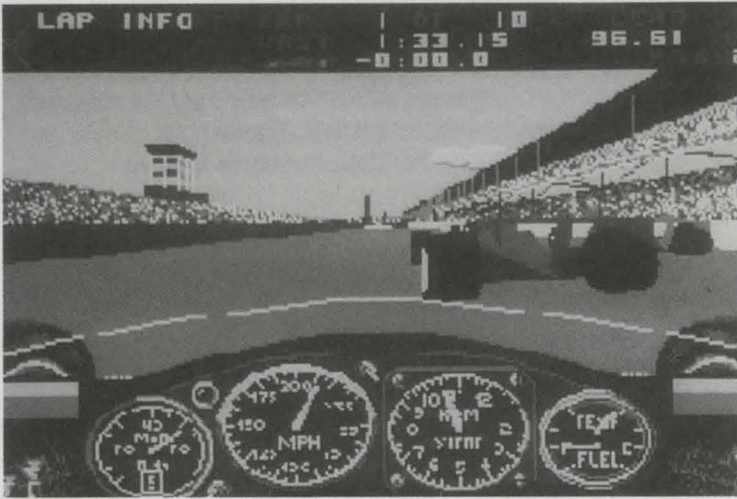
Why This Is Special

How often have you dreamed of driving a car at 200 mph and being idolized by men and women alike? If you've ever surrendered to this flight of fantasy, try booting up Indy 500 and give yourself a chance to drive one of three Indy cars around the track, just like in your dreams.

Although it has been out for several years, Indianapolis 500 is still considered a great racing simulation. Tinker with your car to make it the best there is, then race around a well-rendered version of the Indianapolis track.

A Taste of the Game

Indy 500 lets you choose among the March Cosworth, the Lola Buick, and the Penske Chevrolet. All three can be improved by making adjustments in several key areas. You can set shocks, camber, antiroll bars, tire pressure, rubber compound, and spoilers. You can make any car just as fast, or faster, than any of the others. When your car is adjusted to your satisfaction, test your gut and decide whether you're really good enough to race with the pros. If not, opt to practice or qualify for position in an upcoming race. Once in the race, the realities of handling a car at more than 220 mph is challenging, even on the straightaways. The computer competition is stiff and intelligent, making it a feat just to finish the race. Ovals are not boring at the Indianapolis Speedway, and the same is true in the Indianapolis 500 simulation.

INSIDE INFORMATION

To qualify with the fastest possible time, warm up your car and take the first four laps at about 180 mph. Come to full speed on the final lap just after the third turn. When you cross the finish line, you begin another set of laps. If done correctly, your car will now be carrying around six gallons of fuel, which is just enough to get you home. The reduced weight will let you qualify at much higher speeds.

Mario Andretti's Racing Challenge

Electronic Arts
$49.95
640K IBM AT/PS2/Tandy/Compatibles (10 Mhz 286/386 required)
EGA/MCGA/VGA; AdLib/Roland MT-32
COPY PROTECTION: Documentation look up

Why This Is Special

Mario Andretti's Racing Challenge greenflags adrenalin for the auto action addict, and provides authentic detail for the knowledgeable motor sports enthusiast. For the first time, afficionados are able to feel the difference in six different types of auto racing. So, if Sunday afternoon in the driver's seat, or the pits, is your way of saying, "It doesn't get any better than this," then this game could be for you.

A Taste of the Game

Mario Andretti's Racing Challenge takes players up through the ranks of professional auto racing with six different types of racing. Each has distinctive courses and different types of qualifying and race lengths according to the type of racing being simulated. You can challenge Mario at Ascot and at other famous sprint racing tracks. After you have won enough prize money, you can upgrade your vehicle and move on to modifieds.

Modifieds give you a wider car to work with, but force you to race over some of the same tracks you raced on during the sprint car circuit. If you win enough here, you'll move on to stock cars.

Stock car racing is American as apple pie, even if it doesn't taste as good. The stock car circuit introduces more lengthy races to the mix. This means that having a pit stop strategy for refueling and possibly changing tires, is absolutely vital. You can be leading the race for several laps and think that you're headed for a pole-to-pole victory when suddenly, another good ol' boy drafts your car for a lap or so and makes his move. You're forced to eat dust and get even another day, as you push your car in over the finish line.

By the time you reach the Indianapolis circuit and the Formula I circuit, pit stops are an even more vital part of the race strategy. Each new circuit becomes more harrowing until you are finally ready for the endurance tests of Formula I with its serpentine roadway routes. You'll quickly learn that speed is not always the key to victory.

Microsoft Flight Simulator 4.0
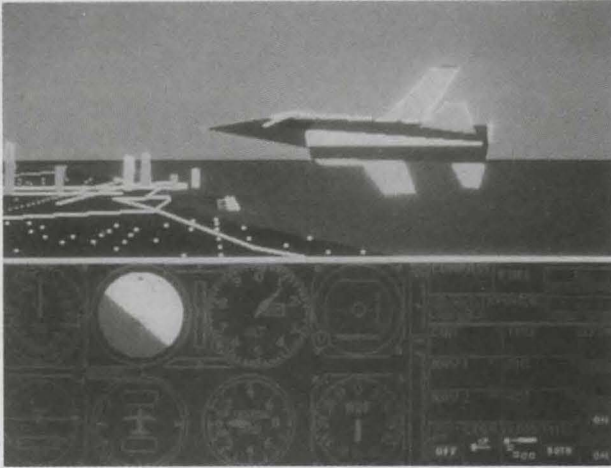
Microsoft
$49.95
384K IBM/Compatibles
CGA/EGA/MCGA/VGA/Hercules
COPY PROTECTION: None

Why This Is Special

Flight Simulator is quite possibly the best-selling piece of personal computer software ever. It is definitely the best-selling game. In fact, this product, which was created over a decade ago, is almost as old as the personal computer, and predates the introduction of the IBM PC. To own a copy is to own a piece of computer game history.

Flight Simulator originally ran on the Apple II. By today's standards this old wire-frame based game was primitive, but in its day it was definitely state of the art. Flight Simulator is said to have led to the purchase of more personal computers than any software outside of the business environment. It is also said that if you master Flight Simulator, you are well on your way to being able to fly for real.

A Taste of the Game

Just as you'd expect, Flight Simulator starts off by presenting you with a confusing array of dials and switches. Read the manual, figure out what the heck all those dials

are for, and take off into the sky. Once you get up there, it's almost as good as the real thing. The sound of the engine hums in your ear and the blue sky surrounds you. If that's too boring, turn on the realistic weather option. Then you'll face clouds, snow, and fierce winds that toss your plane willy-nilly. Flight Simulator allows flight to actual cities and towns. You can fly past the Statue of Liberty, San Francisco's Transamerica Tower, the Empire State Building in New York, or the Sears Tower in Chicago. When you're ready, call the control tower, make your approach, and attempt a landing. Good luck. You're going to need it. Landing is the hardest part.

It is also possible that Flight Simulator has generated more auxiliary software products than any nonbusiness program. With Microsoft's Aircraft Scenery and Design Kit you can fly aircraft such as the Gates Learjet, Cessna 172, and the Schweizer 2-32 sailplane. You can also design your own aircraft and scenery. Another company, SubLogic, sells a library of more than ten scenery disk products that cover the U.S. and parts of Europe and Japan. SubLogic's Instant Facilities Locator helps you quickly find any location on your scenery database, and SubLogic's Hawaiian Odyssey combines Hawaiian and fantasy scenery in a fantasy flight adventure.

Railroad Tycoon

Microprose
$59.95
512K (640K with VGA) IBM/PS2/Tandy/Compatibles
CGA/EGA/VGA/MCGA/Tandy Cards/color monitor required/mouse recommended
COPY PROTECTION: Documentation look up

Why This Is Special

When you were a kid, you might have dreamed of either being a railroad engineer or having your own model railroad set. If you still have those dreams, Railroad Tycoon will let you live out your fantasies again and again.

There have been other computer railroad games in the past, but they did not have the depth or breadth of Railroad Tycoon. Its accurate representations of trains and routes makes it one of the best strategy games available today.

Railroad Tycoon recreates railroading in the United States, Britain, and Europe from the beginnings of railroading (1828) to the present. The game brings together three great railroad themes: corporate financing, track laying, and operations/dispatching. Your competition in this game is not slimy alien space goop, but the rail tycoons and robber barons of railroad history. *They* may have been worse than any space invaders.

A Taste of the Game

The object of this game is obvious—start from scratch and build your own railroad empire. You will need sound financial sense and a good mind for operations if you want to protect your empire from takeover by one of the other railroad tycoons.

When you build your railroad you will have to deal with financial markets to raise construction capital, survey land, build track, and schedule and operate trains. In each game you will face three other computer-controlled tycoons who perform as they did historically. J. P. Morgan knows how to work the financial game. Jay Gould is a rascal who will make raids on your stock and try to rate-war you into defeat. Jim Hill is an excellent builder of efficient railroads. In addition to these men, you can find yourself doing battle with Cornelius Vanderbilt, Jim Fisk, Daniel Drew, or any of sixteen others.

Among the other functions of the game, Railroad Tycoon allows you to set the difficulty level on the various aspects of the game. If you don't care about financing, you can reduce the difficulty level on the financial side down to where you can more or less ignore it. If you don't care about operations, you can lower the difficulty level on operations to the point where that part of the game runs itself.

INSIDE INFORMATION

You can embezzle $500,000 risk-free dollars by going to the F1 (function key) screen, and then pressing the $ key (shift 4).

Plan to buy 30% of your treasury stock by the end of the first fiscal period. This will put you in a good position to defend yourself against stock raids from the competition.

Street Rod II

California Dreams
$39.95
640K IBM/Tandy/Compatibles
EGA/CGA/Hercules/Tandy 16 Color
COPY PROTECTION: Document check
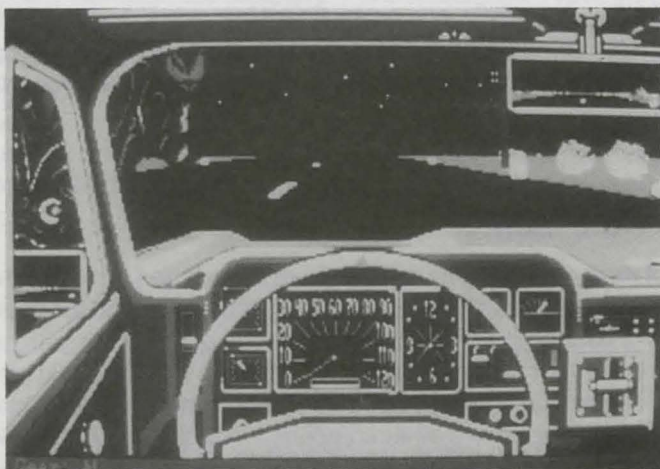
Why This Is Special

This game is a step back to the days when all you needed was a hot car to show off at the burger stand and engines were measured by cubic inches, not centimeters. These cars had high compression ratios and were built for speed. They also burned gas by the bucketful. They were called Camero, Charger, Corvette, GTO, Chevelle, and Mustang.

In Street Rod II you have $1200 with which to breathe life into an old worn-out stocker and turn it into a gravel-spitting, rubber-burning monster. Cruising for chicks or picking up dudes in your rod is nice; but what you really want is to beat the King of the Road. Don't you just love the smell of burning rubber in the early morning? It smells like victory!

A Taste of the Game

You build your car from the ground up from parts you purchase right out of the classifieds. Then you tear it down and build it up again. Get out the paint gun and give your car a cool new look. Chop the roof, remove the bumpers, change the

tranny. These are just some of the things you do to make your car the coolest, fastest rod around.

Ultimately you will race your car. Drag races test your ability to get off the line quickly. In road races along Mulholland Drive you have to control speed on straightaways and curves. Don't forget to watch out for the fuzz. If he catches you it can put a big dent in your budget and your pride. The legal place to race is at the local track where Grudge Night is held every Wednesday. Plop down $30, and take a chance at winning some cash. Wins at Grudge Night increase your purse and attract the attention of the cooler dudes. You might even get the attention of the King of the Road, who little suspects that you are laying in wait for him. That's cool, let him think you're a turkey. Then go out and blow his doors off.

Test Drive II
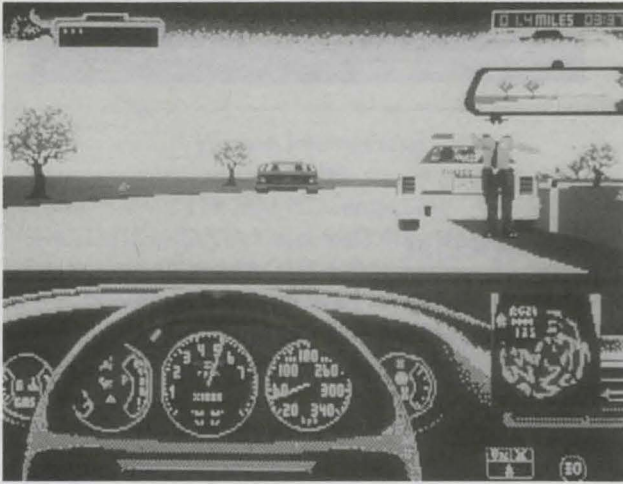
Accolade
$44.95
512K IBM/PS2/Tandy/Compatibles
CGA/MGA/EGA/Hercules/Tandy 16 Color/joystick recommended
COPY PROTECTION: Key disk

Test Drive III

Accolade
$59.95
640K IBM(8 Mhz or faster)/Tandy/Compatibles
VGA/EGA/MCGA/Tandy 16 Color
COPY PROTECTION: Code wheel
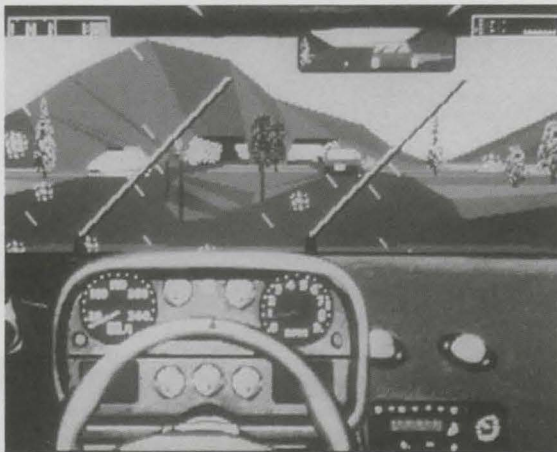
Why These Are Special

These games are for those of us who have fantasies of driving at least 50 mph over the speed limit in some of the fastest production cars ever designed. Test Drive II and III let the meekest of us put our heaviest lead foot forward, and roar off into simulated driving fame.

The original Test Drive gave us the Ferrari Testarossa, Lotus Turbo Esprit, Porsche 911 Turbo, the Lamborghini Countach, and the Corvette. The newer games add more cars and better graphics to a game that is considered definitive in street-car racing.

A Taste of the Games

Test Drive II: The Duel lets you leave the road—if you dare. Drive off the cliffs, roar off into the desert, but be prepared for some repair bills. These new terrains and roadways are perfect for going head-to-head against the computer. The game includes the Ferrari F40 and Porsche 959. In addition to racing against the best

previous time, you can challenge the computer to a race. Get ready to burn some serious rubber.

Two add-on disks, Supercars and Muscle Cars, add more cars to Test Drive II. Supercars brings the original cars from the Test Drive over to Test Drive II. Muscle Cars brings us five classics from the past: the '63 Corvette Sting Ray, the '69 Dodge Charger Daytona, the '68 Shelby Cobra Mustang, the '67 Pontiac GTO, and the '69 COPO Camaro. California Challenge, another add-on disk, gives you scenery all along the California coast, from Mexico to the Oregon border. Now's your chance to show those yuppies who's king of the road.

In Test Drive III comes three fantasy cars, two of which are actually experimental— the Pininfarina Mythos and the Chevrolet CERV III (Corporate Experimental Research Vehicle III). The third is the Lamborghini Diablo. An add-on disk brings the Acura NSX and Dodge Stealth. The new version also adds instant replay and chase car views. The Test Drive family of products are good choices for players with chrome fever.

INSIDE INFORMATION

You can always outrun the cops if you know the roads. Your car is faster than theirs—no ifs, ands, or buts. On these roads, however, knowing how to drive is always better than sheer speed.

Tracon II
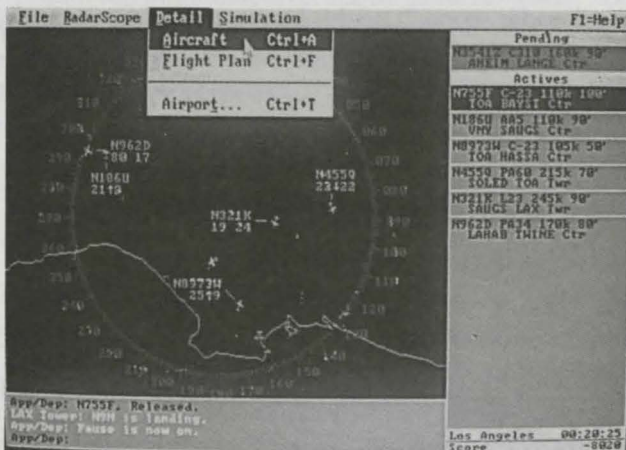
Wesson International
$69.95
512K IBM PC/Compatible
CGA/EGA/MCGA/VGA/SVGA/Hercules/2 floppies or hard disk required
COPY PROTECTION: None

Why This Is Special

Tracon II simulates the world of the air traffic controller. This game represents the classic art of juggling airplanes. After playing Tracon II, you'll have an appreciation of why air traffic controllers complain about their job and their blood pressure. It's nearly impossible to finish this game without losing five pounds from continual perspiration.

A Taste of the Game

From Piper Cubs to Boeing 747 "heavies," you will guide their movements in one of six control sectors: Los Angeles, San Francisco, Seattle, Miami, Chicago, or Boston. The digitized commands and responses work with the realistic radar display, and make you feel like you're really on the job. The madness begins as pilots start requesting your attention to authorize take offs, set them up for landings, vector (direct) them around weather patterns, and more. Some are running low on fuel and need your immediate attention, but others may have lost their hydraulics and actually be out of control. First one, then two, five, ten, and then twenty or more planes fill your radar screen, each needing your guidance. You don't have time to go crazy.

The program lets you choose to have perfect pilots who always do it right; normal pilots who occasionally screw up; or lousy pilots who make you wish you had booted up Tetris instead. Additionally you can adjust variables such as the weather and how often equipment fails or goes on the blink. One unique feature about Tracon II is that you can hook it up with up to sixteen other computers running Flight Simulator. On a computer network, your friends (or enemies) flying in their PC pipers can take their directions from you as their trusted air traffic controller. The possibilities for fun or revenge are endless.

INSIDE INFORMATION

Tracon II allows you to add a small line of data about an aircraft next to the aircraft on your radar scope. Use this feature to add the aircraft destination so that you don't have to repeatedly ask for the flight plan.

Other Planes, Trains, and Automobiles of Note

Blue Angels
Accolade
$49.95

For those of you looking for a different kind of challenge, try booting up Blue Angels. This game will get you well on your way to mastering the difficult task of computer-simulated formation flying, a skill that has been largely ignored in computer games.

Even though other games have occasionally made provisions for this, only Blue Angels specializes in it.

The Cycles
Accolade
$39.95

Combine Test Drive, Mario Andretti's Racing Challenge, and motorcycles. Put them all in a shaker, pour them out, and you've got The Cycles. The Cycles takes you into the world of the International Grand Prix of motorcycle racing. Racers compete against nine of the world's best racers on 15 authentic courses from around the world. Three classes of superbikes are available at five different skill levels.

Ferrari Formula One
Electronic Arts
$49.95

In Ferrari Formula One you will compete in the 16 races that made up the 1986 Grand Prix circuit. From Monaco to Detroit you will not only learn the ins and outs of each course, you will learn how to set up your car to get the performance that will put you on top.

Beyond the racing sequence itself, Ferrari is a detailed simulation of auto race mechanics and race planning. You can use the wind tunnel and dyno room to experiment with various systems on your car, such as fuel injection computer systems, turbochargers, wing settings, and suspension. Gear ratios must be adjusted according to the type of course you are running.

"Ironman" Super Off Road
Virgin Games
$39.95

Tired of pumping quarters into the coin-op version of Super Off Road? Or perhaps you have always admired this multiplayer action game from afar, not wanting to be caught dead playing a game in an arcade. Whichever your story, here is the PC version of one of the most popular coin-op games of the past few years. Up to three players can gather round the keyboard or use joystick and keyboard combinations to tear up the track.

Stunt Driver
Spectrum HoloByte
$49.95

The box says "all the fun of real stunt racing without the bruises." That about sums it up. In addition to exciting races against up to three opponents, Stunt Driver gives you a custom track design feature that allows you to edit your own courses. A head-to-head feature allows you to connect with a friend's computer and go head-to-head against one another. The game has three difficulty levels, five preconstructed courses, and a VCR replay feature.

Stunts
Broderbund
$49.95

Stunts, like Stunt Driver, takes you into the fantasy world of stunt driving through fantastic obstacles including jumps, slaloms, bridge jumps, loops, pipes, and spirals. A construction set lets you design your own courses with surfaces of asphalt, dirt, or ice. The VCR feature lets you play it all back.

Vette!
Spectrum HoloByte
$49.95

In Vette! you race one of four Corvettes through the accurately mapped streets of San Francisco over a variety of courses. Time pressures are a constant companion as you fly up and down the city's hills, avoiding pedestrians, cops, trucks, dead end streets, and the Bay itself—which is a really, deadend street.

Vette! also features a two-player option that allows two people to race against each other via direct computer link.

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The Sporting Life: Sports Simulations

It's difficult to compare statistics from one league, one era, or even one ballpark to another. Even so, sports fans always try. Americans like statistics. We feel we can manage the unmanageable if we can break it down into numbers. Computers with their number crunching ability are the perfect environment for this approach to simulating sports.

From the earliest days of home personal computers, there have been sports games. At first, there were just football games, which were essentially "outguess the computer program," and baseball games built on statistics. Many games today are based on the supposed approach of well-known managers and athletes, such as John Madden or Wayne Gretzky. These games put you in a position to outguess the coach or the player.

Other games are based on more than strategy and statistics. The designers of these games realized that physical performance is part of the excitement of sports. They emulated physical exertion with keystrokes and reflexes. In Microsoft's Olympic Decathlon, which was popular in the '80s, players moved fingers rapidly from key to key to simulate running and had to time their moves and hit the space bar at just the right moment in order to perform athletic feats like polevaulting and high jumping. That's about as close as you could get to an athletic accomplishment in any of the games—sore fingers.

Later games provided action and excitement without requiring special equipment or locations; letting the player become his or her favorite sports hero and enjoy his or her favorite sport at anytime. Computer games can deliver numbers, strategy, and even a feeling of athletic accomplishment. What they tend to miss, however, is the personality side of sports. Soul, personality, and competitive drive are hard to quantify. You might be able to simulate the "thrill of victory and the agony of defeat,"

but the personalities of the players are seldom present. You won't see a Ron Dibble throw a baseball at a fan or at another player, a John McEnroe indulge in a temper tantrum, or a Lee Trevino snap off wisecracks between putts. On the other hand, even television can't deliver the taste of the hotdogs, the smell of the crowd, or the feel of the heat bouncing off the Astroturf.

Basketball Challenge

XOR Corporation
$39.95
256K IBM/Compatibles/Tandy
COPY PROTECTION: None

Why This Is Special

To paraphrase UCLA coach John Wooden, "To play is to think." Basketball Challenge is certainly not the prettiest basketball game on the market, but it may be the best coaching simulation. Unlike many sports games, Basketball Challenge does not depend on clever animations. Instead simple colored numbers move around the screen. Sound effects, though, help the armchair coach suspend his or her disbelief and help take them right into the game.

A Taste of the Game

Basketball Challenge uses slightly disguised statistics from actual college basketball teams and allows armchair coaches to exploit match-ups, utilize their bench strength, and call set plays. In Basketball Challenge you make actual coaching decisions. You decide the line-up, the defensive and offensive sets, substitutions, time-outs, and when to have a key player take a shot. Set plays can be called from the bench simply by hitting a command key; and time-outs can be called to interrupt the opposing team's momentum, just like an actual coach. You can also come up with customized game plans, and let the skill of the on-screen players determine the final outcome.

INSIDE INFORMATION

Since Basketball Challenge is built around coaching, look for mis-matches and take advantage of them. Also, make sure to keep fresh players on the floor. The computer is not careful about this, and it could be to your advantage.

Dream Team
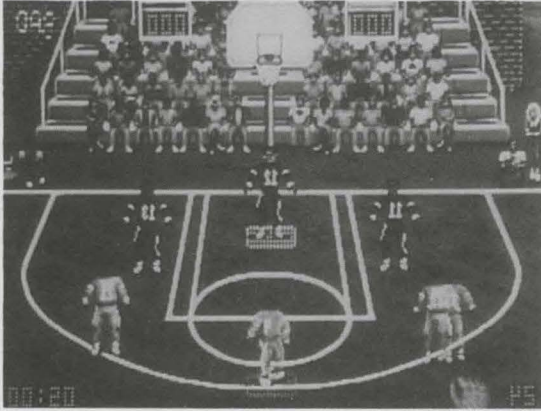
Data East
$49.95
512K IBM /Compatibles/Tandy
CGA/Hercules/EGA/Tandy 16 Color/VGA
COPY PROTECTION: Documentation look up

Why This Is Special

The biggest joy in basketball is going head-to-head with the best, giving someone your slickest move, and jamming the ball home "in their face." This is a game that brings the joy of actual competition to the computer.

Dream Team is a basketball game based on a series of charity competitions held by Joe Dumars (Detroit Pistons), Dominique Wilkins (Atlanta Hawks), and Patrick Ewing (New York Knicks). The three pros play three-on-three half court against other players. The strength of Dream Team is its flow of action.

A Taste of the Game

In Dream Team you can play one-on-one, two-on-two, or three-on-three games as individuals against the computer, as teammates against the computer, or head-to-head against each other. You can play a fast-moving, free-flowing game with no freethrows, or a regular half-court game. One can even coach the team by calling plays or editing the play book. On offense, the on-screen player with the ball is

always the active player. On defense, you can switch from one player to another. Passing is easy too. Press a button on either the joystick or the keyboard to have the active on-screen athlete shoot.

INSIDE INFORMATION

Make sure you have someone under the basket when you take a shot. The computer opponent always crashes the boards. You could lose on rebounds if you're not careful.

Earl Weaver Baseball II

Electronic Arts
$49.95
512K (640K recommended) IBM/Compatible/Tandy
EGA/MCGA/VGA/SoundBlaster/AdLib/Roland/Tandy
COPY PROTECTION: Documentation look up

Why This Is Special

Earl Weaver Baseball II remains true to the roots of the national pastime. It can be played as a pure action game, pure strategy game, or as a hybrid. It has VGA graphics, sound board support, large on-screen ball players that fill the computer screen, and new instant replay angles. The instant replays come in both realtime and slow motion. Also at your fingertips is a general manager function to facilitate trading, a statistics compiler for league play, and the ability to print lineups. You can even customize team uniforms, team personnel, and their home stadiums.

A Taste of the Game

Earl Weaver II remedies some of the problems players had with Earl Weaver I. Now pitchers can decide on the type of pitch and pitch location. They can pitch out, pick off, or deliver the pitch to the plate. Hitters can still decide to bunt or swing away, as well as when to run forward or retrace their steps. Earl Weaver II determines plays with statistics, physical law, and game action. Players have the option of full graphics, statistics, and physics in action mode; managerial mode; or play and manage mode. Statistics buffs who do not want their games influenced by the spin and bounce of physics can opt for a faster game.
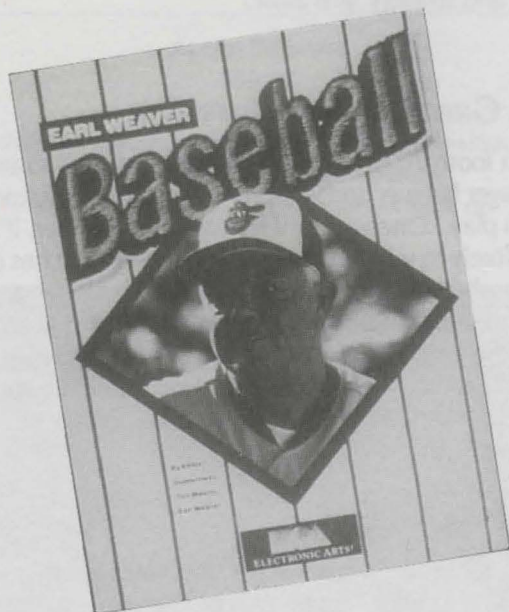
INSIDE INFORMATION

Players should not forget that Earl was suspicious of running plays. He never liked to run himself out of a ball game by stealing or using the hit-and-run at a bad time. Use steals and hit-and-run plays sparingly.

John Madden Football

Electronic Arts
$49.95
256K IBM /Compatibles/Tandy
CGA/EGA/Tandy 16 Color
COPY PROTECTION: Code wheel look up

Why This Is Special

With this game, you have at your fingertips the tool that gives CBS sports and John Madden an edge in game coverage every Sunday—the chalkboard. This simple, friendly tool lets you call plays and defensive sets, move linemen or running backs as a unit, and set up individual match-ups to take advantage of your team's strengths

and your opponent's weaknesses. John Madden Football is an excellent hybrid appealing to action and strategy fans alike.

A Taste of the Game

Strategy is the key in football, and in John Madden Football strategy sets up all the action. Weather, player fatigue, and jury proneness are also factors that help decide the outcome of each play. Once the ball is snapped, however, it's the best joystick jockey who is most likely to win, barring significant mismatches or strategic errors.

Armchair coaches who have no wish to test their reflexes can get a fairly satisfying challenge by keeping their hands off the joystick. Once the play has been called, let the computer move the players onscreen. Players with fast reflexes who choose to play and coach usually have an advantage when they meet up with players who are pure coaches. After each NFL season data disks are available with the latest stats to add to your next game.

INSIDE INFORMATION

The computer defense in John Madden Football has always had a poor capacity for reacting to misdirection plays.

Whenever possible, human coaches should put men in motion and allow the quarterback to scramble.

Links

Why This Is Special

Links is the most realistic looking golf game available today. The courses for Links (and the Links add-on disks) were videotaped and digitized, which is why this has such a realistic look. The program figures out the three-dimensional topography of each hole and fills out the appropriate perspective after every shot. The course and holes are featured in such detail that the greens can be "read" with the naked eye.

A Taste of the Game

Teeing off in Links is easy. Simply choose a club, take the proper stance, place the cursor on the spot you want the ball to go, and swing. The swing uses a power bar shaped like a "C," which serves as an analogy for the backswing. Located toward the bottom of the "C" is a line that represents the point of actual contact with the ball. The higher up on the "C" the backswing goes, the harder the ball is hit. The closer to snapping the shot off right on the line at the bottom of the "C," the more accurate the shot is likely to be. This enables players to use various swings (draw, straight,

fade, chip, and putt), and it even allows players to customize shots such as the "pitch and run." Putting is done somewhat differently, but is also easily mastered.

All that's left is getting onto the green in two; but that's always the problem, isn't it?

MicroLeague Baseball: The Manager's Challenge

MicroLeague Sports
$39.95
512K IBM/Compatible
CGA/EGA/MCGA or VGA graphics
COPY PROTECTION: Documentation look up

Why This Is Special

MicroLeague Baseball is so easy to play, that you might not even need to read the manual. On the other hand, you had better know baseball, which is an entirely different matter. MicroLeague Baseball is a statistics-based game that puts you in the coach's seat, and requires that you know when to play by the book or fly by the seat of your pants.


```
BALLS    3        NEW YORK        6
STRIKES  2        LOS ANGELES     5
INNING   9        GEHRIG         .373
OUTS     2        PERRANOSKI    1.67
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A Taste of the Game

MicroLeague Baseball: The Manager's Challenge comes complete with 26 classic teams, and these can be supplemented with season and team disks from both the original MicroLeague Baseball and MicroLeague Baseball II. It is one of the only stat-based games that requires the manager of the team at bat to guess what type of pitch is coming, which means a player has to really mix up his or her pitches. The biggest virtue of this game is in the number of logical decisions it lets would-be managers make. You also have more control over base running than in other games.

Play can be sped up by not displaying the animation results after each play or by using the expert mode, which eliminates the game's various menus.   Finally, the game features a "Quick Play" option that gives results and line scores in a little over a minute, enabling players to recreate entire seasons. Players wanting a real challenge can order the General Manager/Owner disk, which allows updating team rosters and stats as the season goes along.

INSIDE INFORMATION

Be careful not to pitch too aggressively to power hitters. An aggressive pitch puts the ball right over the plate and then out of the park.

Playmaker Football

Broderbund Software
$49.95
640K IBM Compatible/hard disk
EGA/Tandy 16 Color/MCGA or VGA graphics
COPY PROTECTION: Key disk

Why This Is Special

Originally published on the Macintosh, Playmaker Football is possibly the finest pure strategy football game available for personal computers. Players can design a team from scratch, using both a Team Draft function that allows each player to be customized and a Chalkboard utility that lets all plays be designed from the ground up. You're even able to rate players for speed, strength, agility, intelligence, and discipline. All that's missing is a team trainer to tape players' ankles before the game.

A Taste of the Game

Playmaker Football is very detailed, but it has a convenient, icon-driven interface to help players design their team playbooks. Plays are built from scratch with complete

freedom to design formations, fakes, pass routes, and blocking assignments. Like everything else in Playmaker Football, the menu can be customized to show exactly what the game player wants. If the human coach is in a hurry to get off a rushing play, he or she can call up a menu that only contains rushing plays. The same is true for passing plays.

One big advantage of Playmaker Football is it lets another person play against your team when you aren't available. There is an artificial intelligence aspect to the program that limits the computer coach, which operates in your absence; so it's very possible that the computer could go ahead and lose the game for you. This is not the same as the computer coach "throwing" the game, however.

The clock in Playmaker Football runs continuously, just like in the real game. When the play is called, on-screen athletes go into action and the play unfolds before your eyes. One of the great things about this game is the ability to improvise. All a player has to do is move the cursor in the direction he or she wants the play to go and voilà, a bit of broken field running, or a quick pass, and *touchdown*.

INSIDE INFORMATION

Pay very close attention to how each player is described in the manual. By maximizing the use of each player's talents, you will end up with an effective and distinctive playbook—an advantage over your opponent.
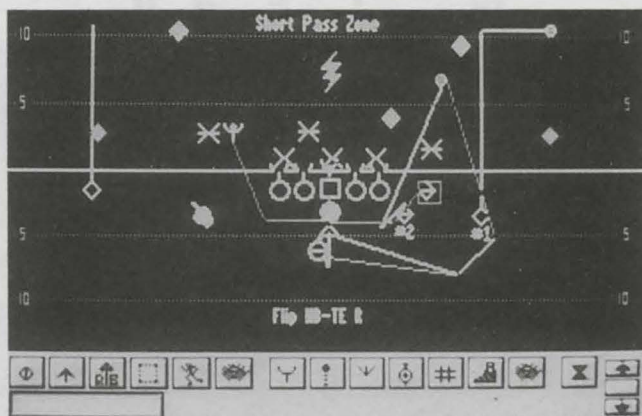
Tony La Russa Ultimate Baseball

Strategic Simulations (SSI)
$59.95
(640K)IBM /Compatibles/Tandy
EGA/VGA/MCGA/AdLib/SoundBlaster
COPY PROTECTION: Documentation look up

Why This Is Special

SSI was one of the very first software developers to bring sports simulations to the computer, when they published Computer Baseball and Computer Quarterback in the early eighties. After that, SSI left sports behind and became known for their computer war games and Advanced Dungeons & Dragons titles.

With Tony La Russa Ultimate Baseball, SSI is making a bid to have the premiere baseball strategy game once again. From the moment the game begins, its allure is evident. The animation is incredibly lifelike, especially the motions of the pitcher. The game comes with stats of the all-time greats of each team. Data disks are available for stadiums and current statistics. Tony La Russa Ultimate Baseball also offers several different levels of play so that the game can be enjoyed by beginners and experts.

A Taste of the Game

Tony La Russa Ultimate Baseball features VGA graphics, large on-screen ball players, and full sound support, and has both a play and manage and a manage only

mode (for pure statistics buffs). Players who opt to play and manage make just about every decision made by a manager and player. While batting, players must first choose what type of swing to use. Choices range from just a normal swing to swinging for the fences. While pitching, players select what type of pitch to throw and where to throw it. In addition to fastballs, curves, and change-ups, each pitcher has a specialty pitch. Steve Carlton has his wicked slider, and Phil Neikro throws the knuckle ball. However, Gaylord Perry will have to get by on his own, as the spitter is illegal in this game. But then Gaylord never did admit to throwing one, anyway.

Most baseball teams have a 25-man roster. Tony La Russa Ultimate Baseball recognizes the need for competent reserves, so it allows team owners to choose 12 pitchers and 18 position players during the course of a season. Only 25 can be active at any one time, but when players are injured, you can simply go to the five man reserve list and activate the player of your choice.

INSIDE INFORMATION

Tony La Russa Ultimate Baseball rates players by a "streak rating," which shows when a certain player is at his best. Set your line-ups to take advantage of this. For instance, don't play Ryne Sandberg in April, and make sure Reggie Jackson is in your line-up at the end of the season—he isn't known as Mr. October for nothing.

Wayne Gretzky Hockey 2

Bethesda Softworks
$49.95
348K IBM/Compatibles
CGA/EGA/Tandy Color/VGA; mouse or joystick highly recommended/SoundBlaster
COPY PROTECTION: Documentation look up

Why This Is Special

Slam. Bam. Wayne Gretzky Hockey 2 puts you right in the middle of nonstop action in one of pro sports' fastest and roughest leagues. The game features great animation with referees calling penalties, celebration messages on the scoreboards after home team scores, fights breaking out between players, and even player action between periods. For those with a SoundBlaster sound card, you will hear cheering crowds when the home team shoots, or a goalie makes a nice save. You'll also hear distinctive thuds when you knock players to the ice or against the boards.

All that's missing are the French, English, or Swedish cusses. It's not a big loss.

A Taste of the Game

Wayne Gretzky Hockey 2 allows you the chance to watch plays unfold, see how the computer positions its players, and use the entire offensive zone to your advantage. As for actual play, each player is rated statistically by real NHL coaches for aggressiveness, stick handling, passing, shooting, defense, skating speed, and more. When play begins the on-screen players perform according to their rating. More aggressive players pile up more penalty minutes, faster skaters get to the puck quicker and better, and shooters get more shots on goal than nonshooters.

In the "coach only" mode, you make initial line-up decisions and decide when to change lines on the ice. In the "play and coach" or "control player" mode, the game takes on an entirely different dimension. Stats still impact the play of the game, but so do the player's reflexes. Here, you can take any position or be any player you desire. As this character, you can decide whatever action to take as the game play unfolds. Go ahead, take that check. You'll never feel it.

INSIDE INFORMATION

Fatigue is your enemy. A fatigue rating, which continually drops as a line and skates on the ice, is printed at the bottom of the computer screen. As the rating slips toward mediocrity, change lines; otherwise the other team will have the speed and stamina to out-skate your tired best.

World Class Soccer

U. S. Gold
$44.95
512K IBM/Compatibles/Tandy
CGA/EGA/Tandy 16 Color/VGA; joystick recommended
COPY PROTECTION: None

Why This Is Special

What football and baseball are to the United States, soccer is to the rest of the world. Originally titled *Italia, 1988*—in honor of the World Cup champs—World Class Soccer is a European action game, done in the style of TV game coverage. While soccer is becoming more popular in this country, there are few soccer simulations, and this is a good one. It's even a enjoyable way to learn the game.

A Taste of the Game

The actual flow of play in World Class Soccer is straightforward. The speed, skill, shooting/passing accuracy, aggression, and strength of each simulated player is rated. This influences the success of the human player's shots, tackles, and passes. On offense, the player controls the ball by being near it and kicking it. By using a joystick, a player can kick the ball down field or at the goal, can hit the ball with his head, and control the goalie's moves. On defense, you can either attempt to steal the ball or slide tackle to try and kick the ball loose. The better shooters will tend to

have their shots be more accurate, and the poorer shooters will not. Faster players should be able to outrun the slower players, regardless of who happens to be holding the joystick.

World Class Soccer comes complete with statistical data on 24 national teams. Just like World Cup competition, your team gets to play in a tournament with the threat of being eliminated at any time.

INSIDE INFORMATION

The key to defense in World Class Soccer is the same as it is in real life. Players should select their fastest defensive players to protect the goal.

Other Computer Sports Games of Note

Hardball II
Accolade
$49.95

The original Hardball showed how good an action-based computer baseball game could be. Many of the action features used in other baseball simulations are attributable to the ground broken by this arcade game. This sequel features better graphics and an enhanced capacity to participate in league play.

Jack Nicklaus Unlimited Golf
Accolade
$59.95

Versatility is the key to this game. The "Golden Bear" helped with the design, and the game offers an excellent interface. Also countless course data disks have helped make Unlimited Golf the best-selling golf simulation overall. The options and graphics are not as advanced as Links, but the ability to design one's own course from scratch makes this a must for most computer golf fans.

Lance Haffner Sports Games
Lance Haffner Games
$39.99

Lance Haffner's text-based sports games crunch numbers, offer players a chance to become the coaches/managers they have always wanted to be, and offer fascinating statistical replays. Whether it is Hat Trick, Pro Ice Hockey, Courtside College Basketball, Full Count Baseball, or Three-in-One Pro Football, these games offer statistical reliability and a reasonably challenging opponent. These are for those who like their sports action without pictures.

MicroLeague Football
MicroLeague Sports
$39.95

MicroLeague Football is an ideal game for players who wish they could have coached the great teams of old. It's also for those who want to create a matchup between two teams from different times. The subtitle of MicroLeague Football is "The Coach's Challenge," because the game is designed for strategy gamers who would rather coach than control the on-screen figures themselves. Imagine playing with Johnny Unitas and the 1958 Colts, Joe Namath and the 1969 Jets, or some of the great 49er or Steeler dynasty teams.

NFL Challenge
XOR
$79.95

NFL Challenge was the engine used to decide the outcome of the "Dream Season" held on ESPN a few seasons ago and for good reason. It's the most statistically realistic football simulation available. It doesn't have the sleek graphics of other football games, but instead uses Xs and Os on an animated chalkboard to show play results. In this game you're the coach, and it's played from that perspective. The game shines when played against another human player, though the three different computer coaches are no pushovers. This game is a must for serious football fans.

PGA Tour Golf
Electronic Arts
$49.95

PGA Tour isn't as flashy as Links or Jack Nicklaus Ultimate Golf, but it is still enjoyable. The benefit of the game is the ability to use tournament rules and compete against real-life touring pros.

Pro Tennis Tour 2
Ubisoft
$49.95

Pro Tennis Tour 2 is the leader in computerized tennis games. It's even better now that four people can play, and statistics for female tennis pros have been added. The game features a role-playing aspect that allows a player to create a "pro" and follow him or her through the tour. The game requires such precise timing though, that even the best professional tennis player can have his or her score dragged down by poor reflexes on the computer.

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Shootout in the Fantasy Factory: Arcade/Action Games

Most of us are still able to drive automobiles after we graduate from high school; and arcade-type games use the same recognition/response mechanisms as driving, with less dangerous potential consequences for messing up.

- Ted Williams could still hit a major league fast ball after 40.
- Arnold Palmer could still putt after 40.
- Billie Jean King could still return a hard service after the age of 40.

There is little to prevent anyone from successfully playing the arcade games of their choice.

Combo Games

Often arcade action is blended with other elements to create combination games, strategy and role-playing being the most common.

Strategy blends best, and such combo games range from the simplistic (Spectrum HoloByte's Tetris: Let's see, do I drop the block here or there?) to the diabolically difficult (Psygnosis's Lemmings—Bring us the programmer so we can kill him). There is no shortage of strategy/arcade games; many enjoy great popularity, and a select few have a unique addictive quality.

Role-playing also combines with stick twitching. SSI's Heroes of the Lance (and its sequel, Dragons of Flame) has characters whose roles and actions are under the player's control, seemingly making it a role-playing game. It's actually an arcade game, for the very lives of the characters depend on one's joystick skills. Another

example is SSI's combat simulator Dragonstrike—instead of modern jet aircraft, you pilot fire-belching dragons. Even though role-playing elements are present, the bottom line has nothing to do with how many experience points you earn, you could be the greatest hero in role-playing history but if it won't matter if you have a weak wrist during aerial draconian combat.

The direct control of a primary game element—car, spacecraft, character, barbarian, blocks, and so on—is the key factor in determining just what is an arcade game. If completion of the game (or a high score) comes down to doing the right mechanical thing at the right moment, as opposed to typing the inspired command or implementing the winning tactic, then it's an arcade game.

Action/arcade games often have story lines, however scanty, primitive, or instantly forgettable, and the sequences that form the game are deliberately designed to advance it. Pac Man, Gauntlet, Lode Runner, and perhaps your favorite all have "plots." But even if we could remember them, they matter little. In arcade game based on films—for example, Terminator, Batman, Bill & Ted, and Nightbreed—if you've seen the movie, the story lines of the game will be familiar. But the fact is that each of these games relies on pattern recognition and eye-hand coordination to succeed—in other words, arcade skills.

Some Thoughts on Playing Twitch Games

The joystick is the traditional arcade game controller, but the actual device being used (joystick, trackball, mouse, keyboard) is irrelevant. No-frills video and computer arcade games are Space Invaders, Armor Alley, Pac Man, Stellar 7, Shufflepuck Cafe, and Wrath of the Demon. Regardless of story lines and plot devices, strategic or tactical possibilities, and the hype of the developers, each game comes down to one thing: your wrist-twitch responses to their inexorable attacks and general movement. Although choice is present in arcade games, it is a minimal element.

If you're new to arcade games and need a way to approach them, a musical metaphor might help. The late Duane Allman (of the Allman Brothers Band and Derek and the Dominos), when asked about his guitar-playing goals, said that he wanted to wire the instrument directly to his head, fretboard to fingers to brain and back again in a continuous loop, based on musical knowledge and guitar technique, as well as on what was being and what had been played. Based on his musical and technical knowledge, Duane Allman translated the silent music he heard in his head into great R&B slide-guitar licks.

As an arcade game player, your goal is to learn the game's controls thoroughly, study the game's ideas and patterns, and through practice (and a lot of restarts) let the brain perform its unconscious magic—eye to hand to eye to hand to eye to hand. The hand will finally do what the brain tells it to do (to a greater or lesser degree) based on what the eyes see on screen and without the time needed for conscious thought.

This is easier said than done, for sure. However, not only will you know the game you've practiced, but you'll also have a head start on the new one you've just booted up.

One tip: If you do find that you like to play arcade/action games a lot, you'll find that a lot of hours riding the joystick can do a number on your hands. Take a tip from the arcade pros and buy a pair of those fingerless bicycling gloves for protection. Your hands will thank you for it.

Some Final Thoughts on Arcade/Action Games

From the days of Pong, Space Invaders, Pac Man, and the "Commodore 64 as game machine" blitz, arcade games have withstood the test of time. Their appeal to all ages has made them part of our culture, and although they're maligned periodically, they do help push computer technology to greater heights. Anyway, there is nothing wrong with an occasional bit of mindless fun. There is a certain satisfaction in achieving 60,000+ points on the 7x7x18 Extended Set Blockout screen, or reaching the Taxing Difficulty level in Lemmings, or knocking loudmouth Biff Raunch off his championship pedestal in Shufflepuck Cafe.

Arcade games don't demand that you win; they don't demand that you top the current high score. They really don't demand anything, except that you play and have some fun. The mental gratification you'll derive from a successful arcade stint is in many ways similar to the intellectual gratification you'd derive from a long flight in Flight Simulator.

Blockout

California Dreams
$39.95
IBM/Tandy/Compatibles
Hercules, CGA/EGA, Tandy modes supported
COPY PROTECTION: Manual based

Why This Is Special

Blockout is Welltris (see our entry on Tris games) taken to the limit. Three block sets and three play modes give Blockout a thousand pit-and-block set combinations. The color-coded blocks are based on the Soma Cube invented by Danish mathematician Piet Hein; and in Blockout there are 41 different block combinations.

A Taste of the Game

Like Tris games, the goal is to manipulate blocks and drop them into a pit to form layers. Completed layers disappear, and all blocks atop them drop down a level. The Blockout pit has seven-block Length, seven-block Width, and eighteen-block Depth adjustments; and any pit setup can use any of the three block sets (Flat, Basic, Extended). Blocks also have three rotation speeds.

Each game, regardless of its pit/block setup, has 10 speed levels, and each game has its own high-scores table. Your favorite setup can be saved as the default. There is a practice screen and, if you don't start playing right away, demo mode kicks in. The auto-demo prevents your monitor from burning in and displaying Blockout permanently.

All that's missing from the IBM version of Blockout is block manipulation by mouse; it's available in all other versions, and while the mouse might strike you as an oddball controller, it definitely works.

INSIDE INFORMATION

Here's a faster way to rack up high scores: At level 2, the speed at which the blocks fall isn't all that much faster than speed level 0; at speed level 3, the speed difference is still marginal but you will notice it. Start at level 2 or 3, and as your understanding of how the Soma Cube blocks fit together increases, you'll be able to rack up scores of 30K–40K before the next level kicks in.

A large pit coupled with a slow, block rotation speed gives extra time (at least until speed level 4 kicks in) to study the specific block arrangement.
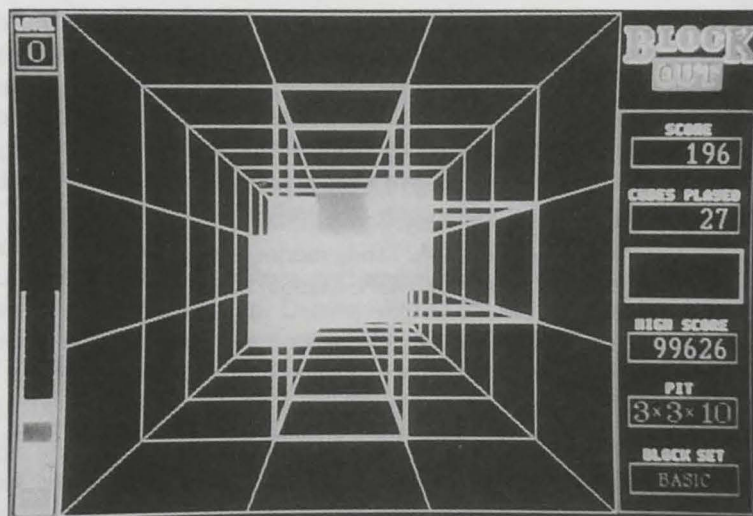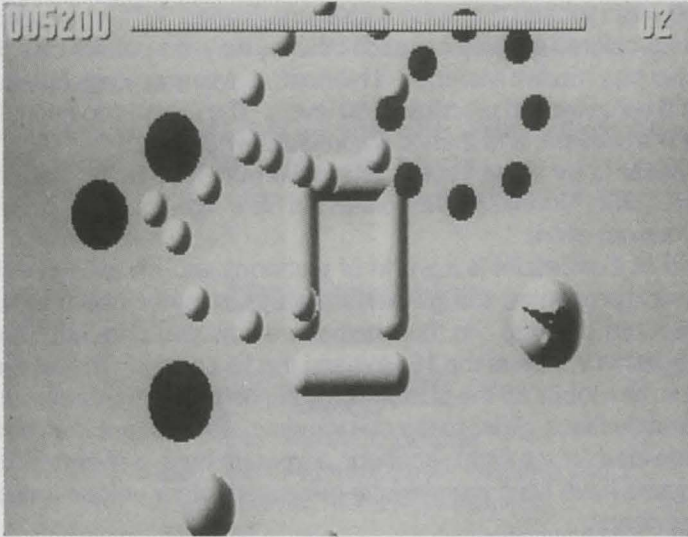
Harmony

Accolade
$44.95
CGA/EGA/VGA, Tandy modes supported/support for Roland/AdLib/CMS sound
boards; any MIDI synthesizer
COPY PROTECTION: Sheet based

Continuum

Data East
$49.95
IBM/Tandy/Compatibles
Hercules, CGA/EGA/VGA, Tandy/AdLib/SoundBlaster/Tandy 3-voice sound; 10 Mhz
(or faster) processor recommended
COPY PROTECTION: Manual based

Why These Are Special

These are different games from different publishers, but they are bunched together
because they are (to use a New Age description) scynchronistic soulmates of
metaphysical identity.

Accolade's Harmony and Data East's Continuum both feature noncompetitive
play modes, thus fitting them into a special "anti-arcade" gaming niche. While both
games have action modes for those who cannot exist without competition, Harmony's
"Mantra Mode" and Continuum's "Emotion Mode" can truly be employed as
stressbusters. Each mode puts the player into a mental state that combines the wide-

awake daydreaminess of an alpha rhythm and the purposeful thinking that charac-
terizes a beta rhythm. Although any good strategy/arcade game is capable of putting
one in a tunnelvision mind-set, the difference here lies in the lack of competition.

A Taste of the Games

Harmony's goal is to force collisions—they're warm and fuzzy, not high-speed train
wrecks—between spheres that pulse with energy (called "ki"). You bump and nudge
and guide like-colored spheres into each other by way of a pointer called a "seeker."
There are two play modes: Mantra and Normal. In Mantra mode, Harmony lets you
adopt Type B behavior and practice all 50 levels. The spheres do not pulse with bad
vibes, time is irrelevant, and there's no pressure whatsoever.

Normal mode is for those Type A folks who hum along with the Siren Song of
competition. True, Normal mode violates the New Age spirit, but there's no music
so it all comes out even.

The world of Continuum is a world of platforms and mazes, keys and crystals,
strange physical properties, and gravitational shifts, all contained in a geometric, 12-
region, 256-room universe. In this alternate reality, you pilot one of six vehicles
(called Mobiles) in search of the 16 keys and the 16 crystals. To leave a room, you
must bounce the Mobile off the platforms to gain height—a trampoline effect—then
guide the Mobile like a glider to the exit window. Continuum is a combination of
varied arcade elements: a flight simulator, a treasure hunt, a platform game, and an
adventure game have been wonderfully integrated into a unique arcade (and anti
arcade) experience.

In the Maze
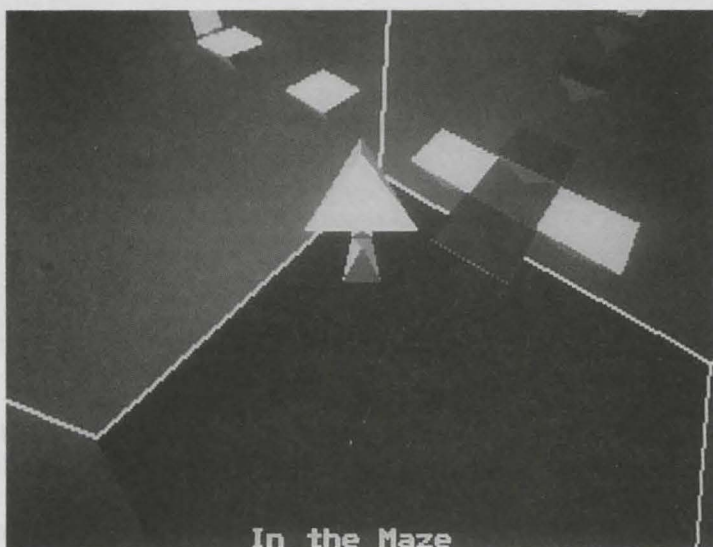
Each region in the Continuum reality corresponds to a human emotional state, all of which, are positive, or at least nonviolent, negative, cathartic, or otherwise provocative emotions. What's more, the colors, sounds, and background music of each have been "scientifically proven to stimulate the particular area of the psyche." In Action mode, you'll be looking for the keys and crystals while battling the clock and the scoreboard. In Emotion mode, there is no pressure, no time limit, no competition, and no scoring. And it is in this Play mode that Continuum tackles the same "New Age" ground as Harmony.

INSIDE INFORMATION

Mellow out, kick back, and chill the adrenalin. Flatline the brainwaves for a while. You don't need hints, you need a break.

Dragonstrike

Strategic Simulations
$49.95
IBM/Tandy/Compatibles
CGA/EGA/MCGA/VGA/Tandy modes supported/AdLib
COPY PROTECTION: Manual based

Why This Is Special

The amazing thing about Dragonstrike is that, after all the programs we've seen since Flight Simulator and Wizardry, something as obvious as Dragonstrike hadn't been created a long time ago.

Set in the Dragonlance world, Dragonstrike is an arcade-oriented combat simulator, with the added bonuses of a story line and AD&D (Advanced Dungeons & Dragons) elements. The major difference between it and other combat simulators is that you won't be piloting an F-16 or an F-111—you'll be atop a fire-breathing dragon. Dragonstrike combines smooth, fast-moving, fracted 3-D landscapes, gorgeous graphics, and wonderful flight animation with easy to handle dragon flight controls.

A Taste of the Game

During the War of the Lance, the skies of Ansalon are filled with the minions of the evil Dragonarmies; and now, with Ansalon all but totally lost, the good dragons of Krynn are returning. Your goal, as a would-be Knight in the Solamnic Order of the Crown, is to rise through the ranks by successfully completing 22 combat missions.

The missions range from a mild "Snow Blind" opening, through the battle with the enemy's flying citadel in "Maelstrom," to a "Free For All" scenario, which lets you choose the enemies and elements of combat. Dragonstrike has role-playing elements that fit with the Dragonlance story line, and leaving them out could have resulted in mediocrity. Fortunately, Dragonstrike is a tense arcade game and a fine combat simulator that is made that much better by well-integrated AD&D adventures.

Freakin' Funky Fuzzballs

Sir-Tech Software
$29.95
IBM/Tandy/Compatibles
CGA/EGA/VGA/Tandy modes supported/Roland MT-32/AdLib/SoundBlaster
COPY PROTECTION: Low contrast paper; match symbols

Why This Is Special

We like to think of Fuzzballs as a Pac Man for the '90s. Strategically closer to the simplistic Tetris than the nightmarish Lemmings, Fuzzballs concerns the dust motes that bounce about on hardwood floors and get swept under carpets. The Fuzzballs themselves are engaging characters who grab your empathy at once. The game moves along at a lightning clip, which will surprise you if you don't pay attention.

Fuzzballs first appeared in the classic Wizardry 2: Knight of Diamonds in the early '80s. There they were monsters to be fought, although they were more an annoyance than a major danger. At the time, Sir-Tech sent Certificates of Achievement to people

who had done well in the game. Among the accomplishments cited in the award was "Knowing that it is not nice to kill fuzzballs."

A Taste of the Game

Freakin' Funky Fuzzballs is a five-world, fifteen-level maze of strategy and fast-moving arcade action made tougher by way of disappearing floors; enemies that never give up the chase; and the need to find and use various items such as keys, doors, rings, and food. The screens range from the five (relatively) easy mazes of the Ancient Times world to the completely mysterious one-level world of Darkness, where the final confrontation takes place. You must guide the fuzzball, either in cardinal or diagonal directions (depending on the level), around the floor tiles of each screen. Pursued relentlessly by an enemy that can only be dispatched with dynamite (unavailable until level 15), the fuzzball uncovers items as it moves across the tiles. Some tiles disappear, however, leaving gaping black holes that can be crossed only with wands; keys, food, and the other items, which must be collected pop up randomly. The merest touch of the enemy saps a fuzzball's strength.

As many as 10 players are supported, and a special two-player mode lets one player be the fuzzball and the other be the enemy.
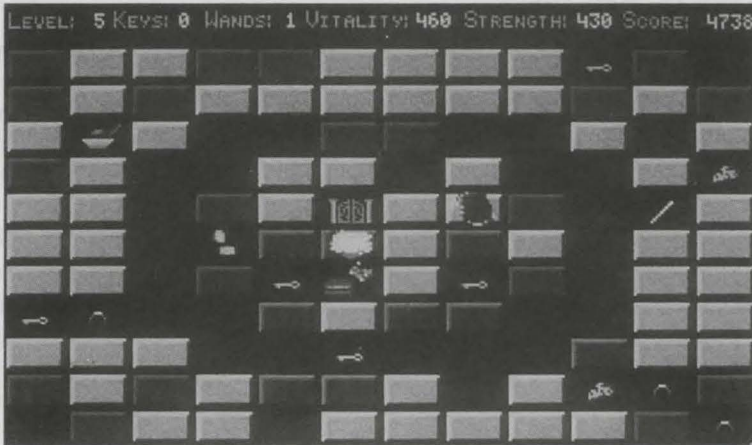
INSIDE INFORMATION

One of the surest ways to deal with the nasties chasing you is to trap them. Moving around a maze causes tiles to disappear, and since the beast is always right behind you it can be lured into areas and trapped.

On those levels that demand only diagonal movement, try physically turning the keyboard in order to at least "feel" diagonal movement.

LEMMINGS

Psygnosis
$49.99
IBM/Tandy/Compatibles
CGA/EGA/VGA, Tandy modes supported/AdLib/SoundBlaster
COPY PROTECTION: Need original disk

Why This Is Special

The arcade/action games from Britain's Psygnosis are legendary in the world of computer games for their gorgeous packaging, great graphics, and devilishly difficult games. Until recently their products only ran on Amiga and Atari ST computers. Lemmings changes all that, and the majority of the personal computer world can now enjoy the results of Psygnosis's labor. While Lemmings doesn't look like the typical Psygnosis game, it definitely plays like one.

The Psygnosis programmers have said more than once that they don't like easy games, and if you've had a chance to play any of them since Barbarian, you know they're not kidding. Lemmings seems at first a departure, at least for a while. The 30 screens of Fun level are a painless introduction to one of Psygnosis's best and most original games.

A Taste of the Game

Lemmings (*lemmus trimucronatus*) are small rodents known mostly for mass migrations that sometimes lead to mass drownings. In Lemmings, your task is to guide as few as two or as many as 100 of the suicidal little dumbbells to safety. After the Fun level, the game begins to get difficult.

The lemmings drop from a door in the sky and then walk around blindly on platforms. You have to change as many as necessary into diggers, blockers, climbers, parachutists, or bridge builders, so that the required percentage safely reaches the exit before time runs out. There are 120 levels in all (Fun, Tricky, Taxing, and

Mayhem each have 30 levels), and the obstacles and environments of each level are different.

All controllers are supported but a mouse works best, and the strategies you'll have to invent to conquer the game become ever more formidable. While the game relies heavily on strategic considerations, even the most inspired strategy will go for naught if you allow your movement and point/shoot responses to waver. The headings that appear prior to each new screen provide hints on how to approach the upcoming level. Pay attention to them—you'll need all the help you can get.

INSIDE INFORMATION

Should you find that leftover Blockers are needed to fulfill a screen's percentage requirement (and therefore should not be blown up), have a Digger do its thing underneath the Blocker.

Bombs are good for trapping Walkers in holes so that they turn around quickly, rather than having to hike across large distances.

One tactic that works well on many screens is to let the first lemming that drops from the sky remain a Walker and change the second lemming into a Blocker. The Blocker will safely trap other lemmings, while the lone Walker can be given all the skills necessary to clear a path to the exit.
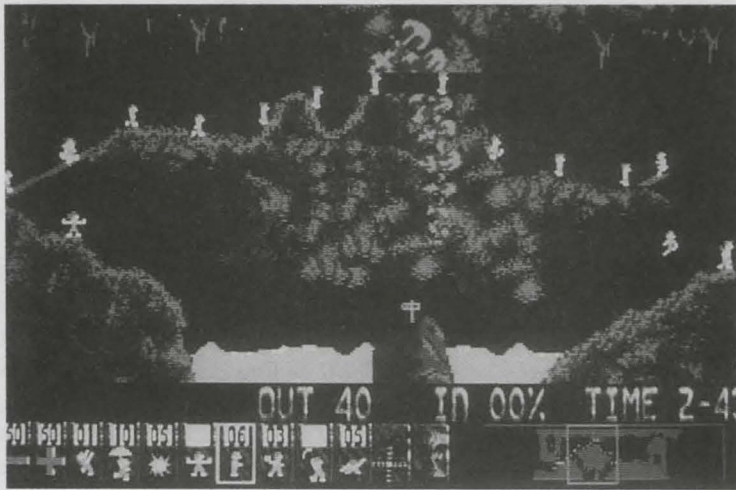
Pipe Dream

Lucasfilm
$39.95
IBM/Tandy/Compatibles
Hercules, CGA/MCGA/EGA/VGA/Tandy modes supported
COPY PROTECTION: Code wheel
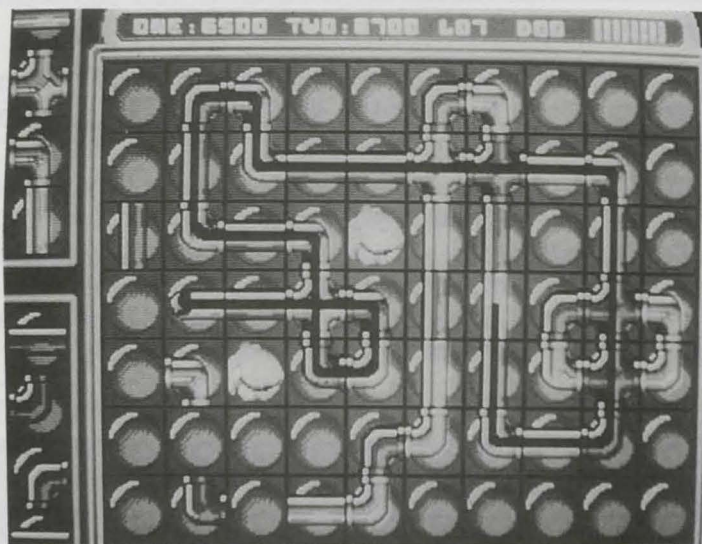
Why This Is Special

Lucasfilm touts Pipe Dream as "an ideal executive stressbuster." This is an inaccurate description. Pipe Dream is the kind of action/strategy game that creates within you a compulsion to keep playing because you're convinced you can master it. It's the kind of game that makes you ask the question: "If this game is so simple, why am I playing like such an imbecile?"

Described as a game of "skill, strategy, and plumbing," Pipe Dream blends strategic and spatial thinking with fast-moving arcade action. In this game, fast thinking is almost as important as fast reflexes. Simple to learn and play, Pipe Dream is extremely difficult to master; and like any good strategy/arcade game, therein lies its allure.

A Taste of the Game

The object of the game is to connect pieces of pipe on a play field so that they form a continuous line. When each level's time elapses, a scuzzy green substance called

"flooz" begins to ooze through the pipes. Each of the 36 levels demands that the flooz flow through a preset number of pipes, and you have to make sure at least that many pipes are connected (flooz flow through additional pipes means extra points).

There are seven basic pipes (straights, 90-degree bends, and junctions) as well as 12 advanced pieces (one-ways, reservoirs, end, and bonus pipes). The problem is that the pieces of pipe are revealed randomly; four are visible in the dispenser, but only the bottom one can be placed. New levels increase the difficulty by way of obstacles, advanced pipes, and faster-flowing flooz. There are slo-mo practice and two-player cooperative modes, and after every fifth level you'll see a Tetrislike bonus screen and a password that you can use to start a later session at a higher level.

INSIDE INFORMATION

Think in terms of the four pipes in the dispenser, rather than the pipe that has to be placed on the field. Often four pipes are reversed in the dispenser; that is, if you could select pipes from the top of the dispenser, you could quickly connect a four-pipe sequence. Since only the bottom pipe can be used, the trick is to place the pipes on the field four squares ahead. Look for similar two and three pipe sequences.

Use cross pipes and especially reservoirs to give you extra time to determine what to do next.

Prince of Persia

Broderbund
$39.95
IBM/Tandy/Compatibles
Hercules, CGA/MCGA/EGA/VGA/Tandy modes supported/AdLib/SoundBlaster
COPY PROTECTION: None

Why This Is Special

It has always bugged us that characters in arcade games can go from a full run to a full stop instantly. While this is useful, it does tend to defy the laws of momentum and inertia. We fell in love with Prince of Persia the first time we didn't stop.

Jordan Mechner, the game's author, has the eye of a cartoon animator.   The difference between Persia's animation and that of more state-of-the art games is that Persia's is the product of combined artistic, design, and programming skills. It outclasses most of the flashy digital-image manipulation that's trendy these days. Your character runs and jumps, leaps and skids, thrusts his weapon, blocks the attacks of opponents, and interacts with the items in the dungeons and corridors in a most watchable, humorous, inspired, and entertaining style.
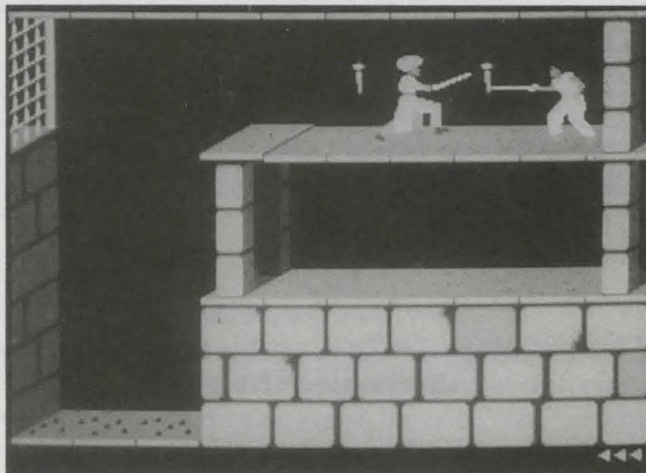
While Persia's graphics are excellent and its sound effects of footsteps, clanking gates, and crashes are fine, what gives the highly playable Persia an edge is its animation. It is uncannily realistic and has a remarkable fluidity and smoothness that's hard to match.

A Taste of the Game

While the Sultan is off fighting a war, the country has come under the rule of Jaffer, his power mad Grand Vizier. As an adventurer from a foreign land, you've managed to steal the heart of the Sultan's beautiful daughter, which of course irks Jaffer no end. He gives the order for your arrest, and presents the princess with an ultimatum: marry him or die. She's trapped in her room in the palace, and you've got one hour to rescue her. (We warned you that some of these games had plots.)

All you have to do is sword fight with numerous nasties and jump up, down, and across deadly pits and traps while you're watching the clock. Remember: you can't stop on a dime while running, and you can't forget momentum. The first time your character skids to a stop, you'll fall in love with the game. It's that simple.

INSIDE INFORMATION

How to move ahead on level 3: Climb to the top of the tower. When you can't go any farther to the right, leap into nothingness. A second leap will take you to where you can earn another life.

To open the gate on level 3, trigger the plate on the tower, and run to the gate as quickly as possible. To reach it, you must leap while making a full run.

Back skeletons over ledges to defeat them.

You'll never win if you keep fighting yourself on level 12.

Shufflepuck Cafe
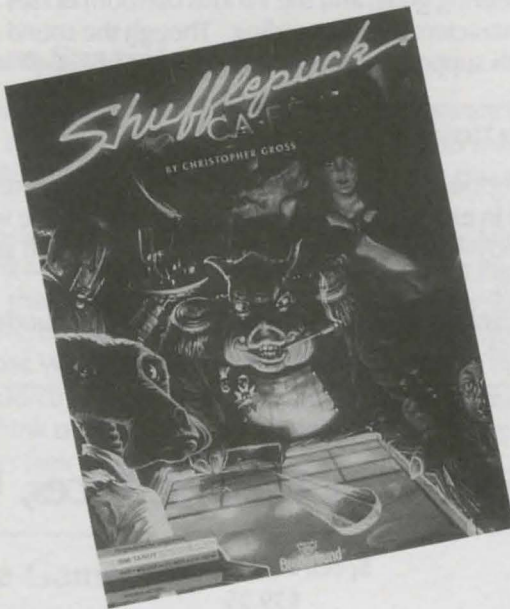
Why This Is Special

In the 25th century there's only one place in the galaxy where lifeforms still play air hockey: It's a noisy piano bar called Shufflepuck Cafe, and you've just stumbled in. There are nine idiosyncratic opponents, among them an ingratiating little dweeb who never wins a game, and a raucous champion who rarely gives up a point. There's a belching alien that slowly replaces his intermediate-level abilities with gallons of booze, and a silent Princess with a Mona Lisa smile and a psychic serve.

Shufflepuck Cafe is ridiculously easy to learn and play, but it would be hardly worth any time and effort if all opponents were as incompetent as the dweeb. Fortunately (or unfortunately, depending on your point of view), they're not, and long before you get to the Princess you'll be hooked—if you get to the Princess.

A Taste of the Game

The goal of Shufflepuck is to put the puck past your opponent 15 times. From across the table you'll stare into the eyes of your opponent; following the opening serve, volleys continue until a point is scored. You can play any opponent in any order or sequentially in Tournament mode. There's also a training droid.

The physics of game play and the digitally sampled sound effects push this game to a high level of realism. The puck bounces around the table are perfect; points are underscored by shattering glass, and the various barroom noises and grunts, snorts, and voices of the characters are outstanding. Though the sound effects would be a whole lot better with support for sound boards, the game itself needs no upgrade.

INSIDE INFORMATION

The alien wearing the cloak mimics you, and each and every one of your shots will be returned in exactly the same way you sent it. Notice where and how this opponent moves its blocker after each shot, and you'll see the opening you need to win.

The Princess telegraphs her psychic serves with distinct sounds. Pay attention to both the sound and the movement of her puck.

TRIS Series: Tetris, Welltris, Faces, Wordtris

Spectrum HoloByte
$39.95
IBM/Tandy/Compatibles/Hercules/CGA/EGA, Tandy modes supported
COPY PROTECTION: Manual based

Why These Are Special

Written by Moscow resident Alexey Pazhitnov, the deceptively simple Tetris and its offspring are easy to learn, a snap to play, but difficult to master. Tetris creates obsession, causes great time loss, and it's amazing no one thought of it a long time ago.
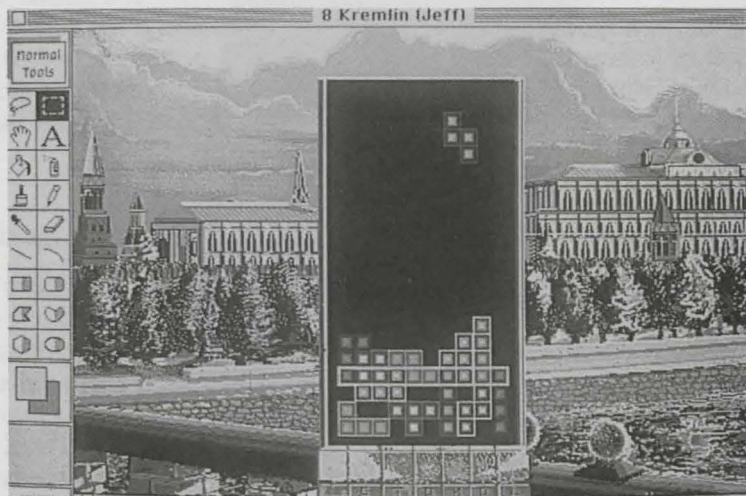
Ubiquitous and available in nearly all computer formats on Nintendo and Genesis video game systems and part of the Windows Entertainment Pack, Tetris began the Russian invasion. The second wave was Welltris; and many folks think Welltris is the rare sequel which is better than its predecessor. The third wave is Faces, and the fourth wave includes Wordtris and Super Tetris (the updated PC version of Tetris). Each entry in the addictive and highly playable Tris series has its own charms. And while it's easy to think of these more or less identical games as Rockylike overkill, all of them work on their own merits.

A Taste of the Games

Unlike a traditional arcade game, Tetris is more accurately described as an "animated puzzle," which like a traditional arcade game, demands quick thinking and nimble fingers. Configurations of small blocks fall into a two-dimensional pit, and the object of the game is to rotate and move the blocks as they fall and fit them together to form complete rows. Completed rows disappear, the blocks stacked atop

them drop down, and more blocks fall from the top of the pit. The speed at which the blocks drop increases periodically, and by the time levels seven, eight, and nine kick in, you'll wish you'd kept up those piano lessons.

Although Tetris is not a trendy, state-of-the-art product that pushes hardware technology, it is one of the reasons (besides Lotus, Word Perfect, and PageMaker, of course) we have computers.

Welltris replaces the flat pit of Tetris by a three-dimensional well. Your point of view is looking down from the top of the pit, into which 3-D block configurations fall. The configurations can be rotated on X, Y, and Z axes and moved around the walls of the pit. Welltris and Tetris have identical goals—to form complete layers—but the 3-D pit and block configurations add a new dimension.

With its three-dimensional expansion of the starkness and simplicity of Tetris, Welltris jumps beyond its predecessor to become its own game.

The third entry in the Tetris series is Faces. The blocks have been replaced by facial parts—chins, lips, noses, eyes, and tops of heads. The game has built-in faces of world leaders, artists, scientists, and fantasy figures. Some are animated, and new categories of faces are added with each jump in the 10 difficulty levels. While most any face you manage to construct is worth points, the parts have to be dropped in correct order on the field. An incorrectly placed part—lips over eyes, for example—turns to stone and remains so until a correctly aligned face is constructed atop.

Wordtris also resembles Tetris except that instead of shapes falling out of the sky, there are letters. Put at least three letters together as a word, either horizontally or vertically, and you score. Big words score big. It sounds, and is, simple to play. Of course you have to think that playing a version of Scrabble where the tiles are being quickly dropped to you from above, and you can't discard the letters you can't use, is simple. Remember: Hope for vowels!

Wordtris allows more than one person to play at a time, and in both competitive and cooperative modes. Wordtris has the potential to be a fabulous educational game for teaching children how to spell.

INSIDE INFORMATION

To increase your score in Tetris:

1. Turn off the Next Piece option—you'll score 25% higher.

2. Use the spacebar to drop pieces in place quickly—the faster you place psyches, the higher you score.

The best strategies to use in Welltris:
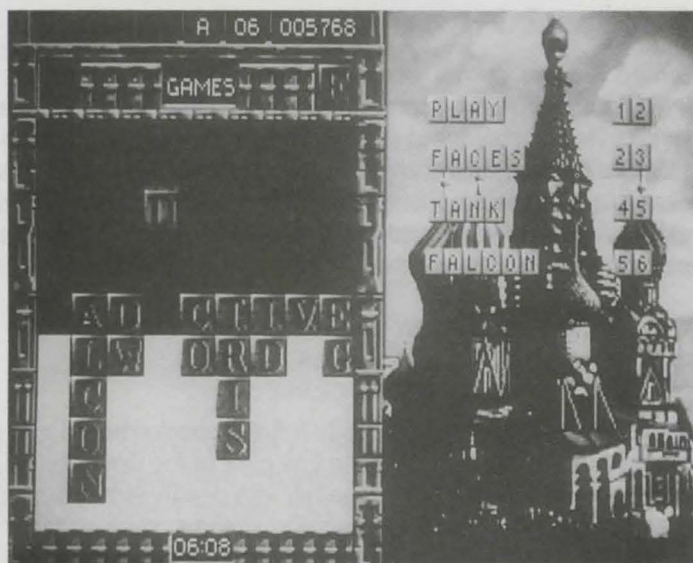
1. Fill the game board from the middle out.

2. Keep the corners free as long as possible.

3. You can shrink pieces in corners by letting them overlap.

Strategies for success in Faces:

1. Build uneven stacks. As soon as your first piece lands, you can move your second piece.

2. Build a tall stack in the middle. This will split your pieces. You can also combine both strategies successfully.

In Wordtris, remember how words are formed:

1. Never place a J or a Q at the far end of a line.

2. Never start a line with an X.

3. Create clusters such as ST, TH, ND, and ING. Many different words use these as building blocks.

Vaxine

U.S. Gold
$39.95
IBM/Tandy/Compatibles
CGA/EGA/VGA/Tandy modes supported
COPY PROTECTION: Code wheel
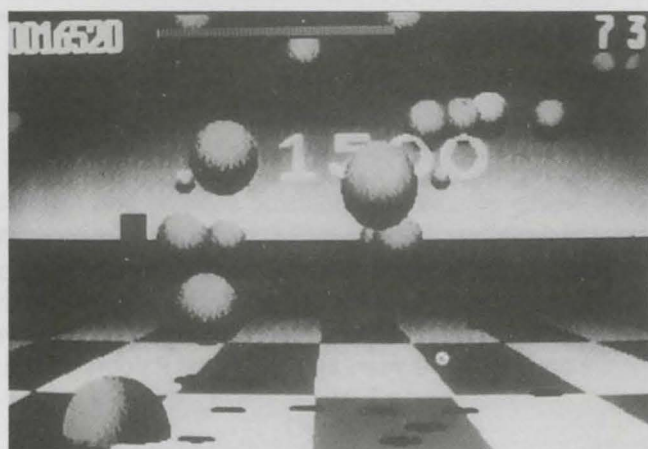
Why This Is Special

The idea behind Vaxine comes from the film "Fantastic Voyage." Anarcho-Syndacilist-Nihilist Terrorists have somehow managed to spike the President's cocoa with chicken pox virus. In order to save the President's life a medical submarine loaded with Vaxine is miniaturized and then injected into his body. If you fail, you'll be held responsible for creating what can only be called a chicken pox malignancy.

Mastering this game is difficult; getting into the flow is not. Vaxine could become an obsession.

A Taste of the Game

The entire game takes place on a seemingly infinite checkerboard grid that scrolls with blazing speed in all directions. As the tiny pilot of the tiny sub, your goal is to rid each level of cells before they bond together into deadly viral strings and destroy your home bases. You have three ammunition streams; each stream has its own color, and in order to destroy the cells you have to hit them with shots from a like-colored stream. Cells appear on screen as animated spheres which move and bounce. Single cells bond to create strings; Hatchers are triads of differently colored cells; and Spitters are flattened cells that, like their name, spit out new cells. You can shoot ammo from a stream either as single shots or as DNA strands, in which single cells connected by a string appear to enemy cells as more enemy cells. What's more, shots can be set to move in straight lines or to curve with your movement.

Cruising around the grid and shooting large bouncing objects is much tougher than it sounds, but the colorful spheres and smooth-moving grid have a mesmerizing effect.

Other Arcade/Action Games of Note

Armor Alley
Three-Sixty Pacific
$39.95

Excellent and popular Mac version of Choplifter/Defender comes to PCs. The game contains ten horizontally scrolling levels with extensive pre-battle strategic/tactical dialogs, four difficulty settings, weapons and enemies and action in abundance, two-player modem support, and multiplayer support through CompuServe. For trivia buffs, this game created nearly 10 years ago as Rescue Raiders on the Apple 2.

Day of The Viper
Accolade
$49.95

A 25-level defense installation guarded by 30 types of flaky security droids. Viper 5 is an attack robot with advanced weaponry, Object Management System, Scanner, and notepad. There are locked rooms, shuttles to other buildings, elevators to upper levels, and lots of real time combat with multiple opponents. There's also high-tech mayhem with an automapping feature which really works, and top-notch mouse control.

Dragon's Lair 2, Space Ace, Wrath of the Demon
ReadySoft
$49.95–$59.95

Dragon's Lair 2 and Space Ace are PC translations of filmmaker Don Bluth's coin-op laser disk games. If you like them, you'll like these. Demon has 600 screens, 1400 state-of-the art animation frames, and 15-level parallax scrolling.   Each game features animated, single-screen, cartoon-quality scenes that require precisely timed yet simple arcade moves (use the keyboard!), rather than frantic wrist twitching.

Hoverforce
Accolade
$49.95

Criminals control the four quadrants of MetaCity by way of a non-recreational, gene-altering drug called "Aftershock." Your mission is to search out and destroy them and stop the drug trafficking. Lots of bad guys, high-speed chases, gunplay, and cat-and-mouse surveillance abound. The Stinger vehicle maneuvers like lightning, the MetaCity structures remain intact, and this is one of the fastest "cockpit" arcade games around.

Night Shift
Lucasfilm
$39.95

At Industrial Might and Logic, a Spielbergian machine called "The Beast" keeps breaking down; and as Fiona (or Fred) Fixit, you have to keep it running. Not so easy! Gremlins unscrew bolts and attach themselves to your legs. It's an all-ages, ladders-and-platforms arcade game of great playability, and the only one where you get to kick the boss.

Stellar 7
Dynamix
$34.95

Stellar 7 is the '90s rewrite of an '80s favorite. The evil armies on seven Arcturan star systems need a slap, and a high-tech Raven tank with you at the controls is just the

hand to give it. Fabulous full-color VGA graphics, fast 3-D animation using Dynamix's acclaimed 3-SPACE modeling and a display system makes it a ton of pure arcade fun.

Treasure Trap
Electronic Zoo
$39.95

A sunken ship, a fortune in gold scattered in 100 rooms, and the denizens of the deep are ready to do lunch—on you. Trap adjusts to your system, the VGA mode has 214 colors, the keyboard can be redefined, and the blend of strategy and stick twitching is near perfect.

Weird Dreams
Microplay
$39.95

A soccer ball that belches, a bee the size of a pterodactyl, an angelic little girl with a really big knife, and an outstanding sick and funny joke involving a lawn mower. Arcade action requires precision rather than aimless twitching, but all that's missing from this bizarre and surreal game are Salvadore Dali's melting alarm clocks.

Zeliard
Game Arts/Sierra
$34.95

Evil Jashiin is resurrected, Princess Felicia is turned to stone, and only Duke Garland is brave enough to search for the Holy Crystals of Esmesanti. Role-playing and adventure game elements are combined with relentless arcade hacking-and-slashing in eight multileveled labyrinths. Zeliard contains endless enemies, swift screen displays, and more than enough action for two games.

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Come Into My Parlor: Board, Solitaire, and Parlor Games

Once upon a time in a place far, far away, people everywhere gathered around tables tossing strange cubed devices onto nonanimated playing areas. They sometimes moved small pieces of colored plastic along the edges of a board painted with colored squares. Or they might have exchanged colored cards and then spreaded them out in fan shapes on the table. These beings called these primitive rituals parlor games. And sometimes they called them Monopoly, Solitaire, Craps, or Old Maid.

For those of us from the pre-Atari and Nintendo days, parlor games represent the era before jobs and family made some of us grow up. Until about 12 years ago, most of the games we learned were played on a board or on a table, they were not played on a video screen. We may be the final generation of people who can say that.

Most of us only have to look in our hall closets to see examples of these parlor games: Scrabble, Risk, Monopoly, and others. There are also probably a few decks of playing cards and some poker chips. These are the games we were raised on, the games we played when we socialized. Computer parlor games include digital versions of many of these traditional titles. While they haven't replaced the original versions, they can hold their own as fun ways to pass the time. And, you don't necessarily need to rustle up other players. The computer versions of these favorite games allow us to recall earlier times individually.

The parlor game category includes the one classic game that has challenged players and programmers for many years—chess. Computing and chess will always be a match made in digital heaven. Today, computer chess games are smart enough to challenge all but the finest players in the world.

While gambling games on a computer won't cost you a cent, some may actually help you win money. The computer can compute odds and analyze strategies faster

than you can roll craps at the casino. Many computer gambling titles also include tutorials on the finer aspects of games such as Blackjack, Craps, and Poker.

Not everyone, however, wants to play games when they socialize. Playing computer games, albeit solitarily, may have saved games like Monopoly and Scrabble from becoming yet another passe pastime. Artificial opponents offer immediate challenges whenever we want a game. While no substitute for human social interaction, these games do provide immediate fun.

Amarillo Slim's Dealer's Choice
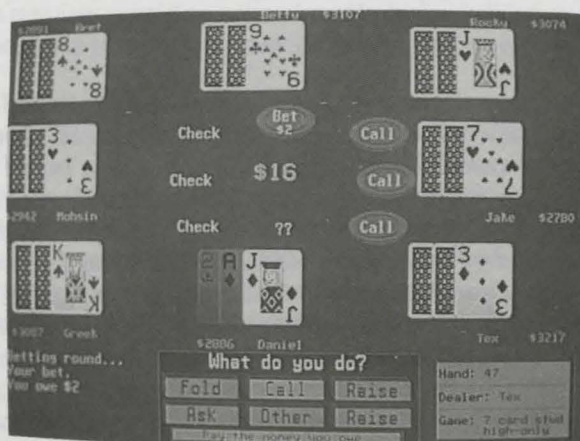
Villa Crespo
$49.95
IBM/Tandy/Compatibles
LCD/CGA/EGA/VGA (16 color); Sound Master/Voice Master/ Speech Thing/ AdLib/
SoundBlaster
COPY PROTECTION: Look up word or symbol on low contrast paper

Why This Is Special

Named after the so-called Ambassador of Poker, Amarillo Slim, this package offers something for everyone from penny-ante players to high stakes masters. With the combination of wild poker games, and variations for each plus the ability to select computer opponents, Amarillo Slim's Dealer's Choice can represent home based poker games.

A Taste of the Game

Amarillo Slim offers several different games to choose from like 5-card draw, 7-card stud, and Hold 'em. It includes a choice of variations for each such as high only,

high-low split, high spade in the hole, and so on. Each session will keep a player's mental juices flowing for quite some time. Even those who have never played any casino games on the computer will quickly pick up all they need to know about the games. Selecting items is all menu driven and very intuitive. Up to eight players will be seated around the on-screen table, and each player can be selected for its own playing style and personality too.

This is also a serious poker simulator and instructor for those who want to concentrate on the serious elements of the game and study them. Slim is always there on your shoulder to offer advice and explain the situation on the table to you. Take Slim's advice to really improve your poker play. But remember: Never draw to an inside straight.

Battlechess I and II

Interplay
$49.95
IBM/Macintosh/Tandy/Compatibles
EGA/CGA (512K)/MCGA/VGA (640K);Color monitor required; AdLib/Covox/Game
Blaster/Innovation/Roland/SoundBlaster/Tandy; mouse required
COPY PROTECTION: Document check
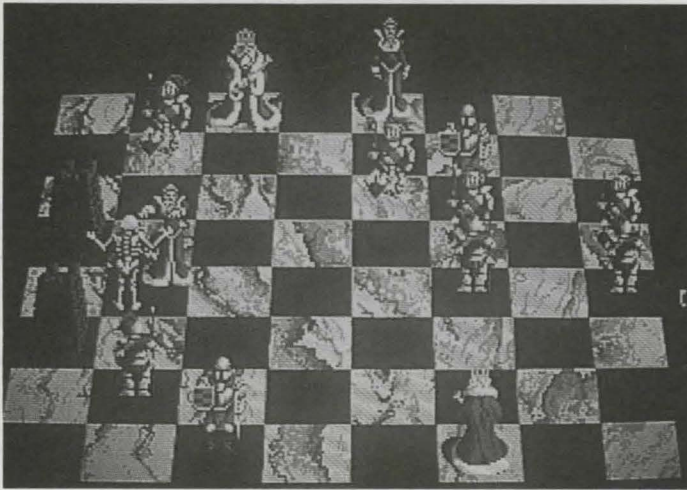
Why This Is Special

One problem many people have with chess programs is that they are either too difficult to understand or too tough to win. Battlechess I and II are nonintimidating chess programs which are aimed at the average or novice player. They make no
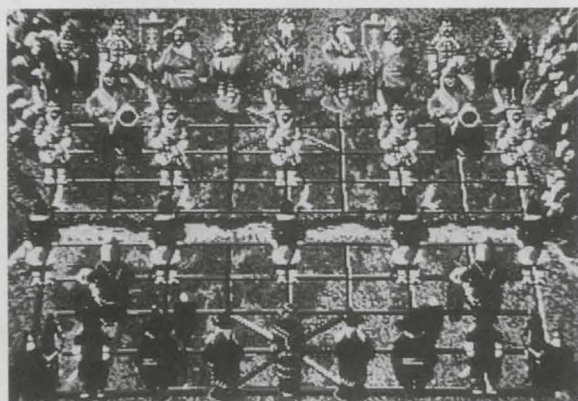
pretense about having the largest library of opening moves, or at being rated at 2100 on the International Chess Federation scale. Instead, what each game offers is both straight and amusing versions of a game of chess.

A Taste of the Games

In Battlechess all the chess pieces are represented by human-looking pieces clothed in medieval costumes. Not only do the chess pieces take on a custom look, but they also walk when asked to move to another space. When one piece captures another, an on-screen battle is fought. The animations are, to say the least, a diversion. Many a player has made a dumb capture in Battlechess, just to watch what happens when one piece eliminates another.

Battlechess II features the game of Chinese chess. This version of chess is played on the line junctions of the squares of the board instead of inside the squares as in classic chess. The rules for winning the game are essentially the same: Checkmate your opponent, but your King may never directly face the opposing King without another piece somewhere in between the two. Even more outrageous and amusing than its predecessor, Battlechess II may not be the chess game you grew up with, but it is one to master and enjoy.

Chessmaster 2100/Sargon IV
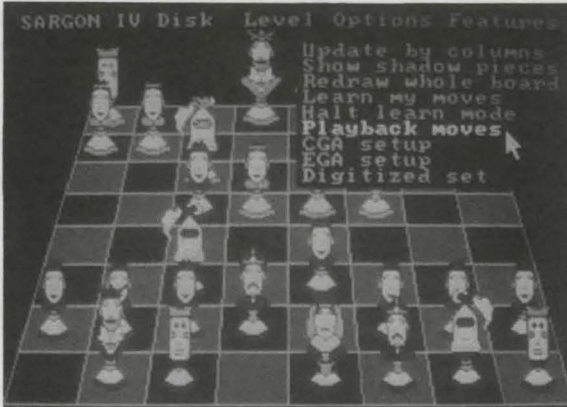
Software Toolworks/Spinnaker
$49.95
640K IBM/PS2/Tandy/Compatibles
CGA/EGA/MCGA/VGA/2 floppies or hard disk required
COPY PROTECTION: None

Why These Are Special

For years the knock on chess programs that ran on personal computers was that they were dumb. A good player could beat them easily and often.

These two programs challenge that assumption. Entirely different games from different publishers, each offers lessons for the novice, including tutorials and advice on moves. However, it is when playing at the highest levels of difficulty that even rated chess players might find themselves facing a challenge too great. Both in fact, have beaten noted chess experts.

A Taste of the Games

These are the two most sophisticated chess games available for the personal computer. You can choose both timed or untimed games, and the skill level of the computer is adjustable. It is the rare player who can reasonably expect to win against these opponents at even medium levels of difficulty.

It is the purpose of both these programs to offer players not only the greatest of all possible chess challenges, but also give them a "complete classroom environment" for chess study. Replays of classic games from the last 150 years can be watched, and a player's opening moves can be analyzed and dissected by the computer. Taking moves back, or even changing sides, becomes possible in the tutorial modes.

Both games offer, as one of their primary strengths, their library of opening moves. While not all the chess games we play will see a classic end game or even much of a middle game for that matter, every chess game presents its greatest challenge with the opening moves. It is here where the programmers have concentrated their attention on the game's artificial intelligence. Don't make any rash assumptions—neither game lets down much at all after the opening moves, as many a good and beaten player will admit.

Hoyle's Official Book of Games Volumes I, II
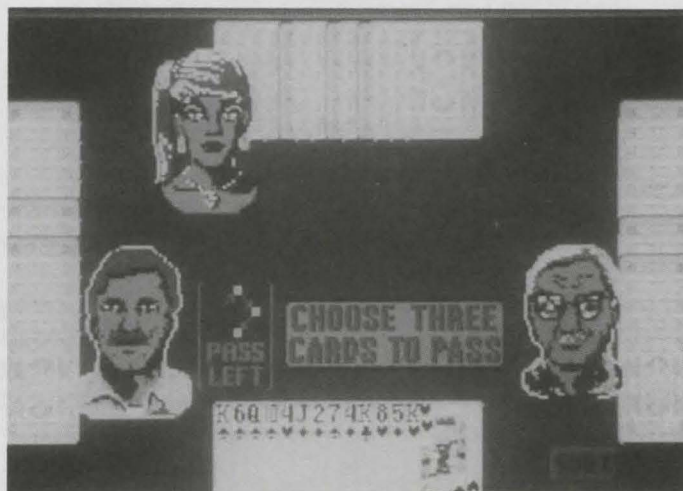
Sierra On-Line
$34.95
512K IBM/Compatibles/Macintosh/8mhz or faster recommended
Hercules/CGA/EGA/MCGA/VGA/Tandy/Roland MT-32/AdLib/Game Blaster/hard disk
recommended
COPY PROTECTION: None

Why This Is Special

Named after the book in which the official rules to most parlor games can be found, this series includes solitaire as well as games that need opponents. Both volumes offer plenty of challenges, as each game has easy and hard levels of playing difficulty. Many familiar, not so familiar, and even entirely new games are offered, and all are colorful and extremely well executed. Like comfortable old friends, these games are great for those times when you need a break, need an opponent, need some practice, or feel the need to learn something new.

A Taste of the Games

Volume I games include Cribbage, Crazy 8s, Gin Rummy, Hearts, and even that most denigrated of games, Old Maid. Old Maid can even be played with an animated card deck. Since the idea of these titles is to provide you with a game whenever you want one, Volume I includes opponents you can play against. Called "friends," these digital opponents run a range from characters out of other Sierra games such as Leisure Suit Larry, to professional card sharks and even the games' programmer.

Each opponent has specific strengths, weaknesses, and playing styles. Some are harder to beat than others, and this means you can determine how challenging the game will be.

Volume II puts 28 different solitaire card games plus their rules at your fingertips. They include obvious suspects like Klondike, Canfield, Pyramid, and Yukon, along with several more obscure and interesting variations.

Jones in the Fast Lane

Sierra On-Line
$39.95-$69.95
IBM(512K with 16 colors; 640K with 256 colors)/Tandy/Compatibles (8mhz or faster)/
Macintosh
MCGA/VGA/EGA/Tandy/Roland MT-32/LAPC-1/AdLib/SoundBlaster/Game Blaster/
hard disk recommended/CD-ROM version requires CD-ROM drive
COPY PROTECTION: None
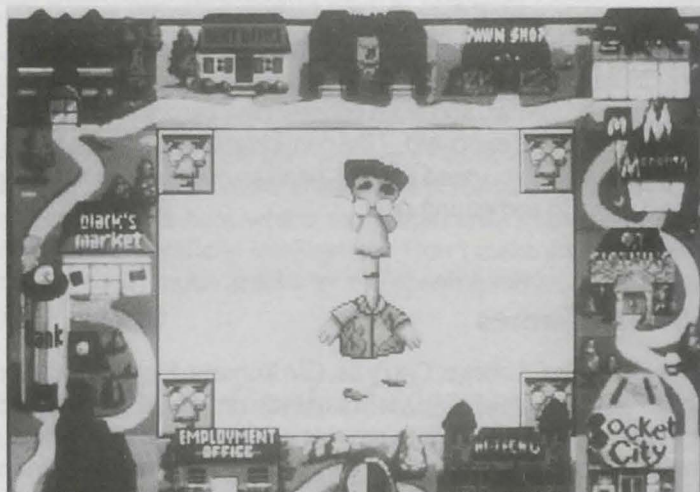
Why This Is Special

When this game was first released by Sierra, it was marketed as a "real-life" simulation. What this game really is is an extremely funny strategy board game for the PC. Think of it as a variation of Careers with dialog written by a stand-up comic.

Jones is a satire on real life. The premise is that you are confronted with all the problems of making it in the world while trying "to keep up with the Jones." If all goes well and you've planned correctly, success is only a matter of time. Then it's up to the Jones to catch up to you.

A Taste of the Games

Like the board game Careers, players set goals as a balance between happiness, career, money, and education. With only $200, no education, no savings, and no job, a player starting out in the real world must often begin at the bottom of the ladder slinging hash at the neighborhood Monolith Burger joint. Each turn of the game is one week, and the clock is running as you strive to improve your lot in life.

The goals to achieving success are pretty straightforward. One must eat, get a job, go to school, and go to work. Salaries are high, but so is the rent and everything else you need to survive. Fortunately, there is an employment agency that knows who's hiring, and it can be checked into frequently.

Much of life is imitated here from attending school and flipping your first burgers to working at that first real job and having to pay the rent. As in real life, it you drink too many milkshakes, for instance, you'll get cavities and miss work. Carry too much cash in your wallet, it'll get stolen by Wild Willy. It's okay to watch too much TV on the weekends; but if you buy a computer instead of that TV, the computer will make money for you.

The length of the game depends on the goals you set—the higher your aspirations, the longer it takes to play. You can play against other people, or you can play against the computer. Like life itself, Jones is an addictive experience.

Lexicross

Interplay
$39.95
640K IBM/Tandy/Compatibles
MCGA/VGA/EGA/CGA/AdLib/Roland/Innovation/SoundBlaster/Tandy;color monitor
required
COPY PROTECTION: Document check

Why This Is Special

There are many computerized TV game show programs, but none are quite as wild as the fictionalized game show of the future, Lexicross. Basically a 3-D space age Wheel of Fortune clone, Lexicross adds some bizarre bits of humor to the game, and will have players chanting the TV show's theme song on the way to work the next day.

A Taste of the Game

The game is played in two stages. In the first, Lexicross is similar to a cross between Concentration and Battleship. Players must guess where on the 15 x 10 tile grid letters forming the crossword clues will appear. Nonletter tiles add excitement by adding or subtracting money from your score. You might lose a turn, buy a vowel option, acquire "safety" tokens that prevent disasters, or get an instant peek of an entire row or column of tiles. A good memory really comes in handy here.

The latter stage of the game is akin to Wheel of Fortune in that players spin to find out a dollar amount, and attempt to collect by guessing the letter that might be on the previously exposed tiles. These letters will form crosswords, each based on a theme. The object of the game is to guess the correct theme, thereby collecting the total amounts of both players in that round. Succeeding rounds double and triple the stakes, which really mount up. Too bad all you win are digital dollars, when your heart's desire was to win an intergalactic space Ferrari.

Monopoly, Clue, Risk, and Scrabble

Virgin Games
$40-$50
512K IBM/Tandy/PS2/Compatibles; Macintosh
CGW/EGA/Tandy card required
COPY PROTECTION: None

Why These Are Special

If there were ever four pillars of parlor games, Monopoly, Clue, Risk, and Scrabble would be their titles. If you miss the childhood glee you felt while amassing hotels on Park Place, the computer version of Monopoly is for you. Each of these games was licensed from their original board game counterpart and has been faithfully recreated. All of them offer solitaire playability as well as multiplayer action. So, when you feel like conquering the world but your friends have other plans, boot up your Risk disk, square off with the computer, and start moving your armies around the globe.

A Taste of the Games

Clue and Risk offer some exciting new variations on the original board game. Clue is based on the Master Detective version of the game, allowing the player to explore new rooms and investigate more characters and weapons in the search to find Mr. Body's murderer. Quite simply, one gets more of a good thing.

In Risk some interesting new options allow for varying the deck, limiting the number of armies per territory, and other subtle, simple strategic variations of the game. Now, when you conquer the Congo, the color of the country changes and you feel the special satisfaction that comes from outsmarting the computer. In Monopoly, as your earnings mount, just push a button to see your total wealth.

Scrabble now gives immediate gratification with an automatic score-keeping feature.

Shanghai/ Shanghai II

Activision
$49.95
640K IBM/Amiga/Macintosh/DOS 3.0 or higher required
EGA/VGA/MCGA (256 color)/Tandy 16 Color; Roland MT-32/LAPC-1/AdLib/Game
Blaster/SoundBlaster/PS1/Tandy/hard drive recommended
COPY PROTECTION: None

Why These Are Special

Computer games can be addictive, but be warned that Shanghai and Shanghai II are more addictive than most. Presumably rational and mature adults spend more time matching tiles in this game than they can reasonably account for. We like the game so much that we included a version of it in the game disks that come with this book. The concept of Shanghai is simple. Think of a cross between the tile game Mahjongg and Solitaire. Now add colorful computer graphics that create an aura of beauty as well as intrigue. Combine the simplicity of the game and the beauty of the tiles with a 3-minute learning curve, and you can see why this game is so much fun.
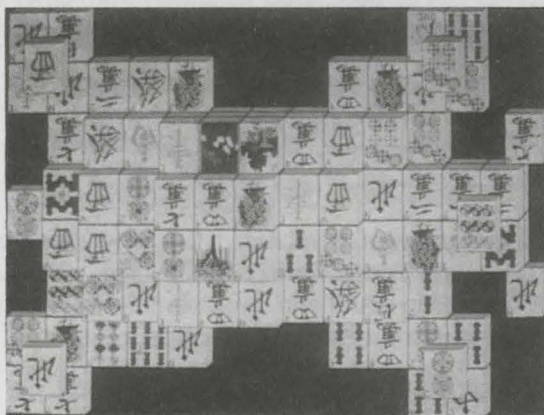
A Taste of the Games

In these games the tiles are arranged in a pattern. When the player finds matching or associated tiles, he or she can remove them; however, they can only be removed to the left or right, and they must not be blocked by another tile. The object is to find a way to remove every last tile from the board. Since there are four of every tile to be matched, the secret of the game is know which two to remove when three are available for selection.

Shanghai II adds several enhancements. New tile designs are offered (one for each animal of the Chinese calendar) plus a special "Dragon's Eye" version of the game as a tournament challenge.

Simple and easy to learn, these games will entertain and mesmerize for a long, long time.

Other Parlor Games of Note

Microsoft Entertainment Pack for Windows
Microsoft
Requires Microsoft Windows 3.0
$34.95

If you are one of the millions of people who do Windows, you have most likely spent a lot of time playing the Klondike game that came with it. For some people, it's about the only Windows program they know.

The Entertainment Pack contains versions of popular games like Tetris, Shanghai, 3-D Tic Tac Toe, some solitaire card games, and peg jumping. Fuller, more detailed versions of these games can be purchased separately from other companies, but if you'd like a break from putting red sixes on top of black sevens, this mix is a good investment.

Solitaire Royale
Spectrum HoloByte
$39.95

Eight different solitaire card games are included here. There are also three children's games: Pairs, The Wish, and Concentration. While these games don't replace the feel of a fresh deck of cards in your hand, they are colorful, easy to learn, and lots of fun. And, you do get the *sound* of shuffling cards.

Spot
Virgin Games
$39.99

Spot can best be summed up as the board games Othello and Reversi gone mad, and starring an advertising character.

This is a lively contemporary version of the age-old Asian game of Go. With the 7-Up Spot character dancing and jumping about and video arcade-style music playing in the background, players place tokens in an attempt to surround the opponent. To win you must cover the board with your own pieces. Varying game boards add depth to this fast-paced game of strategy.

Stratego
Accolade
$49.95

A direct translation from the classic board game. Although the computer opponent is not terribly strong at the highest levels, the inclusion of some new optional rules and variants will have you learning fun new tricks in an effort to capture the enemy's flag.

Trivial Pursuit
Parker Brothers
$39.95

The computer version of Trivial Pursuit offers thousands of trivia questions drawn from every category available in both the board game and the add-on cards. Simply pick the categories you wish to play, and you, along with up to five other opponents (human or computerized), will be off in search of answers to some of the toughest questions ever compiled.

As always, watch out for that one player everyone hates—the one who knows the answer to almost every question and takes great pleasure in letting everyone know how smart he or she is. That wouldn't be you? Nah. No way.

·11·

Playing God: God Games

Who among us hasn't wondered what it would be like to be a god, to have the power to change the world, to make dogs meow and cats bark, to change rain to sunshine, and to make fish fly? Not satisfied with the complexities found on Earth? Simply create a new world with new life forms that have problems unlike anything we humans have ever seen; watch over your beings just as Zeus looked over the people of Greece, and manipulate them just as if they were pawns in a game of chess designed for your cosmic amusement. Using the hand of God you can reach down from the heavens to help a hero, squash a disbeliever, or even make John C. Dvorak President of the United States. Then what would the world be like? The possibilities are endless. God games let us play in the Big Picture. God games allow players to become the supreme decision maker and to exercise near-divine power over a planet, continent, nation, tribe, or kingdom. They require strategic decision making and incorporate several different interrelated systems. These systems work in such a way that portions of the game change, irrespective of what you, the player, do— much as in real life, where conditions often are affected by events entirely out of your control.

God games run the gamut from software toys (where you change a few variables, rules, or conditions then sit back and watch the results) to elaborate strategy games that must be constantly monitored and adjusted. God games are not limited to playing the role of a god, but include any game where players can wield supreme power over their environment. God games also allow players to act out roles that include kings, presidents, mayors, and more, to create something large and ensure that it works. The environment can be anything from an entire world to a self-sustaining colony on the moon, to your own castle and kingdom.

The point with god games is that all the major decisions in the simulated reality are the responsibility of the player, and the consequences determine the success or failure of your all-powerful entity. God games represent the ultimate what-if scenarios.

The earliest god game was probably the 1970 mainframe simulation Life, a very simple cellular automaton in which the player creates rules for cell development and watches the cells mutate into new populations. Life is more entertainment than game, however, since the player cannot actually do anything once the simulation aspect begins.

Since there is not much game to Life, the god-game genre was largely dormant through the early to mid-1980s. Perhaps the closest in the genre in the early '80s was Planetmaster, a strategy game for the Apple II in which the player is supposed to maintain an ecological balance between alien species on a planet-sized space station. Later, a game called Epidemic allowed players to administer decisions from the United Nations Emergency Disease Control Center and attempt to stave off a global epidemic. Still later a game called The Black Death allowed players to try to contain the plague that ravaged most of Europe during the late Middle Ages and early Renaissance. God games as a genre didn't take off until the late 1980s, with the phenomenal success of SimCity and Populous. It's a pity that there aren't more of these games, because if there is one thing a computer can do well, it's simulate something large—like a universe to conquer. Still, playing the few existing god games can be a divine experience.

Castles

Interplay Productions
$59.95
512K IBM/Compatible
CGA/EGA/Tandy 16 Color/MCGA/VGA; hard disk required
COPY PROTECTION: Documentation look up

Main

Dec. 30, 787
Wall
Height   00
Labourers 00
Days left   12
Damage Heavy
Width   00
Arrow Slits   □
Cauldrons   □
Resources 16
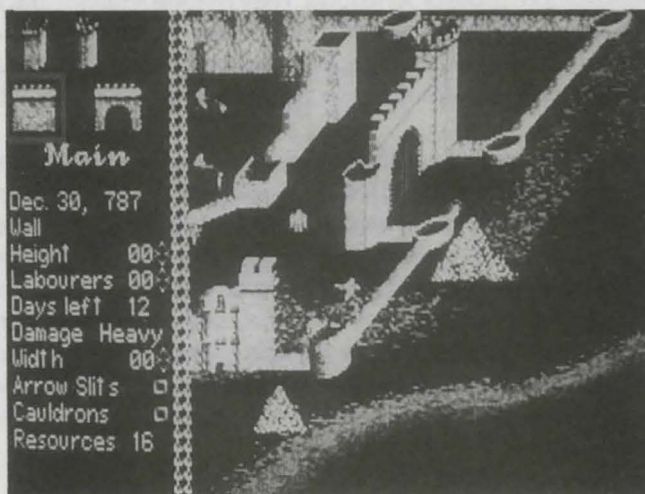
Why This Is Special

Hungry for a kingdom of your own? Castles can grant the wish by making you king over contested lands. Before you commence with the effective beheading of the traitorous enemy, however, you'll need to design the heart of your kingdom, the castle. After all, what is a king without a castle? Think of Michael Jackson without his glove, or Madonna without her lingerie. Castles challenges players to design, finance, and build such a stronghold.

Take SimCity's ability to design one's own city and convert it into castle design, then take economic decision making, personnel management, military deployment, and a dash of role-playing in which the player gets to sit on a simulated throne, and that's Castles.

Based on the Welsh campaigns of Edward I in the late twelfth and early thirteenth centuries, Castles is a hybrid that incorporates all of the types of game play described above. To those who object that castles is not truly a god game, we ask, have they never heard of the divine right of kings? This game is an entertaining exercise in feudal lordship.

A Taste of the Game

In playing Castles, first you design the basic floor plan for the castle keep and castle grounds. Then, the player recruits and allocates the number of laborers for each section of the wall and builds a section at a time. You can speed up or slow down the process by increasing or reducing the number of laborers allocated and the type of labor they are assigned to perform. For example, if all laborers are carpenters, no stones are going to be laid; if all are masons, there won't be sufficient scaffolding to take the walls very high. You can also determine how high the walls are going to be, if and when there is to be a moat, and the number and types of military personnel such as archers or infantry, with which to garrison the castle.

First, design the basic floor plan for your castle. Then it's time for project management: You need to recruit some non-revolting peasants to do the work and assign them to scaffolding, carpentry, stonework, and excavation. In the meantime, there's a moat to be dug, soldiers to be hired, and horses to be stabled.

As if managing the building of a castle isn't enough, as king you must handle the day-to-day problems, where you will be often interrupted by requests of the people of the realm, revolts by unwashed peasants, and demands made by other kingdoms. Your decisions have enormous consequences and call for the wisdom of Solomon. If you fail to make a decision that pleases the church, you'll find yourself at odds with the Pope. If you do adhere to the church's position, you might alienate the peasants. The stories inside Castles are rife with political implications. Will you rule with a velvet glove or an iron fist? The choice is yours, Your Majesty. Maybe being a king has its drawbacks.

INSIDE INFORMATION

When attacked by the Celts, it's a good idea to place most of your infantry outside the walls of your castle and place your archers in the towers closest to the attacking force. In this way, the infantry deployed on the outside will seek out the enemy and destroy as many as possible before they get to the castle walls. If the Celts should reach the castle, the archers will shoot the remainder.

Moonbase: Lunar Colony Simulator

Wesson International
$49.95
640K IBM/Compatible
CGA/EGA/VGA/Hercules/PS2 Graphics

Why This Is Special

When Neil Armstrong first stepped on the moon in 1969, everyone watching was sure there would be a colony on the moon by now. Yet today we don't even send people beyond Earth orbit. For those who just can't wait any longer, Moonbase: The Lunar Colony Simulator lets you build your own lunar colony.

You act as Commander of Project Moonbase, and your duties are to establish the base and plan its growth. The ultimate goal is to establish a self-sufficient colony on the moon. To reach this goal you must attract patrons from home to stay at the colony.
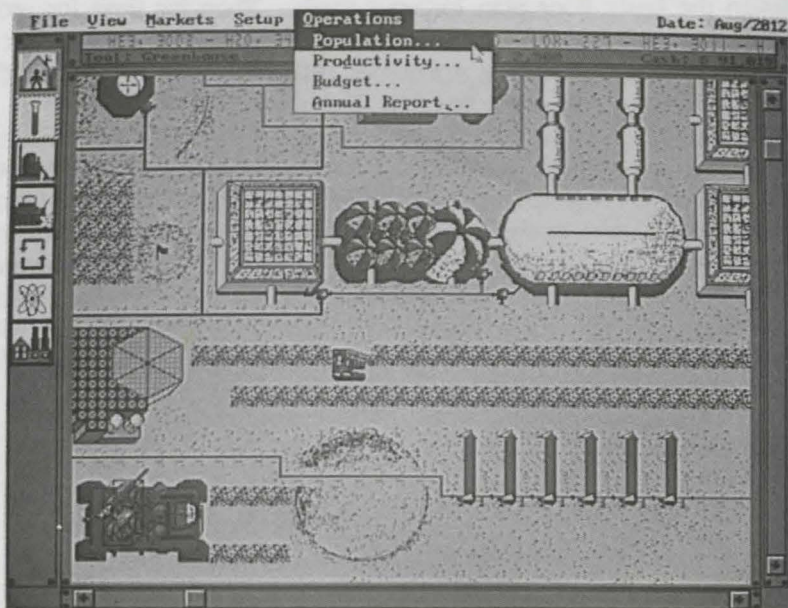
A Taste of the Game

In Moonbase, you start with a random map that is barren except for the occasional crater. As base commander you use your initial budget to establish modular facilities, manufacturing and power plants, greenhouses, observatories, laboratories and hotels, landing pads, roads, maintenance facilities, and connectors. You are in a race against the clock as funds run low and subsidies from NASA dwindle.

The challenge for the player is to decide what to build and when. If the goal is for the colony to become self-supporting, players will want to rely less on imports from earth. Due to the extreme costs of importing materials from home, it becomes obvious that the colony must develop its own sources of oxygen, water, food, and manufactured goods such as toilet paper and toothpaste. Once self-sufficient, the lunar colony can progress to more profitable ventures and long-term survival.

INSIDE INFORMATION

Do not build right away. Use the initial NASA subsidies that are available for nonexistent moonbases to explore the lunar surface. Then you'll know where to find valuable items for life-support and export.

Populous

Electronic Arts
$39.95
512K IBM/Compatible
CGA/EGA/Tandy 16 Color/VGA
COPY PROTECTION: Documentation look up
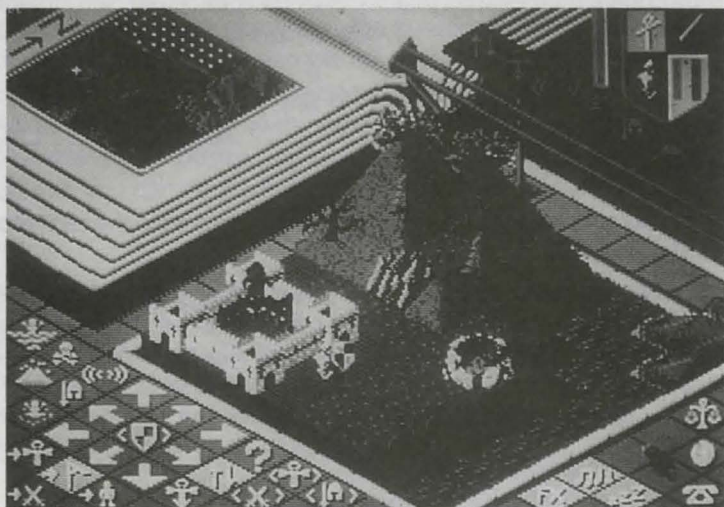
Why This Is Special

This game lets you become a deity. Period. It is a game of true divine intervention, and is perfect for those of us who dream of having throngs of followers obeying their every command without question. If they don't, shake their primitive minds with an easily created earthquake. If that doesn't get their immediate attention, a flood or another earthquake should do nicely.

Populous doesn't stop there. It's a competitive game that gives you and an opponent (whether computer or human) the ability to fight it out on the surface of five hundred worlds. As a matter of fact, the worlds look a lot like Lego toys, as the designers were playing with Lego when the idea for the game hit them.

A Taste of the Game

You begin Populous by leveling mountains and swamps so that worshippers have a place to live. You build up manna—supernatural power—by attracting more worshippers. Manna can be expended in positive ways, such as flattening terrain to increase the amount of fields that are able to be cultivated, or negative ways, such as causing volcanic eruptions in the center of your enemy's most populated areas. The objective of the game is to destroy the misguided infidels in the other deity's service before his or her manna can do the same to your own followers. Only then, can you move on to a new world.

Of course, the other deity (or devil, as the case may be) is trying to accomplish the same thing. He or she also wants to build up manna either to expand the number of believers (increasing the manna in the heavenly storehouse, so to speak) or reduce your own devoted band of followers to nonexistence.

You have at your divine disposal volcanic eruptions, earthquakes, floods (this can be a two-edged sword if your own people are not on high ground), swamps, papal magnets (sacred symbols that allow one to convert unbelievers to one's own side), and knights (primitive mercenaries that are extremely effective "terminators") to try to whittle down the population—and hence manna-building capacity—of your opponent.

Playing Populous is deceptively simple; to stop playing is not.

INSIDE INFORMATION

The easiest way to conquer is to place your papal magnet in the center of one of the infidel population's buildings.

The most effective natural disasters to inflict on an opponent are either volcanic eruptions or creation of swamps in the midst of the rival population.

SimCity

Maxis
$69.95
512K (640K with EGA)IBM Compatible
CGA/EGA/Tandy Graphics
COPY PROTECTION: Documentation look up/low contrast paper
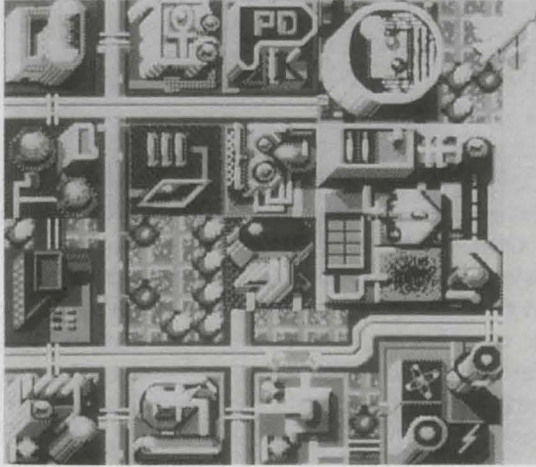
Why This Is Special

Have you ever wondered how cities such as New York, Detroit, and Philadelphia have so degenerated? How often have you questioned the decisions of the geniuses that run City Hall? In SimCity you get the answers to these questions.

Here's your chance to plan a city from the ground up. Every action you take has an immediate effect on the growth of the city. You decide when and how to bring in new business, new industry, and new citizens. Here is the chance to prove once and for all that you can do a better job than the elected stiffs.

A Taste of the Game

In SimCity, you become a combination mayor, city council, planning commission, and environmental protection agency. You are able to wield considerably more power than any of these government officials and readily become addicted to seeing your own power take on a life of its own.

SimCity offers the satisfaction of doing many different things with your city simultaneously . For instance, you can build from scratch, starting with an empty map, then zone the city for development, and build the infrastructure to support it. You make the decisions that affect the city's growth and quality of life, such as how many pollutants will be tolerated, when to raise and lower taxes, what funds to allocate to which budgetary line items, and when to add seaports, airports and stadiums. SimCity even offers the satisfaction of cleaning up another mayor's mess, such as an impossible traffic situation or a nuclear meltdown.

If you don't allow for adequate police protection, crime grows, resulting in loss of commerce, industry and population. Without proper fire protection, fires burn out of control, causing huge losses in revenue, which makes unhappy taxpayers. Other challenges include responding to earthquakes or even an attack by a Godzilla-like creature.

SimCity does not end at any particular point and, except in the various scenarios, has no specific victory conditions. Instead, you check the polls to see what your simulated citizens (sims) think of you as mayor and which aspects of city life most need to be improved. Peruse maps that indicate where traffic bottlenecks are occurring, where crime is rampant, where pollution is epidemic, and where population is massing; call up reports to review the history of cities and watch sections of the map grow as population increases, commercial/industrial properties develop, and traffic (whether air, land, or sea) expands to fill the allotted space.

Many people design their own cities, save them to disk, pass them to other SimMayors, or print them out. Most SimMayors are proud of their customized cities and feel a new appreciation for observing urban and suburban development after playing the game.

INSIDE INFORMATION

There are two quick ways to get money to operate your city: either raise taxes to 20 percent in December, then lower them to 0 percent immediately in January (that way you'll get the money you need, and your sims will be happy that they're not being taxed most of the year); or embezzle. Hold down the SHIFT key, type FUND, and $10,000 will be added to your city's funds. If you do this more than four times in a row, however, you'll be treated to an earthquake. So, embezzle four times, wait a few game years, and do it again.

SimEarth
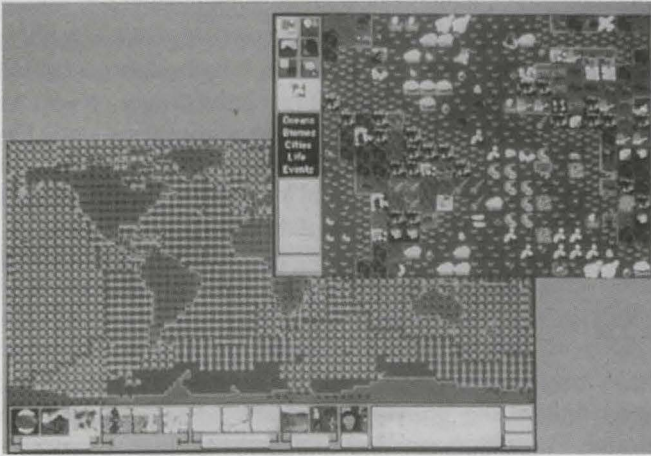
Maxis
$69.95
640K IBM/Compatible (286 or higher)
Hercules/EGA/Tandy 16 Color/MCGA/VGA; hard disk required
COPY PROTECTION: Documentation look up

Why This Is Special

The sequel to SimCity is based on Dr. James Lovelock's GAIA theory, which expresses eloquently the mysterious interrelatedness of animate and inanimate systems on any planet capable of supporting life. With SimEarth all it takes to create living, growing worlds is a wave of the hand (or in this case a wave of the mouse) and the planet bubbles into action as life forms of all kinds begin to flourish. Where their destiny lies is completely up to you, the ultimate creator. In the same way that SimCity allows players to build a city from the ground up, the sequel, SimEarth, allows players to build a world from the ground up and control the evolution of all life forms. Imagine what would happen if dogs were the superior race, and humans fetched the morning paper!

In the truest sense, SimEarth is what god games are all about.

A Taste of the Game

SimEarth is a game of cosmic scope that helps players explore the interrelatedness of planetary systems, where you can test geological, meteorological, biological, and ecological theories from the Big Bang onward. You have the option of guiding a planet from its nascence, nurturing life along an evolutionary stepladder, establishing ideal conditions for flourishing civilizations, and experiencing satisfaction when your civilization reaches the point of interstellar migration—or disappointment when your civilization nukes itself out of existence.

The game also includes an Experimental Mode where players assume the role of an almighty entity, expending energy to transform the face of a planet by causing volcanic eruptions, hurricanes, and earthquakes, or by adjusting the tilt of the

planetary axis, thereby increasing or decreasing the amount of rainfall, the number of oceans and continents, the evolution of life, the ordering of species, and so on.

If you're more interested in civilization than geological development, you can opt to start the game in the Civilization time frame and try to resolve problems of society. If you want to nurture a civilization of dinosaurs, it is possible to start in the Evolution time frame and adjust the planetary conditions accordingly. If you want to test the theory of nuclear winter, you can nuke your civilizations until they glow, and measure the aftereffects in terms of all the planet's systems. If you want to recreate the ice age, you can play with the axial tilt and watch the glaciers cover a hemisphere and recede.

SimEarth is enough to keep any person—or deity—occupied for at least an ice age.

INSIDE INFORMATION

The most common problem in SimEarth is planetary warming. It is absolutely necessary to reduce the greenhouse effect directly on the Atmosphere Control Model. In addition, one should plant some arctic biomes in the midst of the hottest areas of a planet's surface to cool things down.

Another problem is having one lifeform leapfrog past your favorite species. To avoid this, use the Examine feature to find out what type of biome supports the preferred life form. Then create conditions for these biomes so that your favorite life form will flourish.

Just as in SimCity, to embezzle funds, hold down the SHIFT key and type FUND. Try it!

Other God Games of Note

Balance of the Planet
Crawford Games
$49.95

Balance of the Planet places the player in the role of High Commissioner, a global post with unlimited authority to solve the ecological crisis. When you play this game you quickly see that the whole is greater than the sum of its parts, and that economic, environmental, and political issues are all interconnected. Balance of the Planet is a challenging experience for those who simply wish to learn, as well as for those who want to be environmental masters.

Bard's Tale Construction Set
Interplay
$59.95

Think of this as a second-level god game that lets you create and control your own completely playable computer game world. Anyone who likes fantasy role-playing

games occasionally has the urge to create a world of their own, with their choice of monsters, magics, and dungeons. Bard's Tale Construction Set lets you do just, that using a few simple tools. As well as designing dungeons, you can place monsters, treasures, and traps anywhere you desire. If you ever thought you could create a better game, here's your chance.

Global Dilemma: Guns or Butter
Mindscape
$49.95

Global Dilemma: Guns or Butter puts into a diskette-shaped nutshell the classic question, which comes first, the military or the consumer?   Players rule a hypothetical nation where they must handle diplomatic negotiations with computer opponents, establish economic priorities, and command all the military forces.

Hidden Agenda
Springboard Software
$59.95

Players become El Presidente of a banana republic where there is a wary coalition of political interests. Your job is to balance these interests with caution by making insightful decisions about land reform, political appointments, economics, and legislative reform. The game (which can be played many times) allows you to print out an encyclopedia entry of your work after each session.

Powermonger
Electronic Arts
$49.95

Powermonger is best described as Populous on a human level; it looks and plays much like Populous, but provides world conquest on an earthly scale, as opposed to a cosmic one. In Powermonger, you assume the role of a tribal leader whose homeland has been destroyed by an earthquake of epic proportions. It's your job to see that new worlds are explored, settled, and conquered, and your enemies are crushed in order to provide the quality of life your people deserve.

Available only on the Amiga at the time of this writing, it is well worth looking for when it's finally released for the IBM.

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Cashing In On Success: Money Making Games

Let's look at the bottom line here, shall we? Money. That's what business is all about. While many people call business a game, the more hard-bitten, cynical types think of it as war. When you get right down to it, money represents numbers, and what's better with numbers than a computer? Although these are games to play for fun, the simulations allow players to try out countless scenarios that provide immediate results, as opposed to real life where months and even years are required to analyze decisions. They also can be used as tools to hone your business skills, without bosses looking over your shoulder. Business simulations are a great way to test your personal theories and techniques of management and investment without worrying about bankruptcy court or pink slips.

While these are not games for workaholics, they can be considered entertainment for people who like to take work home with them. Want to find out if you've got what it takes to handle Wall Street? Fire up one of these games and start a portfolio—but don't take them too seriously; jumping from a nine-story building because your fictitious stocks dropped wouldn't look impressive on your resume.

American Investor

Britannica Software
$149.95
512K IBM/Compatible
Hercules/CGA; 2 floppies or hard disk required
COPY PROTECTION: Key disk

Why This Is Special

The American Investor was developed with the full participation and approval of the American Stock Exchange. It carries a hefty price tag for an entertainment software program and for good reason; the price is part of its positioning as a serious tool for understanding stocks and options trading. The initial aim was to create more of a training tool than a simulated game environment, but it has all the ingredients of a sound business game to boot.

The American Investor is the most sophisticated investment simulation on the market and potentially the most profitable game a money-hungry person could play.

A Taste of the Game

In The American Investor, one can invest in almost fifty different stocks listed on the American Stock Exchange. You can view the performance of these stocks in the context of ten industry sectors and four different market indices: the American Composite Index, the Major Market Index, the Dow Jones Industrial Average, and the S & P 500. In addition, players may consider the general market impact of the prime rate, short-term interest, and T-bill yield curve.

The research reports on individual companies are similar to those in a corporate annual report. They give book value, outstanding shares, financial history, price-to-

earnings ratio, estimated earnings per share, Standard & Poors ranking, cash to assets, and more.

INSIDE INFORMATION

In The American Investor, one can utilize the two investment principles of world-famous investment advisor Martin Zweig: Don't fight momentum—pay attention to technicals and leading indicators; and don't fight the market—pay attention to moving averages. Here is the first simulation rich enough to teach those principles. Follow them.

Managing For Success

Britannica Software
$49.95
256K IBM/Compatible
COPY PROTECTION: Key disk

Why This Is Special

If Lee Iacocca were to play a computer game, we think this is the one he'd choose. Managing For Success is a professional management simulation where the player takes on the role of Chief Executive Officer (CEO) for a robotics corporation. While the game teaches sophisticated management dynamics, it entertains at the same time, and if you become highly proficient at Managing for Success, there are more than a few airlines, banks, S&Ls, and insurance companies that could use your help.

A Taste of the Game

As CEO, you read reports from various department heads, then use miniature spreadsheets to test out the recommendations presented by subordinates. The CEO then makes a decision, and the cycle begins again. Each game of Managing For Success lasts for six game years, allowing players to practice planning for long-term goals, as well as how to reach short or intermediate goals. If this sounds boring, you may not want to be a CEO.

In the Finance Department, players learn how to adjust their payables (juggle their bills), discount their receivables (charge less for prompt pay), or repay loans. Manufacturing decisions include handling material flow, inventory control, and labor management. Marketing decisions encompass budgeting for research and development, adjusting the advertising budget, authorizing market research, and developing sales promotions.

Perhaps most significant is the game's capacity for customizing the simulation to reflect the player's own corporate name, department heads, product line, and many other facets of his or her company. In this way, the simulation becomes your personal laboratory for exploring hypothetical business plans.

INSIDE INFORMATION

Keep reinvesting profits in research and development, and in quality control; this will keep you ahead of the competition and lead to greater market share. Increased market share will help increase your profit margin.
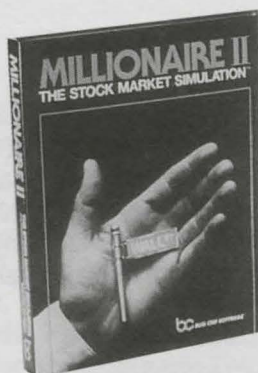
Millionnaire II

Britannica Software
$49.95
256K IBM/Compatible
COPY PROTECTION: Key disk

Why This Is Special

Millionnaire II gets you in right up to your neck in the stock market with a detailed simulation that includes the best nuances of Wall Street wheeling and dealing. Emphasis is on exacting research, market analysis, and that elusive ingredient, luck. Millionnaire II also allows several players to play at the same time with the same data. This makes the Millionnaire II fairly unique, and adds a level of complexity that increases the excitement of an already thorough simulation.

The original Millionnaire was so realistic that many stock brokers used it in training courses for would-be sales personnel. If you want to know more about how it feels to trade stocks on Wall Street, this is the game for you.

A Taste of the Game

Each turn begins with the presentation of thirteen weeks of stock market history. The historical data includes graphs of general market trends, news summaries, corporate announcements, and a market report. This game is chock-full of historical data and analysis—you may wish your stockbroker was this knowledgeable.

After reading the reports, the player can review his or her own portfolio then decide whether to start a buy/sell transaction, borrow money, advance to the next week, or just stand pat and save the game. Millionnaire II not only allows you to explore the better-known facets of the stock market, but also lets you take part in important lesser-known tactics, such as the art of selling a stock short, where you make money when the price of a stock falls.

Millionnaire II also offers special privileges for each level of accomplishment, such as borrowing on margin, using call options (purchasing the right to buy a stock at a guaranteed price), or being cleared to use put options (the right to sell a stock at a given price, even if it goes down).

INSIDE INFORMATION

Ignore earnings reports in this game. The stock market anticipates rather than reacts to trends, and individual investors who buy stock based on earnings reports usually are not successful. The market has already discounted those earnings before they are reported.

Venture Magazine's Business Simulator

Reality Development Corp.
$89.95
256K IBM/Compatible
COPY PROTECTION: Key disk
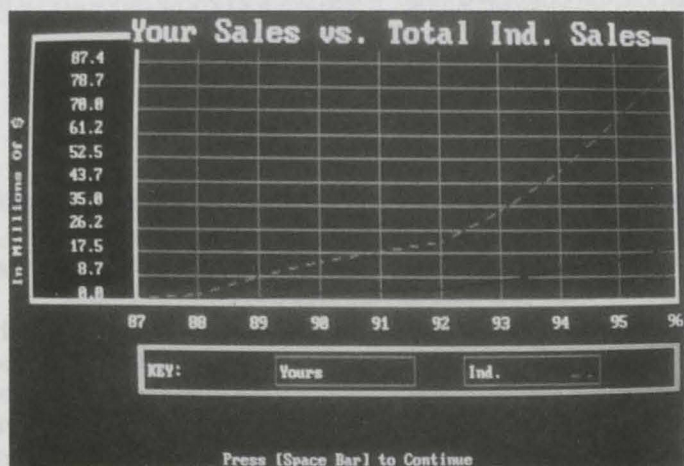
Why This Is Special

Venture Magazine's Business Simulator is very similar to Managing For Success; in both games the player takes on the role of CEO of a start-up company in the robotics industry. In Venture Magazine's Business Simulator, however, one is constantly aware of the progress of competing CEOs, either human or computer. Subscribers to the Prodigy Personal Communications Service can play a multiplayer version of the Business Simulator in the on-line version called CEO.

A Taste of the Game

The goal is to produce and market one's own robots in such a way as to grab the majority of market share and profitability from one's competitors and become the market leader. Players may choose from one of many different sectors, such as soft drink manufacturing and automobile production. Business Simulator has some standard scenarios, but each has its own unique conditions, adding spice to the strategies.

Business Simulator offers a specialized spreadsheet, the Pro-Forma Planner, to help players test potential decisions. The decision cycle in the course of each game turn appears as the following: read general economic data in the on-line business journal; review the company's annual report (the results of the last turn); study memos from various department heads; make tentative decisions; test the decisions in the planner; revise the decisions if necessary; then implement the decisions. Players determine advertising budgets, and discounts and promotions; however, offshore production, the issuing of debt equities, and releasing public offerings are new complications that enter the picture.

INSIDE INFORMATION

The most efficient company usually is the most profitable. The first goal should be to maximize one's total production so that every factory facility runs as close to three full shifts as possible, minimizing the cost per unit and maximizing the potential profit margin.

Wall Street Raider

Intracorp, Inc.
$39.95
256K IBM/Compatibles
COPY PROTECTION: Key disk

```
LTV 33 3/4  GRL 23 7/8  GRL 23 1/8  GAF 51 1/8  UH  143 1/8  AET 40 1/8  NME

   RESEARCH TOOLS          MAJOR TRANSACTIONS           TELETYPE TICKER
PF  = View portfolio of                           PUH mill is closed by EPA
      David                                        GRL earnings $ .18 (Dn).
DIAG= View stock diagrams                          AS  earnings $ 1.74 (Up).
FIN = Company fin. data                            AIO earnings $ .83 (Dn)..
IND = Industry projection                          AMB earnings $ 1.23 (Up).
ISUM= Industry summary                             PHM settles securities
ECO = Economic indicators                          litigation for $ 74 m...
OWN = List stocks owned                            PVH earnings $ .84 (Up).
SYM = View stock symbols                           PUH earnings $ .84 (Up).
SHR = List shareholders         OPERATIONS
SUM = Summary: Net worth                          CURRENT PLAYER STATUS
NEWS= Latest headlines      TAPE= 'Broad Tape' reports
DB  = Database search       LOAN= Borrow/repay loans  Cash ($ Million)   84.85
RS  = Research report       END = End player's turn   Bonds               0.00
                                                      Stocks            710.53
Player: David               Transactions left ▶ 2  Less: Loan        -250.00
Bank: WELLS-FARGO BANK      Qtr./Year = 2 / 1990   Net Worth:         545.37
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Why This Is Special

This game is like life in the financial fast lane for all you Kohlberg, Kravis and Roberts, or T. Boone Pickens wannabees. While many money games are relatively leisurely, allowing the player endless time to make investment decisions, Wall Street Raider calls for pressure-sensitive decisions and strategies. Failure to keep up with the fast pace most assuredly will leave you buried below the vast paper garbage of the trading floor.

A Taste of the Game

Wall Street Raider is a highly competitive game, whether one is playing against the computer or against other people. The object is to increase net worth through a combination of stock acquisition and hostile takeovers. One to four would-be raiders vie to gain voting control of an ailing company, aiming to turn it around using sound management principles and strategic investing.

You begin the game with control of one company, which can be used to acquire other companies or simply to be managed out of its doldrums. All the options are here: tender offers, leveraged buy-outs, greenmail, mergers with stock transfer, acquiring or selling business assets, proffering new public offerings, issuing those world-famous junk bonds of the 1980s, suing the competition for antitrust, liquidating subsidiaries, and more. The game is played in realtime phases that can be set to last from one to thirty minutes. The ticker tape is running continually during these predetermined phases.

Wall Street Raider is a ruthless game for ruthless people who still believe that greed is good—and even for those who don't.

INSIDE INFORMATION

A competitor's credit line is his or her lifeline. One extremely effective strategy is to take over the bank to which your competitor owes the most money. You can then call in the competitor's loan and make that player squirm.

Other Money Making Games of Note

Baron
Britannica Software
$39.95

It once was said that you could never lose money in real estate; not anymore—just look at Donald Trump and the Savings and Loan bail-outs. Baron is an older game

about playing the real estate market. Baron gives you the fun of the challenge without the risk of losing either your own or the taxpayer's cash. One amusing feature of Baron is to read the random real estate listings and compare them to today's prices.

Inside Trader
Cosmi Corporation
$24.95

Inside Trader is a fast-paced humorous game about market momentum. Most of the game revolves around the gleaning of information from a fast-moving newswire and ticker tape, as well as purchasing information from more reliable but less legal sources. The information is then translated into quickly consummated transactions.
    Inside Trader is not very realistic, but it offers plenty of challenges and chuckles.

Squire
Britannica Software
$39.95

Squire puts all types of investments together, from stocks, bonds, commodities, and real estate, to collectibles. It offers not only a chance for more balanced portfolios than other games of this type, but also a chance to define a "reality scenario" based on your personal investment strategy.

Tycoon
Britannica Software
$39.95

Commodities trading is considered the supreme adrenaline rush of all investments. This simulation reflects the fact that most commodities contracts are leveraged (that is, purchased on margin), which forces the player to keep the trading account current, and means that every turn, representing a week of trading activity, offers enormous volatility. Because of this, Tycoon is a fast-moving and exciting game.

·13·

Wargames: War and Strategy Simulations

The term wargames never fails to conjure up images of massed uniforms huddled in the nether regions of the Pentagon acting, in Bob Dylan's words, "...very bored; trying to create our next world war." These "what if" scenarios have been used for decades to simulate the effects of different strategies and tactics in hypothetical conflicts.

Often tied to this image is one of our greatest fears—the possibility of a computer virus or mistake infecting a giant defense system causing it to malfunction, accidently setting off a war that annihilates the human race. In these games, however, we have a chance to control the computer, to decide for ourselves when to push the little red button that starts the next world war—or prevent it. They also allow us to rewrite the history of past wars.

Wargames also bring to mind boxed game sets with cardboard units and equipment moving on a map comprised of tiny hexes, with people replaying some of the great battles and military campaigns of history. It is from both of these traditions that personal computer wargaming developed.

Before any of the other gaming genres covered in this book had ever seen their first commercial program released, the vacuum tube and punch-card generation computers were playing crude wargames. While it is fairly well known that the game Dungeons & Dragons invented the entire role-playing game genre, it is less well known that its designers had published volumes on wargames before they ever slayed their first orc. D&D creators Gygax and Arneson, like so many of the founding fathers of modern hobby gaming, are wargamers.

It is ironic that wargames—the original computer games—tend to be the poorest sellers of all computer games categories. A company that sells 20,000 copies of a

wargame title considers it a hit, while in many other categories that number sold would be considered a disaster.

Strategy games as generally defined require broad levels of planning and adherence to sound, strategic principles, such as maneuver, mass, economy of force and unity of command, to help assure a player's success. Wargames specifically, attempt to simulate real or possible military conflicts and present them in a gamable format. Historical wargames often are thought of as time machines, giving a player the opportunity to fill the shoes of a famous commander, thereby affording him or her a chance to change the course of history. You may be Napoleon and win the Battle of Waterloo, the Confederacy winning at Gettysburg, or the Germans victorious at Stalingrad.

Wargames also present "what if" scenarios, allowing players to explore historical alternatives and study the possibilities inherent in future conflicts. How far can you pressure another country or leader before the missiles begin flying? How much are you willing to compromise to ensure "peace in our time"?

While wargames are not as popular as role-playing arcade and adventure titles, most loyal strategy gamers consider their niche the serious side of the gaming hobby. With the lessons of history to explore, the art of war to study, and sound strategic military principles to practice, war and strategy games are perhaps the greatest mental challenges a gamer can face.

Balance of Power

Mindscape
$49.95
640K IBM/Compatibles; Apple II & Macintosh
Windows 2.0 and above (run time version available); 286/386 recommended
COPY PROTECTION: None

Why This Is Special

Balance of Power is in fact the very antithesis of a true wargame. While the strategists and political scientists among us will enjoy a cynical bipolar game of one-upsmanship as either the U.S. or Soviet superpower, when war breaks out (as it often does), the world is blown to smithereens and everybody loses. When this happens, there is no animation or on-screen pyrotechnics. You're presented instead with a simple message to the effect that death and stupidity are not rewarded.

The game's author, Chris Crawford—a legend among wargame designers—describes Balance of Power as an anti-wargame. Although easy to learn, Balance of Power can take a lifetime to master. The best advice is to save it at the end of each turn and be willing to restart it again before learning the lessons it teaches.

A Taste of the Game

Balance of Power has recently been revised in a 1990s edition, and you have the choice of the computer or another person as your opponent. There are eight turns, each representing a year in office as head of state, in which players allot their foreign aid, troops, and diplomats to deal with a global map seething with turmoil, crisis, unrest, and other headline-grabbing world events. Newspapers and briefings keep you informed as to what's happening.

When both players have charted their diplomatic course for the year, events begin to unfold. As the inevitable conflicts arise between the superpowers, the crises must be resolved by one or the other player backing down. Refusing to back down escalates the crisis (and the point value for "winning" it), but also brings war closer.

Virtually every game ends with an abrupt war, or with the player who backs down too much just to keep the peace losing by a horrendous margin. The lessons learned, however, are remarkable.

Battles of Napoleon

Strategic Simulations (SSI)
$49.95
512K IBM/PS2/Compatibles
EGA/CGA
COPY PROTECTION: Document check
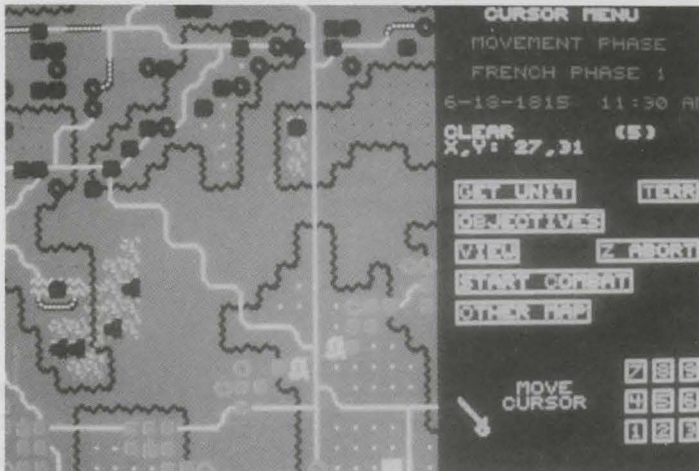
Why This Is Special

This venerable game system from faithful wargame publisher SSI is still as exciting to play as it was when it was first published in 1989. Although signs of age are apparent (the early CGA level of graphics and the "horse and buggy" game interface), they do not detract from its replay value. With several scenarios provided (including Waterloo), and the freedom to create your own, this is not merely a game, but a player-driven time machine to answer the question "what if?" during an age of glory.

A Taste of the Game

With the feel of a miniatures game with those painted figures maneuvered about over scaled, detailed 3-D gameboards, Battles of Napoleon gives you a helicopter's eye view of the battlefield—something Bonaparte certainly would have appreciated. The perspective allows you to position troops along the center, wings, and reserve of a line; conduct charges and counter-charges, mass batteries of cannon; and commit guards at the critically decisive moment of battle. Players must master the classic elements of tactical and operational maneuver to claim the victory.

Based on the same game systems as Gettysburg, Antietam, and Shiloh Civil War games, Battles of Napoleon transcends the limits of those set-piece battles, bringing to wargamers a "design kit" feature with which players can set all the elements of the game to their personal liking, up to and including the design of the game's map.

Carriers at War

Strategic Studies Group, Ltd. (SSG)
$59.95
640K IBM/Compatibles
VGA/EGA
COPY PROTECTION: None

Why This Is Special

Carriers at War has been, and is likely to remain, the definitive treatment on the subject of carrier warfare during the World War II era. Winning (and deserving) heaps of praise, Carriers at War is a tour de force in computer game programming. An unbelievable amount of information is packed into it, yet it remains essentially easy for would-be admirals to understand and play.

This game is required playing for the nautical strategists among us.

A Taste of the Game

Players operate multiple task forces centered around carrier groups with specific missions and goals. Many scenarios include several campaigns in the Pacific theater during World War II. The game is played in rigorously paced five-minute turns until there is an interruption for players to receive the latest news, or to give new orders to their forces. Fortunately, with a game of this scale, the computer handles much of the mundane grunt work (such as course plotting and other lower-echelon details) leaving the player to make decisions for which an admiral would be responsible.

A classic since its 1986 release, the new IBM version includes enhancements that could only be dreamed of in the mid-80s. The stirring sounds and graphics for individual ships and bases in Carriers at War will probably win it awards anew. The SSG "design your own scenarios and paint your own graphics" features are state of the art, and Carriers at War spearheads this new technology.

Command HQ

Microprose
$59.95
640K IBM/PS2/Tandy/Compatibles
EGA/VGA/Tandy cards; Mouse recommended
COPY PROTECTION: Document check
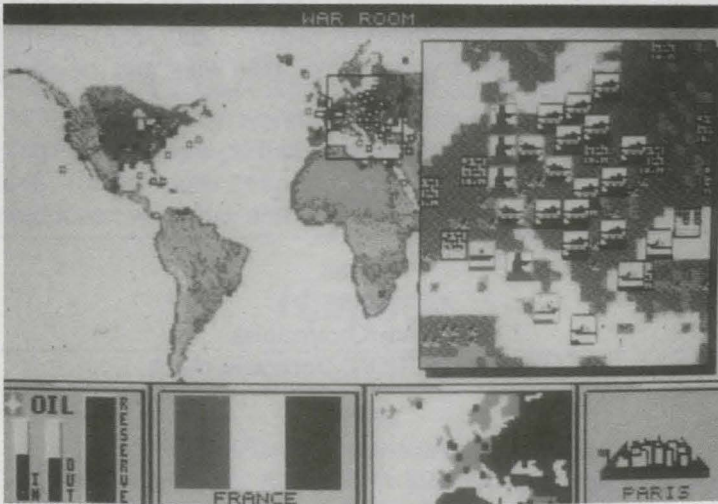
Why This Is Special

There's an expression for the highest levels of military strategy: War at the Top. That's Command HQ. The units of maneuver are armies, fleets, and air forces, and the map is set on a global scale. While many have compared Command HQ to the board games Risk! and Axis & Allies, the game retains a unique flavor that will keep it being played well into the next century.

Command HQ features the best of what a computer wargame can be, that a board wargame could never match.

A Taste of the Game

Command HQ is a low-complexity wargame for one or two players. One of the big secrets of the game's success lies in its two-player MODEM PLAY feature. Armchair generals call on each other to enjoy the challenges of real-time fight in capturing the enemy's capital. (Real-time means that there are no turns per se; the action flows continuously, and units carry out orders until they either are completed or issued new ones.) Commanding one's forces couldn't be simpler: Just click on a unit, then click on where it should go. The computer takes care of the rest. Just be sure to keep units at full strength whenever possible and remember that "combined arms" tactics generally work the best.

With five scenarios, three "historical" (World War I, World War II and World War III) and two hypothetical (2023—Rise of the new Superpowers, and the ???? scenario, where each player begins with a single city and must discover the opponent and conquer), there is always something different to play. Other scenarios include killer satellites, foreign aid, intelligence scans, truces, cold wars, and the ever politically unpopular nuclear option.

Empire

Interstel
$49.95
IBM/Tandy/Compatibles
COPY PROTECTION: Document check

Why This Is Special

Empire is the venerable old timer of computer wargames, a classic in its own right and every bit as challenging today as it was over a decade ago. Empire presents players with world conquest on an alien planet, without a map and only one city from which to produce military units (including armies, planes, and several ship types). Clean and simple to learn and play, Empire has become something of a wargame for the non-wargamer.

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F     Reports  0        C         M              Move          395
Battle Info                    the enemy attack while sustaining 1 hit.
   34    Status          F5
         Combat Report   F6
   36
         World Map       F7
   38    Ship Report     F8
   40    Production Map   F10
   42
   44
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   50
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      46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80
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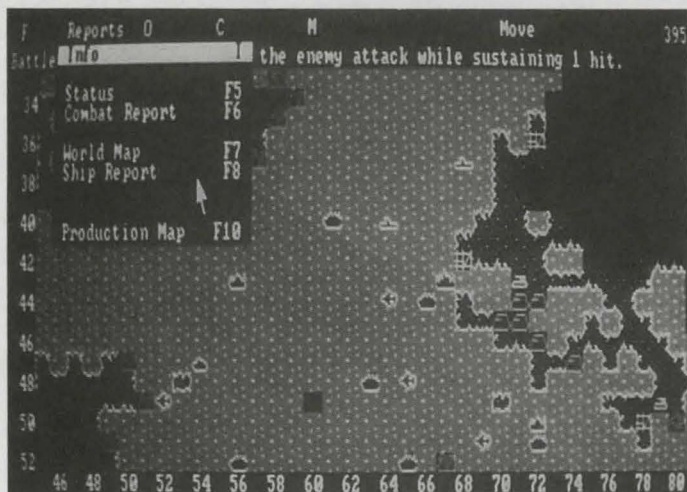
A Taste of the Game

As your units set out to explore new cities and build up your power base, the randomly created world gradually is revealed and one or two enemy players come into contact. From this point on, Empire becomes a game of chesslike maneuvers as you attempt to capture every last enemy city and destroy every last enemy army.

The heart of Empire's strategic planning lies in conducting and defending against invasions. With its island-filled worlds and numerous types of ships, both exploration and sweeping the seas (as the prelude to an amphibious assault) becomes the game's primary focus. The computer can play one or two other opponents with adjustable levels of production efficiency and combat effectiveness.

Harpoon

Three-Sixty Pacific
$59.95
640K IBM/Tandy /Compatibles; Macintosh
CGA/EGA/Tandy/VGA/MCGA; AdLib/Game Blaster/Covox/Innovation sound supported; hard drive required; mouse recommended
COPY PROTECTION: None

Platform Display for: Aircraft-Fighters   Active Unit: Mig-23 Flogger

USA
F-14
TOMCAT

USSR
MIG-23
FLOGGER

Carrier-Based Fighter
Speed: Mach 2.34
Range: 3220km (2000 miles)

Land-Based Fighter/Bomber
Speed: Mach 1.7
Range: 2600km (1610 miles)

This is a fast aircraft, designed as an all-weather interceptor.
Although it has a variable-sweep wing system, this option is not used
in combat. Before dogfighting, the wings will be tucked all the way
in, allowing maximum speed. This means the Flogger lacks the turning
ability and acceleration of modern-generation fighters. The pilot will
change wing geometry to conserve fuel while cruising and to reduce
speed when landing. This Mig is still a dangerous opponent, and
because it is relatively cheap, has been built in large numbers.

WEAPONS   SENSORS   OTHER   NEXT   PREVIOUS   MAIN

Why This Is Special

Since there are luxury homes and luxury cars, Harpoon would have to be considered
a luxury wargame. Based on the Game Designer's Workshop board game of the
same name (which authors Larry Bond and Tom Clancy have made famous),
Harpoon puts players at sea in command of modern naval vessels.

It has been said that the original rules for Harpoon served as a base for Clancy's
Hunt for Red October and *Red Storm Rising*. With lineage like that, you know it's
time to disappear in naval techno-toy heaven. So bone up on your naval-speak, pop
a macho pill, and call in Jack Ryan for backup.

A Taste of the Game

You are on the bridge of your ship in command of a battle group. Your specific
Orders and Order of Battle inform you as to what your mission is, the options
available to you, and the assets at your disposal.

The latest hardware platforms and armaments are at your fingertips. Harpoon not
only presents an excellent model of modern naval tactics, but also packs a wealth
of information into every ship and system a player operates. Much can be learned
about missiles, helicopters, radar, and other elements of warfare at sea as the detailed
specifications are a simple click away. (One reviewer claimed to have learned as

much in his first few hours playing Harpoon as he did in a full year studying maritime operations at the Naval War College!) Despite the complexities of command, the game structure and interface are easy to master.

What sets Harpoon aside as a luxury item is the availability of expansion products for the game. With the Scenario Editor, players can create their own replications of conflicts at sea and experiment with the what ifs of a future clash on the waves. Scenario disks also are available, including North Atlantic Convoy and The Mediterranean. The latter is particularly noteworthy, as it adds many platforms and weapons from non-U.S. and Soviet navies. Well conceived and brilliantly executed, Harpoon is a "sea-perior" naval strategy simulation.

Koei Games

Koei

$59.95-$69.95
512K (640K for Nobunaga and Romance II) IBM/Tandy/Compatibles
EGA; AdLib (Romance II only)
COPY PROTECTION: None

Why These Are Special

Koei is a Japanese wargame publisher whose motto is, We supply the past, you make the history. What makes them unique to Westerners is the subject matter the publishers choose to cover and the treatment given to each game.

Koei games include Nobunaga's Ambition II, Bandit Kings of Ancient China, Romance of the Three Kingdoms, and Genghis Khan; each is a unique presentation of Eastern culture and history. Koei treats its subjects with a special richness and flavor that makes them more than just exercises in military planning—these are history lessons for players to truly appreciate.

A Taste of the Games

Each Koei game puts the player in the sandals of a great leader, where he must forge alliances, manage the economy, raise and train the army and its generals, and conquer neighboring areas by conducting set-piece battles on traditional wargaming hexgrid maps. Players vie with their archers, infantrymen, and horsemen for tactical superiority.

Bandit Kings of Ancient China takes the player back to the early 1100s, where the evil prime minister, Gao Qui, has seized all imperial authority. The player must become the greatest hero in China and restore the emperor's authority.
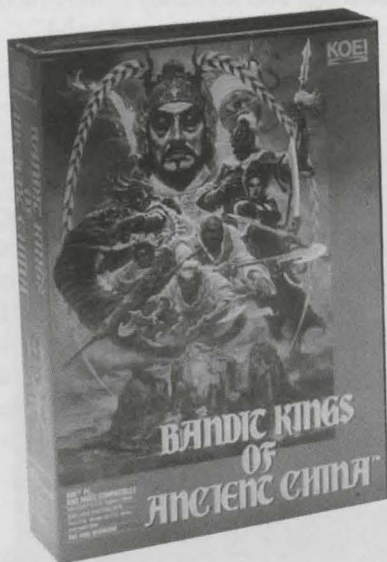
Genghis Khan is the grandest strategy game of all, covering the whole of Eurasia in the late twelfth century. Players can lead either the Mongols, Japanese, Byzantines, or English to supremacy.

Romance of the Three Kingdoms is set following the collapse of the second Han dynasty, where warlords vie for supremacy in second-century China.
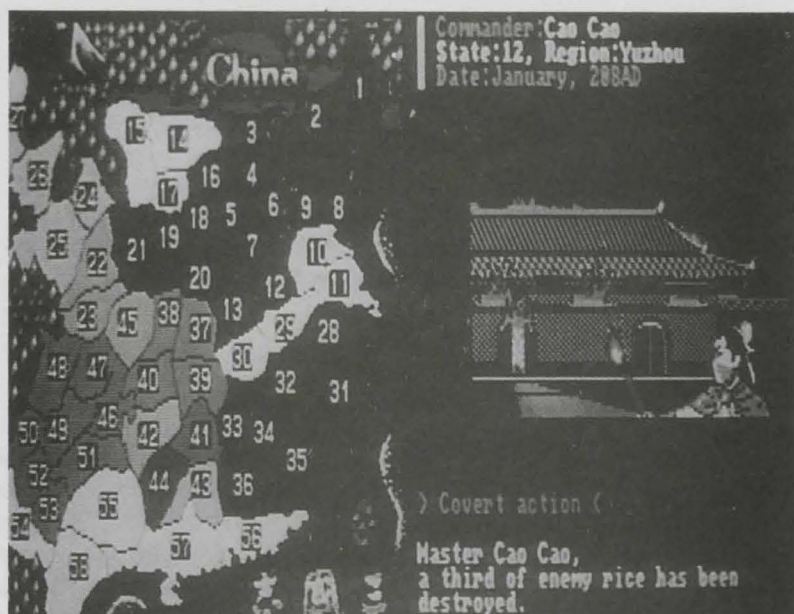
Nobunaga's Ambition is the unifying of sixteenth-century Japan by warring Samurai amid a feudal, civil war setting.

These games are not simple, nor are their interfaces state of the art, but they offer players real rewards. With the fate of empires at stake, one can almost envision the history, personalities, and spirits of the people who struggled during these times.

Reach for the Stars

Strategic Studies Group, Ltd.
$45.00
256K IBM/PS2/Tandy/Compatibles; 1-meg Mac Plus or later
CGA/EGA/MCGA/VGA/Hercules
COPY PROTECTION: None

Why This Is Special

For those who are tired of conquering a mere planet, here's the best game for conquering several planets. Known by wags as CPAs in Space, Reach for the Stars is a simple game of galactic dominance against four human or computer-controlled players. Even though this game dates back to 1982, it remains the champion of strategic, interplanetary economics and empire building. Reach for the Stars has triumphed over time and remains on many a hard drive, while other games have been erased to make room for newer releases.

A Taste of the Game

Each player begins on a single world, which must be industrially developed. As one's population grows, finding new worlds to settle becomes a concern, and protecting interstellar empires quickly becomes paramount. Star systems must be explored, planets colonized and developed and, whenever encountered, enemies must be crushed. There is no love in outer space, so developing one's military technology in order to build better warships becomes a necessary expenditure of precious resources, and ruthlessness in war the only path to security.

Now in its third edition, Reach for the Stars continues to challenge players with its classic set-piece situations of galactic dominance, and the variety of optional features continues to keep the game as fresh as when it first appeared. Simple to learn and entirely menu-driven for ease of use, this game quickly becomes addictive and stays that way for years and years of play.

Second Front
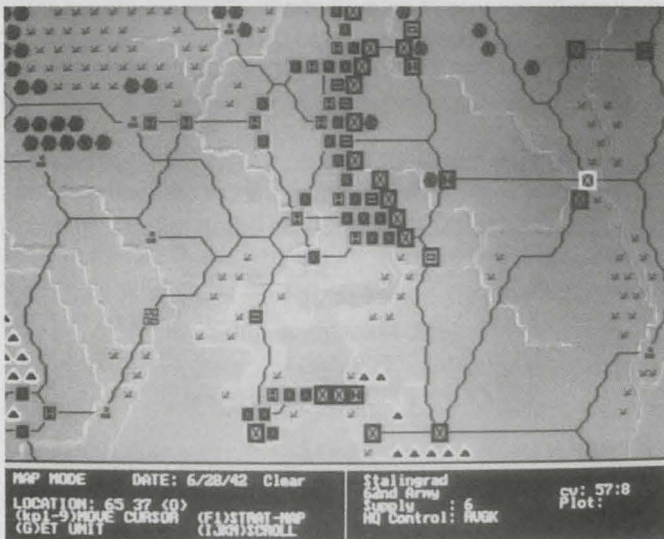
Strategic Simulations (SSI)
$59.95
640K(EGA),512K(CGA) IBM/PS2/Compatibles
EGA/CGA
COPY PROTECTION: Document check

Why This Is Special

Since the early 1960s, the symbol of wargaming has been the hexagon. Used as a grid to regulate movement of pieces across the map/game board, the hexagon is largely unique to the history of wargames. SSI's Second Front is a classic hex wargame brought to the computer, and covers the most popular subject among those who enjoy wargames, the Russian-German conflict during World War II.

A Taste of the Game

Second Front excels as a computer wargame by taking advantage of what computers do best, number crunching and memory management. For example, the units of maneuver in Second Front are German corps and Russian armies; when the player examines his or her forces, he or she sees that these units are made up of a number of divisions that can be transferred between corps/armies. Each division is made up of a certain number of infantry squads and individual vehicles. Thus, the entire Russian Front is actually fought at the squad and vehicle level where the slaughter is occurring.

Keeping units in supply and well rested is the key to success when conducting offensives. Second Front features economic planning, air campaigns (with individual types of aircraft), as well as background effects of other battles of the war in Europe.

While fairly high up on the scale of complexity, this game is not made any easier by its less than thorough documentation. And yet, for those willing to make the effort to master Second Front, you'll have a game to plan over and enjoy for hours, weeks, and months on end. You can plan endless campaigns beneath equally endless Russian skies.

Warlords

Strategic Studies Group, Ltd.
$49.95
640K IBM/Compatibles
EGA/VGA
COPY PROTECTION: None

Why This Is Special

One computer games expert put it this way: "Warlords is a classic war/strategy game, but it is also CRPgaming on a grand scale." Another took this approach: "While the land is populated by orcs, dwarfs, elves, giants, dragons, and other denizens of a fantasy realm, Warlords is nothing if not a wargame." We flipped a coin and it came up wargames. When you play it you can make your own decision.

A Taste of the Game

In the mythical land of Illuria, an unconvincing peace treaty has just expired, and an eight-cornered power struggle is beginning for overlordship.

For a combination of one to eight human or computer-controlled players (at the same computer), Warlords is a game of power building and vicious assaults. Each player begins with a single hero and a home castle. The hero's task is to scour the ruins and temples of Illuria in search of aid from allies and magical items to assist the player in battle. Heroes also can lead armies, adding to the troops they lead. The eighty castles strewn about the land generate gold and soldiers, and each city added to a player's empire might offer something new to his legions, such as gryphons or fine cavalrymen. Players must carefully deploy the types of troops that give the most advantages to the armies as heroes, flying creatures and other exotic units strengthen troop morale.

The mechanics are clean and straightforward, and the player can focus on empire building from the very outset. The computer quickly determines the outcome of every battle and conducts a very competent game for the players it controls. All units are rated in the traditional wargame manner for combat strength and movement allowance. This, combined with the pure strategy required to win, has made this fantasy epic a leading wargame on the market today. With its broad appeal, Warlords can intrigue just about anyone.

Other War/Strategy Games of Note

Armada 2525
Interstel
$49.95

A serious contender for the throne occupied by Reach for the Stars, this one-to-six player galactic struggle offers some exciting new features. With easy interfaces with simple icons galore, research and development in Armada 2525 takes on more importance than in RFTS. Space battles can be observed and somewhat controlled by players. Dynamic and rich, Armada 2525 offers much for those who enjoy building empires in space.

Fire Brigade
Panther Games
$44.95

Based on the battles around Kiev in 1943, both the Germans and Russians have considerable resources at their disposal in this tense, see-saw battle. Using a no-grid map and varying degrees of player command control, all of the elements of a classic wargame are presented with several new twists and innovations. Complex, but executed artfully with a simple, Mac-like interface, Fire Brigade is textbook wargaming at its best.

Nuclear War
New World Computing
$49.95

Based on the popular card game, Nuclear War is a satirical game of survival against four computer players. The game is rife with dark humor, players build warheads, delivery systems, and defenses while conducting nuclear and propaganda attacks against the likes of Tricky Dick, Infidel Castro and Ronnie Ray Gun. Whether you are playing or just watching, Nuclear War is a blast.

SSG games
Strategic Studies Group, Ltd.

This Australian computer wargames company started with Reach for the Stars, but has since done a successful series of wargames using its Battlefront system, their Great Battles of the American Civil War series among them. All of these games feature commanding units indirectly through computer-controlled "subordinates" who live up (or down) to their historical counterparts. Both a challenging exercise and a fresh approach to their subjects, SSG games must be considered by every serious wargamer.

Sword of Aragon
Strategic Simulations (SSI)
$39.95

Akin to Warlords, Sword of Aragon is a solitaire-only fantasy wargame. The player must unite the land, raise armies, and personally lead battles. Balancing offensive and defensive forces is a real challenge here.

·14·

For Fun and Learning: Games Children Play

Let's get real. A lot of people justify the expense of a personal computer by insisting that it's also for the kids, to help them do better in school, familiarize them with technology, prepare them for the future, and so on. Although these reasons do have some validity, you soon learn that kids see the computer as a game machine as much as a homework machine—more so, probably. Young people nurtured on fast-paced electronic "thrill and kill" at the video arcade find home computers very appealing. Desktop systems don't require an endless supply of quarters, and children can practice in privacy, experiencing the excitement of competition and the fun of play without spending their hard-earned allowance.

Real Games That Teach

One also discovers that as soon as children are able to manipulate keyboards, joysticks and mice, the last thing they want to be told is to "sit down and learn!"— but you can relax. Most children's software on the market today is actually educational software, and there are many that stand on their own as just darn good games. Many of the games feature audio-visual special effects slick enough to rival those on Saturday morning cartoons. Unlike television, however, interactive home-based software teaches as it as entertains. Though some games may be modeled on the arcade shoot-em-up metaphor, they can build typing prowess, math acuity, or spelling competence. You'll find action-packed strategy games that emphasize geography or history, and puzzle-solving mind-twisters that encourage hypothesis-testing. Simple drill and practice, sweetened by the thrill of competition, motivates

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players to brush up on science, politics, and current events. The very best programs are so much fun, kids think they're at play instead of work.

Many fun-filled packages target preschoolers; others offer multiple levels of difficulty; some can be played alone, with a friend, or against the computer. The best software is sufficiently open-ended to encourage exploration and experimentation. Games that feature more than one right answer motivate kids to play again and again.

Hints For Buying Children's Computer Games

- Games should be challenging but easy to play. When games are too difficult to win, kids have little motivation to practice.

- Activities should stimulate curiosity, encourage problem-solving, and reward thinking. Arcade games ultimately lose their appeal because the action is too repetitive.

- Computer games must educate in a way that conventional board games or flash cards do not. If a computer game merely replicates a traditional educational activity, there will be little incentive to play.

- Colorful animated graphics and realistic sound effects heighten the pleasure of learning; activities that lack audio-visual appeal shorten a child's attention span.

- Look for an easy-to-use master interface. Games that require players to learn complex commands or read manuals will only gather dust on a shelf. Pull-down menus, point-and-shoot cursor control, and minimal keystroke commands make for intuitive game play.

- Some children like competitive games; others find competition too threatening. Programs that feature optional timers, unlimited practice sessions, and noncompetitive game modes build self-confidence and allow kids to set their own ground rules.

- Be prepared to purchase more than one software package. Kids appreciate variety in their software diet, even though their games may already provide hours of enjoyment.

With these guidelines in mind, we've provided a list of some of the very best in children's software entertainment: first and foremost, they are great games, and they also score high marks for educational content and ease of use. Many of these games provide a challenge for all ages, making them perfect for playing along with your child. If you're searching for fun-filled, electronic enjoyment that teaches as well as entertains, you've journeyed into a game player's paradise.

All of these programs should capture the hearts and minds of even the most discerning video arcade veteran—or their parents.

Arachnophobia
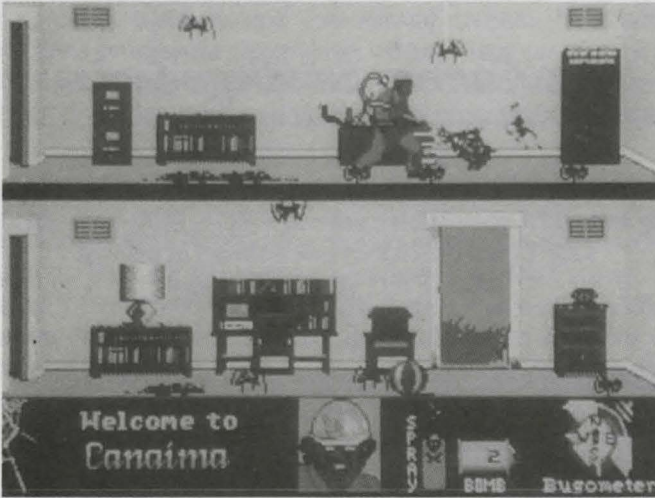
Walt Disney Software
$49.95 (Sound Source $34.95)
512K IBM PC/Tandy and compatibles; 8 mhz AT or faster; 640K with Sound Source
EGA/VGA/MCGA
COPY PROTECTION: Match number with symbol;low-contrast printing
AGE LEVEL: 10 to adult

Why This Is Special

The folks at Disney might argue with us for putting this game here, but it has such proven appeal for kids that we decided to include it in this section instead of in action/ arcade. At any rate, we know of at least one Ph.D. who makes a living looking at and playing computer games with kids, and Arachnophobia comes highly recommended.

Connect Disney's inexpensive Sound Source peripheral to the computer's parallel port and you'll hear authentic creature-crunching sound effects, a digitized human voice, and an eerie musical score. The Sound Source is so effective you'll be mindful of suspicious-looking spots on the wall long after you stop playing. Arachnophobia offers classic arcade–like entertainment for both children and adults. The game has little educational value, but it's lots of fun to play.

A Taste of the Game

Poisonous eight-legged creatures are on the loose in this entertaining software adaptation of the movie by the same title. Players become Delbert McClintock, ace exterminator extraordinaire. Joystick or keyboard controls maneuver Delbert and his Spider Infestation Control Team equipment through seven bug-infested towns on dangerous arachnid search-and-destroy missions.

Find the Queen spider, then obliterate her, and you can proceed to the next town. Only a hearty dose of Toxi-Mox insecticide or a fire blast from a trusty aerosol flamethrower will crunch this super critter. Get bitten once too often, and you'll head for the big bug-buster in the sky.

The Carmen Sandiego Series
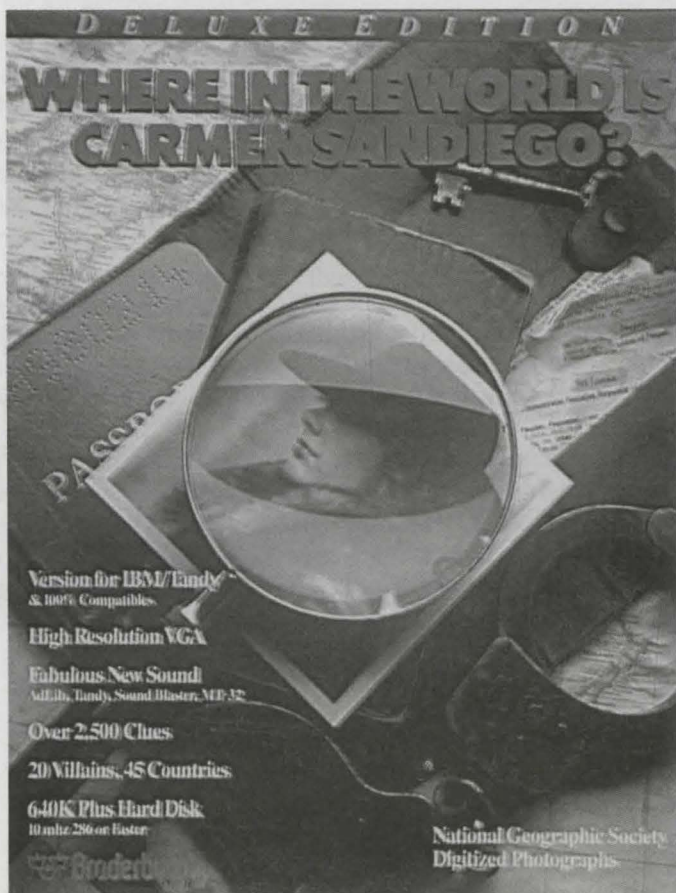
Broderbund Software
$49.95/ $59.95/ $79.95 ("Deluxe Where in the World..." edition)
IBM PC/Tandy and 100% compatibles; Hercules, CGA, EGA, VGA (Deluxe "World")
COPY PROTECTION: Look up word in manual
AGE LEVEL: Varies (per game)

Why These Are Special

Carmen Sandiego is one of the most popular software characters in personal computer history. Kids have been searching for the elusive grande dame of international theft (and her notorious gang of thieves) since 1985, when Broderbund first brought her to software life. There are now five Carmen Sandiego programs, and nearly two million copies have been sold. Now this mysterious mistress of crime has her very own spot on Saturday morning television.

Kids love Carmen Sandiego because the programs are fun to play; parents and teachers adore Carmen because the software teaches as well as entertains. Game rules and objectives essentially remain the same from one package to another, yet crooks, crimes, clues, suspects, and educational content differ with each new release. Some titles emphasize geography; others focus on history, politics and culture. Colorful graphics, whiz-bang crook-detecting gadgetry, and amusing sound effects motivate kids to play again and again. Every program in the series is a winner.

A Taste of the Games

Players begin each game as enterprising rookies for the San Francisco-based Acme Detective Agency. They are assigned a case when beguiling Carmen, or one of her V.I.L.E. (Villains' International League of Evil) rogues, steals a valuable landmark or national treasure. Gumshoes must track the thief, obtain an arrest warrant, and capture the criminal before time runs out. By questioning witnesses and deciphering clues concerning the thief's identity and travel destinations, players soon pick up enough information to crack the case. Each program features a valuable reference book to help make sense of the clues. Games become more challenging as detectives gain experience, and fast-paced action prevents boredom from setting in.

Where in the World Is Carmen Sandiego?
AGE LEVEL: 8 to adult
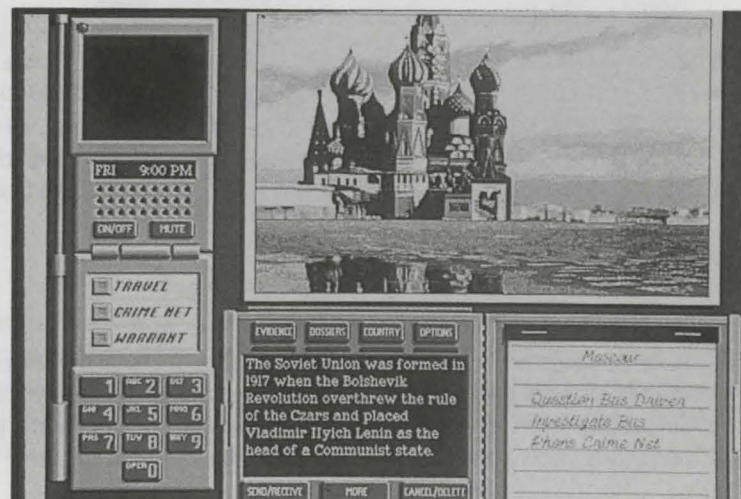
The original Carmen title. This program finds Carmen and her unscrupulous henchmen hiding in one of thirty cities around the world. Detectives use their Official Interpol Map to identify countries and locate cities. They consult the *World Almanac* and *Book of Facts*, along with Acme's Crime Computer to decipher clues and catch a thief.

A "Deluxe" version of this title is also available at a higher price. While the same game, it's high-resolution VGA graphics, digitized photos, sound board support (Roland, SoundBlaster, AdLib, PS/1, Tandy), and new interface give this version the feel of a new game. The Deluxe version requires a 10 mhz 286, 640K of memory, and a hard disk to play.

Where in Europe Is Carmen Sandiego?
AGE LEVEL: 8 to adult
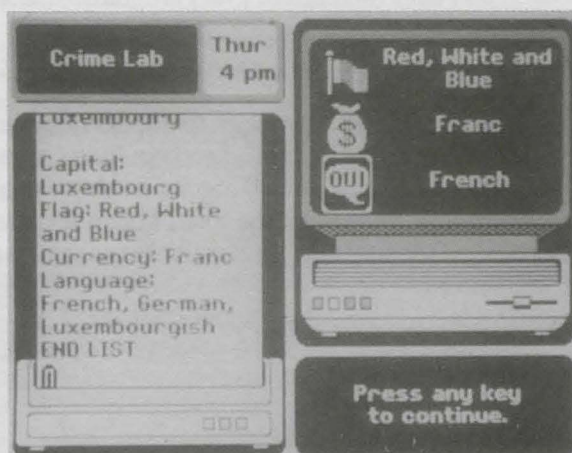
Carmen and her master criminals pillage the great nations of Europe. Acme Agency hirelings use Rand McNally's *Concise Atlas of Europe* to decipher clues and track suspects. Detectives access information about flag colors, currency, and main language of each country from an on-line database. When players have identified the criminal, they can obtain an arrest warrant from Interpol's Crime Lab Computer.

Where in the USA Is Carmen Sandiego?
AGE LEVEL: 8 to adult

Carmen's crime spree lands her in the United States. Fodor's *USA Travel Guide* and a wall-size map help players nab criminals. Detectives travel to all fifty states and the District of Columbia, interviewing witnesses and collecting clues. In the process, they pick up interesting facts about state geography, history, and culture.

Game Options Acme Dossiers

| Denver | Welcome to Colorado, the |
| Monday, 9 a.m. | Centennial State. |

A state landmark is Pike's Peak, 14,110 feet high. Pioneers heading for Colorado in the 1850s painted "Pike's Peak or Bust" on their wagons.

Where in Time Is Carmen Sandiego?
AGE LEVEL: 12 to adult

England

The legends of King Arthur and his Knights of the Round Table were popular in medieval times, and are believed to have originated from Celtic mythology.

TIME REMAINING 20 HRS

TRAVEL   SEARCH   DATA   ABORT

3251 Chronoskimmer

Carmen and her slippery crew heist a time machine to travel back and forth between 400 A.D. and the 1950s. Kids consult the *New American Desk Encyclopedia* to interpret clues, identify the culprit, and locate the thief's hiding place (forty-eight possible locations). Along the way, they pick up interesting facts about cities, countries, language, and history.

Where in America's Past Is Carmen Sandiego?
AGE LEVEL: 12 to adult

Carmen and her band of scheming hooligans are traveling back and forth through 400 years of America's past. Thieves could be hiding in one of forty-five locations in time and place. Gordon Carruth's *What Happened When: A Chronology of Life and Events in America*, in addition to the Crime Computer's online database, provide valuable reference materials to help players sort out clues and identify the crooks. As youngsters solve crimes, they learn facts about regional history, culture, and when each state entered the union.

Designasaurus II

Britannica Software Inc.
$39.95
512K IBM PC/Tandy and compatibles; joystick recommended
COPY PROTECTION: Code wheel
AGE LEVEL: 5 and up

Why This Is Special

Most young children are fascinated by dinosaurs. Dinosaurs were big and tough, and they could control their world, all attributes that most children wish they had. Dinosaurs didn't have to brush their teeth every day or keep their rooms clean; they look cool, too, and would have made great pets.

Designasaurus II promotes reading and research skills while teaching kids dozens of dinosaur facts in an entertaining way. It features data files and graphics for ten prehistoric giants, including allosaurus, ankylosaurus and the ever popular Tyranno-saurus rex. Youngsters even can print pictures or t-shirt transfers of both real and imaginary dino creatures.

A Taste of the Game

Travel back in time to the age of the dinosaurs with this multi-activity package from Britannica. In Exploration Mode, budding paleontologists use an electronic study guide to construct authentic dinosaurs or original creations from parts of real animals. (Yes, a dinosaur construction set!) Then they teleport their animals back in time to particular geologic periods and climates to see how well they fare. Dinosaurs must eat, drink, rest, ward off hostile attacks from enemies, and reproduce in order to survive.

An Adventure Game sends scientists on a mission to recover stolen dinosaur "geneprints." Dr. Max von Fusion has scattered these geneprints throughout geologic time. Players receive a special award if they find some or all of the missing pieces.

The Manhole/Cosmic Osmo

Activision
$59.95/$69.95/$79.95
IBM, Tandy and compatibles (10 mhz or faster); 640K, hard disk, EGA/VGA/MGCA,
Roland, AdLib, SoundBlaster. DOS 3.0 or higher; Microsoft Extensions 2.1 or higher,
mouse or joystick recommended. CD-ROM version requires CD-ROM drive. 1 MB
Macintosh Plus or later; CD-ROM version requires Macintosh compatible CD-ROM
drive capable of supporting CD audio output
COPY PROTECTION: None

Why These Are Special

The journey is truly the reward when kids visit the enchanting fantasy worlds of the
Manhole and Cosmic Osmo. Exploration is not just how you play the game, it *is* the
game. Travelers meet a host of charming characters on their travels. These
lighthearted programs emphasize investigative play rather than critical skills. Each
product features an extraordinary collection of audio-visual surprises. These titles
are also among the first entertainment products to ship in the CD-ROM format, and
these CD versions contain more places to visit than their disk-based siblings.

Youngsters (and adults) explore imaginary electronic wonderlands of amusing
sights and sounds by pointing to and selecting interesting objects on screen. The
software provides hours of fun without timers to beat, points to score, or games to
win. Visitors proceed at their own pace. The user-interface is so friendly even
preschoolers can manage on their own.
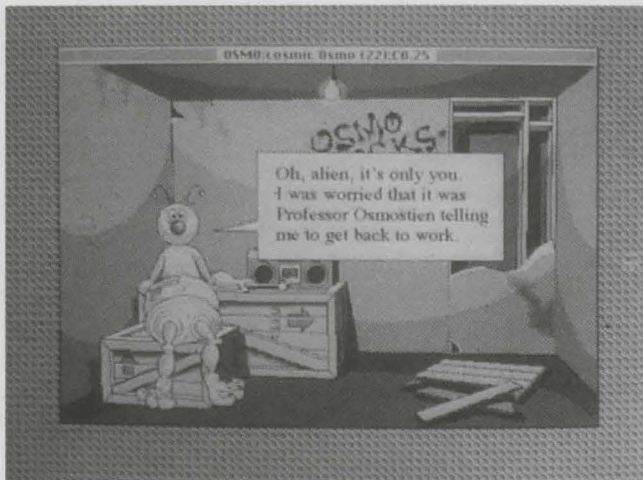
A Taste of the Games

The spirit of Alice's Wonderland lives on in this truly original game. While not a
retelling of the classic story, it does contain characters and situations loosely drawn
from the book; the feel is most definitely Wonderland. Climb a beanstalk to a castle
in the sky or down the manhole to explore the underwater world of a sunken ship.
There are dozens of unusual characters to meet and several enjoyable adventures to
experience. Nothing is as it seems at first glance. Almost everything on screen does
something to delight, amuse, or entertain.

The Manhole

Cosmic Osmo

Hop aboard the Osmobile for a space exploration adventure you'll never forget. You'll "boldly go" where no human or alien has gone before, traveling to planets that look strangely like cheese, vegetables, and fish. Each object or person clicked on says or does something, or takes you somewhere. Tape recorders play music, switches turn electronic lights on and off, flowers grow, and pumpkins burp. With a bit of patience and a dash of luck, you may even meet the great Osmo himself.

McGee Series

Lawrence Productions
$39.95
512K IBM PC/Tandy and 100% compatibles; 1 MB Macintosh
COPY PROTECTION: None
AGE LEVELS: 2 to 6

Why These Are Special

McGee is a precocious preschooler. In each adventure, he invites players to explore another part of the interesting world in which he lives. Kids direct McGee's movements by using a mouse to point to and select picture icons at the bottom of the screen. Colorful animated graphics and realistic human-quality digitized speech provide audio-visual reinforcement.
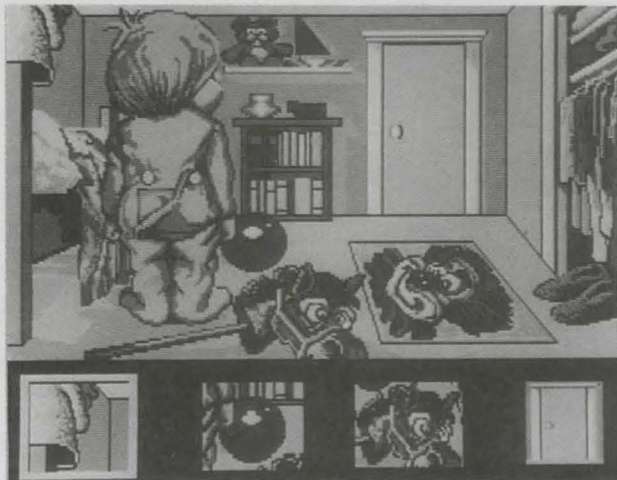
Each program in this series does a wonderful job of introducing pre-readers to the marvels of personal computing. There are no instructions to read or confusing keyboard commands to memorize. The interface is so user-friendly that even two year olds will be able to play with little adult supervision.

A Taste of the Games

McGee

Children meet McGee at home in the early hours of the morning. Youngsters keep him company as he moves through the house playing with toys in his room, brushing

his teeth, crawling under the carpet, throwing the dog a bone, and lots more. Viewers tell McGee what to do by selecting picture icons.

Katie's Farm

McGee visits his cousin Katie's farm and invites viewers to come along. The children sail a toy boat in the pond and frolic in the hay. McGee plays with a turtle hiding in the grass, cuddles a baby chick in the hen house, and goes horseback riding. Katie feeds the chickens and leaves milk in a saucer for the barn kittens. Children can tour the farm more than once because icons do not always produce the same animated screens or sound effects.

Fun Fair
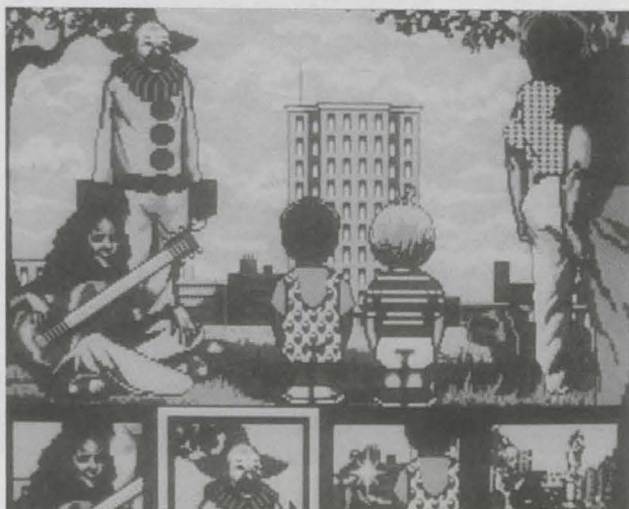
McGee's parents take McGee and his best friend Tony to a park. The kids play on the playground equipment, watch a juggler, keep company with a clown, listen to musicians, and enjoy a refreshing ice cream treat. Digitized speech, detailed animated graphics, and authentic sound effects combine to make park activities seem just like the real thing.

Number Munchers

MECC Software
$49.95
512K IBM PC and Compatibles; 1 MB Macintosh Plus and later
COPY PROTECTION: None
AGE LEVEL: 8 to adult
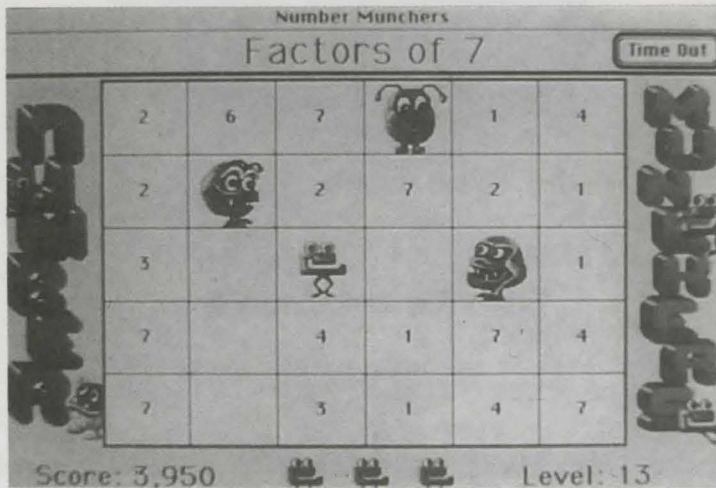
Why This Is Special

Motivate children to do well in math with this Pac Man-like arcade extravaganza from MECC. Number Munchers teaches multiples, factors, prime numbers, equality, and inequality. Special management options enable users to customize activities,

select a number range, and set difficulty levels. The game is so much fun, kids don't notice that it's a powerful teaching aid that builds practical math skills.

A Taste of the Game

Kids move a friendly, animated Muncher around an electronic game board, gobbling up numbers that match a rule or value shown at the top of the screen. Players earn points for each correct number they munch. They lose a Muncher if it eats a wrong number or if it comes into contact with a terrible Troggle. The game ends when all Muncher pieces are gone. The top ten high scorers earn a position of honor in the Muncher Hall of Fame.

Oregon Trail

MECC Software
$49.95
256K IBM PC/Tandy and compatibles; 1 MB Macintosh Plus or later
COPY PROTECTION: MS-DOS—must play from original disk; Mac—none
AGE LEVEL: 10 to adult

Why This Is Special

Oregon Trail offers computer simulation at its very best. This problem-solving historical simulation is based on actual diary accounts and other historical docu-

ments.   Colorful animated graphics with authentic trail landmarks make events almost real. Oregon Trail offers a great opportunity for children to experience the exciting life and times of mid-nineteenth century travelers.

A Taste of the Game

Players become enterprising pioneers traveling overland by covered wagon in 1848. To win the game, youngsters must devise successful strategies to survive the rugged 2,000-mile trek from Independence, Missouri, to Oregon's fertile Willamette Valley.

Travelers meet interesting characters along the way, trade for supplies, hunt for food, and brave treacherous river crossings. The journey is fraught with peril and unexpected events. Players don't always win, but if they do, they can play again because the games are always different.

The Playroom
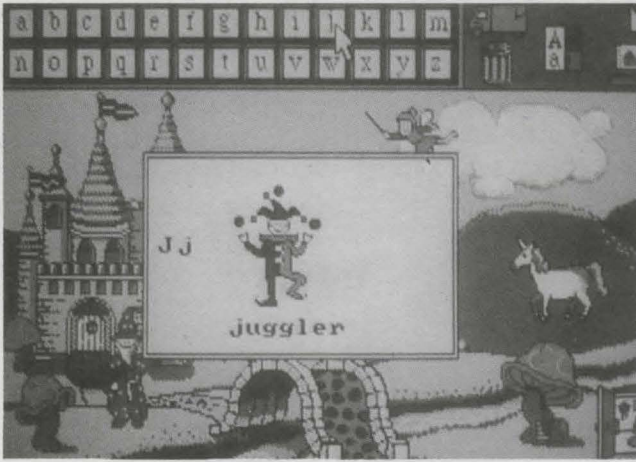
Broderbund Software
$44.95 (IBM PC/Tandy); $49.95 (Macintosh)
512K IBM PC/Tandy; 1 MB Macintosh Plus or later
COPY PROTECTION: Children solve on-screen puzzle by referring to printed answer sheet
AGE LEVEL: 4 to 8

The Treehouse
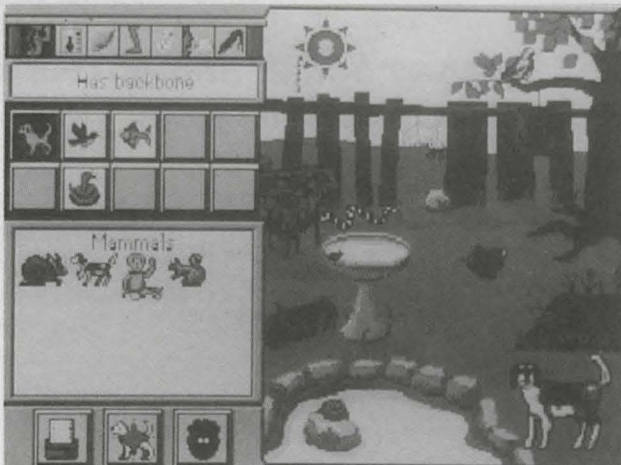
Broderbund Software
$49.95
640K IBM PC/Tandy and compatibles, requires hard disk; 1 MB Macintosh Plus or
later for monochrome, 2 MB Macintosh for color
COPY PROTECTION: Children solve on-screen puzzle by referring to printed answer
sheet
AGE LEVEL: 5 to 9

Why These Are Special

All children love to discover things, and discovery is one of the easiest and most effective forms of learning. Discovery can also be a lot of fun.

These innovative programs combine open-ended exploration with interactive game play to teach children a variety of basic skills. Youngsters examine interesting objects in a child's playroom or treehouse simply by pointing to and selecting items on screen. Some objects serve as passports to discovery, revealing hidden games that children can play at several levels of difficulty. Captivating sound effects and detailed animated graphics provide positive reinforcement. Both programs offer engaging electronic opportunities for fun-filled, fact-based entertainment.

A Taste of the Games

The Playroom
AGE LEVEL: 4 to 8

A friendly Pepper Mouse invites younger children to explore a child's playroom where six amusing activities and a host of animated graphics teach curious youngsters several important early learning skills. Games emphasize letter recognition, counting, addition, subtraction, keyboarding, and how to tell time. Kids can "paint" electronic pictures and print hard copy of their creations for coloring.

The Treehouse
AGE LEVEL: 5 to 9

Children keep company with a friendly opossum playmate while they explore interesting playthings in a treehouse. Activities reinforce math, language, arts, science, and music skills. In addition, kids can use colored chalk to draw on an electronic chalkboard, or click on a calendar to learn historical facts.

Super Solver Series

The Learning Company
$49.95
512K IBM PC and compatibles; 640K Tandy
EGA/VGA/MCGA/Tandy/Hercules
COPY PROTECTION: None
AGE LEVELS: Varies (see below)
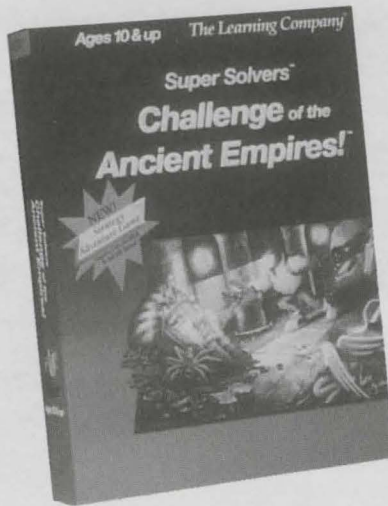
Why These Are Special

In this amazing collection of action-adventure games, youngsters match wits against Morty Maxwell, the infamous Master of Mischief; all are excellent examples of strong game play-enhancing learning. Each program provides different gamelike challenges while emphasizing a particular set of basic skills. Colorful graphic animations, amusing sound effects, and arcadelike antics motivate youngsters to play. Kids have fun as they strengthen math, reading, or problem-solving aptitudes.

A Taste of the Games

Challenge of the Ancient Empires!
AGE LEVEL: 10 to adult

Ancient treasures lie buried in mazelike caverns beneath desert sands. Players must use strategy and critical thinking techniques to recover these priceless artifacts before Morty Maxwell seizes them for his own private collection. There are dozens of logic puzzles to solve, hazardous obstacles to overcome, and dangerous creatures to avoid before Maxwell can be defeated.
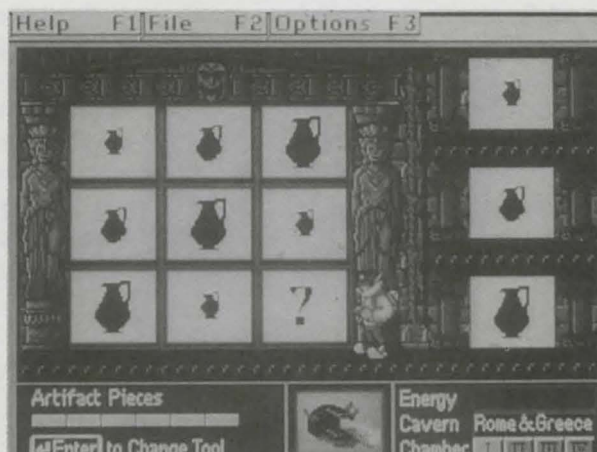
Midnight Rescue!
AGE LEVEL: 8 to 11

Morty Maxwell is threatening to make Shady Glen School disappear if players do not find him by midnight. Super Solvers read for clues, collect facts, and solve puzzles to determine the Master of Mischief's identity.
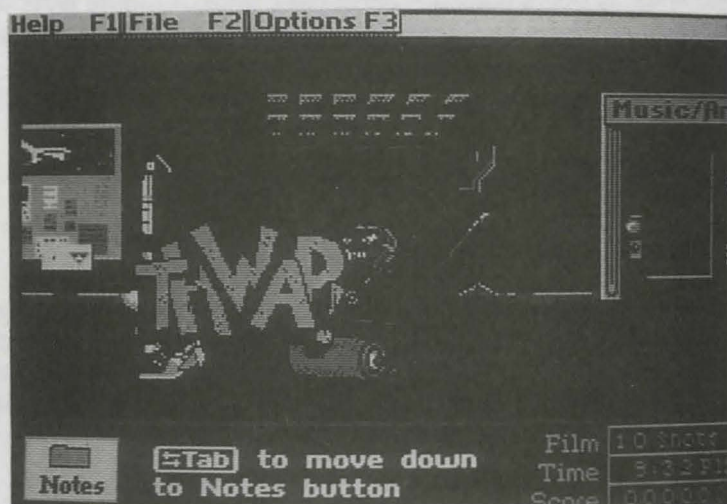
Outnumbered!
AGE LEVEL: 7 to 14

Super Solvers must find Morty Maxwell by midnight or he will take over Shady Glen television station. Players search the station, collecting clues, solving math problems, and unraveling a secret code to uncover the hideout. Mischievous robots run interference, making game action more challenging.
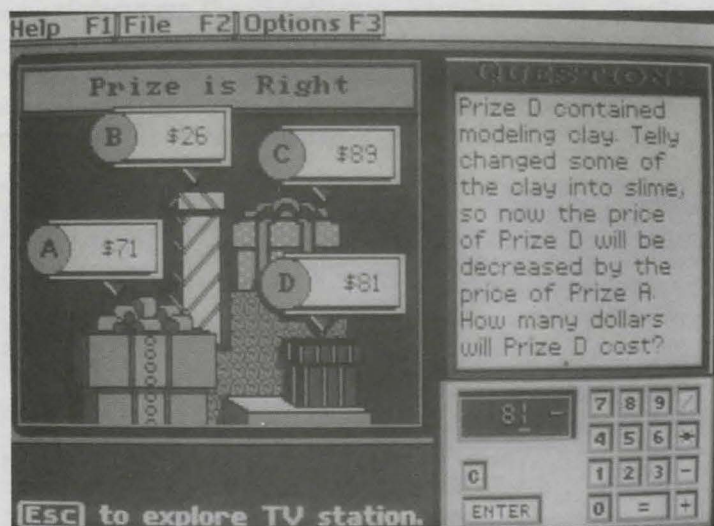
Morty Maxwell is up to no good. Now he's stolen the magic crown of Treasure Mountain and is using it to horde mountain gold. Players can only win back the crown if they find hidden mountain treasures. To uncover the booty, they must read for clues and answer elves' questions.
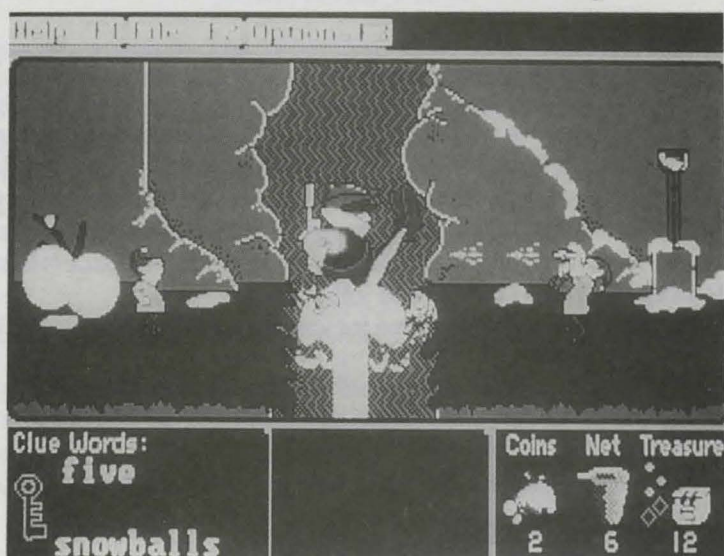
Mixed-Up Mother Goose

<div align="center">

Sierra On-Line

$39.95-$59.95 (CD-ROM)

512K IBM PC/Tandy or compatible; 8 MHz or faster and hard disk recommended;
EGA/VGA/MCGA/Hercules; supports Roland MT-32, AdLib, GameBlaster,
SoundBlaster, Tandy, IBM, and other music synthesizers. CD-ROM drive required for
CD-ROM version

COPY PROTECTION: None

AGE LEVEL: 4 and up

</div>

Why This Is Special

Mixed-Up Mother Goose is a charming adventure game for young children—a kind
of mini-King's Quest without the violence and puzzles. This should not be
surprising, since this game was created by Roberta Williams, creator of King's Quest.
Children interact with characters from many fairy tales, undertake quests, learn
nursery rhymes, word recognition, and how to read a map. The pace is leisurely and
the Mother Goose world is colorful and full of music.

This is a delightful and engaging game for young children. A mouse or joystick is
a big help in getting around.

A Taste of the Game

Players use joystick, keyboard, or mouse to travel through a fantasy Mother Goose land. They hunt for randomly placed objects, which they must return to rightful owners (for example, sheep to Bo Peep, lean meat to Jack Sprat, or Tuffet to Miss Muffet). A colorful paper map of the kingdom prevents players from getting lost.

There are eighteen mixed-up rhymes to unravel, including such all-time favorites as Mary Had a Little Lamb, The Old Woman Who Lived in a Shoe, and Peter Peter Pumpkin Eater. Each time youngsters match an object with a rhyme, they hear that rhyme's melody. The poem's words appear on screen along with an animated performance. Mixed-Up Mother Goose provides hours of whimsical fun, a great way to introduce young kids to the computer.

Other Children's Computer Games of Note

Berenstain Bears JigSaw
Britannica Software
$24.95
AGE LEVEL: 4 to 7

Saturday morning cartoons come alive with ten delightful Berenstain Bear puzzles. Scramble pictures into eight, fifteen, forty, or sixty pieces. You can even create your own PC PaintBrush or DeluxePaint puzzle screens. This is a program the whole family can enjoy.

BushBuck Charms, Viking Ships, and Dodo Eggs
PC Globe, Inc.
$49.95
AGE LEVEL: 9 to 14

This fast-paced, action-packed geography game challenges players to prevent villainous Otto von Slinkenrat from stealing the world's priceless cultural treasures. Kids travel around the globe in search of valuable artifacts. Along the way, they learn interesting historical, political, economic and geographic facts. This puzzle-solving package makes a nice complement to the Carmen Sandiego series.

Dr. Know-It-All's Inner Body Works
Tom Snyder Productions
$119.95
AGE LEVEL: 9 to 12 (Junior Version); 13 to adult (Senior Version)

Journey on a fantastic voyage through the human body with this exciting biology simulation. Study mode sends players to various bodily systems where they learn about organ systems and functions. Game Mode challenges players to decode clues and track down several bodily "hot spots." Winners may earn a Platinum Pancreas award!

DuckTales: The Quest for Gold
Walt Disney Software
$44.95
AGE LEVEL: 8 to adult

Survival is the name of the game in this action-packed electronic adventure from Disney Software. Mean-mannered Flintheart Glomgold challenges Scrooge McDuck to a contest for Dime Magazine's coveted "Duck of the Year Award." Players join wealthy McDuck, nephews Huey, Dewey, and Louie, and a host of wacky characters in six perilous activities as they try to beat Glomgold to the gold.

Kid Pix
Broderbund Software
$59.95
AGE LEVEL: 3 to 12

Unleash your child's creativity with a paint package that features the noisiest special effects drawing tools ever to grace a computer screen. Letters talk, paint brushes bubble, an Undo Guy shouts "Oh No!" or "Oops!" Kids sketch freehand or select clip art objects from a library of shapes to stamp on screen. This amazing software offers several hours of fun without the mess of paint dribbles and water spills. Kid Pix isn't really a game, but it might as well be.

New Math Blaster Plus
Davidson and Associates
$49.95 (IBM); $59.95 (Macintosh)
AGE LEVEL: 6 to 12

Evil trash aliens are polluting outer space. Children must round up the trash and take it to the recycling center. In the process, they learn basic math facts and problem-solving skills. This package combines space-age animated graphics with classic drill-and-kill arcade entertainment, designed to make math an enjoyable experience. New Math Blaster Plus covers addition, subtraction, multiplication, division, fractions, decimals, and percents at six levels of difficulty.

Reader Rabbit
The Learning Company
$59.95
AGE LEVEL: 3-7

A must-buy for any children's software library. A playful Reader Rabbit teaches children more than 200 three-letter words. Kids learn to recognize letters, create word trains, and spell picture labels. A memory-building game challenges players (adults included) to find matching pairs of words, pictures, picture-word, and picture-letter combinations.

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Wired for Adventure: On-line Games

It's a common mistake to think that all computer games come to us on disk, shrink wrapped in a nice package. In fact, a whole wide world of computer gaming is accessible via your telephone.

The category is known as on-line gaming, and it covers the games found on the large commercial on-line networks, and on many local bulletin board systems (BBS). All that's needed to play on-line—apart from you and a computer—is a modem and a major credit card.

The focus of this chapter is on national on-line services. This is not meant to slight local BBSs (of which there are thousands), many of which offer some kind of game play. It's just that the games on the national services are a good indicator of the types and styles you'll find on a BBS.

To find out what boards are available where you live, check out the local computer publications, which often contain listings. Also take a look at *Dr. File Finder's Guide to Shareware* by Mike Callahan and Nick Anis (Osborne McGraw-Hill), which contains a large list of BBSs available in the United States and Canada.

What Is an On-line Game?

An on-line game is one that you play by connecting to another computer in a different location. In some on-line games you simply tell the computer what you want to do and the one at the other end does all the work; in others, you must run a program on your computer called a *front-end*, designed specifically for the game you wish to play. You tell the program what you want to do, the program then talks to the distant computer, and between them the game decisions are made.

On-line games come in two forms: single player and multiplayer. *Single player* games simply pit the player against computer-generated monsters (or somesuch), or require the player to solve puzzles. Solving puzzles and defeating monsters help advance the player to more difficult levels of the game. Typically, single player games have an end that may require a great amount of playing time to reach, but there is a definite end. At that point, a player may choose to play the game over again or move on to another game.

Multiplayer games provide you with the added dimension of playing with or against other players. In these, game players take on new roles, or alter egos, as they play. This role-playing aspect is augmented by the fact that a lot of other people are playing along with you at the same time: The quietest number cruncher in Nebraska becomes Erotica the Barbarian; an overlooked, and underappreciated middle manager transforms into Captain Sky, Air Ace; and the PR person with the home office in a small closet is Cyberpunk from Alpha Centuri VII, intergalactic hacker and data network surfer.

People have been known to play multiplayer games for years without becoming bored and moving on, and still these games are constantly having new features added. The challenge of conquering monsters, defeating an opponent in a World War II dogfight, and exploring *with other players* is what draws people into the world of on-line gaming—it is both an escape from reality and a way to socialize with people around the world.

On-line games can be classified in the same genres as other personal computer-based games, although not all are available in the on-line environment. Currently represented are:

> War/Strategy Simulations
> Sports Simulations
> Air/Space Combat
> Land/Sea Combat
> Adventure/Fantasy Role Playing
> Parlor Games
> Arcade/Action games

Most commercial on-line networks represent games in at least some of these categories. The larger networks represent most.

A Bit of History

On-line games have, in a sense, been around as long as there have been mainframe computers, and as long as people have been able to log into a mainframe from a terminal in another room, there have been games available on those computers. Many companies and universities remove game software from their systems, or allow access only after hours, so that students and employees work rather than spend endless hours playing games.

The earliest games were developed as tests for various computer systems or as late night experiments in programming. The first multiplayer on-line game, called Maze, was developed by the Massachusetts Institute of Technology's Dynamic Modelling

Group. This crude graphics game allowed players to wander around in a maze shooting at each other. Individual players were given a view of the maze that their computerized persona saw as they wandered about. As players moved, the surroundings changed, and the view was updated.

With the advent of ARPAnet around 1970, research departments across the country could share information—information, of course, that included games. Trivia, a "can you top this" contest for the trivia buff, was the second on-line game to receive wide attention. Unlike Maze, Trivia could be played across the network, and was not limited to the group who could access a computer through "hard-wired" computers (computers or dumb terminals directly connected to a large computer through wires). Trivia was originally developed as a database system test for a research project.

During the early part of 1977, single player adventure had been developed to the point where game players could wander around a dungeon or world trying to solve puzzles and advance to complete the game. The first of these, Adventure, had the Dynamic Modelling Group at MIT so excited that once the game had been solved (in late May), they found themselves wondering what to do next. Adventure led to the development of a prototype that was later to become Zork.

Zork grew into a complex game of many puzzles, played avidly by colleges connected to the ARPAnet. During the late 1970s, the source code for Zork was translated into a language called FORTRAN by the Digital Equipment Corporation, dubbed Dungeon. This game was then distributed with many of the DEC computers. The students who originally created Zork eventually graduated and went on to form a company named Infocom, which developed a version of Zork for the home computer market.

Not only were there adventure, arcade, and trivia games during this period, but also multiplayer strategy and challenge games such as Empire which pitted multiple players in games of conquest. From these earliest on-line games, first developed in colleges and universities, came the birth of an industry.

In the late 1970s the first on-line games were presented on commercial services, most notably by the Source (eventually bought out by CompuServe), the first to come out with single player on-line games previously available only in universities and businesses. Next, the CompuServe Information Service became involved, under the guidance of Bill Louden. In addition to the games available on the Source, Compuserve ventured into the realm of multiplayer games. In 1981, Decwars, a space combat game originally developed by the University of Texas, was introduced as the first multiplayer game available on CompuServe. Decwars was upgraded to allow larger ships and greater space areas to explore. From this development, along with that of a game called Space War, came the birth of MegaWars, a game of overwhelming player participation that led to the introduction of MegaWars III in 1983.

As time wore on, Louden felt that on-line gaming should be expanded into the area of fantasy role-playing. To this end, he contracted with Kesmai Corporation to produce Island of Kesmai, publicly released in December 1985.

Bill Louden left CompuServe to found the GEnie Service in 1985, continuing his commitment to multiplayer on-line games with GEnie's Stellar Warrior and Stellar

Emperor. By that time on-line gaming had become firmly entrenched, with the addition of America On-line, Prodigy, and TSN to the marketplace, which has helped to widen the game playing choices for everybody.

How Much Does On-line Gaming Cost?

Unlike games that may be purchased on disk, the cost of on-line games depends on when, how long, and how often you play them. Each of the national on-line networks has its own pricing structure: CompuServe, GEnie, and America Online charge by the hour, with evenings and weekends costing much less than prime business hours; Prodigy charges a flat monthly rate; and TSN (The Sierra Network) uses both approaches, depending on where you live. On the other hand, there are exceptions, which will be noted presently.

The following is a list of the major national commercial on-line networks and their prices, which must be charged by credit card:

America Online (Quantum Computer Services)
8619 Westwood Center Drive
Vienna, VA   22182
(800)227-6364 / (703)448-8700
Cost: $5.95/mo. (includes one free hour); $5/hr. evenings and weekends; $10/hr. weekdays. Sign-up is free.

CompuServe
P.O. Box 20212
Columbus, OH 43220
(800)848-8199 / (614)457-0802
Cost: $6/hr @ 300 bps; $12.50/hr @ 1200 or 2400 bps; $22.50/hr @ 9600 bps. Sign-up is $29.95, but low-cost or free sign-up offers are included with many modems, communication packages, or games.

GEnie
(General Electric Information Services)
401 N. Washington Street
Rockville, MD   20850
(800)638-9636 / (301)340-4000
Cost: $4.95/mo. for unlimited usage of Basic Service (about three-quarters of the entire service). Multiplayer games are not covered in basic service. $6/hr. after 6 P.M. for 300, 1200, 2400 bps; $18/hr. prime time. $18/$30 @ 9600 bps in selected areas. Sign-up is free.

Prodigy
445 Hamilton Ave.
White Plains, NY 10601
(914)993-3412

Cost: $12.95/mo. ($9.95/mo. if paid yearly). Some special services charged separately. Sign-up is $49.95 but low-cost or free sign-up offers are included with many modems, communication packages, or games.

The Sierra Network (TSN)
PO Box 485
Coarse Gold, CA   93614
(800)743-7721
Cost: $11.95/mo. in parts of California (unlimited usage); $4.95/mo. plus $2/$7 per hour elsewhere. (Note: TSN intends to institute flat monthly rates almost everywhere as its membership grows, so pricing information for it must be considered very fluid.)

On-line Games of Note

Most of the on-line gaming today takes place on commercial information services. The majority of gaming is available on CompuServe, GEnie, and America On-line (Quantum); Prodigy, however, is growing, and The Sierra Network, available only since May 1991, is unique in the area of on-line gaming.

What follows is a look at what's available on-line.

CompuServe™

CompuServe®
CompuServe®
CompuServe®
CompuServe®

CompuServe has a large number of on-line games in nearly all genres. These games are played at the normal CompuServe access rate of $6 an hour for 300 and 450 baud access, and $12.50 an hour for 1200 and 2400 baud access (rates are as of September 1, 1991, and are subject to change), in addition to the monthly $2 maintenance charge per account. Players often have multiple accounts to allow for many characters and traits, but this is not necessary by any means. Generally, the games can be played at 300 baud without a problem; however, in some cases the games can be much more enjoyable at higher baud rates.

Island of Kesmai, British Legends, MegaWars I, YGI!, and Sniper have the biggest on-line following on CompuServe. At any given time during the day you can find someone playing these games, although, the evening hours tend to be more popular.

British Legends

Why This Is Special

British Legends is a game based on a British game called MUD II, and was the first multiplayer adventure game on CompuServe. British Legends is a text-based game in which you solve puzzles and explore the land to find treasure (or T, as it is called in the game). Each piece of treasure is worth points, and to get them applied to your persona you must drop the T in the swamp. You go up in levels as you gain points, and eventually to reach the status of Wizard or Witch.

You can play British Legends for as little as 20 minutes and still accomplish something. The game is reset every few hours so you can always find new treasure to swamp if none is currently available.

```
The slate slab has been swung open, revealing a chamber below.
Lipsmackn the necromancess is here, carrying pick tin vase sceptre
jewels filling pot longsword coracle gull parasol
     The pot contains key horn firestone foot
Merciless is here, carrying nothing

*look
Ring of stones.
You find yourself overawed by the huge ring of stones which encircle this, the
highest part of the island rock. As the wind sweeps over from the rugged
cliffs to the east and north, the whistling is broken only by the lonely cries
of the ravens which hover above. To the south and west are steep slopes
downwards. Far, far away in the distance on the southeast horizon can be
glimpsed the sail of a wrecked ship. In the centre of the ring of stones is a
large, heavy, bloodstained, slate, sacrificial slab. Many people have been
killed here.
Beating its enormous wings above you is an immense, fire-breathing dragon!
The slate slab has been swung open, revealing a chamber below.
Lipsmackn the necromancess is here, carrying pick tin vase sceptre
jewels filling pot longsword coracle gull parasol
     The pot contains key horn firestone foot
Merciless is here, carrying nothing

*
Type F1 for help                                    BU 16,000        '1 4
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A Taste of the Game

For the most part, there is no reason to play British Legends at more than 300 baud modem setting, which helps you spend less for your on-line game time.

When you first arrive in British Legends, you are asked what name you want and what sex you wish to be. Once you select, you arrive in an English Tea Room; from there you can exit in any direction to enter the Land. There are many areas to visit before trying to solve any of the puzzles, and T can be picked up while you explore.

Making it to Wizard or Witch is not as easy as it may seem; solving the puzzles may involve risking your life. Generally there are only two rules in British Legends: (1) Don't looby-loo. This means that your persona must earn the treasure which he or she drops in the swamp; in addition to solving the puzzles yourself, earning the treasure can mean helping other players solve puzzles and sharing in the rewards, or winning a contest run by the Wizards. (2) Always obey a Wizard or Witch. Disobeying a Wizard's order can result in the death of your character and loss of all your points. The term for this is FOD, which is short for Finger of Death.

In addition to solving the puzzles, you must survive the onslaught of the killers. These personas are out to kill other players. If you are killed by another player, that player gets a percentage of the points you had when you died.

Once you successfully make 102,400 points, you become a Wizard, which doesn't actually end the game, but begins another; as a Wizard, you make the game more interesting for all the other players.

Island of Kesmai
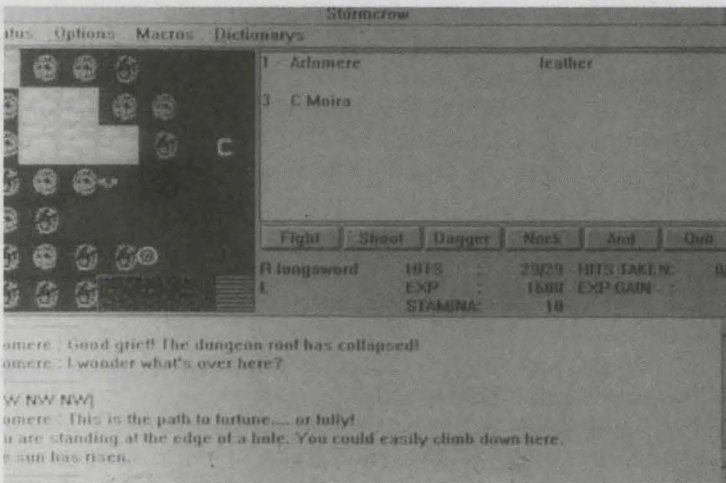
Why This Is Special

Island of Kesmai, the first multiplayer fantasy role-playing game on CompuServe, is a highly complex game in which 100 people can hunt and socialize simultaneously. There are nine areas to explore, divided into the Basic Game, Advanced Game, and the Underworld.   Your forays pit you against computer-generated monsters and allow you to solve quests to advance your skills, or to get improved weapons. You never actually die in this game; you either are resurrected with some downgrading of your statistics, or sent to the Underworld to solve puzzles in order to return to the outer worlds.

The society developed over the years since the Island of Kesmai was introduced is a friendly one. Player-player aggression is severely frowned on in all areas of the game and in fact restricted in the Basic Game. Abusive behavior can cause a person to be banned permanently. In general, experienced players are helpful to newcomers and will take the time to answer questions as well as take them hunting in the dungeons and other dangerous areas. This social aspect of the game is its biggest attraction. Players join together both in informal groups and formalized guilds to help other players meet the quests as well as hunt together.

A Taste of the Game

Because of its nature, Island of Kesmai can be played easily at a 300 baud modem setting, thereby saving you money.

To get started, the first thing you have to do is roll a character. All characters are humanoid, from different cultural backgrounds. Once you have selected the stats for the character, you are given a choice of fighter, martial artist, thief, wizard or thaumaturge. Most players start with a fighter or martial artist, due to the complexity of the combat system. Once combat and overall survival is mastered, players can then go on to create magic-users.

As soon as you enter the Island you are presented with an overwhelming display of character graphics and text information. This display is actually a map of your general surroundings, including descriptions of people, animals, and monsters as well as basic information about you. The screen is complex, and travelling each expanse of the segments is difficult without player-generated maps which must be obtained separately in the Multiplayer Games Forum Libraries.

Frankly, just getting started is enough to turn some people off; however, after the initial confusion you start hunting with other players, and soon grow to love the challenge of battling computer-generated monsters, as well as escaping into the society that has developed on the Island.

MegaWars I

Why This Is Special

MegaWars I is a fast-paced, stellar combat game of teams with up to five players per side, each game consisting of two sides—the Coalition and the Empire, with seven games active at one time. The object of the game is to capture all of the planets and destroy all of the ports of the opposing side. When one side has no place left to dock for ship repairs, the game is over. Each game takes between 30 minutes and an hour to complete. What's especially nice is that the games do not have to be played to win. Some simply play for the thrill of combat, while others prefer to die so that their team can win. If you die in the game, you can grab another ship and re-enter the fight.

A Taste of the Game

MegaWars I can be played easily at 300 baud.

Each of the seven games has a slightly different twist to meet the desires of all players. In the first four games, each team starts with 10 bases; there are an additional 56 neutral planets on which to establish bases. Other features include black holes, stargates (voids that cannot be entered without a special cloaking device), and the Archeron, a computerized ship that attacks both sides.

The next two games feature simple combat between teams with 10 bases on each side and 60 neutral planets that can be captured and used as sites for bases. The seventh game is slightly more difficult in that each team starts out with only five bases, making it harder to dock and make repairs. Most tournaments and special events appear in game seven. As you improve your combat and survival skills, you move up the ranks from Cadet to Admiral, which allows you access to more complex types of ships.

Sniper!

Why This Is Special

Sniper! is a multiplayer infantry combat game that takes place in the war-torn European countryside of World War II, and is adapted from the TSR game of the same name. Each player commands a squadron of soldiers in varying scenarios. You can look for enemy movement by climbing the hills of brush and low fences, or engage the enemy house-to-house in a small village. If you aren't careful, you can find yourself ambushed by the opposing team. When only one faction (squadron) is left on the map, the points are totalled. The player with the most points wins.
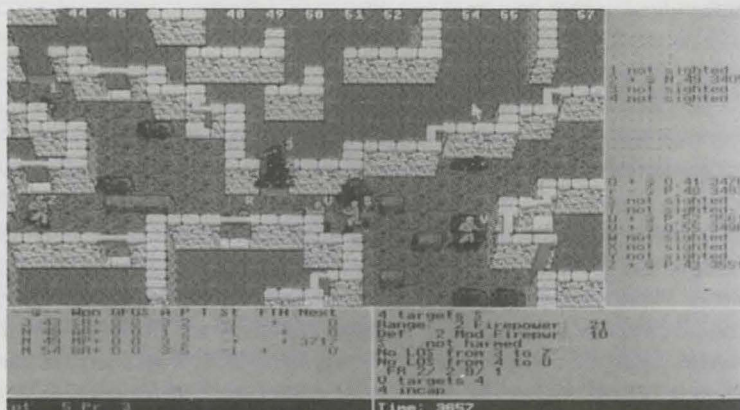
A Taste of the Game

When you arrive you enter the saloon, where you learn about the various missions available, of which there are two types: patrol and infiltrate, and each has three scenarios to play.

The objective of a patrol mission is to destroy the enemy. By wounding, incapacitating, and killing enemy soldiers you gain points. If your soldiers are able to reach the enemy's Victory Point Area and survive, you gain additional points. In an infiltrate mission you try to cross enemy lines, escape through an enemy Victory Point area, or immobilize the enemy and spoil their infiltration plans.

The game can be played either one-on-one or solo against a computer-generated enemy. Each scenario becomes more difficult as you gain skills and rise in rank up to General. Sniper! is a highly technical and strategic game that takes time to learn; mastering it takes a good deal of practice. A training mode is available to help you learn commands and build your skills in combat and strategy. Sniper is best played at 1200 or 2400 baud due to the constant updating of troop positions over time.

YGI!

Why This Is Special

YGI! stands for "You got it!" Got it?

YGI! is a multiplayer trivia game similar to the television game show "Family Feud." Players compete against one another as individuals or teams to earn points and win games. Each player takes a turn to answer a question in hopes of matching one of the top three answers on the Big Board. As you win and play matches, you gain points that can be cashed in for free time on-line.

A Taste of the Game

Games start on the quarter hour. When you enter YGI!, you are escorted into the Lobby by the Doorman. Teams are formed from people in the lobby when a game is about to start. You can either join a team or captain one, generally—this is a social game and there are no permanent teams.

YGI! is easy to learn and play. Questions alternate between the teams and the players within each team. The player types in the answer he or she thinks will be on the Big Board. Once the answer is entered, the answers from the Big Board are shown. If your answer is one of the top three, you earn points; if your answer isn't on the board (but you think an answer on the board is the same as your answer) you can challenge it. When an answer is challenged, every player in the game gets to vote on whether or not to give you the points. After playing the game, you earn bonus points that can be redeemed for free time on CompuServe.

Other CompuServe Games of Note

Air Traffic Controller
Arcade/Action

Air Traffic Controller is a simulation of the duties and responsibilities of a real-life air traffic controller. Your mission in each game is to safely guide planes through your sector or to a nearby airport.

MegaWars III
Space Combat

MegaWars III is similar to MegaWars I, with the added responsibility of managing planetary economies. At the start of each four-week war, stellar combatants are sent out to establish bases in remote star systems and to manage, protect and watch their planets grow in power.

BlackDragon
Adventure

In Black Dragon, players explore dungeons to fight off nasty monsters and gain experience and treasures. As you explore deeper into the dungeons the risks become greater, as do the rewards.

Castle Quest
Adventure

Castle Quest is a single player text adventure where you search through a strange castle looking for its master. During your searches you gather treasures and fight off dangerous beasts.

Classic Adventure
Adventure

A version of the original on-line game Adventure.   Explore the realm of Colossal Cave and solve the riddles to win this age-old on-line game.

Enhanced Adventure
Adventure

This is an expanded version of Adventure that sends you to other areas to solve new and more challenging puzzles.

Hangman
Parlor

Hangman is a computerized version of the word game of the same name. Players try to guess the word by guessing the letters in the word.

Science Trivia
Parlor

Answer questions in the areas of Biology, Chemistry, and Physics to gain admittance to the Hall of Fame by being one of the top scorers.

ShowBizQuiz
Parlor

ShowBizQuiz is a test of your knowledge of showbiz trivia. Different sets of 50 questions keep you playing for quite some time.

Whiz Quiz
Parlor

Whiz Quiz is a game sponsored by Groliers Electronic Publishing. Up to four people can compete in a quiz. Each quiz is made up of 50 questions in 12 different categories, including Current Events, Geography, Mythology, Sports, and Science.

On-line Gaming Support

CompuServe offers three features to help players improve their on-line game play. The Gamers Forum provides an area for players to ask questions and get information

about on-line single player games. The Multiplayer Games Forum (MPGAMES), as its name implies, is a place where players can go for help in multiplayer games. The Electronic Gamer (TEG) provides an additional area where players receive further assistance with their on-line gaming.

The Gamers Forum is divided into a message board, a file library, and a conference area. The message board contains areas for discussing games of all types, and is broken down into sections dedicated to specific game categories. If you need hints on getting started or a question answered, just leave a message in the appropriate section and someone will answer it. For more in-depth information on the games, an associated library is with each section. Each library contains files about the types of games discussed in the message board, and includes hints on the various games in addition to other materials. The Gamers Forum also holds conferences on each of the various categories at different times during the month.

The Multiplayer Games Forum is dedicated to multiplayer games played on-line, with is one or more sections devoted to each of the most widely used games, including MegaWars I, MegaWars III, Sniper!, and British Legends (each having one section for discussions). The Island of Kesmai (with five) and, YGI! (with two); for games that do not have a particular section dedicated to them, another games section is provided. As with the Gamers Forum, libraries are associated with each section, in which can be found special programs designed to make playing certain games easier, or cheaper. In addition the Multiplayer Games Forum has a weekly schedule of conferences for individual games.

The third place to find information about multiplayer games is The Electronic Gamer, or TEG, which contains monthly newsletters for each of the multiplayer games, available on the fifteenth of every month. Contained in the newsletters is helpful information on getting started, stories written by the players, gossip, hints, and rumors of what is to come in future games.

GEnie™

GEnie, the General Electric Network for Information Exchange, was established in 1985 to provide information and games to a wide variety of people. GEnie can be accessed at $6 per hour for 300, 1200, and 2400 baud for GEnie Value Services, in addition to the monthly charge of $4.95 per month for GEnie*Basic Services (rates are as of September 1, 1991, and are subject to change). The GEnie*Basic Services provide access to a large number of bulletin board systems as well as the GEnie Mall. The single player on-line GEnie Classic Games are included in the GEnie*Basic Services and can be played on an unlimited basis. The multiplayer games are included in the GEnie*Value Services.

A large number of games are available to GEnie users. Of these games, GemStone III, Dragon's Gate, Air Warrior, Federation II, MechWarrior On-line, and Harpoon are the most popular.

GEnie

GEnie

GEnie

Air Warrior

Why This Is Special

Air Warrior is a multiplayer flight simulator for World War I and World War II planes. To get started in Air Warrior, you first download a special "front-end" program for your computer. Access to the Air Warrior Starter Kits is free of charge, with a special 386, Super-VGA version available. Set up the starter kit on your computer and try flying off-line to get a feel for how the game is played; once you master the basics, you can try it on-line.

Air Warrior provides the graphic detail and responsiveness that players have come to expect from flight simulators, with the added emotional excitement of combat with real players rather than with computer-generated aircraft.

A Taste of the Game

Each plane is flown by an individual pilot, but you can team up with other players and attempt to shoot down enemy aircraft. You can also try to defeat the enemy country by bombing and shooting strategic targets using a wide assortment of planes and ground vehicles. You choose from over twenty World War I, World War II, and Korean War planes that include a Fokker Tri-plane, B-17G Bomber, F-86F Sabre, and

P-51. Each three-week campaign pits players from three countries against one another to improve their country's score as well as their own .

The nuances of the game are difficult to learn. The Air Warrior Training Academy was developed to help players learn how to play. The Academy is a six-week course in which players meet with an experienced Air Warrior pilot and learn some of the more complex portions of survival and skill. This course is charged at a flat rate. For this one-time price, students receive a copy of the Air Warrior printed manual, hard copy maps, and basic training materials in addition to having free access to the Air Warrior Training Area, where they can practice the skills they are learning during the class.

Dragon's Gate

Why This Is Special

Dragon's Gate is different from all other fantasy role-playing games in that the design of the character classes *requires* player-vs-player conflict. Certain character classes have a natural dislike for others and need to kill in order to survive. It is possible, however, to state that you do not wish to interact in a player-vs.-player conflict when you create your character.

Dragon's Gate is a new game, and the society is still growing. Guilds are being formed as well as organizations dedicated to the advancement of various character classes all of which contribute to the uniqueness of the game.

A Taste of the Game

Dragon's Gate is a text-based adventure where players can explore the Training Ground and the Spur, fight computer-generated monsters, interact with merchants to buy and sell weapons, armor, and potions, and go on quests created and run by the GameMasters.

As with all fantasy role-playing games, you must first roll a character. Twenty different character classes are available to you. You choose from among the seven occupations: Bard, Cleric, Fighter, Forester, Runemage, Thief, or Barbarian.

Careful reading of the documentation will reveal idiosyncrasies of the various character classes and their past history. The manuals can be downloaded from the Dragon's Gate Archives, where maps of the areas also are available. Natasha's Survival Guide is a must read for all new players; it too can be found in the Archives.

Federation II

Why This Is Special

Federation II is a text space trading game in which players compete to gain the experience and skill needed to become master of the galaxy. It's a social game as well as a game of trade, and you can meet with people in bars to discuss the latest trends in the market. Social events also have also been known to occur in Fed. However, in all your fun, be careful that the Galactic IRS doesn't find you.

A Taste of the Game

Federation II is easy to start. You begin as a simple worker in a high-technology, capitalist, free-wheeling, multiplanet economy. You can work in a bar or restaurant, or find things and give them to creatures called Mobiles. As you gain skill and experience, you work to become an intergalactic small-business person; as your skill continues to grow you get into the cutthroat world of galactic big business. Once the forces of the space underworld have been met and beaten, you can develop your own planet.

Exploring begins with the purchase of your first spaceship. Of course, buying one is not as easy as it might seem. Even if you have the money, you have to get a permit. In Fed II, bribery works well. Once you get your permit, go to the local shipbuilders and buy your ship with a loan from them; next thing you know, your ship will be waiting for you at the landing pad.

You move up through the ranks by carrying goods around the solar system. Once you pay off the loan on your ship, you can then become a Captain—perhaps even Captain of your own destiny.

GemStone III

Why This Is Special

GemStone III is a text fantasy role-playing game set in the world of Kulthea's Landing. The land, the creatures that stalk the lesser-travelled areas, as well as the shop owners and tradesmen, are based on the Shadow World fantasy role-playing environment.

Unlike any of the other on-line fantasy role-playing games, GemStone III displays the numerical results of combat to the players. The numerical displays can be distracting to the role-playing efforts of some, but to others, they are essential.

A Taste of the Game

Once your character is complete, you enter the realm of Kulthea where you can explore and fight monsters as well as participate in the quests and special events created by the GemStone III GameMasters. Generally the game is co-operative, but player-vs.-player conflict occurs from time to time. Conflicts are related to the role-playing that goes on within the games. GemStone III has more role-playing associated with it than the Island of Kesmai on CompuServe; players who play thieves, for example, do indeed act as thieves, rather than as fighters who act stealthily.

In GemStone III, player-organized societies and groups can have houses built for their private meetings and storage of personal belongings. The building of houses, which takes time and money, is done upon request of the GameMasters.

MultiPlayer BattleTech

Mechs are super-powerful fighting machines of the future. In this combination role-playing/combat simulation game, players take on the character of a mech pilot, to fight assorted nasties and essentially try to save the universe. MultiPlayer BattleTech, introduced in early fall of 1991, is a multiplayer version of the popular computer game MechWarrior. The game features a completely graphical interface, and is an example of what to expect from the future of on-line games. MPBT requires both a special front-end program to play, and a monitor that supports EGA color video.

Start out in MultiPlayer BattleTech by going on training missions to increase your skill as a mech pilot. Then either join the army or join (or form) a mercenary group. In addition to battles against the enemy to protect the galaxy, you have the ability to move about planets and to move between them, buy, repair, and sell mechs, and socialize with other players. By pressing various buttons and options, players can move around the universe as well as tell the game what to do.

The finishing touches were still being put on MultiPlayer BattleTech at the time of this writing. From what we have seen, it appears to be a winner.

Other On-line GEnie Games of Note

Adventure 550
Adventure

This is the expanded version of the first single player on-line game of exploration and puzzle solving.

BlackDragon
Adventure

Explore deep dungeons and kill computer-generated monsters and collect treasure. You must make it out of the dungeon before you die, or risk starting over.

Castle Quest
Adventure

Explore—and loot—the castle while looking for the master in this classic single player adventure.   Beware the evil that lurks in the shadows.

Colonial Conquest
Strategy/War Simulation

Colonial Conquest is a multiplayer version of the computer game of the same name. In this game you can explore and conquer the world.

Diplomacy
Strategy/War Simulation

A computerized version of the classic Avalon Hill game of the same name.   The computer moderates the game and provides areas for players to make their moves and negotiate deals with other players.

Galaxy
Air/Space Combat

Galaxy is a space-based game of exploration, colonization, and conquest. Select ships, build fleets, and seek to control as many systems as possible in the known galaxy.   Combat can take many forms: ship vs. ship, planet vs. ship, and planet vs. plane—what you do with the planets under your control is up to you.   Do what you will to control the galaxy.

Harpoon On-line
Land/Sea Combat

A multiplayer version of the boxed game of the same name.   Players battle one another in scenarios between NATO and the USSR Navy.   The game requires a special front-end program.

Hundred Years War
Strategy/War Simulation

In this multiplayer recreation of the French and English war, players can take on the roles of noblemen, serfs, and mercenaries in order to help their side. The game is designed so that you can play for any amount of time and still have fun.

Intrigue
War/Strategy Simulations

This is a series of games spanning time, space, and reality. Games can be played with 2 to 30 players. You can select a fantasy world, the present, the past, or even the future; whichever game you select, others will join you.

Orb Wars
Adventure/Fantasy Role-playing

Orb Wars is a magical combat game. Players wander through a land attacking other players with magical weapons and spells in order to win the elusive orb. A player can have fun with Orb Wars in as short a time as thirty minutes.

Original Adventure
Adventure

This is a version of the original on-line adventure game of exploration and puzzle solving in Colossal Cave.

RSCARDS
Parlor Games

RSCARDS is a group of games where you can play Black Jack, Poker, Checkers, and Backgammon.

Star Web
Space/Air Combat

Starweb is a fully computerized version of the play-by-mail game of the same name, but without any of the usual turn fees. In this game you can explore the web to find the artifacts in hopes that fortune may smile on you.

Stellar Warrior
Space/Air Combat

Stellar Warrior is a space combat game in which players use different types of spacecraft to conquer areas controlled by other players. Front-end programs are available.

Stellar Emperor
Space/Air Combat

Stellar Emperor is similar to Stellar Warrior, with the added component of planetary economies and populations on established planets. Each war lasts four weeks, during which, players explore the solar system for planets to colonize and grow. Additionally, players try to take over others' planets to increase their holdings as they attempt to become Emperor of the Galaxy.

On-line Gaming Support

Support for the on-line games on GEnie is contained almost exclusively in the Multiplayer Games RoundTable, which is divided into three sections: the Bulletin Board provides an area for players to discuss game events and ask questions about the games; the Software Library contains helpful hints about the games as well as front-end programs, stories, buffers, and scores from past sessions; the Real Time Conference facility is available for formal meetings between game designers and players, weekly discussion groups, and impromptu discussions among players.

The Multiplayer Games Bulletin Board supports all the on-line games on GEnie with the exception of Diplomacy, which is supported in Scorpia's Games RoundTable along with all the other Diplomacy discussions. Each game has at least one single category dedicated to it.

The Multiplayer Games Software Library contains a wealth of information about each of GEnie's on-line games. Depending on the nature of the game, each library contains transcripts of conferences held in Real Time Conference areas, game newsletters and magazines, helpful hints on getting started in the games, maps of game areas, and other things to make game play easier.

The Real Time Conference Facilities is a place for both formal and informal discussions among players and game authors. In weekly discussions for GemStone III, Dragon's Gate, and Air Warrior players can talk about getting started, discuss tactics, or catch up with the latest events in the game. On the third Wednesday of every month, players are given an opportunity to meet game designers, where they may ask questions about individual games, as well as perhaps getting a taste of things to come.

Quantum Computer Services
America Online™
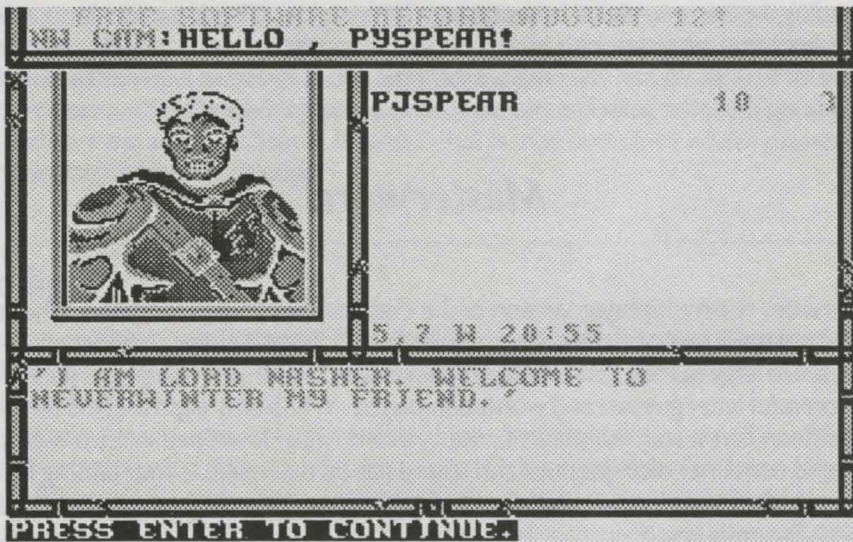
America Online was actually established in 1985, developed and operated by Quantum Computer Services, Inc; along with PC-Link (in association with Tandy), Promenade for PS/1 computers, and Q-Link for Commodore 64 and 128 model computers. In 1991, portions of PC-Link, Promenade, and America Online were merged to allow the sharing of chat, message boards, and mail. Games, however, are still separate on each of the services.

It costs nothing to join America Online, but you must have special software to access the service (also provided at no cost). Unlike GEnie, there is no extra cost to play the multiplayer games. America Online begins at $5.95 per month, and includes one free hour of on-line time. After that you're charged $5 per hour for evenings and weekends, and $10 per hour for prime time during weekdays (rates are as of September 1, 1991, and are subject to change).

Three on-line games are available to PC game players on America Online. Each requires a unique front-end program that can be downloaded or, in some cases, ordered and mailed to the player.

AD&D Online—Neverwinter Nights

Why This Is Special

It goes without saying that Dungeons & Dragons (in all its permutations) has been the most popular role-playing system ever. Over the years it has developed a detailed set of rules, roles, and worlds—not to mention becoming a large and successful business. Neverwinter Nights is the first graphic-based official Advanced Dungeons & Dragons game on an on-line network.

The game is based on the Forgotten Realms "Gold Box" series of AD&D games from Strategic Simulations. The boxed games are themselves excellent examples of computer role-playing, and the on-line adaptation combines the strengths of both game-playing worlds—colorful graphic adventuring combined with multiplayer interaction.

A Taste of the Game

People familiar with AD&D will have no problem learning to play this game. Players can go exploring alone or with a hunting party. The area close to town is fairly easy going and less dangerous than some of the outlying areas. If you enter the service of the mayor of Neverwind, you are placed on a quest. If you successfully complete the quest, you will be granted fame and fortune.

Getting started in this game is very similar to starting a character in any Advanced Dungeons & Dragons game, whether it be a paper game or a computer game. Players choose from the standard D&D character classes, and once created, the character must be outfitted with weapons, armor, and supplies—one area in which Neverwinter Nights shines. In the off-line version your parties have to explore and slug it out with monsters to get better weapons, armor, and such; in the on-line game different parties are able to buy, sell and trade for these goodies.

Reading the documentation is important with this game. The documentation, as well as the front-end program, can be downloaded or ordered separately from America Online for $19.95. When you obtain it this way, you will receive a complete Gold Box kit featuring the latest software, manuals, adventures guide, and documentation.

Masterword

Masterword is a multiplayer version of the classic word game Hangman, where up to eight players can compete. Each player in turn takes a guess at the letters in the word, and a large number of variations determine how many turns a player gets based on successful letter guesses and words completed. While only eight players can play, up to fifteen can watch the players. Masterword has a downloadable front-end for play, and contains color graphics and sound effects that make it entertaining for all. Games can be played in as little as five minutes, although some games can run as long as forty-five minutes.

Rabbit Jack's Casino

Rabbit Jack's Casino is actually four separate casino games with full color graphics and sound. Players can play Bingo, Blackjack, Poker, and Slot Machines. A single downloadable front-end program allows you to play each of the games, and chat with other players within the game at the same time.

When you enter the casino for a particular game, you are given a set of chips. You then try to parlay those chips into your on-line fortune. If you break the bank, though, you can't take it home with you.

In Blackjack and Poker, players are set up in tables of five. Up to 1000 different tables can play each of the games with the computer playing the dealer. Each table has a minimum and maximum betting limit.

In Slots, players are pitted against the one-armed bandits seen at casinos in Atlantic City and Nevada. Players enter their chips into the slot machine and pull the handle, with various winning combinations that pay off different amounts. There are rows of slot machines and players can talk with other 22 players within that row.

In Bingo, players pick a card and send in their entry fee. After the registration period, numbers are picked at random and sent to the players. Players then "cover" that number and the first person to make a bingo wins. Other variations include straight-line, cover-all, and four-corners.

Game Support

America Online provides message boards, libraries, and chat areas for discussions among on-line game players. People can post to the message boards and receive answers to their questions or opinions from other players as well as paid staffers. The libraries are full of documentation, maps, and other game-specific information.

Additionally, there are special chat areas for the games. Here players can meet live (in real time) to discuss various games or post messages for later discussion. Within these chat areas are also "leader boards," that is, tips and clues where players can increase their game knowledge.

Prodigy™

Prodigy, a joint venture between Sears and IBM, is one of the newest services in the on-line communications world; it also claims to be the largest, with over one million subscribers.

To access the services, as well as most of the games, you pay a monthly charge of $12.95 after purchasing the Prodigy Start-up Kit available for both IBM PC/ Compatibles and Macintosh computers. These kits contain a communications program that will connect your computer to the Prodigy service and allow you to play the games available on-line. Kits often are included at little or no cost with the purchase of certain modems, computers, or game packages.
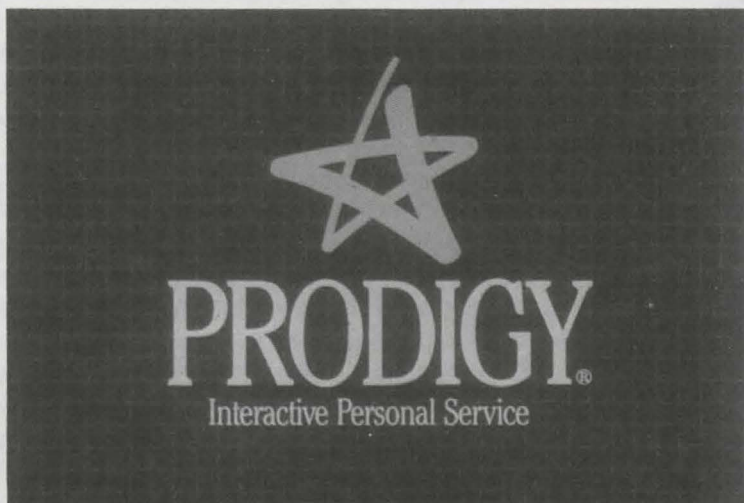
Prodigy is different from other services in that the games are not played in real time, which means a player cannot compete head-to-head against another while they are both accessing the game. The games tend to be less time intensive on a single-session basis, and most can be played in a matter of minutes rather than hours.

Even though Prodigy is relatively young, its wide variety of games appeals to a large number of people, and Prodigy continues to expand the games available to subscribers. The most popular games on Prodigy are CEO, Baseball Manager, MadMaze, GUTS, and FITB (Fill in the Blank). Each of the games provides a graphical interface to players, making them relatively easy to learn and use.

Baseball Manager

Why This Is Special

Think of this as on-line Rotisserie League baseball.

Baseball Manager (BBM) is a multiplayer fantasy baseball league in which people act as both field managers and general managers for a given team. A season lasts 162 games over a period of six months (the length of the major league baseball season), and costs players an extra $120 per team. For this price, you get access to the "Diamond Club" Bulletin Board, as well as a 96-page illustrated rulebook. Additional documentation, includes tutorials on drafting players that can be accessed while connected to Prodigy. The documents can be printed from the Prodigy communications program.

BBM is designed for the true baseball aficionado, and is both competitive and social. The players spend as much time talking about the game as competing against each other, and organize live get-togethers all over the country to talk about the game.

A Taste of the Game

BBM is a game of strategy rather than a sports action simulation, with a graphical interface that includes a customized sports headline screen for each manager.

Game players form 10 American League and 10 National League teams, and then make team management decisions that include drafting teams, setting lineups, setting pitching rotations and relief priorities, trading players, and claiming free agents, as well as promoting and demoting players to the minor leagues. The actual stats from the major league season are used in determining the performance of the Prodigy Baseball League.

A nice feature is that it is not necessary to access Prodigy every day to play BBM, since the Prodigy computer will manage your team for a few days—but, do you want it to? Players should plan to spend between 6 and 12 hours a month to get the most out of the game—and the extra money it costs. Despite the $120 fee, however, the 1991 season saw players with as many as eight separate teams competing in various leagues.
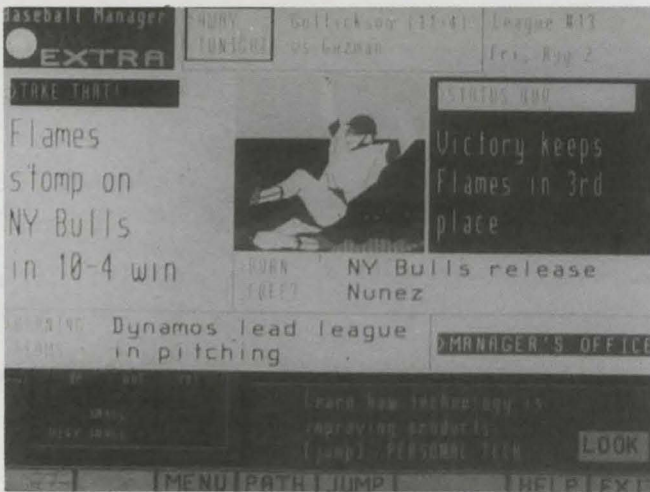
CEO

Why This Is Special

It's a rule of the universe that we all know more than our bosses do; CEO gives us a chance to prove we're right.

CEO is a multiplayer business simulation/strategy game in which five players battle each other to become the most powerful business magnate around. Although each game consists of only five players, any number of separate games can be played at the same time. CEO requires a basic knowledge of manufacturing and business principles to truly master. We do not mean to imply that the game cannot be learned through discussions with other players, and by trial and error, but without the business background you may find the game difficult to learn. But, hey! We know what we're doing, right?

A Taste of the Game

During each 15-day session, the players act as head of a growing company in a given manufacturing industry. These industries include computers, automobile, beer, toys, and chocolate, among others. Each day represents a game year, during which the player must make high-level business decisions to increase the company's profitability and their own net worth. Game decisions generally involve pricing, budgets, production, plant expansion, and financing. At the end of the session, the

player with the highest net worth in terms of stock ownership and company success wins.

Due to the intense nature of the game, CEO is highly competitive. You do not have to play each day during the session; the Prodigy computer will play in your place if no decisions are made. However, this is not a good idea, since the computer does not make decisions as well as players would. They never do...just like our bosses.

FITB

Why This Is Special

FITB (pronounced fit-bee, and stands for "fill in the blanks") is a Hangman-style game for one to four players. FITB is different from other on-line games in that all players are located in a single place (your office or home, for instance), and everybody uses the same computer to play. It is the only on-line multiplayer game where the players can touch each other—assuming they are all friends!

FITB is an excellent game for parties, if you like to party with your hardware; it is not so excellent for role-playing gender switching—unless you're playing with *very* close friends.
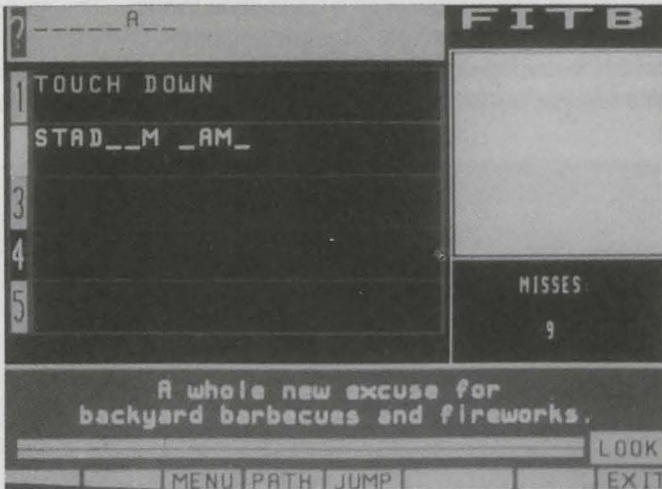
A Taste of the Game

In general, a game runs from two to thirty minutes. The basic rules are simple and straightforward, but the clue and category pairs make it a challenge.

The goal of the game is to be the first player to guess a word, name, or phrase that represents a category. A category consists of five words or phrases that make up a clue. Players figure out the clue by guessing the letters that spell out the words in that clue. If a player guesses the correct letter, that letter is displayed in the appropriate location in the clue and the player's turn continues. A wrong guess ends the turn and control moves on to the next player. Guessing a clue gives the player an opportunity to guess at the letters in the category. There are three levels of play: easy, hard, and goofy (puns, riddles, etc.); within each level there are several thousand categories selected at random. A player can play the game for quite some time with only a small chance that any one category will be repeated. Got all of that? Good—there will be a test on it tomorrow.

GUTS

Why This Is Special

GUTS is a multiplayer game show with a trivia-style format. The game is set up so that every member of Prodigy can play against any other. (We think however, that this game should be renamed "Sevens," because somebody responsible for it must have had some heavy duty problems in regard to that particular number.)
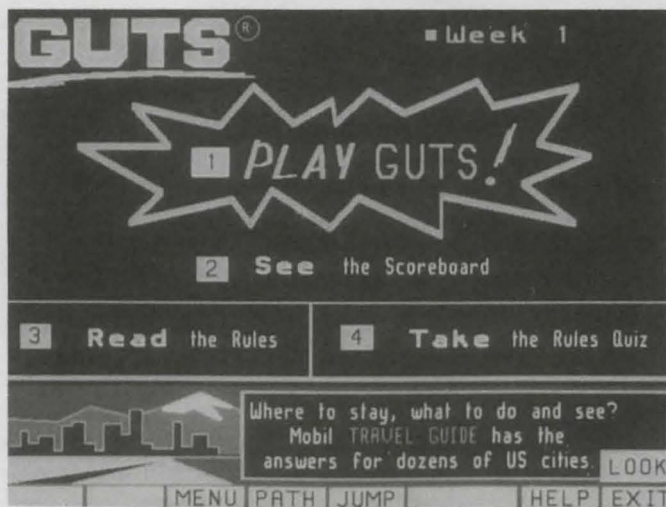
A Taste of the Game
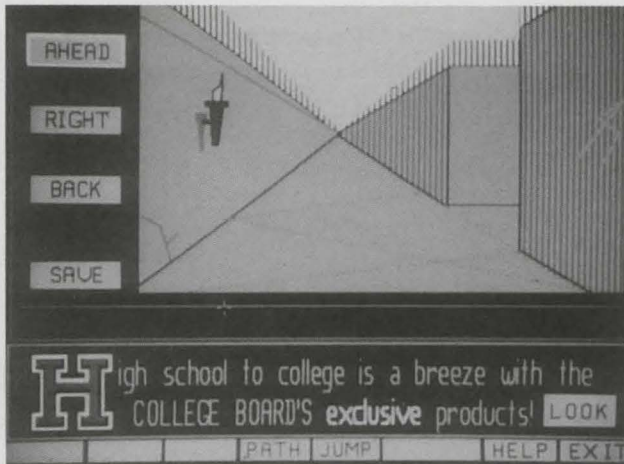
Each game lasts seven rounds of one week (seven days) each. During a round a player is given seven questions in topics ranging from popular culture to math and science. Each question is more difficult than the question before it. For each question there are seven multiple-choice answers, only one of which is correct. A player has seven minutes to answer all seven questions.

A question starts out being worth 10 points (that's a relief!). Each subsequent question is worth twice as much as the previous one with the last question worth 640 points. Any wrong answer will reset the player's score to zero and block that player from trying again until the next week, which can be seven days. The seven minutes can be used all in a single session or spread out over the course of a week (seven days). If a player goes over the seven minute limit for answering the questions, his or her score also is reset to zero and that player is blocked from the game. The player with the top score after seven weeks is the winner and along with the other top seven finishers receive a GUTS sweatshirt. Size seven, no doubt.

MadMaze

Why This Is Special

MadMaze is a single player graphical adventure game in which the player's character is sent on a heroic quest to save the world. (Haven't we heard this plot somewhere before?) There are over 16,000 locations to visit in this first-person

perspective graphical adventure. Each player must traverse a maze created by the minions of the Mad One to deliver a message to the Wizard in order to help save the village of Welth.

It is not necessary to leave the maze at the end of a playing session; a player's position can be saved at almost any location where the play can be picked up the next time.

A Taste of the Game

The maze is divided into three areas each of which must be traversed to reach the Wizard. Each successive maze becomes more complex to navigate, and the challenges and people you face along the way become more difficult than in the previous one. The themes of the areas vary from the medieval world of the Brothers Grimm to the desert world of the Arabian Nights to an unpredictable fantasy world. A player can expect to spend between 40 and 100 hours to complete the game. Any one playing session can range from 30 minutes to several hours.

Navigation of the mazes as well as encounters with various characters within the world are all mouse or menu driven. To move in a particular direction, a player merely selects the appropriate directional menu choice. Once the game is completed, the player can inscribe his or her name on the Scroll of Heroes.

Other Prodigy Games of Note

Where in the World Is Carmen Sandiego?
Parlor Game

An on-line version of the box game of the same name. Each week players try to solve a new mystery based on current events.

Boxes
Parlor Game

Boxes is Prodigy's version of Othello, which is a variation of the Asian game Go. It can be played by two players sitting at a single computer.

Match-It
Parlor Game

Match-It is similar to the classic game of Concentration. The player plays against a computer-run opponent with varying levels of difficulty. Each player attempts to find pairs of words on a small game board. The player with the most pairs wins.

Game Support

Prodigy does not have the extensive support for on-line games available on other services. There are several areas where people can ask questions about as well as discuss the games, but they are not consolidated into a specific place. The one exception is Baseball Manager's Diamond Club, but only for paying players.

By far the most popular place to learn about the on-line games is the Computer Club Bulletin Board. Within the Computer Club Bulletin Board are three areas to discuss the games; of these, the Adventure Games topic is the most active, and has constant discussions of MadMaze. Players with general questions may contact the Membership Services Group through e-mail or by telephone; they also can post questions to the About Prodigy Bulletin Board and have them answered by Entertainment Products department.

The Sierra Network (TSN)™

The Sierra Network (TSN) is the newest addition to the on-line gaming market, and offers only two things: playing interactive on-line games, and chatting with folks. Created by the game-publishing giant, Sierra On-Line, it was introduced in May, 1991, with a number of rough edges still showing, one of which is its pricing structure. TSN charges a flat monthly rate of $11.95 for unlimited usage, but only in certain areas. Others pay $4.95 per month plus $2 to $7 per hour depending on what time they call. TSN is reached through a Telenet phone number, and subscribers also are responsible for any charges that might incur.

TSN intends to institute flat monthly rates in many more areas as their membership grows. They also plan to add a number of "premium services" in early 1992, charging subscribers more for more sophisticated games.

Access to TSN is through a custom communications program that is (at the time of this writing) provided at no cost to the subscriber, a situation that could easily change. The program allows you to play all of the games available, in addition to connecting you to the network. Installing the program is simple.

What Is Unique about TSN

When you first run the TSN communications program, you are asked to do something no other on-line service does at present—create a face that represents you. This face is created from a wide range of available choices, and the results are flexible. You can change the shape of your face, the color of your skin and hair, clothing, jewelry, facial hair, and glasses, in addition to eyes, eyebrows, nose, mouth, and sex. You can put any name you'd like on your self-portrait.

The face you create is viewed by other players on TSN. It is your persona, and can be real or fictitious. A woman pretending to be a man can look like any hunk she so chooses, and vice versa. This unique feature transforms some of the interpersonal role-playing of interactive games into something completely different.

The TSN software also allows you to set up a list of preferences of and skills at the various games available, preferences that range from total dislike to willing to play any time. All of the game preferences, as well as your on-line portrait, can be modified at another time. There is room in the software for six different portraits.

Games Available on TSN

The Sierra Network is a new and developing service that plans to add new features over time. As of October 1991, the only games available were parlor games—electronic versions of board and card games that have been played for years.

Every game has a graphical look and can be accessed using the TSN program. The two-player games require two players—however, the four-player games can be played with three players. The computer will take on the role of the fourth player.

Backgammon

The actual movement of the game pieces is shown as they are moved by the players. There are capabilities to double and resign within the "Options" selection.

Bridge

This game can be played by either three or four people. The graphical interface shows the hand of the player only to that player. The hand of the dummy is shown after bidding is complete.

Bill G.
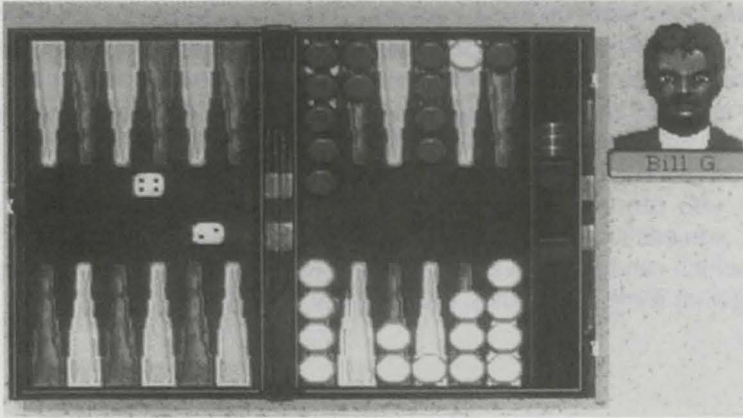
Checkers

The board is displayed with all the positions of the pieces. Each player moves his or her piece in turn. As pieces are moved, that movement is shown to both players as well as the removal of any pieces that were jumped.

Chess

As with Checkers, the chessmen on the board are shown to both players. As a piece is moved its position on the board is updated for both players.

Cribbage

The rules of play are identical to that of the card game of the same name. The hand of the individual player is shown as well as the cribbage board. As a card is played, it is shown to the opponent so that he or she can make the next move.

Hearts

This classic card game is played with three or four people. The interface allows users to bid as well as play the cards. Cards are shown only to the individual player, although the system does ensure that a card of the appropriate suit is played if the player has a card of that suit available.

Gaming and Player Support

The support available for gamers on The Sierra Network is in the Bulletin Board as well as any questions you ask the players. When you select the "Bulletin" button from the Waiting Room, you are sent to the TSN Bulletin Board. In this area you can ask questions of the SysOps as well as of other players; you can also challenge them to games or simply chat with the players who are not on-line at the same time as you.

Help in playing the various games, as well as system commands and functions in general, can be found under the "Options" button. On-line help is quite extensive; however, you can only get help in the game you are playing at that time. For example, you can't find out how to play a particular game from within the Waiting Room—which can be inconvenient if you're invited to play a particular game and have forgotten some of the rules, or even how to play!

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Well Worth the Search: Classic Games

The computer game business is best compared to the music business. Publishers release many different titles, in many different styles, for many different markets, looking for many hits. A title that doesn't sell well (or well enough), for whatever reason, is gone within six months; and the average lifespan for a good game is usually considered between one and two years. We have shelves filled with games in our office that were hot two or three years ago, but unavailable and all but forgotten today.

Hits run out their shelf lives and are replaced by new contenders for your disposable income. Publishers need new product to keep up with changing tastes and the demand for something else to play. In many ways, it's a case study of free enterprise in action.

On the other hand, how many of us would rush out today to purchase a copy of Disco Duck, or William Shatner's solo LP? Or, for that matter, Bruce Springsteen's first album, or the soundtrack from *Saturday Night Fever*? The same can be said for games like Questron, Tangled Tales, The Seven Spirits of Ra, or Dr. J. & Larry Bird Go One-On-One; all were good or popular titles in their time. But their times have passed. Whether the result of changing fads, tastes or technologies; bad reviews; or poor marketing; the new replacing the old; or simply the passage of time, they inevitably go away. For someone who has never played computer games before, they may as well never had existed.

Many good games, for one reason or another, don't stand the test of time or the marketplace. But there are a select few that have amazing staying power. Year after year, they're still seen on store racks or in mail-order catalogs. Many still turn up at swap meets, local computer fairs, or even flea markets, still in their original shrink

wrap. Some of them might even be considered ancient, having been around a decade or so. They are the classics of computer gaming.

Why do these games survive when others disappear? Is it because they were the first of their kind? Not really; there were adventure games before Zork and computer role-playing games before Wizardry and Ultima. Is it the quality of the game? That's part of it, but there have been other worthy games that haven't lasted. Are they ground breakers, presenting something new and novel? In their time, perhaps they were; but games have come a long way since then.

What these games have is a timeless quality that transcends the trappings and keeps them as fresh today as they were when they first appeared. The graphics may be crude by modern standards, the interfaces occasionally frustrating, but once you start playing them, you know you're on to something good. The story, the setting, the characters—something grabs you and doesn't let go. It isn't something that can be put into words, or even defined; you just have to experience it for yourself. It's like good taste—we can't define it, but we know it when we see it.

How to Obtain Classic Computer Games

All of the following games are still available. Others should be included, but aren't. Lode Runner, for example, is still on the market but is virtually unplayable in today's generation of fast machines. In general, the classic games which survive tend to be adventures and role-playing games. A good story is always a good story. Arcade games make way for the next sensation, war simulations have too small an audience to stay viable; and other simulations (planes, space, sports, and so on) tend to be replaced by newer, upgraded versions. Sometimes this is for the better, sometimes, it's not.

Almost all of our classic games are on publishers' back lists, and can be purchased in or through almost any software store. How long they'll remain available we can't predict. However, there is an exception. The Infocom text adventures are difficult to find. The company itself is out of business, the name Infocom is owned by someone else, and the classic Infocom titles are out of print. They are around, but you'll have to do a little legwork to track them down. Ask around at computer clubs. Check out garage sales. Visit computer shows; someone in the dealer's room may have a few for sale. These games are worth the effort. Also, as this book was being written, there were several strong indications that these games might be reissued.

We Interrupt Our Program to Bring You the Following Games

Two last notes before we continue.

(1) All these games were designed to run on PCs of mid-1980s vintage. An XT with less that 512K of RAM is usually sufficient to run them—most will run with only 128K. CGA graphics are the rule; some cannot be installed on a hard disk, and many have on-disk copy protection that may not work on new machines. None have sound card

support. Okay, they're not state of the art technology, but we've already told you that. They're just state of the art plain good. Prices vary, but none come near today's $50, $60, and $70 prices. Many are well under $20.

(2) We've decided to not follow format in how we list these games, because these titles deserved special treatment.

Infocom Games

INFOCOM™

INFOCOM™

INFOCOM™

Think about black-and-white movies for a moment—*King Kong, The Informer, Wuthering Heights, The Maltese Falcon, Casablanca, Frankenstein, A Night at the Opera,* Fred Astaire and Ginger Rogers, Busby Berkley musicals, film noir, the Marx Brothers.

You can add your own favorites to the list. The point is, there were great movies made before color became the accepted way to shoot film, and those flicks are still great today. Nonetheless, when color movies started coming out, audiences rushed to them. The studios watched where the bucks were going, and pretty soon black-and-white was pretty much history. And while today we acknowledge and appreciate the great black-and-white films, it doesn't keep Ted Turner from "colorizing" them. People like color, people want color, people get color.

The same basic thing, of course, happened when television came on the scene and began to compete with radio. "Yo, dudes, look at the pictures." People like pictures, people want pictures, people get pictures.

Thus it has been with computer games. As the technology to create, animate, store, and quickly render graphics increased, and as publishers delivered graphically colorful and exciting games, consumers gobbled them up. The nongraphic, text-only adventure was doomed. And with its demise went some of the best games ever created. The marketplace triumphed. People like animated graphics, people want animated graphics, people get animated graphics. Lost is the fact that you can create a great game without any graphics at all.

Infocom was a company that did one thing and did that one thing well. In its heyday, it published some of the finest all-text adventures to be found anywhere. No one else really came close to the quality of their products, at least not on a consistent basis.

Infocom's products featured opulent text, mind-boggling puzzles, and an underlying story to tie everything together. They appealed not only to puzzlers, but also to those who enjoyed reading. Infocom took great pride in the literary caliber of their products. Their most famous ad was a full-color page showing a complete human brain, and the slogan: "We put our graphics where the sun don't shine."

Zork Trilogy

Infocom

The Zork Trilogy actually began as a large game that ran on a mainframe computer at MIT. Created essentially by students, they had to break it down into three games when they adapted it to personal computers in 1980. The games have no other names than parts I, II and III. Not only do these games contain mystery and strange adventures, they also contain a strange sense of humor, which pops up when you least expect. If we had to pick the top ten computer games of all time—something that we are not doing, and do not plan to do—it would be hard to leave Zork off.

Zork I

Zork is a legendary game, yet it starts so simply. You stand next to a mailbox near a white house in the woods. Little do you know that beneath your feet is the GUE, the Great Underground Empire, a vast series of caverns and rooms full of puzzles, treasures, and grues—gruesome creatures who live and hide in the dark. Never described, they quickly kill you if your light goes out.

A trap door in the house sends you on your way, equipped with an Elvish sword and a brass lantern. In no time at all you're riding a magic boat on a river, walking across rainbows, delving into coal mines, encountering a cyclops and an ogre, escaping a dark and twisty maze, and penetrating the very gates of Hell in your search for goodies. The adventure is all too vivid and real, yet it's done with just words. Like radio, your brain and imagination supplying the pictures.

The treasures you collect go into a trophy case, and when you've corralled them all, a map appears, leading to a mysterious barrow where the game ends.

Zork II

Zork II begins in the barrow, where the first game left off. Here you probe further into the GUE, with the Wizard of Frobozz popping up now and then to make your life difficult. No explanation is given as to why he objects to your presence; he's just

there. As you explore this section of the Empire, you must outsmart a dragon, rescue a princess, ride a hot-air balloon, blow open a safe, and rob a very strange bank among other things. Eventually, you make your way down to a vault that leads to the endless stairs, and the last part of the trilogy.

Zork III

Zork III is the shortest game of the series. Everything about this game is odd and rather mysterious. There are no treasures to pick up (although there are plenty of other items to grab). You get points, but you're not sure why. In fact, you haven't any idea of what's going on. Nevertheless, you persevere, meeting and fighting enigmatic cloaked figures, traveling back in time, suffering through the Royal Puzzle, scampering through a cave full of grues, and riding in a very odd contraption. When you finally meet the mysterious Dungeon Master, you solve the final puzzle of the game. Or, have you?

The three games in sequence form an interesting progression. You start out as the typical adventurer with nothing more than treasure-grabbing on your mind. You look high and low through the GUE for all the goodies, dropping them off in the trophy case (a little dig at the adventure games of the time, since many had that as their only "plot").

In Zork II, you're collecting treasures again: but this time, you have to give them up in order to reach the end of the game. Here, the goodies are not the end in themselves, but a tool for reaching the end. They have value only when they are handed off to someone else.

By Zork III, there are no treasures at all; the player has gone beyond such mundane considerations. The puzzle is everything. By solving the puzzles, the adventurer proves himself or herself worthy of being the Dungeon Master, the creator of the adventures themselves.

Enchanter Trilogy

Infocom

This set of adventures is the most mystical, as magic is central to the plots of all three games. Together they form a continuing story. Although they can be played in any order, the difficulty increases with each succeeding game, so here it is best to do them sequentially.

The Enchanter trilogy is unique among adventures for its use of spells to solve puzzles. Other games have had some arcane elements in them, but only these have magic as the central theme. Traveling through the Enchanter series is traveling through strange and mystical landscapes where fantasy becomes reality, and the powers of a Merlin are at your disposal.

Enchanter

Enchanter begins with you, as an apprentice wizard, being summoned by the Circle of Enchanters and charged with the task of overcoming the evil magician, Krill. The Circle figures that a beginner has a better chance, being less likely to be noticed by the bad guy until it's too late. Without even the opportunity to say "no thanks," you're quickly dispatched to a road near Krill's castle and left to your own devices. Exploring in and around the castle, you find a number of helpful spells, have the interesting experience of being sacrificed on an altar, talk to various animals, summon a typical treasure-hungry adventurer, and perform other marvelous feats. Finally, you have to make it past the Endless Staircase for the big showdown with Krill and his friends.

Sorcerer

In Sorcerer, you have progressed a bit beyond apprentice and are now a journeyman mage. However, malign forces are loose again. Belbozz, head of the Enchanters Circle, has disappeared, and it's up to you to find him. After escaping from the Guild Hall, you set out on the long path to Belbozz. Eluding hellhounds, locusts, grues and man-eating vines, you press on with your search. In a musty coal mine, you have the mind-boggling experience of meeting yourself. Elsewhere, you transform into a bat to penetrate a maze of glass. At the end, you face Belbozz, possessed by a very nasty demon, and little time to set things right. When it's over, Belbozz retires and names you as the new head of the Enchanters Guild.

Spellbreaker

Spellbreaker begins with a big problem: Magic is beginning to fail. Spells that always performed reliably suddenly produce bizarre results or don't work at all. Everyone is angry, and looking for a scapegoat. Naturally, they begin to pick on the wizards as the source of all the trouble. Using little magical cubes, which act as gateways to other lands and places, you begin tracking down the source of the problem. Giant snakes, creatures of living rock, volcanoes, grues, ogres, and other obstacles cross your path as you strive to find the person responsible for the failure of magic. In the ultimate moment of confrontation, when you discover who is really behind the problem, you realize there is only one solution—magic must vanish from the world forever. You must become the Spellbreaker.

Hitchhiker's Guide to the Galaxy

Infocom

With Monty Pythonish British humor, Hitchhiker's Guide to the Galaxy is one of the most absurdly funny computer games ever written.   This rollicking adventure is based on the book of the same name, and was co-authored by Douglas Adams, the book's author.

It's quite an achievement to stick to the book's basic story while coming up with puzzles and situations that are original to the game, but Adams pulls it off nicely. His deft, if strange, touch is everywhere; and if you enjoy the books—or just funny games—you'll like this one. This type of humor may be an acquired taste to some people, but it's a heck of a lot better than reading Vogon poetry.

You wake up as Arthur Dent, whose home is about to be bulldozed. That's actually pretty minor, as Earth itself is about to be bulldozed by an alien construction fleet to make way for a freeway. Fortunately, Arthur and his pal Ford Prefect, a traveling researcher for the above mentioned Hitchhiker's Guide, manage to hitch a ride on a Vogon ship just before the big boom. You are armed only with Ford's copy of the Hitchhiker's Guide, a towel, and some pocket lint.

The Vogons love poetry: however they compose the worst verse in the known universe. After surviving a poetry reading on board, things become very strange. Let's see—there's the two-headed Zaphod Beeblebrox who's President of the galaxy, a depressed and paranoid robot named Marvin, the spaceship Heart of Gold with its infinite improbability drive, the Bugblatter Beast, the belly of a whale, and the legendary lost planet of Magrathea, home of the designers of the late, great planet Earth. It all makes sense in its own bizarre illogical way.

Planetfall

Infocom

This game is one of those rare situations where, while you control the actions of the protagonist, the star of the show is really someone else. In this case, the star of Planetfall is a droid who goes by the name of Floyd. Although a robot, he's something of a cross between a faithful dog and a playful child. His personality is developed so strongly, that some people have been known to shed a tear when he dies near the end of the game.

It is one of the basic truths of entertainment that people respond to people. Strong or empathetic characters can easily win over our hearts and emotions. Floyd is one of the great characters of computer games. If he were on TV or in a movie, he'd be a star.

Planetfall is a game that successfully blends adventure and a healthy dose of humor. You signed up for the Space Patrol to boldly go where angels fear to tread. Where you went was into the janitorial service, and now you're swabbing the decks (this sounds a bit like Space Quest, doesn't it?). Then a sudden emergency sends you into a lifeboat,

and down to the surface of a mysteriously uninhabited planet. Exploring the deserted world, you come upon Floyd. After you turn him on, he becomes your companion and occasional helper. Floyd can't tell you anything of what happened, so you must find out for yourself why everyone is gone. Making your way through the empty cities, you slowly put together the pieces, and learn the secret of this abandoned planet. Bringing the people back will require a great sacrifice. There is little time left to complete the task, but the job has to be done if a world is to be saved.

The Lurking Horror

Infocom

If there is one type of fiction or story line severely under represented in the world of computer games, it's the all-out horror story. The Lurking Horror would be notable just because it fills this void. However, it's a great game anyway.

Set during a blinding snowstorm, it's a tale of what happens after hours in a large university. Staying up late in the computer room to finish a paper, you stumble across some weird and frightening things. With a little help from a computer hacker, you venture forth through empty corridors and rooms, dark basements, dank tunnels, and places even less savory. Along the way, eerie and unnameable creatures and experiences pop up when you least expect them. Finding your way at last to the lair of the monstrosity behind the uncanny goings-on, you use a combination of high-tech and magic to destroy it forever—maybe.

The Lurking Horror is a remarkable blend of H. P. Lovecraft and Stephen King. The Lovecraftian overtones are seen in the material you accidentally tap into at the start—it couldn't be anything but part of the Necronomicon—as well as the demented Alchemy professor, who tries to summon up something nasty in his lab, and the overall air of brooding menace in the game. The Kinglike touches come in the evocation of an empty building late at night (which alone is enough to make people feel a bit nervous), as well as the mysterious creatures that move through the hallways and rooftops. The cleaning man alone is enough to give anyone the creeps. In spite of the usual leavening of Infocom humor, this is one game you may not want to play alone at home after sundown.

Leather Goddesses of Phobos

Infocom

No game was ever hyped by Infocom as much as this one, primarily because of its supposed sexual content. The game even allows players to choose a "filth level" for the text. In actuality, there isn't much sex in it at all; the whole game is really a farce of the '30s science fiction/adventure pulps, with a thin veneer of sex on top. Everything is played for laughs, and even in lewd mode it never even comes close to some of the goings-on in the Leisure Larry games. But it's just such a wild romp with some very neat touches, that the sex part, or lack thereof, is immaterial.

You're sitting in a bar in Upper Sandusky, Ohio, when suddenly you're kidnapped by the infamous Leather Goddesses of Phobos. They want you as a guinea pig in some of their sex experiments, although what these might be is never mentioned, merely hinted at. Not wishing to take this lying down (so to speak), you break prison with a companion, either Trent (if you're male) or Tiffany (if you're female). Then begins a hilarious romp through time and space, as you and Tiffany/Trent try to gather an improbable collection of items that can be built into a weapon to defeat the Leather Goddesses. Rides on the Martian canals, visits to a harem, capture and escape, mad scientists, black holes, and other situations of the pulps are experienced in grand style. The big finale, with the Goddesses' army closing in as Tiffany/Trent works feverishly to complete the machine, is straight out of the old cliffhangers.

Wizardry I-III

Sir-Tech
$49.95 (for all three games in one set)

The original Wizardry is the role-playing game that started it all, and has stood for a decade as the standard by which all other games of this type have been judged. The technology and graphics of this trilogy are crude by today's standards, but that doesn't matter with these games. The story, characters, and settings transcend technology. The games (especially Proving Grounds) suck you in, and you make you never want to leave. In a world where dazzling people with flash and sizzle often take the place of solid storytelling, the Wizardry series continues to prove that less can sometimes be more.

When Wizardry was published in 1981, nothing like it had been seen before, and this class act took the gaming world by storm. People went crazy over Wizardry, playing it until, almost literally, the disks wore out (these being the days of machines that only ran floppy disks). It was a full-scale epic with a large dungeon to explore, lots of neat things to find, an actual quest to fulfill, and a complete party of characters to do it with. There were so many neat items and strange things tucked away throughout the dungeon levels that players kept going through it again and again to find everything.

And it had a great villain. The mad overlord named Trebor informed the adventurers that his nasty nemesis Werdna was hiding somewhere at the bottom of the ten-level deep maze. When players finally got down there, they were greeted by a neon sign telling them that they were doomed. After a moment, the sign changed to read: "P.S. Trebor sux!" At that moment, Werdna's and Wizardry's reputation were made.

In the Wizardry games, you guide a party of up to six characters through various dungeons, fighting monsters, gathering treasures, and solving minor puzzles. You have total control of all party members at all times, deciding if they fight or run, what spells to use, which opponents to strike at, and so on—the standard stuff that's in every role-playing game today. But remember, it was seen here first.

Wizardry I and III can be played as stand-alone games, but you must have played Proving Grounds in order to play Knight of Diamonds. That's because there is no provision in KOD for creating new characters.

Wizardry I: Proving Grounds of the Mad Overlord

Proving Grounds starts off with your heroes or heroines setting out to retrieve a special amulet. This amulet was stolen from Trebor (which happens to be Robert spelled backwards) by the evil mage, Werdna (which just happens to be Andrew spelled backwards). Having accepted the mission or else the characters hack and slash and spellcast their way to the bottom of the dungeon. Each level is, of course, tougher than the previous one. Somewhere down there is Werdna. If they beat him, and the vampire lords that are protecting him, they have to escape. Of course, they are in an area with no doors. This is one of the very few games that can accurately be described as having "nail-biting suspense."

Wizardry II: Knight of Diamonds

In KOD, our heroes have the task of recovering the armor and weapon that belonged to the legendary Knight of Diamonds. There are five pieces scattered among the six levels of dungeon. Each of these items, when found, has a life of its own and must be defeated in battle before it can be taken. Then they can be used just like any other armor. At the end of the game, however, the complete set must be returned to the temple. This is a rather nerve-wracking experience for the lucky fighter chosen to make the donation, since he was to walk out again rather naked.

Wizardry III: The Legacy of Llygamyn
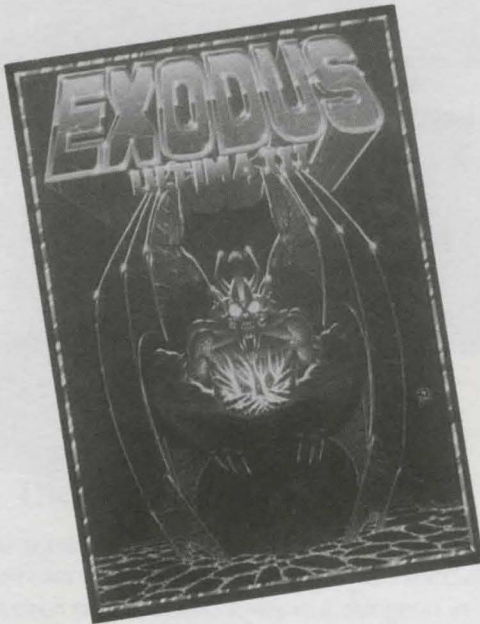
Wizardry III is much like the first game, since you start out with beginner characters. In addition, you need two parties, one good and one evil, since there are levels of the dungeon that admit one alignment but not the other. The object of LOL is to locate two special crystals (one good, one evil), then merge them together. The adventurers carrying this special crystal can then pass the dragon guardian L'kbreth and go on to find the missing Orb of Llylgamyn. Of course you'll save your city, perhaps the universe, and prevent the end of the world.

Ultima III

Origin

In the early '80s, there was one game on the market that could hold its own with the popularity of Wizardry, and that was Ultima. In scope, it was much larger than Wizardry. Ultima had not only dungeons, but an outdoors as well, complete with towns, villages, oceans, mountains, and forests. In addition, there were people in these towns that would talk to you and sometimes give valuable information. In someway, it was more like a real role-playing game than Wizardry, which didn't have these features.

This game discarded the modernistic trappings, such as space travel, which appeared in previous Ultimas and concentrated on creating pure fantasy. The result is an epic adventure of great scope and imagination. Rich in the imagery of heroic myth and legend, it remains a standout among computer role-playing games even today.

Ultima III closes out the first Ultima trilogy. In Ultima I, you vanquished the evil Mondaine; in II you took on his protege, the enchantress Minax. In Ultima III, you face the offspring of the unholy alliance between those two, the enigmatic Exodus.

It is a long and hard task. As your party of four adventurers journey throughout the land of Brittania, mysterious cards must be gathered, special marks must be burned into your very flesh, visits are made to a lost land and a mystical city, magic words are discovered, dungeons are explored to their bottom most depths, and many battles are fought. Finally, you stand before Exodus himself in the Castle of Death, where even the floors will rise up against you.

There is much to do in Ultima III, and it is not a game that will be completed in an evening or three. It concludes the first of a series of Ultima trilogies, and marks the end of the series as pure hack-and-slash quests. The second trilogy (Ultima IV–VI) form a series of morality plays in fantasy role-playing armor. Still widely available, they are classics in their own right.

Bard's Tale I-III

Electronic Arts/Interplay

After Wizardry III arrived on the market in 1983, it would be four years before another title in that series would be published. Not only that, there were no Wizardry style games available to feed that particular role-playing habit. For the large number of fans of this legendary series, this was to be an intolerable wait. The universe, of course, abhors a vacuum, and in 1985, Bard's Tale appeared. It was like the return of the Prodigal Son, but better dressed.
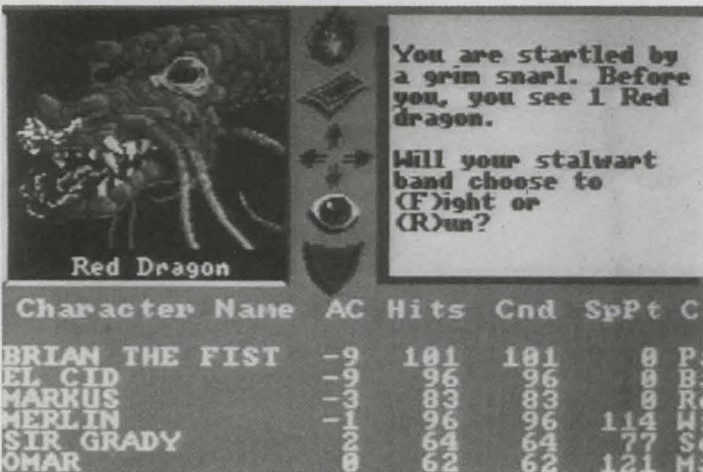
There are those who've said that Bard's Tale is really just Wizardry with better graphics. That's not quite true. While there is indeed a certain similarity between the two series, Bard's Tale can stand on its own merits and has done so for quite awhile.

Bard's Tale takes you through dungeon and wilderness on three different expeditions, all with the same goal: defeating an evil mage. They can be played in any order, although sequentially is best, since you can transfer your party from one game to the next. This lets them start out the later games with good money, good spell and hit points, and most of their equipment. This is a nice big plus. Although the Bard's Tale stories are not the most memorable, the game play is exciting, and the games stay in you mind long after you've wiped out you last evil magician. That's a good reason to be considered a classic.

Bard's Tale I: The Bard's Tale

The Bard's Tale takes place in Skara Brae, a location that also appears in the Ultima games. It's not a cozy place. Most of the natives have left, and the streets are overrun with monsters. A spell of permanent winter has surrounded the town with snow drifts, making exit impossible (your party got there just in time). Your hardy band sloshes through the sewers, visits secret catacombs, explores castles and towers, kills innumerable opponents, and finally has it out with Mangar in his secret lair.

Bard's Tale II: The Destiny Knight

In Bard's Tale II you square off against Lagoth Zanta (Don't you just love these names?). Disposing of him will not be easy. It requires a special wand that has been taken in pieces, with each piece tucked away in a dungeon in a special area called
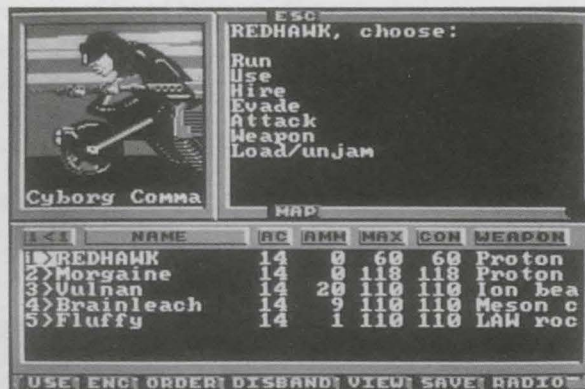
a snare. These snares are real-time puzzles (time passes in the game whether you do anything or not) that must be solved quickly. Success brings a piece of the wand; failure brings death. When all the pieces have been recovered, one party member is chosen to reassemble and use it, becoming the Knight of Destiny.

Bard's Tale III: Thief of Fate

In Bard's Tale III, the land is ravaged, due mainly to the efforts of the Mad God Tarjan. Your party visits different lands and times by passing through special gateways which are activated by spells. In each, there is a particular item or items to find. When all the items have been collected, the party is ready for the final dungeon and the encounter with Tarjan. Don't blame us. We warned you that plots were not these games' strong points.

Wasteland

Electronic Arts/ Interplay

In 1988 Wasteland took the well-used format of role-playing and placed it in a whole new environment. Abandon all magic, ye who enter the Wasteland; but prepare to immerse yourself in an awesome vision of what could be the near future.

A gripping story line and fabulous weapons make this game world realistic and challenging. Wasteland introduced to computer role-playing the concept of building skills by learning—modern and futuristic weapons, which run the gamut from pistols through LAW rockets, and rampaging mutants and robots that will set

your hair on end. Unusual skills such as climb and swim and demolitions, which have become commonplace in computer role-playing games, debut in Wasteland, and their original implementation is as good as any which followed.

Set about 100 years in the future, you lead a group of Desert Rangers in post-World War III deserts of the American southwest. Your job is to prote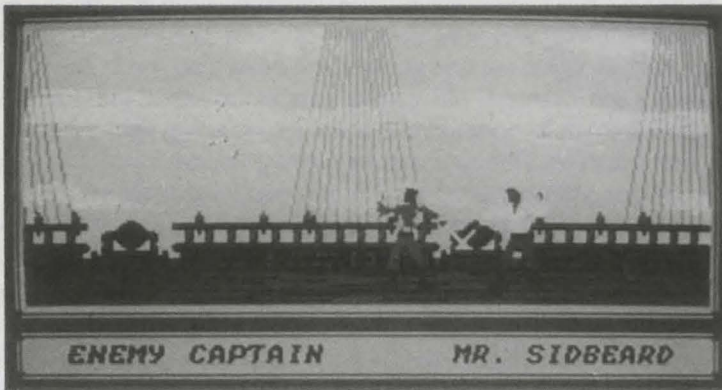ct the survivors and help rebuild society. Strange doings have been reported, and you know whose job it is to find out what's going on. For starters, you and your road warriors have to survive the desert scums, radiation rats, mutant humanoids, mutant machines, trash monsters, cyborgs, diseases, and hard radiation. Then things start getting tough.

Pirates!

Microprose

This is the game for anyone who ever pretended to be a pirate. You're a buccaneer during the golden age of piracy, when all that lovely gold and silver flowed in galleons across the Atlantic from the Americas to Spain. Basically, what you're out for is as much money as you can grab so you can retire as a wealthy and respected player. The more money and land you have at the end of the game, the higher your rank.

ENEMY CAPTAIN   MR. SIDBEARD

Pirates won all types of awards soon after it first appeared in 1987; and even if it hadn't won any, it would still be one of the best entertainment packages of all time. This is not hyperbole—Pirates! deserves accolades. Although it relies heavily on strategy, adventuring, and role-playing, the arcade elements which are present, ultimately makes the difference between an esteemed seafaring man or woman living in wealthy retirement, or a laughable loser mouldering in a jail cell.

Set in the West Indies, Pirates! covers the years 1560 to 1700, otherwise known as the Great Age of Buccaneering. Game play is based on what men of the era really

did—they sailed ships, commanded bands of raggedy sailor, engaged in sea and land battles, stormed forts, and rescued children from slave plantations. They also wooed beautiful women, made political arrangements with local governors, searched for lost treasure, and fenced to the death with smugglers, privateers, and corrupt noblemen. Occasionally, they would stop to catch their breath.

Pirates! blends arcade action (sailing, fencing, cannonades, and land attacks), adventuring, role-playing, and strategy into an action simulation.   There are six ready-made expeditions that involve the careers of famous buccaneers such as Francis Drake and Henry Morgan, and in sword fights the emotional states of the participants range from strong to outright panic. All elements of Pirates! are perfectly integrated. All that's missing is Errol Flynn or Burt Lancaster.

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Out of the Mainstream: Shareware Games

If we have a gripe with most commercial game software, it is that it can be so damned expensive. It is not unusual today to find top-of-the-line games with a retail price of $60, $70 or $80. Even with deep discounting and the magic of mail order, this can still suck about fifty bucks out of your disposable income—not a trivial sum.

The reason for high game prices is the combination of many things. The cost of developing a major computer game now can routinely exceed a million dollars—graphic artists, musical composers, and large programming and production staffs don't come cheap. Each of those disks in a fancy game box can cost up to over a dollar apiece; and the more disks there are, the heavier the box. This means higher shipping costs and a higher rate of return for defective disks. And don't forget the sales, marketing, advertising, and the overhead costs to run the company. All this is included in the retail price.

Games bought through mail order vendors and your local computer store are not the only sources of computer games, however. Just one small step outside of the mainstream, there exists another world of computer games and computer game prices.

There are many independent companies, often consisting of just a single programmer, that also produce games. Many of these programs are just as good as you'll find in a store but are usually less expensive. Best of all, you can try them out for a small cost, or even for free, before committing to the final purchase! This system of "try before you buy" software is known as shareware.

There are many sources of software distributed under the shareware system. If you look in the back of almost any computer magazine you're sure to see several companies offering software for a few dollars per disk. Many of these programs are shareware (the others are public domain). The large on-line services such as

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CompuServe also maintain large libraries of shareware programs. BBS's (Bulletin Board Systems), which are smaller on-line services, also have libraries of soft-ware just waiting to be downloaded. If you have a modem, then going on-line and obtaining software is as easy as making a phone call. If you belong to a users group chances are they maintain a shareware library too. The game programs in these libraries can usually be obtained for little more than the cost of the disks themselves.

Please note, though, that even though shareware programs can be obtained at little or no cost you are still obligated to pay the author for any program you decide to keep and continue to use. The authors do not receive anything from the fees you pay for on-line access or that you pay to the disk vendors; so the only way they can stay in business is for you to register directly with them. Once the shareware program is registered, you will often be notified of upgrades to the game, and some shareware authors will even mail you back a print version of the documentation. The cost of these games to you, the buyer, ranges between $5 and $25, although there are some now available that costs a little more. As a rule of thumb, however (does that make this a digital rule?), it is the rare piece of shareware that costs as much as even a deeply discounted boxed title.

Shareware is a method of marketing software that has advantages for everyone involved, but only works if the end user pays for what he likes.

Origins of Shareware

Where did the idea of shareware marketing come from? Why don't these program-mers just sell their programs through stores like everyone else? The problem is that there are lots of talented programmers out there, but it's not easy for them to get the attention of the big software publishers without a proven track record. Another option might be self-publishing; but considering that magazine ads can cost up to $50,000 per page, and the tremendous costs of packaging thousands of disks, manuals, and so on and *then still having no guarantee that the stores will even carry the program,* this route is impossible for most independent authors.

Shareware is thus the answer for many, as the start up costs are very low. The concept was conceived almost simultaneous by two people back in the early 1980s, the dawn of the PC age. Andrew Fluegelman had a telecommunications program called PC-Talk and Jim Button had a program called Easy-File (later PC-File). However, Fluegelman used the term "freeware" for his marketing method while Button used "user supported software," though what they were referring to was essentially the same. Not long after another programmer, Bob Wallace, entered the market with his word processor PC-Write, and while he marketed it the same way as Fluegelman and Button, he used the term "shareware." Other programmers also started selling software using the technique but there was no standard term to use, quite a confusing situation.

Nelson Ford, another programmer and also founder of the Public Software Library, one of the first and still one of the largest shareware disk vendors, ran a contest and let people decide. The winner was "shareware," and that term has now become the standard to describe this unique method of marketing. Since those early beginnings

the shareware business has grown to include authors, disk vendors, magazines, book publishers, user groups, and of course the computer users who support it all.

Variations of Shareware

It's worth noting that the term "shareware" does not mean the same thing to everyone. The purists insist that the unregistered trial copy you receive from a store or mail order be essentially the same as the registered version. Shareware authors who are members of the Association of Shareware Professionals (ASP) are required to meet this standard as a condition of membership; so if you see "ASP author member" on a program you'll know the program has virtually no limitations. Many other authors also release their trial versions this way.

Other programmers insist on placing limitations on the trial versions, ranging from something minor—a screen that reminds you that payment is required for continued use—to limiting the program to being little more than a demonstration. You'll also find some other variations on the shareware system. One company offers series of games where only the first of the series is shareware and you can buy the remainder of the series only directly from the company. This gives you a good chance to try the game out before committing to the whole thing. Be sure to read the documentation enclosed with any program so that you understand the terms the program is sold under and what else may be available.

It's difficult to tell up front what limitations are placed on the trial version. Most of the programs reviewed in this chapter, however, are all pretty much free of restrictions.

Using Shareware Games

Since shareware games are often obtained completely electronically or a single disk or disks, they do not initially come with printed manuals. Most, however, do have manuals included as text files with the games. You can and should view these files before proceeding with the game.

Quite often, the manuals can be copied to your printer so you can create your own printed manual. In some cases, the instructions will be built right into the game. Check the title screen for the option to read an introduction; many games will give you several options before jumping into the game itself, and the instructions are usually one of them.

Viruses

Some people are scared away from shareware because of the virus myth. The fact is, you're no more likely to get a virus from a shareware program than from one you buy in a shrink-wrapped package in a computer store. Actually, since the dealers, authors, and sysops involved in distributing shareware are more aware of the problem than the average computer user, and so make frequent virus checks, the

chances of getting a virus from a shareware program may well be less than from software obtained from other sources. Nonetheless, it is always a good policy to scan any disk you put into your computer for viruses—game or spreadsheet, it makes no difference.

Shareware Games of Note

The world of shareware games is at least as fluid as that of mainstream games. New titles come and go on a daily basis, and it's almost impossible to keep up with everything that is available.

What follows is a strong sampling of some of the very best the shareware world has to offer. The titles have been separated to reflect many of the same game categories as we've used earlier in this book, although all categories are not represented. Also not included in the lists are the shareware games that are on the disks, which came with this book. Mahjong, Klondike, DoubleLink, Entrap, EGA Trek, and the everpopular Commander Keen are also among the best shareware games of all time. There will be more on them in Appendix A, which immediately follows this chapter. In Appendix B, you'll find the addresses for all the shareware authors listed below.

Battle For Atlantis V 1.0 (War/Strategy Simulations)

William Soleau
$12
EGA

Why This Is Special

Battle for Atlantis is similar to the board game Risk, but allows the computer to handle all the little details. One problem with board games is that you have to find someone to play with you—Atlantis solves this by providing three computer opponents. Games are relatively quick too, typically 8 to 15 minutes so you can play even when you don't have a lot of time available.

A Taste of the Game

As you might guess from the name, the game involves trying to conquer the mythical continent of Atlantis. The game starts with each opponent being given a random selection of Atlantean states. You must then maneuver your armies to conquer neighboring states. There are many strategies involved, as the defender is given a

slight advantage and there are other variables such as the advantage given to holding an entire island versus scattered areas.

Atlantis uses colorful EGA graphics. Getting started is fairly simple, but it does have seven levels of difficulty so as your skills improve you can request harder games.

BassTour (Sports Simulations)

Richard Olsen
$15
CGA/EGA/MCGA/Hercules

Why This Is Special

Some folks claim that more people fish than participate in any other sport in the U.S. Despite this, fishing based computer games are nearly nonexistent. Not only does BassTour exist, it is an excellent, challenging simulation of real life bass fishing, which puts you head to head with the best in the world. You are given everything you could possibly need as an angler: top notch bass boat, fully loaded tackle box, choice of rods and reels and even electronic help in the form of a sonar fish finder. The fact that there are so many choices available makes the game a real challenge to find the best combination of equipment and fishing techniques.

A Taste of the Game

As in real life fishing many variables come into play: weather, water depth, and temperature. The current conditions are reported to the player. Unlike real life, BassTour allows several skill levels that control how difficult the fishing will be. The top levels are a real challenge! Each lake contains a monster fish called "Lulu," which is the ultimate challenge; only the perfect combination of equipment, skill, and luck will hook Lulu.

BassTour uses beautiful graphics displays, especially when run in high resolution EGA mode. Some may prefer the MCGA display, which employs 256 colors, but is limited by its lower resolution—which means you see less of the lake on the screen and have to scroll more often. Since CGA and Hercules are also supported almost anyone can play BassTour, something that is unusual in that many shareware games do not support all video modes. BassTour also supports both keyboard and mouse play.

Railroad Switch Challenge
(Planes, Trains, and Automobiles)

Fred Miller
$0-$10
CGA/EGA/Tandy

Why This Is Special

There are many things that a person might want to try in real life that simply aren't possible: driving a high speed race car, flying an airplane, or sailing a ship come to mind. Railroading is another real life activity that easily captures the imagination of many, if not most, people. Railroad Switch Challenge lets the player have a little bit of fun with a computerized railroad.

A Taste of the Game

Unlike some vehicles, just simulating a railroad engine wouldn't be all that exciting, so instead Railroad Switch Challenge is played more as a puzzle. The object is to switch freight cars into their designated sidings and make up trains ready to roll, something that a real life switching engineer is probably very familiar with. It's challenging to try to do it in the least number of moves, and care must be taken not to make mistakes like crossing switches the wrong way.

The player interface is very easy to learn, with almost all moves being done with one hand on the numeric keypad. It takes very little time to learn the keys and get down to game play. The player is scored on how efficiently the required moves are made, and a high score Hall of Fame is kept. The game uses an attractive display, and while it runs in standard low resolution CGA graphics, EGA and Tandy owners can get a more attractive color selection by the use of a command line switch when starting up the game. Like the name says, this is a game that will keep the player challenged.

Begin: A Tactical Starship Simulation
(Air/Space Combat)

Tom Nelson and Mike Higgins
$10-$15
Text

Why This Is Special

Outer space combat simulation was one of the very first type of computer games ever written, back in the days when computers required a room full of equipment and only few people had access to them. Many of these games were called Star Trek or Trek, and the player controlled the starship's fortunes as it travelled through a game universe divided into simply represented quadrants. This type of game has appealed to computer users for many years, and a great variety of variations on this theme have been developed. Begin is special if only for the sense of history it invokes.

A Taste of the Game

Begin is one of the more complex variations of Trek. Unlike many similar games, it does not artificially force play into quadrants and sectors but rather tries to recreate a more realistic freeform space. Enemy ships are also given more intelligence. Difficulty level settings are eliminated; instead the player is allowed to choose the size and setup of both friendly and enemy forces, allowing for quicker or longer as well as easier or harder games.

The Begin player takes the roll of a high level commander, controlling his fleet of ships. Attention to detail is important as you need to know the abilities of a wide variety of ship types. A total of four nations are involved in combat, so there is plenty of information to keep track of. As you'd expect, the object is to destroy the enemy fleet. With all the attention to detail included by the game's authors, meeting that object will keep any strategy gamer busy for quite some time.

BattleShip (Land/Sea Combat)

Frank L. Simone
$15
VGA

Why This Is Special

BattleShip is hardly an original game, but bringing it to the computer screen does offer some advantages. Set up (and clean up when done!) are much easier, and it also eliminates the need to call coordinates back and forth. Frank Simone's version of the game offers great VGA graphics, smooth play, clear and simple menus, and every feature you'd want from a game of BattleShip including game statistics and a high score list. The way the game is played is so intuitive that you can skip the instructions and get right down to battle.

A Taste of the Game

The game is always played one person versus the computer and requires a mouse. A number of interesting features have been added to the standard game including mines, islands, submerge submarine, move spy ship, and minesweeping. Most of these can be turned on and off at the player's discretion, and preferences can be saved. BattleShip will keep you occupied for many hours of battle strategy fun.

Hugo's House of Horrors (Adventure)

David P. Gray
$20
EGA

Why This Is Special

Hugo's House of Horrors is an exciting and challenging adventure through a mad house inhabited by creatures such as a mad professor, bats, mummies, monsters, and other assorted things. Your mission is to rescue the beautiful Penelope who is trapped somewhere in the house. Full-blown adventure games are still not that common in the shareware world, but this one is uncommon anyway.

A Taste of the Game

During the game you walk through the house, controlling your on-screen alter ego with the arrow keys. There's a lot more to it than simply walking around, though, as there are a variety of tricky puzzles that must be solved to advance in the game. A vicious guard dog who must be tamed is only one of the obstacles that must be passed. Game play includes all the options you need including multiple saved games, recall of previous commands, and so on. Hugo features smooth animation and colorful EGA graphics. The backgrounds give you the real feeling of being inside a spooky old house. Though not as lengthy as some other adventures, you will be kept busy for quite a few enjoyable hours before reaching the end. And if you've still not had enough there's a second episode available: Hugo II, Whodunit?

The Land (Fantasy/Role-Playing)

Mike Riley
$25
CGA, EGA

Why This Is Special

Anyone familiar with fantasy role-playing will take to The Land immediately. The Land is based on a popular set of novels (the Thomas Covenant series by Stephen R. Donaldson). Having read the books will enhance the enjoyment of the game and give the player a head start in understanding terms used throughout The Land , but it's not absolutely necessary. Taking on the role of an adventurer and escaping into and exploring strange and fascinating lands is a great way to spend a few hours in front of a computer.

A Taste of the Game

Role-playing games did not originate as computer games, but bringing them to the computer takes away a lot of the tedious bookkeeping inherent in a genre where great detail is common. A standard role-playing system—where a character is created with various attributes that are kept numerically—is used. Your character travels about exploring The Land while gaining experience as well as picking up objects and information that aid the quest. The game instructions are a bit sketchy, but this should not be taken as a bad point. Part of the fun in adventuring is learning as you go along and actually discovering what your ultimate goal is.

The Land is a very large adventure, and there are many people to meet and much to discover. There are many commands, but for the most part the interface is simple enough and the maps that show as you move are quite clear. Any role-player, or anyone just curious about role-playing, will be kept busy for many hours.

Picture Puzzle (Parlor)

Daniel Linton
$15
EGA

Why This Is Special

One problem with real life jigsaw puzzles is that no one puzzle can satisfy all players; some are too easy, some too hard. Picture Puzzle solves this problem by allowing the player to choose the puzzle difficulty. Anywhere from a four-piece puzzle to over 1000 pieces can be selected before starting, and any puzzle image can be used at any difficulty setting. As a result, Picture Puzzle brings jigsaw puzzles to the computer screen with options not possible in a normal physical puzzle.

A Taste of the Game

Picture Puzzle uses (and comes with) specially formatted picture files called .PUZ files that include a reduced size image for use as a help screen. In addition, though, Picture Puzzle can use .GIF and .PCX pictures that you create yourself or that can be obtained from a variety of sources, thus giving you an unlimited selection of puzzles. Many other features are included. Naturally, with large puzzles interruptions will come up and so Picture Puzzle allows you to save and come back to a puzzle later. Another nice feature is that when you correctly place a piece the grid lines disappear so that you know both that you got it right and also see the picture exactly as it should be. Also, with some pictures you'll end up with pieces that are identical looking (for example, the blue sky in the background). Picture Puzzle lets you use any of these pieces in any place where they will fit.

Picture Puzzle is a nice relaxing break from normal computing tasks. The pictures that come with it, created exclusively for Picture Puzzle by computer artist Gary Sirois, are excellent as well.

The Adventures of Captain Comic
(Arcade/Action)

Michael A. Denio
$10-$20
EGA

Why This Is Special

Certain arcade classics have inspired a whole style of computer games, with Mario Brothers being one of the more popular cases. Captain Comic follows this general game style with all the action and challenges that anyone would want. It's also one of the most attractive shareware arcade games you'll find anywhere Captain Comic consistently ranks as one of the best and most popular shareware titles of all time.

A Taste of the Game

The adventure involves Captain Comic searching through the planet Tambi for three items: rare gems, a sack of rare coins, and a jeweled crown. Along the way there are eight levels of obstacles as well as objects that aid the quest. Be on the lookout for cans of Blastola Cola (fuel for the fireball gun), keys (to advance between levels), and shields (to recharge Comic's defensive abilities).

Reaching the end will keep any arcade game player challenged for quite some time. Play is possible with the keyboard, where you can choose your own control keys, or by joystick. The EGA graphics are colorful and very clear, making playing a real pleasure.

EGA Gammon (Classics)

Daniel R. Evans
$10
EGA

Why This Is Special

EGA Gammon is an attractive computerized version of the board game backgammon. It allows two players to use the computer instead of digging out the game board, but more important it also allows a single player to challenge the computer when a human opponent is not available.

A Taste of the Game

The game board is colorful and attractive, as well as quite true to its non-computer counterpart. The interface, which requires a Microsoft compatible mouse, is simple and intuitive. You can pretty much start playing right away with only a quick glance at the instructions. Many options are available to the player, including standard play options such as doubling as well as things unique to computer play such as full control over screen colors. If interrupted, you can also save the game and return to it later. The computer has three skill levels, so players with a variety of ability levels will have a computer partner which will challenge them.

Wunder Book (Children)

Polysoft
$15
EGA, VGA

Why This Is Special

Wunder Book is child friendly with great use of color, simple symbolic menus for making selections and smooth mouse interface (the keyboard can also be used). One interesting feature is that the program can be run not only in English but also in Spanish, French, and German.

A Taste of the Game

Most games for young children are actually educational in nature. Wunder Book is no exception; but with its combination of music and brightly colored pictures, the kids playing it probably won't even notice. Wunder Book is oriented toward children ages 3-10 and includes five different games: matching objects, different objects, spell the name, get missing levels, and match word to object. The first two are for children who have not yet learned to read and are designed to teach perception and pattern recognition. The last three games start to teach language and spelling.

Other Shareware Games of Note

Aldo and Aldo 2
Ben and Dave Ibach
$15
EGA

Nice variations on the Donkey Kong style of game. Colorful EGA graphics, many challenging levels in both game.

BlackJack!
Donald L. Granger
$29.99
EGA/VGA/Hercules

Casino blackjack card game with extensive set of options. Useable just for fun or for improving your game. Nice graphics.

Cipher
Nels Anderson
$15
EGA/VGA/text

Newspaper crypto-quotes brought to the computer screen. Play completely by mouse or use the keyboard. Plenty of challenging puzzles available or enter your own.

Commander Keen: Goodbye Galaxy
Apogee Software
$25 to $35
CGA, EGA/VGA versions

Sequel to original Keen trilogy. This time the galaxy itself is in peril. Many new innovations: 3-D perspective, slopes, much faster graphics, sound card support, and so on. Three versions available, either CGA, EGA, or 256-color VGA with the price changing accordingly.

Crystal Caves
Apogee Software
$30
EGA

With some of the smoothest animation ever seen in an IBM game, this game rockets you to strange planets in search of priceless crystals. Graphics galore and arcade sound effects, plus traps, puzzles, and treasures everywhere.

Cunning Football
Cass Cunningham
$25
CGA/EGA/VGA/Hercules

An excellent interactive strategy football simulation. The player both calls and runs plays, allowing him or her to be fully part of the action.

Dracula in London
Enterprises
$6
CGA/SDJ

The evil count has run out of victims in his homeland and has moved on to England. You must guide a party of six members through the city to track him down. Plenty of challenging problem-solving.

Duke Nukem
Apogee Software
$30
EGA

Over one megabyte of graphics in this commercial-sized action/arcade game. The dauntless hero Duke Nukem saves Earth by tracking Dr. Proton to the Moon and into Earth's future. Features parallel scrolling levels—claimed to be the first ever, in an IBM game!

Frac
Max Shapiro
$10
EGA

One of the many variations of Tetris. Frac uses a 3-D playing surface and a colorful fractal background. Always a challenging mental workout.

Kung Fu Louie
R. Salgado
$30
EGA

A martial arts adventure, you must guide the hero through a seemingly endless group of enemy gangs. Smooth and colorful animation, even includes AdLib sound card support.

The Last Half of Darkness
SoftLab Laboratories
$20
EGA

Gain title to your late aunt's estate and powers if you can figure out the secret. An illustrated adventure with plenty of puzzles to solve and an easy-to-use interface (mouse capable).

Monuments of Mars
Scenario Software and Apogee Software
$10
EGA

Astronauts have been disappearing on Mars, and you have to find out why. Explore the ruins, dodge the nasties, and try to come face to face with the Face. A game for those idle moments when you just feel like getting slaughtered.

Sandiegopoly
Computer Graphic Solutions
$15-$25
EGA/VGA

Variation on the Monopoly board game. Substitutes locations in San Diego instead of Atlantic City. Prices are updated too! We have always wondered, "Is this Carmen Sandiego's favorite game?" If it is, should we care?

Shooting Gallery
Nels Anderson
$15
VGA/MCGA

Seven different rounds of target-shooting action, ranging from skeet shooting to a carnival shooting booth to a wild west shooting. Colorful graphics, smooth animation. Mouse required.

SuperFly
Nels Anderson
$15
EGA

Your house has been invaded by swarms of flies and other insects. Chase them through 20 rooms—if you can! Three skill levels, keyboard, joystick and mouse interfaces.

Vampyr: The Talisman of Invocation
Victor H. Shao/Brian J. Weston
$10-$20
EGA

An exciting fantasy/role-playing game set in medieval times. Features a large playing world with many and varied creatures. Excellent colorful graphics make playing a pleasure.

Appendix A:

Installing and Using the Software

At the back of this book you will find two 5 1/4-inch, 360K DSDD floppy diskettes packed with some of John C. Dvorak's favorite shareware games, and a menu system no PC user should be without. Also included are the programs Star Screen Blanker (SB), Video Information (VI), and the phenomenal, psychedelic Digital Lava Lamp (LAVA) screen saver.

Keith Graham's fabulous GMENU is one of the most powerful menu systems available and uses less than 15K. GMENU has its own built-in programming language, and is designed to work with or without access to COMMAND.COM. GMENU also has been specially designed to work with floppy-based systems where disk swapping may be necessary.

Among the unique features of GMENU is the incredible BossKey, which will create an instant "spreadsheet" to hide the screen for any game or confidential work, as well as built-in text file listing capability, and mouse support. GMENU comes set up as a master control menu for this book's supplied software, but can be custom configured for any of your other games or applications.

Installing the Software: Quickstart

It's easy. Simply put Disk 1 into one of your floppy drives and log onto that drive. Then enter INSTALL. Follow the prompts, and the program will unpack the shareware and utilities to your hard drive or to floppies—whichever you prefer.

Once installation is completed, run GMENU and you'll see menus for all the games, utilities and documentation.

Installing the Software: The Unabridged Instructions

You'll need about 1.3mb of free space for the programs. The supplied disks contain these files:

Disk 1

INSTALL.EXE Menu-driven installation program
DBLINK.EXE Self-extracting archive file for Doublelink
MAHJ34.EXE Self-extracting archive file for Mah jongg
GMENU1.EXE Self-extracting archive file for GMENU and other free utilities included with the package, including BossKey, Star Screen Blanker, Video Information and Digital Lava Lamp.
KEEN.EXE Self-extracting archive file for Commander Keen
README.1ST Installation Information

Disk 2

ARCTIC.EXE Self-extracting archive file for Arctic Adventure
EGATRK23.EXE Self-extracting archive file for EGATREK
KLONDK30.EXE Self-extracting archive file for Klondike
ENTRAP1.EXE Self-extracting archive file for Entrap
README.2ND Floppy Installation Information

When you run INSTALL, it assumes that the source drive is Drive A and that the target drive is Drive C, but you can specify any drives you like before the installation begins. You will also have to indicate whether you're doing a (F)loppy or (H)ard disk installation. When your drive selections are correct, you can confirm the fact by entering **Y** in the appropriate prompt box.

> Note: The installation process can be aborted at any time by entering Control-C. Hitting your ESCape key will return you to a DOS prompt.

INSTALL then unpacks all the files, creating the following subdirectories on the target hard drive:

\DVGAMES
\DVGAMES\ARCTIC
\DVGAMES\DBLINK
\DVGAMES\EGATREK
\DVGAMES\ENTRAP
\DVGAMES\KEEN
\DVGAMES\KLONDIKE
\DVGAMES\MAHJONG

(Installation to a floppy target will use the root directory and will prompt you when to switch disks.)

When installation is complete, you can access the games, utilities and documentation the old-fashioned way, from their DOS subdirectories, or from our spiffy menuing system, GEMENU (type GEMENU, then make your selections).

Do-It-Yourself Installations

If you are an old hand at DOS, and have a hard disk you can skip the installation program altogether. Log on to the target drive, and create the subdirectories. Change to the subdirectory and execute the corresponding self-extracting file on the target disk. Repeat this procedure for each of the self-extracting files on the two source disks.

If You Have Problems

Most readers will have no difficulty installing the supplied software. But problems can arise. We want you to begin using and enjoying this software as quickly as possible, and we stand ready to help you overcome any serious installation problems. Before writing, however, please review the following troubleshooting guide.

Problem Reading the Floppy Disks

Some disks may not spin freely inside their cardboard jackets due to variables in manufacturing, temperature, or handling. Many times you can solve the problem by loosening the disk by hand. Try inserting two fingers into the disk hub and exerting enough pressure so that the disk remains stationary while you revolve the cardboard jacket. If the disk turns freely, put it in the drive and try again.

If this does not solve the problem, try removing and inserting the disk and try again. You may have to make several attempts. You may also wish to try the disk on a different computer. Some disk drives supply more torque (spinning power) than others.

Problem Reading the Screen Prompts

The supplied INSTALL program has been tested on a wide variety of systems without problems. However, if you find that you're having difficulty reading the program prompts, exit the program by hitting your Escape key. Then use the DOS MODE.COM utility to convert to an 80-column, black-and-white display. MODE.COM is supplied with your DOS package. Make sure that MODE is accessible from the DOS command line, and then type MODE BW80 at the DOS prompt.

If you still cannot easily read the INSTALL screen, follow the instructions for a do-it-yourself installation as outlined earlier.

Compatibility

Support for the programs supplied with this book is available only from the programmers who created them and only to registered users. All of them are "well-behaved" and should work on any DOS system. If you are having difficulty, however, the problem may be caused by one or more of the following conditions:

o less than 640K of RAM

o using a version of DOS earlier than 3.10

o a system BIOS dated 1987 or earlier

o a non-Hercules compatible monochrome video adaptor

o an LCD screen (some systems)

o a system motherboard dated 1987 or earlier

o a computer known to be somewhat less than 100% compatible (Leading Edge, PC Unlimited, Unisys, Burroughs, and possibly Tandy)

o certain network operating systems or multitasking/multiuser systems

If All Else Fails

If all of your own efforts fail, consider calling a friend or the computer guru at your place of business. It may be that you are overlooking something obvious, and sometimes a second pair of eyes can solve the problem in a flash. If you have tried everything else and still can't seem to get the software installed, you can write Bantam Electronic Publishing or Computer Business Services at the addresses given below.

Please include a clearly readable description of your system components and your problem. It would also help if you include your phone number. Computer Business Services cannot promise to call you, but it is committed to making sure you have the benefit of these programs and promises to respond to every query. Write to:

Installation Problems
Computer Business Services
1125 Bramford Court
Diamond Bar, CA 91765

Technical Notes

After you have completed INSTALL you may want to check your system's AUTOEXEC.BAT and CONFIG.SYS files. These settings are recommended for your CONFIG.SYS file:

```
FILES=20
BUFFERS=25
DEVICE=C:\DOS\ANSI.SYS
SHELL=C:\DOS\COMMAND.COM /E:512 /P
```

These CONFIG.SYS settings aren't required to run the supplied programs. But they will make your system run better. Any changes to your CONFIG.SYS settings will not take effect until you reboot your computer.

Your AUTOEXEC.BAT should contain statements similar to the following:

```
ECHO OFF
cls
PATH C:\;C:\DOS
set comspec=C:\DOS\command.com
```

On a hard disk system, you may want to create a batch file such as GM.BAT, to start GMENU.COM for you:

```
C:\GM.BAT
echo off
cls
cd \dvgames
gmenu /G  (omit the /G if you don't have a 100% compatible EGA or VGA system
              and mouse)
```

Descriptions of the Special Free Programs

Following are descriptions of the free programs included in this package. They include GMENU, BossKey, Digital Lava Lamp, and Star Screen Saver. We've also included information on the files Video Information (VI) and Bestiary Fiest. And we'll also describe the shareware games included with this package.

GMENU

GMENU is a small but powerful user-configurable menu system from which you can load and run all the games included with this package. In fact, you can use GMENU for any of your favorite software programs. It has an assortment of built-in commands and allows you to directly run DOS commands and batch files.

GMENU comes configured with the GMENU.INI and GMENU2.INI data files, and is set up to run all the supplied programs. You can modify those files in order to create menus of your own. You can also run any executable program or batch file from GMENU, but this version of GMENU should not be used to run terminate-and-stay-resident (TSR) programs.

For complete technical information on using and modifying GMENU, view or print Free Program Overview from Menu #2.

TSR Warning

To avoid any compatibility problems DO NOT load any TSR programs within GMENU.

Besides potential conflicts with GMENU, some of these games, like KEEN, require a substantial amount of memory and may not run if TSR programs are loaded.

BossKey

Afraid the boss will catch you playing games on company time? We know you'd never think of doing that, but with this simple TSR utility, just hit the hot key and that resume you're typing will turn into an official-looking spreadsheet. You can make BossKey available for any application you choose, as long as that program is launched through GMENU. BossKey will work in most EGA/VGA graphics modes. It will not work in CGA or Hercules modes, except text modes. Besides tricking your boss, BossKey is a great way to pause a game while you take a break.

NOTE: Use caution when first using BossKey until you determine how compatible it is with your games or programs. Boss Key will work correctly only with programs that use "standard" video modes.

Triggering BossKey

Pressing Alt-Left Shift-B will trigger BossKey and place a dummy spreadsheet on the screen (it even lets you enter data and move from cell to cell). Pressing ESCape will erase the spreadsheet and return you to your application.

BossKey Side Effects

When returning to the application, some EGA/VGA cards may leave a small portion of the screen disturbed. This happens only with some cards that do not fully save memory on mode switches like IBM-brand cards; it doesn't affect game play. Some programs snatch the keyboard interrupt so that the BossKey will not work at all. BossKey doesn't work with DESQview, and is suppressed automatically when running GMENU under DESQview. It can also be disabled with the /D (DESQview) command line option.

Depending on your system's video mode, using BossKey while running Commander Keen, Doublelink, Klondike, or Entrap may require you to reload the games before being able to run them again. This is because these games sometimes use non-standard and unsupportable video modes. Try Boss Key yourself with each of your favorite games, make a note of the games that get clobbered and avoid using Boss Key with them.

Star Screen Blanker

SB is a 2K program that works any system (MGA, CGA, EGA, VGA, and others) because it simulates a field of stars on a text screen. SB can also be run stand-alone,

or can be made memory resident and be controlled from the keyboard or command line. The /U option will unload the program from memory.

If SB is resident and the system is in a graphics mode, it activates until the system is back in text mode. You can also load SB high on machines with a 386 memory manager. Depending on how much memory you have, you may want to make SB resident before starting GMENU by entering:

C:\DVGAMES>SB /R:01   (loads SB as a TSR that will activate after 1 minute of inactivity. Can be removed by entering sb /u)

Lava 1.0, the Digital Lava Lamp

This amazing program has an assortment of colorful kaleidoscopic effects for VGA systems. Written in 100% assembly language, it takes only a few kilobytes of memory instead of the hundreds of kilobytes other programs take.

Version 1.0 is provided free with *Dvorak's Guide to PC Games*. Be sure to fill out and return a copy of the registration form in the back of this book, so you may receive the super enhanced version, 2.0, at a special discount when it becomes available.

Using Digital Lava Lamp

Start Digital Lava Lamp by entering LAVA. Lava Lamp will do a sample show, varying the screen through the various effects every 30 seconds. If you wish to see a single effect, press any number, 0 through 9, to display each of the following effects for the default of 30 seconds.

1:   Shrinking Boxes
2:   Pinwheel Designs
3:   Tumbling Sticks
4:   Navaho Sticks
5:   String Art
6:   Pulsing Ellipses
7:   Bouncing Balls
8:   Shrinking Circles
9:   Tumbling Balls
0:   Digital Fade (like the others, lasts 30 seconds by default)
C: Clear screen with effect 0
P: Pause display (any key restarts)
S: Stop or Start the color strobe
F1: Short help screen
ESC: Exit LAVA

Rolling your own Digital Lava Lamp Script

If a .LAV file is indicated on the command line such as:
    LAVA xyz.LAV
then Lava will load the Lava script and execute it.

The LAV file format is: Effect-Seconds
For instance, the following script:

3-100
0-1
9-50
6-10

will display screen 3, which is Tumbling Sticks, for 100 seconds. It will then clear the screen using the Digital Fade, and will then display the Tumbling Balls for 50 seconds, followed by a Shrinking Circle. Then it will start again.

You can toggle the palette by entering S on the line with no seconds following it.

You can add comments after every line if you like. And any line beginning with a semicolon (;) is ignored.

VI (Video Information)

VI is another Keith P. Graham program that will help less experienced users identify the type of video and memory on their system. We have included it to help reduce technical support problems and help users get information that would be otherwise hard to find.

Items displayed by VI include available conventional memory, video adapter type, video chip, and amount of video memory being used by your system.

Program Documentation

There are menu choices for listing the documentation files for each of the supplied programs on screen using GMENU's built-in list function. You'll find GMENU's list capabilities an excellent way to read, search, or print the instructions.

Descriptions of Shareware Games

The games that we've included in this collection are some of the best and most popular titles ever released in the shareware world.

All these games can be run from GMENU included on these disks. Complete documentation for GMENU and the other free programs included with this package are included in the file: FREE.DOC and described earlier.

The copyrights to the individual titles remain with the games' authors. However, this special compilation is copyrighted by John C. Dvorak, Peter Spear, and Nick Anis and protected under the applicable copyright laws. No permission is granted to duplicate and distribute these disks, either electronically or on disk or other media, except for the making of archival back-up copies. Commercial duplication and distribution, user group duplication or distribution, and on-line or BBS availability and distribution of these disks is expressly prohibited, except by the written permission of John C. Dvorak, Peter Spear, or Nick Anis and respective authors.

Arctic Adventure

You're an archaeologist searching an arctic cave in search of the lost pieces of a Viking treasure map. You are armed with a .38 pistol and unlimited lives. You'll need them all.

Commander Keen: Episode 1

You are Billy Blaze, an 8-year-old genius who has made an interstellar spaceship out of old soup cans, rubber cement, and other odds and ends. When his parents are away and the babysitter is asleep, Billy transforms into Commander Keen-Defender of the Earth. While on Mars, the fiends from Vorticon VI have stolen critical parts from Keen's ship, the "Bean With Bacon Megarocket." Your job is to find the pieces, defeat the Vorticons, and get back before Billy's parents get home.

DoubleLink

This is a falling shapes game written by a very talented sophomore at Stevens Institute of Technology. Instead of fitting shapes together, you must line up falling colors in order to eliminate the "meanies." Looking like pills raining from the sky, DoubleLink appears to be a harder challenge than its Russian inspiration.

EGA Trek

Pilot a starship and fight the aliens. Order up protective shields, impulse engines, photon torpedoes, and then jump to warp speed. ("Not warp 9, Captain! The engines won't take it!") Trek has been played on computers before PCs. This 1991 incarnation from the master gamemaker, Nels Anderson, is as good a version as has ever been done for PCs.

Klondike

You don't need Microsoft Windows to play this most popular playing card solitaire game. This is one of best versions of solitaire we have seen for any computer.

Mah Jongg

Match and remove tiles from the pile sounds easy. This ancient Asian game is highly colorful and incredibly addictive.

Entrap

Stunning is the only way to describe the graphics in this 3-D maze game written to take advantage of an impressive number of PC video modes including seldom supported high resolution modes like Super VGA and Hercules. (Use VI.COM for information on the video adapter your system has.) The player is found standing on a massive playing field that stretches far into the distance. The playing field is shown suspended in space, and when played in 256 color modes, the background can be

seen to move and change colors constantly. The objective is to reach the other end of the playing field without being caught by the enemy robots that roam the surface of the maze.

Exit Commands for all the Games

Arctic Adventure by George Broussard, Apogee:
ESC Q

Commander KEEN "Marooned On Mars" Apogee:
ESC and D

Double Link by Paul Tupaczewski:
ESC, (Y/N) to Main Menu, and CTRL Q or F10

EGA Trek by Nels Anderson:
From Command Mode Q and then (Y/N)

Mahjong by Nels Anderson:
Q, or Q ENTER (Y/N) then no ENTER

Klondike by EM Software:
Q and Y/N (no ENTER) and then SPACE

Entrap by Steve Moraff:
CTRL Q

VGA Lava Lamp by Keith P. Graham:
ESC to EXIT (any key to change pattern)

Star Screen Blanker by Keith P. Graham:
ESC to EXIT

Shareware and "Bookware"

Several of the programs supplied with this book are shareware. Shareware is software marketed on the honor system. Programmers allow their work to be distributed to others free of charge. If a user finds a shareware program of value, he or she is expected to remit a specified registration fee to the program's author. Registration fees are usually a fraction of what the commercial software equivalent would cost.

Shareware is a system under which everyone benefits. The user benefits by getting high quality software at a very low price. Programmers benefit by having their products marketed economically. Shareware distribution saves the author a fortune

on marketing and advertising, which are costs usually passed on to the consumer. Shareware can also allow authors to retain their product rights and market their programs themselves.

Registering the Programs

The versions we have provided of these programs might best be described as "bookware." They are special editions of commercial or shareware products being distributed by special arrangement with the publishers. Also since the shareware programs we are distributing may not represent the program authors' complete packages, please do not distribute them to others. If these versions are distributed to others without all the documentation and registration information, people may assume none exists. We hope you will honor this request, and we certainly encourage you to register these products.

Technical Questions

GMENU.COM V2.1 (Including BossKey), Lava Lamp Screensaver (LAVA.COM), Star Screen Blanker (SB.COM), and Video Information (VI.COM) are (C) Copyright 1991 Keith P. Graham.

Developed and supported electronically by:

Keith P. Graham
238 Germonds Road West
Nyack, NY 10994

Keith's Support BBS (modem line): (914) 623-0039

Nick Anis
Computer Business Services
1125 Bramford Court
Diamond Bar, CA 91765

Nick's and John C. Dvorak's Support BBS (modem line): (714) 396-0014

Bantam also has a technical support line. For defective disks and technical support call: (800) 223-6834, extension 9832. In Canada, New York, Alaska, and Hawaii call (212) 492-9832. You may write Keith Graham or Nick Anis with support questions, comments, and suggestions. These programs are free to all purchasers of *Dvorak's Guide To PC Games*, but the author reserves the right to charge a fee on other or future versions.

If you need the supplied programs on a 3 1/2-inch disk, simply send $7.95 U.S. and $9.95 Canadian (covers postage and handling) to Bantam Electronic Publishing, 666 Fifth Avenue, New York, NY 10103, Attention: *Dvorak PC Games Disks.*

By special arrangement with Computer Business Services you can purchase additional disks with related programs. The bonus disk will include any mainte-nance updates (or bug fixes) to the GMENU, BossKey, GMENU INI files, Lava Lamp Screensaver, Star Screen Blanker (SB.COM), and Video Information (VI.COM).

Disclaimer

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License

The programs GMENU, LAVA, SB, and VI are not shareware products. They are commercial software. These versions are being distributed by special arrangement with Computer Business Services. They may not be distributed in any form without the express written consent of the authors. This package includes a single-user license, which should be completed and returned to Keith P. Graham. By completing and returning the licensing agreement, you will be entitled to technical support by mail or modem and notification of future updates and new products. A single-user license authorizes you to make copies of these programs for backup purposes and to operate the program on any computer, as long as there is only one user and one copy of the program being used at any one time.

Registration

The programs GMENU, LAVA, SB, and VI are the sole property of Keith P. Graham. The programs may not be copied freely or distributed on-line without express written consent from Keith P. Graham.

There is no cost for registering this version of these programs. Users must return the registration card included in this package. Keith P. Graham supports his software.

Many of the features contained in the programs are the result of user input. If you have suggestions or comments, feel free to write or send them to:

DV Games Program Ideas
Computer Business Services
1125 Bramford Court
Diamond Bar, CA 91765

Appendix B:

PC Games Publishers

The following is a list of publishers of computer game software. While we have tried to make the list as complete as possible, inadvertent omissions have surely occurred. Nonetheless, this is a good place to get the information you might need to get in touch with any of the publishers of games listed in this book. We have also listed all of the shareware authors/developers whose products are discussed in Chapter 17.

Our apologies go out to any company we may have omitted. Unfortunately, software publishing is a business, and new companies are created almost weekly. Others die as frequently.

Access Software
4910 W. Amelia Earhart Dr.
Salt Lake City, UT 84116
(801)359-2900
(800)800-4880

Accolade
20813 Stevens Creek Blvd.
Cupertino, CA 95014
(408)985-1700

Activision
4600 Bohannon Drive, Suite #210
Menlo Park, CA 94025
(415)617-8161

America Online
8619 Westwood Center Drive
Vienna, VA 22182
(800)227-6364
(703)448-8700

Nels Anderson
Arcanum Computing
92 Bishop Drive
Framingham, MA 01701
(508)875-3618

APBA Game Company
1001-CF1 Millersville Rd
P.O. Box 4547
Lancaster, PA 17604
(800)334-2722

Arcanum Computing
92 Bishop Drive
Framingham, MA   01701
(508)875-3618

Apogee Software
P.O. Box 476389
Garland, TX   75047
(800)852-5656
(214)240-0614

Bethesda Softworks
P.O. Box 7877
Gaithersburg, MD   20898
(301)926-8300

BMUG
Berkeley, CA
(415)549-2684

Britannica Software Inc.
345 4th Street
San Francisco, CA   94107
(800)572-2272
(415)546-1866

Broderbund
17 Paul Dr.
San Rafel, CA   94903
(415)492-3200
(800)521-6263

California Dreams
130 Knowles Dr.
Los Gatos, CA   95030
(408)378-0340

Capstone Entertainment Software
14160 S.W. 139th. Ct.
Miami, FL   33186
(800)468-7226
(305)252-9040

Casady & Greene, Inc.
22734 Portola Dr.
Salinas, CA   93908
(408)484-9228

Cinemaware
4165 Thousand Oaks Blvd.
Westlake Village, CA   91382
(805)495-6515

Command Simulations
330 S. Decatur #218
Las Vegas, NV   89107
(800)242-1942

CompuServe
P.O. Box 20212
Columbus, OH   43220
(800)848-8199
(614)457-0802

Computer Graphic Solutions
P.O. Box 29157
San Diego, CA   92129

Conflict Analytics-P
119-2 Norfolk Rd.
NAS Alameda, CA   94501
(415)865-6966

Cosmi
413 N. Figueroa
Wilmington, CA   90744
(213)835-9689

Cass Cunningham
584 Kyle Lane
Fairborn, OH   45324

Crawford Games
20813 Stevens Creek Blvd.
Cupertino, CA   95014
(408)985-1700

Data East
1850 Little Orchard St.
San Jose, CA   95125
(408)286-7080
(415)967-4444 (PR firm)

Davidson and Associates
3135 Kashiwa Street
Torrance, CA   90505
(800)556-6141
(213)534-2250

Michael A. Denio
15700 Lexington Blvd., #1010
Sugar Land, TX   77478

Walt Disney Computer Software
Tower Bldg., 23rd Fl.,
500 S. Buena Vista
Burbank, CA   91521
(818)567-5340

Dynamix
99 W. 10th St., Suite 337
Eugene, OR   97401
(503)343-0772

Electronic Arts
1820 Gateway Dr.
San Mateo, CA   94404
(415)571-7171

Electronic Zoo
3431-A Benson Ave.
Baltimore, MD   21227
(301)646-5031

EM Software
Station A, P.O. Box 2052
Champaign, Il   61825

Daniel R. Evans
177 Fordway Ext.
Derry, NH   03038

FTL Games
6160 Lusk Blvd., Suite C-206
San Diego, CA   92121
(619)453-5711

GameTek
2999 NE 191st St.
North Miami Beach, Fl   33180
(305)935-3995

**GEnie (General Electric
Information Services)**
401 N. Washington Street
Rockville, MD   20850
(800)638-9636
(301)340-4000

**Donal L. Granger
Glencoe Computing**
1100 Hwy. C
Glencoe, MO   63038

**David P. Gray
Gray Design Associates**
P.O. Box 333
Northboro, MA   01532

Great Wave Software
5353 Scotts Valley Drive
Scotts Valley, CA   95066
(408)438-1990

David Ibach
19553 Dartmouth Pl.
Northville, MI   48167

Infocom
4600 Bohannon Drive, Suite #210
Menloe Park, CA   94025
(415)617-8161

Inline Designs
5 West Mountain Rd.
Sharon, CT   06069
(203)364-0063

Interplay
3710 S. Susan, Suite 100
Santa Ana, CA 92704
(714)545-9001
(714)549-2411

Interstel Corp.
3500 S. Richey, Suite 230
Houston, TX 77017
(713)946-7676

IntraCorp, Inc.
14160 S.W. 139 Ct.
Miami, FL 33186
305-225-1205
800-468-7226

Steven D. Jones
2060 Wealdwood Court
St. Louis, MO 63122

Koei
One Bay Plaza, Suite 540
1350 Bayshore Hwy.
Burlingame, CA 94010
(415)348-0500

Konami
(708)215-5111

Lance Haffner Games
P.O. Box 100594
Nashville, TN 37224
(615)242-2617

Lawrence Productions
1800 South 35th Street
Galesburg, MI 49053
(616)665-7075

Legend Entertainment
14200 Park Meadow Dr.
Chantilly, VA 22021
(703)222-8500

Daniel Linton
Software Creations
26 Harris Street
Clinton, MA 01510
(508)365-2359

LucasFilm Games
P.O. Box 10307
San Rafel, CA 94912
(415)721-3300
(415)721-3334 PR

Ed Martins
EM Software, Station A
P.O. Box 2052
Champaign, Il 61825

Maxis
2 Theatre Sq., Suite 230
Orinda, CA 94563
(415)254-9700
(415)253-3705 (PR firm)

MECC
6160 Summit Dr. North
Minneapolis, MN 55430
(800)685-6322
(612)569-1500

Mediagenic
4600 Bohannon Dr., Suite #210
Menlo Park, CA 94025
(415)617-8161
415-329-0800

Merit Software
13635 Gamma Rd.
Dallas, TX 75244
(214)385-2353
(800)238-4277

MicroLeague Sports
2201 Drummond Plaza
Newark, DE 19711
(302)368-9990

MicroPlay
MicroProse
180 Lakefront Dr.
Hunt Valley, MD 21030
(301)771-6717

Microsoft
One Microsoft Way
Redmond, WA 98052
(206)936-8080
(503)245-0905 (PR firm)

Miles Computing
5115 Douglas Fir Rd., Suite 1
Calabasas, CA 91302
(818)340-6300

Miller, Fred
7 Templar Way
Parsippany, NJ 07054

Mindcraft Software
2341 205th St., Suite 102
Torrance, CA 90501
(213)320-5214

Mindscape
3443 Dundee Road
Northbrook, Il 60062
(312)480-7667

Moraff-Ware
815-A Brazos, #317
Austin, TX 78701
(800)842-4263
(512)335-6399

Tom Nelson
The Micro Foundry
P.O. Box 610338
San Jose, CA 95161
(408)258-3484

New World Computing
20301 Ventura Blvd., Suite 200
Woodland Hills, CA 91364
(818)999-0606
(818)999-0607 (Tech)

Ocean Software Ltd.
2161 O'Toole Ave., Suite G
San Jose, CA 95131
(408)954-0201

Ocean Software Ltd. #2
Ocean House, 6 Central St.
Manchester M25NS
England
(061)832-6633

Richard Olsen
68 Hartwell Ave.
Littleton, MA 01460
(508)875-3618

Origin Systems
110 Wild Basin Rd, #230
Austin, TX 03053
(512)328-5490
(512)328-0282

Panther Games Party
P.O. Box #8
Hughes, ACT, Australia 2605
(062)815-150

Paragon Software
180 Lakefront Dr.
Hunt Valley, MD 21030
(301)771-6717

Parker Bros.
50 Dunham Rd.
Beverly, MA 01915
(508)927-7600

PC Globe, Inc.
4700 South McClintock, Suite #150
Temple, AZ   85282
(800)255-2789
(602)730-9000

Polysoft
P.O. Box 38938
Houston, TX   77088

Prodigy
445 Hamilton Ave.
White Plains, NY   10601
(914)993-3412 (PR firm)

Psygnosis
29 Saint Mary's Ct.
Brookline, MA   02146
(617)731-3553

RAW Entertainment, Inc
3027 Marina Bay Drive
Suite #110
League City, TX   77573
(713)538-3399

ReadySoft
30 Wertheim Court, Unit 2
Richmond Hill
Ontario, Canada   L4B 1B9
(416)731-4175

Riley Computer Services
14062 Pearldale Rd.
Grass Valley, CA   95945

Mike Riley
Riley Computer Services
14062 Pearldale Rd.
Grass Valley, CA   95945

Raphael Salgado
26 Connecticut Court
Valley Cottage, NY   10989

Sega-IDG
3000 Sand Hill Rd., Suiet 180
Menlo Park, CA   94025
(415)854-8292

Victor H. Shao
8902 Spur Road
Springfield, VA   22153

Max Shapiro
International House, Room 507
2299 Piedmont Ave.
Berkeley, CA   94720

Sierra On-Line
40033 Sierra Way
Oakhurst, CA   93644
(209)683-4468
(209)683-8989 (customer service)

Sim Systems
(800)322-8471

Frank Simone
Simone Systems Software
3096 Dell Drive
Hemitage, TN   37076

Sir Tech
P.O. Box 245
323 Washington St.
Ogdensburg, NY   13669
(315)393-6633
(315)393-6451

Softlab Laboratories
2012 Gregory Street
San Diego, CA   92104

Software Creations
26 Harris Street
Clinton, MA   01510
(508)365-2359

William Soleau
163 Amsterdam Ave., Suite #213
New York, NY   10023

Spectrum HoloByte
2061 Challenger Dr.
Alameda, CA   94501
(415)522-3584

Spinnaker Software
201 Broadway
Cambridge, MA   02139
(800)826-0706
(617)494-1200

SSG (Strategic Studies Group)
8348 Monticello Dr.
Pensacola, FL   32514

SSI   (Strategic Simulations)
675 Almanor Ave.
Sunneyvale, CA   94086
(408)737-6800

Strategic Management Group
3624 Market St.
Philadelphia, PA   19104
(215)387-4000
(800)445-7089

SubLogic
713 Edgebrook Dr.
Champaign, Il   61820
(714)283-3000

The Learning Company
6493 Kaiser Dr.
Fremont, CA   94555
(415)792-2101
(800)852-2255

The Micro Foundry
P.O. Box 610338
San Jose, CA   95161
(408)258-3484

The Sierra Network (TSN)
P.O. Box 485
Coarse Gold, CA   93614
(800)743-7721

The Software Toolworks
60 Leveroni Ct.
Novato, CA   94949
(415)883-3000
(415)512-3512 (PR firm)

Three-60 Pacific, Inc
2105 South Bascom Ave., Suite 380
Campbell, CA   95008
(408)879-9144

Tiger Media
5801 E. Slauson Blvd., Suite 200
Los Angeles, CA   90040
(213)721-8282

Tiglon Software Systems
Suite 691, Traviston Sq.
4308 S. Peoria Ave.
Tulsa, OK   74105
(800)874-0125
(918)251-2733

Tom Snyder Productions
90 Sherman Street
Cambridge, MA   02140
(800)342-0236

UBI Soft
8-10 Rue Valmy
Montreuil Sous-Bois
France   93100
(011)33-1-48-576552

Ultra Games
900 Deerfield Parkway
Buffalo Grove, Il   60089

Velocity Development
1200 Gough St., Suite 21D
San Francisco, CA   94109
(415)771-6688
(415)848-9168

Villa Crespo
1725 McGovern Street
Highland Park, Il 60035
(800)521-3963

Virgin Games
18001 Cowan, Suites A & B
Irvine, CA   92714
(714)833-8710

Wesson International
500 S. Capital of Texas Highway
Bldg. 5, Suite #200
Austin, TX   78746
(800)634-9808

Brian J. Weston
6941 Cottontail Court
Springfield, VA   22153

XOR Corp.
(612)888-0021

Appendix C:

SPA Game Awards

The Software Publishers Association (SPA) is the major industry group representing PC game publishers. While virtually all major software companies belong to SPA, its origins are in the game industry.

Each year, the SPA holds a black tie awards banquet at its spring meeting. In an atmosphere much like the Emmys or the Oscars, formal recognition is bestowed on the best products of the previous year as voted on by the SPA membership. Winning an SPA award is considered a significant achievement.

PC games fill several categories, although the specific ones change from year to year. We thought it would be interesting to see what SPA Awards PC game software has won over the years.

1985

Best Learning Product:
    Where in the World Is Carmen Sandiego? (Broderbund Software)
Best Simulation Product:
    Jet (subLogic)
Best Entertainment Product:
    Deja Vu (Mindscape)
Best New World:
    Deja Vu (Mindscape)
Best Adaptation to a New Computer Product:
    One-On-One (Amiga) (Electronic Arts)

1986

Best Entertainment:
 Chessmaster 2000 (Software Toolworks)
Best General Entertainment Program:
 Where in the USA Is Carmen Sandiego? (Broderbund Software)
Best Simulation Program:
 Mean 18 (Accolade)
Best Primary School Education Program:
 Where in the USA Is Carmen Sandiego? (Broderbund Software)
Best Graphics (16 Bit):
 Airheart (Broderbund)
Best New Use of a Computer:
 Toy Shop (Broderbund Software)
Best Adaptation of a New Computer Format:
 Microsoft Flight Simulator (Microsoft Corp.)
Best Software Packaging:
 Leather Goddess of Phobos (Infocom)

1987

Best Simulation Program:
 Falcon (Spectrum HoloByte)
Best Adventure or Fantasy Role-Playing Program:
 Leisure Suit Larry in the Land of the Lounge Lizards
 (Sierra On-Line Inc.)
Best Entertainment Program:
 Jam Session (Broderbund Software)
Best Pre-School or Primary School Program:
 Designasaurus (Britannica/DesignWare)
Best Educational Program:
 Designasaurus (Britannica/DesignWare)
Best Technical Achievement:
 Falcon (Spectrum HoloByte)
Best Packaging:
 Ancient Art of War at Sea (Broderbund Software)

1988

Best Entertainment Program:
 Tetris (Spectrum HoloByte)
Best Sound Achievement in a Nonmusic Product:
 The Three Stooges (Amiga) (Cinemaware)

Best Graphics Achievement in a Non-Graphics Product:
    Battle Chess (Interplay Productions)
Best Original Game Achievement:
    Tetris (Spectrum HoloByte)
Best Sports:
    Wayne Gretzky Hockey (Amiga) (Bethesda Software)
Best Action/Arcade:
    Shufflepuck Cafe (Broderbund Software)
Best Simulation Program:
    F-19 Stealth Fighter (MicroProse)
Best Action/Strategy Program:
    Tetris (Spectrum HoloByte)
Best Adventure/Fantasy Role-Playing Program:
    King's Quest 4: The Perils of Rosella (Sierra On-Line Inc.)
Best Elementary School Program:
    NumberMaze (Macintosh) (Great Wave Software)
Best Home Learning Program:
    Where in Europe Is Carmen Sandiego? (Broderbund Software)
Best Math Program
    NumberMaze (Macintosh) (Great Wave Software)
Best Special Education Program:
    Words and Concepts (Laureate Learning Systems Inc.)
Best New Use of a Computer:
    The Manhole (Macintosh) (Activision Entertainment/MEDIAGENIC)
Best Consumer Program:
    Tetris (Spectrum HoloByte)

1989

Best Fantasy Role-Playing/Adventure Program:
    Space Quest III: The Pirates of Pestulon (Sierra On-Line)
Best Sports Program:
    HardBall 2 (Accolade)
Best Simulation Program:
    SimCity, The City Simulator (Maxis)
Best Strategy Program:
    Populous (Electronic Arts)
Best Action/Arcade Program:
    Welltris (Spectrum HoloByte)
Best Entertainment Program:
    SimCity, The City Simulator (Maxis)
Best Early Education Program:
    The Playroom (Broderbund Software)
Best Secondary Education Program:
    Math Blaster Mystery (Davidson & Associates Inc.)

Best Home Learning Program:
    Where in Time Is Carmen Sandiego? (Broderbund Software)
Best Curricular Program:
    SimCity, The City Simulator (Maxis)
Best Consumer Program:
    SimCity, The City Simulator (Maxis)

1990

Best Action/Arcade Program:
    Tris 3 Faces: (Spectrum HoloByte)
Best Fantasy Role-Playing/Adventure Program:
    King's Quest V (Sierra On-Line)
Best Simulation Program:
    SimEarth (Maxis)
Best Sports Program:
    Links (Access Software)
Best Strategy Program:
    Sid Meier's Railroad Tycoon (Microprose Software Inc.)
Best Early Education Program:
    Mixed Up Mother Goose (Multimedia) (Sierra On-Line)
Best Elementary Education Program:
    NumberMaze Decimals and Fractions (Great Wave Software)
    Super Solvers Outnumbered! (The Learning Company)
Best Home Learning Program:
    Deluxe Edition of Where in the World Is Carmen Sandiego?
    (Broderbund Software)
Best Secondary Education Program:
    SimEarth (Maxis)

Appendix D:

Computer Gaming World's Award Winners

Computer Gaming World magazine has been covering the PC game world for over ten years. They've seen many titles come and go over that time—some good, some great, some forgettable. Much like the SPA, *CGW* gives out its own awards yearly, which honor what their editors consider the best PC game products of the prior year.

Here's a complete list of their honorees. You'll notice that the categories change from year to year.

1985
Game of the Year:
 Kampfgruppe

1986
Game of the Year:
 Ultima IV

1987
Best Overall Game of the Year:
 Earl Weaver Baseball

Best Action Game:
 Gunship

Best Strategy Game:
 Gettysburg: The Turning Point of the Civil War

Best Adventure Game:
Starflight

Special Artistic Achievement Award:
Defender of the Crown

1988
Best Overall Game of the Year:
Empire

Best Action Game:
Pirates

Best Strategy Game:
Panzer Strike

Best Adventure Game:
Wasteland

Special Artistic Achievement Award:
Dungeon Master

1989
Best Overall Game of the Year:
SimCity

Best Action Game:
Battlehawks 1942

Best Adventure Game:
Neuromancer

Best Role-Playing Game:
The Magic Candle

Best Simulation:
F-19 Stealth Fighter

Best Strategy Game:
Romance of the Three Kingdoms

Best Wargame:
Battles of Napoleon

Special Literary Achievement Award:
    Star Saga I

Special Sound Achievement Award:
    Space Quest III

1990
Best Overall Game of the Year:
    Railroad Tycoon

Best Action Game:
    Their Finest Hour

Best Adventure Game:
    Hero's Quest (Now known as Quest For Glory)

Best Role-Playing Game:
    Starflight II

Best Simulation:
    M-1 Tank Platoon

Best Strategy Game:
    Populous

Best Wargame:
    Harpoon

Special Artistic Achievement Award:
    Loom

Appendix E:

Readers' Choice Awards

For nearly as long as they have been publishing, *Computer Gaming World* magazine has been asking its readers to rate the games that they play. Over the years, these game rankings have been a good indicator of PC game quality at least from the game player's point of view. Quality does not always mean commercial success, and vice versa.

In this and the following appendix we will see what *CGW*'s readers felt were the best PC games. Since these rankings are published every month, and games can move up and down the scale, we decided to pick the December ranking for each year. It provides an interesting comparison. Many of the highest ranked games totally disappear from view, and some stay on for years.

Many of the PC games that stayed on *CGW*'s list have been retired to *CGW*'s Hall of Fame. These are classic games, and many can still be purchased today.

Computer Gaming World's Hall of Fame

Bards Tale I
Chessmaster
Dungeon Master
Earl Weaver Baseball
Empire
F-19 Stealth Fighter
Gettysburg
Gunship
Kampfgruppe

Mech Brigade
Might & Magic
M.U.L.E.
Pirates
Starflight
Their Finest Hour
Ultima III
Ultima IV
War in Russia
Wizardry

Appendix F:

Computer Gaming World Year-End Rankings

1982 Top Ten

Position	Title	Publisher
1.	Wizardry	Sir-Tech
2.	Computer Baseball	SSI
3.	Olympic Decathlon	MicroSoft
4.	Guadalcanal Campaign	SSI
5.	Choplifter!	Broderbund
6.	Southern Command	SSI
7.	Escape From Rungistan	Sirius
8.	Knight of Diamonds	Sir-Tech
9.	Galactic Gladiators	SS
10.	Rendezvous	Edu-Ware

1983 Top 25

Position	Title	Publisher
1.	Wizardry	Sir-Tech
2.	Combat Leader	SSI
3.	Mule	Electronic Arts
4.	Archon	Electronic Arts
5.	Knight of Diamonds	Sir-Tech
6.	Chess 7.0	Odesta
7.	Lode Runner	Broderbund
8.	Pinball Construction	Electronic Arts

9.	Survivor	Synapse
10.	Ultima 2	Origin
11.	Miner 2049er	Big 5/Microfun
12.	Jumpman	Epyx
13.	Bomb Alley	SSI
14.	Zork Series	Infocom
15.	Computer Ambush	SSI
16.	Murder on the Zinderneuf	Electronic Arts
17.	Knights of the Desert	SSI
18.	The Cosmic Balance	SSI
19.	Blue Max	Synapse
20.	Eastern Front	APX
21.	Choplifter!	Broderbund
22.	Computer Baseball	SSI
23.	Guadalcanal Campaign	SSI
24.	North Atlantic 1986	SSI
25.	Operation Whirlwind	Broderbund

1984 Top 25

Position	Title	Publisher
1.	Seven Cities of Gold	Electronic Arts
2.	M.U.L.E.	Electronic Arts
3.	Wizardry	Sir-Tech
4.	Ultima III	Origin
5.	Fighter Command	SSI
6.	Archon II: Adept	Electronic Arts
7.	Sky Fox	Electronic Arts
8.	War in Russia	SSI
9.	Gulf Strike	Avalon Hill
10.	Legacy of Llylgamyn	Sir-Tech
11.	Knight of Diamonds	Sir-Tech
12.	The Cosmic Balance	SSI
13.	Archon	Electronic Arts
14.	Blue Max	Synapse
15.	Pinball Construction	Electronic Arts
16.	Choplifter!	Broderbund
17.	Carrier Force	SSI
18.	Guadalcanal Campaign	SSI
19.	Music Construction	Electronic Arts
20.	North Atlantic 1986	SSI
21.	Operation Whirlwind	Broderbund
22.	Southern Command	SSI
23.	Olympic Decathlon	MicroSoft
24.	Geopolitique	SSI
25.	Shattered Alliance	SSI

1985 Top 20 Strategy Games

Position	Title	Publisher
1.	Kampfgruppe	SSI
2.	Mech Brigade	SSI
3.	M.U.L.E.	Electronic Arts
4.	Ancient Art of War	Broderbund
5.	War in Russia	SSI
6.	Crusade in Europe	Microprose
7.	Fighter Command	SSI
8.	Universe	Omnitrend
9.	Guadalcanal Campaign	SSI
10.	Carriers at War	SSG
11.	Seven Cities of Gold	Electronic Arts
12.	Reach for the Stars	SSG
13.	Computer Ambush	SSI
14.	Operation Market Garden	SSI
15.	MicroLeague Baseball	MicroLeague
16.	Combat Leader	SSI
17.	Computer Baseball	SSI
18.	Galactic Gladiators	SSI
19.	Field of Fire	SSI
20.	Flight Simulator II	Sublogic

Top 20 Action/Adventure Games

Position	Title	Publisher
1.	Wizardry I	Sir-Tech
2.	Ultima III	Origin
3.	Phantasie	SSI
4.	F-15 Strike Eagle	MicroProse
5.	Legacy of Llylgamyn	Sir-Tech
6.	Knight of Diamonds	Sir-Tech
7.	Questron	SSI
8.	Sorcerer	Infocom
9.	Archon I	Electronic Arts
10.	One on One	Electonic Arts
11.	Choplifter!	Broderbund
12.	Galactic Adventures	SSI
13.	Zork Series	Infocom
14.	Pinball Construction Set	Electronic Arts
15.	Lode Runner	Broderbund
16.	Planetfall	Infocom
17.	Music Construction Set	Electronic Arts
18.	Ultima II	Origin

19.	Hitchhiker's Guide to the Galaxy Infocom
20.	Ultima I Origin

1986 Top 20 Strategy Games

Position	Title	Publisher
1.	Chessmaster 2000	Electronic Arts
2.	Kampfgruppe	SSI
3.	Silent Service	MicroProse
4.	Mech Brigade	SSI
5.	M.U.L.E.	Electronic Arts
6.	Battle for Antietam	SSI
7.	Europe Ablaze	SSG
8.	Battlegroup	SSI
9.	War in Russia	SSI
10.	Star Fleet I	Cygnus
11.	Decission in the Desert	MicroProse
12.	Ancient Art of War	Broderbund
13.	Ogre	Origin
14.	Crusade in Europe	MicroProse
15.	Fighter Command	SSI
16.	Guadalcanal Campaign	SSI
17.	Seven Cities of Gold	Electronic Arts
18.	Under Fire	Avalon Hill
19.	Carriers at War	SSG
20.	Reach for the Stars	SSG

Top 20 Action/Arcade Games

Position	Title	Publisher
1.	Ultima IV	Origin
2.	Bard's Tale	Electronic Arts
3.	Wizardry I	Sir-Tech
4.	Wizard's Crown	SSI
5.	Ultima III	Origin
6.	Elite	Firebird
7.	Enchanter	Infocom
8.	Hardball	Accolade
9.	Phantasie	SSI
10.	Spellbreaker	Infocom
11.	F-15 Strike Eagle	MicroProse
12.	Knight of Diamonds	Sir-Tech
13.	Legacy of Llylgamyn	Sir-Tech
14.	Phantasie II	SSI
15.	Borrowed Time	Activision
16.	Archon I	Electronic Arts

17.	One on One	Electronic Arts
18.	Questron	SSI
19.	Auto Duel	Origin
20.	Zork Series	Infocom

1987 Top 20 Strategy Games

Position	Title	Publisher
1.	Gettysburg	SSI
2.	Kampfgruppe	SSI
3.	Rebel Charge at Chickamauga	SSI
4.	Wargame Construction Set	SSI
5.	Russia	SSG
6.	M.U.L.E.	Electronic Arts
7.	Chessmaster 2000	Software Toolworks
8.	Mech Brigade	SSI
9.	Defender of the Crown	Mindscape
10.	Battle of Antietam	SSI
11.	Fighter Command	SSI
12.	Guadalcanal Campaign	SSI
13.	War in Russia	SSI
14.	Decision in the Desert	MicroProse
15.	Seven Cities of Gold	Electronic Arts
16.	Crusade in Europe	MicroProse
17.	Battlefront	SSG
18.	Battlecruiser	SSI
19.	War in the South Pacific	SSI
20.	Carriers at War	SSG

Top 20 Action/Adventure Games

Position	Title	Publisher
1.	Ultima IV	Origin
2.	Pirates	MicroProse
3.	Wizardry I	Sir-Tech
4.	Starflight	Electronic Arts
5.	Might and Magic	New World
6.	Bard's Tale II	Electronic Arts
7.	Bard's Tale	Electronic Arts
8.	Gunship	MicroProse
9.	Ultima III	Origin
10.	Wizard's Crown	SSI
11.	Legacy of Llylgamyn	Sir-Tech
12.	Knight of Diamonds	Sir-Tech
13.	Phantasie	SSI
14.	Borrowed Time	Activision

15.	Archon I	Electronic Arts
16.	Choplifter!	Broderbund
17.	One on One	Electronic Arts
18.	Questron	SSI
19.	Elite	Firebird
20.	Zork Series	Infocom

1988 Top 20 Strategy Games

Position	Title	Publisher
1.	Empire	Interstel
2.	Reach for the Stars	SSG
3.	Earl Weaver Baseball	Electronic Arts
4.	Strike Fleet	Electronic Arts
5.	Breach	Omnitrend
6.	Silent Service	MicroProse
7.	Carrier Force	SSI
8.	Crusade in Europe	MicroProse
9.	Decision in the Desert	MicroProse
10.	Flight Simulator II	Sublogic
11.	Ancient Art of War at Sea	Broderbund
12.	Battle of Antietam	SSI
13.	Europe Ablaze	SSG
14.	NFL Challenge	XOR
15.	Panzer Strike	SSI
16.	Ancient Art of War	Broderbund
17.	Russia	SSG
18.	War in the South Pacific	SSI
19.	Under Fire	Avalon Hill
20.	Battlegroup	SSI

Top 20 Action/Adventure Games

Position	Title	Publisher
1.	Wasteland	Electronic Arts
2.	Dungeon Master	FTL
3.	Pirates	MicroProse
4.	Ultima V	Origin
5.	F-19 Stealth Fighter	MicroProse
6.	Bard's Tale III	Electronic Arts
7.	Falcon	Spectrum HoloByte
8.	Faery Tale Adventure	Microillusions
9.	Bard's Tale II	Electronic Arts
10.	Phantasie	SSI
11.	Three Stooges	Cinemaware

12.	Spellbreaker	Infocom
13.	Zork Series	Infocom
14.	Archon I	Electronic Arts
15.	Legacy of Llylgamyn	Sir-Tech
16.	Pinball Construction Set	Electronic Arts
17.	Lode Runner	Broderbund
18.	Phantasie II	SSI
19.	Questron	SSI
20.	Sorcerer	Infocom

1989 Top 25

Position	Title	Publisher
1.	F-19 Stealth Fighter	MicroProse
2.	SimCity	Maxis
3.	Populous	Electronic Arts
4.	Battlehawks 1942	LucasFilm
5.	Red Storm Rising	MicroProse
6.	Lords of the Rising Sun	Cinemaware
7.	Wasteland	Electronic Arts
8.	Pool of Radiance	SSI
9.	Ultima V	Origin
10.	Might and Magic II	New World Computing
11.	Bard's Tale III	Electronic Arts
12.	Space Quest III	Sierra
13.	Romance of the 3 Kingdoms	Koei
14.	Overrun	SSI
15.	Battles of Napoleon	SSI
16.	NFL Challenge	XOR
17.	The Magic Candle	Mindcraft
18.	Genghis Khan	Koei
19.	Project Stealth Fighter	MicroProse
20.	Battletech	Infocom
21.	Fire Brigade	Panther
22.	Airborne Ranger	MicroProse
23.	Curse of the Azure Bonds	SSI
24.	King's Quest IV	Sierra
25.	Falcon	Spectrum HoloByte

1990 Top 25

Position	Title	Publisher
1.	Their Finest Hour	LucasFilm
2.	Railroad Tycoon	MicroProse
3.	Ultima VI	Origin
4.	Harpoon	3-60 Pacific

5.	SimCity	Maxis
6.	M-1 Tank Platoon	MicroProse
7.	MechWarrior	Activision
8.	Populous	Electronic Arts
9.	Hero's Quest Quest for Glory	Sierra
10.	Red Storm Rising	MicroProse
11.	Battlehawks 1942	LucasFilm
12.	Bard's Tale III	Electronic Arts
13.	Ultima V	Origin
14.	Lords of the Rising Sun	Cinemaware
15.	Wasteland	Electronic Arts
16.	Space Quest III	Sierra
17.	Romance of the 3 Kingdoms	Koei
18.	Starflight II	Electronic Arts
19.	Indiana Jones/Last Crusade	LucasFilm
20.	Overrun	SSI
21.	Sword of Aragorn	SSI
22.	Second Front	SSI
23.	Dragon Wars	Interplay
24.	Falcon	Spectrum HoloByte
25.	NFL Challenge	XOR

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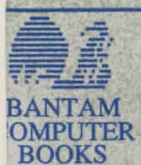
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- Arctic Adventure: You're an archeologist searching an arctic cave in search of the lost pieces of a Viking treasure map. You are armed only with a .38 pistol and unlimited lives.

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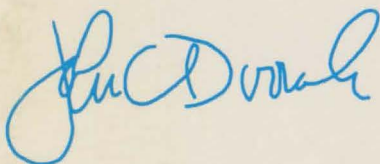
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