

Build your own RPG in Bard's Tale Construction Set

FREE! ULTIMA VII MAP AND POSTER

3D dungeons: the realism of Ultima Underworlds



PC review

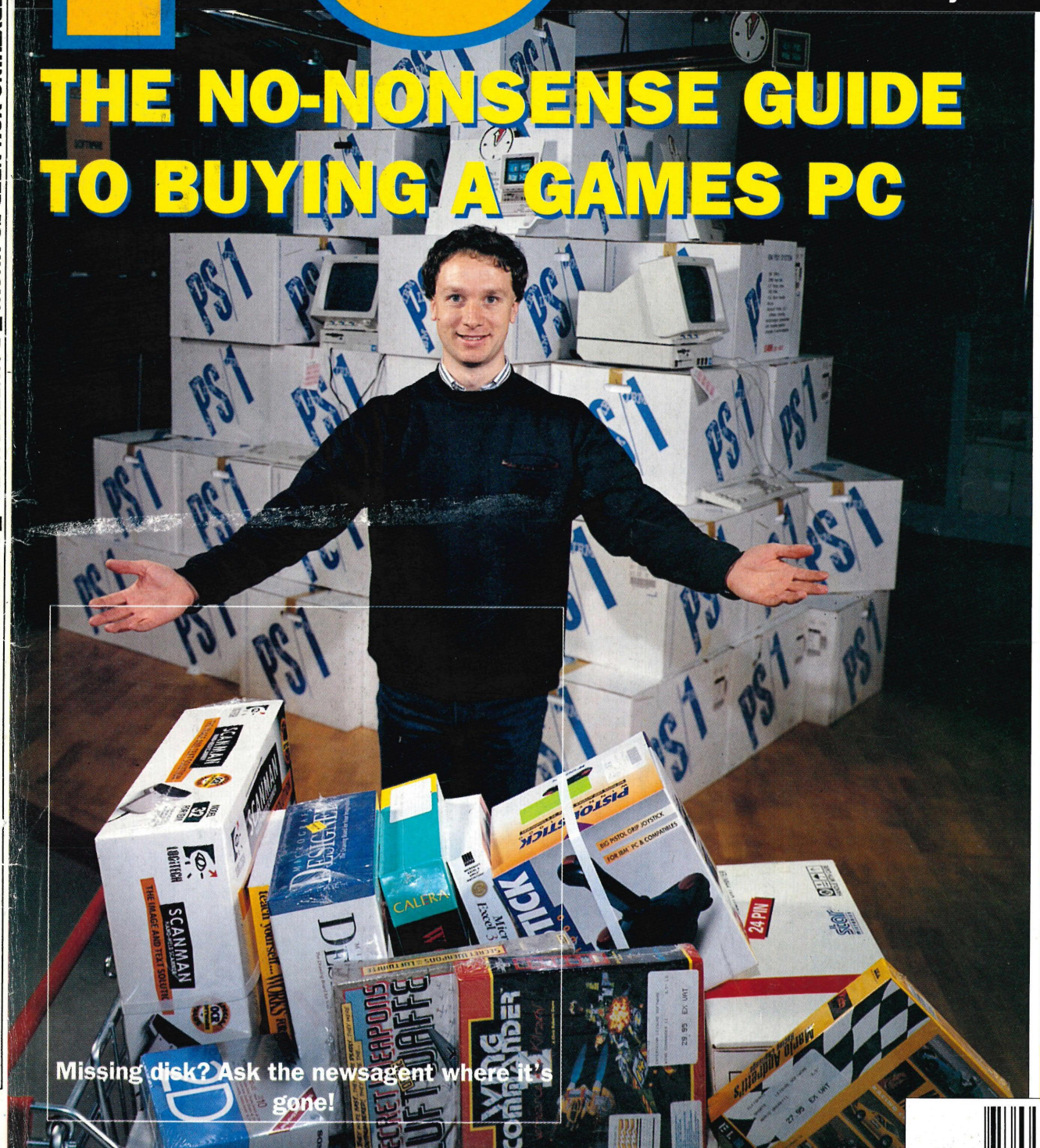
The COMPLETE guide to PC entertainment

3½ DISK

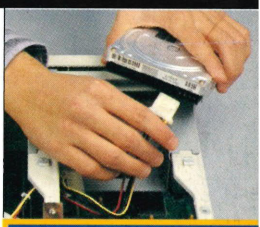
Including comprehensive PC reference section

Issue 3 January 1992 £2.95

THE NO-NONSENSE GUIDE TO BUYING A GAMES PC



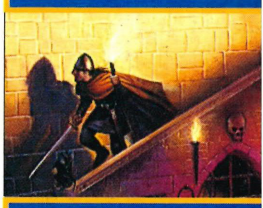
Missing disk? Ask the newsagent where it's gone!



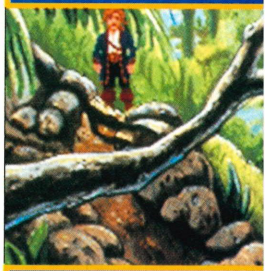
Hard disks



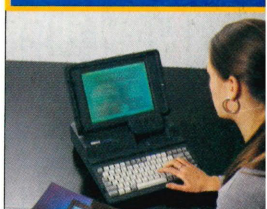
Powermonger



Cadaver



Le Chuck



Laptops

PLUS 100s of shareware bargains

01
9 770964 454003

PC REVIEW ■ BUYING A PC: EVERYTHING YOU NEED TO KNOW ■ POWERMONGER ■ ULTIMA UNDERWORLDS ISSUE 3 JANUARY 1992

CHECK OUT

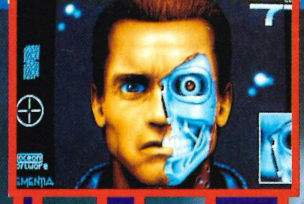
TERMINATOR™ 2 JUDGMENT DAY



FREE T2 T-SHIRT





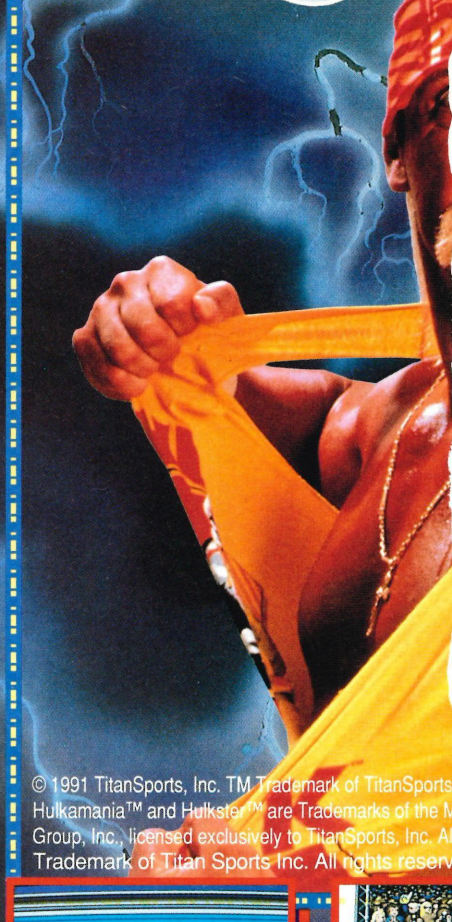


YOU ARE T-800

IN THE ACTION PACKED GAME-PLAY OF TERMINATOR 2, THE YEAR'S HIT MOVIE, AS IT EXPLODES ON TO YOUR COMPUTER SCREEN.
SPECTACULAR GRAPHICS AND FIERCE ANIMATION THROW YOU HEADLONG INTO THE FURIOUS STORYLINE OF THE BOX OFFICE SMASH....AND A GAME YOU WILL NEVER FORGET.

© 1991 CAROLCO INTERNATIONAL N.V.
ALL RIGHTS RESERVED
LJN® IS A REGISTERED TRADEMARK OF LJN LTD.
ALL RIGHTS RESERVED

WRESTL



© 1991 TitanSports, Inc. TM Trademark of TitanSports
Hulkamania™ and Hulkster™ are Trademarks of the M
Group, Inc., licensed exclusively to TitanSports, Inc. A
Trademark of Titan Sports Inc. All rights reserv

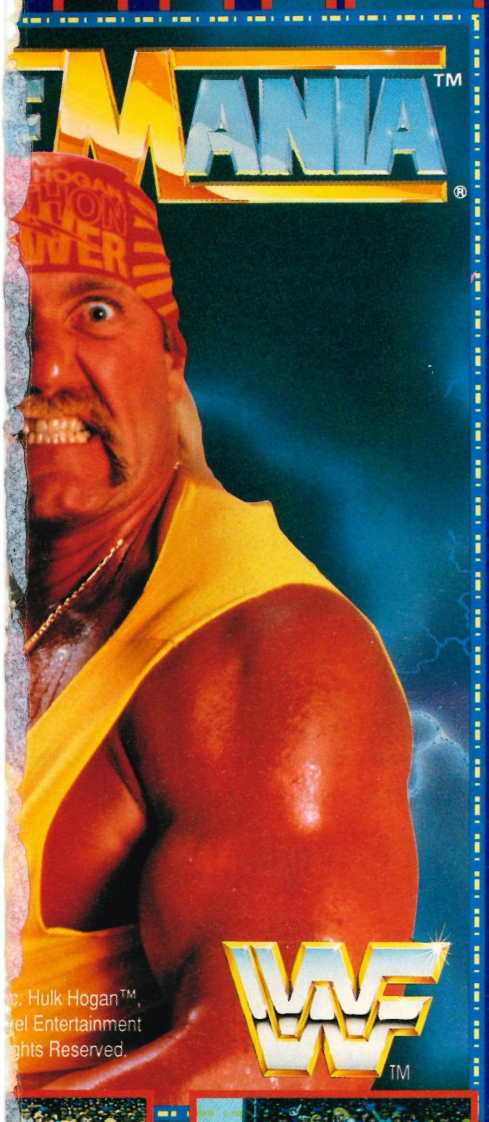


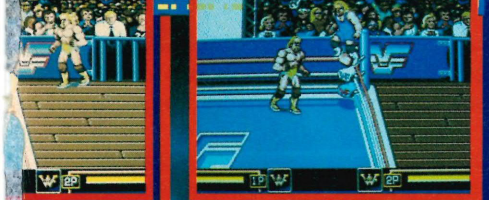


WATCHA GONN
LARGEST ARMS IN THE
RUN WILD



THE ACTION





DO WHEN THE
ORLD AND HULKAMANIA
N YOU!?











Hello fellow humans!
Bartholomew J. Simpson here, with a very important secret:
SPACE MUTANTS ARE INVADING SPRINGFIELD
That's right man! A buncha slimy, horrible, totally gross and putrid monsters are taking over the bodies of the people who live here and they wanna build a weapon that's gonna take over the entire planet!
Anyway, yours truly is the only one who can see 'em! I've gotta spray-paint things, get radical on my skateboard, use my trusty slingshot, and in general behave like a nuisance, man.
So if your decent person a patriot, and somebody who cares about this sorry planet, you'll do the right thing.

SPECTRUM • AMSTRAD • COMMODORE • ATARI ST •
AMIGA • IBM PC & COMPATIBLES

ACCLAIM™ AND MASTERS OF THE GAME™ ARE TRADEMARKS OF ACCLAIM ENTERTAINMENT INC.
THE SIMPSONS™ TM & © 1990 TWENTIETH CENTURY FOX FILM CORP. ALL RIGHTS RESERVED.

Contents



PC SHOPPING

This month, we welcome our new deputy editor, Laurence Scotford, as a full-time member of the PC Review team. Laurence was previously associate editor of our sister magazine The One, but has now seen the light and realised that the PC is where it's at these days.

Laurence's first day on PC Review was spent at PC World, the new out of town superstore just outside Croydon, Surrey. The PC supermarket idea is well-established in the US, and from the letters and inquiries we get from you each month, we know that many PC Review readers are thinking about buying a new PC, so read Laurence's report on page 26 to find out if PC buying can really be as easy as loading up the trolley and paying at the desk. We've also put together a set of general guidelines for buying a PC for entertainment – I hope this helps when it comes to making your buying decisions.



Midwinter II: Flames of Freedom – coming soon from Microprose

This is the time of year when software publishers are frantically trying to get all their big releases out in time for Christmas, and the PC Review office has been snowed under with late arrivals. With games such as Monkey Island 2, Powermonger and Cadaver on the shelves, no PC owner need be bored this Christmas.

If it's help you need, you'll find comprehensive tips on Savage Empire in QED this month, while we have a fascinating foretaste of games to come with Ultima Underworld, Flames of Freedom, Daemonsgate and GODS in the Coming Soon section – and you can try out GODS for yourself on this month's cover disk.

This excellent playable demo was written specifically for PC Review, but we also have a real treat for Lemmings aficionados, with four new Lemmings levels to keep you going through the festive season.

Finally, it only remains for me to wish all our readers a merry Christmas and happy New Year from the PC Review team. Happy Christmas!

Christina Erskine

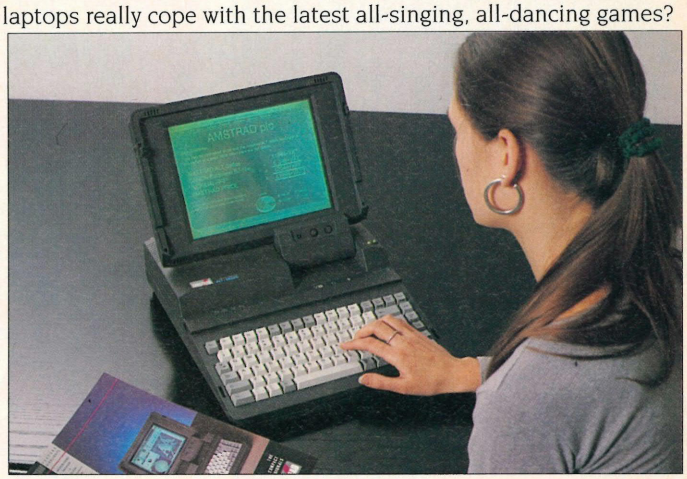
FEATURES

29 On the Spot

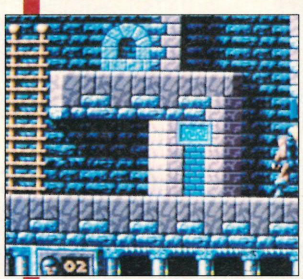
Christina Erskine reports back from our first readers' company visit – to Electronic Arts. EA laid on a grand reception, but were you impressed?

32 Laptops: part two

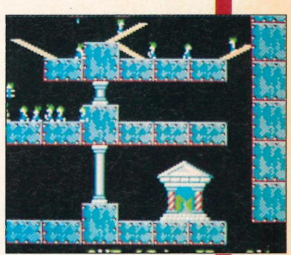
Kati Hamza concludes our investigation into gaming on the move. Can laptops really cope with the latest all-singing, all-dancing games?



COVER DISK



20 DISK 3



All you need to know to get your cover disk up and running. You'll find full instructions for the stupendous Lemmings data disk and Gods demos and how to view the preview screens in the new Gallery section.

BUYERS' GUIDE 99

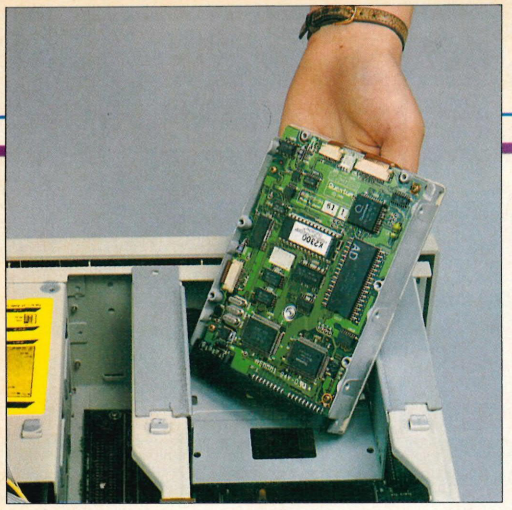
About to upgrade your PC or expand your software collection? Then check out our comprehensive guide to PC hardware, software and peripherals before you part with your hard earned cash

PC Review Issue Three January 1992
EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU Tel: 071-251 6222 Fax: 071-608 2978

EDITORIAL
Editor Christina Erskine
Art Editor Gareth Jones
Deputy Editor Laurence Scotford
Production Editor Paula Shields
Staff Writer Matt Regan
Trainee Designer Yvette Nichols

Contributors Tim Carrigan, Steve Cooke, Alan Dykes, Kati Hamza, Rik Haynes, Gordon Houghton, Heinrich Lenhardt, Chris Long, Paul Presley, Gufran Beg
Special thanks this issue to Paul Boughton
Cover photograph Ed Park
Additional photography Tony Naqvi
Illustration Geoff Fowler

ADVERTISING
Advertisement manager Kathryn Boucher
Advertising production Melanie Costin



35 Fitting a hard disk
Technical maestro Chris Long proves that you don't need a brain the size of a planet to add a hard disk to your PC, and the benefits are well worth the effort.

94 Software bonanza
We've got stunning new CD ROM and disk-based software from Sierra, Origin and Mindscape worth £2,000 to give away in our grand new year competition.

COVER STORY

22 BUYING A PC
Having a new PC on your desk may be fun, but buying one can often be a nightmare. Christina Erskine talks you through the potential pitfalls and helps turn PC shopping into a pleasure rather than a pain.

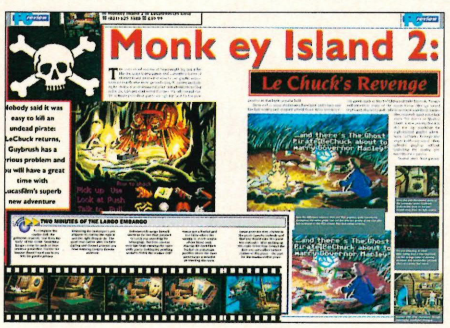


26 PC WORLD
The first American style PC supermarket has recently opened in Croydon. In our companion cover story Laurence Scotford grabs a trolley and finds out what the benefits are in buying PCs and peripherals straight from the shelf.

REGULARS

7 News
All that's new in the world of PC entertainment.

12 Coming soon
Under the microscope this month are Origin's Ultima Underworld, Midwinter's sequel, Flames of Freedom, Gods from Renegade, and Britain's answer to Ultima, Daemonsgate.



39 Reviews
Le Chuck's Revenge, Powermonger and Cadaver lead an impressive line-up. Check the index on page 39 for full details.



89 Tips
The Immortal gets the PC Review treatment this month, as does Origin's Savage Empire, complimented by some quick tips.

140 Letters
PC Review readers climb up on to their soapboxes once more to say what they think of us, PCs and life in general.

144 Q & A
Agony aunt Chris Long sorts out your PC blues.

146 Quit

SHAREWARE 121
PC Review is the only magazine dedicated to PC leisure in which you'll find such a comprehensive catalogue of Shareware bargains. You'll find a new selection of recommended titles and an exclusive order form in these pages.

ADMINISTRATION
Publisher Mike Frey
Marketing manager Marc Swallow
Marketing executives Sarah Ewing, Sarah Hillard
Managing director Terry Pratt

Page output and colour origination by Proprint, 750-758 Barking Road, London E13 and Track Origination, 15, Heston Industrial Mall, Church Road, Heston, TW5 0LD. Advertising typesetting by Xerox Ventura Publisher. Printed by Southernprint, Factory Road, Upton, Poole, Dorset. Distributed by BBC Frontline.

© EMAP Images 1991. No part of this magazine may be reproduced, stored in a retrieval system or transmitted in any form (either electronic or mechanical) without the express written consent of the publisher.

PC Review does its best to ensure that information carried in the magazine is accurate, but cannot be held responsible for any errors which may occur.

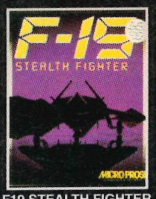
Special Reserve — Win £200 to spend with Special Reserve (see catalogue) — Special Reserve



FISH! **3.99**



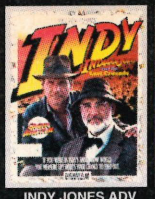
ELITE **4.99**



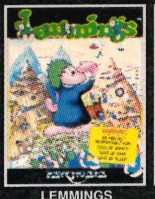
F19 STEALTH FIGHTER **14.99**



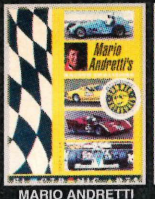
KICK OFF 2 **8.99**



INDY JONES ADV **9.99**



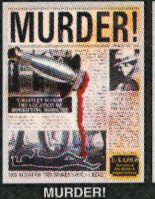
LEMMINGS **14.99**



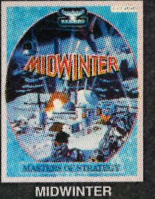
MARIO ANDRETTI **14.99**



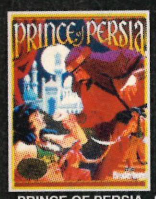
MEGATRAVELLER 1 **11.99**



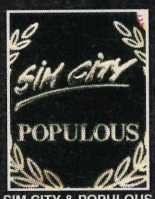
MURDER! **4.99**



MIDWINTER **9.99**



PRINCE OF PERSIA **9.99**



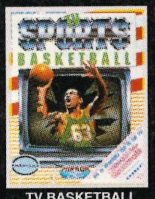
SIM CITY & POPULOUS **19.99**



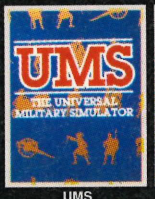
SCRABBLE DELUXE **7.99**



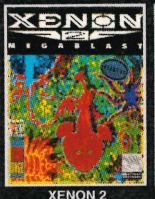
TEENAGE QUEEN **7.99**



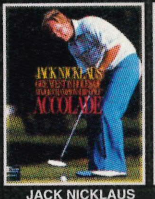
TV BASKETBALL **4.99**



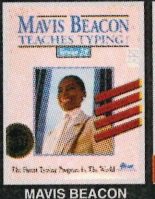
UMS **5.99**



XENON 2 **8.99**



JACK NICKLAUS **6.99**

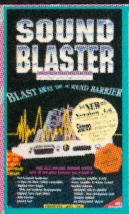


MAVIS BEACON **26.99**



MS-DOS 5 **59.99**

INC VAT



SOUND BLASTER IBM MUSIC/VOICE/MIDI
SOUND BOARD + SOFTWARE 114.99
SOUND BLASTER STARTER PACK (SOUND BLASTER, SOFTWARE, SUNCOM JOYSTICK, SPEAKERS) 144.99
SOUND BLASTER PRO SOUND BOARD WITH CD-ROM INTERFACE, MIDI INTERFACE, DIGITAL & ANALOGUE MIXER, AMPLIFIER, SOFTWARE 199.99
SOUNDBLASTER FOR PS/2 (MICRO CHANNEL VERSION) 199.99
STEREO SPEAKERS FOR SOUNDBLASTER (NEED POWERPACK OR BATTERIES) 17.99
MAINS ADAPTOR FOR SPEAKERS 12.99



CITIZEN 120D+
9 PIN, 80 COLUMN, 144 CPS/25NLQ, 24 MTH WARRANTY
FREE MEMBERSHIP
FREE PRINTER LEAD 134.99

CITIZEN SWIFT 9 COLOUR PRINTER
9 PIN, 80 COLUMN, 213 CPS, 24 MTH WARRANTY
FREE MEMBERSHIP
FREE PRINTER LEAD
FREE COLOUR KIT 199.99

CITIZEN 224 COLOUR PRINTER
24 PIN, 80 COLUMN, 192CPS/64LQ, 24 MTH WARRANTY
FREE MEMBERSHIP
FREE PRINTER LEAD
FREE COLOUR KIT 249.99

AUTO SHEET FEEDER FOR CITIZEN 224 ..... 79.99
PRINTER LEAD (PARALLEL) 9.99

DYNAMICS IBM GAMES CARD (9 PIN) TWIN JOYSTICK PORTS (SUITS ALL AMIGA JOYSTICKS) ...19.99
QUICKSHOT QS120 DELUXE GAMES CARD (15 PIN) 12.99



CHAMP JS 606 XT/AT ANALOG AUTOFIRE (15 PIN) 15.99



QUICKJOY M5 IBM JOYSTICK (15 PIN) 15.99



SQUIK SERIAL MOUSE + SOFTWARE FOR IBM PC 19.99 NAKSHA IBM



QUICKSHOT 113 IBM JOYSTICK (15 PIN) 11.99

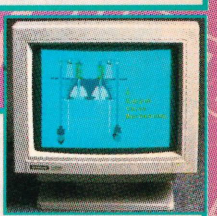
NAKSHA MOUSE WITH DELUXE PAINT 2 ..... 39.99
QUICKSHOT WARRIOR 5 IBM JOYSTICK (15 PIN) 13.99

CLEANING KIT FOR COMPUTERS (INCLUDES VACUUM)..... 19.99





Gameboy **69.99**
Tetris, Stereo Headphones, 2 Player Lead
FREE Special Reserve Membership
FREE Holsters, belt and cartridge holder.
or with all the above items plus Super Mario Land and
FREE Gamelight **89.99**
(Please stipulate all items on the coupon)





PHILIPS CDD 461 CD ROM
WITH AUDIO CD FUNCTIONS INDEPENDENT OF THE PC
FREE GUINNESS DISC OF RECORDS
FREE MEMBERSHIP 399.99

SAMSUNG 14"
COLOUR VGA MONITOR CJ-4685
FREE MEMBERSHIP
229.99

VGA GRAPHICS CARD FOR IBM PC 39.99



TECHNOPLUS PHILIPS CM50 CD ROM
WITH WORLD ATLAS, CHESSMASTER 2000, LIFE & DEATH, BRUCE LEE, BLACK HOLE, GIN KING, THESAURUS, DICTIONARY, SPELL CHECKER, 20TH CENTURY HISTORY, CONCISE WRITING
FREE GUINNESS DISC OF RECORDS
FREE MEMBERSHIP 399.99

CD-ROM Software
BRITANNICA FAMILY CHOICE COMPILATION OF 15 TITLES FROM EARLY LEARNING TO MILLIONAIRE 2 STOCK MARKET 59.99
GROLIERS ILLUSTRATED ENCYCLOPEDIA 249.99
GUINNESS DISC OF RECORDS 59.99
KINGS QUEST 5 (COMING SOON) 29.99
LEISURE SUIT LARRY 1 (DEDICATED CD VERSION) 29.99
LEISURE SUIT LARRY 5 (COMING SOON) 29.99
MICROPROSE PACK (MIDWINTER, GUNSHIP, 3D POOL, RICK DANGEROUS, SOCCER, SAVAGE) 54.99
SPACE QUEST 4 (COMING SOON) 29.99
ULTIMA SERIES 1-6 (COMING SOON) 54.99
WING COMMANDER AND ULTIMA 6 ..... 39.99
WING COMMANDER WITH MISSIONS 1 & 2 ..... 39.99
WORLD ATLAS VERSION 2 MULTIMEDIA 69.99

Over 70,000 have joined Special Reserve Games Club

Huge catalogue. Huge discounts.
Huge stocks. Huge membership.
Biggest Value, Best Service
No obligation to buy

Phone for Free 8-Page Colour Catalogue

0279 600204

Open to 8pm Weekdays and to 5pm Weekends

UK Membership £6.00
EEC £8.00 WORLD £10.00
We only supply members but you can order as you join.

NRG colour magazine — Bi-monthly to members.
It's red hot — Don't miss it!

INEVITABLY, SOME GAMES SHOWN MAY NOT YET BE RELEASED.
Inter-Mediates Ltd. Registered Office:
2 South Block, The Maltings, Sawbridgeworth, Herts CM21 9PG.

WE ONLY SUPPLY MEMBERS BUT YOU CAN ORDER AS YOU JOIN. THERE IS A SURCHARGE OF 50p PER GAME ON TELEPHONED ORDERS. (PLEASE PRINT IN BLOCK CAPITALS)

PC REVIEW 18

Name _____

Address _____

_____

_____ Postcode _____

Tel: _____ Machine & disk size _____

Enter membership number (if applicable) or Membership fee £6 UK, £8 EEC, £10 World

item _____

item _____

item _____

item _____

ALL PRICES INCLUDE UK POSTAGE & VAT £

Cheque/P.O./Access/Mastercard/Switch/Visa

Credit card expiry date_____ Switch Issue Number_____

Cheques payable to: **SPECIAL RESERVE**
P.O. BOX 847, HARLOW, CM21 9PH

Overseas Orders: EEC software orders - no extra charge
World software orders please add £1.00 per item.
Non-software items please add 10% EEC or 25% World.
Overseas orders must be paid by credit card.

IBM PC Software

M = Mono, C = CGA, E = EGA, V = VGA, H/D = HIGH DENSITY

	5.25"	3.5"
3D CONSTRUCTION KIT	32.99	32.99
4D SPORTS BOXING C/E/V	21.49	21.49
688 ATTACK SUB M/C/E/V	14.99	
ACTION MASTERS (F16 COMBAT PILOT, ITALY 1990, DOUBLE DRAGON 2, TURBO OUTRUN, WELLTRIS)	22.99	22.99
AD&D DUNGEON MASTER ASSISTANT VOL2 (SSI)	7.99	
AIR SEA SUPREMACY (GUNSHIP, SILENT SERVICE, P47, F15 STRIKE EAGLE, CARRIER COMMAND)	23.49	23.49
AMERICAN ICE HOCKEY C/E		5.99
BAAL E	14.99	
BARD'S TALE 1,2 & 3	26.49	26.49
BATTLE COMMAND	21.49	21.49
BATTLECHESS 2 C/E	20.99	20.99
BATTLES OF NAPOLEON C	13.99	
BILLY THE KID	17.99	
BLOODWYCH C/E	18.49	18.49
BLUES BROTHERS	16.99	16.99
BREACH 2 (ENHANCED)	18.49	18.49
CADAVER E/V	19.99	19.99
CAPTIVE E/V	21.49	21.49
CARRIER COMMAND M/C/E/V	8.99	8.99
CASTLES DATA DISK E/V	11.99	11.99
CASTLES E/V	19.99	19.99
CHESSMASTER 3000	23.99	23.99
CHUCK YEAGER AIR COMBAT E/V	19.99	19.99
CIVILIZATION	26.49	26.49
CONQUEST OF THE LONGBOW V 256 COL	26.99	26.99
CORPORATION	14.99	14.99
CORRUPTION (M/SCROLLS)	3.99	3.99
CRUISE FOR A CORPSE C/E/V	21.49	21.49
DEFENDER OF THE CROWN C/E	8.99	8.99
DEJA VU 2 C/E/V	6.99	
DELUXE PAINT 2 ENHANCED	65.99	65.99
DGCALC SPREADSHEET	29.99	29.99
DON'T GO ALONE	2.99	6.49
DRAKKHEN C/E	7.99	
ELITE	4.99	9.99
ELITE PLUS E/V	26.99	26.99
ELVIRA 2 H/D E/V	26.99	26.99
EPIC	21.49	
EYE OF THE BEHOLDER C/E/V	21.49	21.49
F117A NIGHTHAWK V	26.99	26.99
F14 TOMCAT	22.49	22.49
F15 STRIKE EAGLE 2		23.99
F16 FALCON E	17.99	17.99
F16 FALCON V 3.0 E/V	32.49	32.49
F19 STEALTH FIGHTER M/C/E/V	14.99	14.99
F29 RETALIATOR	23.99	23.99
FERRARI FORMULA 1 C/E		8.99
FIGHTER COMMAND	23.49	23.49
FISH! (M/SCROLLS)	3.99	3.99
FLIGHT SIMULATOR 4 M/C/E/V	35.99	35.99
FLOOR 13	23.49	23.49
FUN SCHOOL 2 (2-6, 6-8 or 8+)	14.99	14.99
FUN SCHOOL 3 (2-5, 5-7 or 7+)	17.99	17.99
FUN SCHOOL 4 (2-5, 5-7 or 7+)	17.99	17.99
GATEWAY TO THE SAVAGE FRONTIER	20.99	20.99
GHENGHIS KHANN	25.49	
GODS	19.99	19.99
GOLDEN AXE	21.49	21.49
GRAHAM GOOCH CRICKET	19.99	19.99
GUNSHIP 2000 E/V	26.99	26.99
HARPOON V1.21	26.49	26.49
HEART OF CHINA H/D V 256 COL		27.49
HELLCAT ACE	3.99	
HEROQUEST (GREMLIN)	19.99	19.99
HITCH HIKERS GUIDE	8.99	8.99
HOME ALONE	19.49	19.49
IAN BOTHAMS CRICKET	19.49	19.49
IMPERIUM	20.99	
INDIANA JONES 2 - FATE OF ATLANTIS 256 COL V	20.99	20.99
INDIANA JONES ADV	9.99	
JACK NICKLAUS GOLF C/E	6.99	6.99
JET + JAPAN DISK (SUBLOGIC)		5.99
JET FIGHTER 2 E/V	17.99	27.99
JET V2.1 C/E (SUBLOGIC)	4.99	
JINXTER (M/SCROLLS)	3.99	3.99
KICK OFF 2 E/V	8.99	8.99
KING OF CHICAGO C/E	8.99	8.99
KINGS QUEST 5 E/V 16 COL	27.49	27.49
KINGS QUEST 5 H/D V 256 COL	29.99	29.99
KNIGHT ORC (LEVEL 9)	3.99	
KNIGHTS OF THE SKY E/V	17.99	27.49
LEATHER GODDESSES	8.99	8.99
LEISURE SUIT LARRY 1, 2, 3 C	33.99	33.99
LEISURE SUIT LARRY 5 E	26.99	26.99
LEISURE SUIT LARRY 5 V 256 COL	29.49	29.49
LEMMINGS DISK - OH NO!	17.99	17.99
LEMMINGS E/V	14.99	14.99
LINKS (GOLF) (NORM) V		27.99
LINKS (GOLF) H/D V	27.99	
LORD OF THE RINGS 2	23.99	23.99
LORD OF THE RINGS C/E/V	23.99	23.99
LOTUS 1,2,3 VERSION 3.1+		399.99
LURKING HORROR	9.99	
MAGIC CANDLE 2 C/E	20.99	20.99
MAGNETIC SCROLLS VOL.1 (GUILD OF THIEVES, FISH, CORRUPTION) C/E/V	24.49	24.49
MARIO ANDRETTI'S RACING CHALLENGE	14.99	14.99
MARTIAN DREAMS H/D E/V	24.99	
MAVIS BEACON 2 TYPING TUTOR C/E/V	26.99	26.99
MEAN STREETS	19.99	
METAVELLER 1	11.99	11.99
METRAVELLER 2 E/V	23.99	23.99
MENACE E	12.99	
MIDWINTER	9.99	12.99
MIG 29 FULCRUM C/E/V	17.99	17.99
MIG 29 SUPER FULCRUM C/E/V	29.99	29.99
MIGHT AND MAGIC 3 E/V	27.99	27.99
MIKE DITKAS FOOTBALL H/D E/V	23.99	23.99
MS-DOS 5 UPGRADE	59.99	59.99
MURDER E	4.99	
MYSTICAL C/E	2.99	
NORTH AND SOUTH	6.99	
PAWN (M/SCROLLS)	9.99	9.99
PGA TOUR GOLF+COURSES E/V	23.49	23.49
PGA TOUR COURSE DISK	11.99	11.99
PITFIGHTER	20.99	20.99
POLICE QUEST 3 E	26.99	26.99
POLICE QUEST 3 V 256 COL	29.99	29.99
POOLS OF DARKNESS E/V	21.99	21.99
POPULOUS & SIM CITY C/E/V	19.99	19.99
POWERMONGER	19.99	19.99
PRESIDENT ELECT (SSI)	2.99	
PRINCE OF PERSIA	9.99	9.99
PROTEXT V5 W/PROCESSOR	94.99	94.99
QUEST FOR GLORY M/C/E/V	26.99	26.99
RACE DRIVIN	19.99	19.99
RAILROAD TYCOON	24.49	24.49
REACH FOR THE SKIES E/V	23.99	23.99
REALMS E/V	23.99	23.99
RED BARON E/V 16 COL	27.49	27.49
RED BARON H/D V 256 COL	27.49	27.49
RIDERS OF ROHAN E/V	19.99	19.99
RISE OF THE DRAGON E/V 16 COL	27.49	27.49
RISE OF THE DRAGON H/D V 256 COL	29.99	29.99
ROADWAR EUROPA (SSI)	4.99	
ROBIN HOOD E/V	20.99	20.99
ROCKET RANGER C/E	8.99	8.99
ROLLIN RONNY 256 COL V	23.49	23.49
SARAKON E/V	14.99	14.99
SAVAGE EMPIRE (NORM) E/V	24.49	24.49
SCRABBLE DE LUXE	7.99	7.99
SEARCH FOR THE TITANIC	20.99	20.99
SECRET OF MONKEY ISLAND	21.49	21.49
SECRET OF MONKEY ISLAND 2	20.99	20.99
SECRET OF THE SILVER BLADE	20.49	20.49
SECRET WEAPONS OF THE LUFTWAFFE	24.49	24.49
SHADOW SORCERER E/V	21.99	21.99
SHANGHAI 2	22.99	22.99
SHARD OF SPRING (SSI)	3.99	
SHUTTLE	32.99	32.99
SILENT SERVICE 2 C/E/V	27.49	27.49
SIM CITY & POPULOUS C/E/V	19.99	19.99
SIM CITY ANCIENT CITIES	11.99	11.99
SIM CITY FUTURE WORLDS	11.99	11.99
SIM CITY TERRAIN EDITOR C/E	11.99	11.99
SIM EARTH MC/E/V	27.49	27.49
SIMULATORS PACK (688 ATTACK SUB, INDY 500, STORMVICK)	26.49	26.49
SINBAD		8.99
SONS OF LIBERTY (SSI)	3.99	
SPACE QUEST 2 M/C/E/V	24.99	24.99
SPACE QUEST 4 E/V 16 COL	27.49	27.49
SPACE QUEST 4 V 256 COL	27.49	27.49
SPEEDBALL	8.99	8.99
SPEEDBALL 2	19.99	19.99
SPOT	17.49	17.49
STAR TREK (INTERPLAY) E/V	23.99	23.99
STRIKE COMMANDER E/V	26.99	26.99
STRIKE COMMANDER H/D E/V	26.99	26.99
SUPREMACY	24.49	24.49
TANGLED TALES C/E	9.99	
TEAM YANKEE 2 E/V	23.99	23.99
TEENAGE QUEEN (STRIP POKER) M/C/E	7.99	7.99
TERMINATOR E/V	23.99	23.99
TETRIS	16.99	16.99
THE SIEGE	19.99	19.99
THIRD COURIER	2.99	3.99
THREE STOOGES C/E	8.99	8.99
TURTLES 2	20.49	19.49
TV SPORTS FOOTBALL E/V	8.99	8.99
TV SPORTS BASKETBALL		4.99
TV SPORTS BOXING E/V	23.99	23.99
TV SPORTS ROLLERBABES	19.99	19.99
TWILIGHT 2000 E/V	23.99	23.99
U.F.O (SUBLOGIC) C/E	2.99	
ULTIMA 5	21.49	
ULTIMA 6 M/C/E/V	24.99	24.99
ULTIMA 7 E/V	24.99	24.99
UMS C/E	5.99	
UMS 2 (E/V)	24.49	24.49
UP PERISCOPE (SUBLOGIC)	3.99	
VIRTUAL REALITY VOL1 (MIDWINTER, STUNT CAR RACER, INT SOCCER CHALLENGE, CARRIER COMMAND, STARGLIDER 2)	24.99	24.99
WARLORDS C/E/V	20.99	
WATERLOO C/E	8.99	8.99
WILLY BEAMISH	23.99	23.99
WING COMMANDER 1 E/V	24.49	24.49
WING COMMANDER 1 H/D E/V	24.49	24.49
WING COMMANDER 2 E/V		26.99
WING COMMANDER 2 H/D E/V	26.99	26.99
WING CMNDR 2 SPEECH		11.99
WING CMNDR 2 H/D SPEECH	11.99	11.99
WOLFPACK C/E/V	23.49	
WONDERLAND C/E/V	24.49	24.49
WORDSTAR 6 W/PROCESSOR		299.99
XENON 2, MEBLAST C/E/V	8.99	8.99
ZAK MAKRAKEN	12.99	

0279 600204

News

POWER IN YOUR PALM

If you are one of those looking for a truly portable computer to use on the move, check out the new PC-3000 palmtop from Sharp Electronics UK. The IBM PC compatible machine is being marketed as a 'companion' to either a desk-top PC or a larger portable.

It measures just 8.8" x 4.4" x 1.0" and packs a 80C88A processor running at 10MHz, 1Mb RAM, 1Mb ROM, and weighs in at just under 1lb, all powered by three standard AA batteries with a life of up to 35 hours. The 6.8" x 2.6" mono LCD screen is capable of displaying 25 x 80 characters or a resolution of 640 x 200 pixels and supports CGA and DGA emulation.



The PC-3000 also has in-built Personal Information Management Software (PIMS), MS-DOS 3.3, Laplink, diagnostics and ROM libraries. The PIMS provides a menu-based operating system for running applications or managing files. Other in-built aspects include an address book for personal and business data, a monthly, weekly and daily planner with alarm, an editor of notes and reports, a Lotus 1-2-3 compatible spreadsheet, calculator and clock.

Additional memory is provided by two PCMCIA (Industry Standard) 1.0 IC memory card slots for external data storage. It also features standard serial (RS-232C) and parallel (Centronics) miniature ports as well as an expansion bus for an optional 3.5", 1.44Mb, floppy disk drive.

"It's a true IBM PC compatible in your pocket that doesn't compromise on screen presentation or keyboard layout," says laptop project manager Richard Bunting. "Moreover, it has more in-built memory and software than many laptops in the market. All these features, we believe, make the Sharp PC-3000 a portable companion to a desk-top, or even a large portable computer used in the office or home."

The PC-3000 should be available through most high street electrical dealers just in time for you to splash out on a lavish Christmas gift for someone or drop some subtle hints that you would like one. At the time of writing the price has not been finalised but expect to have to part with about £800 including VAT.



HELPING HAND

If you're thinking of grabbing a laptop PC and can wait until May 12, why not check out the latest mobile hardware and software on display at the first Portable Computer Show at the Olympia 2 Exhibition Hall in London. Call organiser Blenheim Online on (081) 868 4466 for further details.

KNOW ALL THE ANSWERS?

What's Neuro-Computing and how can you get into Virtual Reality? What's a Chladni Plate and how does a microphone work? What's an electron gun and how does it help a television work?

No, Domark hasn't released a technical add-on for Trivial Pursuit! These are just some of the questions whose answers are revealed at a series of forthcoming 'Years Ahead' Faraday Lectures sponsored by Philips Electronics and the Imperial College.

Michael Faraday was the 19th Century scientist who became known as the 'father' of electrical engineering. This one hour presentation will look at the development of some of today's hi-tech products such as computers, televisions, compact discs.

"The lecture will also provide a fascinating glimpse of the future by looking at how these technologies might develop in the 21st Century," assures a spokesperson. "The Brighton Faraday Lecture last month was presented by well-known TV personality Fred Harris and included stage demonstrations and film re-enactments of some of Faraday's key experiments."

The first event of 1992 is due to be held at Liverpool's Philharmonic Hall on January 22 and will tour the country until the final venue on March 18 at the City Hall in Sheffield. The Lecture will be seen by an audience of more than 85,000 school children, teachers and members of the public during its six month run across the UK.

For more information, contact: Faraday Officer, Institute of Electrical Engineers, Michael Faraday House, Six Hills Way, Stevenage, Herts SG1 2AY.

MAKING THE HEADLINES

Technology

7 Look Sharp with the latest in **PC handhelds**

7 Neuro-computing and the Faraday connection

7 Portable Computer Exhibition

8 Protect your **monitor** from screen burn

9 Philips wins **multimedia** award

10 CD-ROM in San Francisco

Games news

8 Utopia, from Gremlin promises a type of SimCity set in space

8 New programs in the **Wing Commander** series

9 Not as cute as he looks ... Imageworks' **Brat** has a mean streak

9 Lord of the Rings – the role playing series continues

9 Play our cover disk, then buy the game ... Oh No! More **Lemmings**

10 Microprose applies its flight sim expertise to the B-17 bomber

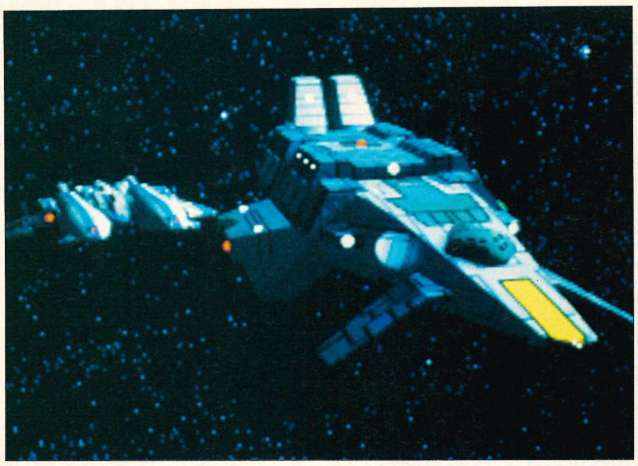
10 Team Yankee: the sequel

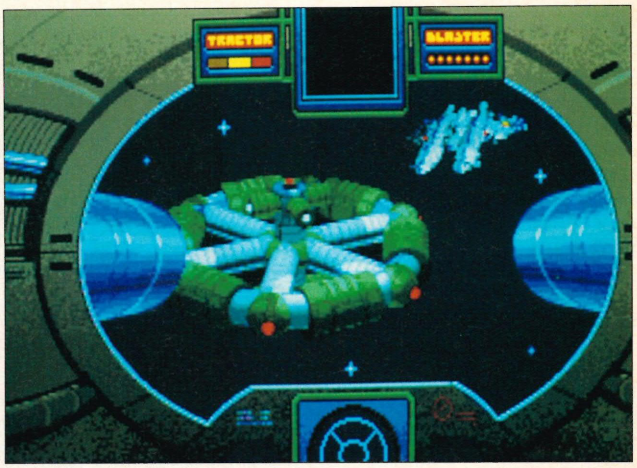
Compilations

8 Ideal for late **Christmas** ideas ... five games in the **Action Masters** pack .

10.. three classy **simulations** in Air, Land and Sea

WHO DARES WINS





How can Origin possibly top the success of Wing Commander 2, which has now sold more than 100,000 copies worldwide in less than 60 days?

According to the influential Texan publisher, the only way forward is to release an accessory disk called Special Operations. "Players will get much more in the sequel," guarantees lead writer Ellen Guon. "Besides additional missions, you'll fly a new fighter known as the 'Crossbow Bomber' and face new Kilrathi enemies."

Both Wing Commander titles are action flight simulators set in outer space. They're probably the nearest computer games have yet come to emulating films like Star Wars or Battlestar Galactica.

Situated in the hills surrounding Austin, Origin currently employs more than 100 programmers, artists, writers and musicians in the entertainment software equivalent of a Hollywood movie studio.

Special Operations costs £19.99 and requires the original Wing Commander II program to work. Other titles due for release next year include new Ultima programs Serpentile and Ultima 8, plus special operations disks for Strike Commander and later in the year, Panzer Commander.

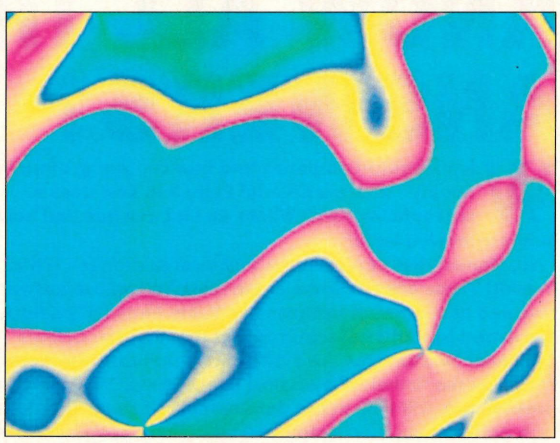
Space adventurers longing for Wing Commander 3, exclusively revealed in PC Review, must, it appears, remain patient for another year.

KEEPING A CLEAN SCREEN

Anybody who has left a game, paint program or word processing package running for hours on end, will soon realise images from this software eventually 'burn' themselves onto the monitor if left unattended.

Intermission 2.0 from Icom Simulations and Software Toolworks (0444) 831761, is a new screen saving utility program which will protect your monitor from unsightly leftovers by automatically displaying one of more than 55 animated sequences if your computer remains untouched for a specific period of time.

Some of these Screen Savers include the descriptively named Ant Farm, Fireworks, Bigfoot, Melting Screen, Conundrum, Snowflakes, Chaos, and, probably the all-time favourite in the PC Review office, Dancing Pig.



However, Marine Screen is perhaps the most popular animation. Here users can populate their ocean with over 20 different forms of fish, shells, coral etc.

With complete support for all Windows graphics modes, Intermission 2.0 includes many other useful tools like a password security system and the CPU activity monitor. The latter is essential if you are into the computerised equivalent of train-spotting. Nevertheless, people who become bored with the bundled Screen-Savers are free to use the MultiSaver to create their own personalised ones.

Icom Simulations is better known for pioneering work in multimedia entertainment. Employing a proprietary digitisation process, Sherlock Holmes Consulting Detective is a murder mystery game come short feature film with 50 speaking actors, 70 period costumes and 25 authentic sets.

"With our CD-ROM technology, the player can take on the role in a movie and interact with real people," claims creative director Ken Tarolla.

ONCE THE MASTER

Sporting a flight simulation, car racing game, strategy arcade release, soccer sim and beat 'em-up, Infogrames' Action Masters compilation package seems to cover all the bases. Here are the main points again ... F-16 Combat Pilot, Turbo Out Run, Welltris, Italy 1990 and Double Dragon II are available today for £35.

IT'S GOT TO BE PERFECT

For those players who yearn for a version of SimCity set in space, Utopia is probably the ultimate gaming fix.

By adding an isometric-3D 'Populous' view of your colony and interjecting a hint of wargaming antics, designers Graeme Ing and Robert Crack have seemingly hit upon a winning formula.

"I think Utopia has got a lot more to offer than either SimCity or Populous," reckons Ing. Already a success on the Amiga, this Gremlin strategy game is a mixture of software styles. Players take command of a new space colony with the aim of making the people happy and, eventually, saving them from horribly aggressive aliens.

Life is never simple, of course, especially when trying to create perfection. Building and operating too many tank construction yards will tie-up your work force and consume massive supplies of ore but a poorly defended colony cannot repel determined enemy strikes. What will you do if there's a severe food or energy shortage? And how will you overcome a devastating viral outbreak? Come up with the wrong strategies and you could even get assassinated by your own disgruntled colonists!

Utopia should cost around £30 when it's released on the PC early next year.

JOIN THE BRAT PACK

Brimming over in cuteness and surreal 3D scrolling landscapes, Brat is coming soon from the Mirrorsoft label, Imageworks.

Nothing is what it seems in this game, as you take control of a baby with an attitude.

Well, how many brats do you see wearing a nappy, black leather jacket, baseball cap and shades?



The idea is to join our hero as he travels through a horrible dream filled with perils and pitfalls. Giants chunks of cheese and speeding cars block the way, for example. Nobody wants baby to wake up abruptly and start crying, so the idea is to keep him walking peacefully on the treadmill for a good nights sleep. If he falls victim to any of the obstacles or manages to fall off the ledge, then it's time to grab his dummy and give some parental comfort.

Brat is a slightly off the wall mix of ready made puzzles and arcade action. Each landscape has its own peculiar problems which you must quickly learn to overcome. It was programmed by Foursfield, the developers responsible for Activision's Ghostbusters II a couple of years back.

A spokesperson for Imageworks confirmed the Maxwell company will be releasing the PC adaptation of Brat in March.



TOLKIEN MAKES A COME BACK

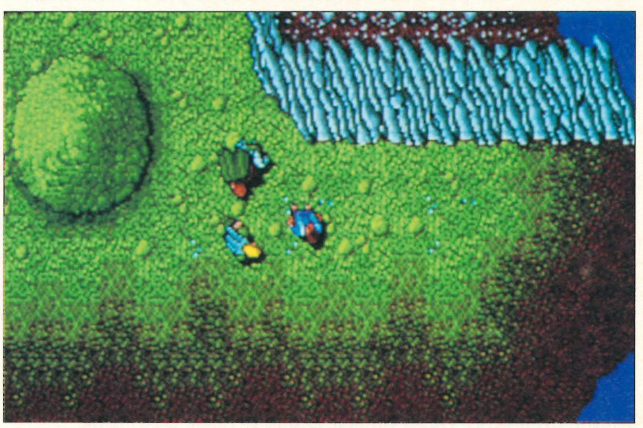
Helping to celebrate the centenary of JRR Tolkien's birth in South Africa, the fantasy novelist who brought us the lovable Hobbit, Electronic Arts has released the second Lord of the Rings role playing game from Interplay in the States.

In the Two Towers, you control a party of benevolent characters as they battle orcs, trolls, wargs, ghosts and oilphaunts! The story actually picks up where the first volume off. The wicked Lord Sauron persists in his quest to capture the one true ring of power. And now the evil wizard Saruman also has designs on the ring..

The program itself features 256-colour VGA graphics, a new easy to use point-and-click interface, full music score and digitised speech and sound effects for all popular sound boards, and a handy Auto-mapping facility to help keep track of your progress.

As a fantasy RPG, the emphasis of The Lord of the Rings is on plot. The characters wander Middle-Earth, exploring terrain, interacting with other folk, solving puzzles and mini-quests, and combating evil monsters.

Located in California's Santa Ana, Interplay is best known for the Bard's Tale series, Battle Chess and Castles. The company is also devising a game based around the Soviet and American space programme and the original Star Trek television series featuring the USS Enterprise starship, Klingons, Captain Kirk, Spock and the rest of the famous crew.



WILD BLUE YONDER

Avoiding any of the weighty gameplay baggage which normally comes with a journey into the heavens above, Thunderhawk has already attracted plenty of accolades on other formats.

This chopper combat game is due to appear from the PC hangar bay before Christmas, so, what can picky pilots expect from this release?

While fully supporting the major graphics and sound boards, Core Design has apparently managed to pack some of the fastest 3D graphics to appear on any computer smaller than a football pitch. All this speed and a scaled playing area of more than 8,000 miles.

Core Design, the Derby-based company responsible for Corporation and Rick Dangerous, is giving you the chance to fly an advanced attack helicopter prototype from the future. Joining the pilots of a crack assault team commissioned by the United Nations, your job is to defuse crisis situations around the world. This promises to bet a pure adrenalin-pumping shoot 'em-up.

PC Review hopes to have a full review of Thunderhawk next month.

SILVER SWING

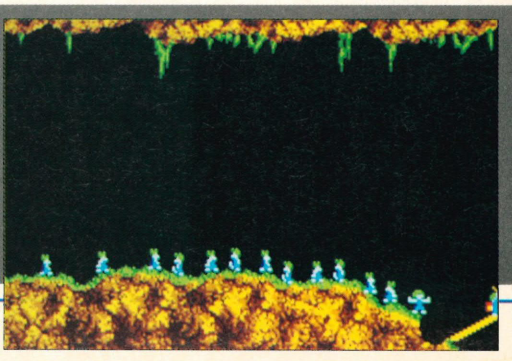
Great British Golf, a Philips' CD-I title, won a silver award in the consumer category of this year's British Interactive Multimedia Association Awards.

The game is part of a five disc package sold with the CD-I player and was developed in association with APS Multimedia and the British Golf Museum at St Andrews in Scotland.

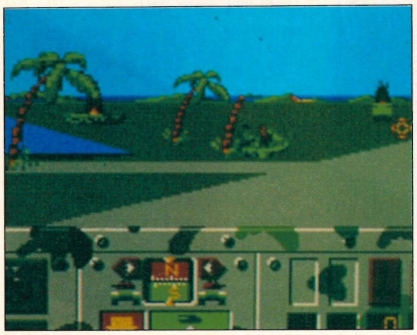
JUST CAN'T GET ENOUGH

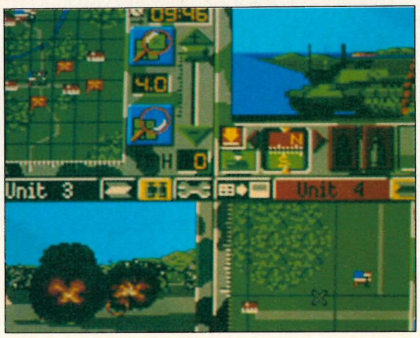
Oh No! More Lemmings is an apt title for the much talked-about sequel for that infuriating arcade puzzle game from Psygnosis. With over 100 new levels to conquer, it should keep fans blissfully happy for a good while. This accessory disk will cost £25.99 if you already own the original Lemmings, other players will have to pay a penny under £30 for the privilege. On the other hand, why wait?

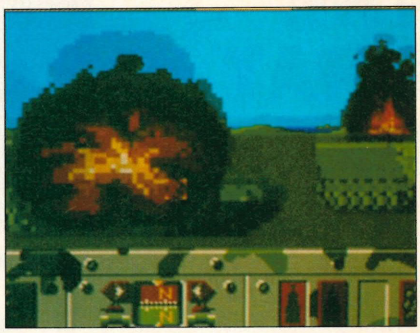
We've got four of those levels on this month's cover disk, to give you a foretaste of the cliff-tumbling mayhem to come.



TANKS FOR THE MEMORY







If you liked Empire's highly successful tank simulator from last year, you'll almost certainly love the follow-up when it becomes available in the New Year.

"Team Yankee 2 – The Pacific Islands is a significant advance on the original," says spokeswoman Marisa Pauwels. "It will yet again provide a standard for action 3D realtime tank simulations."

Anybody doubting her ability to comment on such matters, should note Ms Pauwels previously hosted the Belgium version of Play Your Cards Right!

Enhancing the unique bitmap graphics techniques seen in the original, Empire has also tweaked the gameplay. Tanks are now easier to control and there are more things under your command.

On the other hand, the game's scenario is looking a bit tame and outdated in these post- Cold War days. A series of small islands in the Pacific have been overrun by Russian forces. The fate of the world relies on your ability to win a few crucial air, sea and land battles to take back valued ground.

"With a total of 45 tank battles needed to ensure complete victory," Pauwels speculates, "Team Yankee 2 will excite the novice and be a great challenge for experts."

LET'S GO ON WITH THE SHOW

Are you free from March 10-12 next year? If you fancy a trip to San Francisco and a glimpse into the future of multimedia, perhaps you should book yourself into the 1992 International Conference and Exposition on Multimedia and CD-ROM.

"Innovative worlds of information and communication are continually opening up and this event has become the site for the introduction of these new media and applications," says spokesman Jon Leibowitz. "Reflecting the growth of the industry, returning companies to the exposition have increased their booth size by more than 71% on average.'

All the major players in this fledgling but outspoken industry will be here, including speakers and the latest wares from IBM, Tandy, Philips, Sony, Intel, NEC, Fujitsu, Toshiba, Hitachi and Eastman Kodak. Bill Gates himself, chairman and CEO of Microsoft, will open the conference. Microsoft is the sponsor of this event.

If you want to find out more, give Cahners Exposition Group a call on (0101) 203 9640000 and try your luck with a discount!

HEAVY DUTY DANGER

What was it really like to fly an American B-17 heavy bomber on dangerous daytime raids over occupied France and Nazi Germany during the Second World War? Microprose, makers of the much-respected F-15 Strike Eagle II, is busy preparing such a simulation for your playing pleasure.

"I'm not allowed to say too much at this early stage," confirms project leader Tim Roberts. "It's just going to be brilliant with some of the best 3D graphics you're ever likely to see."

Nicknamed the Flying Fortress because of its ability to absorb unbelievable amounts of damage and deliver huge payloads of bombs, this big lumbering beast from Boeing could reach speeds of 299 miles per hour and had a range of roughly 2,000 miles.

In the game, you control all ten crew members of a B-17 through 25 hazardous combat missions. Each person 'intelligently' carries on with their own particular tasks, but it's up to you to command and manage what they're doing. By hand-picking the crew, you have to make sure the pilot, co-pilot, bomber, navigator, radio operator and gunners are good at the jobs you're assigning them to do. Their skills will hopefully develop during the game if the right choices are made.

Set during the crucial months of 1943, your B-17 will face the overwhelming ingenuity and desperation of the Luftwaffe. Not only will you contend with swarms of Messerschmitt Bf 109 and Focke-Wulf FW 190 fighters, but also the occasional Messerschmitt Me 262 jet aircraft which could dive at speeds in excess of 600 miles per hour in real life. These planes carried many revolutionary and far-sighted weapons including R4M air-to-air rockets and rocket-fired mortars. Apart from ordinary flak, your plane must additionally dodge 25-foot long Wasserfall anti-aircraft missiles.

Software developers Vektor Grafix, fresh off the colossal Space Shuttle project for Virgin Games, is due to finish B17 Flying Fortress in time for the summer.

CAMERA, LIGHTS, ACTION

Life as a television news cameraman is never easy or safe ... especially 216 years in the future. You've been assigned to capture some gripping footage from the boiling depths of Jupiter's red eye to prevent the couch potatoes from switching channels.

Eye of the Storm from Empire should be here in the New Year and is already promising to be something radically different from the typical computer game. It's space exploration with plenty of twists.

A great deal of attention has gone into the graphical presentation of the product – author Jason Kingsley provided some computer graphics for the original Adamski music video for Killer.

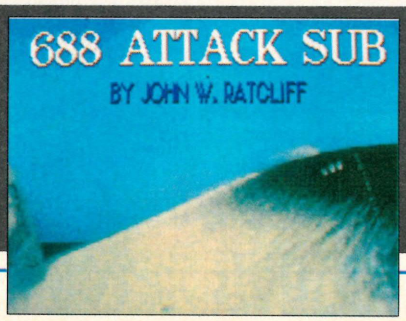
For Eye of the Storm, he has chosen to use solid 3D graphics with fancy light source illumination, depth cuing and smooth Gouraud shading.

"Gouraud shading increases the realism of a scene using a linear interpellation technique which averages colours upon the faces of a shape," recounts somebody in the know. "This blurs the boundaries between polygons and gives the shape a smoother appearance."

No wonder an Oxford Professor of Mathematics provided some assistance with the 3D routines and a doctorate student helped provided some of the key Artificial Intelligence in the game.

OVER HERE, GRANNY!

Looking for the perfect Christmas gift for your grandchild? Electronic Arts has broken away from tradition this year by releasing a value-for-money compilation package featuring the classic Indianapolis 500, 688 Attack Sub and Stormovik simulation games. Air, Land and Sea costs £39.99 and is available now.



Ultima® VII

THE BLACK GATE™

THE GREATEST ROLE-PLAYING ADVENTURE SAGA OF ALL TAKES ON AN UNBELIEVABLE NEW DIMENSION!

Ultima VII makes another giant technological leap forward. Harnessing the full extra power of the latest generation PC's, the Ultima world literally takes on an extra dimension, with a completely new full screen VGA graphic environment which brings fantastically realistic close-up views of the game-play as it develops.
Instead of watching this amazing interactive story unfold through a small window, now you are *in* Britannia! Absorbing the atmosphere. *Feeling* the pressure. Actually *hearing* the characters speak. Controlling your every move and those of your companions, in a unique, mouse-driven environment.



System Requirements:
IBM-PC or 100% compatible 386SX, 386 or 486
Hard Disk, High Density 5.25" or 3.5" disk drive
2MB Memory
VGA/MCGA colour monitor
Keyboard and/or mouse
AdLib, Roland MT-32/LAPC-1, CMS Soundblaster Sound Card*
*Required for speech.

ORIGIN™
We create worlds™

For more information, or the name of your local dealer, contact: Mindscape International Ltd.,
The Coach House, Hooklands Estate, Scaynes Hill,
W Sussex RH17 7NG. Tel: 0444 831 761

Distributed by
MINDSCAPE INTERNATIONAL



Ultima Und

When Ultima VI was in development, the programmers originally intended to combine the 3D, first person perspective view in the dungeons, with a top-down graphic viewpoint for exterior scenes. While this idea was eventually abandoned in favour of the top-down viewpoint throughout in both Ultima VI and VII, developer Paul Neurath (who designed Space Rogue) was called in to mastermind a fully-fledged standalone Ultima dungeons game. The result is Ultima Underworld: The Stygian Abyss.

Ultima Underworld is a complementary program to the Ultima canon. It's still set in Origin's mediaeval-flavoured land, Britannia, but deep in its catacombs. The object throughout the development of the game has been to create a realistic look and feel to the underground passages and caverns. Rather than you controlling an on-screen character, or looking down from above, the screen shows the dungeons as they would appear to you as you run, walk or crawl through them.

Origin has said that Underworld is 'no simple open the door and kill the monster dungeon' crawl, but "nothing less than the first Virtual Reality game". Let's say instead that the effect is more that of a substantial leap forward from Incentive's Freescape idea.

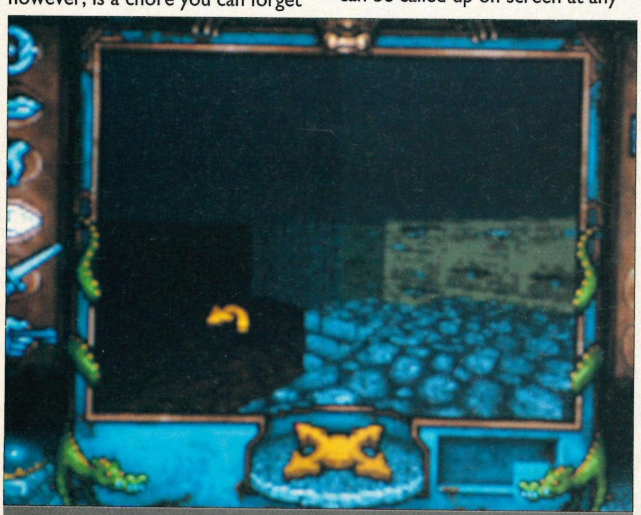
Your ultimate quest is to find the abducted daughter of Baron Almric deep within the Stygian Abyss and defeat the powers who have taken control the abyss for their own evil ends. (Some of the plotline ties in quite closely with Britannian events in Ultima VII – nobody could ever accuse Origin of keeping things simple). To find her, you must explore the eight dungeon levels and defeat or thwart the 50 or 60 monsters you'll find lurking in the dark corridors.These fall into 16 distinct types, each with their own characteristics and fighting ability.

Drawing up your own map, however, is a chore you can forget about, since Underworld will automatically map your progress and the map, showing where you have travelled so far on this level, can be called up on screen at any time. Also, you can annotate the map – perhaps marking where a particularly unpleasant lizard can be found, or to remind yourself where you need

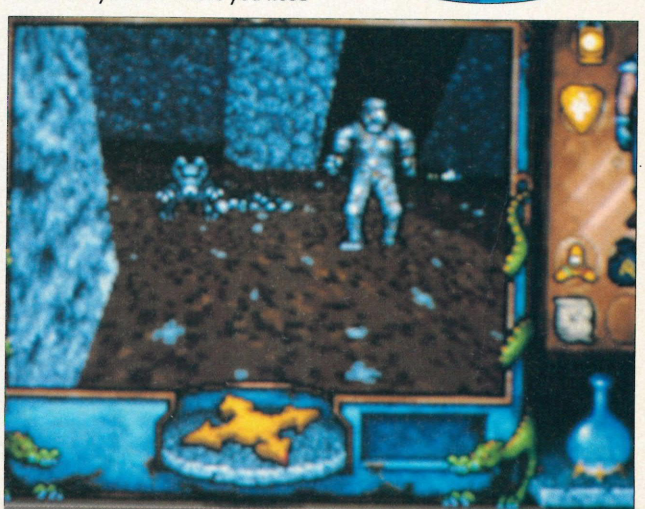
Examples of magic

Iron Flesh – will render your skin impervious to sword and knife attacks.
Sheet Lightning – useful for electrocuting marauding lurkers (a type of monster).
Fly – for bridging those yawning chasms in the dungeon.
Fireball – to roast the bastards (visually spectacular, this one – see picture).
Tremor – create a rockfall in the dungeon

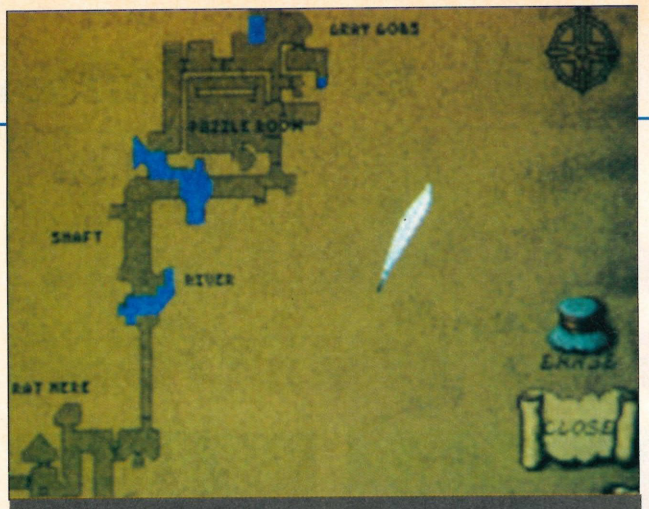




Careful with the controls here – you don't want to tumble over the edge.



Looks like a fight brewing. It's a good thing you've acquired some armour.



Underworld's automatic mapping will plot your movement so far on the level, and also show only water or lava flaws you have encountered. Use the quill pen to make your own notes.

PC review On a Screen Near YOU

Title: Ultima Underworld
Publisher: Origin Systems
Release date: March
Price: £TBA

erworlds

to be careful with the mouse control to pull yourself up short before tumbling into a lava river. Mouse control is your best bet in Underworld, although it will take a joystick or keyboard input as well. The left button controls movement and the right button actions.

Aside from exploration, combat and the use of spells are also important. Weaponry includes swords, maces, slings and arrows and picking the appropriate weapon for each monster will go a long way towards ensuring success. Again, Origin aims to make the control system in combat sequences as intuitive as possible: select a weapon by dragging it out of your inventory screen and it will then appear in your hand. Select how to hit your target with a single mouse click on the part of its body you wish to inflict and the program does the rest for you.

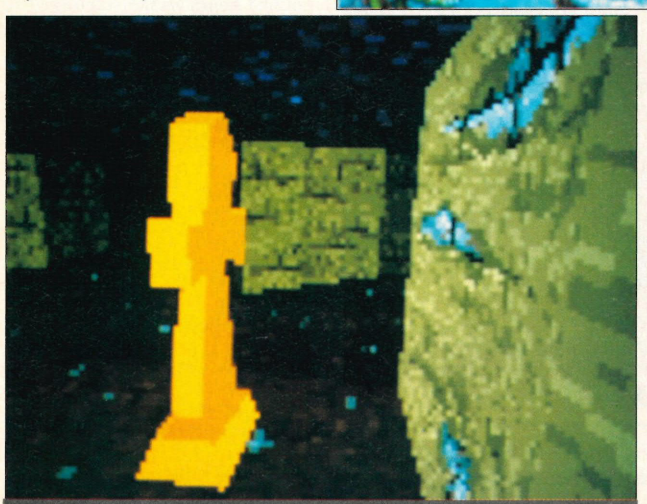
Spells are cast by pronouncing the spell name in the runic language by typing it in the dialogue strip at the foot of the screen. In the finished game, there will be over 40 to be mastered and cast.

Underworld looks smooth and fast-moving, and the claustrophobic atmosphere of the underground passages is evoked well. The mouse control, while simple and requiring only single-clicking for the most part, will take some getting used to if you're to become proficient at rounding tight corners at speed.

The game's producer, Warren Spector, who was also responsible for Bad Blood and Martian Dreams, believes that Underworld will appeal to the same people who liked Dungeon Master and Eye of the Beholder, and claims a significant advance in visuals, ease of use and tactics on both. "Basically, we reckon these two will be yesterday's news once this comes out."

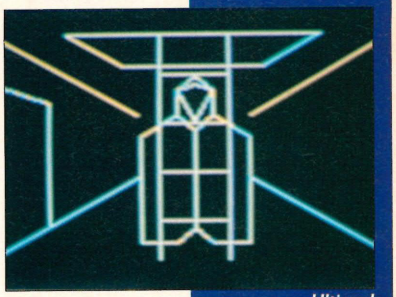
Underworld is also good news for anyone with a 286-based PC who feels rather left out in the cold by forthcoming Origin titles such as Strike Commander and Ultima VII, which need a 80386-based machine to run. Underworld will run on a 286, but needs 2Mb memory and will take up a good 10Mb of your hard disk – which is still pretty compact by Origin's standards.



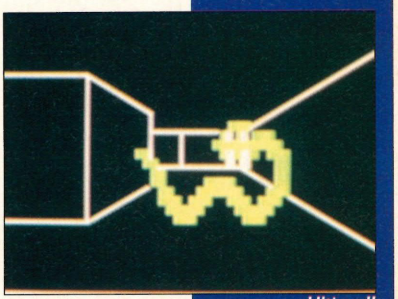


Underworld contains solid 3D objects you can walk right round.

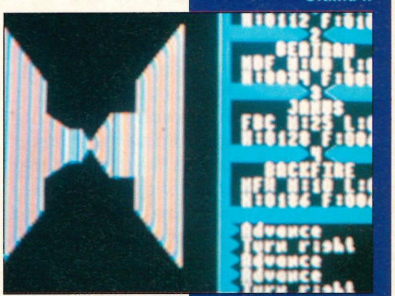
3D Dungeon Development



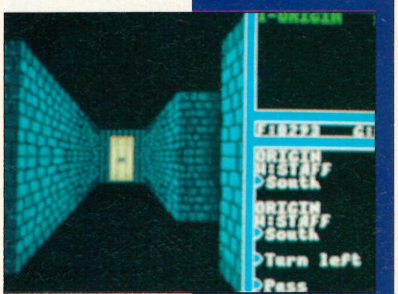
Ultima I



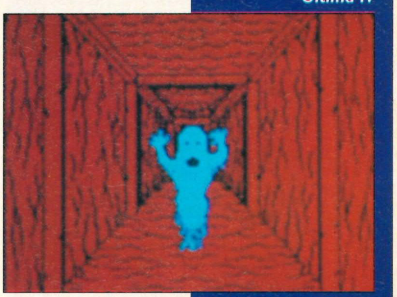
Ultima II



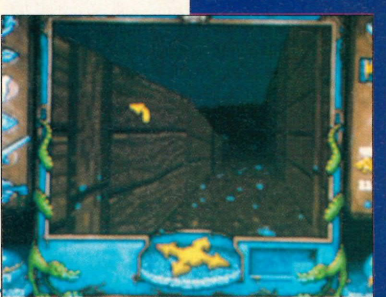
Ultima III



Ultima IV



Ultima V



Ultima Underworld

Right: how the Ultima dungeons have progressed in the ten years since Richard Garriott wrote Ultima I.

From the top: Ultimas I, II, III, IV, V, which all used the 3D, first person perspective, and finally, bottom right, Ultima Underworld. Note how the wire frames of I and II have gradually become more solid and richly textured.

Midwinter II: Flames of Freedom

The original Midwinter was acclaimed for its graphics and for impeccable attention to detail when it came to characterisation and developing the psychological atmosphere of the game.

Midwinter II: Flames of Freedom takes the whole process several stages further. Impressive statistics are being bandied about at programming HQ Maelstrom and publisher Microprose: 42 different islands, over 1,000 characters, 22 modes of transport, eight physiognomical features which can be modelled to create your alter ego, and eight character traits to be tweaked until you feel your player has just the right qualities to take on the might of the Saharan Empire.

For sheer scale, Midwinter II is impressive. You'll need to use these vehicles to travel about the place, you'll need to meet and interact with the other characters, all of whom, have their own personalities. Thumbnail profiles of computer-generated characters can frequently appear gauche, but in Midwinter II, matching your actions to the people you're dealing with is frequently crucial.

The plot goes like this: after the Ice Age of the original, a thaw has set in, the sea levels have risen and Midwinter island is now below the waves. Its inhabitants are living on Agora, the westerly archipelago under threat from the Saharans,who are enslaving the inhabitants of the islands in the chain nearest the African coast. Your job is to complete a series of missions to liberate the islanders and bring peace to this corner of the world – well, until Midwinter III, anyway.



The map of the archipelago shows the network of islands sitting between the Saharan Empire and Agora. The lines between each show the sea routes from one to another, which the Saharans will use to island-hop to Agora – in this picture you can see them moving in from the south. You need to thwart them before they reach you by liberating each intervening island in turn.

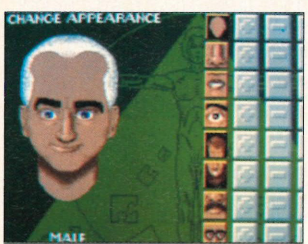
With most of the graphics in 256-colour VGA, Midwinter II is destined for more powerful systems. You'll need at least a 286, 640K RAM and the game must be installed on to hard disk to run. Start saving now.

The first task is to design your character with the right physical and mental characteristics for the job in hand. Then a spot of training wouldn't come amiss – here you can try out the various vehicles and so on without coming to an early end. In the war-room section of the game, you'll hear your mission objectives, be assigned a suitable mode of transport, collect your mission equipment, and for each island you'll be given the name of a friendly contact. After that, it's up to you to take to the sky or seas and start liberating.

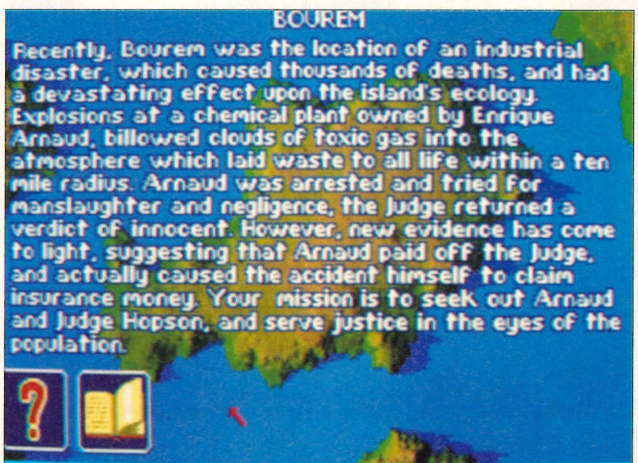
Early versions of the game look extremely impressive, with smooth detailed graphics and animation. It also retains the same forbidding atmosphere of the original, even without that claustrophobic ski goggle viewpoint. The only reservation at this stage is that Flames of Freedom looks destined to be a vast, sprawling game. The finished Amiga version has been criticised for unwieldiness and PC games in general aren't renowned for their compactness.



Cockpit eye view: the plane will take you smoothly over the rolling 3D-effect landscape. If you take to the high seas, the screen graphics will pitch and roll alarmingly enough to have you reaching for the Kwells.



The original Midwinter was renowned for its depth of characterisation, and Flames of Freedom offers you a wealth of physical and psychological attributes to endow your character with, and the latter will have some bearing on your relative abilities during the game. The process of clicking on the plus and minus squares to alter your persona's features a touch here, a bit more there, is an absorbing pastime in itself.



The game is made up a series of individual missions which must be completed successfully for the islands to be liberated. Here on Bourem, you'd better find out where Arnaud is hanging out and find him quickly.



Some guards are potentially corruptible and you can win your freedom through bribery. There are 32 in all, both male and female, and they will react to you differently. At this stage in Midwinter II's development, this corruption extends to the possibilities for seduction, whatever their sex or yours. If you bumped up your character's sex appeal (and who doesn't?) back at the psychological profile screen, you'll have a better chance of success.



Transport available to you includes helicopters, planes, jeeps, speedboats, hovercrafts and even a hot air balloon, to name jus two out of the 22 various vehicles. Your missions become easier if you select appropriate transport to get from place to place.

PC review On a Screen Near YOU

Title: Flames of Freedom
Publisher: Microprose
Release date: February
Price: £39.99

SURVIVAL IN THE AFTERMATH OF WORLD WAR III

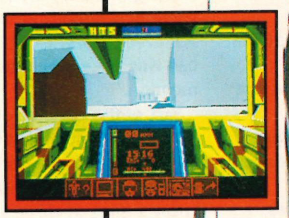
TWILIGHT 2000

The Year is 2000 . . .

The war has raged for nearly a decade. Poland was devastated by the brutal, merciless tactics of Warsaw Pact and NATO forces.

Baron Czarny, a ruthless madman, has engaged his army, THE BLACK LEGION, and seized power in Poland's darkest hour. The survivors of the nuclear holocaust prayed the war was over. Instead, it has just begun.

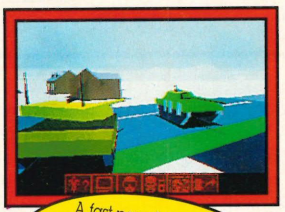
Twilight 2000 is a dark, but realistic vision of the aftermath of World War III.



AWESOME 3-D

■ Full 3-D vehicle simulations let you take the driver's seat of powerful tanks and two-and-a-half ton trucks.

■ Eight different vehicles to acquire, ranging from an American made HMMWV to a Soviet-built T-72 tank.



A fast-paced, intriguing scenario by Hall-of-Fame game designer Marc Miller keeps you in a constant state of suspense.

COMBAT



■ Fast-playing, easy to resolve combat system gives the feel of modern battles. Your characters battle based on their personal combat skills and the weapons they are using.

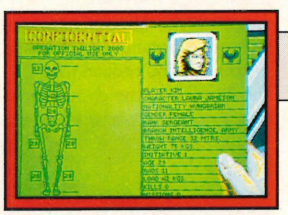
■ Three types of combat: descriptive round-by-round battles, user interactive round-by-round fights, and quick combat.

TANK BATTLES

■ Realistic and action-packed tank battles with two modes of combat: manual mode and director mode.



■ View the action from several exciting camera angles — driver, turret, enemy view and outside.



HIGH-TECH HARDWARE

■ Weapons, supplies, vehicles, munitions, grenades, infra-red goggles

CREATE YOUR CHARACTERS

■ First ever, icon-driven graphic character generation system.

■ Generate characters from nine different countries.

■ Select from 34 languages for your characters to speak.

■ Create up to five different platoons that allow up to 20 characters each.

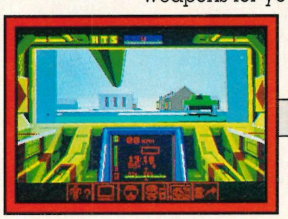
■ Pick from male or female characters.

■ Characters have six basic attributes and up to 58 individual skills.

■ Print characters for use in the actual Twilight 2000 role-playing system.

EQUIP YOUR PLATOON

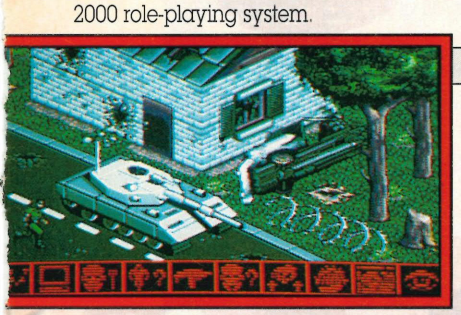
■ Select from more than 40 different types of weapons for your characters. Arm them with weapons such as the Uzi submachinegun and the LAW 80 rocket launcher.



ENCOUNTERS

■ Meet dozens of characters who may join your cause if you assist them.

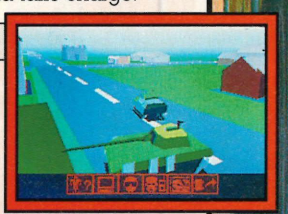
■ Easy to use communication controls make it simple to speak to characters in the game.



COMMAND YOUR SQUAD

■ Paragon's revolutionary PAL role-playing system allows characters to automatically volunteer for tasks that they are best suited for. Watch your characters come to life when they speak up and take charge.

EXPLORE POLAND



■ A unique 3/4 view perspective when on foot, both indoors and out.

■ Overhead sequences are precisely scaled.

■ Move your squad with a simple to use icon driven interface.

■ Working infra-red equipment lets your characters see details in the dead of night.

■ Watch the seasons change. Sense the scorching heat of summer and the bitter chill of winter.

CINEMATIC QUALITY

■ A state-of-the-art, fully digitized introduction shows the history of World War III.

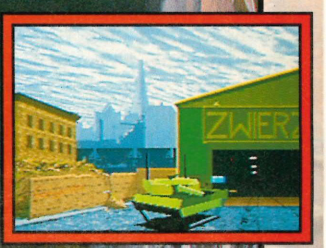
■ Professionally composed musical score, with over eight different mood-setting themes.

BEYOND THE SHADOWGATE

SIMULATION

AVAILABLE: AMIGA, ATARI ST, IBM PC & COMPATIBLES

EMPIRE SOFTWARE, 4 THE STANNETTS, LAINDON NORTH TRADE CENTRE, BASILDON, ESSEX SS15 6DJ. TEL: 0268 541212



SCREENSHOTS TAKEN FROM IBM PC VERSION

Gods

PC review On a Screen Near YOU

Title: **Gods**
Publisher: **Renegade/Mindscape**
Release date: **January**
Price: **£34.99**

So, what do you think of the cover disk preview this month? A little different from the typical action game, right? Don't be alarmed. Gods is the first of many such attempts by developers to broaden the range of entertainment product released on your machine.

It seems the Bitmap Brothers, creators of Gods, believe straight conventions of a graphic adventure or flight simulation are no longer enough to satisfy the playing tastes of every gamer out there.

"We've tried to take all the best elements of a platform game and add some different ideas to it by adding some depth and purpose to what you're doing," says Bitmap Eric Matthews. "Our ultimate aim was to get a fast arcade-style game running smoothly on a PC, something nobody else had achieved before. Gods isn't full of bad video like other games I could mention."

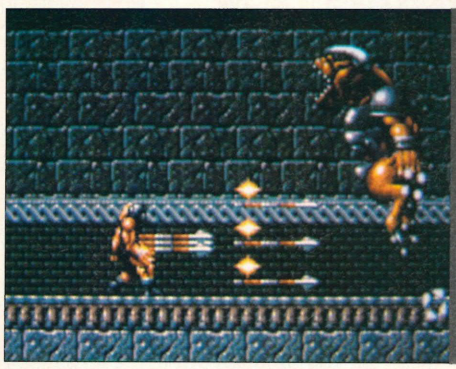
Part of the adventurous Rhythm King music empire and therefore based in the trendy London Docklands area, the Bitmap Bros know a thing or three about devising successful software. The brains behind Xenon and Speedball are even exporting their wares to Japan, home of the video game!

Heavily influenced by the teenage fad of Nintendo and Sega console fayre such as Super Mario Brothers and Sonic the Hedgehog, Gods is filled with levers to push, platforms to jump on to and nasty things to kill. These monsters have a mind of their own and actually adapt their tactics depending on the skill of individual players. You're never quite sure what they're going to do next. Players are constantly rewarded for doing well though not penalised for being an average explorer like most of us.

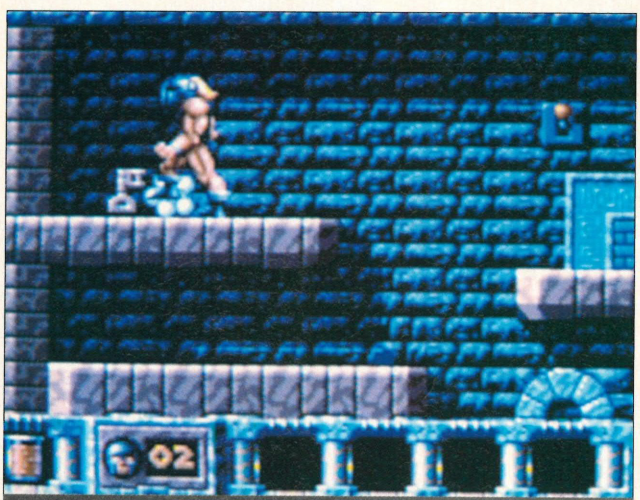
"Monitoring a person's performance and acting accordingly hasn't really been properly done before," reckons Matthews. "The better you get at the game the more things you'll see. Alternatively, if you're not doing well the program will automatically detect this and reduce the 'intelligence' of the opposition or provide some useful items like an extra life pick up."

There's also a constant stream of good and bad surprises such as spikes popping out of the ground, stone gargoyles suddenly coming to life or pieces of treasures materialising out of thin air. One thing is for sure, you can't afford to take a break in this adventure.

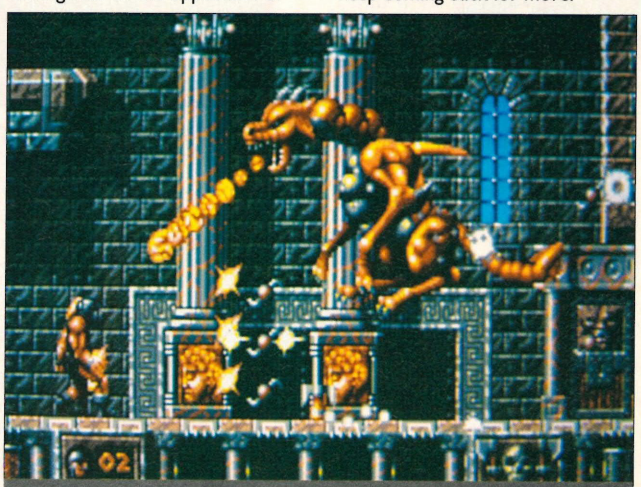
It's quite a big game, too. If you know the short cuts it will still take you almost two hours to complete. Even the seasoned veteran will discover hidden features scattered throughout the game and hopefully keep coming back for more.



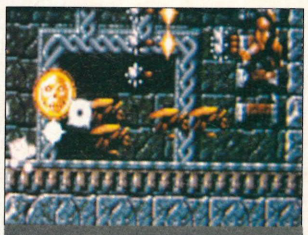
Amazingly, you're only seeing 16 colours here! Thus, there's no noticeable loss of speed even when running Gods on a slow 286 machine. For the first time in a PC game, the screen scrolls smoothly in all directions.



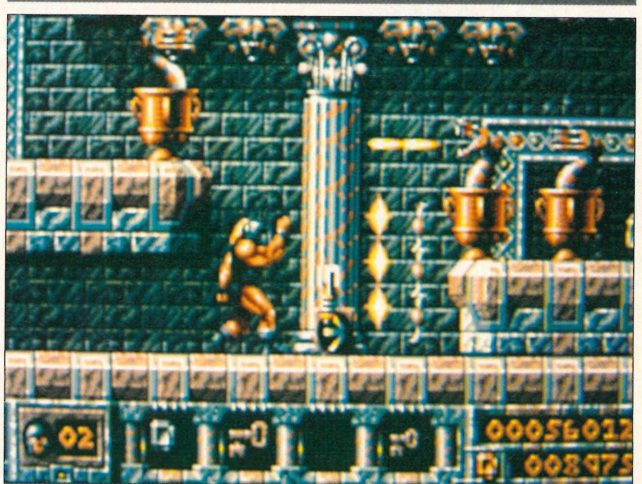
Remember the giant bronze warrior from the old Jason and the Argonauts movie? The graphic designer of Gods obviously did.



Here's another trademark of a Bitmap Brothers game, the ubiquitous shop where you can buy better weapons and useful power-up potions.



On each level you've got a quest. For instance, in the first world all you have to basically do is find a key to get out. As you progress through the game, these puzzles naturally become more complex.

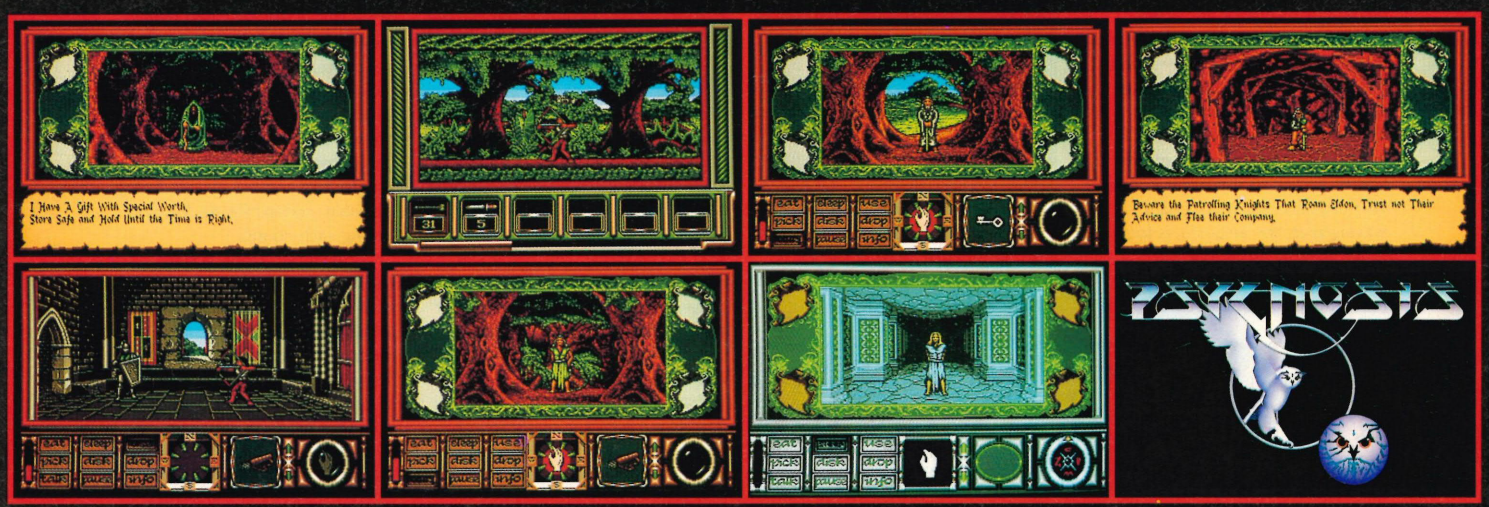


It's not always a good idea to shoot your foes on sight. Thieves for instance can grab objects which you cannot normally reach.

LOOKS AREN'T EVERYTHING

Audio specialist Richard Joseph has managed to squeeze some fantastic sound effects out of the AdLib card. Music changes mood depending on where you are in the game. Additionally, there's a playable dance track co-composed by John Foxx which sounds brilliant on a Roland board. Fans of early Ultravox will probably remember Foxx's unusual synthesiser pop before Midge Ure joined the band.





New on the ST & PC

From Psygnosis, Impelling RPG with more than a dash of hack-n-slash.

You're in the depths of your own worst nightmare . . . but this time there's no waking up.

Lost and alone in a dangerous and alien world you must discover where you are, how you got here . . . and how you're going to get out!

In a frantic search of the unfamiliar land you explore aMAZEing forests, mines and underground complexes collecting objects and interacting with indigenous creatures.

Re-emerging in to daylight you race along perfect parallax action scenes, dispatching enemies as you battle ever deeper into the unknown.

Screen Shots from the Atari ST and Amiga

PSYGNOSIS, FREEPOST, LIVERPOOL L3 3AB. Telephone 051-709 5755

Daemonsgate

American publisher Origin has long led the way in role-playing games, specifically with its apparently perennial Ultima series and its offshoots. But the UK is soon to have a worthy contender in the form of Daemonsgate, currently being created by Imagitec Design and to be published by Gremlin.

Superficially Daemonsgate looks similar to the more recent Ultima games, employing a pseudo-3D bird's eye view of the playing area. When a player enters a building the roof disappears to show the interior, again an idea seen in the Ultima series. Beyond surface similarities, however, Daemonsgate is a very different experience. When travelling across wilderness the whole party is represented by a shield for convenience. Another difference is that buildings can be up to four storeys high rather than the usual two.

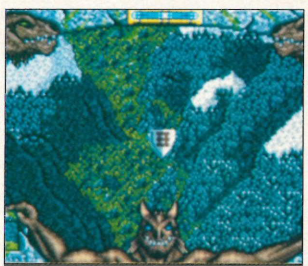
Imagitec is, perhaps, better placed than any other British developer to create an Ultima beater since it was responsible for the 68,000 processor conversions of Ultima V, Times Of Lore and Knights Of Legend, all of them Origin role-playing games. But it is not merely setting out to match Ultima rather to surpass it in every way possible; Daemonsgate's playing area, for instance, is four times as large as Ultima V's. Daemonsgate is set in a world beleaguered by Daemons who are emerging from their own dimension via the gate of the title. The player commands an adventurous party which has been assigned the task of closing the Daemonsgate and freeing the land from its atrocious fate.

Players won't have to trek miles before they encounter any action. The party begins the game in the town of Tormis, which is surrounded by Daemons, and, just like a real siege situation, there are a limited number and range of commodities available. Equipping your party isn't going to be quite the breeze that it usually is.

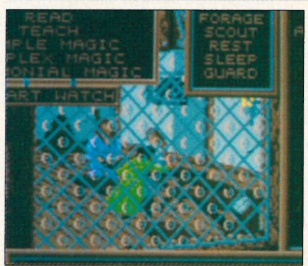
One aspect Imagitec is spending a lot of time getting right is making the game world as realistic as possible. To that end, every character exists independently and goes about their daily business until interrupted by the player. Interaction with non-player characters (NPCs) is an essential part of the game. There are 256 major NPCs in the game, a potential 60 of which will join your party, although you can only actually recruit eight of them. 256 characters may not sound a lot, but there are additionally a further 256 minor NPCs in every town!



Daemonsgate employs similar top-down views to the Ultima games.



When travelling through wilderness the party is represented by a shield.



Character interaction is an essential part of the game.

Daemonsgate can be controlled entirely using the available menus, and even conversation can be carried out by pointing to and clicking keywords. Imagitec has come up with a clever system to this end, where the only keywords you have at your disposal refer to things you've already found out about, and the list grows as your knowledge increases.

Clever programming is evident in other areas too. When travelling in the wilderness some terrains will take a longer time to cross than others. Rather than slowing the scroll down every time your party crosses mountains, for example, there is a rotating sun and moon display (similar to those you find on some watch and clock faces), and this speeds up or slows down, depending on the terrain.

Another fine example is the combat system. From its experience with other RPGs, Imagitec realised that combat often takes up much of the playing time and this can be frustrating. To avoid this it has provided three modes of operation for encounters.

Computer mode allows the player to select a defensive or offensive option and then the computer will automatically resolve the combat by calculating 'sensible' actions for each player during each round.

Commander mode is the traditional style of combat in which each round of melée is played out in full and you can precisely control the actions of each player. This will often take up a good deal of time, so a useful halfway house is Leader mode in which you set an overall objective, then control one member of the party while the rest provide support automatically.

The idea behind the combat system is that trivial encounters, in which the outcome is more or less certain, can be left to the computer, while tricky situations, such as when the party is heavily outnumbered, can be fought in detail, and all other situations can be speeded up by using Leader mode.

There are plenty more pleasant surprises offered by Daemonsgate, and far too many features for us to detail here, but what we've seen of the product to date convinces us that it is a decent British challenge to the American domination of these games and well worth checking out if you're an RPG fan.

PC review On a Screen Near YOU

Title: Daemonsgate
Publisher: Gremlin
Release date: Febuary 1992
Price: £39.99



The party can be equipped with the usual line-up of ye olde adventurer's weapones.

OH NO! MORE Lemmings™



OH NO! More Lemmings is now available at your local store for your Amiga and Atari ST at £25.99* and for your IBM PC or Compatible for £29.99*.

Special Offer – For owners of the original Lemmings, a Data Disk version of **OH NO! More Lemmings** is available (with full packaging etc.) from your local store, at a specially reduced price of £19.99* for the Amiga and Atari ST and £25.99* for the IBM PC and Compatibles.

* Recommended Retail Prices.

100 Brand New Lemmings™ Adventures!

Just when you thought they were finally safe those green haired numbskulls have blissfully blundered off towards new and greater perils.



PSYGNOSIS



Available for Amiga. Atari ST, IBM PC and Compatibles

Never a magazine to rest on its laurels, PC Review has gone to great lengths once again to bring you the very best playable demos: Gods, from Renegade and four levels from the Lemmings Data Disk, from Psygnosis. This month also sees the start of our new Gallery section containing sneak preview screens from forthcoming releases.

How to load the programs

Insert your PC Review cover disk in drive A: (or drive B:, if your floppy is so named).

Log on to that drive by typing

A: (return)

Or B: if your floppy drive is drive B. Then type

Front (return)

to load the cover disk menu.

The items on the menu can be selected using a mouse or the cursor keys. If you have a mouse it should be automatically detected by the program. To select a program for loading simply move the cursor to the appropriate circle icon and either click on the left hand mouse button or press Return.

The program will display the default drive and directory for installation. If this is OK press Y. If you wish to install the programs on another drive or directory type N, then backspace over the original path name and type in your preferred path. Now press Return and the program will be decompressed and installed on your chosen drive and directory.

To run the program log on to the relevant drive and directory and type the start-up name as given below.

GODS

Log on to C:\GODS, then type Gods [return]

The default mode for Gods is normal PC sound, keyboard control and VGA. If you wish to change this to run AdLib soundcards, joystick control and/or EGA graphics, then type

Install [return]

before you run the game and follow the on-screen prompts to set up and save your desired configuration.)

LEMMINGS

Log on to C:\LEMM, then type Lemmings [return]

GALLERY

Log on to C:\SHOW, then type Show [return]

The programs can also be installed without the menu. To install manually, copy all the floppy disk files over to your hard disk, and type LEMM [return] to install Lemmings; GODS [return] to install GODS, or SHOW [return] to install the Gallery.

OH NO! MORE LEMMINGS

Psygnosis' cute and suicidal animals are back for more frantic puzzle fun and we've brought you four complete levels from the 100 on supplied on the full game. The four demo levels each have a different level of difficulty from Tame (the easiest) to Havoc (the hardest). Your objective is to prevent the helpless lemmings from coming to sticky ends by giving individual lemmings orders so that as many of them as possible reach the exit.

Lemmings are given tasks by clicking first on the relevant icon and then on the lemming that you wish to assign the task to. Each icon can only be used a limited number of times, the number of which is shown above the icon.

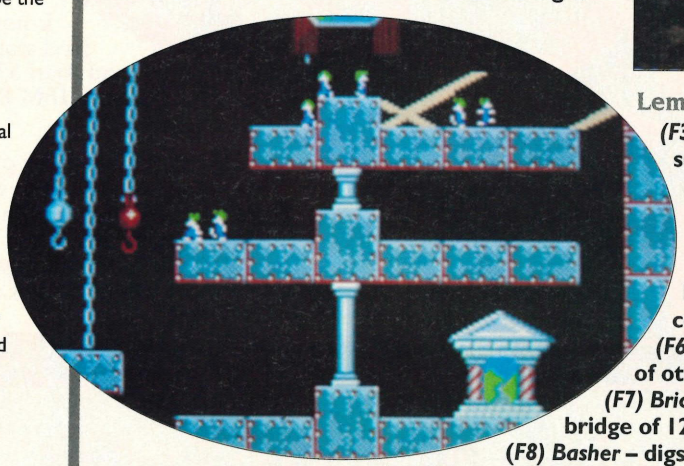


Controls

At the start-up menu screen (right), press F4 to select your preferred control method, the F1 to begin playing. The demo is best played with a mouse. Use the left button to select icons and lemmings. Using the right button to select lemmings will prevent ordinary walkers from being selected.

Keyboard controls: use the function keys to select the icons and the spacebar to click on Lemmings:

Q move cursor up **O move cursor left**
A move cursor down **P move cursor right**



Lemming tasks:

(F3) Climber **– climbs vertical surfaces***

(F4) Floater **– a brolly opens to ensure a safe descent***

(F5) Bomb **– blows up lemming after a countdown of five**

(F6) Blocker **– blocks passage of other lemmings**

(F7) Bridge Builder **– builds a rising bridge of 12 bricks**

(F8) Basher **– digs horizontally**

(F9) Miner **– digs diagonally down**

(F10) Digger **– digs straight down *When both of these are applied to a lemming it becomes an Athlete and will climb up and over obstacles.**

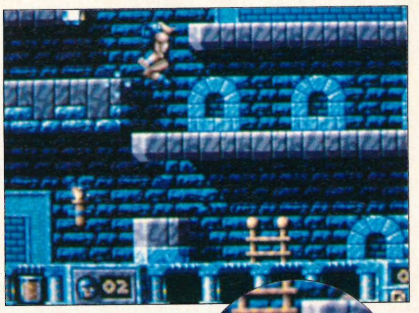
Other icons available are:

(F1) Decrease flow of lemmings (F2) Increase flow of lemmings (F11 or Pause key) Pause game (F12 or Delete key) Nuke 'Em – destroys all lemmings after a countdown of five.

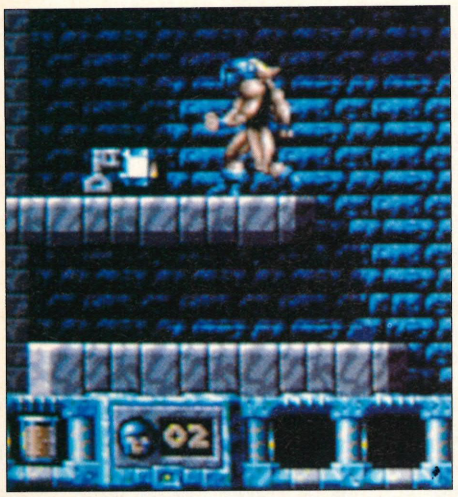
TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✗
CGA ✗	EGA ✓	VGA ✓	Tandy ✗
Hercules ✗	✓	✓	✓

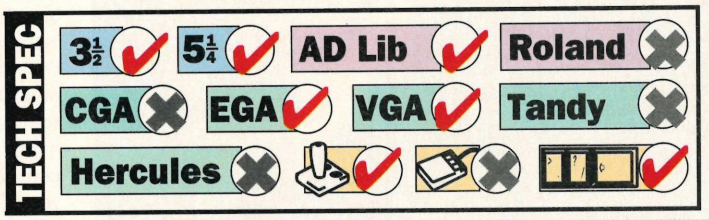
GODS



Gods is the Bitmap Brothers' first PC game since they set up their own publishing label, Renegade. It is a sophisticated platform game featuring intelligent enemies and many surprising tricks and traps. Our demo is a special 4 AM Mix containing the first two levels of the game, which is more than enough to give you a taste of Gods' distinct blend of fast-paced shoot 'em up action and mind-boggling puzzles. Your objective is to reach the end of level two while avoiding or destroying enemies and collecting as many gems as possible..







CONTROLS

Gods can be controlled using either a joystick or the cursor keys on the keyboard (if you wish to change which keys are used, type Install before you run the game and follow the on-screen prompts). If you are using a keyboard the spacebar functions as a fire-button.

The controls do different things depending on where you are standing:

Control	On platform	On ladder
Up	Face wall	Climb ladder
Down	Crouch	Descend ladder
Left	Walk left	Change direction of fire to left
Right	Walk Right	Change direction of fire to right
Up-left	Jump to left	Jump off ladder to left
Up-right	Jump to right	Jump off ladder to right
Down-left	Crouch	Get off ladder to left
Down-right	Crouch	Get off ladder to right
Fire	Fire missile (or activate switch when facing one)	Fire missile (only operates when simultaneously holding Left or Right for direction)

When jumping push Up to catch hold of a ladder.

To collect power ups and gems simply walk over them. To pick up or drop objects, crouch and then press the fire-button to select the appropriate slot.

In the shop move the cursor over the object you are interested in. Press fire once to get a description and again to buy the object.

GALLERY

To view the pictures on the gallery simply point to the icon of the picture you wish to see using a mouse or the cursor keys and select it with the left mouse button or the Return key. Press the left mouse button or return key once more to view the accompanying text, and once again to return to the menu. Select EXIT to return to DOS.



This disk has been checked for all known viruses. However, PC Review cannot accept responsibility for any consequences that may arise from using the disk or the programs on it.

Faulty disk?

PC Review's cover disks are checked and validated, but if you have reason to believe yours is faulty, pop the disk(s) in a jiffy bag with 55p to cover postage, and the form below (filled in) and send the package to the following address:

Spool Duplication,
First Avenue,
Deeside Industrial Estate,
Clwyd,
Wales,
CH5 2NU.

DO NOT send the disk back to PC Review – we don't hold stocks of spare disks.

Name.....

.....

Address.....

.....

.....

.....

.....

The disk on my copy of PC Review was damaged. Please send me a replacement – I enclose a cheque/postal order for 55p and the original disk.

COVER STORY

Thinking of buying a new PC? Christina Erskine takes you through the minefield of configurations, specifications, suppliers and what you need to know before you part with your cash

Buying a PC is unfortunately a complicated business. No sooner do you settle down with a bunch of brochures and a general idea of what you want, than you are assaulted by the need to consider the precise specifications you need for each component, with differing standards for all of them, and then try to match these to the hundreds of configurations available without breaking your delicate budget.

And if you're buying with the knowledge that a good proportion of the PC's time will be spent running games, the process becomes even more fraught, because, as you're probably sick of hearing, the PC wasn't designed with games in mind.

The no-nonse GAMES PC



"Make sure you get a decent instruction manual, ie, not a photocopied sheet translated from the Japanese."

All in one entertainment PCs, such as Amstrad's 5286 Games Pack (see PC Review, Issue 1) and Goldstar's Sound System are only just beginning to appear, and while these are solid base-level PCs, they have been built to a price and not with future-proofing in mind, as we've indicated below (see Minimum Specifications).

Where to buy

There are three main types of outlet where you can buy a PC.Chain stores such as Dixon's or Wilding's, or department stores such as John Lewis stock the best known of the consumer-oriented PCs – Amstrads, Olivettis, and the ubiquitous IBM PS/1.

Specialist computer shops offer similar makes of PC, but the bundling may be different. While many of the independent outlets are also geared towards people buying for business, you may well find that stores which have traditionally concentrated on the Amiga and ST have now expanded their range and will have PCs on display running 256-colour VGA games – so you may well be able to ask for help specifically on buying for entertainment use.



PCs for games: the minimum specifications

Checklist
386SX processor (16MHz or 20MHz)
1Mb memory
40Mb hard disk
Single 3.5" disk drive (recommended over 5.25" for robustness and less disk-swapping when installing)
VGA card and VGA colour monitor
Mouse
Joystick
AdLib soundboard (plus speakers - Walkman headphones will do for starters)

Having said these are minimum specs, some may seem a bit steep and some stingy. Until about a month ago, I'd have said you could get away with a 286 processor. But there are now games coming out from the US (notably from Origin) which use the 386 family's 32-bit processing power and given the entry level machines now sold in the States, this is a trend that's likely to continue.

Conversely, 1Mb memory and 40Mb on your hard disk sounds little in comparison to the processing power, especially when you consider that games can be horribly memory hungry. The point is that these items are usually upgradable. Nearly all 386SX machines will have spare memory sockets; the 40Mb hard disk can be replaced at a later date by a bigger model, or, if you buy a full-size desktop rather than a compact model, you can add another hard disk to your original.

The wisdom of buying both a mouse and a joystick immediately varies according to your taste in games. However,- many PCs are sold complete with a mouse in the package, and the joystick is one of the least expensive add-ons, with cards at around £20 and the joystick itself a similar price - unless of course you're a joystick specialist and want the latest technology.

nse guide to buying a

10 essential questions to ask your supplier

1. How much can I expand the memory on the motherboard?
(This machine you're selling me has a minimum 640K. Can I add extra chips to give it 2Mb, so I can play Strike Commander?)

2. How many free expansion slots does it have?
(I'm going to need a joystick, a soundboard and next year I may well want to buy a CD-ROM drive. That's three expansion slots gone and I haven't even considered extra hard cards, an-internal modem, or a second soundboard for those games which infuriatingly require you to have two.)

3. Is there an on-site warranty included in the price, or is it extra?
(If this machine breaks down while I'm in the middle of some tricky manoeuvre in the dungeons, I don't want to have to pack the whole thing off and take it back to the dealer and be PC-less for days. If I have an on-site warranty, I can call the service engineer and have it repaired at home – and hopefully within 24 hours.)

4. How many extra drives will fit in the casing?
(Slimline models often don't have much space left for a second floppy drive or hard drive. While I might only want a second floppy to have both 5.25" and 3.5" available for maximum convenience, I might well fill up the hard disk quickly and want some extra capacity here.)

5. Will this graphics card support any 'super' VGA modes?
(While VGA is an IBM standard, the various super-VGA modes aren't. Few games specifically support super-VGA now, but that doesn't mean they won't in the future.)

6. How long is the monitor to cpu lead?
(Manufacturers tend to assume that you will always place the monitor on top of the cpu and therefore the lead needs only to be about 2mm long. But if you're setting up the machine at home, the need to site it a) near an unused mains plug, b) where the light won't shine directly on the screen, and c) where you can comfortably sit down to use the PC, means that this neat set-up may not be the most convenient.)

7. Which version of DOS is supplied with the machine?
(The answer to this could well be any one of 3.3, 4.01, 5, or none at all. If it's the last of these, add the cost of buying DOS to your budget – you need it in order to do anything at all with the machine. Of the others, 3.3 has been around for a while and is compatible with everything, 4.01 takes up a significant amount of memory, and 5 is much smaller, leaving more memory free for games – and virtually does away with the need to keep dedicated bootable disks.)

8. Has the hard disk already been formatted?
(If it hasn't, you'll have to format the hard disk, install DOS, and configure all your drives. Make sure you get a decent instruction manual, not a photocopied sheet translated from Japanese.)

9. What documentation comes with the machine?
(The best case here is a dedicated manual for this manufacturer's series of PCs – Amstrad and Elonex are good about this. The worst case is a photocopied sheet translated from Japanese – see (8) above. Most likely is somewhere in-between.)

10. Is there a plug on the end of the mains lead?
(This question isn't quite as daft as it sounds. Firstly, it's extremely annoying to unpack the PC and find you have to rip the plug off the kettle in order to switch your new machine on. Secondly, if you ask nicely in the shop,you may find the dealer pops a plug in free of charge.)

Thirdly you can buy direct – either from a distributor,or the manufacturer itself. Manufacturers such as Dell,CompuAdd and Elonex sell exclusively direct to customers – although Dell is now selling through the new superstore PC World (see page 26 for more on the PC superstore development). And you will find makes such as Tandon, Mitac,and Everex offered by mail-order distributors alongside the ever-present Amstrads and PS/1s. Major names to look out for include



RSC, Hi-Voltage, Nationwide, Mediaware and Technomatic.

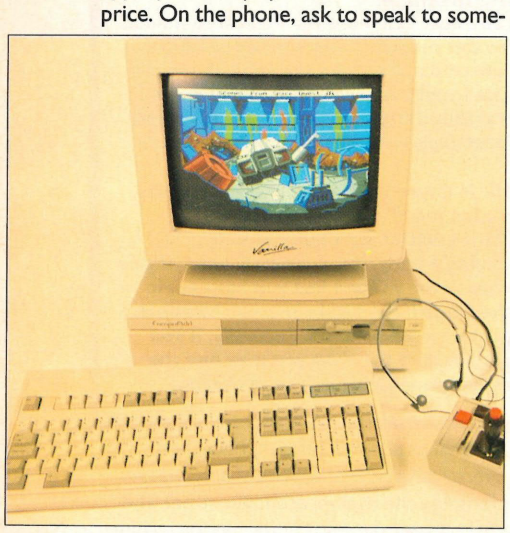
Where to go and how to buy depends partly on your budget and partly on how much guidance you think you'll need. High street stores can offer keen prices and you should be able to take your PC away with you immediately. The disadvantage is that busy chain stores aren't as a rule geared up for customers who want to mull over each machine, ask fordemonstrations, inquire specifically about the suitability of machine X versus machine Y for adding all the entertainment accessories, and so on. Beware also of the sales assistant who assures you that the machine on special offer will suit you perfectly, even if you've already ascertained it hasn't got the processor you wanted and the hard disk is too small (sorry, this is a gross generalisation, but it's happened to me more than once).

The advantage of buying from an independent specialist outlet is generally held to be service. The shop is more likely to be staffed by enthusiasts who know the machines and can guide you towards the right buy. At least, this is the theory. You will certainly find staff more encouraging if you try to buy an entertainment PC from a games-based outlet rather than a dealer who is keener to sell you WordPerfect.But you should be able to see demos running on the machine, and also, with a smaller shop, you can build up a relationship with the dealer. Explain that you will be returning to buy your blank disks, printer paper, joysticks, and so on, and you will immediately become valued as a regular customer. A local supplier is also more convenient for you.

Buying direct puts you in control. You can hunt around for the best buys, finding the distributor which offers a machine with the right processor, right size of hard disk,-appropriate display and an unbeatable price. On the phone, ask to speak to someone who knows about the PCs in their range in some depth and explain exactly what it is you want. Unfortunately, you will then have to wait for the beast to be delivered, and you won't see it set up or in action before it arrives at your door.

The hardware mail-order market has had more than its fair share of horror stories over the years, with suppliers who went out of business, leaving customers out of pocket and PC-less, but this is now an established sector of the market and the vast majority of the companies in it are professional and reliable (see Paying Safe, above).

Buying straight from the manufacturer gives you even more control over the machine you get, since you should be able to deliver a precise list of specifications and the machine will be tailored to fit that list (though this doesn't include add-ins such as soundboards and joystick cards).



Paying safe

If you buy direct from a distributor or manufacturer, you will normally have to pay first, receive the machine later, on a mail order basis. Therefore, it's only sensible to make your purchase as safe as possible.

If you place an order over the phone, agree a delivery date and method, and follow up the call with a confirmatory letter.This should include:

the exact specifications of the machine you are buying: the brand name (eg, Elonex PC320SX), the processor, monitor type, hard disk size, number and size of floppy disks, amount of base memory, plus any software and accessories that are coming with the machine (eg, MS-DOS and version number,Windows 3.0, a mouse, mouse utilities, any bundled software);the expected time of arrival of the goods and the address to which they are being sent;any other details agreed on the telephone (on-site warranty, whether the supplier will call you when goods

"Try to buy the most high-powered PC you can possibly afford. It will last longer before software begins to outgrow its capabilities, and all programs will run much faster."

Additional considerations

When deciding what to go for, you should always bear two things in mind: try to buy the most high-powered PC you can possibly afford. It will last longer before software begins to outgrow its capabilities, and run all programs faster. Tied in with this is the need to consider expansion capabilities.You'll need two expansion slots free for a soundboard and joystick, even if you don't plan to buy them immediately, so think ahead also to the time when you might want to add a CD-ROM drive. Is there room in the casing to add a second harddisk? The standard 40Mb model might seem vast now, but I assure you it will fill up quickly and it is a lot less hassle to add a second drive than to back up the first one and then replace it. How much more memory can be fitted on the board inside?There are more and more games coming out which require extended memory so make sure you can add it later if you're not buying it to start with.

There are three main false economies. Do not consider buying a machine without a hard disk (thankfully these are few and far between these days). You will not enjoy swapping floppies all the time and, besides,

Typical prices

For machines with 1Mb or more RAM, hard disk (size varies from-40Mb to 80Mb), single 1.44Mb 3.5" disk drive, VGA colourmonitor and MS-DOS (version varies). Prices include VAT.

Akhter LC386SX-16 (386SX)£1,290
Amstrad 3386SX (386SX)£1,235
Amstrad 5286 Games pack(286)£1.056
Elonex PC320SX
Epson PCAX3s (386SX)£1,585
Epson PXAX3 386 (386)£1,700
Goldstar GT316 (386SX)£1,175
Olivetti PC386SX (386SX)£1,440
Tandon 386/Nsx (386SX)£1,175
Viglen Vig III LS (386)£1,645
Viglen Vig SX (386SX)£1,400
Watford Electronic Aries 386DX-33 Cache (386)£1,855
Watford Electronic Aries PC386SX-20 (386SX)£1,285

Although these are prices which we have seen advertised or displayed at the time of writing, they are not necessarily RRPs and are only designed to give you an idea of the expected cost of buying a PC.

are despatched to make sure you're in, etc).

Keep a copy of this letter: it could save untold traumas later.

Pay by credit card if possible. If the supplier does cease trading in between your order being placed and the goods being despatched to you, you may be covered for the loss under the credit card company's insurance scheme. This will normally mean giving out the credit card number over the phone – make a note of exactly when you do this, to check against your credit card statement later.

If you pay by cheque, cross the cheque and write A/C payee only (and make sure you know who the correct payee is first).



too many games require hard disk installation – it won't be long before you find yourchoice of games becoming restricted. Do not even think of buying a machine with a processor below a 80286 and, if possible, buy a 386SX or 386. PC games are increasingly being written to run optimally on a 386. Thirdly, include a VGA colour monitor in your budget (most machines these days come with VGA cards as standard – but do check). You will not be much impressed by the displays if you don't.

If you are buying a machine to use at home, the chances are that space will be limited. Desktop PCs can take up around 20" x 16" of table-top space and you'll need to allow a fair amount of space behind it so that the cables can hang out of the back. Many manufacturers produce compact, or slimline PCs which take up much less space (Amstrad's 5286 Games Pack, for example, is tiny) without any loss of performance. However, room for upgrades inside the machine may be limited, in terms of a second hard disk, second floppy drive, the number of expansion slots and whether the machine will take full-length expansion cards. If you are thinking of buying a compact model, do check, before buying, how much you will be able to fit inside it in the future.

CONTACTS

Manufacturers

Amstrad (0277) 228888
Elonex (081) 452 4444
Epson (0442) 61144
Goldstar (0908) 211488
Olivetti (0908) 690790
Tandon (0527) 550550
Viglen (081) 997 3000
Watford Electronics (0923) 37774
Dell (0344) 863999
CompuAdd 0272) 637488

Direct Suppliers

Nationwide (081) 681 6952
Hi-Voltage (081) 686 6362
Mediaware (0270) 666616
Technomatic (081) 205 9558
RSC (0923) 243301

For further information about PC buying and upgrading in this issue, see the Buyers' Guide for specific products and also for independent dealers in your area (starts page 99), Fitting a Hard Disk on page 35, and a report on the new PC supermarket, PC World, overleaf on page 26.

LIMITED EDITION

SOCCER STARS



FOUR GREAT GAMES !!
ONE BIG VALUE PACK !!

AVAILABLE FOR: COMMODORE AMIGA, ATARI ST, IBM PC & COMPATIBLES*, COMMODORE 64, AMSTRAD CPC AND SPECTRUM.

* IBM PC VERSION INCLUDES THE FOLLOWING GREAT GAMES: KICK OFF 2, MICROPROSE SOCCER, WORLD CHAMPIONSHIP SOCCER.™

EMPIRE COMPILATION

© 1991 Sega Enterprises Ltd. All Rights Reserved. "World Championship Soccer" and "Sega®" are trademarks of Sega Enterprises Ltd., Japan. This game has been manufactured under licence from Sega Enterprises Ltd., Japan.)

EMPIRE SOFTWARE, 4-6 THE STANNETTS, LAINDON NORTH TRADE CENTRE, BASILDON, ESSEX SS15 6DJ TEL: 0268 541212 FAX: 0268 541125

COVER STORY

Can heaven really be a warehouse in Croydon? Yes, says Laurence Scotford, as he investigates Europe's first computer superstore and finds it stocks everything a PC enthusiast could ever want ... and lots more besides.



IN SEARCH OF A

Imagine a large store where you can buy a 386SX with colour VGA, a Hewlett-Packard DeskJet printer, a computer desk to put it all on and a box of blank disks, all at mail-order prices. Now imagine that in the same store you can have your faulty equipment repaired, pick up a copy of Wing Commander II and Norton Utilities, and have them both installed on your hard drive, get professional advice on any aspect of buying PCs, purchase Sierra's official guide to the Leisure Suit Larry series and have a cup of tea before paying for the whole lot and wheeling it out to your car, parked just outside the store.

That might sound like the product of a very vivid imagination, but it's all a reality. The store in question is PC World, located in Purley Way in Croydon in a former Do-It-All warehouse. PC World is the first opportunity we conservative Brits have had to shop for computers the American way.

The first six computer superstores in the US were set up in 1986. There are now 78 of them – not surprising when you take into account that there has been a 1000% growth in combined sales over that period – and the market is currently worth $2.8 billion every year.

PC World is the brainchild of Jan Murray, the head of the store proprietors Vision Technology Group. Jan started his business on a smaller scale in that Mecca of consumer electronics, Tottenham Court Road. Since then he has founded the successful mail order operations Hi-Voltage and Computers By Post. He has been studying the American operations for some time and on November 2 1991 he was able to open the very first computer superstore in the UK. It has already proved popular with the computer buying public and there are plans to open up a second store soon, probably in North London.

THE PRICE IS RIGHT

Want to know how much or little you stand to save by shopping at PC World? Of course you do, so here's a few sample prices (all exclusive of VAT) for comparison.

Framework IV £359
Buyers Guide Price: £378.06
IBM PS/1 286 40Mb Colour £795
IBM's price £855
Mannesman Tally MT81 9 Pin printer £99
Buyers Guide Price: £154.13
Logitech Mouseman £49
Buyers Guide Price: £51.38
Miracom WS4000 External Modem £97
Buyers Guide Price: £154.13



WYSIWYG

That well-worn computer acronym (What You See Is What You Get) is quite applicable to PC World since what you see on the shelf is what you take home with you. Here's a quick run-down of the sort of thing you can expect to find.

SPECIAL OFFERS – Every now and again PC World introduces a new bargain deal. At the time of writing you could pick up a genuine mono IBM PS/1 system with 30Mb hard drive for just £499+VAT.

POPULAR HOME COMPUTERS – PC World stocks a small selection of the most popular home computer hardware and software. Amiga 500Ps and Sega Megadrive software were very much in evidence.

BOOKS – PC World already stocks a large range of books covering subjects from game solutions to programming and the range will be expanded soon.

CONSUMABLES AND ACCESSORIES – Everything from printer paper and blank disks to copy holders.

SOFTWARE – Like books the range of software is growing all the time, but this is already one of those rare stores where you'll find Willy Beamish happily co-existing with Lotus 1-2-3.

PRINTERS – You can get laser printers, ink-





From top left, clockwise: Jan Murray, store manager; easy access for drivers; storage area; games and accessories in stock; an impressive line-up of machines

PC PARADISE

If you want an idea of how popular the store has been – there were a hundred Hewlett Packard DeskJet printers on display when the store opened and when I visited only 17 remained! The next expansion phase may well involve stores in other cities, but Jan is convinced that London alone will support three stores.

Jan reacts strongly to what he sees as the "very old fashioned thinking" that predominates in the PC industry in this country. To his way of thinking the UK market has evolved beyond the mail-order/small specialist retailer stage and the predominance of this way of selling PCs has only lasted so long because of protectionism on the part of existing retailers. Now that he has paved the way it won't be long before the competition moves in, but by then PC World will have had a useful head start.

One problem Jan still has is packaging. Because computer manufacturers are not used to retailing in the UK a lot of the products PC World sells are supplied in dull grey or brown boxes, which is not very helpful when it comes to attracting consumers, but Jan is convinced this situation will improve with time.

So what are the advantages of shopping at PC World for Joe Punter? First and foremost is the wide selection of PC related wares under one roof (see our WYSIWYG panel for details). Then there's the convenience of being able to lump the whole lot into a trolley, pay for it in one go and wheel it all out to your car.

Of course it almost goes without saying you should be able to buy whatever you want directly without ordering it and having to wait weeks for it to turn up. PC World sells at one-off prices close to the corporate buy level and they are only able to offer these prices because of the volume of sales. (See our The Price Is Right panel for a few examples). All the usual 'easy finance' deals are available and a store card will be available soon.

Corporate buyers can even fax orders through and have their equipment put together and made ready for collection. In fact large scale shopping at PC World is so easy that some consultants are now using it as an equipment source for their clients.

If this sounds like paradise to you then you'll find PC World open on weekdays from 8am to 8pm and at weekends from 9am to 6pm.



jet printers, and dot-matrix models from Hewlett Packard, Epson, OKI, Star, Panasonic, Texas Instruments, Canon and IBM directly off the shelf. Plotters are to be introduced soon.

ACCESSORIES – Mice, graphic cards, hard disks and cards, hand scanners and memory boards are all here along with more mundane items like carry cases for portables.

HARDWARE – As well as being the exclusive UK retail outlet for Dell and an official Apple stockist, PC World sells PCs from Tandon, IBM, Amstrad, and Olivetti. A sample of each machine stock is up and running and available for a demonstration.

OFFICE EQUIPMENT – Yes, you can even get yourself a photocopier, fax machine or word processor along with your PC.

PORTABLES – PC World's main brand is Toshiba but you'll also find models from Zenith, Amstrad, Tandon and Texas Instruments.

MONITORS – Mostly Taxan but with some NEC and Sony models.

OFFICE AND COMPUTER FURNITURE – What use is a PC without something to put it on?

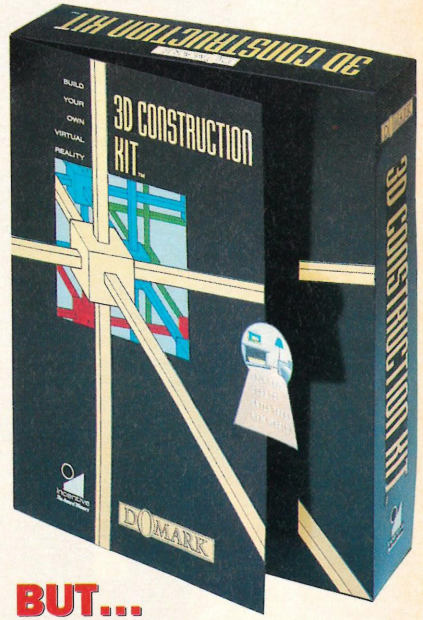
NOW THAT'S WHAT I CALL SERVICE

One aspect of PC World which might worry many potential shoppers is after sales service. Once you trundle your trolley full of goodies out into the car park will you be quite literally left out in the cold? The short answer is NO. PC World has a standard 12 month back to base warranty on all the equipment it sells. It also offers an on-site warranty for the very reasonable sum of £30 for a year. This applies even if the manufacturer's own warranty is shorter.

If you want further reassurance you'll find one whole side of the store taken up by a service counter (which, incidentally, IBM helped to set up). The professional staff that man the counter will repair equipment under warranty or other equipment for a reasonable fee. They will also install software at £10 a time or £12 on equipment not purchased from the store.

Completing the line up of extra services are an information counter where you can get literature or advice, and a refreshment area selling drinks and light snacks.

"This is probably the *best* games creation utility available... **X RATING: XXXXX"** GAMES X "It takes just minutes to learn and the results are *superb*.... It's packed with features and frankly, never has game-making been so easy. You'd be *mad* to miss this opportunity!... " ITV ORACLE C4 "For a total package of all-round *fun* and *entertainment*, the 3-D Construction Kit is an absolute must for the price... **98%"** AMSTRAD USER "**3D Construction Kit** is one of the *best* 16-bit utilities to appear – ever!... Whether you're just interested in using it as a 3D art package or whether you want to create games to rival Incentive's own, you'll find it to be an *ideal tool*... **93%"** THE ONE "Anyone interested in 3D adventure games and a spark of *imagination* should check it out immediately... Stunningly easy to use... The highly *powerful* set of tools, combined with *amazing* ease-of-use, make this an unrivalled game creation system... **91%"** AMIGA FORMAT "Amazing. Would-be architects, city planners, and everybody else should start saving their dosh now!... *go out and buy it*... **92%"** YOUR SINCLAIR "It's A Corker!... **93%"** COMMODORE FORMAT "A *stunning achievement* on the home computer made even more *impressive* by it's ease of use... Lets face it you could buy a lot of rubbish for 25 quid so do yourself a favour and invest it *wisely* in this... **91%"** SINCLAIR USER "An *extremely versatile* piece of software, *technically amazing*, easy and *great fun* to use. This could be the future of home micro software, go and buy it!... **100%"** YC "The program reeks of *quality*... **3D Construction Kit** is easily the most *innovative* piece of Amstrad software ever...95%" AMSTRAD ACTION "Forget world domination this is *world creation*... **91%"** PC FUN "You can use the kit to design your own 'alternate reality'... " PC LEISURE "This is an *excellent* game creation utility... Whether you want to create whole games for friends or models of your house to fly over, it's simple to use and *great fun!*... " CRASH "It's *incredibly simple* and *versatile* system. Clearly it gives insight for the novice into how 3D programming works..." AMIGA FORMAT "Not only can you construct 3D environments, you can walk into that end and interact with your surroundings.... " ZERO "Lego Blocks for adults and your own *Virtual Reality*... " ST FORMAT "There's no doubt about it, this could be the *most impressive* game creation utility ever released... " ACE "Incentive have pooled their *extra dimensional talents* to create a games designer the likes of which has never been seen before... **3D Construction Kit** is *amazing*. It's easy to use and the *results are stunning*... " CD AMIGA "If you can think it, you can build it... it's as simple as that...**95%** " ST. FORMAT (GOLD) "At last we have a program that gives us the *freedom* to produce whatever we want... up until now, no tool has been devised that allows the user to produce a fully fledged 3D environment...**90%**" AMIGA ACTION



BUT...
WE PREFER TO LET THE PRODUCT SPEAK FOR ITSELF.

ON THE SPOT

In Issue 1, we gave you extremely short notice of our first On the Spot trip, the first of our readers' visits to software houses allowing you to meet the people behind the games and ask them the questions you've always wanted answered.

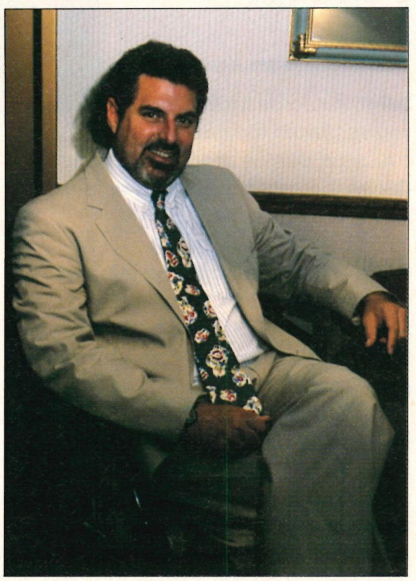
Electronic Arts

Electronic Arts UK in Langley, Berkshire, is the European division of the company which claims to be the world's largest software house. It was founded by ex-Apple Computer marketing director Trip Hawkins in 1981, who had a "vision", in the words of the European MD Mark Lewis, "that games could be very different to things like Pong."

The European division was set up in 1987, and as well as its own home-grown product, Electronics Arts publishes titles by Interplay, 360 Pacific, SSG and Mindcraft in the UK. It also publishes its own European products from programmers based in this country – most famously, Populous from Bullfrog, but also Nick Wilson and Matthew Stibbe's Imperium, and the long-awaited Birds of Prey from Argonaut Software.

"It's still a 'vision' because we're not there yet – sometimes we hit the mark, sometimes we miss. Technology advances, and it continues to be a challenge for programmers to make the most of it," says Lewis of current EA philosophy.

The PC Review team encountered some casualties en route: one reader had to drop out at the last minute and one got lost between Hampshire and Langley. Those who did manage to make it, Jason Rainbird and Sean Smith, appreciated the extra attention all the more. We were welcomed by Mark Lewis and PR executive, Fiona Murphy, and taken for a tour of the European HQ, before settling down for a question and answer session. We were then joined by public relations manager, Simon Jeffery, for demonstrations of Powermonger and Star Trek and the chance to ask further questions about the products.



Mark Lewis: One of the most difficult things as a publisher is to work out what the right platform's going to be eighteen months from now – that's how long it takes us, at the best of times, to develop a game. With some of them like, erm, Birds of Prey, it can take considerably longer.

PCR: Do you ever say to the programmer that the product's got to be finished now, and that's that?

ML: A lot of software houses do that, and I think that can be when the consumer feels incredibly cheated because the product's promises aren't delivered. We do try to encourage them that it really does make sense to get this game out now so that they can start working on something new. But we have never in the history of our development ever said, "We're going to take what you have right now". It just doesn't make sense to us.

I can remember working on Star Flight for three years, and if we'd released it when it was first supposed to be released, there weren't enough IBM PCs being used as entertainment machines. So sometimes you get lucky, because there was a much bigger installed base when it did come out.

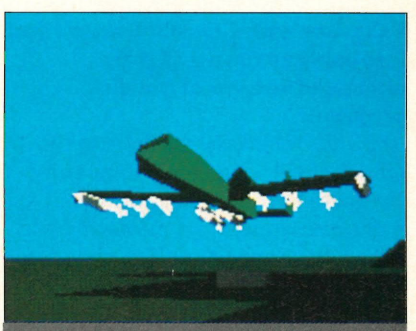
PCR: With PCs, what configuration do you write for? There are so many different types of PCs – how do you work that one out?

ML: After the game has been designed and completed, we address all the different permutations needed. With Powermonger IBM, if you and I want to play together [Powermonger has a two-player link-up], and you have a 486 with a 33Mhz clock and I have an 8088 with an 8Mhz clock, we have to adjust the modem so that it's fair to both of us, and that takes a lot of work.The PC is one of the most difficult machines to do all the configuration testing for properly.

We've had people phoning up to say, "I can't get the soundcard to work," and when we ask them what soundcard they have, they say, "Well, I've got a Roland, an AdLib and a Soundblaster", and the answer is, well, take two of them out. Why have you got three soundcards anyway? The answer is that not all games run on all the cards, and so the consumer wants to have the best gear and to keep all the options open.

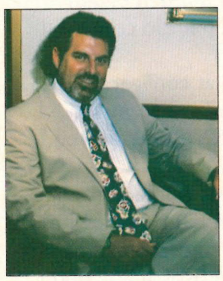
PCR: How does the situation work with third party developers? Do you commission them or do they come to you with ideas? What about Interplay, for example?

ML: Interplay are completely independent of us, but for the most part, with third party independents, we're relying a lot on their creative genius. So we'd prefer them to come to us and say, "This is the hottest thing since sliced bread, we really want to do this and we really want to work with Electronic Arts". About 80 per cent of the time they come to us with a burning idea, and about 20 per cent of it we'll have the good idea and be able to make the right match.



Birds of Prey: three years in the making.

PCR: Most of Electronic Arts' products are original, aren't they? Is it difficult to get people to buy without the addition of, say, a movie licence?



ML: I think we believe fundamentally that original games, like novels, like movies, are the most interesting, both to the developer and the consumer. We have done things like Marvel, and Interplay has done Star Trek, but what is most important isn't that you have a game engine which can just turn out any number of licensed games, but that you make the game licence work properly. It's the originality of the games that will sell the product, although if every licence was a brilliant execution things might be different.

Take a game like Powerdrome, which was an original idea but very hard to play. I don't think any consumer thought they were ripped off by Powerdrome, because it was an original idea which we didn't quite execute to perfection, whereas if we'd called it Lotus Esprit 2 and then you crashed your Lotus every minute, then that licence tie-in wouldn't have worked.

But we do do character licences, with Chuck Yeager and John Madden, and we'll actually sit with Chuck Yeager and have him play the game, and comment on it.

PCR: Do you have any future plans for CD ROM programs?

ML: We do have plans, but they're not even close to being formulated yet. We're not interested in encyclopedias or 17 language versions of the Bible, but one of the things that would be nice is for you to be able to fly around the USA, for example, looking down at all the sights in the country. But the focus is probably the Christmas of 1993.

PCR: But with CD-ROM, aren't you just going to have a slightly enhanced version of the disk program?

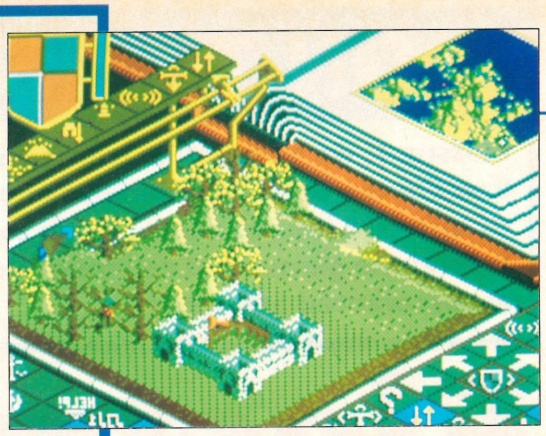
ML: No. I think there's more in the graphics and sound and interactivity. But there are other things as well. Right now, you go to a movie and you get adverts, you get trailers, and so on. Now I'm not saying you'll want to see an advert for Levis on your CD-ROM, but it would be nice if after you've played the game you could get demos or trials for some things that will be released in four to six months time.

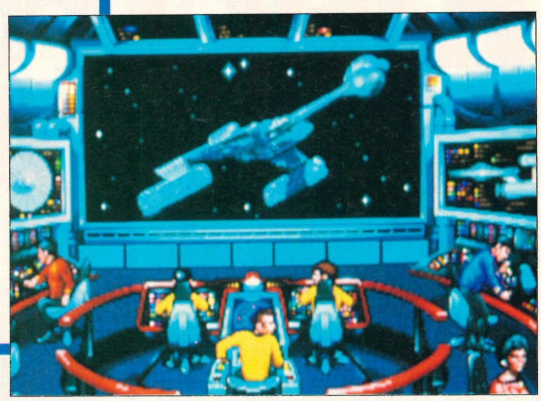
Selected Softography

Chuck Yeager's Air Combat
Indianapolis 500
The Bard's Tale series
Starflight
Populous (right)
PGA Tour Golf
LHX Attack Chopper
Budokan

Forthcoming PC releases

Birds of Prey
Star Trek: the Next Generation
Powermonger
Populous II (right)
Cyberfight





PCR: What about the pricing of your software? PC prices have always been £15 or so higher than ST or Amiga prices. Can you really justify that?

ML: Our PC software runs at about £4 higher. Out of that £4 we probably see about £1.50. The VAT man takes more, the distributor takes more, the retailer takes more. But the consumer gets more, too – with Sierra's games, for instance, you're not getting one disk, you're getting seven or eight disks. I've seen some PC products which are £40, and that seems to me to be getting a little bit iffy.

PCR: Aren't you taking advantage of the user by saying, if you want to buy this you've got to pay £40? They could think they might as well get a pirate copy.

ML: A lot of publishers will try to encourage you to buy through added value in the package. Carmen Sandiego shipped with a giant atlas, for example. The thing you have to remember is that there is an incredible distribution chain. For a PC product at £29.99, we probably get £12 of that, and somewhere in-between there's a distributor and a retailer and a VAT man.

PCR: But if you put the price down to a reasonable level, you'd get more sales and everyone would make the same profit.

ML: Well, I'm hoping CD technology will do that. Right now the amount of piracy is phenomenal and that means that everybody, the retailer, distributor and software house, say we've got to hedge our bets, we've got to charge a little bit more. Now with CD, I think we can start to drive the price down.

PCR: Are you going to start setting a minimum requirement for your games, such as doing them in VGA only?

ML: No. We have done VGA-only games, but more than likely, in the foreseeable future we'll do EGA and VGA. It's not a clear cut development goal to says we'll alienate a large part of the marketplace.

We also have our 'software for life' policy. If you buy The Immortal on Megadrive and then later you buy the PC version, you only have to pay us the difference between the two prices, and we'll give you the software and we won't even ask for the first software back. Not a lot of people know about this but it's a definite EA policy.

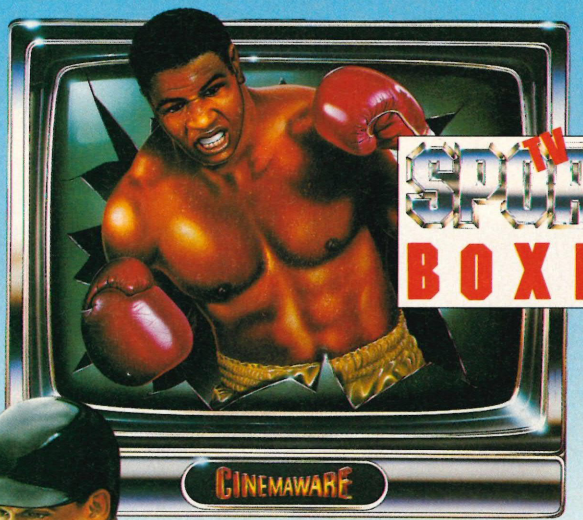
PC Review would like to thank everyone at Electronic Arts for their hospitality and the trouble they went to to make the visit a success. The next PC Review On the Spot trip is to US Gold in late January. If you have already sent in an entry form, sit tight. If you haven't and you'd like the chance to visit sunny Birmingham and the team who deal with the UK distribution of Access, Lucasfilm et al, please fill in the form on page 143 and send it in quickly. Places are extremely limited at this stage.

CINEMAWARE

PRESENTS

SEX, VIOLENCE AND HARDBALLS!

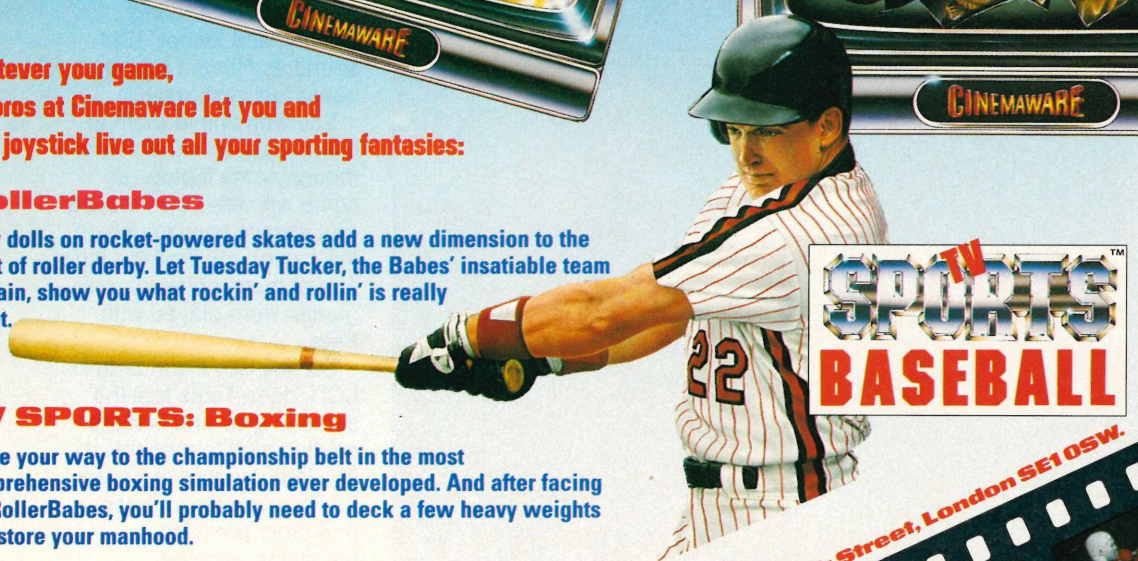




Whatever your game, the pros at Cinemaware let you and your joystick live out all your sporting fantasies:

RollerBabes

Sexy dolls on rocket-powered skates add a new dimension to the sport of roller derby. Let Tuesday Tucker, the Babes' insatiable team captain, show you what rockin' and rollin' is really about.



TV SPORTS: Boxing

Battle your way to the championship belt in the most comprehensive boxing simulation ever developed. And after facing the RollerBabes, you'll probably need to deck a few heavy weights to restore your manhood.

TV SPORTS: Baseball

Whether it's just you against the computer, or 26 human-controlled teams fighting it out in league play, TV SPORTS: Baseball presents the ultimate sports challenge:
The hottest, most action-packed computer-baseball game ever developed.

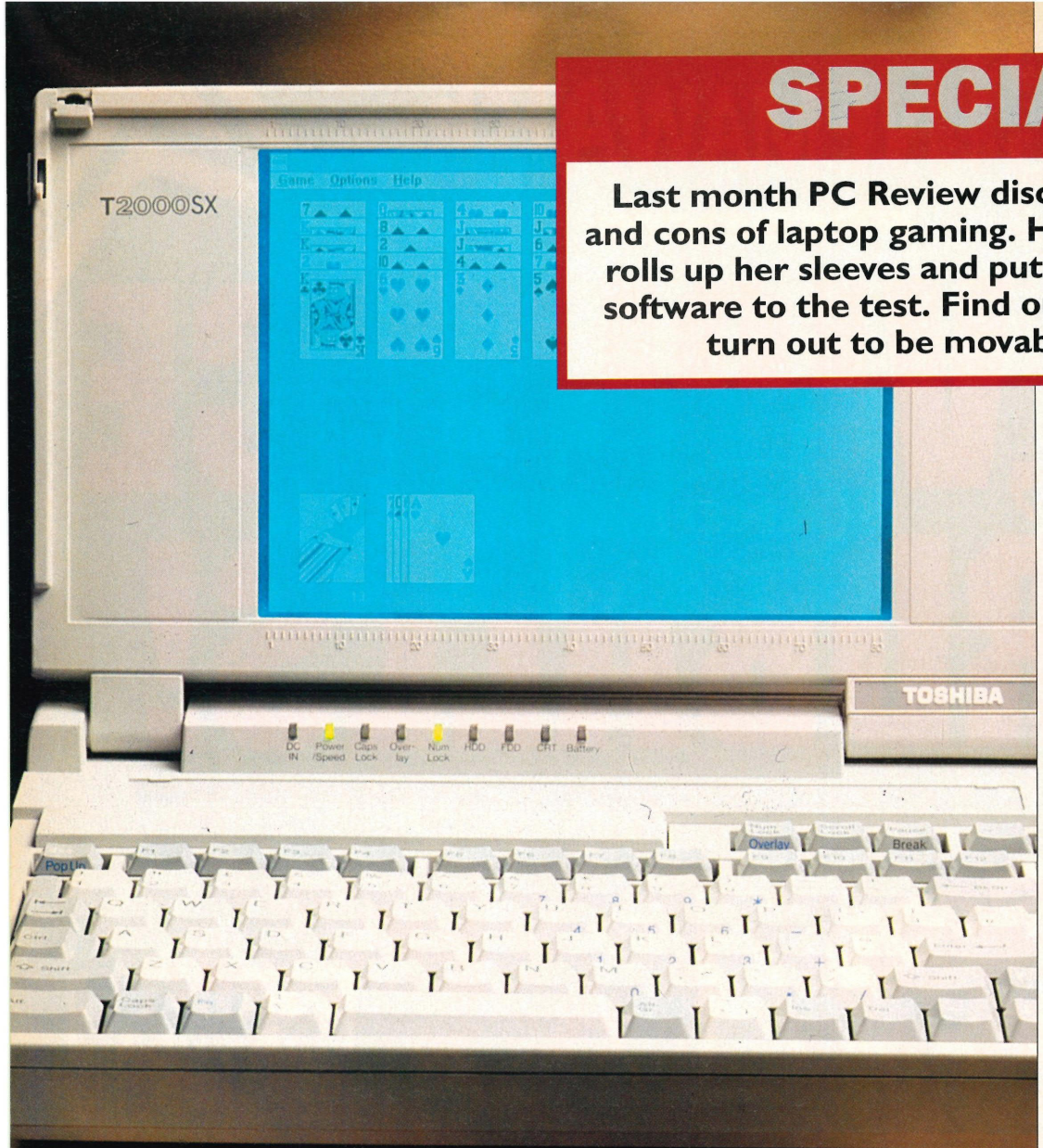
Cinemaware Corporation, Irwin House, 118 Southwark Street, London SE1 0SW. Telephone 071 928 1454

© 1991 Mirrorsoft Limited

SPECIAL

LAPPING UP

Last month PC Review discussed the pros and cons of laptop gaming. Here Kati Hamza rolls up her sleeves and puts some genuine software to the test. Find out which games turn out to be movable feasts.



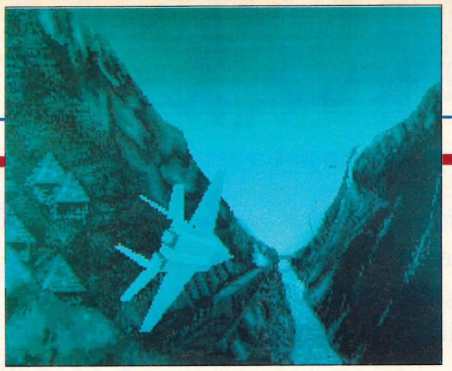
The games on our list have been selected as typical examples of their genre. We've covered the whole spectrum from all-out action games to brain-teasers, so whether you prefer to play pilot in simulated skies or like to sip your evening cocoa in the company of a strategy game, there's something here that's relevant for you.

All the games featured were tested on a Toshiba T2000SX, a 16Mhz laptop with mono VGA graphics and 20Mb hard drive.

If you are seriously considering laptop gaming – it's certainly a viable option, though not necessarily always ideal – there are several factors to take into account. In all cases, you should be prepared for the 'ghosting' that's characteristic of slow LCD update, the loss of clarity that inevitably accompanies a mono display, and 'beepy' IBM sound as fitting a sound board just isn't realistic.

You won't have room to use a joystick, either – and though some laptops do come with their own mouse (not always easy to use on the move), the Toshiba isn't one of them, so all our test games were played with keys.

So, will Sim Earth fade in LCD, does Tetris feel the same in grey and is there anything left to megablast in a laptop game of Xenon 2? For answers to these and other pressing questions, read on...



EYE OF THE BEHOLDER

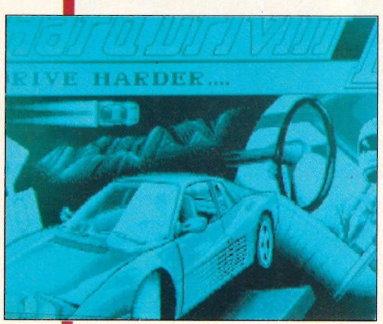
SSI/US Gold, £30.99

Though you miss the brilliant colours and subtle shading characteristic of Eye Of The Beholder's VGA, in terms of gameplay this RPG loses very little in mono LCD. Ghosting is minimal and the dungeons look just as forbidding in black and white. If you're used to playing your RPGs with the mouse the keyboard can take a bit of getting used to, but apart from that there's not much to worry about. Be warned however – our reliable desktop version had a tendency to crash on the Toshiba.

HARD DRIVIN' II

Domark, £30.64

One of the chief attractions of this souped-up arcade conversion is the quality of its 3D graphics, but thanks to the mono screen and the slow LCD update most of that is lost. What you don't lose, however, is the speed, and for serious race fanatics that could be enough. In the long run, though, the heavy ghosting (you can't even see the road signs clearly) does prove tough on your eyes.



KING'S QUEST IV

Sierra On-Line, £44.99

As adventure action isn't usually highly animated and proceeds at a fairly leisurely pace, it adapts well to the restrictions of a laptop. The one major proviso is visual: clues of the graphical sort found in lots of Sierra and Lucasfilm adventures don't always show up well in black and white. Virgin's Wonderland, with its purely cosmetic graphics, and some of the old Infocom text-only adventures, like Zork, could prove an even better bet.

LEMMINGS

Psygnosis, £34.99

Though it's possible to play Lemmings with keys, to move around as quickly as the game demands you really need a mouse. Add to that a cursor and presentation screens which (in mono) are pretty hard to see, and you've got a product which is happiest in the disk box when you're playing games away from home. Disappointing.

MiG-29M SUPER FULCRUM

Domark, £40.85

How much you get out of any laptop flight sim depends entirely on your personal aviation preferences. If you fly to gasp at the scenery and gawp at the graphics, MiG-29M – pictured above – in mono won't do much for you. If, on the other hand, it's the action you're after and lack of graphical clarity seems like a minimal drawback, you're on to a winner – especially as keys are usually the preferred flight sim controls. Other flight sims – notably F-19 and LHX Attack Chopper – work well, too.

PRINCE OF PERSIA

Broderbund/Domark £30.64

The chief attraction of this cinematic platform game is its exquisite animation, and when your hero disappears in a blur of frames those famous elegant movements inevitably lose some of their charm. After a while though, your eyes do learn to adjust, and transform a product which looked like it wouldn't last more than a couple of minutes into a surprisingly playable game.

PRO TENNIS TOUR

Infogrames, £30.64

The trouble with this is that the LCD update just can't keep up with the ball. Instead of a sphere you're expected to belt a long grey smear across the screen: this doesn't stop play altogether but it does make it difficult to judge shots accurately. Opt for a more sedate sport such as golf instead.

TETRIS

Infogrames, £24.99

Bar the odd touch of ghosting, you encounter exactly the same problems playing Tetris on your lap as on your desk. It's so addictive you can't stop playing, and when you lose you still get mad. With a few obvious exceptions (Klax, for example) puzzlers don't lose much in black and white, so as long as no ultra-quick mouse manipulation is required they're just as entertaining on the move.

XENON 2

Mirror Image, £9.99

Contrary to what you'd expect from this action-packed joystick-busting extravaganza, alien bashing in black and white, even with the inevitable ghosting caused by slow LCD update, is still a lot of fun. In fact, as long as you're prepared to play with keys and can live without colourful graphics, even action-busters such as Speedball and Golden Axe come out fairly well. In company and on trains, however, it's always best to turn that music down ...



SIM EARTH

Maxis/Ocean, £40.86

Everything Sim Earth can do on a desktop it can do on your laptop. Lavish graphics aren't what you play this game for, but in mono VGA the menus and maps are just as visible as in colour. Without a mouse, control can be a bit more laborious – but this is primarily a thinking game so the absence of fluid cursor movement isn't too much of a drawback.

Best of the Rest

Other portable games worth considering are Ivan 'Ironman' Stewart, which retains its playability, and has a option to turn off the sound; the fast STUN Runner; Das Boot, and Wordtris, neither of which rely on their graphics, and Paperboy, which still runs pretty smoothly.

Beware, however, a few titles which simply don't want to know when it comes to portable loading. In our tests, we came across three: Shanghai II, Ghost'n'Goblins and Knights of the Sky. And, of course, any title which requires a mouse for control may present problems if you're on the move.

THE ACTION

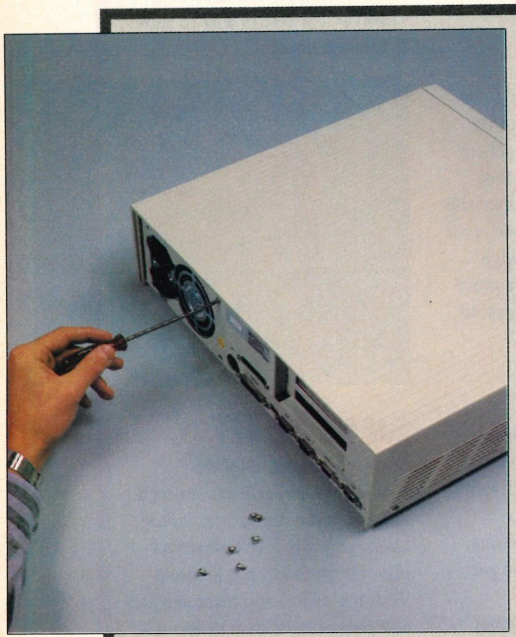
FIRST STEPS

BEGINNERS GUIDE

In this series of articles about the PC, hardware and software, we'll be taking you step-by-step, through the ins and outs of using, controlling and upgrading your machine.

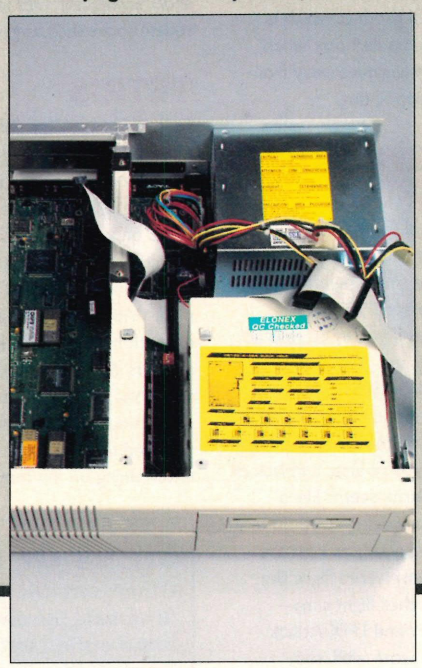
You will find out what the PC's components are, how to use them, and how to use PC software to get the best out of the computer.

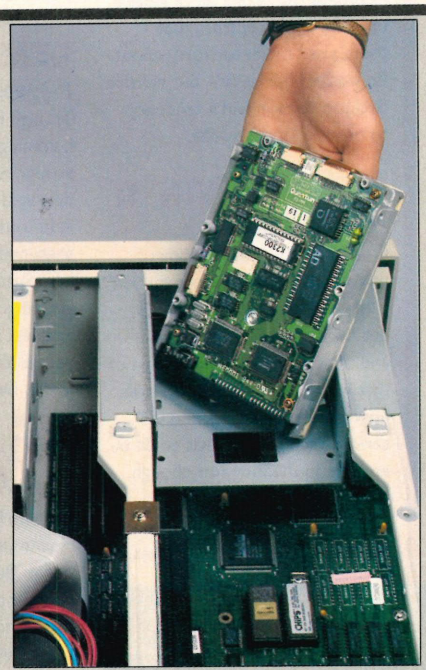
To play many of the latest games, it is essential to have a hard disk installed on your PC. Chris Long explains why, and how you can fit a hard disk to your machine yourself and revolutionise your PC games playing



The back of the PC. Disconnect the PC completely from the power supply – don't just switch off at the mains. Remove the screws keeping the lid on. Most PC cases are held on by just five or six screws – on this particular machine the lid was also fixed at the side. Try to keep the screws safe.

The PC minus lid. Note the position of the various components of the PC. Expansion slots (rear left), power supply (rear right), processor chip (front left), floppy disk drive (front right) and hard disk drive bay (front left, above the main board). Also note where the cables are attached, since you may need to unplug them sometime in the near future and you don't want to forget where they came from.





The front of the PC. The hard disk will slot into this metal cradle, which holds it securely in place. It's important to check the size of the bay (full height or half height), otherwise you may end up with a hard disk that doesn't fit in your PC.

Most games can be run off a floppy disk without much bother – if you enjoy watching paint dry, that is. They will load without glitches, but actually playing them is another matter. How many times do you sit through a screen freeze, as the disk drive grinds and grunts through loading the next screen or section into memory? Even worse, it may go through this rigmarole only to settle down eventually with the message 'Insert disk two into drive'. The sheer speed and convenience of a hard disk should convert you overnight, if not sooner.

Because many of the larger games need what are called overlays, the disk becomes very important. An overlay is another part of the program that is kept on disk until it's needed. Since floppy disk drives are slower than hard disks the game goes on hold for a while while the overlay is called up.

And the reason some games won't run at all until they have been installed on to a hard disk is that the files which make up the program have been compressed to fit on to the floppies supplied in the box – they need to be decompressed as they are copied over, as the files on PC Review's cover disk are. But where each of our cover disk programs on their own will fit on to another floppy, this simply isn't true of games such as Wing Commander 2 whose many floppy disks expand to 21Mb of hard disk space.

So a hard disk should actually speed things up for you considerably and give you a whole new perspective on computing. You will be able to keep all your games and programs on the one hard disk – though you may need to keep any 'key' disks handy – and play without having to keep the program disks neatly beside you, ready to swap at a screen prompt, and without

For more information about buying hard disks and other PC peripherals, see this week's Cover Story, the No-Nonsense Guide to Buying a PC. See also the Buyers' Guide for specific products.

HARD CARDS

An extremely useful way to install a hard disk in your PC without the hassle of controller cards and the like is the hard card. And with older or slimline PCs which don't have the wiring set up or the space to fit a hard disk unit, the hard card is a godsend. Rather than sitting in its own drive bay, the hard card is built into an expansion card and inserted into an expansion slot, just as a sound board or joystick card.

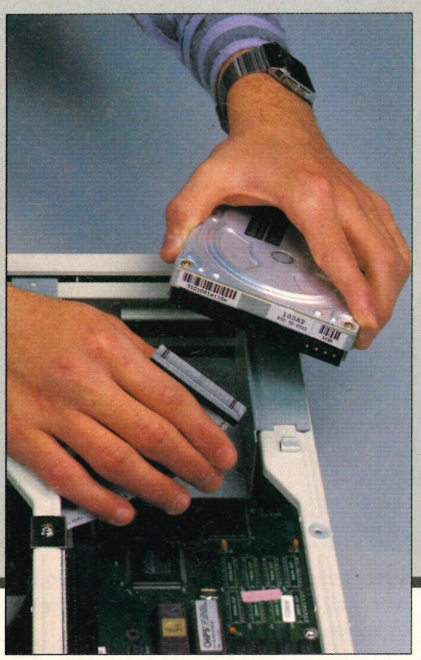
HARD DISK TECHNOLOGY

A hard disk is a small metal plate spinning at about 3,600 rpm.Over the top of this plate the **Read/Write** heads fly. Yes, they fly, sitting on a cushion of air at around 10 millionths of an inch above the disk– less than the width of a human hair. Because of this accuracy the disk has to be a sealed unit, which means if you open up the innards of the hard disk itself, expect to say bye bye to it. Not only will it invalidate the unit's warranty you will almost certainly get enough dirt in it to cause a major disk crash when you next try to run it.

The heads follow magnetic tracks on the disk surface and read and write information to and from the disk's surface in exactly the same way a tape recorder's head writes to tape. These tracks are cut up into slices called **Sectors** (a common number of sectors is17) and so, you'll have a single disk with, say, 500 circular tracks each cut up, much like a pie, into 17 sectors.

Data is then written to each sector separately, and the address of the information is written to the FAT (File Allocation Table), which tells the hard disk controller which files are stored and where on the disk they can be found.

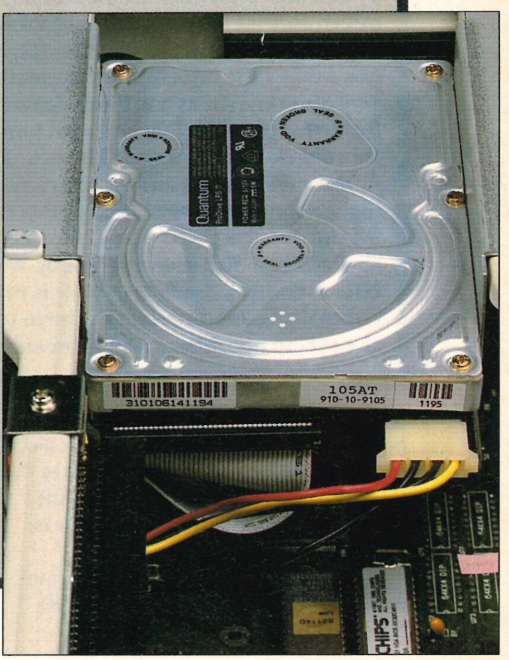
It is much easier to connect the cables to the hard disk unit before you actually screw the hard disk into position on its cradle, which should be supplied by the manufacturer. This wide ribbon cable is the data cable. Getting it securely plugged in can be quite fiddly – be careful you don't yank it out of its fitting at the other end.





Fitting the power cable. As you can see, this is much more easily done before you screw the hard disk into its slot. Once both the data and power cables are connected, check they are fitted properly and securely and that the cables themselves aren't stretched or tangled up inside the casing.

Finishing off. Check that everything is lying comfortably in the machine and your cables aren't strained to breaking point. Now you can screw the hard disk to the cradle, and replace the lid. At this point you may only want to use one screw to keep the lid on until you have loaded up the software and checked that the PC is recognising your new disk.



those irritating delays as you wait for the next portion of the game to appear – although the speed of your hard disk and your processor will determine just how seamless this process appears to be.

Probably one of the best examples (and it was the first) is the Hardcard from Plus Development. This is the width of one add-in card (some hard cards take up the space of one and a half or two expansion slots) and has built on to it a controller and hard disk unit. The card plugs into an ordinary slot and promptly announces itself to the system as the new hard disk: you can then treat it as an integral disk without any further concerns.

Hard Disk History

The standard IBM PC didn't have a hard disk at all until two years after its launch, in 1983, and even then, it was only a10 Mb model.

At the time, putting a hard disk in a desktop computer was something of a technological feat. Hard disks were the preserve of mainframe computer sites, which typically used drives of 60 Mb-200 Mb. They were about four feet high and six feet long by three feet wide, with 10" disk platters, weighing about 30lb and around the size of six stacked pizza boxes.

To install the disk's platters in the drive, the sealed disk unit had to be left in the computer room for 24 hours to allow it to adjust to the ambient temperature, then installed on the unit with the heads disconnected for eight hours to get the ten disk platters up to temperature. Only then were the heads connected and set up with an oscilloscope.

Thankfully, things are a touch simpler these days. A 60 Mb hard disk drive is smaller than a paperback book and can be slotted easily into a PC's casing. Tighten the screws, plug it in and load your software. See pictures for details.

Formatting Your Disk

Your new hard disk is totally blank and has no guides for its use until it is formatted; one of the most nerve-wracking operations in the disk repertoire and one that should always be treated with care

Words in bold are explained in the Glossary

DRIVES AND CONTROLLERS

Different aspects of the disk drive can change its performance in one way or another.

Encoding is the way the data is written on to the hard disk. There are two main types of data encoding: RLL (Run Length Limited) and MFM (Modified Frequency Modulation). MFM is the cheapest, most common, and least efficient of the two methods. RLL can store nearly twice the information than the MFM method.

Because RLL makes more demands on its hardware, drives that use it have to be manufactured to a higher specification. This is worth noting because it will almost certainly have an impact on the price as well as performance.

Interleave concerns the 'organisation' of the data on the disk. If your data in a program is stored in consecutive sectors, the interleave factor determines how this information will be read. As the data comes under the disk head it is picked up (say, in sector 1), but when the next sector (sector 2) is under the head the data from the previous sector is still being dealt with. So, sector 2 goes by and nothing is done, sector 3 comes by and still the information is being digested by the computer, so that information is ignored too. But by the time sector 4 comes by all the data is filed away, so the head takes the information on sector 4.

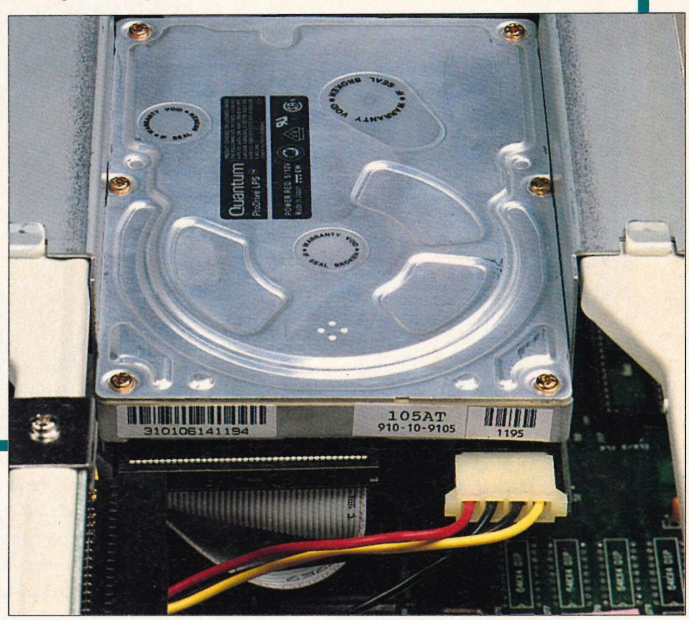
This is known as a 2:1 interleave, because the head has to let the information from two sectors go by before it can pick anymore up. This means it writes the information in the same pattern too and, obviously, the higher the interleave number the slower the data comes off the disk.

The hard disk is usually set up with its interleave information at the factory, if it is matched with a controller card but you may have to do this as part of the set-up operation. Software and instructions to use it should be supplied (and get on to your dealer if they are not).

The better the interleave figure the better the performance. Therefore, a 1:1 interleave denotes all the data is in sequence and the fastest way of getting your data off the PC.

Finally, the interface. This usually sits on the controller card and passes the data between the PC and the hard disk. As we have just seen with interleave, the limitations of the PC can mean the disk drive is sometimes the subject of a bottle neck. If the controller is powerful enough it can compensate, allowing the disk an interleave of 1:1, and storing the data on the card until the PC is ready to use it.

The most basic of disk controllers is the ST506, found on the XT and still in use. An ESDI (Enhanced Small Devices Interface) is faster and is the general choice for mid to high performance hard disks. SCSI (Small Computer System Interface) is becoming more popular these days and is now installed as standard on more powerful PCs. It allows several devices to be connected to the PC and you don't have to bother about compatibility. If it is an SCSI device it will work.



and caution. In practice it is similar to drawing lines and a margin on a blank piece of paper. The format command creates the **File Allocation Table (FAT)** and the root directory and marks out the tracks and sectors.

That description is correct for both floppy disks and hard disks. But because the hard disk is so much larger than a floppy, some different rules apply in the preparation.

First on the agenda for a hard disk is a **Low Level Format**, this defines the areas the head can 'use, the 'limits' if you like of where the head can travel to. This is usually done at the factory and sometimes you won't need to worry about it, but, be warned, you need to know about it, because there are

Glossary

Access Time: The average time taken to retrieve information from the hard disk. Usually quoted in milliseconds. The shorter the time the better the performance.

Controller Card: The add-in card that plugs into an expansion slot on the PC and the hard disk and houses the interface electronics for the hard disk. If your PC comes complete with controller it may be on the main board rather than using up a slot.

CD-ROM (Compact Disk-Read Only Memory): A read only device which can store in the region of 660 Mb of data.

ESDI (Enhanced Small Device Interface): Disk drive interface faster and able to handle a larger capacity than ST506.

FAT (File Allocation Table): An area at the outer edge of all PC disks which tells the operating system which sectors are attached to what file and where the sectors are.

FDISK.COM: MS-DOS program used to divide a formatted (high level) hard disk into partitions.

FORMAT.COM: MS-DOS program that puts down a structure for the read/write heads to follow on a hard disk or floppy disk.

Format, Low Level: A format, usually done by the manufacturer, that divides the tracks into sectors.

Format, High Level: A format as provided by MS-DOS, creates FAT and root directory. Used on both floppy disks or hard disks. This is performed *after* a low level format.

Full Height: Term used to describe the height of the disk units originally supplied with the first PC: approximately 3.5". See Half Height.

Interleave: The number of sectors that move under the read/write head after a byte of data has been read and before the next one is read.

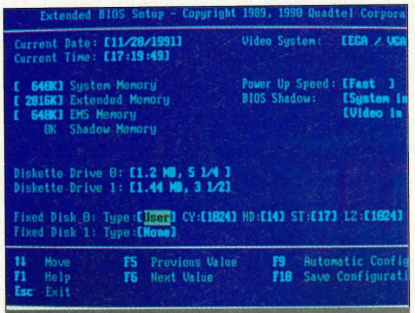
Half Height: The current 'standard' height for floppy drives and most modern average capacity hard disks (about 1.75" in height).

Key Disks: Although installed on to a hard disk, some games won't run unless the original program disk is sitting in the floppy drive (notably Xenon 2 and Pipemania). This is a copy protection precaution taken by some programmers. Although the program checks for the existence of the key disk, the game is still run from the hard disk.

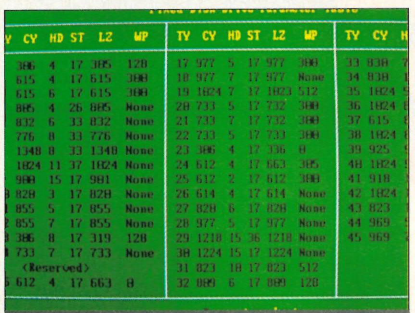
MFM (Modified Frequency Modulation): A method of encoding data to be written to a hard disk. An older, less efficient system but cheap and reliable.

MTBF (Mean Time Between

FIRST STEPS WITH THE PC



This is a fairly typical example of a PC set-up screen, which can be accessed while the machine is running through its self-tests. Information on the number of drives and their type can be edited here, and you will need to know which type your newly installed hard disk is in order to set these parameters up correctly. Ask the supplier if the information isn't included in documentation.



The reason you need to know your hard disk type beforehand is that there is an enormous number of different combinations, as shown above, and you certainly don't want to try them all out to see which one yur PC will recognise. Type 17 is a common one for the standard 40Mb hard drives which come with many PCs.

occasions when, for instance, some data is corrupted, that a high level format doesn't work.

A high level format is a 'personalised' version of the format. It is done by you to prepare the disk for use on your system. The low level format is done using a program from the supplier of the disk drive or **Controller Card**, while a **High Level Format** is usually done via the **DOS FORMAT.COM** program (or a similar program provided in utility programs such as Norton or PC TOOLS).

Before you run FORMAT on a hard disk though, you need to run **FDISK** (also a DOS program). This prepares the hard disk by setting out the **Partitions**. Partitions are ways of sub-dividing the hard disk into smaller disks on the same drive. How many you will need depends on a) how big your hard disk is, and b) which version of MS-DOS you have – v3.3, for example, cannot cope with hard disks bigger than 32 Mb. Once FDISK has been run, and the disk is more or less mapped out, you then run FORMAT on each partition in turn.

Because the data is integral to the tracks and sectors, every time you format a disk it destroys the information on it. So always *be careful* when formating a disk. Really, it is so easy to type FORMAT and then answer 'Yes' when the system prompts you...then you realise you have formatted the wrong disk.This is usually followed by some severe head-banging – against the wall.

SUPPLIERS

If you are considering installing a hard disk to your PC, you need to know the person you are buying from can look after you if things go wrong at you end – even a competent voice on the other end of a telephone can mean the difference between a painful experience and a successful one.

Established hard disk manufacturers to watch out for include Conner, Fujitsu, Hitachi, NEC, Plus Development and Seagate Technologies. They will usually sell the drives through dealers.

Manufacturers who sell through UK offices include:
Core International (0344) 861776.
Christie (0453) 823611.
Sony (0784) 466660.
Western Digital (0372) 734235.

Direct suppliers, selling a range of hard drives, include:
Borsu (0256) 841440.
ESD (0279) 626777.
Frontline (0256) 463344.
Ideal Hardware (081) 390 1211.
Osicom (0222) 778888.
Pronto Electronics (081) 554 6222

Always call these people for advice before parting with your money. Also, many manufacturers have brochures that explain how their bits of hardware work, so phone them up and have them send you as much of their supporting literature as you can it costs you nothing and it could make the difference between a good buy and the perfect buy

Failure): Literally the time between bits of the computer breaking. Usually applied to a single unit at a time and measured in hours.
Partition: A way of dividing a physical hard disk into several logical drives. A 90 Mb hard disk could be made into three 30 Mb logical drives each with their own drive letter (eg, c:, d: and e:).
Read/Write Heads: The mechanical heads that 'fly' above the disk and collect or write the data from or to the disk. The distance they fly at is less than the depth of a fingerprint.
RLL (Run Length Limited): A method of encoding data to be written to a hard disk – more efficient and faster than MFM, but requires better machine tolerances.
SCSI (Small Computer System Interface): An interface that allows more than one device to be connected (or daisy-chained), also allows different types of equipment to be connected on the same chain, eg, CD-ROM. Modern high performance PCs often have this built in.
Sectors: Parts of the a track that are defined by formatting. The number of sectors is usually defined by the type of drive.
Seek Time: The time taken for the read/write head of the disk to move from one track to another, usually quoted as an average of many 'seeks'. The shorter the time between tracks the better the performance of the drive.
ST506 (Seagate Technologies Standard 506): An early hard disk interface superseded by ESDI and SCSI, still used with drives of less than 40 Mb.
Tracks: A circle on the disk defined during formatting. The data is stored along this circle. Each track is separate and has its own number and is then sliced up equally into sectors.

Next Month

Next month, First Steps With PC returns to the complex and often confusing subject of MS-DOS, with a guide to disk housekeeping, copying and deleting files and how to use batch files.

Previous subjects covered in this series are: PC overview, disk drives, directories, screen, ports, processors, memory and expansion slots (issue 1); the mysteries of MS-DOS (issue 2).

Meanwhile, if you have any questions, queries or problems write to Q&A, PC Review, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU, and we will try to help.

READY

STEADY

GO!

GAMEBOY

GAME GEAR

LYNX

PC ENGINE GT

GAMEBOY

GAME GEAR

LYNX

PC ENGINE GT

GAMEBOY

GAME GEAR

LYNX

PC ENGINE GT

Got a hand held?

Grab your free edition of with C&VG

HAND-HELD GO! VIDEO GAMES

More hand-held action than you can stuff down your trousers!

Gameboy, Game Gear, Lynx and PC Engine GT - we take them all to pieces and tell you which is the best!

chock-a-block full of the latest reviews and previews on the greatest hand-held games in the world!

Latest and greatest, it's BRITAINS ONLY HAND-HELD CONSOLE MAG - and it's free with C&VG!

GO! Grab it quick - it's going fast!

COMPUTER + VIDEO GAMES

HAND

GO

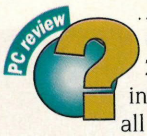
VI



Secret of Monkey Island 2

Thirteen is a lucky number, because that's how many new PC releases we've put through their paces in our in-depth reviews this month. Once again you'll find relevant information rather than irrelevant waffle. To this end, our reviews are quite structured, so that you won't have to read the whole review only to find that a game isn't suitable for your machine.

● Alternatively



...we believe games should be placed in context. If you like the sound of Monkey Island 2, for example (see over the page), you'll be interested in other games of a similar style. In all our major reviews, we offer comparisons with other titles on the market, some of which may be more suited to your tastes.

● Hardware requirements

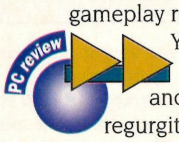
...there is nothing quite so annoying as discovering your hard disk has run out of space when you're halfway through installing the latest multi-disk epic – and the manual doesn't always tell you how much space you need. We do, though. We also tell you how many disks come in the box, so that floppy-only owners will know how much disk-swapping is likely to be involved.

● Tech specs

... our no-messing, no-guessing guide to the hardware supported by the game. And if there's anything unusual about the specs, or any additional information, we note it in the accompanying comment box.

● Two minutes

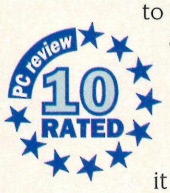
...the nearest thing to seeing the game in action, as we take you through selected screens and note the gameplay required.



You'll find the reviews concentrate on the atmosphere generated by the program and the gameplay involved, rather than regurgitating reams about the background story. You can always read the novella when you buy the game – our job is to help you decide whether you want to buy it in the first place.

● Our rating system

...we're as fed up as you are of over-complicated rating systems that mark everything from packaging to intro sequences and tell you nothing about the real quality of the game. That's why we've made our rating system simple and consequently useful. We give a single mark out of 10, based on the game's overall quality and how enjoyable it is to play.



ARCADE GAMES

Home Alone 81
(Capstone)

SPORTS SIMULATIONS

TV Sports: Boxing 61
(Cinemaware)

The Games – Winter Challenge 69
(Accolade)

Mike Ditka's Ultimate Football 78
(Accolade)

STRATEGY GAMES

Powermonger 46
(Electronic Arts)

Battletech: The Crescent Hawk's Revenge 72
(Activision)

Battle Isle 75
(Ubi Soft)

ROLE-PLAYING GAMES AND ADVENTURE

The Secret of Monkey Island 2: Le Chuck's Revenge 40
(Lucasfilm)

Cadaver 52
(Image Works)

The Bard's Tale Construction Set 64
(Electronic Arts)

Conquests of the Longbow: Legend of Robin Hood 84
(Sierra On-Line)

CD-ROM TITLES

Compton's Multimedia Encyclopedia 58
(Britannica)

Software Toolworks CD-ROM Games Pack 59
(The Software Toolworks)

THE GAMES THAT GOT AWAY 89

A quick round-up of the titles that didn't quite make it into the review pages proper, a guide to ratings awarded this issue, and the 'lame excuses hall of fame' for software we should have had but didn't get due to 'unforeseen circumstances'!



■ Monkey Island 2 ■ Lucasfilm/US Gold
■ (021) 625 3388 ■ £39.99

Monk



The commercial success of heavyweight big box titles like the latest Sierra games and Lucasfilm's Secret of Monkey Island proves that easy to use graphic adventures are exactly what most games buying PC owners are looking for. As this is an international affair (top adventures sell big in the UK, USA and continental Europe), it's only natural that the software publishing giants are fighting hard for the pole

Nobody said it was easy to kill an undead pirate: LeChuck returns, Guybrush has a serious problem and you will have a great time with Lucasfilm's superb new adventure



TWO MINUTES OF THE LARGO EMBARGO

To complete the voodoo doll, the priestess requires "one from the body" of the victim. Searching Largo's room for such an item seems a good idea, but the inn keeper doesn't want you to pry into his guest's privacy.

Releasing the innkeeper's pet alligator by cutting the rope is just the right thing to do. The good man rushes after his little darling and doesn't prevent you from entering Largo's domain anymore.

Unfortunately Largo himself seems to be less than pleased to catch you searching his belongings. But how can you stop him from entering the room while you're looking for anything useful to finish the voodoo doll?

You've got a bucket and you know where the swamp is, a rich source of the finest mud. Placing the mud-filled bucket on a strategic position above the door gives Largo a surprise on entering the room.



ey Island 2:

Le Chuck's Revenge

position in that highly popular field.

Sierra and its associate Dynamix have been pretty busy over the last months and released several Quest titles and movie-like games such as Heart of China and Willy Beamish. Though well-presented, many of the recent Sierra offerings lacked depth and playability and could be solved in a weekend. Lucasfilm, relatively quiet since last year's The Secret of Monkey Island, is now proving that it is still the top publisher for sophisticated graphic adventures. LeChuck's Revenge, the sequel to Monkey Island, offers splendid graphics without neglecting the quality and quantity of the puzzles.

Several years have passed



Spot the difference between EGA and VGA graphics, quite remarkable throughout the entire game. You can live with the quality of the EGA pics but compared to the VGA screens they look rather scratchy.





Note the well-illuminated sprite of the bartender whilst Guybrush looks darker since he has just moved away from the light source.



Are you dreaming or what? After falling from a tree Guybrush has this strange vision of dancing skeletons and zombie-like LeChuck who's in a pretty foul mood.



Interact with other characters through meaningful, intelligent dialogue.

Largo gives his dirty clothes to the pirate laundry (nobody said that you should take this game too seriously). After picking up the claim ticket from behind the door you can collect Largo's clothes at this place – the part for the voodoo doll is yours.



since the young would-be pirate Guybrush Threepwood defeated LeChuck, an undead swashbuckler, who terrorised the seven seas with his ghost ship, a ghost crew and several other rather ghostly habits. But Guybrush's fame faded away quickly, in spite of his travelling from island to island repeating the "Did I tell you how I defeated the mighty LeChuck?" story. Our young hero kept the beard of the ghost pirate as some sort of souvenir which appears to be a big mistake. Later in the game this 'living beard' falls into the wrong hands and enables some of LeChuck's henchmen to revive the body of their old leader, who seems to be a bit unforgiving. What else you would expect from a game called LeChuck's Revenge?

Trying to ignore these threats, Guybrush searches for the Big Whoop, a mysterious treasure pirates have been after for decades. Four pieces of a map will reveal its location. To obtain them, Guybrush must travel to several islands and complete a huge amount of puzzles and sub-quests. As a starter he has to take care of the pirate Largo who's running rampant on Scabb island. The only way to get rid of this guy is some homemade voodoo magic...





The "shopping list" describes the four items which the priestess needs to create a voodoo doll of Largo.

The plot offers much variety which also boosts playability: if you get stuck with one puzzle there are usually several other things which can be done at the same time. You don't have to suffer too much frustration as you can change locations and try something else or collect more clues. LeChuck's Revenge also offers game play on two difficulty levels. Beginners can choose an easier way, but the tougher variation is recommended if you want to get the most out of the game.

The program is controlled with the usual Lucasfilm Interactive interface which offers a few new polished touches. To construct a command, you first have to click on one of the nine



After finishing the first chapter of the story you can switch between these three islands.



This looks silly, but in fact it's a puzzle. In order to win the spit contest you have to click on all those mouth watering commands in a special order.



Salesman Stan proves his enormous talents as a trader of used coffins.

verbs which are displayed at the bottom on the left hand side of the screen. This should be followed by pointing on an object. The Use command might require clicking on a second object. If, for example, you want to fill some mud from the swamp into the empty bucket in your inventory, you have to build the command "Use bucket with swamp". This system works very well and requires no typing at all (if you don't count naming your game positions when saving).

Game designer Ron Gilbert put a lot of humour into his latest work which doesn't mean that the puzzles are logical. When it comes to problem solving, LeChuck's Revenge demonstrates how many original brain teasers can be constructed within the limitations of an icon-based control system. It's not just a question of grabbing everything you see and using it at the most likely location. You really have to think in advance and keep in mind what other effects you could cause with your actions. The laundry-puzzle as explained in the two minutes box is a fine example. The game is pretty fair which means that



What a nice well-decorated dungeon we have here, home of the undead pirate LeChuck. Guybrush isn't in the mood to study the work of a gifted interior designer, he just wants to get out.

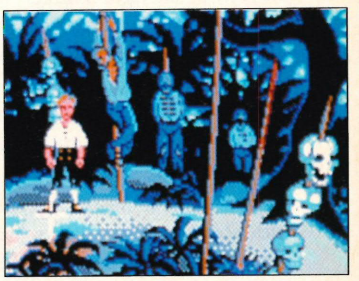


The cure of Booty Island proves overwhelming. Perhaps there's gold, silver and jewels of untold wealth.

ALTERNATIVELY...

The Secret of Monkey Island

(Lucasfilm/U.S. Gold, £34.99)



If you're into graphic adventures and haven't played LeChuck's predecessor yet, you really have missed something. Monkey Island I doesn't feature as many puzzles and doesn't have the strong graphics of the sequel. However, you might even want to buy it first, as Le Chuck's Revenge features several jokes which can only be fully understood if you've played Monkey Island I before. A classic and a must-buy which is still riding high in the charts a year after its release.

Leisure Suit Larry 5

(Sierra, £39.99)

Al Lowe is one of the few masters of humorous entertainment software. The latest incarnation of his famous anti-hero Larry Laffer features the intriguing subtitle "Passionate Patti does a little undercover work". The cartoon-style graphics are highly original and the bizarre plot is good enough for a couple of laughs.

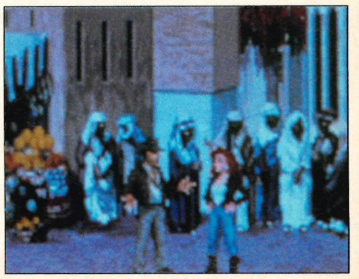


Unfortunately this counts only for the first half of the game, which looks as if it was finished in a big hurry. Besides that, Larry V is bitten by the Sierra adventure bug: great presentation, lots of animation, nice user-interface, rich musical score, but hey, where is the gameplay? Larry V has hardly any satisfying puzzles and is not as complex as any of the Monkey Island titles. This offering from Sierra is disappointing in the long term.

Indiana Jones and the Fate of Atlantis

(Lucasfilm/U.S. Gold, £39.99)

You don't have to be converted? You've already bought and played both Monkey Island adventures? You can't imagine your life without a new Lucasfilm adventure on your hard disk? Those busy people at Lucasfilm have their next adventure already in the pipeline: Indiana Jones and the Fate of Atlantis should be in the stores within the next few months. Like Le Chuck's Revenge it will feature the same easy to use point-and-click-interface and luscious VGA graphics. The new Indy game will offer fewer laughs, but even more complex puzzles than the Monkey Island adventures.





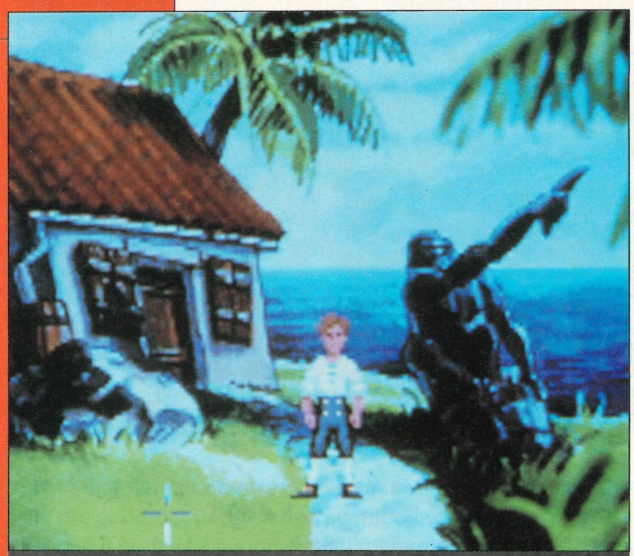
Will the spirits rise to greet you?

you don't die after every second turn without being warned. As with all adventures it's wise to save your position after you've made an important progress, but it's very unlikely that you must restart the game because you missed a unique opportunity to solve a puzzle.

Outstanding VGA graphics seem to be becoming a standard for this style of adventure. Lucasfilm has now reached the high level of Sierra's artworks. The colourful and original pictures fit the overall mood of this pirate comedy nicely. As well as the usual effects (scrolling, zooming in and out), LeChuck's Revenge features some appealing light and shade effects. When a lamp illuminates a special area it will also affect the look of any characters around. If Guybrush walks from a light into a dark corner of the room, his sprite will be affected and get darker as he moves away from the light source.

Besides the comfortable user interface, excellent puzzles and first class graphics, you will be charmed by the rich humour and the weird plot. Monkey Island 1 must have been one of the funniest pieces of computer software ever produced, but its sequel causes even more laughs – especially if you've played the first game before. It's not necessary to have any experience with Monkey Island 1 to solve LeChuck's Revenge, but only veteran players will be able to understand some of the irony. Stan, for example, who sold used ships in the predecessor, returns with a new business, selling used coffins. The jokes per minute factor of LeChuck's Revenge beats even Leisure Suit Larry 5 – which is saying something.

There have been quite a lot of promising adventure releases over the last few months which have turned out to be a bit disappointing. But forget the futuristic boredom of Martian Memorandum, the frustrating moments with Police Quest 3 and the transient appeal of Willy Beamish. LeChuck's Revenge comes very close to my idea of a perfect adventure game. It winds all those flashy presentation things around some solid puzzles and offers a very easy to use control system. The choice between two difficulty levels should make everybody happy. Experienced players, who found Monkey Island 1 a little easy, will realise that the sequel offers more depth. Only diehard text adventure enthusiasts and surviving Infocom fans should be warned; if you're out for pure puzzle cracking, don't want any luxury presentation but feel the desire to hack in your commands with the good old keyboard, you might be more challenged with a traditional title like Legend's Spellcasting 201.



All points south? Head off down the trail to fortune and glory.



It's becoming obvious that you can't play all the latest entertainment masterpieces without well-muscled hardware. To run LeChuck's Revenge you must at least have a 286 system with EGA, a colour monitor and a hard disk. To get the full enjoyment, your system should be running with at least 16 MHz, feature VGA graphics, a mouse and a sound card.

If you're still stuck with an 8-MHz machine which is even lacking a hard disk, you should really think about scratching some Christmas money together to purchase a new machine.



If you've got the necessary hardware, enjoy good graphic adventures and are in the mood for a good laugh, you will be more than delighted with the latest offering from Lucasfilm.



Laugh for laugh, Monkey Island 2 is a riot.

HEINRICH LENHARDT

REQUIREMENTS

The game swallows about 8Mb hard disk space and an installation is required – there's no way to play from floppy disks. The box contains either six high density 5.25" disks or ten low density 3.5" disks. Installation takes a few minutes as the files have to be decompressed. Your PC must at least have a 286 processor; the game won't run on less powerful PCs.

Playing the game without VGA is disappointing; the EGA graphics look pretty weak.

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✗
Hercules ✗	✓	✓	✓

MIRROR IMAGE™

£9.99 RRP

















Also available:

3 D Pool, Skychase, Defender of the Crown, Speedball, Rocket Ranger, Strike Force Harrier, Carrier Command, The Three Stooges, Passing Shot, Sinbad and the Throne of the Falcon, Conflict Europe, King of Chicago.

© **1991 Mirrorsoft Ltd.** Irwin House, 118 Southwark Street, London SE1 0SW. Tel: 071-928 1454, Fax: 071-583 3494.
Mirror Image is a brand name of Mirrorsoft Ltd.



■ Powermonger ■ Bullfrog/Electronic Arts
■ (0753) 549442 ■ £29.99

Power

Is the latest release from the creators of Populous merely a conventional wargame sporting pretty graphics?

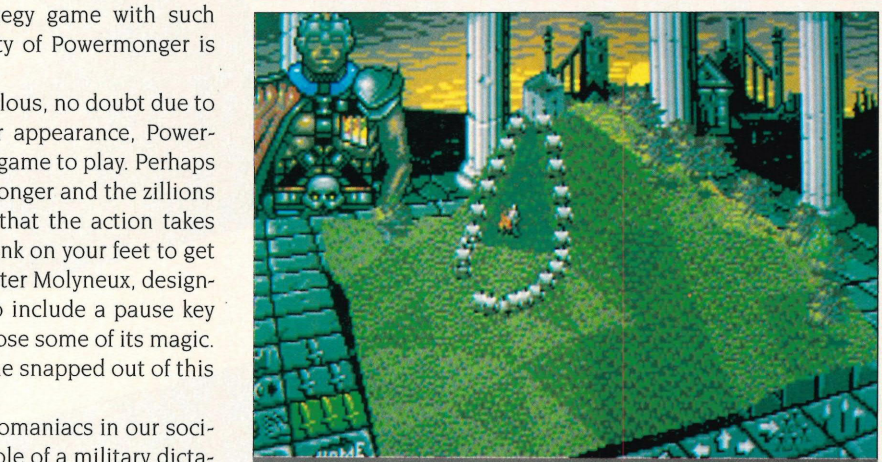
If Bullfrog is to be believed, and please note this is a bunch of British software developers known for juvenile sense of humour, the hardest aspect of creating a game is thinking up a good name for it. Powermonger was originally supposed to be called Warmonger but the Yanks didn't like this title, so Bullfrog had to come up with something less bloodthirsty. They eventually had a list of some 50 very bizarre names, including gems like Three Men and a Little Boat, until a bright spark came up with the idea of fusing their favourite elements of the game into the best name possible. That's probably how the whole project was put together in the first place. Who else could come up with a strategy game with such incredible graphics? Not that the beauty of Powermonger is merely skin deep...

Often mistaken as the sequel to Populous, no doubt due to close timing and a superficially similar appearance, Powermonger is a completely different type of game to play. Perhaps the biggest difference, between Powermonger and the zillions of rather staid wargames out there, is that the action takes place in .real time. You really have to think on your feet to get anywhere near proficient at playing it. Peter Molyneux, designer and programmer, didn't even want to include a pause key feature because he felt the game would lose some of its magic. Luckily, somebody gave him a slap and he snapped out of this crazed daze.

Pandering yet again to the sad megalomaniacs in our society, players are encouraged to take the role of a military dictator out to conquer and, erm, generally kick ass. To make the game seem more real, every tiny man and woman in this 'world simulation' has their own name, personality and profession. So how authentic can a computerised medieval kingdom such as this actually be? Take a look at the grazing sheep populating the landscape for your answer! Don't scoff, they make a very tasty meal and provide comfort for peculiar folk on cold, lonely nights. Far more importantly, food is the single most crucial aspect of Powermonger. If villages don't get enough nosh, particularly during the winter, they will become dissatisfied and rebel against your rule.

The idea is that you start out by invading a foreign land with a handful of soldiers, obviously these guys will only remain loyal provided there's food. As you wander through the realm, decisions must be made regarding trifling matters like whether you should persuade settlements to join your cause or put 'em to the sword instead. However, you're not the only stranger in this hostile dog-eat-dog world. Other invading tribes should be treated like the natives. Ultimate power must therefore be carefully managed. Constant warfare for the sake of it will deprive you of present followers and future recruits.

Factors like weather conditions directly affect the situation; food production varies according to season. Thus, be careful with the overall balance. Don't let your people run out of food, they certainly won't starve themselves to death. Men will desert if there's a lack of food. Not everything is there to be a major feature of the game, though every little thing is included for a reason. Logic dictates that, in the



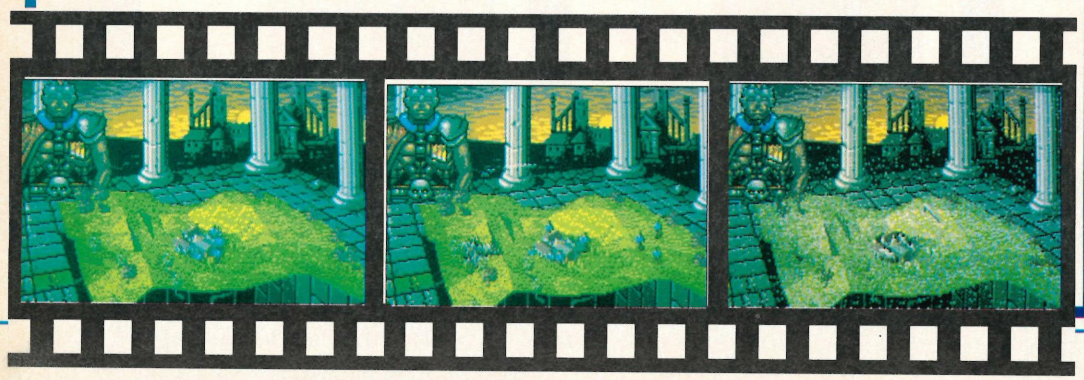
A territory has been captured when at least two thirds of the population are under your control. A quick glance at the 'Scales of Conquest' will show you how things are going.

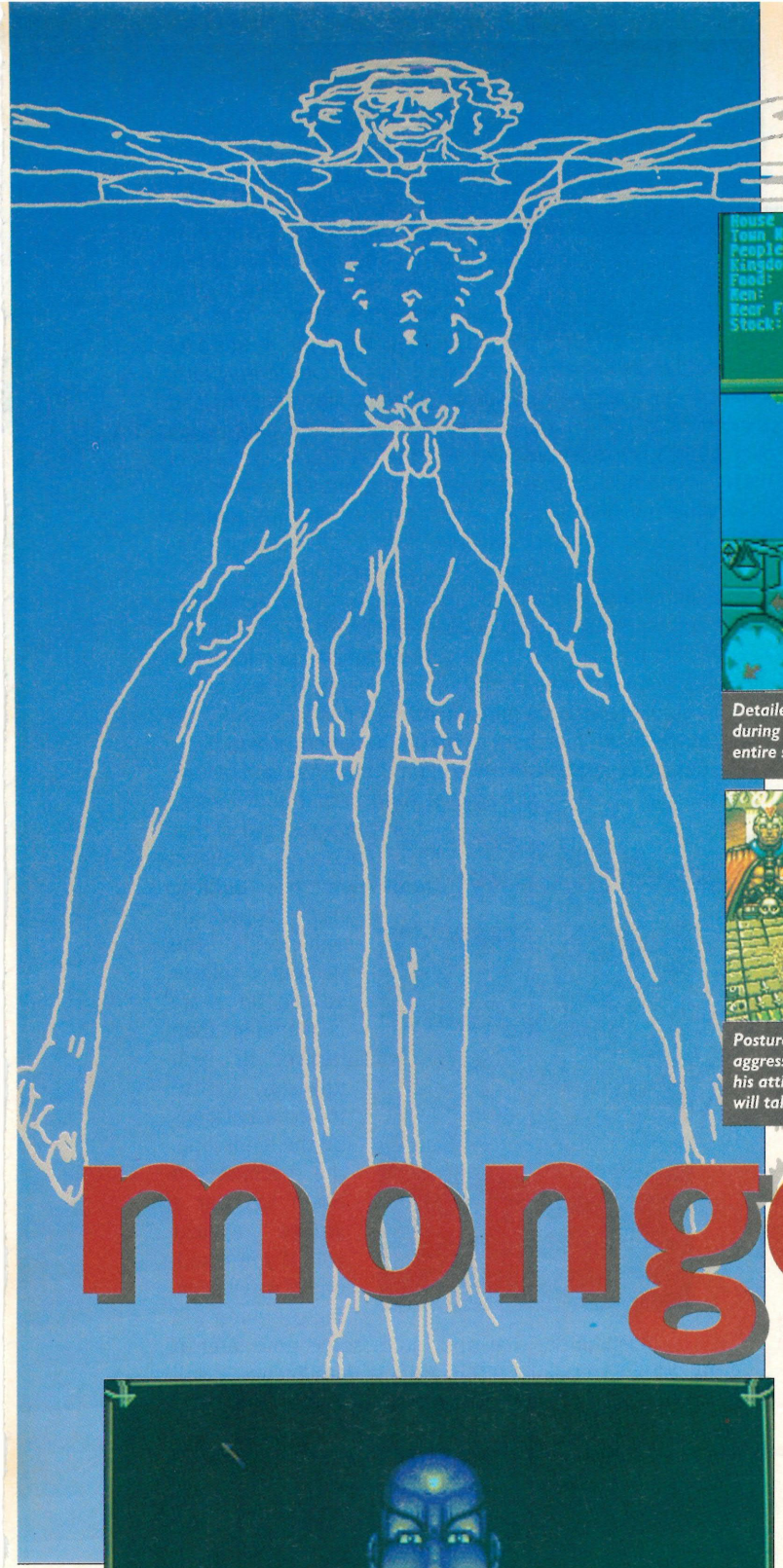
PC review TWO MINUTES OF INVASION...

Despite the dainty pastoral scene of a small settlement out in the countryside, trouble is brewing. Perhaps your loyal villagers can invent something useful like a cannon or fast food franchise!

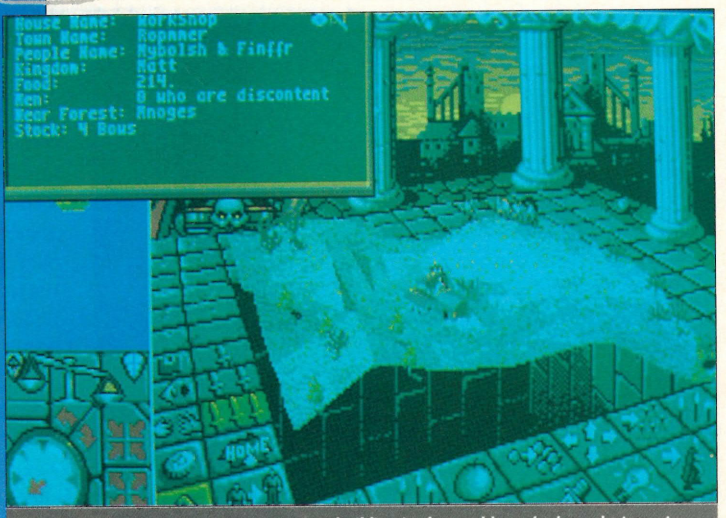
Ah, just like I thought. Enemy troops are on the march. Powermonger is essentially a realtime wargame after all. Once the blood starts to spill, you'll see a few angels float up into the heavens above.

Snow is starting to fall, heralding the beginning of some cold winter days. Food is the spice of life and your followers will get pretty uptight if you can't provide a steady supply of grub during this bleak season.





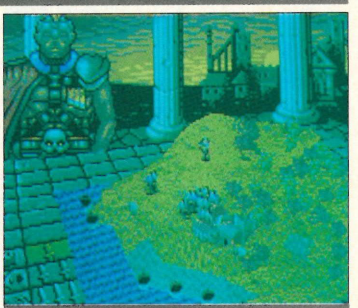
monger



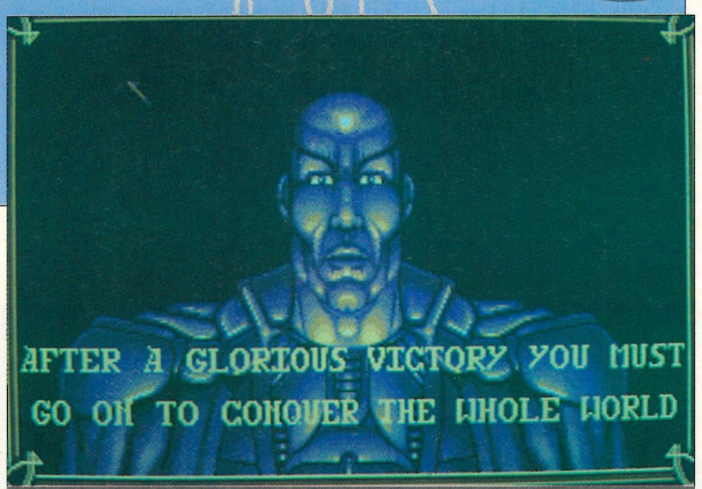
Detailed information on every person or building in the world can be brought into view during any stage of the conflict. It's wise to keep an eye on the amount of food in the entire settlement using this function.



Posture determines the relative aggressiveness of a Captain. The tougher his attitude, the more food and en he will take from a captured village.



Boats can prove exceptionally useful. Not only can fishermen go about their business, but huge sea-borne invasions can be mounted in sneaky surprise attacks on the enemy. D-Day has nothing on this!



There are a few intro, interlude and end game screens to look forward to, but Bullfrog certainly doesn't believe in, or have the resources to create, the style of animated sequences seen in, say, Wing Commander 2. These shots are from the 16-colour VGA version of Powermonger.

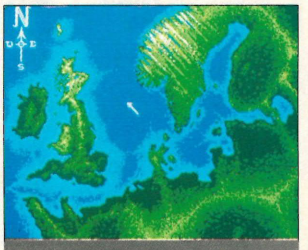
age of the messenger pigeon, shooting down birds belonging to the opposition will prevent orders getting to their forces. How can you win? Establish a good village with plenty of grub.

Avoid taking too many people away to make war. Put your food stocks into one place and get villages inventing as soon as possible. If a village has a church then they'll be much more loyal because they've got religion. Meanwhile, the other tribes will be monitoring and reacting to what you're doing. Be a spy, especially if you're really low on resources, look like one of the opposition and you could infiltrate an enemy unit and kill their leader.

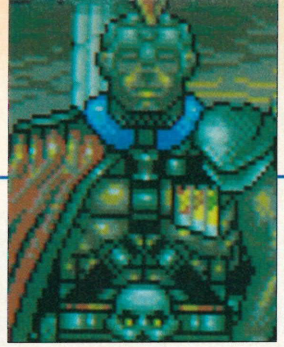
Simple, eh? Unlike your first look at the play screen itself. Of course, the most noticeable aspect of the display is the realistic representation of the cute little people, fishing huts near the sea, barns, towers, villages, hills, trees and so on.

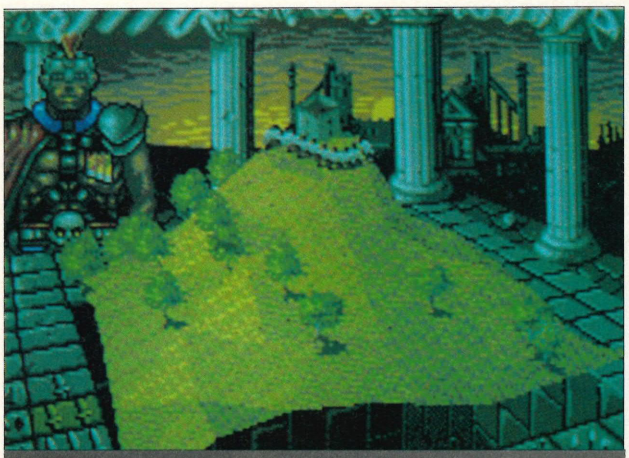
Then, the hefty amount of control icons suddenly grabs your attention. Do you really need this many? Oh, yes. Issuing commands for attacking the enemy, spying, gathering food, inventing, trading or making an alliance is brilliantly easy and quick to implement. Simply click on the relevant icon.

Harping back to those customary gorgeous graphics. Powermonger employs a flexible 3D display system made up of 'vector graphics'. This provides an adaptable, and aesthetically pleasing, view of



The prospect of new lands to to conquer and enslave.





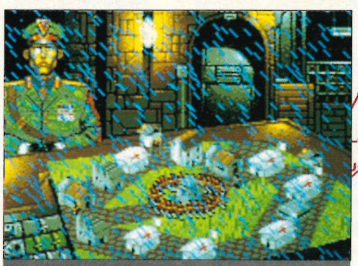
The PC version of Powermonger runs at a much faster speed than Atari ST and Amiga versions. It also features much more challenging play and new inventions than before.

this interactive world simulation which can be zoomed, tilted and rotated at will by you. The landscape is fully mapped out including altitude, so there's a variety of contoured hills. This terrain is made of textures rather than solid colours so Bullfrog can also add special effects like snow and rain. Impressive.

They may have produced one of the most successful computer games of all time, but the boys at Bullfrog have a worse track-record than British Rail when it comes to releasing titles on time. Powermonger was scheduled for release on PC over one year ago. Maybe the programmer in charge of this landmark conversion had to contend with the wrong type of floppy disk or something equally unbelievable. Still, this adaption of Powermonger is definitely better than, say, the Amiga or Atari ST versions. Why, I hear you cry? Well, for a start it runs a lot faster and there are some amazing new inventions to play with. You now have access to a whole range of new weapons and armour, boats which are powered and go faster, people can even build a few defences to protect their settlements. Each of these inventions has their own secret way of being made. Just by looking at a village you're able to predict what it's going to make. These attributes include how close it is to water or a forest, how high up it is or if there's a road near it.

Merchants also make an appearance in the PC version of Powermonger. These greedy peeps trade goods like wood and weapons between the settlements. They can also provide a few shortcuts when it comes to hitting your enemy where it hurts. Want to stop a town from manufacturing a nasty catapult? No sweat, just kill their merchant to cut off the supply of wood!

Anything else apart from these extra thrills? As I said before, Powermonger is set in a medieval time period and doesn't really progress out of that age. Following requests from customers, Bullfrog has apparently enhanced the computer player so it's far more challenging than before. If you unwisely choose to do nasty things on the landscape, the machine will begin to bear a grudge against you. If you attack one of its villages, the computer will remember that and, quite some time later, it should retaliate. If this artificial intelligence is still too weak for your immense playing skills, there's an



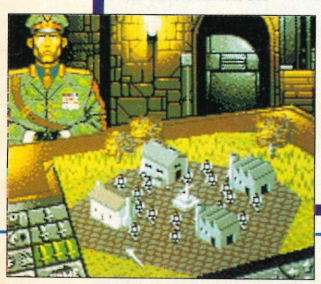
Dominate the battlefields of Europe ...

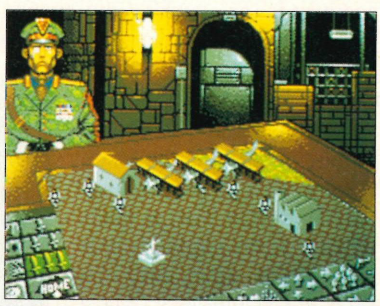


... in a Great War version due out soon.

OVER THE TOP

When it comes to neat marketing ploys for expansion products, Bullfrog and EA are to be commended on this one. If you get bored with the medieval setting of the original Powermonger, you can buy this rather neat interpretation of the 'Great War' in 1917. You take the role of a World War One Powermonger, leading your armies across the battlefields of Europe in a quest for total domination. Not only are the graphics and tactics slightly altered, there are lots of new objects populating the landscape. These include biplanes, tanks, weapons and munitions factories. In fact, the supply of ammunition takes over from food as your number one concern. Powermonger: The World War One Edition should cost around £15 when it's released sometime early next year. If the idea takes off, Bullfrog is planning to produce other such scenario-altering accessory data disks including Feudal Japan, American Civil War and a fantasy-orientated epic with dungeons and dragons.





During the last couple of years, both Populous and Powermonger have become a cult over in Japan. They just can't get enough of these two 'Best of British' games and have produced their own comic book and an audio compact disckf illed with enhanced music and sound effects! Doesn't that sheep look worried...



ALTERNATIVELY...

Theatre of War

Three-Sixty/Electronic Arts



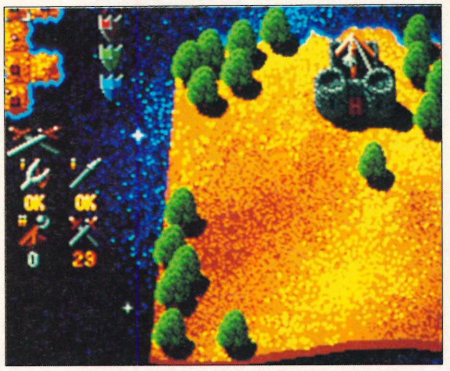
£29.99

Still in the stages of development, it's too early to tell how this will compare to Bullfrog's effort. Theatre of War reportedly combines the best elements of chess, wargaming, historic strategy and "incredible computer graphics". Like the 3D terrain found in Powermonger, the polygonal environment here is modified with texture, obstacles and elevations. Three-Sixty's most notable releases so far have been Harpoon and Das Boot.

Megalomania

Imageworks

Price TBA

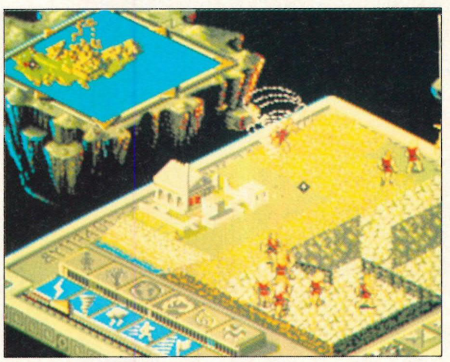


Possibly the most common criticism of Powermonger is that it's too big and boring for some. Megalomania, currently only available on the Amiga and Atari ST, concentrates more on exhilarating action than thought-provoking strategy. It uses the concept of inventions without being a straight wargame. There isn't the level of depth but this can sometimes put players off anyway. Megalomania has taken some of the ideas from Populous and Powermonger and placed them into a different style of game. The result is a most excellent game. It sounds good as well! Megalomania should be released sometime next year. Watch this space for a Coming Soon report soon.

Populous

Bullfrog/Electronic Arts

£10.99



Quite a few people rate Powermonger over Populous. I must admit to disagreeing with these pundits. It's probably got a lot to do with the fact that in the previous game you played a god instead of some weedy leader with just 20 troops at your command. It could also be a reaction against all those icons in Powermonger. They're laid out in a slightly non-logical and quite awkward way, the icons used most often should have been at the front. For me, I just loved the ability to try divine intervention in Populous. That's why the sequel is easily my favourite game of the year. There are now over 35 superb disasters and effects like forest fires, tidal waves, plagues, giant beasts from Greek mythology and a few gods. An exceptional game, which, sadly, won't be released on the PC until summer 1992. Will it be the first game to a rate a perfect PC Review score of 10?

option to connect computers together, via modem or direct cable, so two human players can compete head-to-head. Powermonger's internal code also supports a network option allowing four-player competition. A decision to fully implement this clever capability has yet to be made as PC Review goes to press. We'll keep you posted.

Long before trendy North American entertainment software publishers such as Origin and Lucasfilm Games came up with this Environmental Sound Effects™ jargon, Powermonger introduced the neat idea of flagging important events in the game through the use of interesting noises.

As the game progresses and you move around the world, you'll hear stuff like birds rustling their feathers and voices, blacksmiths busy in their workshops, battles raging, men cheering, and, yes, sheep baaing.

These sounds provide clues to what is going on nearby. So it pays to listen very carefully. Taking the first example, perhaps an enemy in the forest has disturbed this flock of birds? Industrious hammering or sawing from a settlement or wood reveals someone is inventing something.

If it's the enemy, you should probably try to stop them before they've got one up on you. Your people can sometimes show their disapproval of your latest order by giving a muted 'yeah' or not saying anything at all.

Coupled to these inventive and helpful effects, there is a constant sound of heavy breathing in the background. Influenced by the heartbeat in Populous, this starts off slowly and calmly but becomes erratic during the height of the fighting.

It is supposedly designed to synchronise with your own heartbeat to give an edge. If this becomes ragged during the height of ferocious and bitterly hard-fought battle, it means things aren't going well for your side. Funnily enough, hyperventilation takes place when you are really doing badly.



Powermonger is a true epic which can supply many hours of gripping play providing you're willing to ignore its slight control idiosyncrasies and unusual nature.

Nevertheless, I personally preferred Populous. What is that old saying about paying your money and taking your choice?

RIK HAYNES

REQUIREMENTS

Unlike many a PC production these days, Powermonger works perfectly on a standard system of 12MHz or faster. You can even play off floppy disk for a refreshing change! Alternatively, it's installable on hard drive. VGA is strongly recommended. Although the program supports keyboard and joystick control, it's best to play with mouse.

Worth investing in a decent sound card just to hear those cuddly sheep going 'baa'...

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✓
Hercules ✗	✓	✓	✓

SUBSCRIBE TO PC REVIEW

AND GET A CLASSIC



GAME ABSOLUTELY FREE!!

Electronic Arts' software features heavily in the PC Review Top 100. Now you can receive one of those PC Review Top 100 recommended releases absolutely FREE when you subscribe to PC Review!

- **Subscribing to PC Review guarantees delivery to your door of the next 12 issues of Europe's essential PC entertainment guide.**

- **By subscribing to PC Review you can be sure of priority access to the essential reviews, previews, features and news stories each month.**

- **Over your next 12 issues we'll be working hard to deliver you the very best in playable demos and shareware.**

- **With our unique editorial mix, you can access our comprehensive reference section and shareware/public domain catalogues.**

- **Subscribe to PC Review and be confident of receiving the ONLY authoritative guide to PC entertainment and much more.**

- **For only £34.99 you will receive 12 issues with cover disk on the format of your choice, and your chosen FREE game!**

Choose from the following classic Electronic Arts games:

Populous *3.5"/5.25" - CGA, EGA, VGA*

PGA Tour Golf
3.5"/5.25" - CGA, EGA, VGA

Chuck Yeager's Air Combat
3.5"/5.25" - CGA, EGA, VGA

Mario Andretti's Racing Challenge
3.5"/5.35" - CGA, EGA, VGA

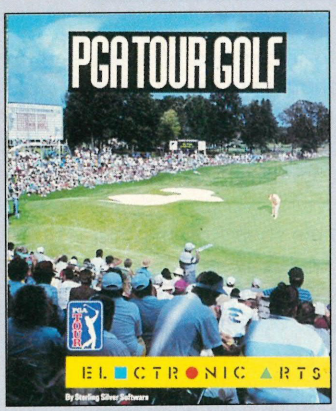
Battle Chess *3.5"/5.25" - CGA, EGA, VGA, Windows*

The Bard's Tale *3.5"/5.25" - CGA, EGA, VGA*



POPULOUS

Out of the darkness were born two nations, fanatical followers of their own beliefs, warriors by nature.
Ultimately there can only be one survivor to claim victory over all! Design your own worlds and conquer them! Control the awesome power of nature and experience this classic, biggest selling 16 bit title ever!



PGA TOUR GOLF

PGA Tour Golf is the only computer game ever licensed by the US PGA. Panoramic fly-by shots and look-back view let you play real tournaments on real courses. Instant replay lets you relive great shots as you compete against 60 PGA pros!

CHUCK YEAGER'S AIR COMBAT

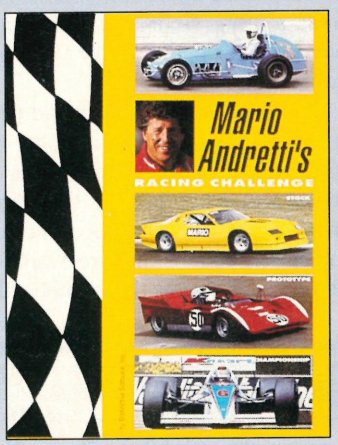
Choose from over 50 missions from World War II, Korea and Vietnam as you fly with the leading pioneer of modern air combat, General Chuck Yeager. Learn from the experience and guidance



from the man who has flown with them all. Will you have the right stuff?

MARIO ANDRETTI'S RACING CHALLENGE

Prove your own racing prowess as you work your way up through 6 professional racing circuits. Players face all the heart-stopping race car



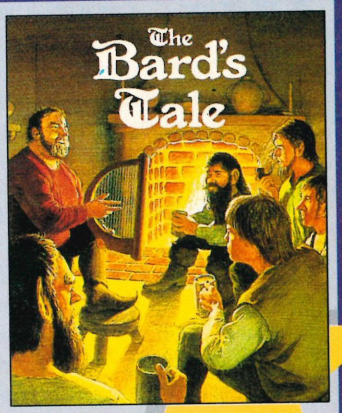
challenges in this brilliant professional racing simulation.

BATTLE CHESS

Battle Chess brings chess to life by combining a magnificent chess logic system with colourful and dramatic 3D animations and digitised sounds. Winner of the Software Publishers Association award for best graphics.



THE BARD'S TALE



You are the leader of a ragtag group of freedom fighters in this stunning fantasy role playing game. Combat the evil wizard Mangar and experience animated colour monsters, 3D full colour mazes and outstanding special effects.

NB: The free software offer is ONLY available to UK Residents

Place your order by completing the coupon (photo-copies acceptable), or send your details on a post card, or ring our special 24 hour orderline service on 0858 410 888 and quote your credit card number. When ordering your subscription, please remember to tell us which size cover disk you prefer - 3.5" or 5.25".

SUBS GUARANTEE:
If you aren't completely satisfied with your subscription, you may cancel at any time and receive a prompt refund for all unmailed copies.
Your software choice is mailed separately to your first magazine, please allow 28 days for delivery.
Offer closes : Monday 6th January 1992

SUBS SUMMARY
12 issues (UK Residents) £34.99
12 issues (Rest Of The World) £55.00
Offer is not open to European residents
We suggest that overseas readers pay by International Money Order.

ORDER FORM:

Please send to PC Review Subscriptions Department, PO Box 500, Leicester, LE99 0AA (please make all cheques payable to PC Review).

NAME _____

ADDRESS _____

_____ POSTCODE _____

I would like a subscription for 12 issues of PC Review, please start my subscription for the _____ issue of PC Review (please enter month)

I would like to receive my cover disk on the following size:

3.5" ❑ 5.25" ❑ (please tick box)

I would like the following FREE game:

Populous	❑ 3.5"	❑ 5.25"	source code: 0012L
Chuck Yeager's Air Combat	❑ 3.5"	❑ 5.25"	source code: 0013Q
The Bard's Tale	❑ 3.5"	❑ 5.25"	source code: 0014U
Mario Andretti's Racing Challenge	❑ 3.5"	❑ 5.25"	source code: 0015Y
Battle Chess	❑ 3.5"	❑ 5.25"	source code: 0016D
Battle Chess (Windows)	❑ 3.5"	❑ 5.25"	source code: 0017H
PGA Tour Golf	❑ 3.5"	❑ 5.25"	source code: 0018M

I enclose a cheque/postal order (payable to PC Review) for £

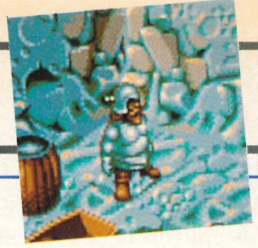
Please charge £_____ to my Access/Visa/Diners Club/AMEX

Card Number _____

Expiry Date _____

Signature: _____

Fulfilment: Alan Wells International, Memberline House, Farndon Road,Market Harborough, Leicester, LE16 9NR

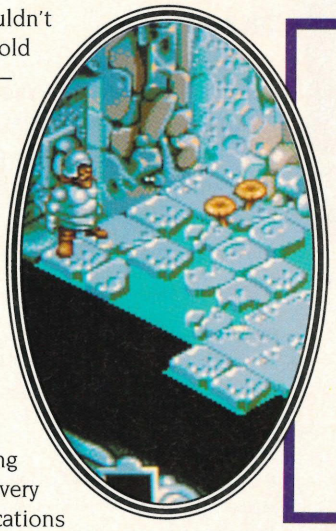


■ Cadaver ■ Image Works
■ (071) 928 1454 ■ £35.99

Cadave

The Bitmap Brothers' first action adventure game is a stylish affair which proves that 'isometric' needn't mean dull

When Cadaver was released on other formats a year ago it was generally acclaimed, but are we PC owners, who have been given a better deal on the role-playing and adventure front, going to be quite as impressed? This particular PC games player was most definitely converted to the cause. The Bitmaps' first adventure is stylish, clever, extremely playable and should hold the player's interest for longer than many games of this type.



The diminutive hero of Cadaver couldn't be further from the traditional Arnold Schwarzenegger mould of adventurer – Karadoc is in fact a dwarf. He may be small of body, but he makes up for it by being large of heart and intellect, two essential qualities for this quest to find the secret of the ancient domain of Lord Carolus and his evil counterpart Dianos. Yes, the plot is as hackneyed as adventure tradition dictates it should be, but there are plenty of original touches within the game to make up for that minor deficiency.

Superficially, the most striking thing about Cadaver is the atmospheric and very solid looking rendering of both the locations and the characters and creatures that occupy them. It is this that firmly identifies Cadaver as a Bitmap game – in fact Karadoc, with his shining curved armour, faintly resembles a player from Speedball II in a distorted sort of way.

Unfortunately the same quality isn't quite as manifest in the animation, which is competent but far from stunning. Many of the characters, Karadoc in particular, look a little stilted. Having said that, I was soon so absorbed in the game that I no longer noticed or cared about any deficiencies in the animation.

The sound too makes an immediate impression. The PC's feeble bleeper is put to good use to provide a variety of effects which rather than being a superficial adjunct to the rest of the game actually provides clues to important events. A series of clunks, clicks and wooshes all help to inform you of secret doors opening, pits being filled and various magical events as well as livening up more mundane actions like dragging barrels across a stone floor and dropping keys. And if you have a Sound Blaster or AdLib card you get an even more realistic audio experience.

The first stumbling block and possible source of irritation for the beginning player is going to be the control system. Either joystick or keyboard can be used to govern Karadoc's actions and, to be honest, they are both equally effective. A series of icons in the corner of the screen is quite cleverly used to show the actions that are available to you at any one time. For most of the game these will be blank as you just move from

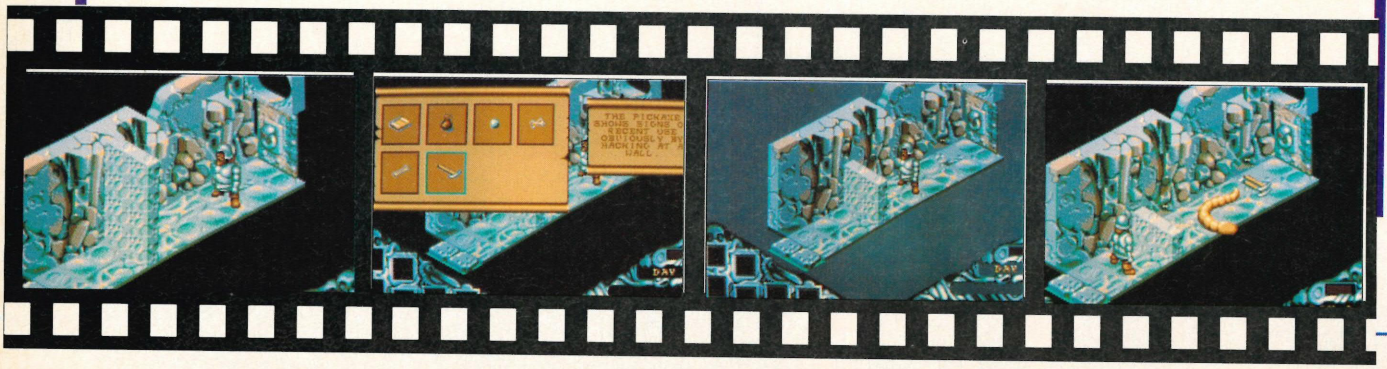
TWO MINUTES OF PROBLEM SOLVING

Right, you've been playing through level one for a while now and you've suddenly come across the first real impasse. According to the map this corridor is the only way to reach the rest of the level, but how do you get past that wall?

Looking through your backpack you come across the ideal object – a pickaxe. That should make short work of the offending masonry. Just chuck the pickaxe at the wall and ...

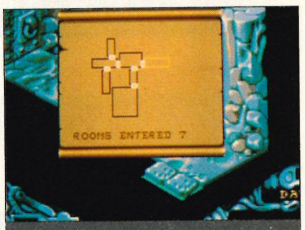
... presto, the top of the wall crumbles away in a cloud of dust. (OK, it just disappears, but I'm trying to create an atmosphere here.)

This reviewer, having been bitten once before, has left the last section of the wall intact to protect him from the worm that materialises to spoil your fun when you enter the second half of the corridor!





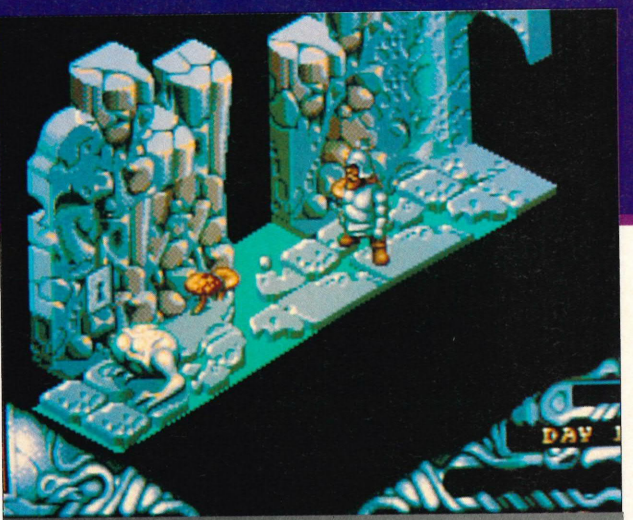
As you can see, Cadaver's graphics convey a surprisingly upbeat dungeon atmosphere. Each of the objects lying around, including that heavy barrel, can be manipulated to some extent, so, unlike many adventure games, you never feel as if you're in a disinfected, lifeless world.



If, like me, you hate having to stop every now and then to scrawl rough pictures on a sheet of graph paper, you'll appreciate Cadaver's self-mapping feature.



Your backpack holds a remarkable number of objects, which is rather handy considering that most situations require the possession of some sort of artefact.



Cadaver is far from being devoid of action, which often comes in the form of something nasty to be done away with. Combat is usually undertaken with whatever weapon is to hand, but in some cases you will have to find more devious methods of dispatching your foe. In this case a few well thrown stones will be enough to rid yourself of the creature for good. Some monsters have a nasty habit of regenerating themselves though, so it is not worth wasting effort trying to destroy them unless you absolutely have to. The quick worms are probably the worst offenders in this respect.

location to location. When you come into contact with an object that can be manipulated, however, the icons will reveal up to six possible actions appropriate to that object. A lever for instance can be pulled or examined but there would be little point in attempting to pick it up. A flask of liquid on the other hand can be picked up, dropped, examined, and the contents drunk. Additionally any item can be held in the hand for use as a readily available weapon or tool.

The problem with the control system is that when you are in a crowded area, it is easy to keep running into objects accidentally and get presented with a selection of unwanted icons. To be fair, it is possible to configure the control system to prevent this from happening, and to give Karadoc eight-way movement rather than four-way, but nevertheless you will have to take things slowly until you become accustomed to the foibles of the controls. After a couple of hours play however, it becomes intuitive and quick, so it's worth struggling with initially.

All of the points I've raised so far are largely secondary to the main test of worth for a product of this ilk, which is, of course, the nature and quality of the problems to be solved by the adventurer. This is where Cadaver really scores – the design of the game is superb and will have players absorbed enough to start burning the midnight oil to finish a level.

There are five levels in the game, the first of which is a fairly gentle introduction to the general tone, while the last three levels should prove taxing enough for the 'brain the size of a planet' brigade. Cadaver is not a game of the 'enter room, solve problem, enter next room' type. Quite the contrary. You may

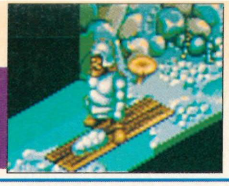


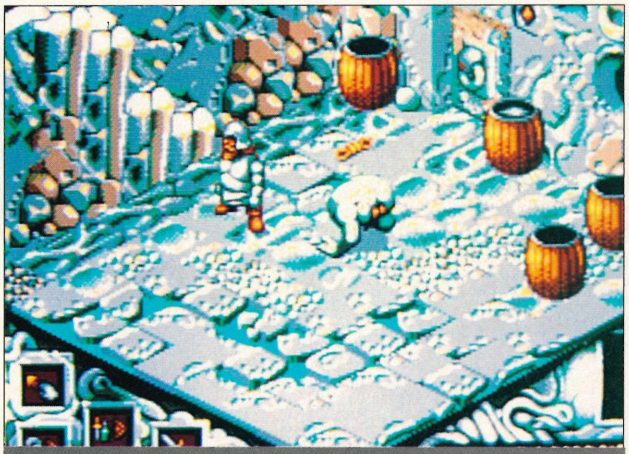
There is quite a lot of water in Cadaver. Often, as here, it appears as seemingly harmless puddles. While it is certainly safe for Karadoc to walk over the puddle just ahead of him, the larger pool to his right is deadly and even tentatively dipping a toe will result in a rapid drain of energy. Many of the larger pools also hold nasty surprises in the form of large creatures which will pop their heads up unexpectedly and spit venom at Karadoc before submerging again.



At the end of each level there is a suitably nefarious piece of work waiting for you. In the case of level one it's this dragon; fire-breathing, of course, as are all self-respecting dragons. Trying to tackle these creatures with suitable protection and weapons is not to be recommended. By the time you have completed this level, by the way, you should have amassed the correct potions and spells for dealing with this fiery monster with ease. Be warned though, he'll make short work of you if you haven't ...

Cadaver





Finding the best way of using objects is half the fun of Cadaver. Once you've dealt with the creature here, you might want to experiment with that button, but first you have to reach it...

come across items or clues at the beginning of a level which seem to have little or no relevance until you reach a much later stage of the game. One situation Cadaver thankfully avoids is the 'why did that happen?' syndrome. All of the events and problems in the game are logically linked, so you won't be left wondering why a solution that you tried in desperation after spending five fruitless hours worked when nothing else would.

Cadaver is atmospheric and absorbing, and provides long term entertainment. It's the sort of product which, if I didn't have a review copy, I would definitely go out and buy, and I can whole-heartedly advise you to do the same.

PC review 7 RATED

LAURENCE SCOTFORD

GETTING A NEW ANGLE...

Isometric action adventures are nothing new. The developer that started the trend for this graphic form was Ultimate Play the game, which is now the console developer, Rare. Its first isometric adventure game, developed in the early 1980s, was Knight Lore, which was initially developed for the humble Sinclair ZX Spectrum, and used only two colours for the main playing area. Nevertheless it was a huge hit and was followed up by the similarly popular Alien 8. Both these games, which used a system that Ultimate called Filmation, were of the simple 'solve the puzzle, collect the object' type and bear little resemblance to sophisticated games like Cadaver, other than the isometric viewpoint.

It was only a matter of time before other developers jumped on the bandwagon and began producing their own isometric adventures, albeit with improved graphics, sounds and gameplay. Notable efforts were Gargoyle Games' humorous Sweevo's World (later expanded as Sweevo's Whirled) featuring a Stan Laurel type central character, and Jon Ritman's Batman and Head Over Heels, a cute game in which two strange creatures had to be used cooperatively to solve many of the puzzles. The later has recently made a successful reappearance on 16-Bit machines.

The isometric viewpoint has now been used in games covering all sorts of subjects, a couple of early examples being Denton Design's POW game, The Great Escape, and Imagine's private eye game, Movie. No doubt developers will continue to come up with even more

Jon Ritman's classic isometric game, Head Over Heels.

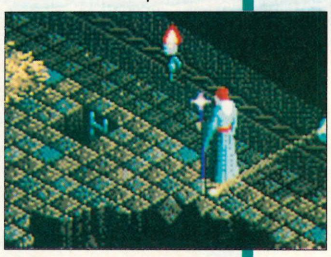


ALTERNATIVELY...

The Immortal

Electronic Arts, £24.99

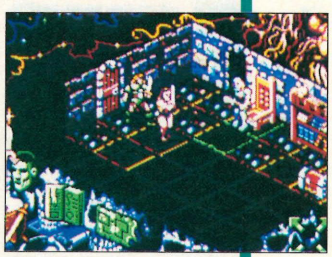
The main appeal of this isometric arcade adventure is its superb animation. The movement of each character is superbly detailed and brings a real sense of life to all the creatures in the game. Unfortunately the brilliant animation is traded for rather dull and uniform locations and backgrounds, and the game world as a whole seems more sparsely populated than Cadaver's. It is easier to die in The Immortal, which makes it slightly more frustrating. Nevertheless you are likely to complete it sooner.



HeroQuest

Gremlin, £34.99

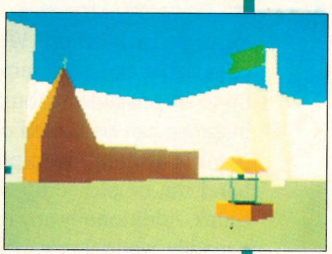
A very competent conversion of Games Workshop's hit board game.The action is of a 'my move, your move' type rather than Cadaver's real-time interaction. The emphasis is more on combat and exploration than problem solving, so this will appeal to younger players than seasoned adventure hacks.



Virtual Worlds

Domark, £29.99
(compilation of four games)

A value for money collection of the now dated Freescape games from Incentive. Here it is most definitely problem solving that is the main thrust of the gameplay (which is probably a good thing considering the plodding speed of the Freescape system). The action is presented from a first person perspective using filled polygons, but you can control which direction and angle you are looking in.



HARDWARE REQUIREMENTS

Cadaver comes on just two disks – one for the program and the other for levels data (yes that does mean the possibility of add-on levels) and occupies just over 140K if you install it on a hard drive.

Joystick is useful, but not necessary. Runs quite quickly even at 8 MHz.

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✗
CGA ✗	EGA ✓	VGA ✓	Tandy ✗
Hercules ✗			

MINDSCAPE

'Play me I'm a Miracle'

'**I'm the most amazing piano ever.** The first-ever piano that actually teaches you how to play me. ♫ In fact I undertake to make a proficient player of any child or adult who follows my unique system of progressive lessons. Devised and written by professional music educators. ♫ My secret: video games technology to make the whole thing fun, fast and enjoyable. Using my Artificial Intelligence Technology to monitor each lesson to build a series of personalised exercises – just for you. ♫ Not to mention my State of the Art stereophonic sound with over 100 instruments, sounds and effects. And I'm Midi compatible – naturally. ♫ Then there's my unique sensitive professional keyboard with full-sized keys that respond to your touch just like a piano. My musical repertoire of over 50 pieces. ♫ Experience a demonstration of my superb teaching and performing powers at selected stores. **I'm not so much a present – I'm a lifetime's gift.**'

For use with Nintendo, Commodore Amiga and P.C. formats. From £249.00.

THE
MIRACLE
PIANO TEACHING SYSTEM



For your nearest Miracle stockist call 0444 246333 or 021 625 3344.

The first piano that teaches you how to play it.

TECNOPLUS
PROFESSIONAL

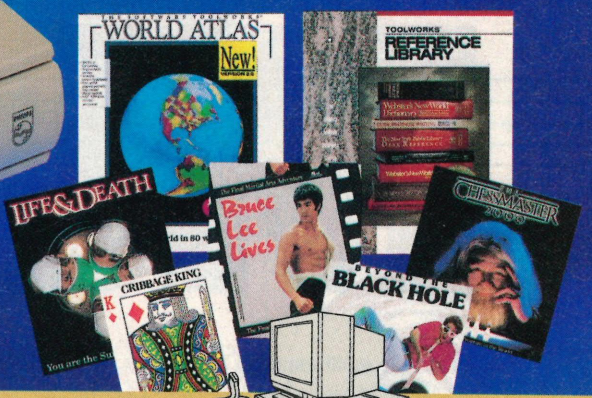
CD-ROM

SPECIAL OFFER PACKS ADD VALUE TO QUALITY
FOR USE WITH IBM* PC/XT*/AT* OR COMPATIBLES



£399.99 inc. VAT

SPECIAL PACK INCLUDES
- WORLD ATLAS MKII
- REFERENCE LIBRARY
- CD GAME PACK



THE COMPLETE INTERACTIVE CD-ROM SYSTEM
- Extensive data base
- Advanced graphics
- Digital audio sound
- CM 50 CD-ROM Player
- User manual with complete hardware/software installation guide
- Microsoft CD-ROM extensions
- IBM* PC/XT*/AT*or compatible host adapter card
- Device driver software with memory resident audio utility
- Automated software installation program on both 51/4" and 31/2" discs
- Power/data interface cable



Requires IBM* PC/XT*/AT* or compatible PC • 640K memory • Colour monitor • EGA or VGA graphics card • Mouse • MS DOS 3.1 or higher

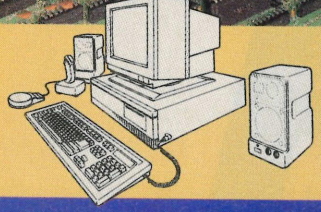


PC SOUND SYSTEM



SPECIAL PACK INCLUDES
- KINGS QUEST V 3-D Animated Adventure Game
- QUICK SHOT JOYSTICK
- FM INTELLIGENT ORGAN
- TALKING PARROT
- VOXKIT

£179.99 inc. VAT



THE COMPLETE DIGITAL STEREO HI-FI SOUND SYSTEM
- Sound blaster card
- Two speakers
- Special software
- Text to Speech synthesizer

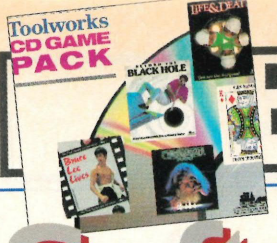
PLACE YOUR ORDER NOW ! PHONE: 0279 726541

Access

We accept Visa, Access, Mastercard, Connect or Switch • Please allow 7 working days for payment by cheque • Unfortunately we are unable to accept overseas orders

For orders by post, please send to: TECNOPLUS, INTER-MEDIATES LTD. 2 SOUTH BLOCK, THE MALTINGS, SAWBRIDGEWORTH, HERTS CM21 9PG

VISA



Software Toolworks CD-ROM Games Pack

Games collections often offer good value for money ... but others fail to deliver

The Software Toolworks CD-ROM games pack is not going to have you scurrying to buy a CD-ROM drive. It is hard to work out the reasoning behind this collection of games.

Getting set up couldn't be easier as long you are using the standard Microsoft CD-ROM extensions to DOS which, unfortunately, I managed to erase and had to spend an hour turning the office upside down to find the disk so I could re-install them.

There is only one file at the root of the CD-ROM directory and will install some data files on your hard disk – as long as you can understand that 'y' means yes and 'n' means no, this process is undemanding.

This done, you are presented with a menu of the five games on the disk. The choice is between ChessMaster, which is pretty much as its name suggests; Life and Death, the doctor and nurse DIY surgery romp; Bruce Lives, where you get to be the kung-fu master; Cribbage King, a simple card game; and Beyond the Black Hole, which I'm still trying to understand.

REQUIREMENTS

HARDWARE

A CD-ROM drive, plus Microsoft CD-ROM extensions to DOS

I found none of the games very enticing. The two which held the most promise were Life and Death and Beyond the Black Hole but, for me at least, both failed to deliver.

When you boot up Life and Death you arrive at the reception of Toolworks General Hospital as a novice doctor. After a brief orientation that is no substitute for eight years of higher education, you're let loose on the patients to strut your stuff. It reminds me of my experience of NHS hospitals. The dominant feeling you get while playing Life and Death is that you have none of the resources necessary to get things done.

I found it almost impossible to work out what to do, and consequently I whiled away much of my time in the briefing room getting the low down. The stop and start nature of the game was neither entertaining or educational. I suspect the design team never really decided what its aim was and the product suffered as a result.

Black Hole also held a lot of promise. It has a brilliant beginning. The use of 3D graphics in the Star Trek-like opening gives the impression you're in for a real treat. However the game itself is a rather simple ShufflePuck derivative with nice graphics. I must admit it wasn't long before my mind began to wander to more pressing issues, like a quiet night at home washing my hair.

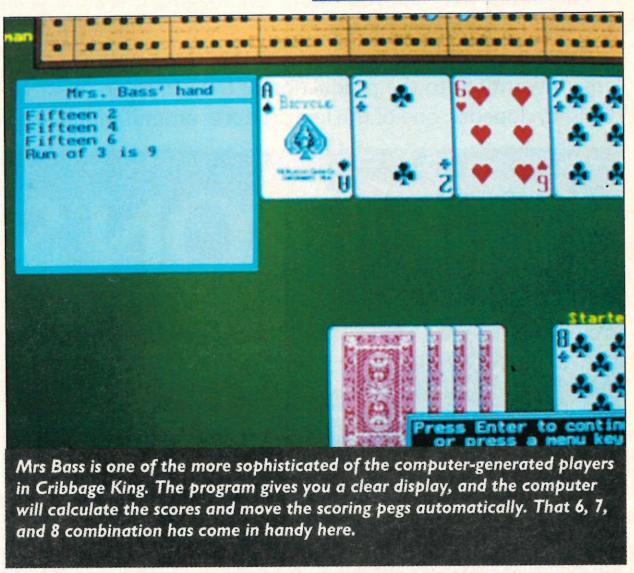
At the end of the day the Bruce Lee game was the most well-rounded of the five, with good graphics, nice use of sound, and good game play. After all any game whose opening sequence promises a 'brutal orgy of destruction' has got to have some merits. If you're the sort of person whose idea of fun is to get their fair share of the aforementioned orgy by engaging in battle with Master Po, who is muscling in on the South East Asian Opium trade, while acting as big bad Bruce himself, there is definitely something here for you.

The Chess game appears a proficient, no frills sort of endeavour. If you know how to play chess you could definitely play this, but the big drawback for me was the graphics, which are pretty primitive, even by the already primitive standards of VGA.

Cribbage King allows you to enjoy either gin or cribbage against the computer, with few surprises along the way. One nice touch, though, is to vary the difficulty level by playing against different computer opponents: by picking one ot suit you, you should ensure a challenging game.

All in all it's nothing to write home about, unless of course you're a chess-playing, kung-fu fan, study medicine and astro physics. Otherwise, as a collection, it's hard to see who it is going to appeal to.

TIM CARRIGAN



Mrs Bass is one of the more sophisticated of the computer-generated players in Cribbage King. The program gives you a clear display, and the computer will calculate the scores and move the scoring pegs automatically. That 6, 7, and 8 combination has come in handy here.

Installation is easy with standard Microsoft CD-ROM extensions to DOS.

TECH SPEC

3½ ✗	5¼ ✗	AD Lib ✗	Roland ✗
CGA ✗	EGA ✓	VGA ✓	Tandy ✗
Hercules ✗	✓	✓	✓



■ Comptons Multimedia Encyclopedia
■ Britannica ■ (071) 734 9344

Compton's Multimedia Encyclopedia

At last...

a multimedia product that makes the most of the available technology

For those who are new to CD-ROM, it might come as a shock to learn that a single CD-ROM disk can store the same amount of data as 451 standard high density floppy disks.

Indeed when you think about making full use of the CD-ROM and the capacity it provides for products that combine high resolution images, CD quality sound and animation, you realise that software development costs must be increased by an order of magnitude.

These kind of resources are pretty difficult for your average small software start-up to bear, but for a company like Britannica it's just part of every day business. After all the costs of researching and producing a multi-volume encyclopedia must be enormous, but then you can go on flogging it year on year, with only minor amendments.

Britannica software has brought the same philosophy of large investment to the production of the Compton MultiMedia Encyclopedia, one of the few products around which really delivers on the promise of multimedia. Designed to run under Windows 3.0, and supporting Microsoft's new, Windows-based MultiMedia PC (MPC) specification, the product really makes the most of the massive capacity of CD-ROM.

The MultiMedia PC specification is supported by a wide range of PC vendors, which are just beginning to ship products compatible with it. These products include upgrade kits for any 286 or greater machine which include a sound card and CD-ROM drive. For full compatibility you will also need at least 2Mb of RAM, although 4Mb would be advisable, VGA or Super VGA graphics, and a 30Mb hard disk. It is also possible to buy new MPC machines with this already installed.

All MPC compatible products, including upgrade kits, new machines and CD-ROM titles such as Compton's carry the MPC



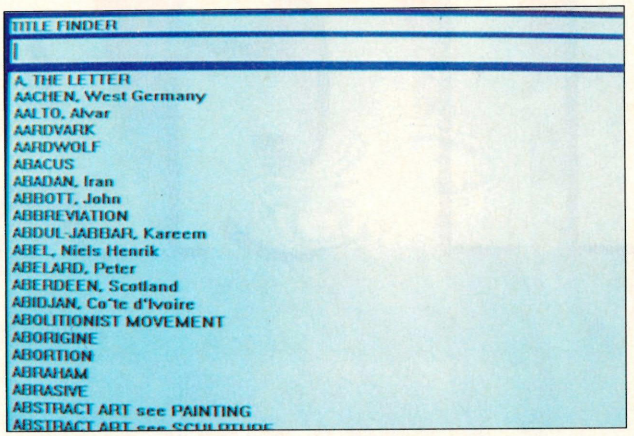
Compton's MultiMedia Encyclopedia: running under the Windows-based MPC standard, Britannica has had the opportunity to produce a true multimedia product.. The MPC standard means that manufacturers can bring ut upgrade kits for lower-specified PCs which will retain compatibility.



Information can be accessed by clicking on the topic icons down the right hand side of the screen: history, science, the atlas, picture library, etc. Or you can access the program's powerful context-sensitive search facilities here. Along the foot of the screen are control icons for your computer's accessories.



Running in the Windows 3.0 environment means that the arrangement of menus are standardised, with the familiar File, Edit, and Help options. The atlas will also display information about the regions selected as well as the set of maps. From here you can move directly to any other topic using the the program's own icons on the right hand side.



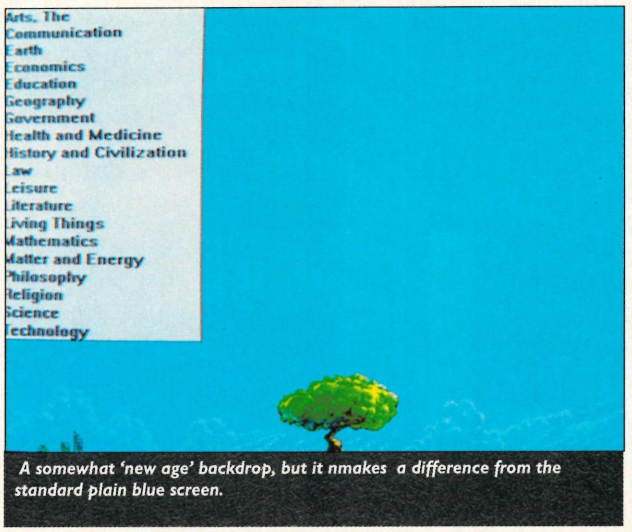
The full subject index can be accessed, either for browsing, or to target exactly what you want to look up. Unlike the book version, you don't need page numbers; just double-click on the line you want to call up.



Further subject divisions. In all, Compton's MultiMedia Encyclopedia contains the full text of the printed 26-volume version, plus 15,000 illustrations, 60 minutes of sound and 45 animations.

logo so you can be sure they will be compatible (at least this is what Microsoft told me).

In fact the only real problem I had with the encyclopedia was installing it. The version given to us wasn't, thankfully, what you will get when you buy the product. I had no instructions and it was only through trial and error I got the thing to work. However with the right instructions, I am sure the process would be easy. At the end of the day if you run all the executable files under Windows, you eventually find the right one.



A somewhat 'new age' backdrop, but it nmakes a difference from the standard plain blue screen.

Once this is done, you boot it up and get a main menu which gives you a range of options of how to search the data base of articles and photos in the encyclopedia. The disk contains the full text of the 26 volume of Compton's Encyclopedia, 15,000 illustrations, 60 minutes of sound, 45 animations.

The software development team has followed the Windows metaphor, and you can have different windows of information open at the same time, handy for cross referencing.

Like the Guinness Disk of Records reviewed in issue one, you can search by idea. For its products, Britannica has designed a really impressive full text retrieval system, which has also been adapted for multimedia, as it can store and index sounds and pictures.

So you can search for something like 'civil liberties in southern America' and the database engine will find articles it believes to be relevant, giving the degree of relevance, depending on how many of the discrete criteria it breaks your idea into.

Other search methods are straightforward. You can look up the item directly or scroll through the entire list. The world atlas gives you access to the data by zooming in on locations on a map. There is also a time line, enabling you browse through the entries as they relate to time. The entries themselves are as you would expect from a company with the resources of Britannica, and a large number of the entries have photographs.

The encyclopedia includes the Merriam-Webster's dictionary, with the pronunciation of each word recorded so you can learn to say then as well as find the definition. Indeed, the use and amount of sound in the encyclopedia is one of its best features.

One word of caution. I used my 8Mb 33Mhz 486 for the review and often found the encyclopedia very unresponsive, and often the search times sent me to sleep. Trying to run it on a lower specification machine would, of course, accentuate these problems.

Compton's Multimedia Encyclopedia obviously has educational interest. As such, my one concern is the US bias in its editorial content. It is not something which would necessarily appeal to hardened games players. But if you are after a good general purpose reference work, this is really ideal.

TIM CARRIGAN

Tim Carrigan is the editor of Multimedia magazine.

HARDWARE REQUIREMENTS

CD-ROM drive, Microsoft CD-ROM extensions to DOS, Windows 3.0, and MPC compatible soundcard.

For full compatibility, although 2Mb of RAM is sufficient, 4Mb is advised.

TECH SPEC

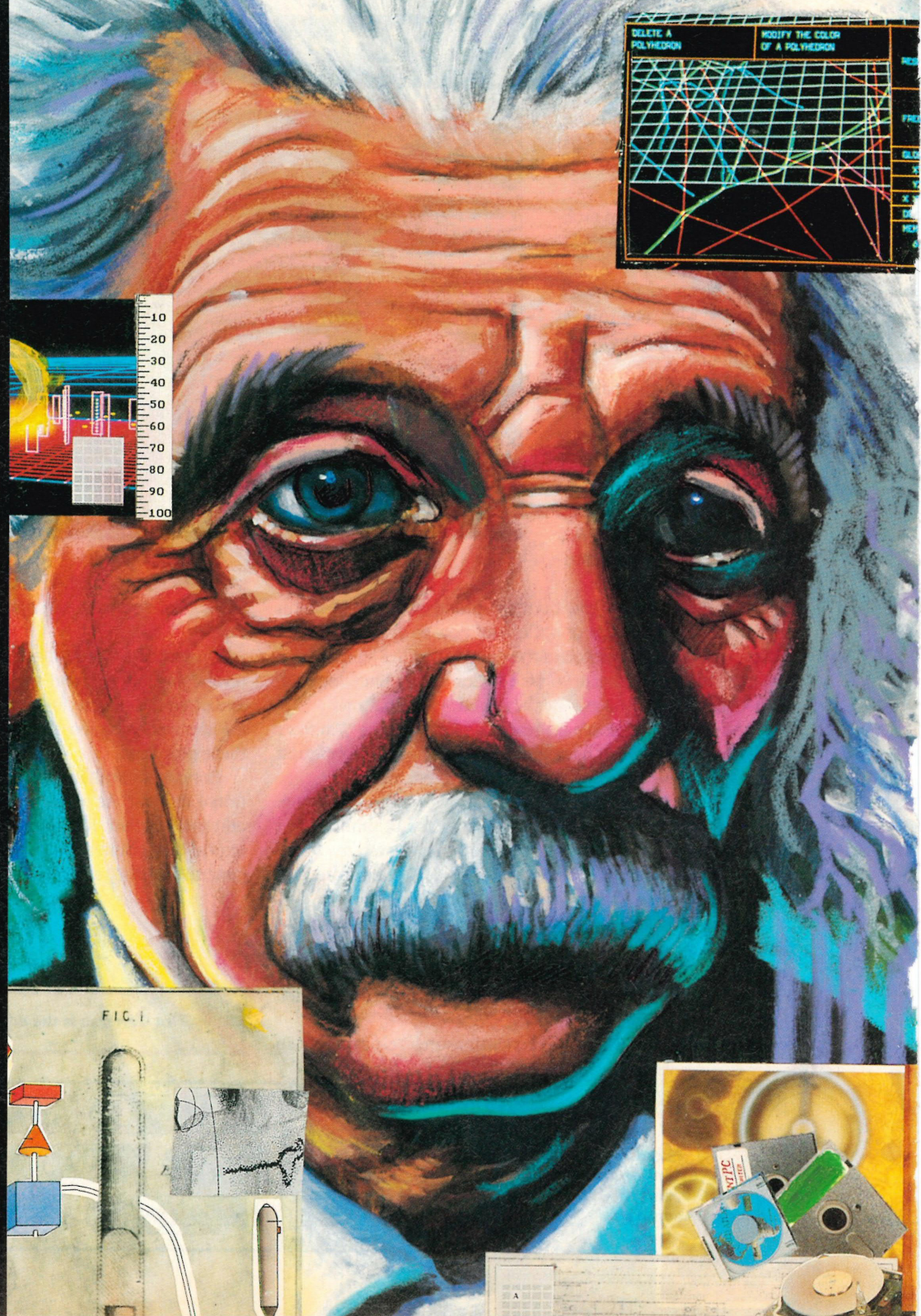
3½ ✗ 5¼ ✗ AD Lib ✗ Roland ✗
CGA ✗ EGA ✗ VGA ✓ Tandy ✗
Hercules ✗ ✗ ✓ ✗

You don't have to be Einstein to get the most out of your Amiga with...

CU AMIGA

CU Amiga offers you easy access to all the possibilities that your Amiga holds. Packed with a breadth of coverage beyond games, CU Amiga delivers -

- **The ultimate peripheral coverage .** Extensive, clear guidelines on what's available, how you can use it and what's best to buy
- **Unsurpassed hardware coverage.** **CU Amiga** was the first magazine to regularly feature CDTV.
- **The best buyers guide.** At least 33 pages packed each month with all the information about what's best
- **60 non entertainment products** put under the microscope each month
- **100+** games reviewed every month.



Beyond games with...

CU AMIGA



■ TV Sports Boxing ■ Cinemaware/Mirrorsoft
■ (071) 928 1454 ■ £35.99

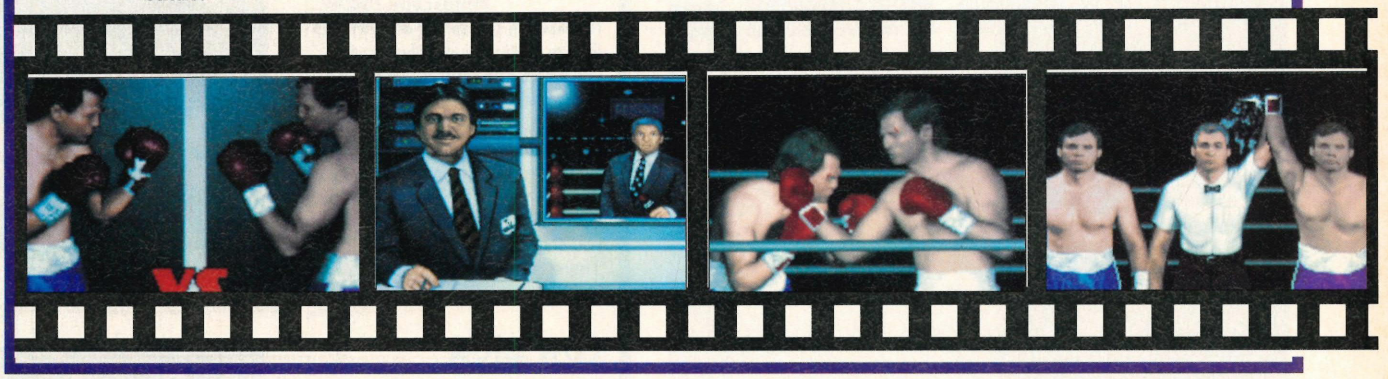
TWO MINUTES TO GLORY OR DEFEAT

Clash of the titans. Powerful Paul enters the ring for his first professional fight. His opponent is Spider McNevel, a boxer with only a little more fight experience. It promises to be a rough, tough and entertaining battle.

Minutes before the first bell. The TV anchorman hands over to the ringside commentator a run down of the fight details. The TV anchorman looks suspiciously like one of Mirrorsoft's Very Important Persons.

Punishing action as Powerful Paul takes a hammering. His stamina is low. Spider's strength-sapping punches are being aimed at the body. But Spider has not escaped uninjured. He is cut over the left eyebrow. All is not lost.

Final confirmation of the fight. The referee holds up Spider's arm in victory while the three ringside judges' scorecards are displayed below. Powerful Paul's defeat will not improve his bargaining position with his manager.



TV Sports Boxing

My lords, ladies and gentlemen, introducing a new contender for top fight simulation title

Any way you care to look at it, boxing is indefensible as a sport. Can there really be any argument when two men are paid – in some cases vast sums of money – to inflict pain and humiliation on each other for the entertainment of a blood-thirsty, baying mob – sorry, spectators.

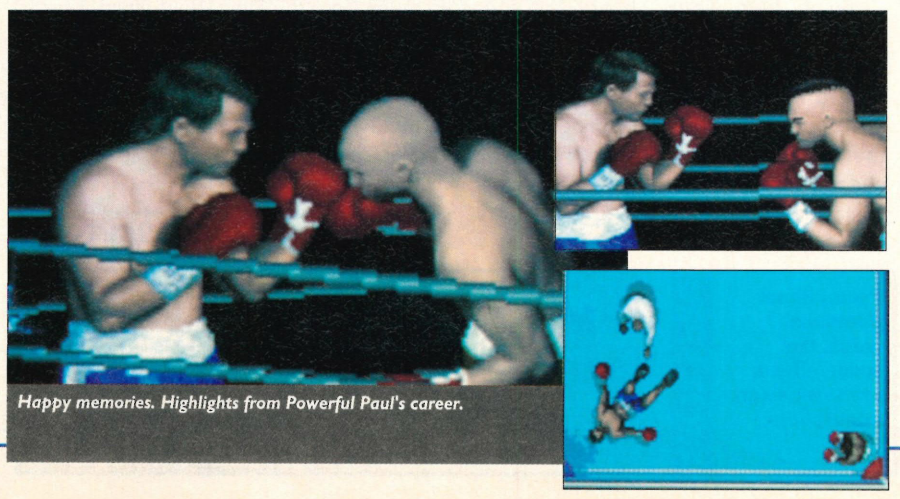
So why do we watch it? I haven't any real idea but it's a contradiction I can live with.

And it's this contradiction that TV Sports Boxing panders to beautifully. It's a knockout. Far from perfect, of course, but a winner. Which is more than I can say for Powerful Paul, the kid I took from the streets, nurtured, fed, trained, introduced to all the right people, fixed up the best fights for. And how does he repay me? By spending most of his time flat on his back, that's how. He's heading straight back to the gutter. No worry, there's plenty more where he came from.

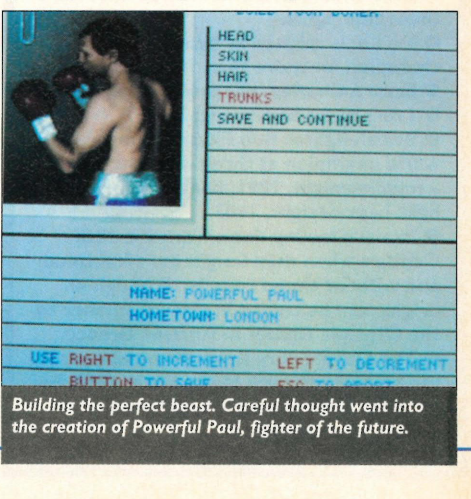
The joy of TV Sports Boxing – following TV Sports Football, Basketball and Baseball – is that not only do you get a pretty damn decent fight sim, but it also allows you to create your own boxer, and plan his entire career.

Creating a fighter is simplicity. Besides his name and home town, you can, alter the way he looks (head, skin colour, hair and colour of trunks), his age, weight, reach and stance. Also his style of boxing. There is also a pool of 500 points which can be allocated to your fighter's stamina, power, defence, footwork, resistance to cuts, speed and conditioning.

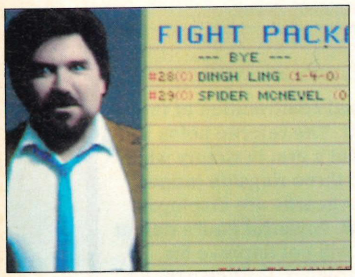
It's then off to training camp to arrange a manager and

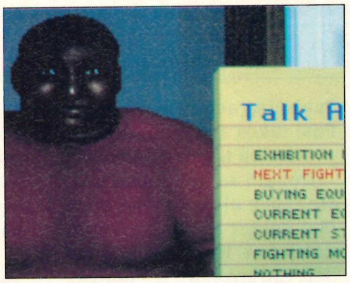


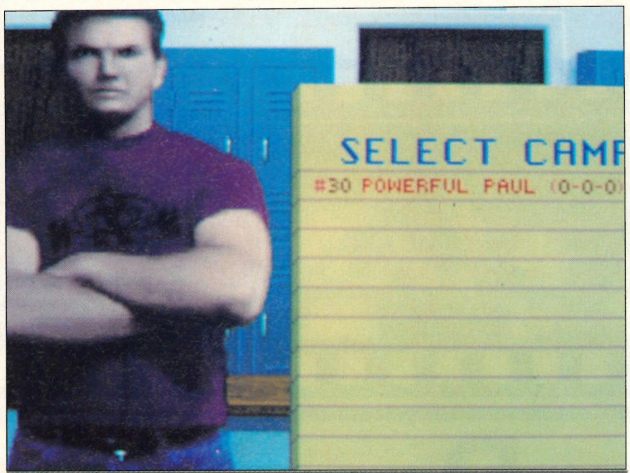
Happy memories. Highlights from Powerful Paul's career.



Building the perfect beast. Careful thought went into the creation of Powerful Paul, fighter of the future.







The men behind a legend. These are the people who took Powerful Paul from the gutter and let him glimpse the stars, before throwing him back into the gutter. They are manager John Daniels, trainer 'Two-Ton' Tubbs and the training camp bouncer.

trainer. As a beginner, your choice of manager is limited. But as you become more successful, you can begin to hire and fire managers, working your way to the big time and perhaps a shot at a title.



In all there are six managers, each of whom takes a cut of your purse. Fight contracts vary in length from two to eight fights. Each has a range of opponents for you to fight. It is possible to buy yourself out of a contract, but that depends on how much money you have. There are also a range of trainers which you can hire to train you to the peak of physical perfection and also offer advice about opponents. Not that my first trainer 'Two-Ton' Tubbs was that helpful. Don't get hit seemed to be the sum total of his wisdom. Again you can employ better trainers as you improve.

Apart from your monthly fight, presented as a TV show with comments and analysis between rounds, which will affect your rankings, you can also take part in exhibition matches. These allow you to practise and hone your skills and where defeat will not adversely affect your position in the ratings.

When PC Review saw early copies of the game, speed of the boxing action was a problem. The version I played was not too bad, but I would still have preferred a little more pace. The fight action is realistic, gruelling and brutal. The punches – even with the PC's internal speaker – sound as though they really hurt. Blood even flows from cuts.

The only problem was control of the boxer using the keyboard. You spend so much time thinking about which keys to press in order to duck or throw a punch that it's easy to be caught flat-footed and floored. A joystick is recommended.

Fighting and surviving takes skill. If you wade into your opponent, punching madly, you'll miss and soon run out of stamina. Take your time, pick your punches and pace yourself.

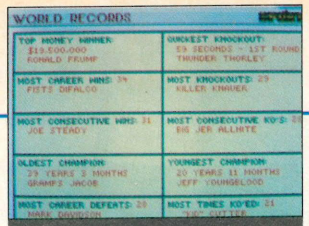
PAUL BOUGHTON

FIGHTING TALK

- **Rocky Marciano – the fighter Sylvester Stallone based his Rocky character on – retired undefeated after 49 bouts, seven of them title fights.**
- **Joe Louis reigned as heavyweight champion for more than 10 years.**
- **Ezzard Charles' 122 professional fights is a record for heavyweights.**
- **British fighter Bob Fitzsimmons was a world champion at three different weights – middleweight, 1891, heavyweight, 1897, light-heavyweight, 1903.**
- **Modern boxing dates from the 18th Century when men fought bare-knuckled and without timed rounds, although its origins can be traced back even further to the Olympic Games in Ancient Greece.**
- **The Queensbury Rules for boxing were drawn up by the 8th Marquess in 1866. In a modified form they are still used to govern modern fights.**



But things could be looking up. Powerful Paul signs with Hollywood Howie for a three fight deal.

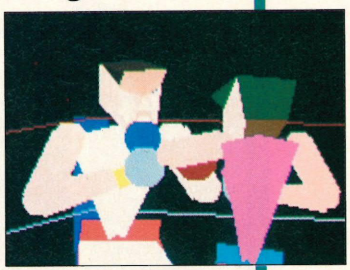


World Records. Some day your name could be up there as well.

ALTERNATIVELY...

4D Sports Boxing

Mindscape £30.99

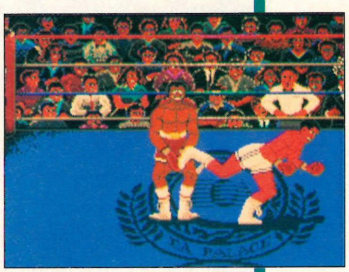


Released in the spring of 1991, 4D Sports Boxing uses polygons to construct the boxers. This looks slight odd to begin with. It depends whether you like the more realistic feel of Mirrorsoft's digitised pictures as opposed to these futuristic figures.

However, you do get a multi-view of the pugilist polygons, who you train and develop for their bouts. There is a managerial aspect to the game, but I prefer TV Sports Boxing.

Low Blow

Electronic Arts £29.99



With cartoon-style graphics, this game is a fun sim. Seven opponents – each with a specialist and extremely illegal move – battle it out. This game is for those who like to mix their left-hooks and upper-cuts with head-butting and kidney punches. If you like cheating, check it out. The true boxing fan probably won't like it. After all, nobody cheats at boxing. Do they?

HARDWARE REQUIREMENTS

TV Sports Boxing requires 640K RAM and runs off two floppy drives but a hard disk is recommended.

Even without additional cards, the sound effects are surprisingly atmospheric.

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✓
Hercules ✗	✓	✗	✓



Take your PC through the sound barrier!

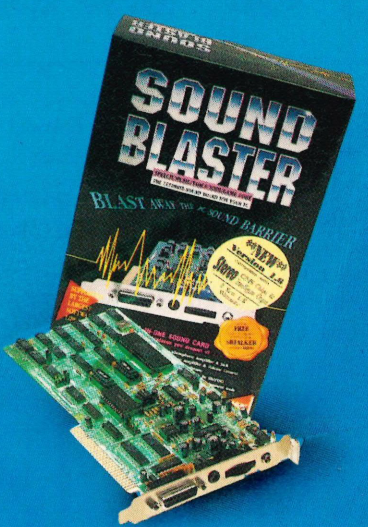
Out with the beeps. No more the sketchy efforts of a simple sound board. Add the megaphonic Sound Blaster Expansion Card and *great games get wicked!*

The pulsating beat of the intro. The heart racing whoosh!! of an enemy attack. Speech that sounds incredibly real...over the intercom or summoning you deep into adventureland. Music, sound effects and voices that blow mere imagination out of the window.

Sound Blaster is the Worlds No. 1 selling PC sound board supported by the largest range of games, music and multi-media software and the only card which gives you digitised speech on the latest games.

Its multi-voice FM synthesizer is AdLib and Games Blaster compatible. It records and replays digitally sampled sound and comes with on-board amplifier, text-to-speech, joystick port, MIDI interface, audio jack,...*and a 2 year replacement UK warranty.*

Now hear the difference for yourself. Send for our free audio cassette. Or visit your dealer today. It's the PC sound standard to judge by.



SOUND BLASTER

THE PC SOUND STANDARD

As featured in the

TECNOPLUS PROFESSIONAL

Complete PC Sound System

Westpoint Creative, 0743 248590

Please take me into another world of sound:



Send me the tape ☐

Point me to a dealer ☐

Name _____

Address _____

_____

_____ Postcode _____

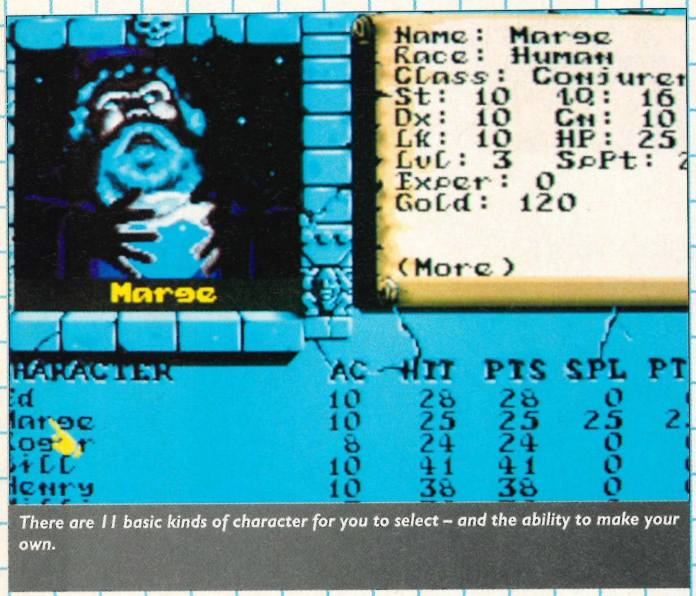
Post to: Westpoint Creative, Delta House,
264 Monkmoor Road,
Shrewsbury SY2 5ST
Tel: 0743 248590

WestPoint CREATIVE

PCR/12/91



■ Bard's Tale Construction Set ■ Electronic Arts
■ (0753) 549442 ■ £29.99



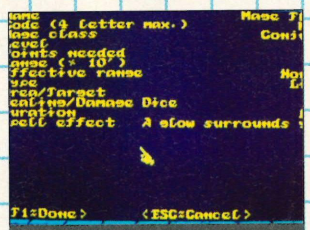
There are 11 basic kinds of character for you to select – and the ability to make your own.



The item editor allows you to select up to 12 different weapons or create your own new ones.



You can decide exactly what you want your item to do from a list of special effects.



The spell editor gives you complete control of who can cast which spell.



The Bard's Tale C

The original Bard's Tale began life way back in 1986 and the basic game design hasn't changed much for the adventures released in the series since. It was, however, a game system ahead of its time and is still quite playable despite the wrinkles. On the face of it, then, a Construction Set would seem like a good idea: another in the series wouldn't be able to compete on equal terms with the latest Ultima adventures and the Dungeon Master-style presentation of the SSI RPGs.

If you're installing on to a hard disk, be prepared to wait awhile for your first experience: on a 286 PC it took 45 minutes to decompress and install all the files from just two 5.25" disks. Once it is installed, however, loading is quick and all the menus are accessed with minimum fuss.

Designing your own games involves five basic steps: creating items, spells and monsters, designing your own map and compiling your efforts to create a playable disk. It's advisable to have some idea of your game design before you start, otherwise you'll find yourself constantly switching between menus and making minor alterations.

The menus work in much the same way throughout. For example, selecting the Item Editor gives you a choice of a dozen weapons and other items such as swords, torches, shields, armour, staffs, magical items and bows and arrows and you have the ability to create your own. You then have to decide which of the 11 classes of character in Bard's Tale – Warrior, Paladin, Rogue, Bard, Hunter, Monk, Conjurer, Magician, Sorcerer, Wizard or Archmage – will be able to use it. (You can also allow all of them to use it, or any combination of them). Once this is done, you're presented with a menu which enables you to set the item's parameters, all of which show off the Construction Set's excellence and comprehensive features. For example, as well as setting more standard conditions such as the price (GP) of the object and damage it can inflict, you can also apply special conditions, such as making a weapon poisonous, or causing it to induce paralysis in an opponent. Once you're satisfied with your choices, it's a good idea to save them using the Utilities menu.

The Bard's Tales are the stuff of RPG legend, but better interfaces and graphics have superseded them. Is the release of a construction set just flogging a dead horse?

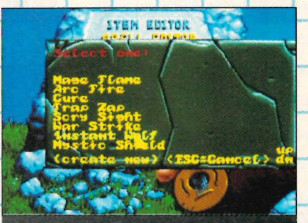
The Construction Set's great strength is its flexibility: you can change virtually every parameter in the game, creating everything from the most powerful weapon you've ever seen to an invincible monster, and designing a tortuous maze full of traps and tricks to house both. However, the menus aren't the



The VGA monster graphics look even more impressive during the game because they're animated.



The monster editor



Choose from 29 different spells.

onstruction Set

easiest to use, or the best presented – in fact it will take you many hours of experimentation before you become even an adequate creator of new adventures.

Part of the trouble lies with the deceptively all-embracing manual. It covers every aspect of the game, but a little more detail and a few examples would have been helpful, particularly when creating special conditions. A step-by-step guide for novices should have been included, too: it certainly would have explained some problems which you otherwise just have to figure out for yourself. That said, there are eight pages of moderately useful tips to get you started at least.

The ability to import DPaint pictures highlights the program at its best and worst. It's a brilliant idea which allows you to draw your own monsters and then incorporate almost 30 of them in the Construction Set but the system used to carry out the process is appalling. It involves importing individual files

TWO MINUTES OF DIY DUNGEONS

This is where all worlds begin, with the Main Menu. All the components you need for a new Bard's Tale – items, spells, monsters, a map and any special effects, are all accessed from here via a series of sub-menus.

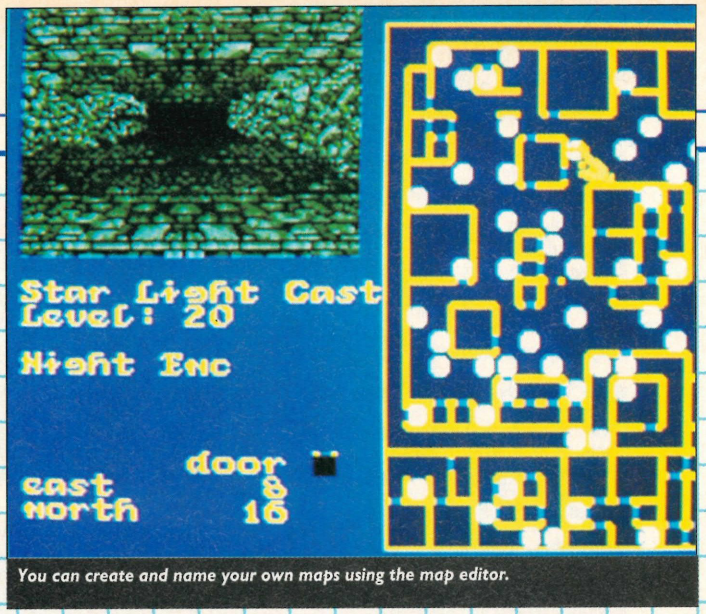
To inhabit your maps you can select one of 40 monsters already created, or design your own using DPaint. Decide how powerful you want your monster to be, where you want to put it, give it the ability to cause extra damage, and award yourself gold for killing it. The menus allow you to do just about anything you can think of.

Now it's time to design the landscape. Simple commands allow you to create walls, doors, secret doors and empty spaces. Once you are satisfied with the map and special commands, you exit to the main menu and select Utilities, where you can save all your creations, test the maps you have designed (and create a party to explore them).

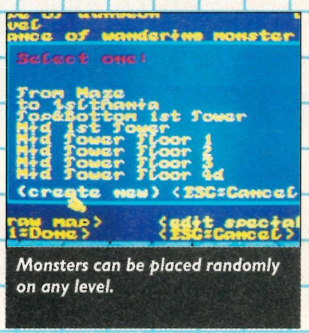




If you aren't happy with the 40 pictures provided, you can always create your own monster using DPaint.



You can create and name your own maps using the map editor.



Monsters can be placed randomly on any level.



in the Bard's Tale Construction Set directory, selecting a picture slot (keep a record of these, because the program will overwrite existing pictures without telling you), and then loading up the game to see whether you were successful or not. The manual is particularly unhelpful here, and it was only by trial and error that a moderately successful transfer was made.

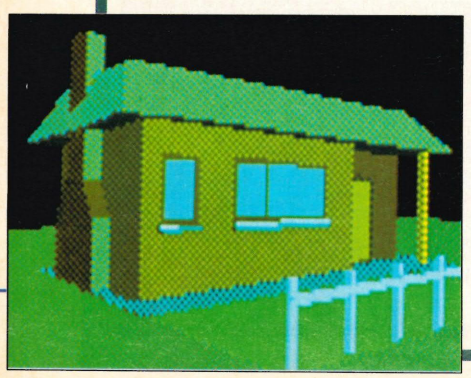
ALTERNATIVELY...

Bard's Tale II



Star Performers, £9.99

This is probably the most enjoyable of the Bard's Tale series, even though it doesn't have the VGA graphics and digitised sound effects found in the Construction Set. The familiar 3D window, text commands/description panel and the party statistics menu are all there, the action taking place in the familiar setting of Skara Brae. Finding gold to purchase weapons is the key quest, but there's also a vast area to explore (which will keep mappers happy) and plenty of grisly monsters to conquer. If you want some ideas about how to design your own Bard's Tale, take a look at this.



3D Construction Kit

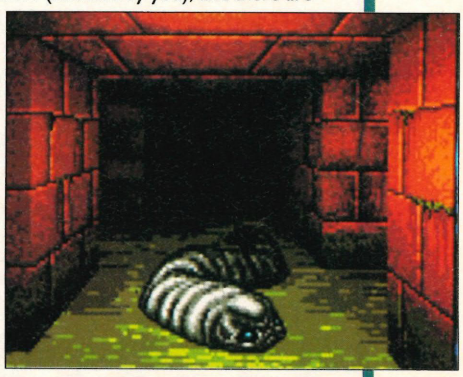
Domark, £49.99

An expensive but unique product, included here because like BTCS it allows you to create your own game worlds. It's actually a combination of 3D utility and games designer, with its own programming language and a huge range of icon controls. These aspects give it the flexibility to create things as diverse as a model of your own house and a dungeon-based RPG (with everything but the monsters). The designer is vector/polygon based, so you won't be able to incorporate sophisticated sprites, but there is enough variety to keep anyone creating their own worlds for months, if not years. Special note must be made of the excellent tutorial video and sample game included in the package – it's the kind of support that BTCS is lacking.

Eye of the Beholder

SSI/US Gold, £30.99

The sewers beneath Waterdeep are already achieving legendary status with computer role-players, although it has to be said that if FTL's Dungeon Master ever makes a successful transition to PC it will make EOTB look crude. The usual collection of RPG monsters needs to be negotiated by up to six adventurers (selected by you), and there are more than enough monsters to defeat, puzzles to solve and tunnels to explore to keep anyone happy. There are plenty of neat touches, too, including sub-quests, the ability to incorporate new party members, and impressive variety in the dungeon graphics. Well worth seeking out.

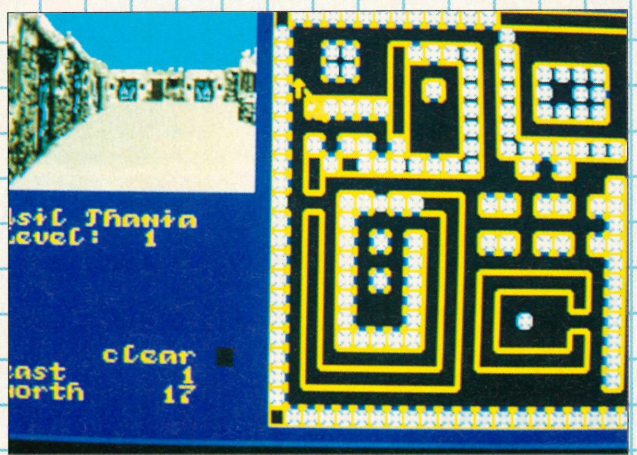




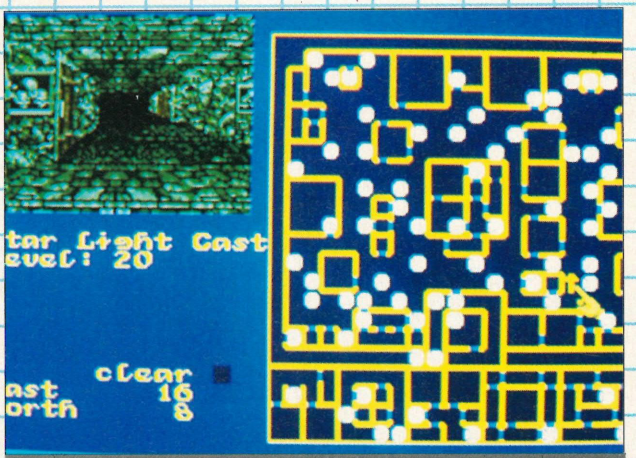
The utilities menu is where you can put all your creations together and save them on to a floppy disk.



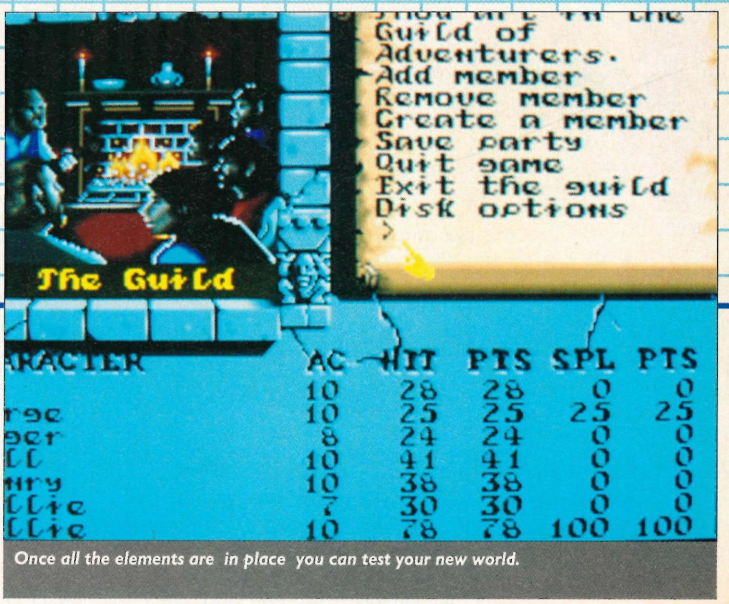
The programming language allows you to print messages, set traps and design a series of effects.



Any one of four terrains can be selected to draw the map: two types of dungeon, a city and wilderness.



Use mouse or keys to draw the map, using secret doors, special commands and walls.



Once all the elements are in place you can test your new world.

THE BARD'S TALES

Skara Brae ranks amongst the most famous locations in computer fantasydom. It is the setting for all three of the Bard's Tale adventures: the first was a simple case of liberating the land from the forces of darkness. Bard's Tale II doubled the size of the original's playing area and pitted you against an unlikely character by the name of Lagoth Zanta, who had stolen the peace-keeping Destiny Wand. The third in the series (the Thief of Fate) starts in the wilderness outside the city a few hours after the end of BT II, when the great god Tarjan turns up and raises monsters from the earth. This is easily the most comprehensive of the lot (though the second in the series is arguably a better game), with 13 character classes, a lot of mapping to be done, and bags of juicy, powerful spells. All three are available soon for £34.99 on compilation, and are well worth a look for keen adventurers.

There's another problem, too. Even when you have successfully created your own world, you might question the purpose in doing so. It's all right if you've got a few friends whom you can challenge with your latest fiendish designs, but if you're on your own there isn't much point in creating a level whose secrets and traps you already know about - unless you come back to it a couple of months later. The satisfaction of creating a game is a powerful hook, but the end result can be virtually futile for solo players.

There's no denying that BTCS is just about the most comprehensive game construction set around (and certainly one of the most satisfying) but there is a final question mark against its merits as a modern RPG system. If you think the Bard's Tale format still has a lot to offer, you'll be more than pleased with the depth of this program and, providing you give a lot of thought to the game design, it will allow you to create games every bit as good as the originals. If however, you're growing a bit tired of the series and the relatively outdated system it uses, the construction aspect will still provide a lot of enjoyment, but the finished result might prove disappointing.

PC review 7 RATED

GORDON HOUGHTON

HARDWARE REQUIREMENTS

BTCS comes on one high density 5.25" disk or two 3.5" disks – both included in the package. It's best installed on to a hard drive (where it uses up 1.2Mb of disk space), since there is a lot of disk accessing. You also need a colour monitor and DOS 2.1 or higher.

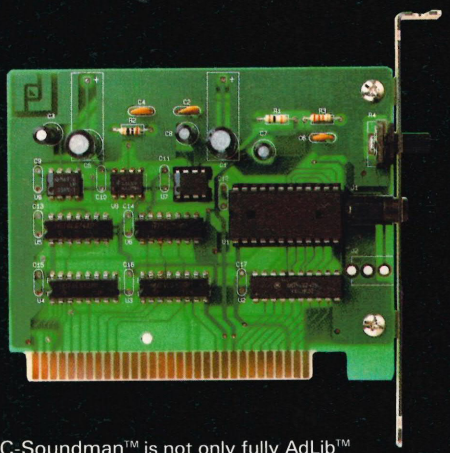
The digitised sound effects and VGA graphics are put to good use in the finished games.

TECH SPEC

3½ ✓ 5¼ ✓ AD Lib ✓ Roland ✓
CGA ✓ EGA ✓ VGA ✓ Tandy ✓
Hercules ✗ ✓ ✓ ✓

The entry into the world of professional PC sound was never so easy - or so inexpensive.

This package contains everything you need: Plug in the card, attach speakers, load software - and you're done! All components are of high quality, made and tested to conform to highest standards.



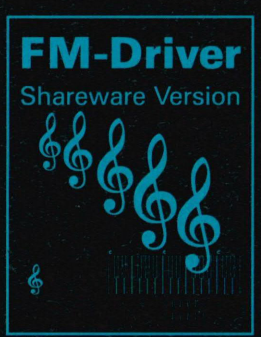


PC-Soundman™ is not only fully AdLib™ compatible, it has other features as well! The biggest software publishers in the world support PC-Soundman™. On the Yamaha™ FM synthesizer you can have 11 fully programmable channels which can all simultaneously playback authentic-sounding instruments or effects. In addition there is a D/A channel (digitized voice channel/DAC) which is, compatible with the SOUND-MASTER™ standard. It can, for example, be used to playback voice, noise, special effects, animal sounds and the like. And the card has a volume control.





Active loudspeakers (stereo) can be connected directly to the PC-Soundman™ with the supplied cable. 2x4 watts of power guarantee wall-to-wall sound. They operate either with an adapter or batteries. The headphones, which can also be used with a Walkman™, are for unintrusive personal enjoyment. You can, of course, connect PC-Soundman™ to your hi-fi too.



89.99 £ RRP

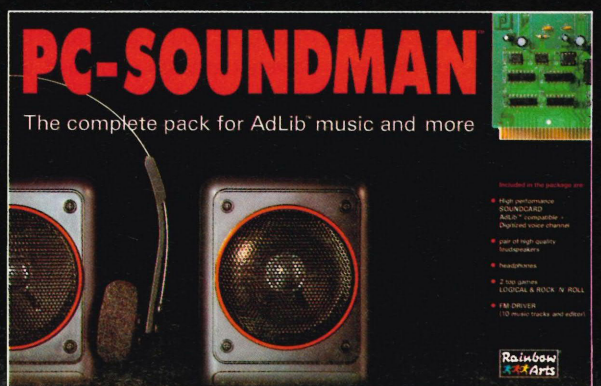
The package contains two games LOGICAL and ROCK'N'ROLL so you can get started right away. The original game documentations will have you up and running in no time. Furthermore, there's also a shareware version of the famous FM-Driver. In addition to 10 pre-recorded songs this program enables you to use the card in a professional environment under Windows 3.0™.

All you need! The Soundcard from Europe for Europe

National and International distribution inquiries welcome

Hardware supported:
IBM™ PC/XT/AT/PS 286/386/486

All trademarks appearing in this ad are owned by their respective companies.



In the U.K. call:
Extender, Tel. 021–449 6772

In Europe call:
Rainbow Arts Software GmbH
Daimlerstraße 10
W-4044 Kaarst 2
Germany
Tel. +49–2101–66020
Fax: +49–2101–660263

Rainbow Arts®



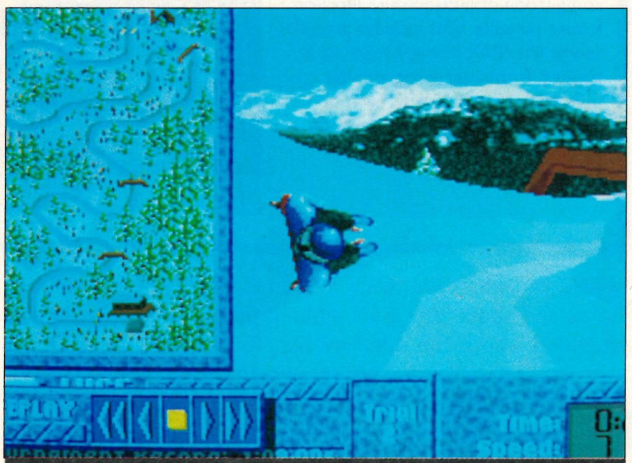
The Games Winter Challenge

Yet another multi-event sports sim, this time with a rather festive feel

Ever since the halcyon days of Konami's Track and Field, gamers have been waggling sticks in an effort to achieve sporting greatness. The genre has grown with the technology. Epyx revolutionised the game style with Summer Games, giving the player more variety and more involvement (thrashing a joystick for 20 minutes is no-one's idea of fun). Now, along comes Accolade's latest, a winter sport simulation. So what's it like?

The game has been developed by America's MindSpan Technologies and uses the tried and tested multi-event formula. There are seven in all, each featuring a different test of skill and reflex. There's no frantic waggling in this game. The seven events are as follows: the luge, downhill skiing, cross country skiing, the bobsled, speed skating, giant slalom, the biathlon and last of all, the ski jump.

These events can all be practised in any order, allowing you to hone your skills before entry to the tournament itself. The wealth of options at this stage is enormous, including a very impressive ten player option. Mind you, the logistics of having up to ten rowdy friends playing one game are probably a little tricky. Once you have selected the number of players, you can now enter the competition. The events can be played in any



The first thing you notice about the Luge is that it's dangerous. Try to keep a good line on the corners and don't go too fast. Watch out for those sudden sharp turns though.



The giant slalom takes patience and fast reflexes. Simply keep between the coloured flags and try not to crash. Try not to make sharp turns, slow sweeping curves bring the best results.

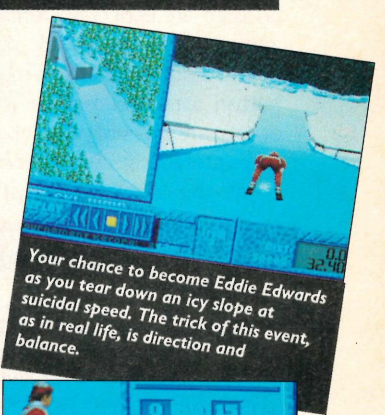
PC review TWO MINUTES OF GOING DOWNHILL...

When skiing downhill, use gentle sweeping movements if you want to avoid an untimely demise. Sharp turns are not recommended and often end in disaster.

The luge is actually dead easy, just stay on the outside line and try to avoid coasting the top. Learning the courses would be advantageous at this point.

Ski jumping is a graceful art and one that needs finesse and balance. This doesn't explain how Eddie Edwards got where he did but there you go.





Your chance to become Eddie Edwards as you tear down an icy slope at suicidal speed. The trick of this event, as in real life, is direction and balance.



The biathlon is the most arduous event, demanding both endurance and shooting skill.



This event certainly looks impressive but it's possibly the easiest of the lot. Simply thrash the fire button and try not to crash. It's a lot more fun with more than one player.



This event plays with uncanny similarity to the Luge. Finding the best line around the course isn't as easy as you might think. You would do well to learn the course to get those times down.



Downhill skiing is the most enjoyable event. The illusion of speed, even on sad PCs, is quite exhilarating. This event can be quite tricky, since some of the flags are quite fiendishly placed.

order and most of these sports are self-explanatory. There are a couple of unusual ones however. such as the luge. This suicidal sport is strictly for loonies. You strap yourself into a rickety basket on skis and then hurtle down a bobsled track at quite stupidly high speed.

These vehicles are not fitted with brakes of any kind, so there are only two ways to stop: You put your feet down ... or you crash.

The control method varies for each event, but all events rely on basic steering skills. The luge and the bobsled are especially reminiscent of driving games and play extremely well. Speed skating breaks the mould a little in that you have to repeatedly tap the fire button (or enter key for joystick-free PCs). The skiing events are possibly the most involved, the biathlon being a very interesting combination of sports. In this very unusual event, the competitor must endure a gruelling cross-country ski, with intermittent bouts of rifle shooting. As you can no doubt imagine, this sport is a fairly harsh pastime in real-life, but in this game, it's a dream. You simply ski across the snowy wastes and when you reach the target range, you steady your sights and shoot. The giant slalom, though, stands head and shoulders above the other events. The polygon graphics are extremely slick and fast (even on moderately slow PCs).

The ski-jump is a good laugh, but it's often just as much fun crashing as it is landing safely. Cross country skiing is the most boring event of the lot, but even this can be quite fun initially. Playing with more than one player is enormous fun, with a real competitive streak surfacing in even the most placid of players. One niggling problem with the game is the control method. If you have a joystick then you have no worries-the game will detect it and control is smooth and responsive. If however you have to use the keyboard then you're in for a bit of a nightmare. Some of the events require almost octopus-like feats of dexterity, with the confusing and often annoying number keypad being used for control.

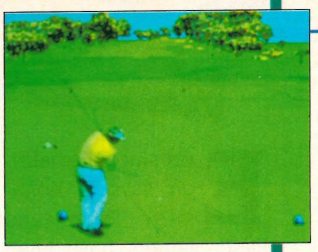
As a whole, the game is a dream to play. Considering it comes on one disk, it really is something of an achievement. The games are all great fun, the VGA graphics are quite glorious and the only thing which lets the game down is the rather bland soundtrack (a nightmare without a sound card).

FRANK O' CONNOR

PC review 7 RATED

ALTERNATIVELY...

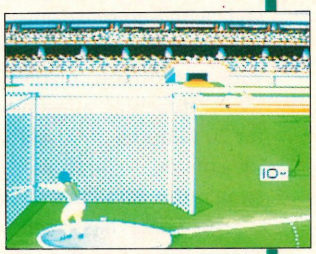
Links



Access/US Gold £41.99

There are tons of sports sims available on the PC and Winter Challenge is one of the better ones. If armchair exercise is your thing though, you might do well to check out some of the others available. Links golf is easily the best looking golf sim on the PC and features some beautiful graphics. The gameplay is fine and it all hangs together very nicely. The problem with Links is that it needs a very highly specified PC to make the game worthwhile. Still, it has a very real feel.

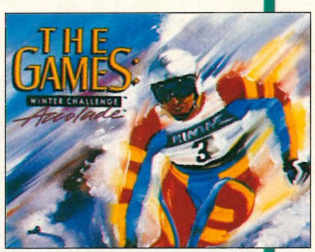
Summer Games



Epyx/US Gold £20.42

If you have your heart set on a summer sports sim, then check out Summer Games from Epyx. This features a similar pot pourri of events, but has a more arcade feel, with sprites and scrolling replacing the slick polygons in Accolade's offering. This is fairly hard to get hold of these days, but it's a fine game regardless.

California Games



Epyx/US Gold £30.99

This is a sports game with a slightly wackier feel. California Games is a compilation of outlandish Californian leisure pursuits. This includes graceful sports like BMX biking, hackey sack juggling, frisbee throwing and the obligatory skateboarding. Each of the games would stand well enough on their own, but as a package they represent great value.

HARDWARE REQUIREMENTS

Coming on only one disk, The Games isn't exactly going to swallow your hard drive, but Tandy Colour users beware, this game needs 549,000 bytes, as opposed to 513,000 for other users. The Games will support all the major sound cards and it auto-detects installed joysticks. The menu screens can be controlled by a mouse, but not the game itself. Installation is recommended, if only to speed things up, but it's by no means essential.

Make sure you have at least 640k base memory before you even think about loading this one.

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✓
Hercules ✗	✓	✓	✓

SEIKOSHA DOT MATRIX PRINTERS

Silica Systems are pleased to recommend Seikosha printers to you at ***NEW LOW PROMOTIONAL PRICES***. The Seikosha range is built to the highest standards, by a company that is used to manufacturing high quality precision products. In fact, you may be wearing one of these products on your wrist as Seikosha are part of the massive Seiko/Epson group (with a turnover of £6 billion and 18,000 staff!).

When you buy a Seikosha printer from Silica, we will give you a Silica PRINTER STARTER KIT (worth £25+VAT= £29.38) FREE OF CHARGE, to make sure you get off to a flying start with your new printer. For further information on the Seikosha range, complete and return the coupon below. Or, if you can't wait to get your hands on a new low priced Seikosha printer, telephone our mail order hotline, 081-309 1111 to place your order now.

- **FREE DELIVERY** Next day - anywhere in the UK mainland
- **FREE STARTER KIT** Worth £29.38 with every Seikosha printer.
- **FREE HELPLINE** Technical helpline during office hours.
- **1 YEAR WARRANTY** With every Seikosha printer from Silica.

Each print example was produced by the printer it is shown with. Printer speeds are quoted as follows:
SD = Superdraft 15cpi, D = Draft 12cpi, NLQ = Near Letter Quality 12cpi, LQ = Letter Quality 12cpi.

9-PIN PRINTER

NEW! SP-1900 PLUS NOW WITH AUTO SHEET FEEDER OPTION



SPECIAL LOW INTRODUCTORY PRICE

192 CPS 80 COLUMN

- *Seikosha SP-1900 Plus - 9 pin - 80 col*
- *192cps Draft, 48cps NLQ*
- *1K Printer Buffer + 2 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 144×72dpi*
- *Epson and IBM Emulation*
- *Auto Sheet Feeder Option*
- *FREE Silica Printer Starter Kit*

SP-1900 PLUS RRP £155
STARTER KIT £25
TOTAL RRP: £180
SAVING: £81
SILICA PRICE *(EXC VAT):* **£99**

£99
+VAT= £116.33 Ref: PRI 8195

9-PIN PRINTERS



192 CPS 80 COLUMN

- *Seikosha SP-2400 - 9 pin - 80 col*
- *240cps Draft, 50cps NLQ*
- *21K Printer Buffer + 5 Fonts*
- *Parallel and Serial Interfaces*
- *Graphics Resolution: 240×144dpi*
- *Epson and IBM Emulation*
- *Optional Auto Sheet Feeder Unit*
- *FREE Silica Printer Starter Kit*

RRP: £199
STARTER KIT £25
TOTAL RRP: £224
SAVING: £85
SILICA PRICE: £139

£139
+VAT=£163.33 ref: PRI 8204



240 CPS 136 COLUMN

- *Seikosha SP-2415 - 9 pin - 136 col*
- *300cps SD, 240cps Draft, 50cps NLQ*
- *175K Printer Buffer + 5 Fonts*
- *Parallel and Serial Interfaces*
- *Graphics Resolution: 240×144dpi*
- *Epson and IBM Emulation*
- *Superior Paper Handling*
- *FREE Silica Printer Starter Kit*

RRP: £320
STARTER KIT £25
TOTAL RRP: £345
SAVING: £136
SILICA PRICE: £209

£209
+VAT=£245.58 ref: PRI 8215

24-PIN PRINTERS



240 CPS 80 COLUMN

- *Seikosha SL-92 - 24 pin - 80 col*
- *240cps Draft, 80cps LQ*
- *44K Printer Buffer + 2 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 360×360dpi*
- *Epson Emulation*
- *Optional Font ROM - 7 Fonts*
- *FREE Silica Printer Starter Kit*

RRP: £335
STARTER KIT £25
TOTAL RRP: £360
SAVING: £171
SILICA PRICE: £189

£189
+VAT=£222.08 ref: PRI 8292



- *Includes Programmable ROM Card*

324 CPS 80 COLUMN

- *Seikosha SL-210 - 24 pin - 80 col*
- *324cps Draft, 108cps LQ*
- *5K Printer Buffer + 9 Fonts*
- *Parallel and Serial Interfaces*
- *Graphics Resolution: 360×360dpi*
- *Epson and IBM Emulation*
- *Optional Auto Sheet Feeder*
- *FREE Silica Printer Starter Kit*

RRP: £599
STARTER KIT £25
TOTAL RRP: £624
SAVING: £255
SILICA PRICE: £369

£369
+VAT=£433.58 ref: PRI 8321



- *Handles 1+2 Multipart Forms*
- *Rechargeable Battery Pack Optional*

144 CPS 80 COLUMN

- *Seikosha LT-20 - 24 pin - 80 col*
- *180cps SD, 144cps Draft, 60cps LQ*
- *1K Printer Buffer + 9 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 360×180dpi*
- *IBM Emulation*
- *Built-in 50 Sheet Auto Feeder*
- *FREE Silica Printer Starter Kit*

RRP: £299
STARTER KIT £25
TOTAL RRP: £324
SAVING: £75
SILICA PRICE: £249

£249
+VAT=£292.58 ref: PRI 8820

BUSINESS PRINTERS (WIDE-BODY)



- *Includes Programmable ROM Card*

277 CPS 136 COLUMN

- *Seikosha SL-230 - 24 pin - 136 col*
- *277cps Draft, 92cps LQ*
- *5K Printer Buffer + 9 Fonts*
- *Parallel and Serial Interfaces*
- *Graphics Resolution: 360×360dpi*
- *Epson and IBM Emulation*
- *Optional Auto Sheet Feeder*
- *FREE Silica Printer Starter Kit*

RRP: £699
STARTER KIT £25
TOTAL RRP: £724
SAVING: £275
SILICA PRICE: £449

£449
+VAT=£527.58 ref: PRI 8423



462 CPS 136 COLUMN

- *Seikosha BP-5500 - 8 pin - 136 col*
- *462cps Draft, 106cps NLQ*
- *18K Printer Buffer*
- *Parallel and Serial Interfaces*
- *Graphics Resolution: 240×144dpi*
- *Epson and IBM Emulation*
- *Optional Auto Sheet Feeder*
- *FREE Silica Printer Starter Kit*

RRP: £1299
STARTER KIT £25
TOTAL RRP: £1324
SAVING: £325
SILICA PRICE: £999

£999
+VAT=£1173.83 ref: PRI 8755



- *Low Form Tear-off*

520 CPS 136 COLUMN

- *Seikosha BP-5780 - 18 pin - 136 col*
- *780cps SD, 520cps Draft, 130cps NLQ*
- *20K Printer Buffer + 2 Fonts*
- *Parallel and Serial Interfaces*
- *Graphics Resolution: 240×240dpi*
- *Epson and IBM Emulation*
- *Handles 1+6 Multipart Forms*
- *FREE Silica Printer Starter Kit*

RRP: £1699
STARTER KIT £25
TOTAL RRP: £1724
SAVING: £325
SILICA PRICE: £1399

£1399
+VAT=£1643.83 ref: PRI 8780



800 CPS 136 COLUMN

- *Seikosha SBP-10 - 18 pin - 136 col*
- *800cps Draft, 200cps NLQ*
- *64K Printer Buffer + 2 Fonts*
- *Parallel and Serial Interfaces*
- *Graphics Resolution: 240×240dpi*
- *Epson and IBM Emulation*
- *Built-in Cut Sheet Feeder*
- *FREE Silica Printer Starter Kit*

RRP: £2999
STARTER KIT £25
TOTAL RRP: £3024
SAVING: £525
SILICA PRICE: £2499

£2499
+VAT=£2936.33 ref: PRI 8810

FREE! STARTER KIT



Every Seikosha printer from Silica, comes with the Silica Printer Starter Kit, worth £29.38 (£25 +VAT), completely FREE OF CHARGE. It includes all you need to get up and running with your new printer.

- ***3½" Disk with Amiga & ST Printer Drivers***
- ***1.8 Metre Parallel Printer Cable***
- ***200 Sheets of Quality Continuous Paper***
- ***100 Continuous Tractor Feed Address Labels***
- ***5 Continuous Envelopes on Tractor Feed***

Printer owners may order the Silica Starter Kit (ref: KIT 5000) for only £24.38 - £5 off RRP!

SILICA SYSTEMS OFFER YOU

- ***FREE OVERNIGHT DELIVERY:*** On all hardware orders shipped in the UK mainland.
- ***TECHNICAL SUPPORT HELPLINE:*** Team of technical experts at your service.
- ***PRICE MATCH:*** We normally match competitors on a "Same product - Same price" basis.
- ***ESTABLISHED 12 YEARS:*** Proven track record in professional computer sales.
- ***BUSINESS + EDUCATION + GOVERNMENT:*** Volume discounts available for large orders.
- ***SHOWROOMS:*** Demonstration and training facilities at our London & Sidcup branches.
- ***THE FULL STOCK RANGE:*** All of your requirements from one supplier.
- ***FREE CATALOGUES:*** Will be mailed to you with offers and software/peripheral details.
- ***PAYMENT:*** By cash, cheque and all major credit cards.

Before you decide when to buy your new printer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or software, or help and advice. And, will the company you buy from contact you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Systems Service".

MAIL ORDER HOTLINE 081-309 1111

SILICA SYSTEMS

MAIL ORDER:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	**Tel: 081-309 1111**	
Order Lines Open:	Mon-Sat 9.00am-6.00pm No Late Night Opening	Fax No: 081-308 0608	
LONDON SHOP:	52 Tottenham Court Road, London, W1P 0BA	**Tel: 071-580 4000**	
Opening Hours:	Mon-Sat 9.30am-6.00pm No Late Night Opening	Fax No: 071-323 4737	
LONDON SHOP:	Selfridges (1st Floor), Oxford Street, London, W1A 1AB	**Tel: 071-629 1234**	
Opening Hours:	Mon-Sat 9.30am-6.00pm Late Night: Thursday until 8pm	Extension: 3914	
SIDCUP SHOP:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	**Tel: 081-302 8811**	
Opening Hours:	Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm	Fax No: 081-309 0017	

To: Silica Systems, Dept PCRVW-0192-58, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND FREE SEIKOSHA INFORMATION

Mr/Mrs/Ms: ..... Initials: ..... Surname: .....

Company Name (if applicable): .....

Address: .....

..... Postcode: .....

Tel (Home): ..... Tel (Work): .....

Which computer(s), if any, do you own? 58D

E&OE - Advertised prices and specifications may change - Please return the coupon for the latest information.



■ BattleTech: The Crescent Hawks' Revenge
■ Activision/ The Disc Company
■ (010 33) 1 49 10 99 95 ■ £35.99

BattleTech: The Crescent Hawks' Revenge



Mechwarrior Jason Youngblood approaches his destination in the DropShip.

Man and machine in perfect harmony. But does the power come with any glory? Activision really hopes so

Striding across the land comes a monstrous regiment of giant armour-clad warrior robots, armed and highly-dangerous. The air is filled with the sound of heavy metal mayhem, man.

Once again you are cast in the role of 19-year-old Jason Youngblood, a Mechwarrior living in the 31st Century. In the previous game your father was taken prisoner by treacherous forces. With a small band of friends you set out to rescue him. This game opens with the hunt continuing. Your space ship – DropShip – is ambushed, crashes into a lake and starts to sink. All could very soon be lost. Unless you act quickly all your 'Mechs will disappear below the water. This is the plot of the first scenario. In the second you must defeat an enemy 'Mech

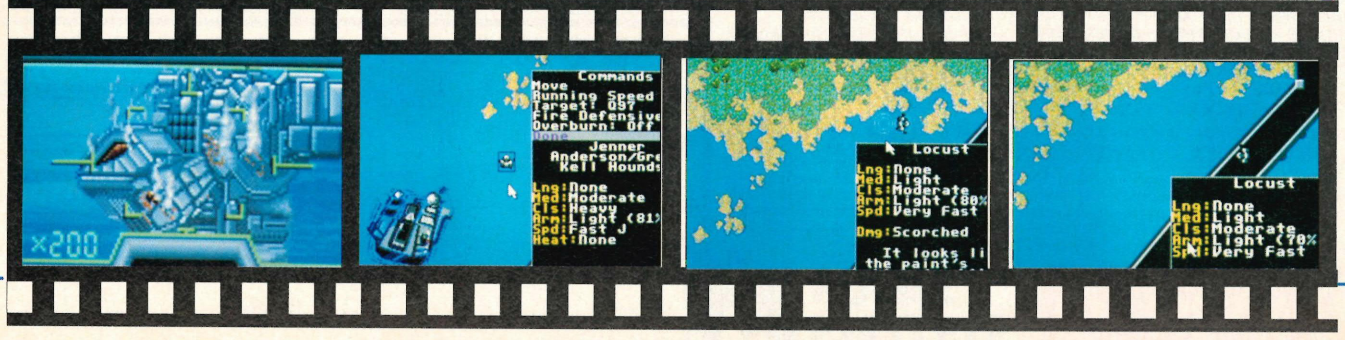
TWO MINUTES OF LIFE OR DEATH ...

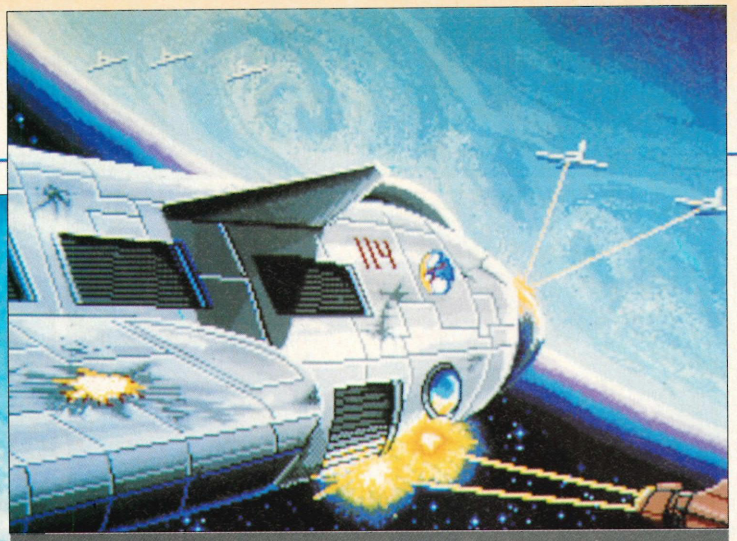
The crashed DropShip is in a lake. The enemy is closing in for the kill. You spot a friendly but damaged 'Mech, a Jenner. You direct it to intercept the attacker.

This is an aerial view of your plight. The sinking DropShip is bottom left. The machine in the highlight square is the damaged 'Mech. By moving this square over objects you access information them.

The enemy 'Mech is located moving through the waters of the lake. The status box shows just what you are up against. The Jenner is ordered to fire. You only damage its paintwork.

The scorched Locust has moved away and onto a bridge. The Jenner is ordered to fire again. The Locust's defences are breached. "The 'Mech appears to be limping, sir," you're told.

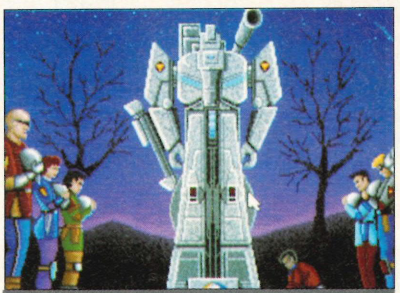




Ambush! An attack from three enemy fighters forces the DropShip to crash ...



... straight into a lake. Luckily Youngblood survives. But for how long?



BattleMechs are awesome 30ft combat machines. They can weigh anything between 20 and 100 tonnes. Contained within the 'Mech are its pilot, engine, sensors, weapons, heat sinks - these dissipate the huge temperatures which build up while the 'Mech is in combat or moving at great speed and, if not controlled, can seriously affect the machines ability to function. The 'Mechs also have varying degrees of armour plating. If this sustains too much damage, internal damage can occur.

advance. In all there are around 25 scenarios set on five different worlds to play.

Play is split really into two – the storyline, mainly told in static pictures and text which also offers some help and hints, and the battle scenarios in which you wage war in the mighty machines across varying terrains, stalking, locating and eradicating the enemy. Basically, it's kill or be killed. But it's is not just crash, bang, wallop. You need to think and plan strategies.

Potentially computer games based on the successful FASA Corporation of America's BattleTech game have everything going for them, action, thrills and spills on an epic scale. So why do these particular 'Mechs fail to satisfy?

HARDWARE REQUIREMENTS

The Crescent Hawks' Revenge requires a minium of 525K free RAM after DOS. On the 3.5" format the game comes on two disks.

BATTLETECH CENTRE

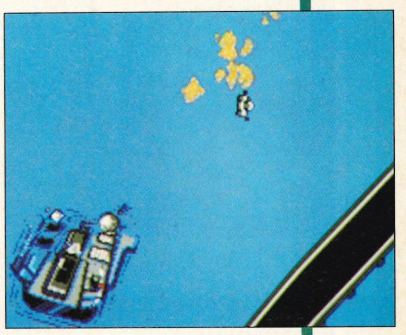
The world of BattleTech can become reality ... well, almost. FASA runs a BattleTech Centre in Chicago where players sit in mock-up 'Mech cockpits. There are 16 of them all linked together. They are divided into teams of four and then commence play. A 19" screen allows players access to this 'virtual world'. Speakers in the 'Mech cockpit create amazing effects. Sound is a major feature, adding to the realism. There are plans to build a BattleTech Centre in Europe at some stage and London or Paris have been mentioned as possible sites.

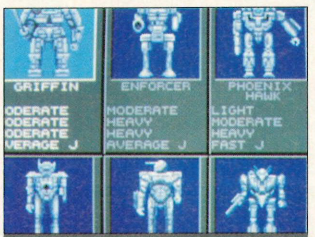
PC review 5 RATED

ALTERNATIVELY...

The Crescent Hawk's Inception (Activision)

This introduction to the BattleTech universe takes the form of a prolonged training session involving 'Mech driving and combat sessions before Jason has to prevent an inavasion of hostile 'Mechs and launch a rescue mission for his kidnapped father. Success in these missions depends, in part, on how well you performed in training.





There are around 46 'Mechs to choose from, glorying in names such as Assassin, Awesome, Charger, Clint, Hunchback, Warhammer and Zeus. But at the beginning of the game only four from six 'Mechs can be selected for you and your team. Each 'Mech has different capabilities, covering firepower, speed and armour. As the game progresses you get the chance to select different machines.

Interestingly, its predecessor The Crescent Hawks' Inception failed to make into PC Review's Top 50 of readers' games. In theory BattleTech should appeal to PC gamers. So what's the problem?

Let's go back to the original BattleTech. Just what is it? A board game? A role-playing game? A war game? Well, it's all and none of these. The basics of BattleTech are very simple. Huge warrior robots fight over expansive and devastated plains, each giant using tactics and state-of-the art weapons to fight the futuristic Succession Wars. This simple concept is backed up with a vast amount rules, histories, facts and figures. For BattleTech players this world truly lives.

The original BattleTech was essentially a board game. Later FASA launched a role-playing version Mech Warrior. New add-ons for the game are continually being released. The BattleTech craze is growing at an exceptional rate in America and, here in Britain, the game is increasingly popular. There are even novels set in the BattleTech universe now being published.

But the essential element – the key to this game – is a group of people gathered around a table moving small, but perfectly formed, metal robots around a map, blasting the hell out of each other, and laughing. That's when the game comes alive.

For me The Crescent Hawks' Revenge never really comes to life, despite being a competent and really quite faithful interpretation of the original game.

But one thing is certain, BattleTech is here to stay. BattleMechs never die. They Rust In Peace.

PAUL BOUGHTON

Owners of low-end machines may be tempted, speed is not important.

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✓
Hercules ✗	✗	✓	✓

TO PLAY TODAYS GAMES YOU NEED TOMORROWS TECHNOLOGY.
WE SUPPLY THAT TECHNOLOGY.



A range of machines to play today's leisure games as they were designed to be played.

ELITE GAMES SYSTEM -	286 16 Mhz 2 Mb SYSTEM RAM	£1049.00
SUPERIOR 25 GAMES SYSTEM -	386SX 25 Mhz 2 Mb SYSTEM RAM	£1159.00
ULTIMATE 33 GAMES SYSTEM -	386DX 33 Mhz 64 KB CACHE 4 Mb RAM	£1399.00
ULTIMATE 40 GAMES SYSTEM -	386DX 40 Mhz 64 KB CACHE 4 Mb RAM	£1449.00
THE MACHINE 486 -	33 Mhz 128 kB CACHE 8 Mb SYSTEM RAM	£1799.00

BOTH 3.5 INCH AND 5.25 HIGH DENSITY FLOPPY DRIVES
43 Mb HARD DRIVE
1Mb VIDEO GRAPHICS CARD
SVGA 14 INCH COLOUR MONITOR SUPPORTS UP TO AND INCLUDING 1024 * 768 RESOLUTION
SOUNDBLASTER VERSION 2 SOUND CARD
TWO J - 306 TWIN SPEAKER SYSTEM WITH BUILT IN AMPLIFIER
MOUSE
JOYSTICK
MINI TOWER CASE OR DESKTOP
CHOOSE £100 OF THE LATEST SOFTWARE
MS DOS 5
3 YEAR WARRANTY

100s' OF GAMES AVAILABLE, PHONE FOR PRICE WE BEAT THE REST !!
WE ALSO SUPPLY CD ROMS AND PRINTERS. CALL US NOW!
All systems are installed with the games of your choice, before despatch.
Visit our centre, write or phone for more details.
We can deliver nationwide.

Cornwall and Devon
COMPUTER SYSTEMS

All prices exclude VAT and Delivery.

Thirty-two islands in the sun are just waiting to be conquered. Try this sci-fi war game against the computer or against a friend

Battle Isle



The result of every combat is shown in a short animated sequence.

If you talk with an average PC games player about your current software favourites and mention that you are very much into war games, you might well earn a disorientated look and clever attempts to change the topic. That's simply because war games are still waiting for their big commercial breakthrough in Europe. They are loaded with clichés like being too complicated, graphically poor, boring in general and too heavy on the military side – replaying Second World War tank battles is not everybody's idea of having fun.



The red fields indicate how far this unit can be moved.

German development team Blue Byte has come up with a war game for people who normally don't play them. Battle Isle is easier to learn than most other war games but don't expect to understand all details within five minutes. In compromising between depth of game play and accessibility, the designers gave durability the top priority. If you're patient and don't mind looking in the thick manual from time to time, you'll find out that it's playable for anyone, however inexperienced with this type of software.

All the action takes place on 32 islands, 16 of which offer a computer opponent, whilst the other 16 are accessible in two player mode only. If you're playing with a friend you can also use the 16 islands which are offered to solo players. That's quite an exceptional feature: Battle Isle is one of the very few war games which offer two player action on one machine so you don't have to connect two PCs via complicated cable structures or do expensive modem things. Two people can play against each other simultaneously on one machine because the screen is split vertically in halves. To the left, one player is taking action, while the right half displays the surroundings of his human or computer opponent.

Your aim is obvious: conquer the island by eliminating all the enemy's forces or by entering his headquarters. Each party controls a host of different vehicles. The game is divided in two separate rounds, the move phase and attack phase, which are repeated until one party is victorious. First you click on your units, order them to move to another place, examine a map or take a look to see what machinery is left in your stores. Often a unit has to stand directly next to an enemy to attack it. Those commands are executed in the battle phase and the outcome of the confrontation is shown in a short animated sequence.

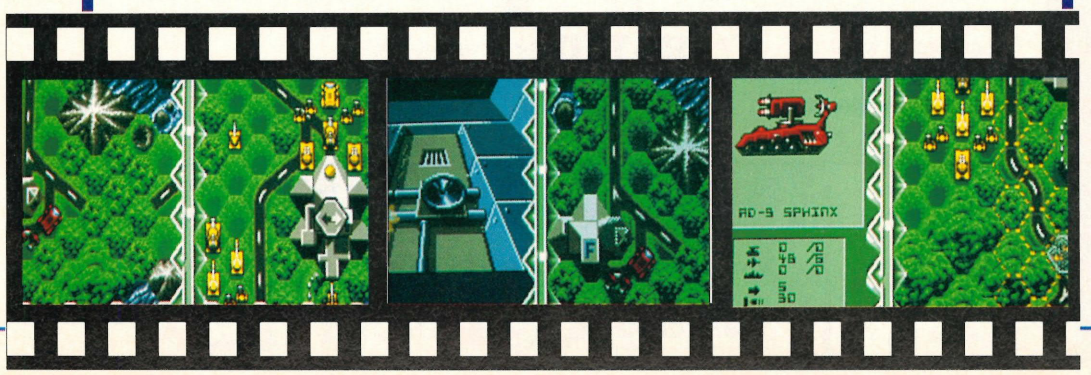
Controlling your transport fleet is easy, but learning the differences between the two dozen types of infantry, tanks, planes, ships, etc, is the tricky part of the game. You give commands by clicking on the desired unit, holding the fire button pressed and turning the joystick in one of four

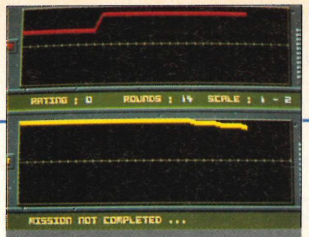
TWO MINUTES OF TANK ROBBING ...

Buildings can only be entered by infantry, but those guys are very slow and can only move a few squares in each round. It's handy to have a transport vehicle around that can deliver the unit to its destination quickly.

The computer wasn't able to enter the depot before us and our infantry occupied the building. This event is indicated by a short animated graphic sequence which you can see on the left hand side of the screen.

Shopping time! After reaching the depot everything is yours and you can plunder all stored vehicles. This was your only chance on this level to gain some planes, so it's definitely been worth capturing this place.





A stats screen shows you how well both players performed over the last rounds.

directions. As you change direction you alter the icon on that unit. The outcome of every battle depends on the individual offensive and defensive values of every unit, the area a unit is occupying at the moment and the unit's size. A tank on a bridge for example has a worse defense value than a tank in the woods. Additionally there's a veteran bonus: units which have already been involved in battles act more effectively than greenhorns. On the other hand, even the most experienced groups will slowly be decimated from battle to battle. Make sure that such a valuable, experienced unit does not get disbanded and sent back to a factory where it can be repaired. Heading straight to the enemy HQ doesn't always seem to be the best idea. First, it's well defended; second, you can enter it with infantry only. Make sure that your men can't be attacked by enemy tanks as they are easy targets for heavy armoured war machines. It might be a good idea to look for neutral depots first.

Blue Byte hasn't invented anything totally new, but Battle Isle is one of the few war games that really could have a mass appeal. Basically you still move units around your hexagon landscape, but as both parties are acting at the same time, it adds a welcome hectic element. Once you've won a level you are told a password to access the next island. As some of the later stages take some time to solve, it's also possible to save the game in progress. Graphics are good compared to other war games, but if you keep the possibilities of your VGA card in mind it's nothing famous.

HARDWARE REQUIREMENTS

You should have about 3Mb space left on your hard disk to install Battle Isle. It can be played from floppies, but as with most PC games nowadays this causes some pains as loading takes a long while. The program comes either on two high density 5.25" disks or three low density 3.5" disks.



In this menu you can access a different level by typing in a password.

I'd recommend Battle Isle to everybody who always thought about trying a war game but was scared by the amount of complicated instructions and ultra-crude graphics. You still have a lot of tactical decisions to handle (otherwise the game would become boring in the long term) but Battle Isle is designed in a way that all we common mortals can understand. The levels of difficulty are well-balanced, offering increasing detail from island to island. At the start, you are presented with a handy playing area, but in later stages the maps become much larger and new vehicle types are added to your inventory.

Battletech achieves a good compromise between complexity and addictiveness. I've never been much attracted by hard-core strategy/war games like UMS II which take ages to get into. If you share this view and are in the mood for a tactical teaser, you should try Battle Isle.


Victory: this picture will be displayed at the end of a game.

PC review 7 RATED

HEINRICH LENHARDT

TECH SPEC

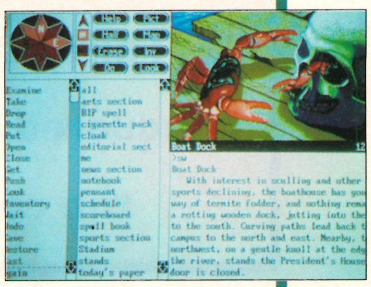
The graphics work well both under EGA and VGA. There are no major speed problems on low end PCs.

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✗
CGA ✗	EGA ✓	VGA ✓	Tandy ✗
Hercules ✗	✓	✗	✓

PC review ALTERNATIVELY...

Warlords

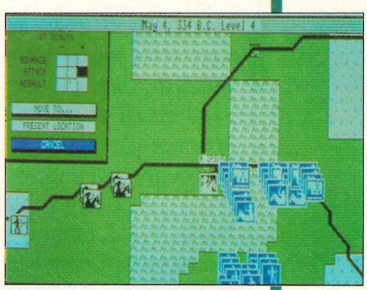
(SSG, £29.99)



This extremely accessible fantasy war game by Australian developer SSG was brought to Europe by Electronic Arts about one year ago. Unfortunately it didn't have the commercial success which it might have. A group of rival warlords fight for power with heroes, dragons and devils instead of tanks, planes and infantry. There's only one scenario, but it's quite big and will keep you busy for some time. The difficulty can be adjusted by altering the computer's intelligence. Though being weak on the graphics side, Warlords is one of the most interesting war games for beginners. Give it a try if you can find this inside tip somewhere at a reduced price.

UMS II

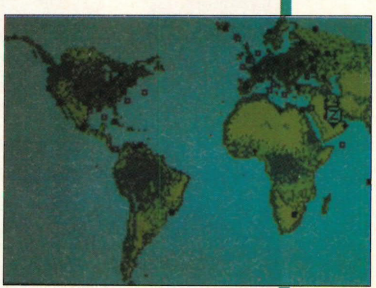
(Rainbird, £39.99)



The opposite of relatively easy to play titles like Battle Isle and Warlords comes in the shape of UMS II. It's one of those titles which boast a long list of interesting features, but when it comes to play the beast it turns out to be a bone-dry program for a rather small group of strategy enthusiasts. I prefer the more straightforward type of war game, but it's really a question of taste.

Command HQ

(MicroProse, £34.99)



Dan Bunten's challenging war game features a thrilling panic factor. Similar to Battle Isle both parties act at the same time, which puts you under some nice pressure. Unfortunately you can't play against a friend on a single machine; you have to connect two PCs via modem or cable. The computer is a serious opponent and the several difficulty levels and scenarios ensure the game's lastability. Command HQ still plays in the top league and although it has weaker graphics than Battle Isle the great playability makes this title a must for both beginners and experienced war games players.

PC XT NOTEBOOK

- **BUILT-IN CGA DISPLAY**
- **WEIGHS ONLY 3¾lbs**
- **3 HOUR BATTERY LIFE**
- **1 YEAR ON-SITE WARRANTY**



SPECIFICATIONS

- 80C86 10MHz PROCESSOR
- BUILT-IN 3½" 1.44Mb DISK DRIVE
- 1Mb RAM
- SOFTWARE - RESIDENT: MS-DOS 3.3 IN ROM
- SOFTWARE - SUPPLIED: GW-BASIC 3.22, MICROSOFT WORKS 2.0
- REAL-TIME BATTERY BACKED CLOCK
- 80 KEYS - EMULATING 101/102 KEY ENHANCED KEYBOARD
- HIGH CONTRAST LCD CGA DISPLAY
- RESOLUTION: 640x200 PIXELS
- SERIAL, PARALLEL & VIDEO PORTS
- LED INDICATORS FOR POWER, FLOPPY DISK & BATTERY LOW
- POWER - MAINS & BATTERY: 4 RECHARGEABLE NI-CAD CELLS. POWER MANAGEMENT GIVES APPROX 3 HOURS OPERATING TIME
- DIMENSIONS (WxDxH): 11"x8⅔"x1"
- WEIGHT: 3¾lbs
- OPTIONAL: ADDITIONAL RECHARGEABLE BATTERY PACKS

The super-compact Philips PCL 101 Notebook, takes up less surface area than an A4 page, weighs just 3¾lbs, is just over 1" thick, yet only costs £449+VAT. The PCL 101 is fast (10MHz CPU) with 1Mb RAM and a 1.44Mb, 3½" standard floppy disk drive.

The easy to read LCD CGA screen measures just 3½"x7½" and displays crisp, clear characters and sharp graphics at CGA resolution (640x200 pixels). The keyboard has 80 full size, full travel keys with 12 separate function keys, emulating a full-size industry standard keyboard.

Industry standard serial, parallel and external monitor ports, are all included. Power can be supplied from the mains via an auto-sensing, multi-voltage adaptor and charger, or by a Ni-Cad battery pack that snaps flush into the main body case. With its sophisticated power management, the battery lasts for about 3 hours (and takes 4 hours to recharge). The PCL 101 offers automatic audio 'battery low' warnings, to help ensure that you never lose any valuable data.

PACKAGE INCLUDES

- MS-DOS 3.3
- GW-Basic 3.22
- Microsoft Works 2.0
- PSU/Battery Charger
- Protective Pouch
- 1 Year On-Site Warranty

£449

REF: NBC 7101 +VAT = £527.58

286 + 386 PC AT NOTEBOOKS



- **BUILT-IN VGA DISPLAY**
- **20Mb HARD DRIVE**
- **6 HOUR BATTERY LIFE**
- **1Yr ON-SITE WARRANTY**
- **WINDOWS 3 + MOUSE**
- **TEXTURED CASING**

In stylish grey casing with a non-slip, textured finish and using the very latest technology, Commodore's 286-LT and 386sx-LT Notebooks are available from Silica at incredibly low prices.

Both models have a 20Mb hard disk, 1Mb RAM, expandable to 5Mb RAM using two 2Mb RAM cards, a 3½" 1.44Mb floppy disk drive and industry standard parallel and serial ports to allow connection to a wide range of printers, mice, modems and LAN adaptors.

Bright, backlit LCD screens display VGA graphics at 640x480 resolution, with a port to plug in a colour VGA monitor to show the graphics full potential.

These compact Notebooks weigh just over 5.9 lbs (7 lbs with battery) and measure 12¼"x10"x2". They can be powered from the mains, via the multi-voltage mains adaptor, or by their own batteries, which can be recharged while in use, or independently in approximately one hour. Commodore's Powersave feature increases battery life to up to 6 hours and, along with optional rechargeable battery packs, gives you continuous PC power on the move!

SPECIFICATIONS

	286	386
PROCESSOR	286	386sx
CLOCK SPEED	12MHz	16MHz
LANDMARK (MHz)	11.5	21
1Mb RAM EXPANDABLE TO 5Mb	●	●
2Mb RAM UPGRADE	£299	£299
20Mb 23ms HARD DISK DRIVE	●	●
VGA GRAPHICS - Res: 640x480	●	●
3½" 1.44Mb FLOPPY DISK DRIVE	●	●
PARALLEL, SERIAL & VGA PORTS	●	●
UP TO 6 HOURS BATTERY LIFE	●	●
1 YEAR ON-SITE WARRANTY	●	●
WINDOWS 3.0 + MOUSE	●	●
MS-DOS 4.01 + GW-BASIC	●	●
80387sx CO-PROCESSOR UPGRADE	—	£279

286 WITH 20Mb HDD

£999

+VAT = £1173.83

40Mb HARD DRIVE VERSION - £1199

386sx WITH 20Mb HDD

£1199

+VAT = £1408.83

40Mb HARD DRIVE VERSION - £1399

SILICA SYSTEMS OFFER YOU

- **FREE OVERNIGHT COURIER DELIVERY:** On all hardware orders shipped in the UK.
- **TECHNICAL SUPPORT HELPLINE:** Team of technical experts at your service.
- **PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.
- **ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.
- **BUSINESS + EDUCATION + GOVERNMENT:** Volume discounts available for large orders.
- **SHOWROOMS:** Demonstration and training facilities at our London shop & Sidcup branch.
- **THE FULL STOCK RANGE:** Your PC requirements from one supplier.
- **FREE CATALOGUES:** Will be mailed to you with offers and software/peripheral details.
- **PAYMENT:** By cash, cheque and all major credit cards.

Before you decide when to buy your new Notebook computer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Notebook, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest FREE LITERATURE and begin to experience the "Silica Systems Service".

MAIL ORDER HOTLINE
081-309 1111

SILICA SYSTEMS

MAIL ORDER:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX		**Tel: 081-309 1111**
Order Lines Open:	Mon-Sat 9.00am-6.00pm	No Late Night Opening	Fax No: 081-308 0608
LONDON SHOP:	52 Tottenham Court Road, London, W1P 0BA		**Tel: 071-580 4000**
Opening Hours:	Mon-Sat 9.30am-6.00pm	Late Night: Thursday until 8pm	Fax No: 071-323 4737
LONDON (SELFRIDGES):	1st Floor, 369 Oxford Street, London, W1A 1AB		**Tel: 071-629 1234**
Opening Hours:	Mon-Sat 9.30am-6.00pm	Late Night: Thursday until 8pm	Ask for extension 3914
SIDCUP SHOP:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX		**Tel: 081-302 8811**
Opening Hours:	Mon-Sat 9.00am-5.30pm	Late Night: Friday until 7pm	Fax No: 081-309 0017

To: Silica Systems, Dept PCRVW-01/92-70, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND FREE NOTEBOOK LITERATURE

Mr/Mrs/Ms: ..... Initials: ..... Surname: .....

Address: .....

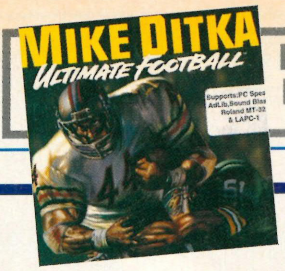
.....

.....

Postcode: ..... Tel: .....

Which computer(s), if any, do you own? 70A

E&OE - Advertised prices and specifications may change - please return the coupon for the latest information.

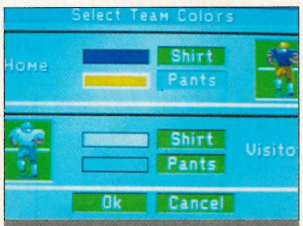


■ Mike Ditka Ultimate Football ■ Accolade
■ (081) 877 0880 ■ £34.99

Hut! Hut! Hut! Get rough, tough and make the play for touchdown



Teams from all the big American cities are available in the game ...



... but they're not actual NFL teams so design your own uniforms.



A field goal attempt is about to take place. Watch the bar on the left hand side of the screen. It indicates where and how you're kicking. The procedure is easy. Three taps on the fire button is all you need.The first tap initiates the kick and the marker starts to move up the power bar. The second tap indicates the amount of power you want to hit the ball with as measured on the power bar and the third tap indicates direction. This procedure remains the same for kick offs, PATs, punts and field goals.

Mike Ditka Ultimat

Every Sunday night millions of dedicated fans tune into Channel Four's American Football coverage to catch a glimpse of their favourite game and favourite team.

Well now you can enjoy the action on a more interactive level sitting in front of your PC screen. For either purely personal entertainment or two player league action, the choice is yours, all the options are available on Mike Ditka's Ultimate Football.

American Football is big business and thus computer games of greatly varying quality have been inevitable. Most companies select the relatively easier route, producing strategy management sims with a minimum of actual on-screen playing action. Not so Mike Ditka's Ultimate Football.

At first look, the game is very impressive. All the screens are colourful and the players, pitch, ball and stadia are superbly recreated and then there's the sound ... I'll be darned if this isn't the best internal speaker PC sampled sound I have heard in ages. Believe it or not you can actually make out every word and relate to every sound that is emitted.

Graphically the game scores high on movement too. It is recommended you have a machine which runs at 10 Mhz at least and I'm inclined to agree. The faster your machine is the better this game is going to look. At high speeds it is quite stunning too. As the ball moves around the field you almost get that feeling of TV realism that is completely absent from a management simulation.

During normal play, field goals and PATs (points after touchdown), you get a real driving seat view of the game from behind the quarterback which allows you to survey the field from a goal post viewpoint looking straight up the screen at the target, your opponent's end zone. Of course it should go without saying that if you happen to be on defense you'll be at the top of the screen looking down at the offense!

On kick-offs there is a horizontal view of the pitch which is also quite easy to play on and gives a slightly different but equally impressive view of the game and its graphics.

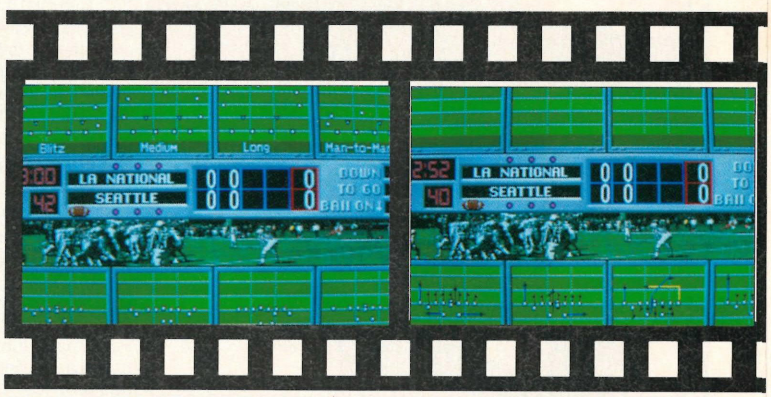
OK. We've established the game looks good, but is it just fancy wrapping and does it play like the average Tampa Bay Buccaneer; a big sissy, or is it a true 'Bear'? Well, Mike Ditka is a famous guy and the thought of him putting his name to anything but the best would have shocked me! But fear not, no-one is cheating here.

Set-up menus are easy to understand and operate, provided you know a little (well OK, a bit more than a little) about Amer-

TWO MINUTES OF FOOTIE

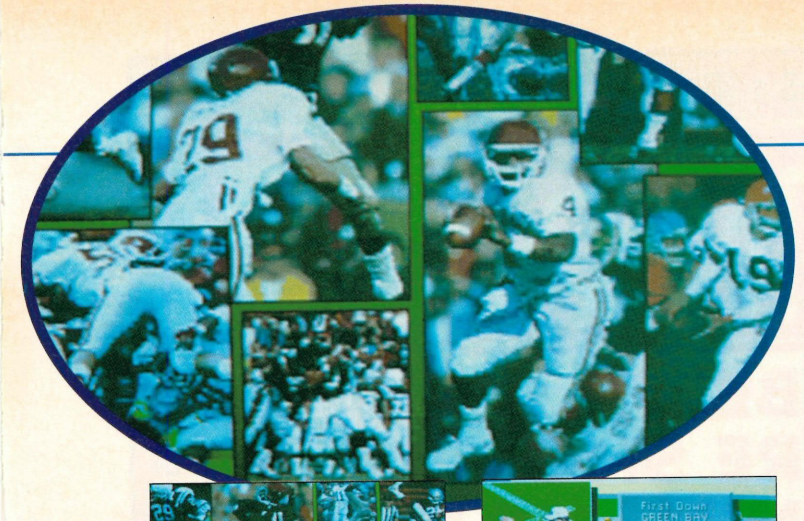
The play option screens, first choose an offensive or defensive formation by choosing and entering a letter or scrolling to reveal more formations.

Then choose a play to use with the formation. The arrows mark the path the players will follow while the dead end lines show blockers positions.



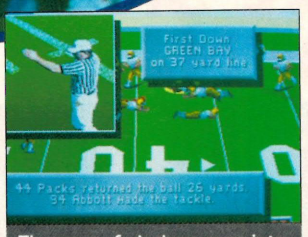
HARDWARE REQUIREMENTS

You need 640K RAM – useful instructions are provided for configuring your PC if memory is tight – plus a hard drive, 10Mhz or faster processor. It comes supplied with high density 5.25" or 3.5" disks, and uses 1.28Mb of memory.





Main menu options, the graphics on all screens are superb as are the options in the game. Check out the digitised screen here.

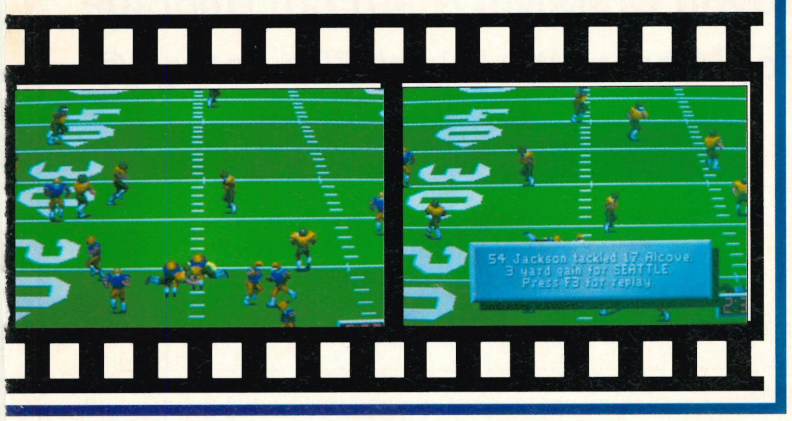


The secret of winning a game is to develop good special team play.

e Football

The teams now form on the line of scrimmage and the ball is snapped from the Centre to the Quarterback who then withdraws from the line, protected by his blockers.

A passing play has taken place and is incomplete. This puts the offense in a fourth down and long situation intheir own half. I would recommend a punt.



ican Football and its various plays, the game procedures should be straightforward.

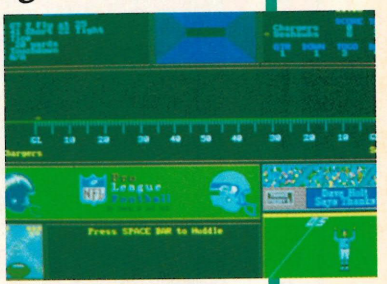
There are two modes of play available, coach or player/coach. In coach mode you simply have to choose a formation and a play and the computer does the rest for you in full, simulated, on-screen glory.

In player/coach mode things are a little more involved. You make all the decisions and then control the offensive ball carrier or defensive tackler. This mode is best fun. I say this because it allows you to develop your skills, especially against a human opponent and the game can get quite exciting.

ALTERNATIVELY...

NFL Pro League Football

Interplay £ TBA



NFL Pro League Football was reviewed on these very pages two months (PC Review 5 rated) ago and although considered a good game it does rather fall into the category of boring simulations as far as I'm concerned.

It's a very good example of a coaching sim and has its own impressive set of options but alas Mike Ditka's Ultimate Football has almost as many, and more playability to boot. If you're really into statistics and management and less keen on arcade style playing action and realistic graphics then it's worth a bash but if you're after the genuine all action article then Mikey's the one to go for.

Choosing plays is simplicity personified. Both offense and defence are given four or more formation options each of which is mapped out to give you an idea of what it looks like and tagged with a letter. Pressing the relevant letter on the keyboard selects the formation or positioning of your starting eleven players. Having done this, a new set of options comes up, the play options. This is where you choose what you want the players to actually do. Again each option is mapped in a box and letter tagged with the selection procedure remaining the same as for formation.

Snapping and passing the ball simply involves selecting the right offensive player to receive it, shuffling the quarterback around the backfield to avoid defensive pass rushers and either handing the ball to a running back or passing it to a wide receiver.

Once in possession of the ball a player can run forward, backward, right, left or diagonally with it. Watch where your blockers are and what angle the tacklers are coming in at, that will give you a good indication of where to go.

On defence you can select any single player to control before the snap, and remember all defensive players except down linemen (chaps in a three or four point stance) are eligible to move around before the snap. Then simply go after the quarterback and the ball carrier. After the ball has been snapped a quick flick of the control button will put you in control of the defensive player nearest the ball and the same directional controls pertain for defensive players as for offense.

PC review 7 RATED

Options include video control styled action replays of significant plays which enable you to analyse exactly what happened, (or didn't happen) in a play, a game save option, a substitutions option and an NFL style 17 week season with playoffs.

Mike Ditka contains stunning graphics, action and tons of options. Highly recommended!

ALAN DYKES

PC sound is excellent, although other sound units provide even better quality.

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✓
Hercules ✗	✓	✓	✓

• HINT BOOKS • SOUNDBOARDS • CABLES • JOYSTICKS • INTERFACES • IBM PC •

• CD-ROM • HINT BOOKS • SOUNDBOARDS • INTERFACES



ULTIMA

THE BEST SOFTWARE SHOP IN TOWN...

JOYSTICKS
INTERFACES
SOUNDBOARDS
DISCS
CABLES
HINT BOOKS
DISC BOXES
MICE
CD-ROM



MORE CHOICE, MORE SERVICE, MORE DISCOUNT

Guildford	Reading	Southampton
White Lion Walk	Friars Walk, Friars Street	East Street
Tel: 0483-506939	Tel: 0734-568510	Tel: 0703-639419

• AMSTRAD PC • DISC BOXES • CD-ROM • HINT BOOKS • JOYSTICKS • CABLES •

The Gravis P.C. MouseStick®

ONLY FROM R.C. SIMULATIONS

Light Years Ahead !



Noticeably more accurate than the best ordinary joystick. The Gravis MouseStick® is designed to last, with proven optical solid state technology, which will not degrade with hard use.
The MouseStick® is a fully featured 3 button bus mouse with 1200 line count resolution. Designed to use minimal desk space, the MouseStick® has full joystick emulation.

There is a pleasure in owning the BEST and the VERY BEST is the Gravis MouseStick. We know that the Gravis MouseStick® cannot be beaten for performance. Therefore we say the following: Order your Gravis MouseStick® NOW and if you are not genuinely satisfied that it is the best controller for games and simulations return it to us within TEN days and we will refund your money.

- Auto Calibrating.
- Foam Padded Handle with Adjustable Tension.
- Colour matched to your P.C.
- Three Quarter Card including game port.
- One years guarantee.
- Full Technical Support.
- Only £89.95 inc p&.p
- Mac.,ST & Amiga version also available.

NEW SUBLOGIC British scenery disk set compatible with atp & flight sim 4. featuring accurate British scenery on 3 disks.
RING NOW...for price and availability.

Sound Graphics & Aircraft Upgrade for Microsoft® Flight Simulator 4®

- 4 New Aircraft including Concorde & P51 Mustang
- VGA & SVGA resolution up to 800 x 600!!!
- Support for Sound Blaster®, Adlib®, Covox Sound Master 2®, Voice Master® and ATI.
- New Cockpits & real air traffic speech with suitable hardware.

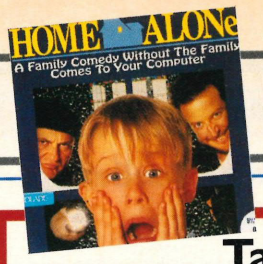
ONLY £37.95 including VAT & p+p

A flight simulator enthusiasts dream.

Dear *R.C. Simulations*, I want the ..... / more details.
Name .....
Address .....
.....
.....
Telephone .....
Credit Card No.....
Expiry Date .....
Signature .....

I understand that if I am not satisfied with the Mousestick® within ten days I am able to return the MouseStick® for a full refund less p+p.

R.C. Simulations
Unit 1b Beehive Trading Estate
Crews Hole Road, St. Gearge, Bristol BS5 8AY
Tel: (0272) 550900
Fax: (0272) 411052



■ Home Alone ■ Accolade
■ (081) 877 0880 ■ £29.29

Take one blond, blue-eyed brat, two bungling burglars and put them together. The result is mayhem

Home Alone



Kevin is very agile so he should be able to escape from the bad guys quite easily. In the second phase, as long as the thieves are visible in each top corner of the screen they are in another part of the house. If they disappear , it means that they're either in, or just about to enter, the same room as Kevin.

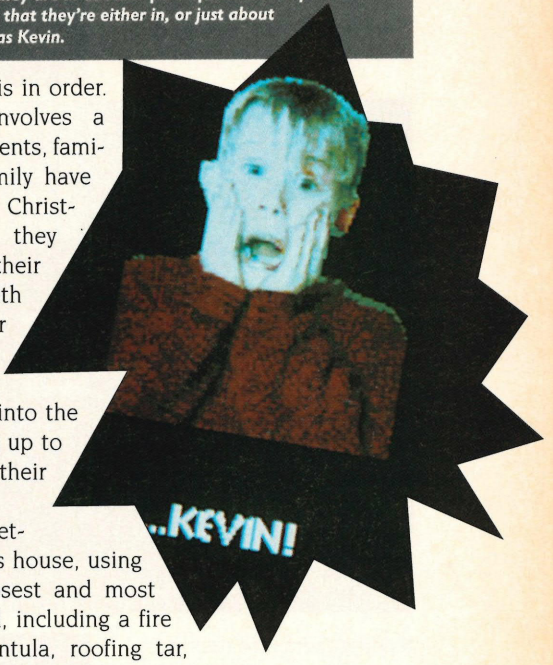
The movie bankroll of last Christmas, top grossing comedy of all time and winner of many awards and accolades, was Home Alone.

Unfortunately the 'family comedy without the family' has made a rather ignominious entry into the computer games world and I can't see it being quite as big a hit.

The storyline of course remains the same and there are some nice touches and nifty graphics along the way but nothing that will over impress. The main feeling I got from the game was one of a letdown. It was the same with Bill And Ted's Excellent Adventure, another disastrous comedy movie conversion.

By following the storyline to the last letter Accolade has produced a game that is by no means completely boring, especially if you liked the movie, but is extremely unfulfilling to play due to a lack of depth.

That said, if you fancy buying a PC game for some young budding Kevin McAlistair, the central character in the movie, and you don't mind spending the dosh to give them a few days of enjoyment, then read on. For those who haven't yet seen the film an explanation is in order. The basic story involves a young boy whose parents, family and extended family have gone to Europe for Christmas.Unfortunately they forget to take Kevin, their youngest son, with them due to a minor clerical error. While abroad a pair of thieves try to break into the family home and it's up to little Kevin to thwart their attempts.



He does this by setting traps around his house, using whatever comes closest and most dangerously to hand, including a fire extinguisher, a tarantula, roofing tar, toys, a grease gun, a robot toy, a baseball bat and a BB gun (air gun, presumably). There are 26 items spread around the house that can be used as traps.

The game has two phases; the trap setting phase and the action phase. The first is largely self-explanatory. Find as many

TWO MINUTES OF TRAP SETTING

In the basement of his home Kevin has found a sticky barrel of tar to add to his collection of surprise traps. Remember he can only carry three objects at anyone time.

Wow! It's big brother's bedroom and what's that I see on the wall...a tarantula! That should sort out those nasty burglars. Now quickly find a place this fearsome and hairy insect.

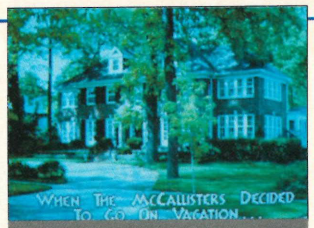
The second phase of the game has begun and one of the bungling burglars has fallen over a trap. Hurrah! To get maximum benefit you get must Kevin lead them into his sneaky traps, but...

Watch out! If you get caught the game is over and the thieves will triumph. And mummy will never see her little Kevin again. To be honest, I don't think she will really mind all that much.



traps as you can and then locate a suitable place to put them. You have an hour of game time (8pm to 9pm) which roughly translates into about ten minutes of ordinary time, though the first few times you do this there is little chance of getting all the traps set in time. As you progress through the game it does become easier. It helps to note down or, if you have a good memory, remember where everything is as this will help considerably the next the next time you play.

The second phase involves staying one step ahead of the posse, ie. the burglars and leading them into the traps.



Beautiful screens staright from the movie are really impressive in the game's opening sequences.


American Airlines whisk Kevin's entire family away to Europe and he is left to fend for himself.



Is that a gun I see in the kitchen? Remember you can create a lot of havoc with a simple pop-gun. Pick it up!

Every time a burglar encounters a trap he loses damage points. When each man has lost fifty he is counted out. If they catch you however the whole game is over – so hop, skip and jump your way out of trouble. In the second phase if you have already found the BB gun you may of course shoot the burglars with it. They lose five damage points the first time they are hit but it will only slow them down the second time. And that's really all there is to Home Alone, it doesn't get much more exciting.


All loaded up and ready to go. Kevin is about to enter the second part of the game.

The graphics on the opening sequences are very nice with digitised shots from the film, however the sprites in the game itself are quite simplistic and cartoon like, but they do represent the film characters with reasonable accuracy though.

The sound consists of music which isn't bad, allied to various grunts and groans as the thieves trip over the traps, but it isn't very atmospheric. Control is refreshingly easy and won't confuse anybody, left, right, up, down, pick up, put down, shoot and view traps are the only controls you'll ever need and Kevin does as he is commanded in a quick and precise manner.



Home Alone is not the sort of game I would like to be home alone with, it really wouldn't keep me busy for long.

On the plus side if you've got a PC at home and you want your youngsters to use it, you could do worse than introduce them to Kevin this winter. You never know though, he just might keep them away from the train set you bought 'them' for Christmas.

ALAN DYKES

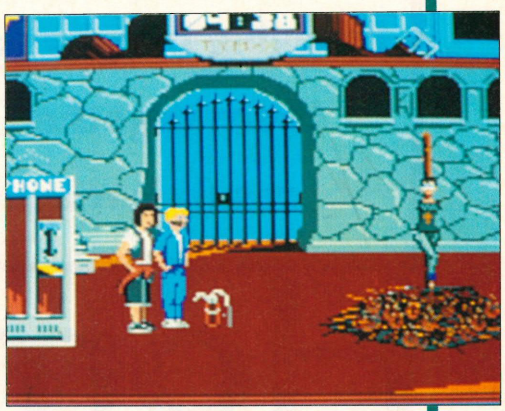
ALTERNATIVELY...

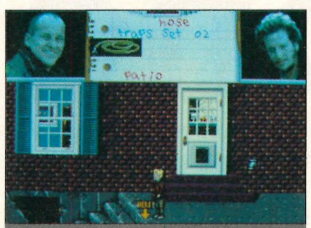
Bill And Ted's Excellent Adventure

Accolade £29.99

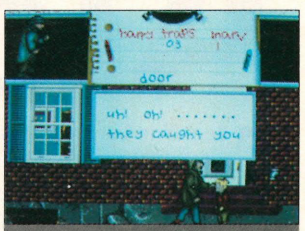
The movie was a most excellent adventure through time with two cult hero surfing dudes from California. The computer game was a most heinous adventure through misery for anyone who shelled out the money for something which had the potential to be good but failed. It had an even more serious lack of depth than Home Alone.

Both of these games would have a lot of appeal as budget titles. Unfortunately, as full price games they fail to provide enough entertainment for today's sophisticated gamesplayer. Bill and Ted's excellent adventure features good digitised screens and sampled speech too, however Home Alone has more of these features.





Set your traps where the screen hints indicate. A flashing "Here" is a pretty obvious indication!



Watch out, though. If you try to lead a thief to a trap he may just catch you.

HARDWARE REQUIREMENTS

Supplied with one 3.5" and two 5.25" disks. Hard disk installation is optional. The game takes up 652k disk space. Roland or Adlib are optional but desirable.

Unusually for an American game, there's no mouse option. Key and joystick control works well.

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✗
Hercules ✗	✓	✗	✓

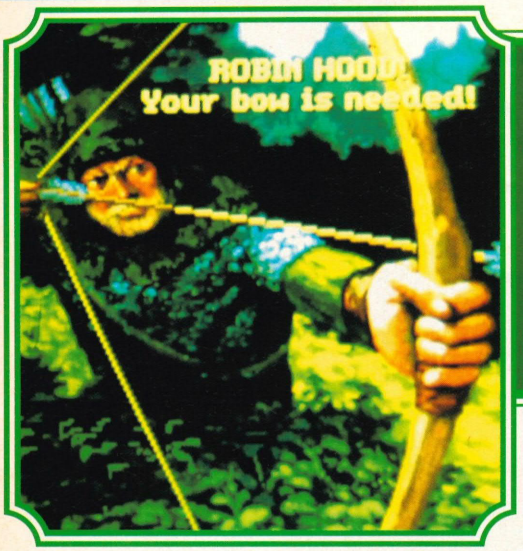


Do not be alarmed. CLICK has been sent to this planet to *kick* computer games magazines into the '90's. CLICK is a mag on video. Scorching reviews on the *hottest* new 16 bit games. Competitions that'll *blow* your techno minds. And, get this, *£5 off* your fave game featured in every issue. If it matters it's *in* CLICK, or should we say *on* CLICK. *Get it? You should.*

AT YOUR NEWSAGENTS NOW.

THE WORLD'S FIRST COMPUTER GAMES MAGAZINE – ON VIDEO!

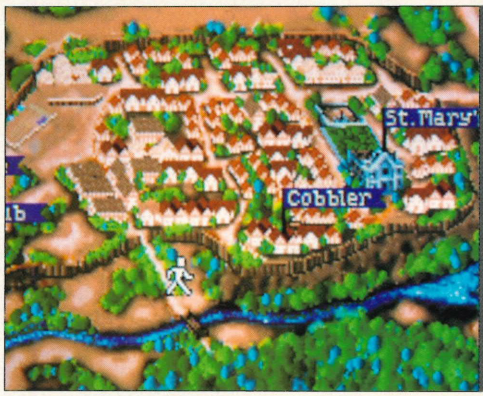
■ Conqests of the Longbow –TheLegend of Robin Hood
■ Sierra On Line ■ (0734) 303322 ■ £39.99



Conquests of the Longbow



Out and about in Nottinghamshire. Robin confronts a group of villagers. Careful interrogation could reveal useful information. The control icons are displayed.



This is Nottingham and Robin should be wary where he goes. Don't forget he is an outlaw with a price on his head. Go wild in the big city and he could turn into a swinger – swinging by a rope around the neck.

It's been a good year for the man who cuts a dash in green tights and a feather in his hat. Probably the best twelve months in the past six or seven hundred years, in fact.

Two major movies have elevated Robin Hood to new heights in the national and international consciousness. Only Bryan Adams can claim to have had a better year. In another six hundred years he will probably be regarded as one of the original Merry Men.

Software houses haven't been slow to jump on the Hooded Man's publicity bandwagon. And there's a bonus – no copyright exists on the legendary character so no purses of gold and silver have to be handed over to the movie barons of Hollywood.

Millennium's Robin Hood made it out of the greenwood and into the software stores first. Now it's Sierra On-line's turn.

We all know what to expect from a Sierra adventure, highly-detailed graphics, absorbing puzzles and challenging play. And you won't be disappointed with Conquests of the Longbow. Visually it's a delight, although a highly romanticised and American view of what Sherwood and life was like hundreds of years ago. The environment is green, lush, mellow and idyllic. You can almost hear water dripping from the trees.

The storyline is based on traditonal myth. Robin Hood must literally raised a king's ransom to free the inprisoned Richard the Lionheart. But the Sheriff of Nottingham sets out to thwart his every move. Those who have played other Sierra adventures – such as Rise of the Dragon – will have no problem with the controls. Even a complete beginner will master the system easily. A series of icons control all movement, information gathering and communication. Nothing new here, of course, this is a tried, tested and trusty system.



The news of Robin's demise is discussed by the Merry Men. Friar Tuck's tone suggests a measure of contempt for the way Robin rather stupidly walked straight into the arms of his enemies.



In the sacred grove Robin communes with the spirits. But first he must lay down all his weapons. Is this a wise thing to do?

TOP MARX

There are relatively few women involved in designing computer games. After a career in comics and television scriptwriting, Christy Marx joined Sierra in 1988. She wrote scripts for the Red Sonja, Fantastic Four and a graphic novel The Sisterhood of the Steel. Her TV work included Spiderman and Teenage Mutant Ninja Turtles. For Sierra she created Conquests of Camelot. She says: "With computers, more girls and women have to overcome the old gender notions that hardware is a 'male' thing. Those old barriers of traditional thought must be broken down. When we have more women getting into all aspects of computers, we'll have more designing computer games."





Sierra games are nearly always notable for their music and sound. Unfortunately, I played this with only basic PC sound, no frills at all. It struck me as a little dreary and pedestrian, but what can you expect from a series of clicks, beeps and burps.

Personally, I find some of Sierra's entertainments a little twee, particularly the King's Quest games. I much prefer the harder edge of Rise of the Dragon or Heart of China. Conquests of the Longbow successfully walks a fine line between the

PAUL BOUGHTON

HARDWARE REQUIREMENTS

The copy we received for review was a pre-production version of the game, so exactly what you will find when you open up the finished product remains a little vague. But a Sierra insider says it will run in under 10 megs.

Some truly spectacular VGA graphics produce soft-focussed magnificence

TECH SPEC

3½ ✓	5¼ ✓	AD Lib ✓	Roland ✓
CGA ✗	EGA ✓	VGA ✓	Tandy ✓
Hercules ✗	✓	✓	✓

CITIZEN

ALWAYS A GOOD IDEA

Silica presents some great offers on the award winning range of high quality matrix printers from Citizen. Each Citizen printer is built in the UK to exacting standards, ensuring superb reliability and output. Our confidence in Citizen's quality is such that we are pleased to include a 2 year guarantee with every printer. Plus, if you buy a Citizen printer from us, we will give you the Silica Systems Printer Starter Kit (worth £29.38), *FREE OF CHARGE!*

FREE DELIVERY
Next Day - Anywhere in the UK mainland

FREE STARTER KIT
Worth £29.38 - With every Citizen printer from Silica.

2 YEAR WARRANTY
Silica offer a 2 year warranty (including the printer head) with every Citizen printer from Silica.

WINDOWS 3.0
Free Windows 3.0 driver.
Included with the Silica Starter Kit.

FREE COLOUR KIT
With every Swift 9 and Swift 24e printer.

FREE HELPLINE
Technical support helpline open during office hours.

MADE IN THE UK
Citizen printers are manufactured to high standards.

DOT MATRIX & NOTEBOOK PRINTERS

NEW! LOW PRICE



9 PIN PRINTER

144 CPS **80** COLUMN

- Citizen 120D+ - 9 pin - 80 column
- 144cps Draft, 30cps NLQ
- 4K Printer Buffer + 2 Fonts
- Parallel Interface as Standard
- Graphics Resolution: 240×240dpi
- Epson and IBM Emulation
- Pull tractor & bottom feed
- FREE Silica Printer Starter Kit

RRP: £199
STARTER KIT £25
TOTAL RRP: £224
SAVING: £109
SILICA PRICE: £115

SERIAL INTERFACE OPTION
The 120D printer is available with a serial interface for £115+VAT. Ref: PRI 2125 - £135.13 inc VAT.

£115
+VAT=£135.13 ref: PRI 2120

9 PIN PRINTERS



FREE! COLOUR KIT

192 CPS **80** COLUMN

- Citizen Swift 9 - 9 pin - 80 column
- 192cps Draft, 48cps NLQ
- 8K Printer Buffer + 3 Fonts
- Parallel Interface
- Graphics Resolution: 240×240dpi
- Epson and IBM Emulation
- FREE Colour Kit
- FREE Silica Printer Starter Kit

RRP: £239
COLOUR KIT £38
STARTER KIT £25
TOTAL RRP: £302
SAVING: £123
SILICA PRICE: £179

£179
+VAT=£222.08 ref: PRI 2209



Colour Option Extra - See Accessories

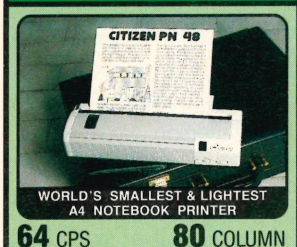
192 CPS **136** COLUMN

- Citizen Swift 9x - 9 pin - 136 column
- 192cps Draft, 48cps NLQ
- 8K Printer Buffer + 3 Fonts
- Parallel Interface
- Graphics Resolution: 240×240dpi
- Epson and IBM Emulation
- A3 landscape printing
- FREE Silica Printer Starter Kit

RRP: £329
STARTER KIT £25
TOTAL RRP: £354
SAVING: £105
SILICA PRICE: £249

£249
+VAT=£292.58 ref: PRI 2309

NOTEBOOK PRINTER



WORLD'S SMALLEST & LIGHTEST A4 NOTEBOOK PRINTER

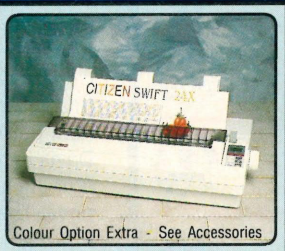
64 CPS **80** COLUMN

- Citizen PN48 Notebook Printer
- Non-impact Printing On Plain Paper
- LASER QUALITY - 64cps
- 4K Printer Buffer + 2 Fonts
- Rear and Bottom Paper Loading
- Parallel Interface
- Graphics Resolution: 360×360dpi
- Epson, IBM, NEC P6 & Citizen Emulations
- Power: Mains, Battery or Car Adaptor
- FREE Silica Printer Starter Kit

RRP: £325
STARTER KIT £25
TOTAL RRP: £350
SAVING: £101
SILICA PRICE: £249

£249
+VAT=£292.58 ref: PRI 2100

24 PIN PRINTER



Colour Option Extra - See Accessories

192 CPS **136** COLUMN

- Citizen Swift 24x - 24 pin - 136 column
- 192cps Draft, 64cps LQ
- 8K Printer Buffer + 4 Fonts
- Parallel Interface
- Graphics Resolution: 360×360dpi
- Epson, IBM and NEC P6 Emulation
- A3 landscape printing - FREE Colour Kit
- FREE Silica Printer Starter Kit

RRP: £489
STARTER KIT £25
TOTAL RRP: £514
SAVING: £165
SILICA PRICE: £349

£349
+VAT=£410.08 ref: PRI 257

24 PIN PRINTERS

NEW!



FREE! COLOUR KIT

216 CPS **80** COLUMN

- Citizen Swift 24e - 24 pin - 80 column
- 216cps Draft, 72cps LQ
- 8K Printer Buffer + 6 Fonts
- Parallel Interface
- Graphics Resolution: 360×360dpi
- Epson, IBM & NEC P6+ Emulation
- FREE Colour Kit
- FREE Silica Printer Starter Kit

RRP: £365
COLOUR KIT £38
STARTER KIT £25
TOTAL RRP: £428
SAVING: £169
SILICA PRICE: £259

£259
+VAT=£304.33 ref: PRI 2534

NEW!



Colour Option Extra - See Accessories

192 CPS **80** COLUMN

- Citizen 224 - 24 pin - 80 column
- 192cps Draft, 64cps LQ
- 8K Printer Buffer + 2 Fonts
- Parallel Interface
- Graphics Resolution: 360×360dpi
- Epson and IBM Emulation
- Colour Option Available
- FREE Silica Printer Starter Kit

RRP: £269
STARTER KIT £25
TOTAL RRP: £294
SAVING: £95
SILICA PRICE: £199

£199
+VAT=£233.83 ref: PRI 2484

24 PIN PRINTER

GOLD AWARD *Best Budget Printer 1990* Micro Decision

144 CPS **80** COLUMN

- Citizen 124D - 24 pin - 80 col
- 144cps Draft, 48cps LQ
- 8K Printer Buffer + 2 Fonts
- Parallel Interface
- Graphics Res: 360×360dpi
- Epson and IBM Emulation
- FREE Silica Printer Starter Kit



RRP: £249
STARTER KIT £25
TOTAL RRP: £274
SAVING: £105
SILICA PRICE: £169

£169
+VAT=£198.58 ref: PRI 2534

ACCESSORIES

SHEET FEEDERS
PRA 1200 120D £71.38
PRA 1215 124D/224 Sw9/24/24e £88.70
PRA 1228 124D/224 Sw9/24/24e £42.00

SERIAL INTERFACES
PRA 1189 120D+ £56.45
PRA 1209 124D/224 Swift 9 £32.25
PRA 1709 Swift 24/24e £26.38

32K MEMORY EXPN
PRA 1753 124D/224 Swift 24/24e £13.10

PRINTER STAND
PRA 1242 124D/224 Sw9/24/24e £24.03
PRA 1274 Swift 9x/24x £30.66

ORIGINAL RIBBONS
RIB 3520 120D/Swift 9 Black £2.91
RIB 3949 Swift 9x Black £7.15
RIB 3924 124D/224 Sw24/24e Black £4.20
RIB 3936 Swift 9/24/24e Colour £15.63
RIB 3248 PN48 Single Strike £3.61
RIB 3348 PN48 Multi Strike £3.61

COLOUR KITS
PRA 1236 Swift 9/24/24e £35.25
PRA 1240 Swift 9x/24x £35.25

PN48 ACCESSORIES
PRA 1148 PN48 Battery £51.70
PRA 1155 PN48 Cable Extn £ TBC
PRA 1162 PN48 Car Adaptor £ TBC

All prices include VAT and Free delivery.

STARTER KIT

FREE!
Worth: £25 +VAT=£29.38

To get you up and running with your new printer from Silica:

- 3½" Disk - Amiga & ST Drivers
- 3½" Disk - Drivers for Windows 3
- 2 Metre Parallel Printer Cable
- 200 Sheets of Continuous Paper
- 100 Continuous Address Labels
- 5 Continuous Envelopes

If you already own a printer, and would like to buy a kit, you may order one (ref: KIT 5500) for £24.95 - £5 off RRP!



SILICA SYSTEMS OFFER YOU

- **FREE OVERNIGHT DELIVERY:** On all hardware orders shipped in the UK mainland.
- **TECHNICAL SUPPORT HELPLINE:** Team of technical experts at your service.
- **PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.
- **ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.
- **BUSINESS + EDUCATION + GOVERNMENT:** Volume discounts available for large orders.
- **SHOWROOMS:** Demonstration and training facilities at our London & Sidcup branches.
- **THE FULL STOCK RANGE:** All of your requirements from one supplier.
- **FREE CATALOGUES:** Will be mailed to you with offers and software/peripheral details.
- **PAYMENT:** By cash, cheque and all major credit cards.

Before you decide when to buy your new printer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or software, or help and advice. And, will the company you buy from contact you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Systems Service".

MAIL ORDER HOTLINE 081-309 1111

SILICA SYSTEMS

MAIL ORDER:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX		**Tel: 081-309 1111**
Order Lines Open:	Mon-Sat 9.00am-6.00pm	No Late Night Opening	Fax No: 081-308 0608
LONDON SHOP:	52 Tottenham Court Road, London, W1P 0BA		**Tel: 071-580 4000**
Opening Hours:	Mon-Sat 9.30am-6.00pm	No Late Night Opening	Fax No: 071-323 4737
LONDON SHOP:	Selfridges (1st Floor), Oxford Street, London, W1A 1AB		**Tel: 071-629 1234**
Opening Hours:	Mon-Sat 9.30am-6.00pm	Late Night: Thursday until 8pm	Extension: 3914
SIDCUP SHOP:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX		**Tel: 081-302 8811**
Opening Hours:	Mon-Sat 9.00am-5.30pm	Late Night: Friday until 7pm	Fax No: 081-309 0017

To: Silica Systems, Dept PCRVW-0192-55, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND A CITIZEN COLOUR CATALOGUE

Mr/Mrs/Ms: ..... Initials: ..... Surname: .....

Address: .....

.....

..... Postcode: .....

Tel (Home): ..... Tel (Work): .....

Company Name (if applicable): .....

Which computer(s), if any, do you own? 55D

E&OE - Advertised prices and specifications may change - Please return the coupon for the latest information.



We'd love to be able to review every game that ends up in our postbag, but if we did that PC Review would end up as an expensive doorstop. So we compromise by reviewing an interesting selection from the software available, not necessarily the best! But to keep everyone happy here's a quick run-down of everything else that should be in the shops soon.

AIR, LAND AND SEA
Electronic Arts, £39.99
A chance to relive the excitement of three of EA's simulations: 688 Attack Sub, Indianapolis 500 and Stormovik: Soviet Attack Fighter SU-25.

THE BARD'S TALE TRILOGY
Electronic Arts, £39.99
Another EA rerun, this time of the popular, though dated, Bard's Tale threesome, which feature classic role-playing.

BOOLY
Loriciels
Another French puzzle game. Flip a series of connected tiles to change the patterns or colours. There are 300 levels with varying backgrounds, but it gets quickly tedious.

CRIME TIME
Starbyte
Action adventure game from German software company Starbyte in which you try to clear yourself of a murder you didn't commit.

IAN BOTHAM'S CRICKET
Celebrity Software
The first in a range of products licensed by personalities from sports field, stage and screen. This one's a little out of season but should keep cricket fans happy until the pitch is dry.

INTERMISSION V 2.0
The Software Toolworks, £41.11
A new version of the screen saver program which will now run under Windows 3.0. Just what you need when you take a tea-break in the middle of a long gaming session.

LORDS OF DOOM
Starbyte
A role-playing game from the prolific German publishers set in a town in which strange things are happening in the dead of the night ...

MACARTHUR'S WAR
SSG, £29.99
A recreation of the major battles in the Korean war using SSG's state of the art Battlefront Game System. The player can opt to command either MacArthur's UN forces or the Communist forces.

MAVIS BEACON TEACHES TYPING! VERSION 2.0
The Software Toolworks, £35.99
An updated version of the best typing tutor available. New features include ergonomics advice and numeric keypad tuition.

MEGAFORTRESS
Mindscape, £35.99
A heavyweight simulation of the massive B-52 bomber, based on Dale Brown's novel Flight of the Old Dog, which allows the player to experience all aspects of a bombing mission.

MINDBENDER
GBH, £9.99
A budget arcade puzzle game set in an underworld peopled by witches, elves, gnomes and a mad professor.

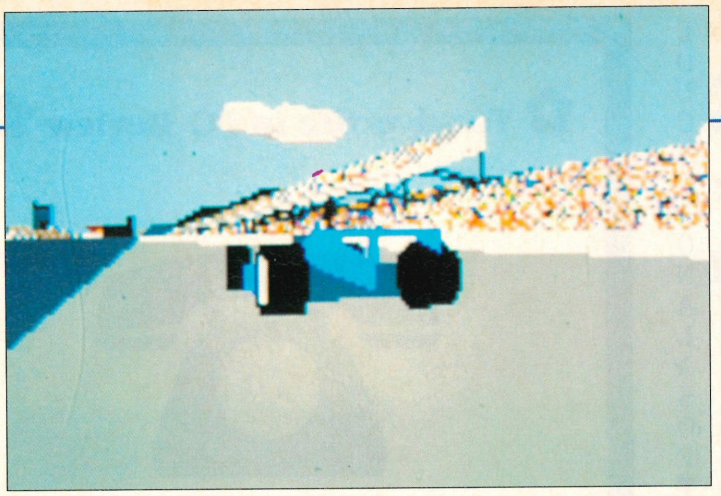
NO GREATER GLORY
SSI, £34.99
As much a political simulation as a wargame, No Greater Glory allows you to fill the shoes of either Abraham Lincoln or Jefferson Davis in the American Civil War. Includes the classic novel The Red Badge of Courage.

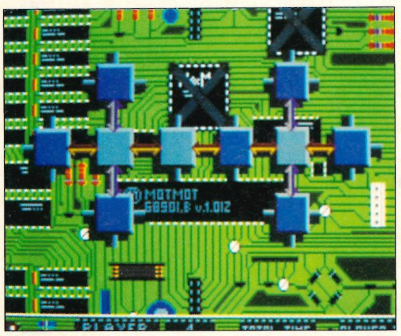
PGA TOUR GOLF PLUS
Electronic Arts, £39.99
If you haven't yet got a copy of the original PGA Tour Golf this is a perfect time to buy because this re-release comes complete with the extra courses previously supplied on the PGA Tour Golf Tournament Disk for £14.99.

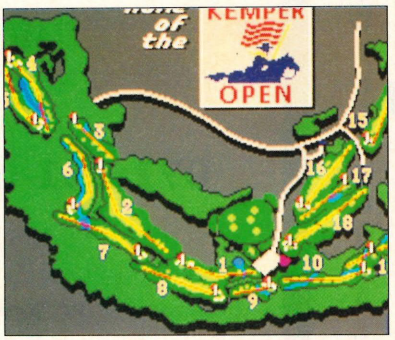
WILD WHEELS
Ocean, £29.99
Another future sport, this time played by what look like oversized matchbox cars with a big football. You've seen it all before in one guise or other, but the action is fast, furious and fun.

REVIEWED THIS ISSUE

LE CHUCK'S REVENGE: MONKEY ISLAND 2 — PC review 9 RATED
POWERMONGER — PC review 8 RATED
THE BARD'S TALE CONSTRUCTION SET — PC review 7 RATED
BATTLE ISLE — PC review 7 RATED
CADAVER — PC review 7 RATED
CONQUESTS OF THE LONGBOW — PC review 7 RATED
THE GAMES: WINTER CHALLENGE — PC review 7 RATED
MIKE DITKA'S ULTIMATE FOOTBALL — PC review 7 RATED
TV SPORTS BOXING — PC review 6 RATED
BATTLETECH II: THE CRESCENT HAWK'S REVENGE — PC review 5 RATED
HOME ALONE — PC review 4 RATED

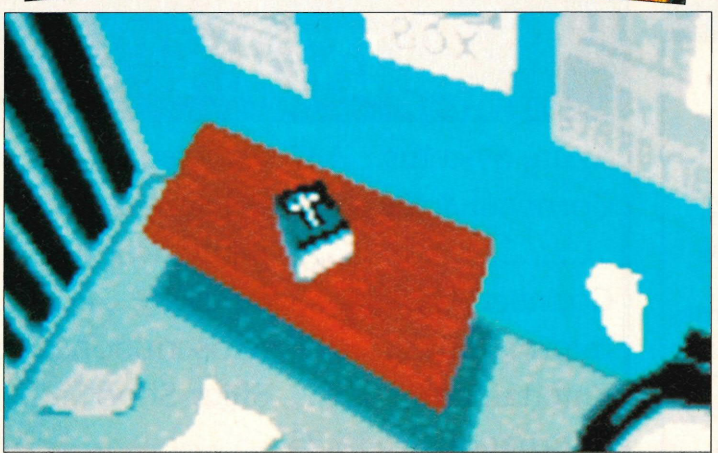












Top: Indianoplis 500 (from Air, Land and Sea). Upper Left: Booly. Upper Right: PGA Tour Golf Plus. Lower Left: Megafortress. Lower Right: Wild Wheels. Bottom: Crime Time

PSEUDS CORNER

Being in a particularly fiendish mood this month we've decided to target those elements of the computer **entertainment** industry who've demonstrated particularly florid styles of copy writing. This month's **Grand Prix of pretension** goes to whoever penned the copy on the back of Ocean's **Wild Wheels** box, from which we present this very unlovely extract:

"My head is thumpin and my heart is **pumping** the adrenalin around every vessel of my hyper-tense body – the 'driving unit', that will be shoe-horned, wedged like a Colt 45 into its holster … Taking aim, I firm up every **muscle** ready for the great burst, the deafening scream as I unleash my lethal messenger … and its message – "GAME OVER!"

We're trying to find **out** who supplies Ocean's coffee and as soon as we do (and once we've got our own supply in), we'll let you know!

WHATEVER HAPPENED TO...?

If you've eagerly turned to the reviews pages to check out a game that has been heavily previewed and advertised recently only to be dismayed by its absence you'll probably find it in our lame excuses' hall of fame.

STAR TREK: THE 25TH ANNIVERSARY

Electronic Arts just missed this issue with this one, but we'll definitely be reviewing it next month.

HEROQUEST

Gremlin firmly expects to be able to start shipping this before Christmas, so we should be able to bring you a full review in the February issue.

AETERNUM

Infogrames

Infogrames UK office tells us that review copies will be circulating by mid December, which means that it will probably be available just as this issue goes to press. Look out for a review, circumstances allowing, in the next issue.

EDUCATIONAL ☆ SOFTWARE FOR ALL AGES

☆ PRICES INCLUDE VAT ☆ **DELIVERY FREE** ☆ PRICES INCLUDE VAT ☆

VISA Access

CONNECT International

ORDER HOTLINE: 0296 682277 GENERAL ENQUIRIES: 0296 682248
FAX: 0296 682290

EARLY LEARNING (3-12)

Count & Add (under 7) £17.49
Fun School 2 under 6 ..... £16.99
Fun School 3 under 5 ..... £17.99
Fun School 3 5-7 ..... £17.99
Fun School 4 under 5 ..... £18.99
Fun School 4 5-7 ..... £18.99
Hooray For Henrietta (5-12+) £17.49
Junior Artist (4-10) £11.99
Junior Typist (4-10) £11.99
Lets Spell at Home (4-10) £13.99
Lets Spell at the Shops (4-10) £13.99
Lets Spell Out and About (4-10) £13.99
Magic Maths (4-8yrs) £17.99
Mix and Match (under 5) £17.49
Play School (3-8yrs) £17.99
Primary Maths (3-12yrs) £19.99
Spell Book (4-9yrs) £5.99
The Three Bears (5-10yrs) £17.99

LANGUAGES

French Mistress £13.99
Italian Tutor £13.99
German Master £13.99
Spanish Tutor £13.99
Welsh Tutor £13.99

*** New product not yet released***
*** Prices subject to change without notice. E&OE**

EASY LEARNING (6-GCSE)

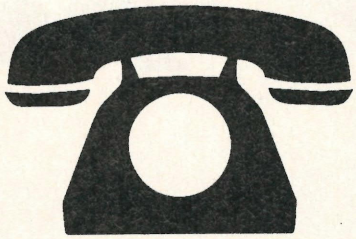
Answer Back Junior (6-11) £14.99
Better Spelling (9-14) £17.99
Fun School 2 (6-8) £16.99
Fun School 2 (over 8) £16.99
Fun School 3 (over 7) £17.99
Fun School 4 (7-11) £18.99
Henriettas Book of Spells (under 7 - 14) £17.49
Kosmos Fact File 500...
...Arithmetic (6-11) £8.50
...Spelling (6-11) £8.50
Maths Mania (9-14) £17.99
Maxi Maths (9-14) £17.99
Micro English (8-GCSE) £19.99
Pal (literacy program for all ages) £37.99

EASY LEARNING (11-Adult)

Answer Back Senior (12-adult) £14.99
Better Maths (12-16) £17.99
Biology (12-16) £17.99
Business Dynamics £17.99
Chemistry (12-16) £17.99
Kosmos Fact File 500...
...English Words (12-adult) £8.50
...Sen. Gen - Know (12-adult) ... £8.50
Mavis Beacon Teaches Typing £19.99
Physics (12-16) £17.99
Physics / Electronics 2 (advanced student) £17.99
Pal (literacy program for all ages) £37.99

All cheques & postal orders to "CONNECT INTERNATIONAL"
Dept PCR12/91, 8a Acorn Farm Business Centre,
Cublington Road, Wing, Nr. Leighton Buzzard, Beds LU7 0LB.
When ordering please state disk size required.
Please add £2.00 for OVERSEAS delivery.

✿ **To advertise in PC Review** ✿



071-251-6222 Ext 2424

PC Review Magazine
Emap Images
Priory Court
30-32 Farringdon Lane
London
EC1R 3AU

225 TOP PC GAMES £24.95
+ £2.00 p&p
A 25 Disk set Packed with the very best in PD & Shareware Games. Unbeatable Value!

THE No 1 GAMES SET FOR IBM & COMPATIBLES

TITLES INCLUDE :-

Ford Simulator II; **Captain Comic;** Railroad; **Bushido;** Master Spy; **Jacaranda Jim;** Tetris; **Humbug;** Shooting Gallery; **Commander Keen;** Hurkle; **Bananoids;** Golden Wombat; **Daleks;** EG Arnoids; Roulette; **3D Tetris;** VGASharks; **Bass Tour;** Pharoes Tomb; **Grand Prix;** Popcorn; **Dungeons & Dragons;** Airtax; **Armchair Quarterback;** Scrabble; **3D Chess;** Monopoly; Pontoon; **Star Trek;** Xonic; Orcist; **747 Simulator;** Egabomb; **Star Goose;** Cribbage; **Talking Blackjack;** Drag City; **Dark Ages;** Dungeons of Doom; **Wizards Lair;** Global Warfare; **Monuments of Mars;** Tron; **Maximus;** PC Tennis; PC Pool; **Americas Cup;** MiGolf;
+ Dozens more Arcade, Adventure, Pinball, Cards, Board Etc.Etc!!

Yes, It's true; All these & much more for only £24.95! (+£2 p&p)

★ E.C. SOFTWARE ★

★ ★ 13 SHANNON DRIVE, HUDDERSFIELD HD3 3UL ★★
★★ ACCESS/VISA ORDERS ON 0484 460070 ★★
★★ 10 AM - 9PM 7 DAYS ★★

ADVERTISERS INDEX

Azure Systems....137
Cornwall & Devon 74
Connect ..... International 88
Entertainment ..... International ...15,25
Extender 68
EC Software 88
Games Express ..120
Intermediates.....6
Mindscape.....11,55
Mirrorsoft 31,45
Next Month.....98
Psygnosis 17,19
PC Action 139
PC Arena 139
RC Simulations.....80
Strategic Plus ..... Software.....120
Subscriptions ..96,97
Silica Shop 71,77
Shareware.
Connections.....120
Technoplus.....56
Software City.....135
Ultima 80
Viz Trade.....109
Westpoint Creative 63

QED

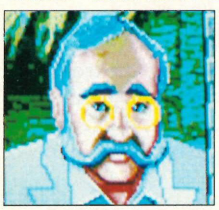
The goodies in this month's QED tips bag are Origin's superb Savage Empire, EA's isometric wonder The Immortal and a bevy of sanity saving quickies!



SAVAGE EMPIRE

This Ultima-based adventure has proved no trouble to Peter Brown of Longbenton, Newcastle, who has sent in some detailed notes on how to beat the game. Thanks, Peter, and let us know what software you'd like as recompense for your efforts!

THE CHARACTERS



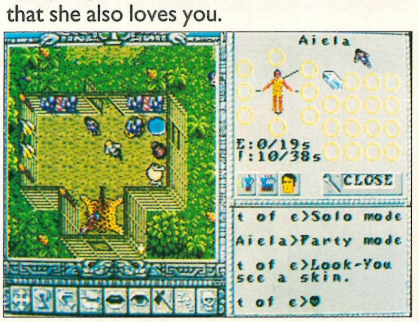
DR RAFKIN is located in the Yolaru village. He knows a lot but is very weak in battles so it's best not to ask him to join. He will remain in Yolaru for the remainder of the game.



JIMMY is located in Disquiqui in one of the huts. Ask him to join because he is very good in battle and also takes notes of some events during the game.



AIELA is more difficult to find. She was captured by Darden the Huge and taken to a hidden location. To find her, first go to the caves due north east of Tichticatl. Then go to the second cave from the north. Enter this cave and kill all the bears you meet. Then rest in the cave until sunset. Continue approximately due east and when you exit the cave walk a little south and east. You should end up on a path on the opposite side of the hills to Eodon. Rest until sunrise. Move along this path crossing the river a few times. When you reach the tyrannosaurs begin combat but leave the fighting to the party, don't get involved yourself. Walk around the tail of the T Rex as quickly as possible. Once you're off the little island Break Off Combat and Triolo should follow (well, he did for Peter). Advance along the path again. At a junction turn to walk south. If any arrows hit you use the magic spell Heal (the arrows are poisoned). Continue south next to the river bank. When the river changes direction (due east) cross the stepping stones to the north. Enter the cave, but be careful because there are nine guards with poisoned arrows. Kill the guards and use Heal again to stop the poison harming you. Free Aiela from the cage by opening the door. Kill Darden (I think it's him who walks into the cave but don't quote me on that!). Say Love to Aiela, and she'll respond that she also loves you.



GETTING BACK

To return to the valley of Eodon with Aiela, retrace your steps to the Tyrannosaur and allow yourself to be killed. Hopefully you and your party (including those killed fighting) should be restored to life in Intanya's hut.

To find the hidden city put the giant gem (in Aiela's possession) in the gem holder on top of the great mesa (near Barrab). I haven't figured out how to get to the gem holder yet! The sun should strike the gem and point to the entrance of the hidden city, although you may have to wait until a certain time of day first.

UNITING THE TRIBES

At some point in the game it will be necessary to unite the tribes. Go to each tribe leader and say Unite. Some leaders accept willingly, while others will require you to perform a service:

BARABS: They want a plant from the top of the Great Mesa. Give this plant to the chief nursing his sick son.

SAKKHRA: They want you to kill the T Rex at the far north of the Mesas.

DISQUIQUI: They want you to drink some liquid. Drink it and then they'll want you to put a cow bell on their local T Rex (!). To do this first USE the plachta supplied on a spear. Then attack the beast with it, and finally USE the cow bell supplied on the creature.

JUKARI: Rescue the sacred hide from the cave which can't be reached because of lava blocking the path (Peter hasn't solved this one yet).

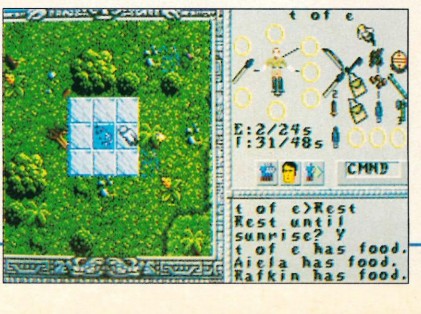
YOLARU: They want ten swords supplied to them. The swords can be found in Tichticatl.

KURAK: Find Aiela to enlist their support.

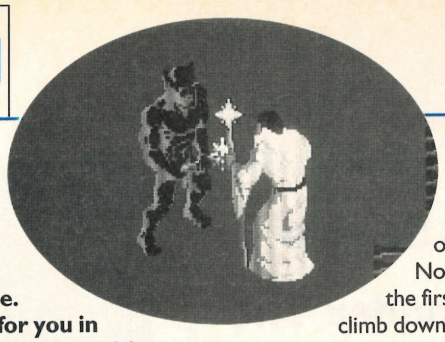
BARAKO: Rescue their daughter from their local gorilla who lives on the ledge northwest of their village.

PINDIRO: They will accept happily. When asking the tribes to unite, pop in to see the chap on Drum Hill (northwest of Tichticatl). Ask him to make a drum and accept the largest size. Find the animal skin in virtually any village (they lie around the floor and look like a tiger's skin). One animal from the Sakkhra tribe will join with you, a gorilla creature will join (located southernmost Haakur tribe) and can carry a huge amount of gear. Sarmuru will join north of the Barako village, near the bridge.

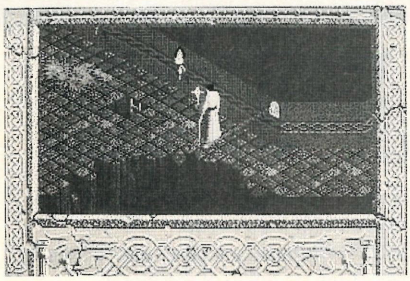
Finally, Peter recommends you save regularly and try not to get killed as it reduces experience points. The best way to do this is to return to Kurak whenever you or a companion are low on health points. Talk to the Shamen and ask him to HEAL.



QED THE



Following last month's review, we're pleased to give you some helpful hints for this superior action/exploration game. The first level is solved for you in the manual, so we won't bother with that! There were plenty of clues for the second level in the review, so we'll leap straight in to the third section ...

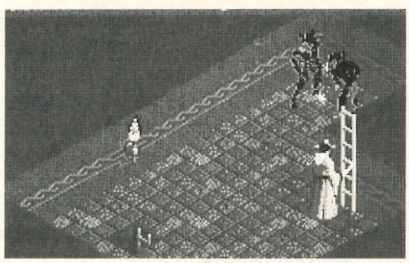


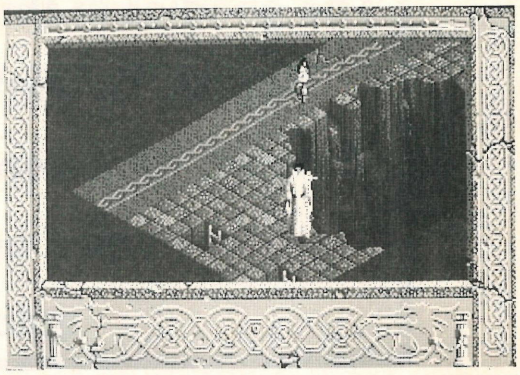
LEVEL THREE

The beginning of the level has a gaping hole created by the dragon located many floors below. Make your way to the further ladder and descend. The goblin and troll slugging it out will ignore you long enough for you to grab the fireball scroll in the chest. Kill the troll (with either the spell or the "hold down seven on the numeric keypad and hammer Shift" method described in the review) allowing the goblin to escape. You can't open the door here, but take the ceremonial dagger from the body of the troll. Now return to the first chamber and climb down the other ladder ...

RING ROADS

Again you'll discover two monsters bashing each other. The victor should be blasted with a fireball, revealing it to be a disguised troll. Take the Protean Ring that allowed it to do this, but leave the bottle – it's full of green slime! Descend the ladder, fool the goblin guard by wearing the ring and keeping your distance and grab the troll bombs from the chest. Return to the Southern Vault, go through the door there, where you'll discover the Goblin King, recovered from his death on the second level. He'll let you pass, and once inside the upper room follow the route marked on the map to grab the gem, backtrack and exit the room.



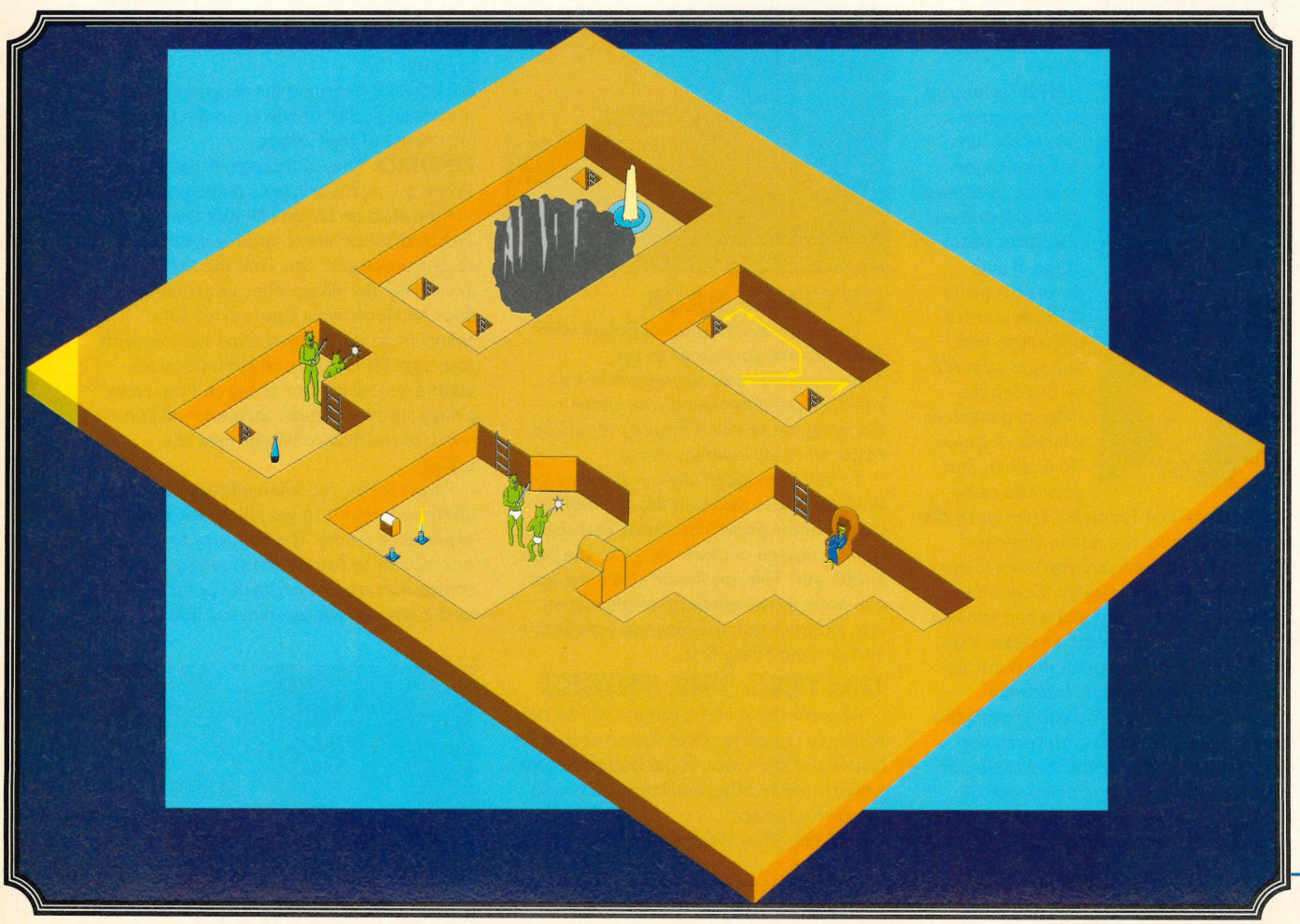


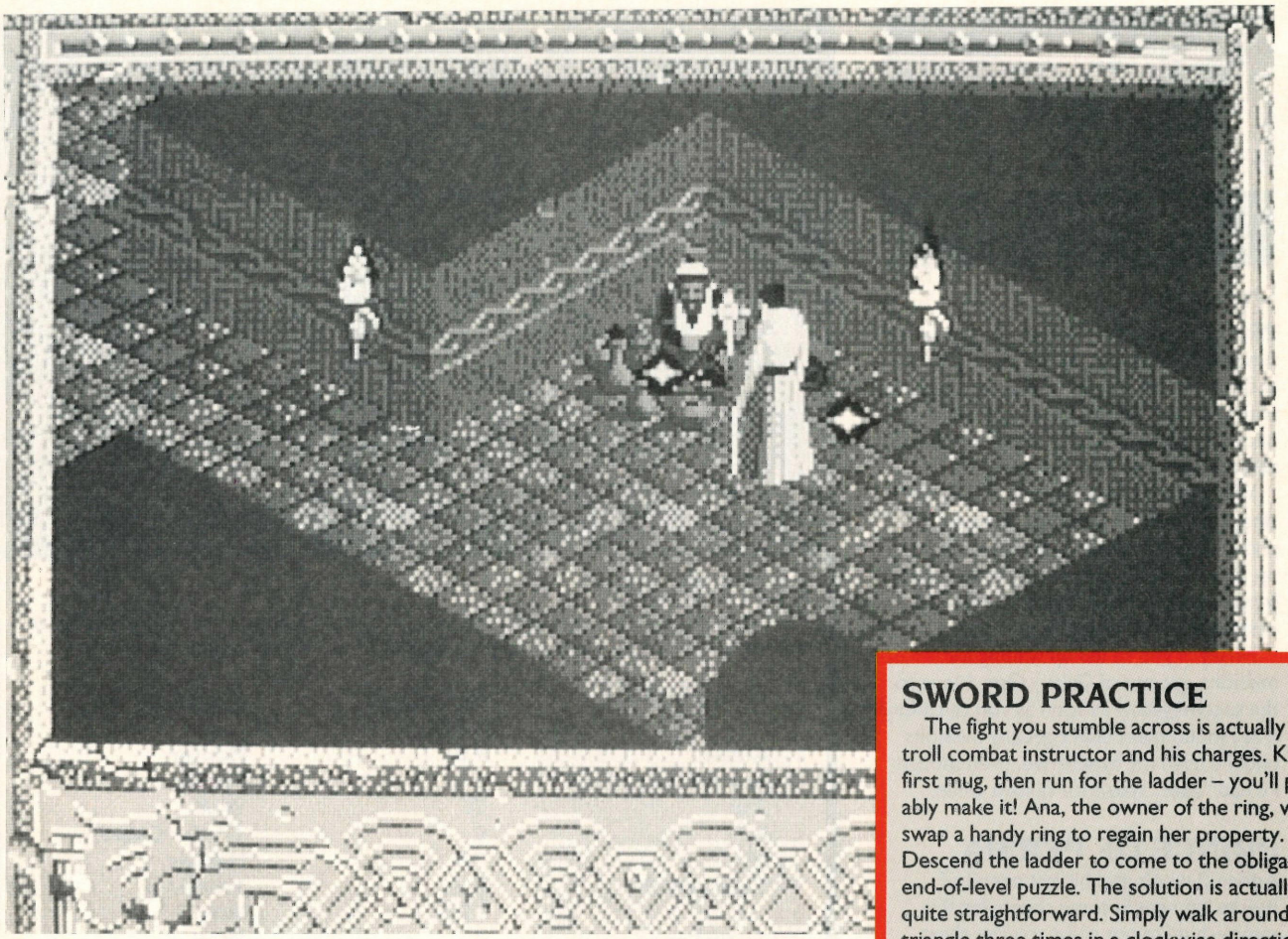
TROLLS AHOY

The next room contains two bored trolls; encourage them to fight by throwing the ritual dagger between them, and while they're occupied sneak through the door. Dispose of the two trolls on the other side with the bombs, and grab the bottle on the floor, which contains Magic Muscle potion. Leave the room, using more bombs if required, drink the potion and kill the next troll. Have a kip on the straw then study the column of light. You'll see that it becomes purple for an instant. Leap in and drop the red gem, but do it quickly – or you'll become barbecued wizard.

LEVEL FOUR

Ulindor will save you from the troll lurking at the bottom of the stairs and will give you a magic carpet. Go through the door and unfurl the carpet, jump aboard, and



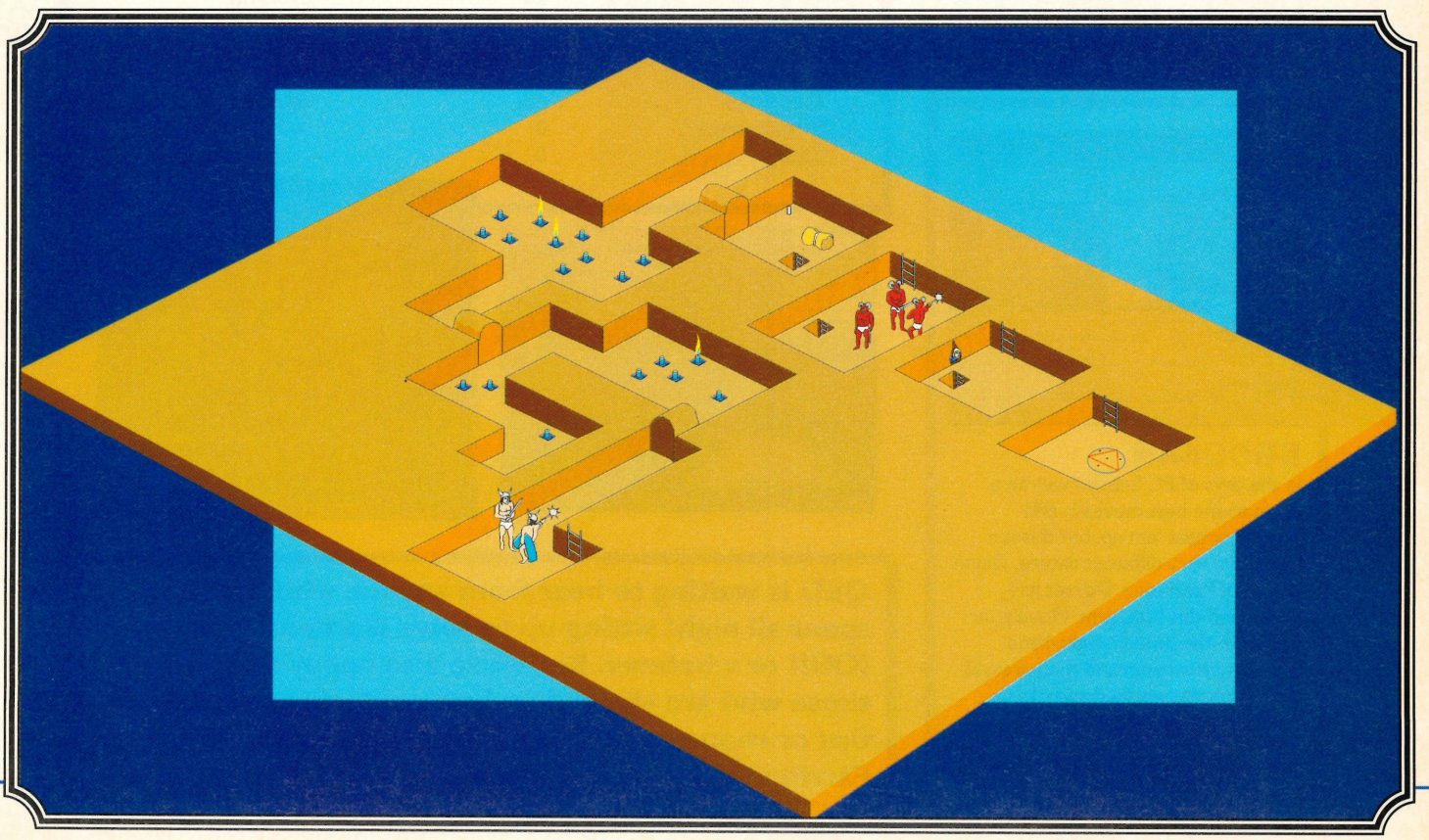


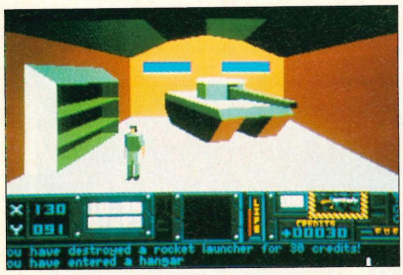
cross the room. Go to the furthest extreme of the chamber where you'll discover a robe hiding a ring – hold on to it for the time being. Jump off the carpet and roll it up to get through the door, then open it up once more and head through the room. Be quick, because your carpet will be wearing thin by now. Get some sleep in the next chamber, and climb down.

SWORD PRACTICE

The fight you stumble across is actually a troll combat instructor and his charges. Kill the first mug, then run for the ladder – you'll probably make it! Ana, the owner of the ring, will swap a handy ring to regain her property. Descend the ladder to come to the obligatory end-of-level puzzle. The solution is actually quite straightforward. Simply walk around the triangle three times in a clockwise direction, and Bob's your proverbial.

Well, that's it for now. Watch out for the worm on the next level! Many thanks to Electronic Arts for permission to use the maps.





HUNTER

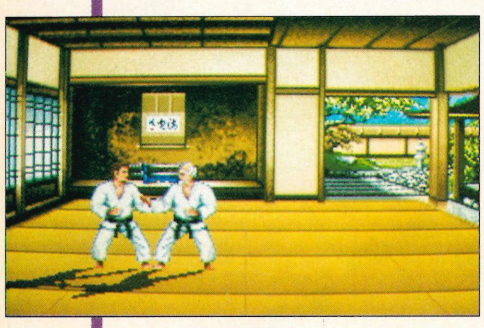
When you get a fuel leak go straight to the sun without stopping at the space station and use your fuel scoops. This means that you have a tricky mission ahead which will necessitate a hasty exit without you being able to load fuel at the station.

When given the mission to collect the cloaking device make sure you have enough space in your cargo bay to pick it up. Bear in mind that you might accidentally pick up allies from ships you have just destroyed, so leave plenty of room.

Finally, if you're fed up waiting for missions, get out of Galaxy One. Move to the second galaxy as soon as you can afford it as I found that I didn't get any missions until I'd used my hyperdrive, even though I'd had "Elite" status for quite a while.

PRINCE OF PERSIA

Adrian (I won't give his last name) of Ruislip has sent in some cheats for this game – but I'm not going to print them. Why not? Because they're for a "cracked" version, that's why! Adrian, don't you realise owning pirated games is a crime, and is damaging the industry by depriving the software houses of sales - and therefore the customers as well, as it keeps prices high? Now go away before I get angry – and you won't like me when I'm angry π...



BUDOKAN

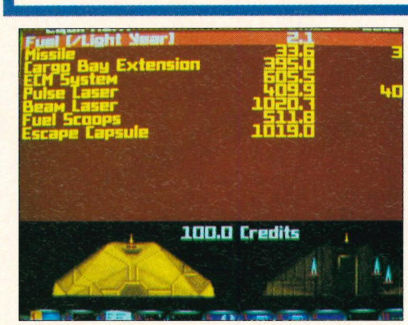
In the days of PC Leisure we ran a guide to the best moves in this absorbing beat 'em up, but this is a cheat of a very different nature. Glenn Braley of Parkstone, Dorset has unearthed this little gem. Move your fighter to the bottom right-hand corner of the room and then press B. You'll then be whisked away to an Arkanoid/Breakout subgame!



ELITE PLUS

Ms C A Jones (how formal!) of Millbrook, Oxon, has obviously been hacking away at this space exploration game, as she's provided a wad of information on it.

SHIP TYPE	BOUNTY VALUE	CLASS
Adder	4.0	Hunter
Anaconda	0	Trader
Asp	20	Wolf
Boa	0	Trader Cobra
Mk I	7.5	Hunter
Cobra Mk III	0 or 17.5	Trader or Wolf
Ferde Lance	0	Wolf
Gecko	5.5	Hunter
Krait	10	Hunter
Mamba	15	Hunter
Moray Starboat	5.0	Wolf
Python	0 or 20	Trader or Wolf
Shuttle	0	—
Sidewinder	5.0	Hunter
Thargoid	50	Wolf
Thargous	5.0	Wolf
Transporter	0	—
Viper	0	





QED is waiting to hear from anyone who has just spent all night sitting up to solve Gardens of Ultima XXIII or whatever. But we're also happy to help those who are struggling. Just send your solutions, tips or requests to QED, PC Review, 30-32 Farringdon Lane, London, EC1R 3AU.

GoldStar

QUALITY, PROFESSIONAL PC's AT AFFORDABLE PRICES

EVERY PC COMES WITH:

1 YEAR ON-SITE WARRANTY
VGA GRAPHICS AS STANDARD
FREE UK DELIVERY

GoldStar is a key division of the Lucky GoldStar Group, one of the world's largest international corporations, employing over 100,000 people with a turnover approaching £14 billion. GoldStar, with their unrivalled resources and technical ability, have manufactured and labelled computers for many of the world's leading computer companies for over 30 years! In fact, other PCs you may have been considering, because they have a different brand "name" on the outside, may well be a GoldStar on the inside!

Silica Systems, an official GoldStar appointed dealer, are pleased to recommend this comprehensive range which combines the very latest technology with years of manufacturing experience. GoldStar's quality and reliability coupled with the Silica Systems service, provide you with the perfect PC solution for the home, business or education. From an entry level 286 desktop workstation to a powerful 486 EISA tower system, Silica and GoldStar have the answer, at an affordable price!

286 12MHz £399 +VAT

- 12.5MHz 286 (Landmark 17MHz)
- 1Mb RAM (4Mb max on Motherboard)
- 2Mb RAM on Plus Series
- EMS (LIM 4.0)
- 42Mb, 130Mb or 210Mb IDE Hard Disk
- 3½" or 5¼" Floppy Disk Drive
- 3 Expansion Slots
- VGA (Paradise-1M) Graphics - 256K RAM
- Serial, Parallel & PS/2 Mouse Ports
- 12 Months On-site Maintenance
- DOS 4.01, DOS Shell, GW BASIC, EMS 4.0, & Utility Software
- PLUS SERIES (from £599), Includes:
  - Dual Floppy Disk Drives
  - Mouse, Mouse Mat & Windows 3
- Price - £399+VAT without Hard Drive

+£100 for VGA Mono Monitor
+£200 for VGA Colour Monitor

£499 GT212 WITH 42Mb HARD DRIVE



PLUS SERIES with GS1425 VGA Colour Monitor. Model Shown is GT212 286 12MHz

* All the GT212 PLUS SERIES models include 2Mb RAM as standard, so that they can run Windows 3.

Model	PROCESSOR	RAM INC	MAX RAM ON BOARD	1 YEAR ON SITE	EXPANSION SLOTS	LANDMARK MHz	CO-PROCESSOR SOCKET	VGA CHIPS	VGA VIDEO RAM	VGA 640×480	VGA 800×600	VGA 1024×768	NO HARD DISK + Single Floppy 3½" or 5¼"	42Mb HD + Single Floppy 3½" or 5¼"	PLUS SERIES WITH DUAL FLOPPY, WINDOWS 3 & MOUSE: 42Mb HD + Dual Floppies 3½" & 5¼"	130Mb HD + Dual Floppies 3½" & 5¼"	210Mb HD + Dual Floppies 3½" & 5¼"
GT 212	286 12MHz DESKTOP CASE	1or2 Mb	4 Mb	●	3 2×16-bit 1×8-bit	17 MHz	287-10	PARADISE	256K RAM	16 Colours	16 Colours	N/A	£399 +VAT=£468.83	£499 +VAT=£586.33	£599* +VAT=£703.83	£799* +VAT=£938.83	£1099* +VAT=£1291.33
GT 316	386SX 16MHz DESKTOP CASE	2 Mb	8 Mb	●	5 4×16-bit 1×8-bit	21 MHz	387sx-16	PARADISE	256K RAM	16 Colours	16 Colours	N/A	£599 +VAT=£703.83	£699 +VAT=£821.33	£799 +VAT=£938.83	£999 +VAT=£1173.83	£1299 +VAT=£1526.33
GS 318	386SX 20MHz DESKTOP CASE	2 Mb	8 Mb	●	5 4×16-bit 1×8-bit	25 MHz	387sx-20	PARADISE	512K RAM	256 Colours	256 Colours	16 Colours	£699 +VAT=£821.33	£799 +VAT=£938.83	£899 +VAT=£1056.33	£1099 +VAT=£1291.33	£1399 +VAT=£1643.83
GS 320	386DX 20MHz DESKTOP CASE - FULL SIZE	2 Mb	10 Mb	●	8 5×16-bit 2×8, 1×32	25 MHz	387sx-20	OAK	256K RAM	16 Colours	16 Colours	N/A	—	—	£899 +VAT=£1056.33	£1099 +VAT=£1291.33	£1399 +VAT=£1643.83
GS 347	386DX 25MHz DESKTOP CASE - 32K CACHE	4 Mb	8 Mb	●	5 4×16-bit 1×8-bit	40 MHz	386sx-25	PARADISE	256K RAM	16 Colours	16 Colours	N/A	—	—	£1399 +VAT=£1643.83	£1599 +VAT=£1878.83	£1899 +VAT=£2231.33
GS 335	386DX 33MHz TOWER SYSTEM - 64K CACHE	8 Mb	16 Mb	●	8 6×16-bit 2×8-bit	50 MHz	386sx-33	ATI Wonder+	512K RAM	256 Colours	256 Colours	16 Colours	—	—	—	£2099 +VAT=£2466.33	£2399 +VAT=£2818.83
GS 425	486DX 25MHz EISA TOWER SYSTEM - 8K CACHE	8 Mb	16 Mb	●	8 8×EISA	114 MHz	N/A	ATI Wonder+	512K RAM	256 Colours	256 Colours	16 Colours	—	—	—	£3499 +VAT=£4111.33	£3799 +VAT=£4463.83

14" VGA MONITORS

MODEL N°	MONO/ COLOUR	DOT PITCH	VGA 31.5KHz	S-VGA 35.2KHz	E-VGA 35.5KHz	1 Yr On-Site	Tilt & Swivel	EXC VAT	INC VAT
GS 1405	MONO	N/A	640×480	800×600	–	●	●	£100	£117.50
GS 1425	COLOUR	.39mm	640×480	–	–	●	●	£200	£235.00
GS 1430	COLOUR	.31mm	640×480	–	–	●	●	£230	£270.25
GS 1460	COLOUR	.28mm	640×480	800×600	1024×768	●	●	£250	£293.75

OPTIONS

DESCRIPTION	EXC VAT	INC VAT
1Mb×9-bit SIMM Memory Board	£50	£58.75
287 -12MHz Maths Co-Processor - For GT 212	£100	£117.50
387sx-16MHz Maths Co-Processor - For GT 316	£85	£99.88
387sx-20MHz Maths Co-Processor - For GS 318	£100	£117.50

OPTIONS

DESCRIPTION	EXC VAT	INC VAT
387dx-20MHz Maths Co-Processor - For GS 320	£150	£176.25
387dx-25MHz Maths Co-Processor - For GS 347	£150	£176.25
387dx-33MHz Maths Co-Processor - For GS 335	£160	£188.00
337Mb SCSI Hard Disk Drive - 16.7ms Access	£999	£1173.83

SILICA SYSTEMS OFFER YOU

- **FREE OVERNIGHT DELIVERY:** On all hardware orders shipped in the UK mainland.
- **TECHNICAL SUPPORT HELPLINE:** Team of technical experts at your service.
- **PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.
- **ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.
- **BUSINESS + EDUCATION + GOVERNMENT:** Volume discounts available for large orders.
- **SHOWROOMS:** Demonstration and training facilities at our London & Sidcup branches.
- **THE FULL STOCK RANGE:** All of your requirements from one supplier.
- **FREE CATALOGUES:** Will be mailed to you with offers and software/peripheral details.
- **PAYMENT:** By cash, cheque, all major credit cards, or extended payment plan.

Before you decide when to buy your new GoldStar PC, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or software, or help and advice. And, will the company you buy from contact you with details of new products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Systems Service".

MAIL ORDER HOTLINE 081-309 1111

SILICA SYSTEMS

MAIL ORDER: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111
Order Lines Open: Mon-Sat 9.00am-6.00pm No Late Night Opening Fax No: 081-308 0608
LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000
Opening Hours: Mon-Sat 9.30am-6.00pm No Late Night Opening Fax No: 071-323 4737
LONDON SHOP: Selfridges (1st Floor), Oxford Street, London, W1A 1AB Tel: 071-629 1234
Opening Hours: Mon-Sat 9.30am-6.00pm Late Night: Thursday until 8pm Extension: 3914
SIDCUP SHOP: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811
Opening Hours: Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm Fax No: 081-309 0017

To: Silica Systems, Dept PCRVW-01/92-66, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND ME A GOLDSTAR CATALOGUE

Mr/Mrs/Ms: ..... Initials: ..... Surname: .....

Address: .....

.....

..... Postcode: .....

Tel (Home): ..... Tel (Work): .....

Company Name (if applicable): .....

Which computer(s), if any, do you own? 66B

E&OE - Advertised prices and specifications may change - Please return the coupon for the latest information.

WIN
GAMES ON CD ROM
WIN GAMES ON DISK
IN THE PC REVIEW SOFTWARE BONANZA

Soaked in festive spirit, PC Review wishes you the compliments of the season with the chance to win one of 35 PC games we've got on offer.

And anyone who's hoping for a CD-ROM drive for Christmas can have a go at winning some bumper software on CD-ROM for their new machine.

We've lined up some of the latest CD-ROM games from Software Toolworks and Sierra, plus some cracking new games for those whose Christmas stocking won't contain a CD-ROM drive.



THE PRIZES

On CD-ROM

5 CD Games Pack 2
Software Toolworks' CD Games Pack 2 is stuffed with goodies, compilation of 10 PC games on a single compact disc: Chessmaster 2100, Robot Tank, Beyond the Black Hole, Life and Death, Gin King and Cribbage King, Checkers, Loopz, Puzzle Gallery (a compilation in its own right), Bruce Lee Lives, and Backgammon. Something for everyone here.

5 Wing Commander and Ultima VI
This double pack comprises two of the PC's most popular games ever (no 1 and no 30 respectively in the PC Review Readers' Top 50). Packaged on compact disc, this duo from Origin need no longer take up most of your free hard disk space.

5 Leisure Suit Larry 5
Sierra's tortured hero returned triumphantly in his quest to find a suitably sleazy TV show hostess. Masses of innuendo, single entendre, and quite a bit of Passionate Patti in the sub-plot all on one compact disc.



5 King's Quest 5
Continuing the hugely successful fantasy series, the CD version of Sierra's King's Quest V boasts speech instead of text, full stereo sound and 256 colour VGA graphics.

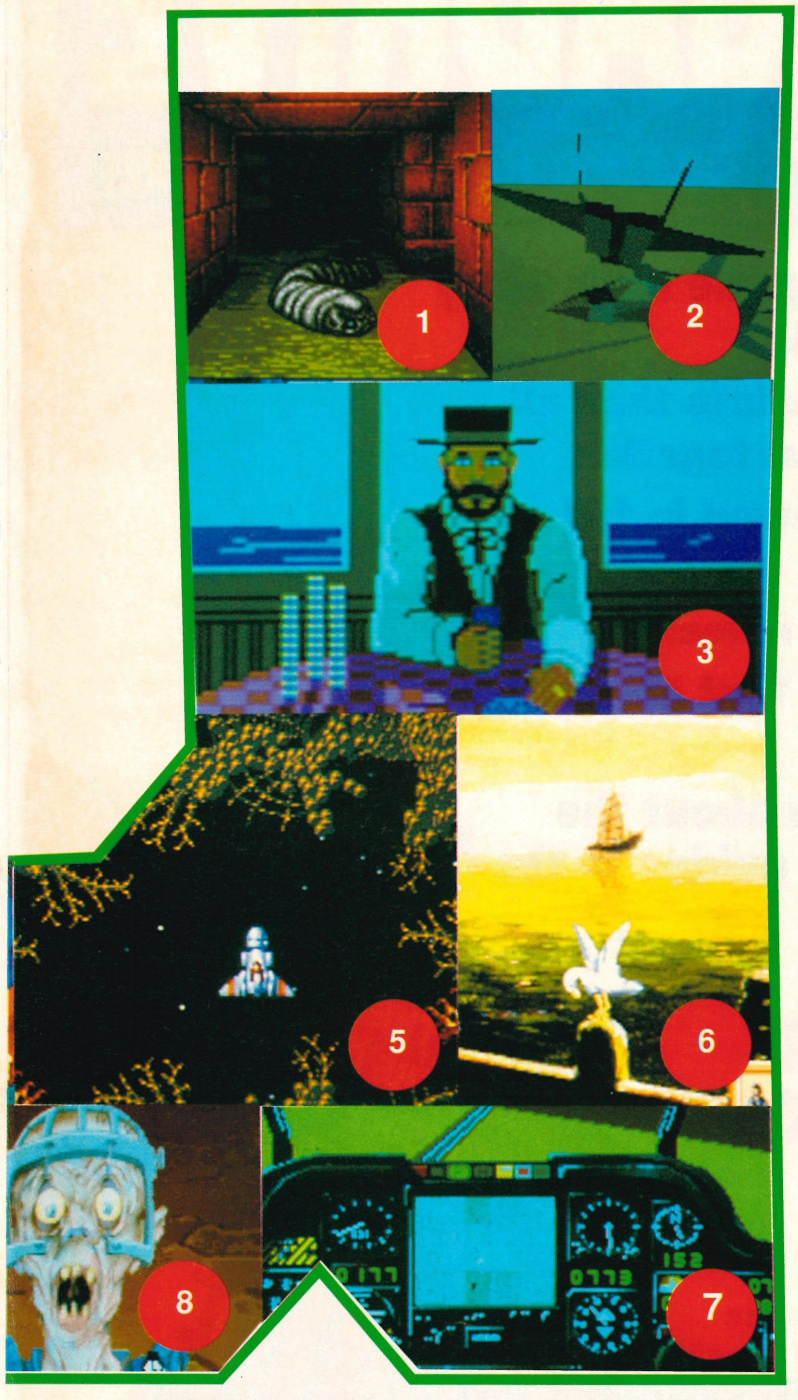


On disk

5 Conquests of the Longbow
Join Robin Hood and his Merrie Men on a romp through the leafy glades of Sherwood Forest as Britain's legendary outlaw must try to outwit the Sheriff of Nottingham to raise a king's ransom to free the imprisoned Richard the Lionheart. (Reviewed this issue.)

5 Police Quest 3
Music by Jan Hammer accompanies your third outing as part of the Lytton Police Department fighting crime in Sierra's cop drama series. (Reviewed in Issue 2.)

5 Ultima V, VI, VII
This three-in-one package is an absolute must for Ultima fans wanting to catch up with Richard Garriott's series set in the mythical land of Britannia. (Ultima VII reviewed in Issue 2.)





How to enter

The, er, somewhat boot-like PC Review Christmas stocking has been giftwrapped with screens from well-known PC games. Simply match the games shown to the correct titles listed on the form. For example, if you think the section labelled (1) is gift-wrapped with a scene from Leisure Suit Larry, put 1 against that title on the form.

Then fill in the rest of the form, cut it out, or take a photocopy if you don't want to spoil the magazine, and stick it on a postcard or the back of a sealed envelope. Send your entry to:

Christmas Software Bonanza
PC Review
EMAP Images
Priory Court
30-32 Farringdon Lane
London EC1R 3AU

and make sure it reaches us by January 17, 1992. The first 35 correct entries out of the PC Review hamper will win the prizes. We'll announce the winners in Issue 5, dated March 1992.

RULES

The winners of the CD-ROM games will be the first 20 correct entries drawn at random after the closing date who have ticked the CD-ROM box on the coupon.
The winners of the disk-based games will be the first 15 correct entries drawn at random after the closing date who have ticked the disk box on the coupon.
No entries received after the closing date will be considered.
Only ONE entry per person, please. Anyone found submitting multiple entries will be disqualified. Employees or associates or their relatives of EMAP Images, Sierra On-Line, Mindscape, Origin Systems or Software Toolworks are not eligible to enter this competition.
The editor's decision in these matters is, as ever, final.

CHRISTMAS SOFTWARE BONANZA

I think the Christmas stocking screens correspond to the following titles:

Railroad Tycoon ❑ **Gunship 2000** ❑ **F29 Retaliator** ❑
Test Drive 3 ❑ **Eye of the Beholder** ❑ **Space Quest IV** ❑
Wing Commander 2 ❑ **Heart of China** ❑ **Xenon 2** ❑

Name.....
Address.....
.....
.....
.....

If I win, I'd like my prize on CD-ROM ❑ on disk ❑

❑ Tick this box if you do NOT wish to receive any further information about forthcoming releases from Sierra, Software Toolworks, Mindscape or Origin.

100% MEGADRIVE

THE BEST ADD ON MONEY CAN BUY FOR YOUR MEGA DRIVE IS HERE!

The definitive complete games guide with every title individually reviewed & rated.

- **More Power packed Megadrive info than all other "so called" Sega Mags put together**
- **Over 100 Essential games reviewed in full colour**
- **The Latest MegaCD Rom news revealed**
- **Exclusive hot news in Britains' first Megadrive only Monthly Mag!**

Every thing you wanted to know about the Megadrive PLUS superb playing guides to the greatest Megadrive games.

ALL THIS AND MORE IN THE COMPLETE GUIDE TO MEGADRIVE AT ONLY £2.95!

Available in all good Newsagents now!!

But if you live near bad newsagents, you can order one direct from us by filling out the coupon below and sending it to: Complete guide to Megadrive, Priory Court, 30-32 Farringdon Lane, London, EC13AU.

OOOH! QUICK! Send me a copy of the complete guide to MEGADRIVE because I'm really desperate! I enclose a cheque/postal order for £3.45 (£2.95 + 50 p post and packing) made payable to Mean Machines. Overseas orders send £5.00 cash (UK Sterling only)

Name _____

Address _____

_____

_____

_____

GET THE LATEST AND THE GREATEST CONSOLE GUIDE IN THE SERIES!!





MEGATECH

MEGADRIVE HYPER GAMING TECHNIQUE

OUT ON DEC. 6!

On December 6th, 1991, something will happen which is going to change the face of computer magazines forever. The first issue of Britain's first Megadrive magazine will hit the streets - it's name MEGATECH.

In MEGATECH you'll find extensive, full-colour reviews of the latest Megadrive titles, as well as huge playing guides and tips from Britain's greatest Megadrive gamers. There will also be news of the latest Megadrive developments, both in Britain and in Japan and the USA.

But that's not all. We can solve your gaming problems in the MEGATECH Helpline, or keep you up to date on the scores you have to beat in the Hyperplayers high score tables. Find out what other Megadrive owners are talking about in MegaMail or let the MEGATECH Game Index (which lists and rates all Megadrive games) help you with your buying decisions.

Collect MEGATECH month by month and you have a complete encyclopaedia of Megadrive gaming knowledge which could turn you into a Hyper Player!

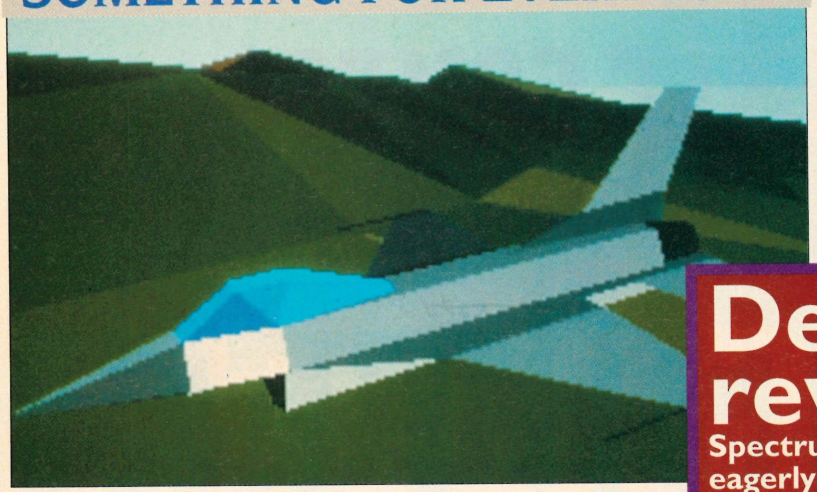
MEGATECH. 100% PURE MEGADRIVE. 100% PURE GAMING ACTION!

MEGATECH is not an official Sega publication

NEXT MONTH IN PC review

Everyone's talking about 1992 - because on January 16, PC-Review Issue 4 hits the streets.

SOMETHING FOR EVERYBODY



Great features

Better Safe than Sorry
Viruses – are you in danger? How to avoid infecting your PC and what to do if you think you have a virus lurking in your machine.

Definitive reviews

Spectrum Holobyte's Falcon 3.0 has been eagerly awaited for months – we'll bring you the first complete review of this flight sim.



Plus ... CD-ROM

PCs ... sneak previews ... playable demos ... more on MS-DOS ... your questions answered ... more Shareware bargains ... news and views from the PC entertainment world

Promised you a Miracle ...

The Miracle Piano Teaching System comprises a keyboard and a course of music lessons on disk. Rob "Fingers" Beattie finds out if the Miracle makes the grade.

PC REVIEW ISSUE 4 OUT JANUARY 16 1992
DON'T LEAVE THE SHOP WITHOUT IT!

Don't forget: PC Review is available in both 5.25" and 3.5" disk editions.

Contents may be subject to change

PC review

Buyers guide

Because all of us here at *PC Review* are PC users as well as reviewers we're perfectly placed to know that shopping for your PC can be a veritable nightmare, even if you're looking for something as simple as a joystick. The PC's open architecture has meant that expanding the machine is a fairly simple operation, but it's also meant that, during its 10 years of existence, the machine has attracted an enormous number of manufacturers of both hardware and software. The choice facing the potential buyer is awesome.

That's why we've set aside over twenty pages in each issue to guide you through the quagmire of hardware and software. Within this section you'll find up to date information on the very best hardware and software available. Not only will we tell you what you can buy, but where you can buy it from and how much it will dent your pocket.

We don't claim that the guide in a single issue is totally exhaustive, but over the course of a few months you'll find it builds up into an invaluable reference work for PC buyers.

Happy Browsing!

HOW TO USE THIS GUIDE

We've divided the guide into four easy to use sections: **Hardware** lists add-ons and upgrades that will improve your PC's performance or add features not available on the basic model; **Software** gives you a run-down of a wide-range of productivity software and utility programs; **Ancillary** is for those of you who want to invest in a new machine or simply keep your existing machine in tip-top condition; finally **Games** is a guide to all that's best in software for entertainment. You'll find all the product types covered in these sections listed in the index below.

Within each section you'll find that we've listed the basic capabilities of each product as well as any major plus or minus points. If you're a little confused by Technospeak (and aren't we all from time to time) just turn to our unique *Jargon Buster* panels for a simple explanation.

All of the prices given are inclusive of VAT at 17.5%, although where there is no recommended retail price for a particular product we've listed the average price, thus: c£550. Please bear in mind that these prices do not include postage and packaging, courier charges, etc.

If you require further details on a product then simply look up the supplier in our directory where you'll find an appropriate telephone number and address.

What could be simpler?

INDEX

HARDWARE

Memory Upgrades 100
Hard Cards 100
Hard Disk Drives 101
Graphics Cards 101

ADD-ONS

Soundboards 101
Joysticks 102
Mice and Trackballs 102
Modems 103
Dot Matrix Printers Under £300 103
Ink Jet Printers 103
External Disk Drives 104
CD ROM Drives 104
Hand Scanners 104
Digitisers 104

SOFTWARE

Graphics 105
Desktop Publishing 105
Communications 105
Composing Software 105
Anti-Viral Toolkits 106
Miscellaneous Utilities and Productivity Software 106

ANCILLARY

Portable Computers 106
Maintenance and Repair 107
Directory 107

GAMES

Flight Simulators 111
Other Simulators 112
Arcade 112
Puzzles 113
Board games 113
Sports Games 114
Role Playing Games 115
Graphic Adventures 116
Text Adventures 116
Strategy Games 117
God Sims 117
Directory 118

DISCLAIMER

We have done everything humanly possible to check the information in this guide. But prices do change, distribution switches from one company to another, even brand names can be updated. While we will update the information regularly to take account of this, we can't be held responsible for any errors contained herein.

Anyone – suppliers, publishers, readers – who knows of products suitable for inclusion but which have mysteriously been omitted can write in with details (write, please, don't phone) to the address at the front of the magazine.

DEALER DIRECTORY

THE COMPUTER SHOP

Unit 7
Burton Arcade
Leeds
LS1 6HO

TEL: 0532 340455

THE COMPUTER SHOP

161 Linthorpe Road
Middlesbrough
Cleveland
TS1 6HO

TEL: 0642 247553

THE GAMES STORE

6A Lowther Street
Carlisle
CA 8DA

Tel: 0228 28161

THE GAMES STORE

8 High Friars
Eldon Square
Newcastle-upon-Tyne

TEL: 091 213 0962

PC hardware

MEMORY UPGRADES

Most PCs will take extra memory chips, either on a slot-in card, or directly onto the motherboard – and just as well, given the latest crop of memory hungry games. The minimum RAM acceptable these days is 640K; some older PCs (such as the Amstrad PC1512) were sold with 512K.

However, an increasing number of games make use of extended or expanded memory above 640K, and you'll need a good 2Mb should you ever want to run Windows. The prices quoted here are for a selection of IBM and Amstrad machines. Prices for other clones may vary.

Size/Type	Price	Comments	Supplier
1Mb/Card	£94	For IBM XT	Memory Direct
2Mb/Card	£146.88	For IBM XT	Memory Direct
2Mb/Card	£164.50	For IBM AT	Memory Direct
2Mb/Card	£246.75	For IBM AT (LIM 4)	Memory Direct
4Mb/Card	£339.57	For IBM AT (LIM 4)	Memory Direct
640K/Chip Set	£29.95	For Amstrad PC1512	Evesham Micros
4Mb/Chip Set	£160	For Amstrad PC2286	Evesham Micros

TECHNICAL TERMS

The original XTs and ATs could only directly address a maximum of 640K of RAM, but there are two methods of extending the available RAM on these machines. The first is known as **Extended Memory** (memory located above the first megabyte which can be directly addressed by the 80286 and its successors), while the alternative is **Lotus Intel Microsoft Expanded memory Specification (LIM EMS)**, named after the three companies that developed it. **LIM 4** is the latest version of this, designed to work with DOS version 4.0 and beyond. Most software that uses extended or expanded memory is configured to work with only one of these systems, so you should check which of them your applications support before you make a buying decision.

16Mb/Chip Set	£815.45	For Amstrad PC2386	Memory Direct

HARD CARDS

No room for a hard disk drive? Want a simple plug in, cheaper solution? Hard cards fit into a free expansion slot and can be used as a conventional hard drive.

Model	Type	Capacity	Speed	Width	Price	Supplier
Smartcard 30XL	XT/AT	32Mb	24ms	1 Slot	£205.62	Time
32MbXT	XT	32Mb	40ms	1.5 Slots	£186.83	RSC
Smartcard 40XL	XT/AT	40Mb	24ms	1 Slot	£229.13	Time
45MbXT	XT	45Mb	19ms	1 Slot	£233.83	RSC
45MbAT	AT	45Mb	19ms	1 Slot	£233.83	RSC
Smartcard 100XL	XT	100Mb	19ms	1 Slot	£417.13	Time
Smartcard 100XL	AT	100Mb	19ms	1 Slot	£534.63	Time

• The XL versions of Time's Smartcards are supplied without driving software. If you wish to buy the version with the software please add £47 to the listed price.

TECHNICAL TERMS

Cards which occupy **1.5 slots** will prevent you from plugging a full length card into the adjacent expansion slot, so check the arrangements of existing cards in your PC and plan carefully if you intend to utilise any unoccupied slots in the future. The **speed** of a card is an indication of its average **seek time** (the time it takes for the read/write heads to reach the appropriate location on the disk).

FIVE SOFTWARE PACKAGES ARCADE ADDICTS SHOULDN'T BUY!

Norton Utilities
Lotus 1-2-3
dBase IV
Excel
Microsoft Macro Assembler

HARD DISKS

If you're using a PC which has only floppy disk drives, then a hard drive could change your life. With capacities ranging from 20Mb to well over 100Mb (more in business heavyweight machines), you can store all your programs, all your data, on the one drive, and still access it far more quickly than on floppy. No more disk-swapping every five minutes, no more booting DOS from floppy every time you switch on. Also, more and more games these days actually require you to install them on a hard disk.

Model	Interface	Capacity	Speed	Size	Price	Supplier
Seagate ST325N	SCSI	32Mb	28ms	3.5" 1" high	£205.63	Dataplex
Seagate ST351A/X	AT/XT	42Mb	28ms	3.5" 1" high	£193.88	Dataplex
Seagate ST125A	IDE	21Mb	28ms	3.5" half height	£170.38	Corporate Upgrades Ltd
Seagate ST157A	IDE	44Mb	28ms	3.5" half height	£163.33	Corporate Upgrades Ltd
Seagate ST225	MFM	21Mb	65ms	5.25" half height	135.13	Dataplex
Conner CP3024	IDE	21Mb	27ms	3.5" 1" high	£176.25	Unimart Computers Ltd
Conner CP3044	IDE	42Mb	25ms	3.5" 1" high	£217.38	Unimart Computers Ltd

TECHNICAL TERMS

You can only fit an internal hard drive if you have a suitably sized spare drive port in your machine. If you are at all unsure you should first check with the supplier of your machine which size of hard drive you will be able to fit. There are a number of different hard drive interfaces in use so make sure that you buy the appropriate drive.

GRAPHICS CARDS

The PC has had a long and chequered history of different graphics standards, thanks to IBM's decision not to include graphics at all in the original machine. The current best standard now for games is VGA (Video Graphics Array): with a maximum of 256 colours on-screen, this really shows off the potential of PC games.

Type	RAM	Size	Resolution	Colours	Price	Supplier
Hercules	64 Kb	8-Bit	640x350	2	£28.20	Watford Electronics
CGA	64Kb	8 bit	320x200	4	£37.60	Watford Electronics
EGA	256Kb	8-Bit	640x350	16	£76.38	Watford Electronics
VGA	512K	16 bit	1024x768	256	£92.83	Dataplex
SVGA	1Mb	16 bit	1024x768	256	£92.83	DS Computers

• *Watford Electronics graphics cards are all supplied with a built-in parallel printer port.*

TEN THINGS PCs DIDN'T HAVE IN 1981

Windows
Soundboards
Alan Sugar
LIM Extended Memory Specification
VGA
Game Cards & Joysticks
Games!
3.5" Disk Drives
CD ROM Drives
A Decent DOS

PC add ons

SOUNDBOARDS

Until recently, the best the PC could produce in the way of sound was 'beep'. But the advent of soundboards has changed things dramatically. A soundboard will take up a single expansion slot and produce genuine music and background sound effects in the games which support it – which is an ever-increasing number these days. Below are the 'standard' soundboards catered for by most titles.

Name	Supplier	Price
AdLib	Mindscape	£89.99

Comment Currently the most popular system, and a good trade-off between price and performance.

LAPC-1	Roland	£379.00

Comment Superb sound quality probably priced out of the reach of many games players. Non AdLib-compatible.

SoundBlaster v2.0	WestPoint Creative	£139.95

Comment AdLib-compatible and capable of producing sampled sounds. Try it with Wing Commander 2 to hear what we mean!

SoundBlaster Pro	WestPoint Creative	£249.95

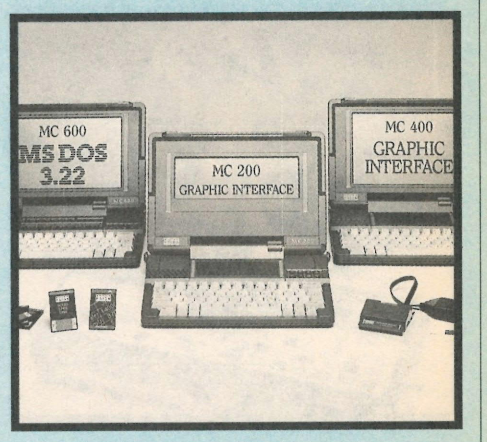
Comment Has all the features of the original soundblaster, but is additionally compatible with many CD ROM games.

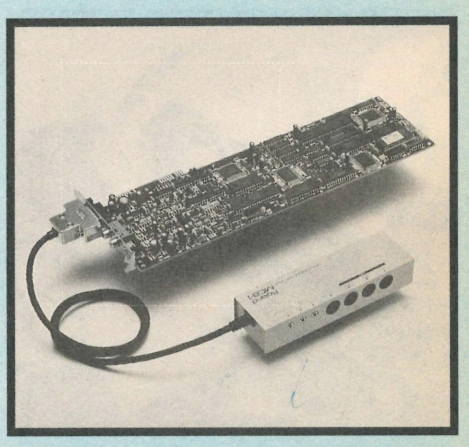
DEALER DIRECTORY

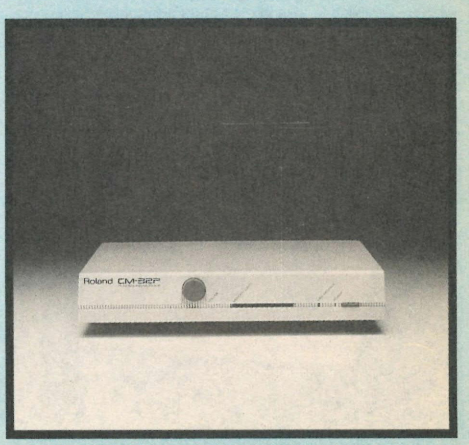
THE GAMES STORE

66 The Pallasades
City Centre
Birmingham
B24 XJ

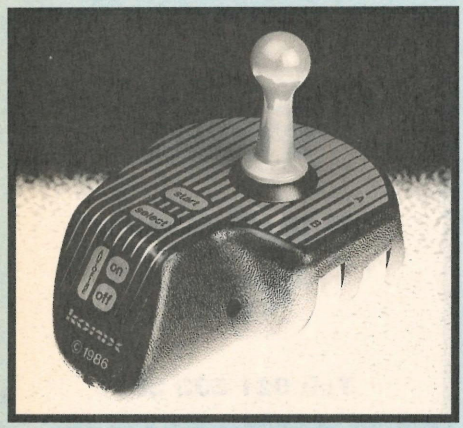
Tel: 021 633 3837





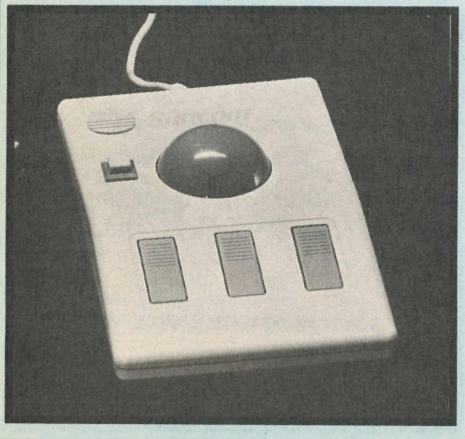


DEALER DIRECTORY









JOYSTICKS

No provision is made in the design of the standard PC to plug a joystick in directly. You'll need a joystick card in one of your expansion slots which allows an analogue joystick to be plugged in. A number of manufacturers sell both cards and joysticks together. For flight sims and racing games, yoke and pedal style controllers are also available.

Product	Price	Supplier	Comments
Anko AK-GC27A	£19.95	ABS Computer Supplies	Auto-fire option
IBM Joystick	£19.95	Computer Mates Ltd	Includes games card
Powerport 2	£63.45	Power Mark	Self-adjusting PS/2 Twin Port
The Yoke	£57.58	Power Mark	Self-centring Yoke
Gravis Analogue Stick	£48.18	Power Mark	8 Tension adjusters!
Tecniche PC Power Stick	£23.49	RSC Ltd	Includes games card
Analog Edge	£29.99	Evesham Micros	Includes games card
Analog Xtra	£39.99	Evesham Micros	Includes games card
Gravis PC Mousestick	£89.95	RC Simulations	Includes games card

• The Tecniche stick is available without games card for £17.61
• The Analog sticks are both available without games cards for £12 and £15 lower than the marked prices respectively.

MICE AND TRACKBALLS

Many games are tailored to be easily controllable with a mouse, which is much more of a standard PC add-on than a joystick. Then again, there is the trackball, which in effect is an upside-down mouse, with you moving the ball directly to control on-screen movement – useful if your desk space is limited or you're using it with a portable machine.

Product	Price	Supplier	Comments
Genius GM6000	£28.95	ABS Computer Supplies	Includes pocket, pad and software
Genius GMF302	£37.95	ABS Computer Supplies	As above, higher resolution
Anko AKTB500	£49.95	ABS Computer Supplies	Trackball with 'drag button'
Logitech Mouseman	£62.28	Acolyte Services	
Cordless Mouseman	£116.33	Acolyte Services	Uses radio technology
Logitech Pilot	£45.83	Dataplex	
Tec-Mouse	£34.08	Dimension Computers Ltd	Includes paint software
Microsoft Ballpoint	£104.58	Dimension Computers Ltd	Trackball for portables
Amstrad Mouse	£22.33	Dimension Computers Ltd	Works with Amstrad PCs
Axelen Mouse	£21.15	DS Computers	
Truemouse	£22.99	Evesham Micros	Serial/ PS/2 /Amstrad versions
Cordless Truemouse	£49.95	Evesham Micros	As above but with infra-red link
Golden Image Mouse	£34.95	Evesham Micros	Optical Mouse
Mousepen	£116.33	KSI	Mouse shaped like a pen
Unmouse	£159.80	Picture Perfect UK Ltd	Tablet – use finger as mouse!
Nakasha Mouse	£41.13	RSC Ltd	Includes DPaint II
Squik Mouse	£19.98	RSC Ltd	Low cost serial mouse

TECHNICAL TERMS

A Mouse or Trackball requires a suitable **driver** to be installed before it will operate. Most devices are supplied with suitable software, but you should check first with the manufacturer. You should also note that there are different types of mice and trackballs designed to work with different systems (eg **Serial** and **Microsoft Compatible**), so make sure that you are buying the device that is correct for your model of PC.

FIVE GAMES ON A SILLY NUMBER OF FLOPPY DISKS

1.WING COMMANDER II (Origin) - A whopping 14 3.5" disks, with low density 5.25" disks not even offered.

2.RISE OF THE DRAGON (Dynamix) - 10 disks enough for you? Heart of China is just as bad for eating silicon.

3.MIGHT & MAGIC III (New World Computing) - 10 low density 5.25"disks makes the installation process lots of laughs!

4. MARTIAN MEMORANDUM (Access) - A jolly six high densities, but at least the install routine includes a quiz to keep you amused!

5. WILLY BEAMISH (Dynamix again!) – Only eight disks, but say goodbye to 9 megs of hard disk space!

MODEMS

Get your PC to be more sociable. A modem will connect you to other PCs via the telephone lines, giving you access to bulletin boards, public database networks and multi-user games – or you can simply use it to send messages to friends.

Product	Price	Manufacturer
Biscom (internal)	£258.50	Dataflex
Biscom (external)	£323.13	Dataflex
Comfax (internal)	£387.75	Dataflex
Comfax (external)	£517.00	Dataflex
Courier 2400e Quad (internal)	£464.13	Miracom
Courier 2400e Quad (external)	£522.88	Miracom
Keycard 3000 V22	£346.63	Miracom
Keycard 3000 V22 BIS	£464.13	Miracom
PC Professional	£517.00	Dataflex
Quadcom (internal)	£387.75	Dataflex
Quadcom (external)	£517.00	Dataflex
Rapier (internal)	£646.25	Dataflex
Stradcom (internal)	£193.88	Dataflex
Stradcom (external)	£229.13	Dataflex
WS4000 (SB2422)	£186.83	Miracom
Quattro 2400	c£500.00	Dowty
Smartmodem 2400 Quad	£339.57	Hayes
SM2400	£222.08	Amstrad
Milgo Maxam IV	£468.83	Racal
2400 MNP Class 5	£468.83	Worldport

TECHNICAL TERMS

PC Modems come in two types: **Internal** and **External**. Internal versions require a spare expansion slot, but they are usually £50 to £100 cheaper than their external counterparts. External versions plug into a **Serial Port** instead. If you are going to use your modem mainly to communicate with one other party (e.g. a particular bulletin board) then you should first check which **protocol** is in use by them and buy the appropriate modem.

DOT-MATRIX PRINTERS UNDER £300

Dot matrix printers are coming down in price, but at the same time the quality is improving: letter quality modes are no longer dotty or lacking true descenders on letters such as 'g' or 'y'. This is particularly true of models with a 24-pin printhead. This is probably a good time to buy.

Company/model	Price	Speed	Buffer	Type
Amstrad DMP3160	£233.83	160/40	16K	9-Pin
Brother M-1209	£264.38	168/35	2K	9-Pin
Citizen 124D	£292.58	120/40	8-32K	24-Pin
Epson LX850	£269.08	200/30	4-32K	9-Pin
Mannesmann Tally MT81	£186.83	155/26	8K	9-Pin
Olivetti DM109	£257.33	240/36	21K	9-Pin
Panasonic KX-P1180	£252.63	192/38	2-K	9-Pin
Samsung SP 0930N	£222.08	300/50	3-11K	9-Pin
Seikosha SP1900AI	£116.33	192/40	1K	9-Pin
Seikosha SP2000	£233.83	160/40	6K	9-Pin
Victor VP10D	£210.33	175/30	None	9-Pin

TECHNICAL TERMS

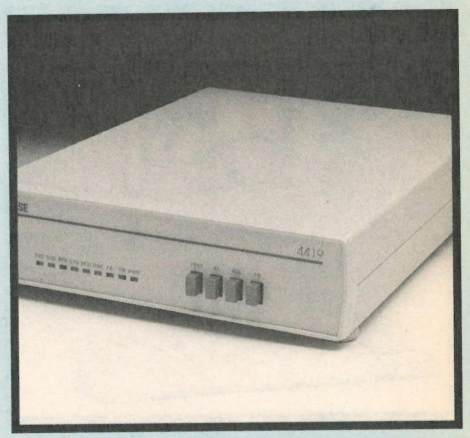
Prices include VAT. A printer's **speed** is a measurement of the number of characters it can print per second. The first figure is for **draft mode** and the second figure is for **Near Letter Quality (NLQ) mode**. The **Buffer Size** is an indication of the amount of internal memory the printer has. The higher this figure is, the quicker your PC will be released to perform other tasks.

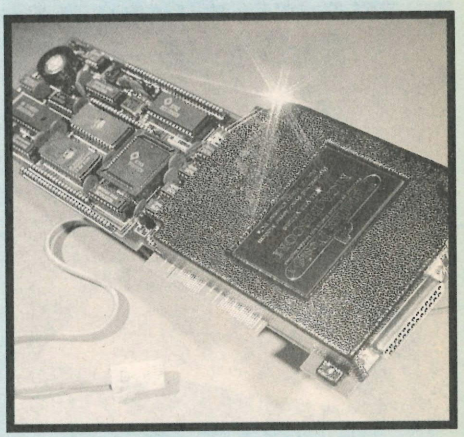
INK JET PRINTERS

Ink jets are the newly fashionable item for style-conscious PC owners: with distinctly better print quality than dot matrixes (although beware manufacturers' claims of "laser quality" print), the advantage of being virtually silent in operation, and prices falling all the time as they become more popular.

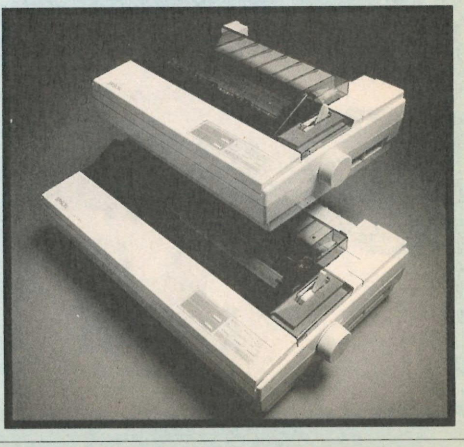
Company	Price	Speed	Buffer
Brother HJ100	£405.38	142/83	37K
Canon BJ300	£699.13	300/150	30-128K
Epson SQ850	£903.58	600/198	8K
Hewlett-Packard DeskJet 500	£586.33	240/120	16K
IBM 4072 ExecJet	£868.33	600/300	30K
Mannesmann Tally MT9	£938.83	220/110	32K

DEALER DIRECTORY









DEALER DIRECTORY









Olivetti JP350	£586.33	360/120	8K

EXTERNAL DRIVES

If you don't have space for any more floppy disk drives – a problem with newer slimline models, you can always add an external model.

Model	Size	Capacity	Price	Supplier
IBM compatibles	3.5"	720Kb	£109.95	ABS Computer Supplies
IBM Compatibles	3.5"	1.44Mb	£119.95	ABS Computer Supplies
IBM Compatibles	5.25"	360Kb	£119.95	ABS Computer Supplies
IBM Compatibles	5.25"	1.2Mb	£129.95	ABS Computer Supplies
Amstrad 2000 range	5.25"	360K	£57.58	RSC Ltd
Amstrad 2000 range	5.25"	1.2Mb	£76.38	RSC Ltd
Olivetti/Amstrad 3000s	5.25"	1.2Mb	£175.08	RSC Ltd

CD ROM DRIVES

Are you looking to make your PC the ultimate games machine? Then a CD ROM drive is the perfect addition. CD ROMS offer a huge storage capacity, typically the equivalent of about 700 720Kb floppy disks! The only disadvantage is the slow access speed. There are not too many games or other CD ROM applications available at the moment, but the list is growing larger every month.

Model	Price	Supplier	Comments
Chinon CDS431	£351.33	SMC Computers	Internal
Goldstar GT2000	£398.33	SMC Computers	External
Philips CM50	£316.08	Diamond Computers	Portable

• The Philips drive comes with a free copy of World Atlas and Audio Player

HAND SCANNERS

If you use any sort of Desktop Publishing package, then a hand scanner is an invaluable addition to your PC. While most hand scanners can only read small images and at a relatively low resolution, they are considerably cheaper than flatbed scanners.

Model	Price	Colours	Supplier
AG-256	£164.50	256 grey shades	Watford Electronics
Genius GS-B105G	£176.25	256 grey shades	Reeves
PC Hand Scanner	£82.19	16 grey shades	UK Home Computers
Marstek M105	£81.08	64 grey shades	RSC Ltd
Marstek M105 Plus	£110.45	64 grey shades	RSC Ltd
Marstek M800 Plus	£169.20	64 grey shades	RSC Ltd
Marstek M-6000 CG Color Artist	£327.83	262,144 colours	RSC Ltd

• The PC Hand Scanner comes with a free copy of Microsoft Windows.

• The Marstek M105 Plus and M800 Plus are also available in versions for Windows. Add the suffix W to the model number and read the price as £139.83 and £186.83 respectively.

DIGITISERS

While not being quite so high up on the essential DTP buy list as a scanner, a rudimentary digitiser can transform the appearance of your documents. Digitisers will allow you to import line-based artwork by tracing it with a stylus or puck. They're also ideal for Computer Aided Design applications.

Model	Size	Software	Price	Supplier
GT 1812 Genitizer Tablet	18"x12"	CasCad II/Colour Maestro	£316.08	RSC Ltd
GT906 Tablet	9"x9"	CasCad II/Colour Maestro	£105.58	RSC Ltd
GT1212B	12"x12"	AutoCAD/Dr Genius	£182.13	Technomatic

POINTLESS SOFTWARE

ATLAS PROGRAMS – Contain exactly the same information as your desk Atlas and costs 10 times as much.

COOKBOOK SOFTWARE – Expensive way to get grease all over your PC.

DIET AND EXERCISE PROGRAMS – Not nearly as much fun as Jane Fonda.

GARDENING PROGRAMS – How on Earth do you get your PC into the garden?

MAC SIMULATORS – Cost more than a low end Mac, but who'd want a Macintosh anyway?

PC software

GRAPHICS SOFTWARE

So you're the artistic type? If so then in the PC you have a potentially limitless canvas, not to mention a huge choice of software with which to realise your potential. Here's a selection of the best for budding Renoirs.

Product	Price	Supplier	Comments
VBase	£175.08	Highland Grafix	Full colour picture database
Clip Art	£5.88	Cybernetic Imagination	Range of disks containing 30 images each in PCX or IMG format
Deluxe Paint II Enhanced	£99.99	Electronic Arts	The standard cheap paint program for PCs
Deluxe Paint Animator	£99.99	Electronic Arts	One of a range of DPaint add-ons
Disney Animation Studio	£99.99	Empire	Cel animation package
Corel Draw v2	£270.25	Corel	Very popular and versatile

DTP SOFTWARE

The PC has always been a superb machine for DTP applications, and now that Windows 3 is firmly established this is even more the case. There are already a host of excellent DTP packages available for the PC at prices to suit every pocket. Here is just a small selection.

Product	Price	Supplier	Comments
Page Plus	£160.98	Serif	Budget priced page layout for Windows
Timeworks Lite	£41.13	GST	Simple DTP
Deskpress	£235.00	GST	Timeworks and more!
Pagemaker	£457.08	Aldus	Professional DTP package
Ventura Publisher	£587.50	Ventura	Professional DTP Package
Timeworks DTP 2	£116.33	GST	Improved version of the budget system

COMMUNICATIONS SOFTWARE

If you're one of those sociable types that likes to to link-up, go on-line, and download from time to time then you're going to need some suitable software to get in touch with your fellow PC owners. There are plenty of packages to choose from, especially in the Public Domain libraries. Here are a few we recommend you consider.

Product	Price	Supplier	Comments
Sage Chit-Chat	£66.98	Computers By Post	
Crosstalk	£71.68	Computers By Post	For Windows 3
Eazlink	Shareware	Various	Try before you buy!
Mirror 3	£121.03	Computers By Post	With teletext emulation
PC Anywhere IV	£101.05	Computers By Post	
Procomm Plus	Shareware	Various	Very Powerful System

COMPOSING SOFTWARE

Gone are the days when you had to sit huddled over a second-hand Bontempi scratching notes onto a piece of torn manuscript. Most modern PC music packages make life a lot easier, some will even construct the score for you!

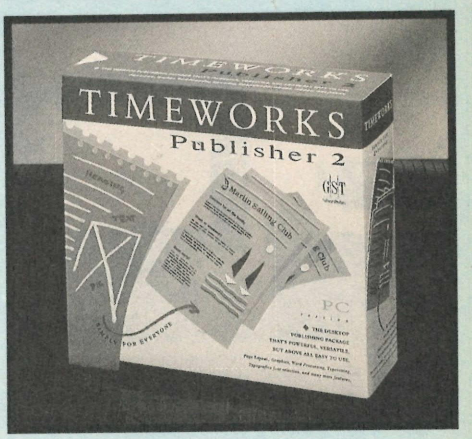
Product	Price	Supplier	Comments
Music Studio 3	£70.50	Datel	Sequencer, composer, score printing.
SPJunior	£163.325	Computer Music Systems	Music package
Sequencer plus Junior	£64.63	Computer Music Systems	64 track sequencer
Sequencer Plus Classic	£193.88	Computer Music Systems	500 track sequencer
Cadenza	£198.58	Digital Music	Sequencer with graphic editing
The Musicator	£368.95	Digital Music	Notation based sequencer
The Composer's Pen	£146.88	Composit Software	
Pianola	£29.38	Clockwork Software	

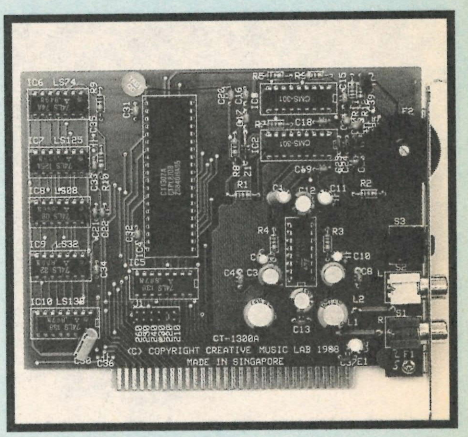
GAMES ALL AT SEA

Pirates (MicroProse)
Silent Service II (MicroProse)
Carrier Command (MicroProse!)
The Secret Of Monkey Island (Lucasfilm)
Raise The Titanic (Capstone)
Virgin Atlantic Challenge (Virgin Games)

DEALER DIRECTORY







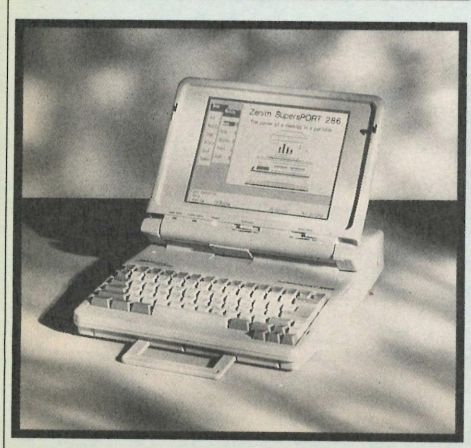


DEALER DIRECTORY









ANTI VIRAL

It's a sad state of affairs that Anti-Viral software is needed at all, but unfortunately there are still lots of people out there in computerland who haven't grown up and think it's funny to wreck other people's work and enjoyment of their machine. Naturally the same people don't think it's very funny when it happens to them. If you are one of these people then may we express complete contempt for your activities on behalf of the computing community. If you're one of the remaining 99.9% of decent, honest computer users, here are a few useful pieces of software to protect you from the aforementioned nerds.

Product	Price	Supplier
Dr Solomon's Anti-Virus Toolkit	£69.33	S&S International

Comments: £99 for 4 quarterly upgrades; £275 for upgrades, monthly newsletter and fax alerts. Complete kit of tools for identification, removal of and immunisation against the dreaded virus, with other disk goodies too.

The Computer Virus Protection Handbook (Colin Haynes) ISBN 0-89588-696-0	£27.00	Sybex

Comments: Includes 5.25" disk: The what, how and why of viruses including simulated ones on disk for quick recognition. Also covers disaster plans and industrial sabotage.

The Computer Virus Handbook (Richard B. Levin) ISBN 0-07-881647-5	£22.95	Osborne McGraw-Hill

Comments: Lots of advice and short programs to avoid virus attacks. Covers hard disks too.

PC Immunise II	£39.95	SA Software

Comments: Protects hard and floppy disks and files with three levels of detection and help screens.

MISCELLANEOUS UTILITIES AND PRODUCTIVITY SOFTWARE

Can't find what you're looking for in our other software sections? Then you'll probably find it here. Below we present a pot pourii of the very best of the rest.

Product	Price	Supplier	Comment
Autoroute Express	£61.10	NextBase	First rate route planning software
Coursemaster	£29.38	IntraSet	Betting aid for flat & hunt racing
Eight In One Gold	£115.15	Logman Logotron	Integrated WP, spellchecker, outliner, spreadsheet, database etc.
Flexibak Plus	£35.25	Nildram	Hard disk back-up utility
Framework IV	£458.25	Ashton-Tate	One of the better integrated systems
LogoLink	£34.08	Locomotive	Transfer files PCW-PC
Microtext Adaptor	£198.58	Microtext	Half card adding teletext to your PC
Mini Office Personal	£29.38	Europress	Database, WP, spreadsheet, label printer and comms.
Money Manager	£58.75	Connect Software	Household Finance
PC2 Teletext	£176.25	Microboss	External teletext adaptor and software
Printing Press	£45.83	Power Up	Make letterheads, posters etc
ProBook	£52.88	BBHW	Database and address book
Scoredraw	£72.00	RDN	Comparative analysis system for football result prediction
Trackmaster	£20.00	Intraset	Greyhound racing tipster
Xtree Easy	£58.75	Softsel	DOS File manager

PC ancillary

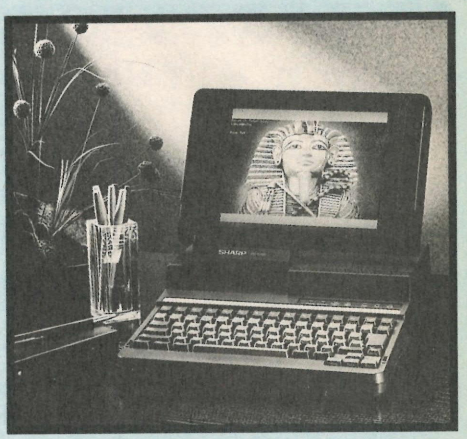
PORTABLES

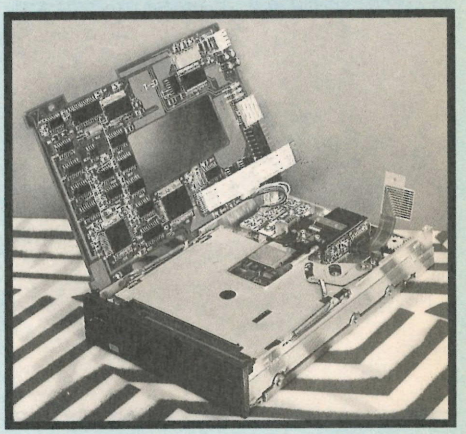
Whether for games or more serious use, a portable enables you to take your programs with you. Most are best used when you are able to plug into the mains on-site: battery power normally lasts between 1.5 to 3 hours. Portables are now becoming genuinely slim and light enough to carry around in comfort.

Company/Model	Price (ex. VAT)	Speed	Disk Size	RAM
Screen	Slots	Weight	Size (mm)	
Amstrad ACL-386SX	£3,999	20 Mhz	120 Mb	4 Mb
VGA LCD	Yes	8.0 Kg	320x400x113	
Compaq SLT 386S/20	£4,195	20 Mhz	60 Mb	2 Mb
VGA LCD	Yes	6.4 Kg	106x343x216	
Dell System 320LT	£1,999	20 Mhz	20 Mb	1 Mb
VGA LCD	Optional	6.8 Kg	318x89x360	
Epson AX 3/33	£5,999	33 Mhz	80 Mb	4 Mb

VGA LCD	Optional	7.8 Kg	360x325x110	
NEC Prospeed 286	£3,145	16 Mb	40 Mb	1 Mb
VGA LCD	No	6.8 Kg	330x376x89	
Olivetti A12	£1,199	12 Mhz	20 Mb	1 Mb
CGA LCD	No	2.95 Kg	297x210x52	
Panasonic CF-270	£2,195	16 Mhz	20 Mb	1 Mb
VGA LCD	No	3.1 Kg	310x245x44	
Philips PCL101	£799	10 Mhz	No	1 Mb
CGA LCD	No	1.6 Kg	220x280x28	
Samsung 386S/16	£2,220	16 Mhz	60 Mb	1 Mb
VGA LCD	No	3.2 Kg	297x213x51	
Sanyo MBC-17NB	£1,495	12.5 Mhz	20 Mb	1 Mb
VGA LCD	No	3.2 Kg	310x255x52	
Sharp PC-8501	£7,995	20 Mhz	100 Mb	2 Mb
VGA LCD	No	6.9 Kg	318x399x94	
Tandy 1500HD	£1,300	10 Mhz	20 Mb	1 Mb
CGA LCD	No	2.7 Kg	309x245x94	
Toshiba T3100SX	£3,850	16 Mhz	40 Mb	1 Mb
VGA Plasma	Optional	6.8 Kg	360x310x80	
Zenith Supersport SX	£2,795	16 Mhz	40 Mb	1 Mb
VGA LCD	No	7.7 Kg	380x310x85	

DEALER DIRECTORY





MAINTENANCE AND REPAIR

A variant of Parkinson's Law states that your computer probably won't go wrong while you still have that 12 month, on-site warranty intact. Once it expires, that's when the machine will start playing up. Below we list some of the companies which will provide you with a service contract and then come to your rescue.

Company	Price	Duration	Call Out
ACL Computers Data Recovery Service	Cost varies	na	na
AEM	10-12% value	5 years	24-48 hours
FMG	Up to £470 PA	5 years	Next day
Kalamazoo	9-12% of value	5 years	8 hours
Newbury Data	6-12% of value	Flexible	8 hours
Response	8-11% of value	Flexible	8 hours



PC directory

Below you'll find contact numbers and addresses for all the suppliers we've mentioned in the sections covering hardware and serious software.

ABS Computer Supplies 071 224 8320
4 Shouldham Street, London, W1H 5FG.

ACL Computers 081 341 3329
395 Archway Road, Highgate, London, N6 4ER

Acolyte Services 041 848 0055/0066
Victoria Buildings Business Centre, Violet Street, Paisley, PA1 1PA.

AEG 0753 630111

Agenda 081 681 7777

AKORE Shareware 0800 252221
Freepost, Akore, Nottingham, NG1 1BR

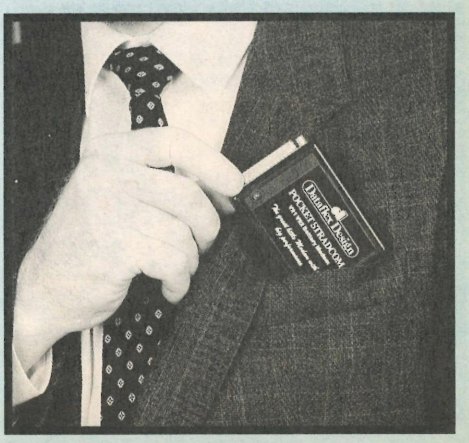
American Research Corporation 081 684 4144

Amstrad (Centresoft) 021 625 3302

Arche Technology 0602 862700

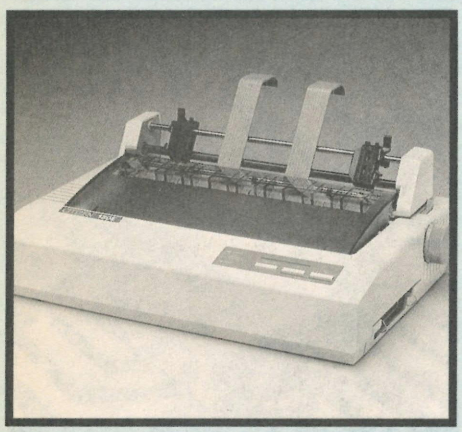
Arnor 0733 68909

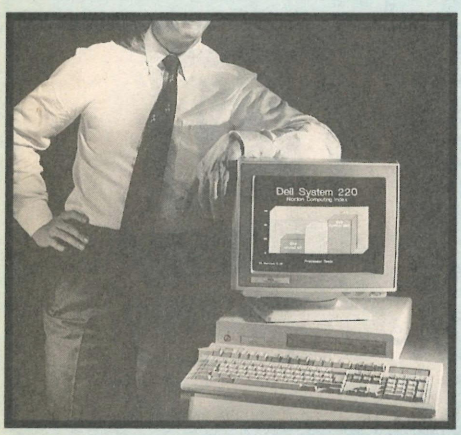
Brother 061 330 6531



DEALER DIRECTORY









Cambridge Computer	0223 312216
Canon	081 773 3173
Citizen Europe	0895 272621
Compaq	081 332 3000
Composit Software	0952 595436
10 Leasowe Green, Lightmoor, Telford, Shropshire, TF4 3BR	
Compuadd	0272 637488
Computer Bookshops	021-706 1250
Computer Mates	0753 631101
Pinewood Studios, Iver Heath, Bucks, SL0 0NH.	
Computer Music Systems Ltd	071 482 5224
5-7 Buck Street, London, NW1 8NJ	
Computers By Post	081 760 0014
12 Sutton Lane, Banstead, Surrey, SM7 3QP.	
Connect Software Ltd	081 743 9792
3 Flanchford Road, London, W12 9ND	
Corel	
PO Box 160, Southall, Middx, UB2 5BR	
Corporate Upgrades Ltd	081-893 8161
Cybernetic Imagination Systems Ltd	0923 52196
21A Church Road, Watford, Herts, WD1 3PY	
Dataflex	081 543 6417
Premier House, Gayton Road, Harrow, Middx, HA1 2XU	
Dataplex	0753 535557
129 Bath Road, Slough, Berks, SL1 3VW.	
Datel Electronics Ltd	0782 744324
Govan Road, Fenton Industrial Estate, Fenton, Stoke-on-Trent, ST4 2RS	
Dell	0800 414535
Diamond Computers	071 580 4355
232 Tottenham Court Road, London, W1.	
Digital Music	0703 25213127
Leven Close, Chandlers Ford, Hants, SO5 3SH	
Dimension Computers Ltd	0533 517479/621874
Dimension House, High Street, Leicester, LE1 4FP.	
Dowty	0635 33009
DS Computers	071-281 5096
Unit 206, Belgravia Workshops, 157 Marlborough Road, London, N19 4NF.	
Elonex	081 452 4444
Epson	0442 61144
Evesham Micros	0386 765500
Unit 9, St. Richards Road, Evesham, Worcs, WR11 6XJ	
GST	0480 496789
Hayes	081 848 1858
Hewlett Packard	0344 369369
Highland Graphix Ltd	0294 61121
APL Centre Stevenston, Ayrshire, KA20 3LR	
IBM	081 747 0747
Intraset Ltd	0257 276800
10 Woodside Ave, Clayton-le-Woods, Chorley, Lancs, PR6 7BR	
Kodak	0442 61122
KSI	0590 644255
Unit 1, Braxton Courtyard, Lymore Lane, Milford-On-Sea, Lymington, Hants, SO41 0TX.	
Logitech	0753 537222
Longman Logotron	0223 323656
Dales Brewery, Gwydir Street, Cambridge CB1 2LJ	
Mannesman Tally	0734 788711
Maplin Electronics	0702 552911
Memory Direct	0252 316060
35 Grosvenor Road, Aldershot, Hants., GU11 3DP	
Micro Peripherals	0256 473232
Microsoft	0734 391123
Microtext	0705 5956947
Birdlip Close, Horndean, Hants, PO8 9PW	
Mindscape	0444 831761
Miracom	0423 233888
Mitsubishi	0707 276100
Naksha	0925 56398

VIZ TRADE COMPANY LIMITED

293B London Road,
Burgess Hill, West Sussex
RH15 9QJ

Office Telephone: 0444 245935

GET ORGANISED! Call for details of the Psion 3!

'WYSIWYP'

What you see is what you pay! No hidden extras, No membership, No V.A.T. or delivery to add.

FLIGHT SIMULATOR/ATP

Flight Simulator 4	£35.99
Aircraft & Scenery Designer	£32.89
Airline Transport Pilot	£32.99
Japan Scenery Disk	£15.99
Hawaiian Odyssey	£15.99
Scenery Disk 7 (Washington)	£15.99
Scenery Disk 9 (Chicago)	£15.99
Scenery Disk 11 (Detroit)	£15.99
Scenery Disk 12 (NY/NH)	£15.99
Western Europe Scenery	£15.99
North West England 1*	£19.50
North East England 2*	£22.50

(*These require FS4,ASD,WE)

SOUND CARDS

Ad-Lib Music Card	£84.99
Ad-Lib MCA Version	£159.99
Personal Music System	£129.99
Visual Composer	£54.99
Instrument Maker	£34.99
Music Championship	£29.99
Programmes Manual	£29.99
Visual Comp/Midi Suppt	£29.99
Pop Tunes	£29.99
Soundblaster V2.0	£129.99
Soundblaster V1.6 MCA	£189.99
Soundblaster V2 Starter Pack	£169.99
Roland LAPC-1	£275.00
Voyeta Sequencer Junior	£55.00
SP Midi Box and SpJr 1/1	£52.99
SP Midi Box and SpJr 1/5	£69.99
Soundblaster Pro	229.95

PC Titles	Our Sales
3D Construction Kit	£34.99
4D Sports Tennis	£27.99
A10 Tank Killer	£29.99
Action Stations	£34.99
Backgammon Royale	£24.99
Blue Max	£24.99
Captive	£21.99
Castles	£26.99
Chessmaster 2100	£19.99
Chessmaster 3000	£29.99
Chuck Yeager's Air Combat	£24.99
Clue	£17.99
Corporation	£25.99
Das Boot	£21.99
Elite Plus	£27.99
Entertainment for Windows	£29.99
Eye of the Beholder	£21.99
F-14 Tomcat	£29.99
F-15 Strikeeagle II	£29.99
Desert Storm Mission	£15.99
F-16 Combat Pilot	£21.99
F-19 Stealth	£27.99
F29 Retaliator	£27.99
F-117A	£32.99
Falcon 3.0	£41.99
Family Tree Maker	£42.98
Floorplan	£37.99
Friday Night Poker Club	£17.99
Gin & Crib King	£21.99
Go	£24.99
Golden Axe	£21.99
Gunship 2000	£29.99
Hardball II	£21.99
Heart of China VGA	£26.99
Hunt for Red October	£19.99
Jack Nicklaus Golf Unlimited	£29.99
Jack Nicklaus Greatest Golf	£16.99
Champ Courses of '89	£9.99
Golf Vacation	£9.99
Jetfighter II	£29.99
Kick Off 2	£19.99
Kings Quest V 16 Colour	£29.99
Kings Quest V 256 Colours	£29.99
Leisure Suit Larry	£19.99
Leisure Suit Larry 2	£25.99
Leisure Suit Larry 3	£29.99
Leisure Suit Larry 5	£33.99
Lemmings	£23.99
Life & Death	£17.99
Life & Death II	£21.99
Links	£29.99
Barton Hill Course	£13.99
Bay Hill Course	£13.99
Bountiful Course	£13.99
Firestone Course	£13.99
Hilton Dorado Course	£13.99
Pinehurst Course	£13.99
Links + Any 3 Course Disks	£67.99

PC Titles	Our Sales
Lost Admiral	£32.99
M1 Tank Platoon	£27.99
Mario Andretti's Racing	£22.99
Martian Dreams	£24.99
Mavis Beacon	£27.50
Megafortress	£24.99
MIG-29	£27.99
MIG-29 Super Fulcrum	£37.99
Moonbase	£29.99
Paperboy 2	TBA
Perfect General	£32.99
Personal Pro (Your Own Golf Pro)	£39.99
PGA Tour Golf	£24.99
Pipe Dream	£21.99
Populous/Simcity	£28.99
Prince of Persia	£22.99
Risk	£17.99
Robin Hood	£26.99
Rise of the Dragon	£28.49
Run Your Own Train	£32.99
Design Your Own Train	£44.99
Train Library	£25.99
Design Your Own Railroad	£44.99
Savage Empire	£24.99
Secret of Monkey Island	£22.99
Secret Weapons of the Luftwaffe	£29.99
Silent Service II	£25.99
Simearth	£29.99
Space Quest IV	£29.99
Speedball 2	£29.99
Strike Commander	TBA
Supremacy	£24.99
Test Drive II – The Duel	£17.99
Muscle Cars	£9.99
California Challenge	£9.99
Super Cars	£9.99
Test Drive II Compilation	£29.99
Test Drive III	£24.99
Toolworks Office Manager	£49.99
Tracon II	£27.99
Ultima IV	£21.99
Ultima V	£21.99
Ultima VI (Clue Books Available)	£22.99
Ultima VII	£35.99
UMS II	£27.99
Welltris	£24.99
Where in the USA	£22.99
Where in the World	£22.99
Where in Time	£22.99
Wing Commander 1	£24.99
Secret Mission 1	£10.99
Secret Mission 2	£10.99
Wing Commander 2	£29.99
Speech Accessory Pack	£15.99
Special Operations 1	TBA
Wonderland	£23.99
World Atlas V2.0	£59.99

► If you don't see what you want – call us ◄

JOYSTICKS ETC

Kraft K1-30 Joystick	£34.99	Prog Games Card	£34.99		£25.99
Thunderstick	£39.99	C H Prog Games Card		Phillips CM50 CD-Rom Drive	£Call
Trackball	£79.99	MCA Auto	£49.95	Hitachi CDR1700-S CD-Rom Drive	£Call
Toptrak	£79.99	Dexxa Mouse	£25.99		
Toptrak PS/2	£89.99	Naksha Series 3 (Amstrad Pc)			

HOW TO ORDER FROM VIZTRADE COMPANY LTD.

Cheques and major Credit Cards accepted.

► **BY PHONE: Call (0444) 239999.**

► **BY MAIL: Write to Viztrade Co. Ltd., Freepost, Burgess Hill, West Sussex RH15 9QJ,** enclosing full details of your order: preferred disk size, high density disks if required and daytime phone number.

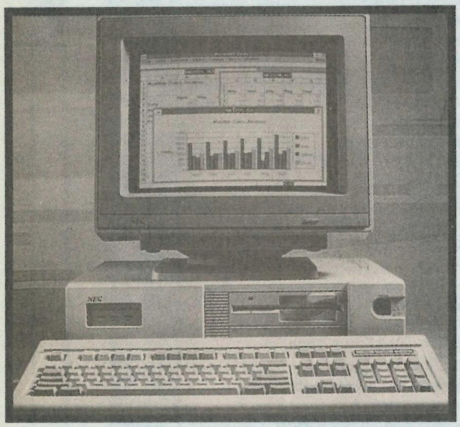
Please make cheques payable to Viztrade Co. Ltd.

► **To order from Abroad:** Deduct VAT (divide price given by 1.175), we will add cost of insured airmail – min. £4.00 per parcel.

NB If paying by cheque allow an additional 4/5 days for cheque clearance. Release dates for some items may well be changed by publication date – we apologise in advance! All prices are subject to change without notice. All products are offered subject to availability. We try to ship your order, subject to availability, within 24 hours of receipt – we are NOT responsible for delays in the mail system! E&O.E.

RING TELESALES ON (0444) 239999 or FAX (0444) 248996

DEALER DIRECTORY









NEC	0800 181368
Newstar International	0245 265017
NextBase Ltd	0784 460007
Unit 18, Central Trading Estate, Staines, Middx, TW18 4XE	
Olivetti	0908 690790
Pace	0274 488211
Panasonic	0344 853496
Penny & Giles	0202 4851751
Philips	081 689 4444
Picture Perfect UK Ltd	0264 333643
Power Mark	081 951 3355
Premier House, 112 Station Road, Edgware, Middx, HA8 7AQ.	
Precision Software	081 330 7166
Prestige Network Ltd	0276 60073510
Reynolds Green, Camberley, Surrey, GU15 4FL	
Psion	071 262 5580
Racal	0256 763 911
RDN Datasystems Ltd	0424 752288
PO box 44, Hastings, East Sussex, TN34 2SY	
Reeves PLC	0604 766433
Units 1&2, Pennard Close, Brackmills, Northampton, NN4 0BE.	
Roland	0252 816181
RSC	0923 243301
75 Queens Road, Watford, Herts, England, WD1 2QN.	
Samsung	081 391 0168
Sanyo	0923 246363
SA Software	081 998 2351
Seikosha	0753 685873
Serif (Europe) Ltd	0602 421502
Sharp	061 205 2333
SMC Computers	0573 550333
Softsel UK	081 568 8866
Softsel House, 941 Great West Road, Brentford, Middx.	
Tandy	0922 710000
Technomatic	081 205 9588
Techno House, 468 Church Lane, London, NW9 8UF.	
Time	0254 682343
Time House, Devonport Road, Blackburn, Lancs, BB2 1EJ	
Total Control (UK) Ltd	0488 685299
Unit 3, Station Yard, Hungerford, Berks, RG17 0DY	
Toshiba	0932 841600
Triumph Adler	0206 845251
UK Home Computers	0793 695034
Unit 22, Cheney Manor Industrial Estate, Swindon, Wilts, SN2 2PJ.	
Unimart Computers Ltd	081 893 8161
2 Popes Court, Popes Avenue, Twickenham, Middx, TW2 5TR.	
Victor	0494 461600
Watford Electronics	0923 37774/240588
250 Lower High Street, Watford, WD1 2AN.	
Westpoint Creative	0743 248590
Zenith	0268 668588

FLIGHT SIMULATORS WITHOUT F-NUIMBERS

The Flight Of the Intruder (Spectrum Holobyte)
Knights Of The Sky (MicroProse)
Red Baron (Dynamix)
Their Finest Hour (Lucasfilm)
Secret Weapons Of the Luftwaffe (Lucasfilm)
The Blue Max (Mindscape)
And Coming Soon...
Birds Of Prey (Electronic Arts)
ATAC (MicroProse)
Air Duel (MicroProse)
Reach For The Skies (Mirrorsoft)

PC games

FLIGHT SIMULATIONS

Ever since Microsoft released its first Flight Simulator way back in the 1980s they've been firm favourites with PC owners. Nowadays they're so realistic you need a parachute!

Chuck Yeager's Air Combat Electronic Arts £34.99
12MHz, Hard Drive
Latest, and probably the best, flight sim from programmer Brent Iverson at Electronic Arts. Light on ground targets and heavy on dogfighting and super-smooth graphics.

Elite Plus Firebird/Microprose £39.99
VGA
This space simulation has, frankly, never been bettered. No wonder Microprose preferred to upgrade the presentation (thus the plus) instead of completely reworking the game. Author David Braben is currently working on a sequel.

F-15 Strike Eagle II Microprose £35.75
12MHz, Hard Drive, VGA
Top quality sequel to one of most famous flight simulations ever released. Microprose recently brought out an accurate Desert Storm add-on scenario disk for gung-ho pilots.

F-117A Stealth Fighter Microprose £39.99
16MHz, Hard Drive, VGA
Can you handle the high-tech systems of this Bat-like plane? By the very nature of the radar-evading stealth fighter, don't expect much in the way of aerial dogfighting.

F-29 Retaliator Ocean £34.99
Hard Drive, EGA
All action cross between an arcade game and a flight sim which incorporates an exhilarating head-to-head mode for two players via modem link-up.

Flight Simulator 4 Microsoft £29.95
12MHz
Latest version of the one that started it all. Accurate and tough to fly simulation that has been used to train real-life Cessna 182 pilots in the past.

Gunship 2000 Microprose £39.99
16MHz, Hard Drive, VGA, AdLib, Roland
Feature-packed update of the best-selling helicopter game. Typical Microprose aircraft simulation: plenty of options, excellent graphics and a fair sprinkling of strategy.

Jet Fighter 2 Velocity/US Gold £39.99
16MHz, Hard Drive, VGA, AdLib
Laughable drug-busting scenario but, more importantly, extremely playable piece of entertainment set in the near-future. The built-in interactive hypertext help system is a neat idea.

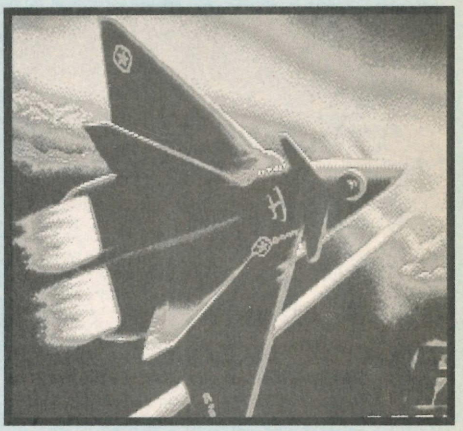
LHX Attack Chopper Electronic Arts £39.99
Hard Drive
Good choice for novice and expert desktop pilots alike. Brent Iverson, creator of all the top Electronic Arts flight simulations, certainly knows how to put a great game together.

Red Baron Dynamix/Sierra On-Line £39.99
16MHz, Hard Drive, VGA
A refreshing opportunity to tackle the hardships of biplane dogfighting during World War One. Sorry, there are no air-to-air missiles to help you out! Highly recommended.

Secret Weapons of the Luftwaffe Lucasfilm Games/US Gold £40.99
16MHz, Hard Drive, Expanded Memory, VGA, Joystick, AdLib, Soundblaster
Worth every penny just for the superb manual. Players have the choice of flying experimental German jet fighters or heavy-weight American bombers during the later part of WWII.

Starglider II Rainbird/Mirror Image £9.99
EGA, Mouse
Similar game play to the old Star Wars arcade machine from Atari but with far superior solid-3D graphics. Fine value.

DEALER DIRECTORY

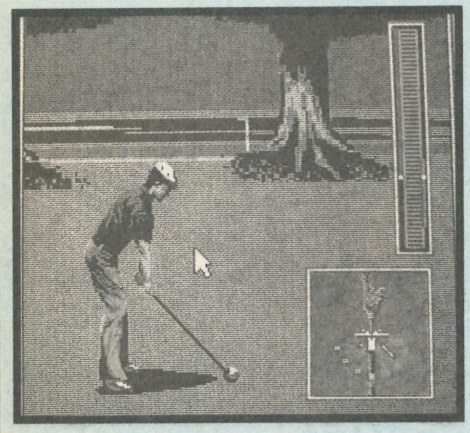


THE COMPUTER SHOP
Unit 250 Victoria Centre
Nottingham
NG1 3QQ
Tel: 0602 410633

THE COMPUTER SHOP
4 Friar Gate
Preston
Tel: 0772 201482

THE GAMES STORE
9 Naritime Terrace
Sunderland
SR1 3JT

DEALER DIRECTORY



THE GAMES STORE

Unit 121
Market Way
Arndale Centre
Manchester
M4 2EA

Tel: 061 832 0870

COMPUTER RUN

21 Stratten Way
Coxetors Yard
Abingdon
Oxon
OX14 3RJ

COMPUTER MAGIC

24 Crown Street
Ipswich
Suffolk

Tel: 0473 214868

Their Finest Hour: Battle of Britain Lucasfilm Games/US Gold £39.99
16MHz, Hard Drive, Joystick
Relive the trials and turmoil of the bleak summer of 1940. Atmospheric simulation of the crucial air war between the RAF and Luftwaffe.

Wing Commander 2 Origin/Mindscape £39.99
16MHz, Hard Drive (uses 21 megabytes), DOS 5.0, Expanded Memory, VGA, Joystick, Soundblaster
Landmark PC game which comes closer to an 'interactive movie' than anything before. If you've got a powerful system, you simply must buy this game!

OTHER SIMULATIONS

If the PC is capable of simulating sophisticated aircraft then its certainly capable of simulating lots of other things as well. Here you'll find everything from tanks to futuristic robots.

Battletech II Activision £35.99
12MHz, Hard Drive, VGA
FASA Corporation's monstrous battle robots make another appearance on the PC. Hardly a moments rest as you tackle the role of an interplanetary mercenary.

Carrier Command Rainbird/Microprose £25.53
Control a complete fleet of military planes, boats and vehicles and go island hopping before the enemy takes over. Looks a little dated but still has plenty to offer.

Designasaurus II Britannica Software/Active Sales £24.99
EGA
Amusing and 'educational' Do-It-Yourself dinosaur construction kit. How long will your creation survive in the wild? Full of fun and facts.

Life and Death II Software Toolworks £30.99
12MHz, Hard Drive, VGA, Mouse
How about this for off-beat? Try your hand as a brain surgeon. Examine the patient, make your diagnosis, get 'em on the slab and reach for the scalpel and drill. Brilliant stuff.

M1 Tank Platoon Microprose £40.86
12MHz, EGA, Hard Drive
Almost everything one could ever demand from a tank game. Perhaps too accurate a simulation for arcade fans, though.

Team Yankee Empire £35.75
12MHz
Inspired by the eponymous novel by Harold Coyle. Take control of a company of Nato tanks as the powerful Soviet Union war machine strolls into West Germany. Thematically very much out of date now, but look out for *Team Yankee II*

ARCADE GAMES

Although the PC is a good machine for those who like their games on the cerebral side, it has plenty to offer to those seeking action too. Here is a very small selection of the huge list of games currently available.

Golden Axe Virgin Games £29.99
12MHz, Joystick
One of the few conversions that does justice to the original arcade video game. Conan the Barbarian has nothing on the antics of Death Adder and his axe-wielding chums.

Interphase Imageworks £30.64
Surreal shoot' em-up for cyberpunks who like to think before they fire. Keep an eye out for the frogs.

It Came from the Desert Cinemaware £35.75
EGA
Tribute to the black & white B-movie *Them!* about giant mutant ants invading Los Angeles

Prince of Persia Broderbund/Domark £30.64
Joystick
Sword-play in the Sultan's court. Main character is superbly animated as he runs, leaps and fights his

way out of danger. Errol Flynn would be proud.

Rick Dangerous 2 Microprose £25.53
Joystick
The British answer to Indiana Jones. Jump on platforms, dodge alien traps and solve the puzzles. If only it was that easy...

Virus Firebird/Microprose £24.99
12MHz, Mouse
Cruise over a full 3D landscape and blow everything to bits. A little tricky to control but well worth the effort. Technically superb shoot 'em up from the hand of David Braben.

Xenon 2 Imageworks £9.99
16MHz, Joystick
A fast blaster from the now legendary Bitmap Brothers that looks good and really tests your reflexes. Excellent value for money, too.

PUZZLE GAMES

Say the term 'Puzzle Games' nowadays and most people instantly think of Tetris, but you may be surprised to find out how many others there are, and all just as compulsive. Try these out for starters

Lemmings Psygnosis £34.99
Mouse
Original and addictive, the surprise hit of 1991. Organise the pathetic little death-wish creatures through increasingly difficult levels of brain-teasing traps.

Klax Domark £7.99
EGA
Cheap, cheerful and colourful variation on the Tetris falling blocks theme. Instant decision making keeps the tension high.

Pipemania Lucasfilm Games/Empire £25.53
Another infuriatingly addictive offering. Players attempt to construct pipelines before some disgusting ooze drips onto the screen. Can you handle the pressure?

Tetris Infogrames £24.99
Who would have believed a Russian programmer could program one of the most famous video games since Space Invaders! Tetris spawned a whole batch of arcade puzzlers, many of them by the original author!. (Well, we had to have it in, didn't we!)

8 PEOPLE THEY WON'T GET TO ENDORSE A GAME

1 **HM Queen Elizabeth II**
2 **Saddam Hussein**
3 **Colonel Gaddaffi**
4 **Laurence Olivier** (Too Late!)
5 **John Gielgud** (Too Dignified!)
6 **Lord Lucan**
7 **Ronnie Biggs**
8 **Ian Paisley**

BOARD GAMES

Why bother to use a computer to play a board game? Well, for one thing there are no pieces to lose, and for another, it's so much more difficult to cheat!

Battlechess Interplay/Electronic Arts £24.99
Hard Drive, VGA, Mouse
This is no ordinary adaption of chess. Watch the Rook transform into a rock monster and crush a cowering pawn or the Queen zap a knight. Unbeaten animation and a great sense of humour.

Cluedo, Scrabble, Risk, Diplomacy Leisure Genius £24.99

DEALER DIRECTORY

SOFT SPOT
5-6 Broad Street
Banbury
Oxon
Tel: 0295 268921

CRAWLEY COMPUTERS
54 The Boulevard
Crawley
West Sussex
RH10 1HH
Tel: 0293 561656

THE COMPUTER AND GAMES CENTRE
33-34 St Nicholas Cliff
Scarborough
Tel: 0723 500505

TAUNTON MICRO CENTRE
Unit 25
Old Market Centre
Taunton
Somerset
Tel: 0823 336118

DEALER DIRECTORY

A-Z COUNTY SUPPLIES

23A Lower Mall
Weston Farrell Centre
Northampton
NN3 4JZ

Tel: 0604 414528

WORTHING COMPUTER SUPPLIES

7 Warwick Street
Worthing
West Sussex
BN11 3DF

VIKING COMPUTER CENTRE

Andrey Rise
Castongrove Road
Norwich
Norfolk
NR3 3QH

TOPSOFT

3 Hambletonian Yard
Stockton-on-Tees
Cleveland
TS18 1BB

Tel: 0642 670503

These four successful board-games cost £24.99 each, a lot more than the original board versions!

Laptop Chess Software Toolworks £25.99
One of the few games suitable for PC players on the move. Take a welcome break from that spreadsheet number-crunching.

Shanghai II Activision £35.99
Ancient Chinese game of Mah Jong will keep you glued to the PC for hours on end.

Trivial Pursuit Domark £24.99
The game that launched thousands of trivia bores comes to your micro. How many games were released for the PC in 1989? Answers on a postcard to...

10 SIMULATORS WITHOUT PLANES

1 **Team Suzuki** (Gremlin)
2 **M1 Tank Platoon** (MicroProse)
3 **Powerboat** (Accolade)
4 **Gunship 2000** (MicroProse)
5 **RAC Lombard Rally** (Mandarin)
6 **LHX Attack Chopper** (Electronic Arts)
7 **Test Drive 3** (Accolade)
8 **4D Sports Boxing** (Mindscape)
9 **4D Sports Driving** (Mindscape)
10. **Indianapolis 500** (Electronic Arts)

SPORTS GAMES

4D Sports Boxing Mindscape £30.99
Hard Drive
Not really a journey into the fourth dimension, just a damn fine game of fisticuffs. Make sure you train your boxer in the gym before the big one.

4D Sports Driving Mindscape £30.99
12MHz, Hard Drive, VGA
A better *Hard Drivin'* game than the official conversion. Fill the racetrack with all sorts of high-bends and loop-the-loops in the built-in construction set, then burn rubber.

4D Sports Tennis Mindscape £30.99
Hard Drive
This playable piece of simulation software completes the 4D Sports series developed by Canadian coders DSI for Mindscape. Use the impressive replay options to relive your best moves.

Budokan Electronic Arts £10.99
Hard Drive, EGA
Slightly more high-brow martial arts mayhem than the Bruce Lee competition from Software Toolworks. The definitive PC beat 'em-up has yet to appear. Still, you can't beat the price.

Indianapolis 500 Electronic Arts £24.99
12MHz, Hard Drive
Incredibly realistic 3D polygon-based graphics help to recreate the excitement of the real high-powered race.

PGA Tour Golf Electronic Arts £29.99
Mouse
Easily the best golf game available.

Mario Andretti's Racing Challenge Electronic Arts £29.99
12MHz, Hard Drive, EGA
Successor to EA's Indianapolis 500 which follows the career of this famous driver. Jump behind the steering wheel of just about every style of racing car around.

Speedball 2 Imageworks £35.99
16MHz, VGA, Joystick
Remember the cult 1970s movie *Rollerball* starring James Caan? *Speedball 2* is an equally violent and compelling futuristic sport. The original Speedball is now available for £9.99 from Mirror Image.

TV Sports Football Mirror Image £9.99
EGA
Possibly the most popular title in the Mirror Image budget line so far. Takes a more arcadey tone than the strategy-heavy John Madden's American Football from Electronic Arts.

ROLE PLAYING GAMES

The nice thing about computer RPGs is that you get the machine to do all those horribly boring things like calculate the results of combat and how long torches burn for, and who's got what spells, that make traditional table-top RPGs such a chore. To top it all you get some pretty graphics too.

Corporation Core Design £34.99
Hard Drive, EGA
Premier release from Derby-based developer turned publisher Core Design shows veteran developers a thing or two. Players try to steal laboratory secrets from a sinister corporation. Beware of the peculiar security guards.

Eye of the Beholder SSI/US Gold £29.99
12MHz, Hard Drive
One of the best-selling games of 1991. You may just get a felling of deja vu if you've ever played *Dungeon Master* from FTL/Mirrorsoft. Superior graphics to the average SSI release.

Megatraveller 1 Paragon/Empire £34.99
Hard Drive
Based on the popular sci-fi gaming system from the Game Designer's Workshop. Enormous amount of depth but don't expect any fancy graphics and beware the idiosyncratic combat system.

Martian Dreams Origin/Mindscape £36.99
16MHz, Hard Drive, Expanded Memory, VGA, AdLib, Roland
Inventive mix of fact and fiction, as famous Victorian personalities like HG Wells and Rasputin go to Mars. All-round winner with pretty 'steampunk' visuals.

Might and Magic III New World Computing/US Gold 0£40.99
12MHz, Hard Drive, VGA, Soundblaster
After the success of *Ultima VI* and *Eye of the Beholder*, everybody is improving the audio visual presentation of their role-playing games. Hurrah!

Savage Empire Origin/Mindscape £35.99
12MHz, Hard Drive, Expanded Memory, VGA, AdLib, Roland
The first 'Worlds of Ultima' game to use the *Ultima VI* game engine. Reminiscent of classic pulp fiction, with a lost land occupied by dinosaurs and other malevolent forces.

Ultima VI Origin/Mindscape £35.99
12MHz, Hard Drive, AdLib, Roland
Latest in the highly-regarded series of fantasy role-playing adventures. Every Ultima is a new experience not to be missed.

FIVE ESSENTIAL PUZZLE GAMES

1 **Tetris** (Infogrames)
2 **Pipemania** (Entertainment International)
3 **Klax** (Domark)
4 **Lemmings** (Psygnosis)
5 **Shanghai 2** (Accolade)

DEALER DIRECTORY

CHIPS
151-153 Lynthorpe Road
Middlesbrough
Tel: 0642 232096

THE MICRO CENTRE
15 London Road
Portsmouth
Tel: 0705 697882

OHM ELECTRONICS
515 Pinner Road
Brockley
London
Tel: 081 314 0303

COMPUTER ADVENTURE WORLD
1A Bank Buildings
Charing Cross
Birkenhead

DEALER DIRECTORY

JOYSTICKS

**130 Victoria Road West
Cleveleys
Blackpool**

Tel: 0253 862718

THE COMPUTER SHOP

161 Linthorpe Road
Middlesbrough
Cleveland
TS1 6HO

Tel: 0642 247553

THE COMPUTER STORE

**34-36 Ivygate
Bradford
West Yorkshire**

Tel: 0302 890000

VIKING COMPUTER CENTRE

Andrey Rise
Castongrove Road
Norwich
Norfolk

GRAPHIC ADVENTURES

While there are those who lament the demise of the traditional *Colossal Caves* style text adventure, the new breed of all-singing all-dancing graphic adventures have won new converts to the genre.

Future Wars Delphine/US Gold £25.99
EGA
This was the premier Cinematique game from French software house, Delphine Software. Impressive game engine coupled with ingenious puzzles to solve.

Leisure Suit Larry V Sierra On-Line £44.99
12MHz, Hard Drive, VGA, Mouse, AdLib, Roland
That infamous pervie is back in an all-new adventure. This is the first release to use the refined game system from Sierra On-Line. Unsuitable for younger players or those of a stern moral character.

Heart of China Dynamix/Sierra On-Line £39.99
12MHz, Hard Drive, VGA, Mouse, AdLib, Roland
From the team that brought us *Rise of the Dragon*. The graphics are stunning, they truly have to be seen to be believed.

King's Quest V Sierra On-Line £44.99
12MHz, Hard Drive, VGA, Mouse, AdLib, Roland
Prime example of the new breed of ground-breaking games from Sierra On-Line. Fantastic visuals, superior music score and lots to explore.

Rise of the Dragon Dynamix/Sierra On-Line £39.99
16MHz, Hard Drive, VGA, Mouse, AdLib, Roland
Another startling example of an 'interactive movie'. Players get the chance to play detective against a cyberpunk setting straight out of the film *Blade Runner.*

Secret of Monkey Island Lucasfilm Games/US Gold £29.99
12MHz, Hard Drive, VGA, AdLib, Roland
Lucasfilm Games recently updated this entertaining swashbuckling yarn with beautiful 256-colour backdrops. Employs innovative point 'n' click interface and movie-like presentation.

FIVE ROLE-PLAYING EXTRAVAGANZAS
1 **Dungeon Master** (FTL)
2 **Eye Of The Beholder** (SSI)
3 **Corporation** (Core Design)
4 **Ultima VII** (Origin)
5 **Captive** (Mindscape)

TEXT ADVENTURES

Whoever said the text adventure was dead? Well, Okay, it may have disappeared in its original form, and the offerings here may have all sorts of souped-up static graphics and sophisticated parsers, but they're essentially text adventures nonetheless.

The Magnetic Scrolls Collection Magnetic Scrolls/Virgin Games £34.99
Value for money compilation of some of the best text adventures ever devised. Pack includes *Fish!*, *Corruption* and *Guild Of Thieves.*

Hitchhiker's Guide to the Galaxy Infocom/Virgin Mastertronic £9.99
Based on the popular Douglas Adams novel, radio series and T-shirts. A computing enthusiast himself, Douglas helped in the design of the game.

Leather Goddesses of Phobos Infocom/Virgin Mastertronic £9.99
Strange, whip-tickling sci-fi adventure. Originally sold with a disgusting scratch 'n' sniff card.

Wonderland Magnetic Scrolls/Virgin Games £34.99
Interactive adaption of the classic Lewis Carrol book. Incorporates many innovative features and shows there is still life in the text-based adventure.

Zork I, II & III Infocom/Virgin Mastertronic £9.99
Classic text adventuring trilogy from the microcomputer pioneers of the genre.

STRATEGY GAMES

If you think that computer strategy games are boring then it's probably true that either (a) you've never played one, or (b) you haven't played one in the last half a decade. (My slightly reserved apologies to those of you who genuinely can't stand anything but shoot 'em ups). If that is the case, try some of these – you'll be pleasantly surprised.

Balance of Power 1990 Mindscape £25.99
The power of economic politics and strategic diplomacy are evident in what is perhaps the best example of a Chris Crawford game.

Centurion: Defender of Rome Electronic Arts £24.99
Hard Drive, EGA
Meet Cleopatra, enter a chariot race, fight a sea battle or conquer foreign lands. Bet you never knew life in Ancient Rome could be so much fun!

Railroad Tycoon Microprose £35.75
Hard Drive
Build yourself a railroad empire during the golden years of locomotion in the USA or Europe. This off-beat computerised train-set deservedly attracted loads of accolades.

Sentinel Firebird/Microprose £24.99
Mouse
Classic game that defies description. Simple, surreal and completely captivating.

Silent Service II Microprose £39.99
Hard Drive
Absorbing Second World War submarine simulation from the designer of *Gunship*, *F-19* and *M1 Tank Platoon*. Historically and technically accurate but still fun to play.

Supremacy Virgin Games £34.99
First-rate introduction into the complex world of strategy gaming as you create a star-spanning empire in the face of hostile opposition.

Tracon II Wesson International/Mindscape £45.99
EGA
Another unusual release from Mindscape. This time you're in the role of an air-traffic controller. Bit expensive but worth a look.

Universal Military Simulator 2 Microprose £40.87
Hard Drive, EGA
No dedicated strategist should be without this one. Flexible program where the wargamer can alter just about every battlefield factor. Up to 50 players can take part in a single game.

10 FILM LICENSES

1 **The Terminator** (Bethesda Software)
2 **Terminator 2** (Ocean)
3 **Indiana Jones And The Temple Of Doom** (Lucasfilm)
4 **Back To The Future II** (Mirrorsoft)
5 **Star Trek V** (Mindscape)
6 **Robocop 2** (Ocean)
7 **The Hunt For Red October** (Grandslam)
8 **Red Storm Rising** (MicroProse)
9 **The Neverending Story 2** (Linel)
10 **Flight Of The Intruder** (Spectrum Holobyte)

GOD SIMS

Everyone likes to exercise their ego once in a while and your computer is the perfect object to carry out your plans for world domination. These programs represent the closest you'll get to being God without becoming a magazine publisher.

Castles Interplay/Electronic Arts £34.99
12MHz, Hard Drive, EGA
Another hybrid, influenced by SimCity and more traditional role-playing games, has you fending off medieval hordes by constructing castles, raising a few armies and keeping the local peasants happy.

DEALER DIRECTORY

THE COMPUTER STORE
Penn Square
The Wool Shop
Halifax
West Yorkshire
Tel: 0302 890000

THE COMPUTER STORE
125 Pinstone Street
Sheffield
Tel: 0302 890000

GAMES EXPRESS
2 Elsiemald Road
Brockley
London
Tel: 081 314 0303

THE COMPUTER STORE
41A Broadwalk
Broadmarsh Shopping Centre
Nottingham
Tel: 0302 890000

Moonbase Wesson International/Mindscape £45.99
EGA
Sort of SimCity in space but not quite in the same league as the influential Maxis game.

Populous Electronic Arts £10.99
EGA, Mouse
Very original game placing you in the role of a digital deity with almost total control over your little people. An essential purchase at this price. If you like it look out for *Populous II.*

SimCity Maxis/Infogrames £30.64
EGA, Mouse
Best-selling urban management game. Will you build your city with rock 'n' roll? Now sold with *Populous* as the ultimate megalomaniac compilation.

SimEarth Maxis/Ocean £39.99
12MHz, Hard Drive, EGA, Mouse
Not so much a game as a science project. Based on the Gaia Hypothesis developed by James Lovelock, it lets you take control of our planet and guide its evolution or even form more hostile worlds.

DEALER DIRECTORY

THE COMPUTER STORE

ST SAMSON SQUARE
York

Tel: 0302 890000

THE COMPUTER STORE

4 Market Place
Huddersfield
West Yorkshire

Tel: 0302 890000

THE COMPUTER STORE

40 Trinity Arcade
Bond Street Centre
Leeds

Tel: 0302 890000

THE GAMES STORE

66 The Pallasades
City Centre
Birmigham
B24 XJ

Tel: 021 633 3837

THE SHORT STRAW

If you've been having a little trouble getting someone to sell you blank disks recently, then don't worry. It's not that the existing disk formats have become obsolete overnight. While the citizens of Eastern Europe have been suffering from chronic shortages of basic foods, we in the UK are currently plagued by a disk shortage. It seems that the demand for disks has been so high of late that supply has not been able to keep up with demand!

PC directory

Here are all those essential contact numbers for the publishers of the games software we've mentioned in the previous pages.

Active Sales and Marketing	081 752 0260
Activision	010 331 49109995
Britannica Software	081 752 0260
Broderbund	081 780 2222
Cinemaware	071 928 1454
Core Design	0332 297797
Delphine	021 625 3366
Domark	081 780 2222
Dynamix	0734 303322
Electronic Arts	0753 549442
Empire	0268 541126
Firebird	0666 504326
Imageworks	071 928 1454
Infocom	081 960 2255
Infogrames	071 738 8199
Interplay	0753 549442
Leisure Genius	081 960 2255
Lucasfilm Games	021 625 3366
Magnetic Scrolls	081 960 2255
MicroProse	0666 504326

Microsoft	0734 500741
Mindscape	0444 831545
Mirror Image	071 928 1454
New World Computing	021 625 3366
Ocean	061 832 6633
Origin	0444 831545
Paragon	0268 541126
Psygnosis	051 709 5755
Rainbird	0666 504326
Sierra On-Line	0734 303322
Software Toolworks	0444 831545
SSI	021 625 3366
US Gold	021 625 3366
Velocity	021 625 3366
Virgin Games	081 960 2255
Wesson International	0444 831545

HANDY HINTS

If you are always running out of memory when you are trying to load games here's a quick solution. Format a blank disk as a System disk and use this to startup your PC before you try to load a memory hungry game. This should do the trick, but you will have to remember to install any mouse driver that was previously installed automatically by your AUTOEXEC.BAT file.

ATTENTION: MANUFACTURERS, DISTRIBUTORS, PUBLISHERS AND RETAILERS

While we aim to make the buyer's guide as comprehensive possible we need your help to keep our readers informed of all your special offers and promotional deals. If you have any forthcoming promotions or special offers which would be of interest to PC owners, let us know and we'll tell our readers.

ATTENTION: READERS

We hope that you've found the buyer's guide useful and entertaining, but we also want to keep improving it to meet your needs. The only way we can do that is if you let us know what you think. Tell us what you like or dislike, what sections you'd like to see added or changed, and we'll do our best to accommodate the most popular suggestions. Please write to us at the address at the front of the magazine. We're sorry that we can't listen to your suggestions by phone but we're all far to busy putting together the best magazine for leisure activities on the PC.

DEALER DIRECTORY

THE COMPUTER STORE

13 Westmoorland Street
Wakefield
West Yorkshire

Tel: 0302 890000

THE COMPUTER STORE

44 Market Street
Barnsley
Yorkshire

Tel: 0302 890000

THE COMPUTER STORE

21A Printing Office Street
Doncaster
South Yorkshire

Tel: 0302 890000

THE COMPUTER STORE

42 High Street
Scunthorpe

Tel: 0302 890000

Games Express

VISA





ADVENTURE / ROLE PLAY

Bards Tale Construct. Set	£29.99
Battletech 2: Crescent Hawks	£29.99
Conan the Cimmerian	TBA
Dungeon Master	£29.99
Elvira 2: Jaws of Cerberus	£29.99
Flames of Freedom	£29.99
Heart of China	£29.99
Heroquest	£28.99
Killing cloud	£26.99
Magic Candle 2: 4 & 40	£29.99
Megatraveller 2	£27.99
Planets Edge	£29.99
Police Quest 3	£32.99
Secret of Monkey Island 2	£30.99
Shadow Sorcerer	£29.99
Spellcast 201 (Sorc. Appliance)	£29.99
Star Trek 25th Anv.	£29.99
Twilight 2000	£28.99
Ultima 7	£30.99
Willie Beamish	£32.99

SIMULATIONS

A-10 Tank Killer	£29.99
Chuck Yeager's Air Combat	£25.99
Cybercon 3	TBA
Space Shuttle	TBA
EPIC	£29.99
F117A Stealth Fighter	£30.99
Falcon 3.0	£30.99
Gunship 2000	£29.99
Wing Commander 2	£28.99

SPORT

4-D Sports Driving	£22.99
Battlechess for Windows	£25.99
Chessmaster 3000	TBA
Earl Weaver Baseball 2	£23.99
Formula 1 Grand Prix	£30.99
J Nicklaus Unlimited Golf	£30.99
Links	£30.99
Links Courses	£12.99
Mike Ditka Ult. Football	£30.99
Speedball 2	£25.99
Team Suzuki	£24.99
T LaRussa Ult. Baseball	£25.99

STRATEGY

Bandit Kings of Ancient China	£29.99
Breach 2	£23.99
Civilization	TBA
Elite Plus	£29.99
Floor 13	£28.99
Ghenghis Khan	£29.99
Harpoon	£29.99
Powermonger	£29.99
Railroad Tycoon	£29.99
Sim Earth	£29.99

GENERAL

Lemmings	£25.99
Magnetic Scrolls Pack	£25.99
Sim City / Populous	£25.99
Life and Death 2	£22.99

PC GAMES OUR SPECIALITY!
IF YOU DONT SEE
WHAT YOU WANT
RING US

GAMES EXPRESS Hours Mon - Sat 8am - 9pm
Sun 10am - 6pm

SAME DAY DESPATCH IF ORDERED BEFORE 3pm
SUBJECT TO AVAILABILITY

PRICES INCLUDE P&P

GAMES EXPRESS P.O. BOX 515 LONDON SE4 1HE

☎ 081 - 314 0303

DETAILED FREE CATALOGUE & MEMBERSHIP WITH FIRST ORDER

NEW LOW COST SHAREWARE GAMES SETS

EACH DISK SET COSTS ONLY £12

From the numerous shareware and public domain games and leisure programs available we have selected and tested the finest and compressed them into four new collections. Guaranteed to give you unbeatable value and enjoyment!

GAMES COMPENDIUM 1

100 PC games programs. Includes all the latest and best : Dark Ages, Commander Keen, EGA Bomb, Capt Comic, Joust, VGA Sharks, Pharohs Tomb, Battleship, Scrabble, Global Warfare, Gravewars, Dominoes, VGA Pinball, 3D Tetris, Seahunt, Snarf, ...dozens more adventure, arcade, board, card, word and strategy games.

GAMES COMPENDIUM 2

Another 100 high quality shareware games and leisure programs! Titles include Wizards Lair, Hurkle, Kursk, 3D Startrek, Condo, Bass Tour, Tron, Golden Wombat, Monuments of Mars, PC Railroad, Sorry, Frigate...and many, many more!

GAMES COMPENDIUM 3

Yet another 100 games including all the very latest : Arctic Adventure, Duke Nukem, Aliens Laughed, Moraff's World/Pinball / Superblast, Popcorn, Kroz II. Ground Wars, Dracula in London, Gemini, EGA Roids, TSR Chess, Mustang, Feeker.

NEW : GAMES FOR CGA DISPLAYS ONLY

Over 130 of the best CGA games selected from compendiums 1,2 & 3.

NEW : WINDOWS GAMES AND LEISURE

Over 90 games, leisure and novelty programs to run under Windows 3.Titles include Atmoids, Backgammon, Checkers, Fractal Paint, Lunar Lander, Pente, Pipe Dreams, Screenpeace, Taipei, Winfract, Winchess, Winpoker.

Each set comes on 12 5.25" or 6 3.5" disks and has its own fully descriptive 6 page leaflet. Add £1 postage per order. Send us a SAE for full contents lists of these and other shareware sets. Shareware programs may require separate payment to authors if found useful

Please send me the shareware sets ticked below. Each set costs £12
add £1 P&P per order. I enclose a cheque/PO for £ _____

☐ Games 1 ☐ Games 3 ☐ CGA Games Disk Size Required
☐ Games 2 ☐ Windows Games Leisure ☐ 3.5" ☐ 5.25"

NAME : .....

ADDRESS : .....

.....

.....

SHAREWARE CONNECTIONS (DEPT PCL)
49 BOGHEAD ROAD. KIRKINTILLOCH. GLASGOW. G66 4ED

Strategic Plus Software

NEW LOWER PRICES

* Civilisation * Falcon 3 *
* Star Trek * Legend of Dardoom *
* Ultima 7 * Magic Candle II *
Plus more!!! CALL

SubLOGIC's
British Isles
Scenery Set
for use with ATP
and Flight Sim V4
IBM PC £ 34.99

NEW !
just in from
the U.S.A.

The Perfect General
IBM £ 35.99

The Lost Admiral
IBM £ 35.99

HARPOON + BattleSet 1&2 £35.99
Battleset #2 "North Atlantic Convoys" £14.99
Battleset #3 "The Med Conflict" £14.99
and a Scenario Editor £19.99
Harpoon BATTLEBOOK (companion book) £16.99

LATEST U.S.A. RELEASES
Flight Simulations - Strategy - Sports Simulations
Role Playing - Wargames - Adventures

VISIT our SHOP in Hampton Hill
or send for our 7th Edition CATALOGUE.
Mail Order and Overseas orders welcome.

Phone 081 977 8088 Fax 081-977 4822
28 D&E The Courtyard, High Street, Hampton Hill, Middx. TW12 1PD.

PC review

Introducing shareware

Although shareware has been in existence for several years, many PC users are unclear as to exactly what it is.

There is such a wide choice of software these days it can be very difficult and costly to choose the right program for an application. The only realistic way to know whether a program is suitable is to try it out first. With shareware you can do just that.

The basic principle is that users can obtain shareware programs for just a few pounds from an authorised shareware vendor. If they find them useful, they are asked to make a payment, directly to the author registering themselves as a user. By registering, they can expect printed manuals, updates and technical support from the author.

The amount required and the support and documentation depends upon the complexity of a program. The registered version of a game for example may be just £5 but a full Business Finance package could be £125 or so. However in most cases, the registered version is likely to be considerably cheaper than the equivalent commercial program.

Of course, if a program is found not to be suitable, the user just re-formats the disk and uses it for something else.

Shareware software is NOT public domain. It is copyright software in the same way as any regular commercial program is. It is the method of promotion and distribution that differs. Public domain software is where the author has relinquished his or her copyright permitting others to distribute the software. There is no request for payment from the author.

ABOUT THIS REVIEW SECTION

The purpose of this section of PC Review is to offer concise but informative reviews of what we believe to be the best programs in each respective category.

We offer a points out of ten score based on three criteria:

1. **How well does it perform the task?**
2. **How easy is it to use, particularly in terms of getting started?**
3. **Understandable documentation and help files.**

Each review identifies the name of the program, author and the registration fee, where known.

In popular fields there are often many different programs available to cover a particular function. In these cases the standards are very high and consequently the rating is higher. There would be no point in offering you a sub-standard program in a well-served category.

However, in more specialised fields, there will be relatively few programs available so there may be cases when a lower rating will have to be tolerated as there is no better alternative.

Shareware programs may be obtained from a variety of sources. For your convenience, we have arranged that all programs featured in this review may be obtained from one source – Advantage a well-established, authorised shareware mail order company, based in Cheltenham.

PC Review Readers can order their disks directly from Advantage either by telephone, fax or post and can expect fast delivery. Advantage also provides getting-started support and advice.

As a special offer to PC Review readers, Advantage is offering a 25% discount on its regular price of £3 a disk - quote PC Review when calling or use the special priority order form at the end of this section and get your disks for just £2.25 each (both 5.25" and 3.5") including VAT.

WHICH COMPUTER?

There are so many varieties of computer and operating system (DOS) around today that we cannot guarantee all programs will work on all computers. However most programs run on a 512k RAM PC-compatible running MS-DOS version 2.0 or above. A single floppy drive is usually acceptable but a dual drive or hard disk is more beneficial - not just for these programs but for most work.

A code is placed by each program if the MINIMUM requirement is MORE than a basic PC compatible with a Hercules Mono Monitor:

CGA: Colour Graphics Adaptor required with Colour Monitor:

EGA: Enhanced Graphics Adaptor required with high resolution monitor.

VGA: Video Graphics Adaptor required with high resolution monitor.

HD: Hard Disk Drive required.

Mono and CGA programs will run on an EGA or VGA monitor. Also, many CGA programs will run on a mono monitor if you load a CGA emulator program (also available as shareware).

Programs are written by a USA author unless otherwise stated. Those programs which make use of a printer expect to find an IBM or Epson-compatible. Most modern printers are.

If you have any questions about shareware or wish to discuss your requirements please call Advantage (not PC Review) on (0242) 224340.

SHAREWARE REVIEWS

Desktop Publishing

SignSmith (one disk)
Author: Brian Smith
Registration: None required
Performance: 6/10
Ease of Use: 7/10

SignSmith is not particularly sophisticated but, on the other hand, it is not difficult to get it working and, if you want to just produce a simple A4 poster or a letterhead for your business then it is eminently suitable. There is plenty of on-disk documentation and technical details for those who need it.

SignSmith works on any piece of text which has been created on a word processor – as long as it is in regular ASCII text format (ie no control codes). You then add text and numerical codes in your document each time you require a change of font or size of lettering.

You then run the program and it will print out the final document on your dot matrix printer. It uses graphics mode as do all other DTP programs, so will take longer than ordinary text.

The program has four fonts available, font 1, 2, 3, and 4 which are progressively more fully-formed. Normally you will prefer fonts 3 or 4. Font 4 is the best, but the basic height of font 3 is only half of that of font 4, so you have more choice in the size of font 3 (and font 2). Font 1 is really of use only if you are deliberately after a chunky 'computer-like' effect.

Two configurations are catered for. Portrait format is the default, tall and narrow, the way your printer normally works. This means that x goes from 1 to 1600, and y goes from 1 to 1280. In landscape format, the printout is rotated so the lines of text are parallel to the left edge of the sheet, and we get a short wide sign. In this case the range of x is from 1 to 1280 and y goes from 1 to 1600.

The basic font 1 is 8 dots high by 8 dots wide, font 2 is 14 dots high and 9 dots wide, font 3 is 14 dots high by 18 dots wide, and font 4 is 28 dots high by 18 dots wide. You can enlarge the letters by expanding each dot to be several dots high (rows) by several dots wide (columns).

Printshop (one disk)
Authors:Various
Registration: $5 to $15
Performance: 6/10
Ease of Use: 8/10

Printshop is a very useful collection of five smaller programs all related to getting the most out of your printer.

Cassette Labeller was written for those people who do a lot of recording on cassette tape. Using type that is 17 characters per inch and 14 lines per inch, this program prints out a label which fits inside the cassette case – perfectly – and which can contain up to 39 lines of user-input text, at least two of which are reserved for the name of the artist recorded on the tape and the name of the album or program recorded.

PC Key-Draw (three disks)
Author: OED
Registration: $100
Requires CGA or EGA
Performance: 9/10
Ease of Use: 7/10

PC Key-Draw has a number of useful applications. It is primarily designed as a scaled drawing package for producing such things as floor plans. The calculate and measure functions would be particularly useful in this case.

Due to the flexible text and font facilities the program makes a good Desk Top Publisher for single sheet items such as letterheads, posters, flyers and advertisements.

Its ability to create symbol libraries make it a powerful tool for the electrical engineer or architect.

Needle point hobbyists will find the drawing capabilities combined with the zoom printer feature allow interesting patterns to be designed on the computer and easily transferred to a form suitable for stitching.

Graphic game designers can use the drawing facilities along with the ability to save an image as a BASIC sub-routine to create sophisticated animated graphics routines.

Teachers will find the opportunity to use PC Key-Draw as a teaching aid in the study of geometry, maths and science.

Business people can use the slide show feature for slick presentations with their own customised screens.

PC Key-Draw is not the easiest program to get running but perseverance with the extensive manual on the disks and time spent playing with all the features is well worth the effort.

Carsign is meant to be a fun addition to your PC software collection. It allows you to generate custom yellow car signs such as 'BABY ON BOARD'. With CarSign, you can make a sign which says 'BORED BABY ON BOARD' or whatever else comes to mind.

The program Custom Label Maker was written to help make fancy labels for disks, return address, and other label needs. It can provide the professional touch to your disk collection and correspondence. CLM will print the label on the screen each time you press [CTRL][P] allowing you to print many of the same or similar labels.

The Letterhead Generator program provides the ability to design and print custom letterhead and envelopes. The system provides for an very simple way to design a logo, etc. to be printed on the top left side of the paper together with other address information printed on the top right.

The Logo Design is done simply using a word processor or note pad facility such as Sidekick. An x (or non-blank character) represents a graphic dot on the printer. A blank represents a space the size of a graphic dot. You design the logo using blanks and Xs on the word processor, creating the logo line by line.

Finally the DIY Business Cards program does just that and, if your printer will take thin card, you can save yourself a lot of money by not having to use your local Printer Store.

Personal Organisers

File O'Facts (two disks)
Author: A P Cope, centrox Software
Registration: £30 UK
Performance: 7/10
Ease of Use: 8/10

This is very useful computer-version of the popular manual system. It features a powerful database system for names, addresses and personal details of business clients, customers, friends etc plus a full feature calendar, diary and appointments log.

The menu system works in a fairly standard fashion and can be controlled by keyboard or mouse.

There are two types of Command Menu. The first is a standard vertical menu. Items are selected by tapping the highlighted letter or moving the selection bar and tapping. The second menu is a command bar. This appears immediately beneath the Title Line. Selection is by tapping the highlighted key while holding down the [ALT] key. Again, mouse users can simply click on the item they require.

Data entry is by use of input forms. Each of these forms consists of several fields into which data should be placed. The user is free to cursor around the forms entering data into the field in any order. Completion is usually indicated by pressing [F10]. [ESC] as you might expect-aborts form entry and cancels the current command.

There is plenty of flexibility in the applications for File O'Facts and it has the added advantage that it is by a UK author.

Desk Command (one disk)
Authors: S Stump
Registration:$50
Performance: 8/10
Ease of Use: 8/10

Desk Commando is a memory resident utility which replaces several utilities. Some of its features include: user definable

program menuing; a virtual memory text editor; a PC-Sweep-style DOS shell with graphic tree support for all hard disks on the computer system.

It also has three calculators – a scientific RPN calculator with HP-12 business, statistical, and computer science functions, a formula calculator. and a tape/calculator; calendar/appointment book; user settable alarms (up to 15); an unlimited rolodex with 4 indexes (name, city, state, zip code); Rolodex which can print address labels and handle bulk mail outs; an autodialer (which can also be used from Rolodex), which works with Hayes compatible modems; Screen blank.

Desk Commando makes an excellent permanent feature on anyone's PC. It can be arranged to spring into life every time the PC is switched on and provides a far more friendly front-end than the uninformative C> prompt.

Home Finance

Checkmate Plus (two disks)
Author: Custom Technologies
Registration: $15
Performance: 8/10
Ease of Use: 7/10

One of the most popular uses of a home computer is in the control and monitoring of domestic finances. These can range from a straightforward 12 month breakdown of incoming and outgoing monies through to a mini-accounts package offering detailed analyses and reports.

Checkmate Plus falls more in the latter category, however it is sufficiently well-presented and well-documented to be used in any simpler application. You don't have to make use of the more advanced features initially or at all. The strength is that the more powerful features are there to be used as you gain confidence and explore the potential of the program.

CheckMate Plus is a fully-featured, easy to use, chequebook-based accounting package. It is a real accounting package, with real double-entry transactions. You can produce true balance sheets and income statements as well as numerous budgeting and graphical reports.

It is intuitive, easy to use, and has extensive on-line help. To use the more sophisticated features you will need the User's Guide to fully exploit its power.

CheckMate Plus comes with a 'disk-based' Introductory User's Guide to aid you in evaluation. This is quite large.

Home Finance Manager

Home Finance Manager comprise five programs to help you keep track of your money plus a whole lot more. Unlike other home finance software, ours is uncomplicated, easy to learn and use, and written so you need learn only those portions of the software you will actually use.

Different people want to do different things in financial planning. Some want only to balance their chequebook, others want to track stocks, still others want to plan their family budget, and so on. But not every-one wants to do all these tasks. With the five programs in Home Management II you can do all of this — and much more. But since each program is self-contained, you need learn only what you use. We keep it simple because we know how frustrating it is to waste time learning (and paying for!) parts of a program which are useless for you.

Much financial management software tries to be all things to all people, both in the home and business. As a result it does little useful work for anyone. We've taken a different approach. Instead of incorporating all tasks into one giant program, we've included five different programs in Home Management II. This makes the sum of all the parts more flexible, and we hope, more suited to the individual needs of the home user.

Whether you're a home owner or a renter, there's some-thing for you in Home Management II. All five programs in the package are designed to help you out with many of those big and little chores that get in the way of what you really want to do.

Home Management

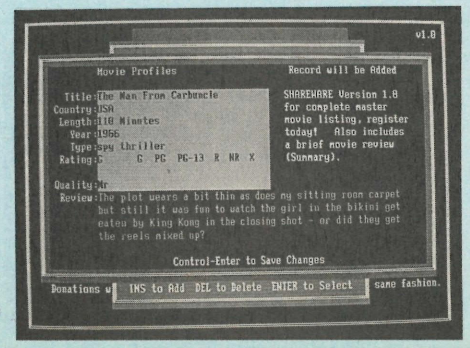
Music Maestro (one disk)
Author: Peter Richards
Registration: £19.95 UK
Performance: 7/10
Ease of Use: 8/10

While there are many database 'shells' on the market which allow you to design and build your own database manager, many users, particularly newcomers to the PC would prefer it if someone else had done the work for them.

The UK author had the new user in mind when he designed Music Maestro Most people have a collection of music records – whether they be on LP, compact disc or tape. As the collection grows it can be a great help to catalogue them all in a methodical way, entering information such as title, artist, duration, date issued, date purchased, location etc.

Taking the typical requirements the author has designed Music Maestro, ensuring at all times that the program is simple and easy to use.

Menu selection is minimised and data entry is a simple case of filling in a form on the screen. Once the data is entered it may be sorted, searched and edited. The shareware version offers a report printout of the records entered. The registered version offers a wider range of reporting functions.



Home Video (two disks)
Author: Jeff Thorness
Registration: $20
Performance: 7/10
Ease of Use: 7/10

This program was written very much from a users point of view. The author is a film fanatic and he found that there really isn't much software available to help keep track of the video films that were filling his library. Most lacked the features he needed so he set about developing his own program – hence Home Video.

The program has an attractive user-interface with windows and selector bars. All menu items can be selected via the arrow keys and the user can abort any process simply by pressing the ESCape key. Other keys that can be used throughout are the INSERT key (to add something) the DELETE key (to eliminate something) the Page-up key (to move up a page) and the Page-down key (to move down a page).

From the main menu you have the following options:

Master Listing: This is a vast listing of many of the popular films currently available on video. Only a small portion of the list is included with the shareware version but the entire list will be sent to registered users.

Film Types: Is a list of different categories such as drama,comedy etc.

Tape Contents This is the actual tape contents of your personal library. It includes information such as starting position, ending position, and quality of the recording.

Film listing by Cast: This option allows you to list films that have a certain cast member, for example you could list all the films Eddie Murphy is in.

Reports: This brings up a menu with various reports you can print, including Personal Library; List sorted by Title; List sorted by Tape; Master Film List sorted by Title.

Food and Drink

Diet Analyser and Planner (one disk)
Author: Bob Eggleton
Registration: £10
Performance:8/10
Ease of Use: 8/10

The Dietplan program comprises two files, a Foodfile which contains the food data, and a Dietfile into which the user enters selected foods from the Foodfile to make an individual diet.

Many Dietfiles may be created and saved to disk or printed out. Data in the Foodfile is related to normal portions of food such as one apple or three rashers of bacon to allow easy selection. The user may add extra foods to the Foodfile and save to disk at any time.

Help screens are available via the F1 function key and during functions explanatory messages are displayed to enable full operation without the manual.

The Foodfile screen shows a list of the foods available to select for entry into the diet created on the Dietfile screen. Foods are selected by moving the highlighted bar up and down the alphabetically sorted list of foods using the cursor control keys as detailed below:

Diet Analysis provides nutritional details on the following nutrients: proteins, carbohydrates, kilocalories, fats (saturated and non-saturated), calcium and fibre.

For comparison, it also displays the recommended nutritional intake for groups of the population. All figures are based on a one day food intake.

Diet Analysis has an updatable database. The File section offers user friendly facilities for adding new food products; most food producing companies now provide nutritional details on food packaging, therefore inputting these details should be quick and straightforward.

As well as displaying the actual and recommended totals for the intake of the above mentioned nutrients, Diet Analysis will display the balance of your diet, that is the percentages of protein, carbohydrates, fats and alcohol. This also is compared with a recommended balance.

The Dietfile screen shows the list of foods selected for the diet being created. Foods are selected from the Foodfile screen then the screen changes to the Dietfile screen for entry of the quantity. After entering the quantity the screen returns to the Foodfile screen for further selection.

The Dietfile allows storage of up to 20 food items thus may be used to plan meals or a whole day's dieting. To save time when compiling diets enter complete meals in the Foodfile such as breakfast where the same foods are consumed regularly.

Managing Your Food (one disk)
Author: G. Aakhus
Registration: Unknown
Performance: 8/10
Ease of Use: 7/10

Managing Your Food is designed for food manufacturers, restaurant managers, dietitians, diabetics, and the home shopper.

Its use is easy for the novice, yet comprehensive enough for a professional dietitian.

The program will track cost, protein, carbohydrates, fat, calories, cholesterol, fatty acids, fibre, vitamins, minerals and food exchanges.

It can output a shopping list arranged by store and aisle and deduct the quantity from the inventory. The cost and nutritional information, by serving, is automatically figured for each recipe, meal or plan as it is added or updated.

Although Managing Your Food comes with recipes and ingredients which are yours to use, it is easily extended and designed to manage your food using your recipes. Additional ingredients, recipes, meals, or plans may be added, and any existing information may be easily modified. It comes with complete documentation, on-line help, pull down menus, and tutorial.

Biorhythm Plotter (one disk)
Author: Bill McGinnis, Bill McGinnis Publications and Software P.O.
Performance: 7/10
Ease of Use: 8/10

Health and Lifestyle

Biorhythm theory states each of us is influenced by three biological cycles which begin at birth and continue throughout our lives.

The physical cycle is 23 days long and influences physical factors such as eye-hand co-ordination, strength, endurance, and resistance to disease.

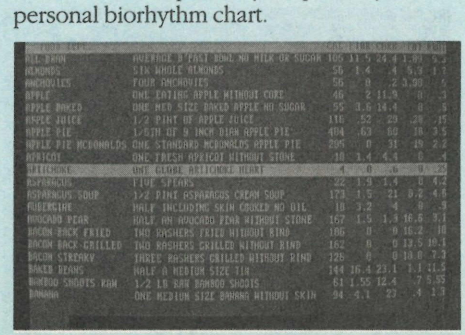
The emotional cycle is 28 days long and influences love/hate, optimism/pessimism, passion/coldness, depression/elation.

The intellectual cycle is 33 days long and influences our memory, alertness, speed of learning, reasoning ability, accuracy of computation.

At the moment of birth, according to biorhythm theory, each cycle starts at a zero point and begins to rise in a positive phase during which the energies and abilities are high. (Engineers will recognise the cycles as 'sine waves' in their form.) After reaching a positive peak, each cycle then gradually declines, crossing its zero point midway through its period.– 11 1/2 days for the physical, 14 days for the emotional, and 16 1/2 days for the intellectual. The remainder of each cycle is a negative phase, during which our energies and capabilities are reduced.

The most unstable times are the 'critical days' in each cycle, when the cycle crosses its zero point, changing from positive to negative or from negative to positive. During these critical days, the abilities vary wildly, from extremely high to extremely low. You may make brilliant discoveries or tragic logical errors on intellectually critical days. You may win the Super Bowl or throw ten interceptions on a physically critical day. You may impulsively propose marriage or impulsively quit your job on emotionally critical days.

The program asks you for your name, date of birth and current date and from this information will plot on your printer your personal biorhythm chart.



The documentation supplied on the disk tells you the significance of the charts and tells you how to interpret the results. It also makes suggestions about your behaviour and activities during the 'difficult' times.

Family GP (one disk)
Author: N Squared
Registration: Unknown
Performance: 8/10
Ease of Use: 9/10

Here is a novel application of a computer which, if extended to cover a more comprehensive range of medical topics, could spell the end of the human variety!

Family GP is effectively a database of medical information on the more common ailments. Access to this information is via a series of option choices and questions presented to the user. For example, if you are having back trouble – not that you just can't get off it! – you key this in at the menu screen. You are then asked for more information, symptoms etc and, by narrowing the picture down, offers a suggested ailment and possible treatment.

It works in the same way as an Expert System, by asking key questions, the program is able to narrow down the choice of answers.

Quite an interesting program and it could be useful for general diagnosis, but at this level of detail it is recommended you follow up any problems you may be having with a personal visit to your GP.

Sports and Betting

Football Forecast (one disk)
Author: W.A. Hunter
Registration: £12.95
Performance: Who can tell?
Ease of Use 8/10

This program does not claim to win you a fortune - if it did, the author would be unlikely to share his secret and certainly wouldn't need your registration fees. No, like many such programs it is designed to improve the chances by performing logical, statistical analyses of past games in order to offer the best prediction for the future. To do this it studies the following criteria:

Predictions: Forecasts Draws, plus Home and Away Wins for matches on Pools and Fixed Odds Coupons.

Permutations: Provides perm lists of selected predictions.

Form Guide: Displays and compares the form of each of the home and away teams for every fixture.

Fixed Odds: Estimates odds for all possible results. Input bookies' odds and know your pay out.

Prediction: Many variables are considered. These may be Formula 'weighted' at a level set by the user.

Results: Simple and rapid data entry. Use mouse or Update keyboard to select from the displayed teams.

League: Facility to input end of season pro-

motions, Changes, relegations.and introduce new teams.

Statistics:Statistically analyse success of forecasts.

Program, data file and team details given.

Throughout the program the user is prompted for the information required and all activities are menu-driven.

Punter's Pal
Author: R Lyne
Registration: £19.95
Performance: 8/10
Ease of Use:8/10

This program will be of greatest help to anybody who fancies a flutter on the horses. It uses your input to calculate the 'Performance Coefficient' of each horse.

When the program is run it asks you how many horses in the race. The maximum is 25 as you could start making mistakes if you put in any more than this.

Then you are asked the jockey rating. If you are not sure how good a jockey is then type 0. You are then asked to type in the weight in stones and then the pounds.

Finally you are asked to enter the form list. This can be typed in exactly as seen in the newspaper. For example, 331211-f1.

You carry on typing in this data until you reach the number of horses you specified at the beginning. You are then given the 'Performance Coefficient' value. This is simply a number that the computer has calculated for you to compare the horses a lot easier. The higher the number then the better its chances of winning.

Music

Pianoman (one disk)
Author: Neil J. Rubenking
Registration: $25
Performance: 7/10
Ease of Use: 9/10

Pianoman at its most basic is a program which allows you to play the keyboard of a PC like a piano. Since the keys are in two banks, it's more like an organ, but Organman just doesn't sound right. The keys sound a tone as long as you hold them down, and stop when you release them. If you press the 'Record' key, the tune you play gets saved in memory, and you can play it back at will.

"Big deal," you say, "my CASIO toy keyboard can do that." But there's more. Once you've recorded a tune, hit F1 to go into editing mode. In this mode you have a variety of editing commands, much like those of a word processor. You can insert and delete notes, adjust pitch and length, make global changes, and save/retrieve files. You can even mark blocks of notes to delete, copy, or move. Four small help screens and four larger, more detailed screens are available at all times, to remind you of the editing commands. You may also want to print out the Quick Reference Chart at the end of this document.

Playing a tune with Pianoman is simple. You'll see a picture of the keyboard on your monitor, with the Notes written on the key tops, instead of the normal letters. There are three octaves available at a time, and you can shift those octaves up or down using the up and down arrows Note that the current octave number shows right between the arrows. The A#, B, and C notes at the right of the lower row are the same notes as those at the left of the upper row. If the piece you want to play has flats instead of sharps, just remember that in an 'even tempered' scale like that of Pianoman, one note Flat is the same as the note below it,Sharp.

A series of pre-recorded tunes is also available for Beethoven, Bach and Baroque styles, each on a separate disk

Melody Master (one disk)
Author: A.A. Efros
Registration: $20
Performance: 8/10
Ease of Use: 8/10

Melody Master is a music system for writing, editing and playing one-voice music tunes. Melody Master uses graphics interface which lets you see and edit the music in sheet form.

Melody Master is very useful in many ways. You can use it just to listen to and play around with some of included tunes. It will also help you teach yourself (or your children) the beginnings of 'music grammar'. At last, if you are a programmers or a person who just likes to write Batch Files, this is a great tool for making you own programs 'sing'. Whatever way you are going to use it, I am sure you will have a lot of fun!

Melody Master support five note-lengths, five rests, around seven octaves, repeats, sharps, flats, dotted notes, and six tempos. The melodies can be saved in special Mel files. Melodies can also be transferred into different forms of output files such as BASIC programs, Pascal procedures, C functions, ANSI Music, etc. This package also contain the utility 'CONVERT' which lets you convert BASIC's play-like strings of music into Melody Master Mel files. This makes Melody Master compatible with many other music systems. This version also contain Configuration Utility which let you set you own colours, tempos, note-lengths etc.

Genealogy

Gene Genie (two disks)
Author: Mike Allen
UK Registration: $39.95
Performance: 8/10
Ease of Use: 7/10

Interest in one's personal family history has always been a fascination and it continues to be a popular hobby. Before the advent of computers it was a very time consuming and repetitive task particularly when alterations and amendments had to be made.

Computers are ideal tools for the entry and re-organisation of information and so several programs have been specially written on genealogy and family history. Gene Genie is a good example and it is written and supported by a UK author. It is more of a family history program ie it offers more space for text descriptions of each subject but it does not produce graphic family tree pictures.

Gene Genie includes facilities to enter in all the standard genealogical details of the family: A unique Record Number, Surname, Forenames, Maiden Name (if applicable), Sex, Identity of Father, Identity of Mother, Date and Place of Birth, Date and Place of Baptism, Date and Place of Marriage(s), Date of Divorce (if applicable), Date and Place of Death, Whether Buried or Cremated, Date and Place of Burial/Cremation.

Other features include Addresses, Occupations, Sources, Navigation Tree, Personal Note pad. On the registered version you get hard copy printouts for either an individual or the complete database.

A detailed tutorial is supplied on-disc to help newcomers to this popular hobby. The shareware version limits the number of entries

Family History (three disks)
Author: Phillip E. Brown
Registration: $35
Performance: 8/10
Ease of Use 7/10

The Family History System has been developed over several years and this 1991 version represents the very best in the genre.

These programs were written to provide a simple means for maintaining files of information concerning related individuals and for producing standard types of genealogical reports from information in those files.

Reports produced by the system include: Ancestor, Descendant and Relative lists, Family Group Reports, Descendant Charts, and complete sets of Ancestor (tree) Charts.

No limits are placed on the numbers of generations or relationships stored in the files and information for up to 3500 individuals may be stored on a 360K diskette (or up to 9999 individuals on a high density diskette or hard disk).

This three-disk set includes a massive 80 page manual which can be viewed on screen or, better still, printed out. It covers not only the operational details of the program but also a thorough discussion on the principles and methods of building up



Puzzle Corner

Crossword Solver (one disk)
Author: D Hodgkinson
Registration: £10
Performance: 8/10
Ease of Use: 8/10

This disk contains three separate programs designed to help you to solve crossword puzzles.

The first program is an ANAGRAM creator - just type in the letters and it will speedily produce a listing of all the combinations making it easy for you to spot a valid word.

The second program, written by UK author D Hodgkinson, is a little more sophisticated. It will find what words can be extracted from a string of letters or larger word. It allows you to edit the word list. You can list all the words in the dictionary one screen at a time. It will juggle a string of letters. You enter the string and the computer shuffles the letters.

And especially helpful with crosswords, you can enter the letters you know separated by dashes, for example – a – e , and all available words will be displayed. Press any key to run again or ESC to return to the main menu.

The third program is designed to overcome the frustration of not being able to get started or not being able to complete a crossword because of one or two key words. Well this program could help solve some of them but you need to do some work first! Many crossword puzzles tend to have recurring words in them. What the author has done is to go through several of these over a number of weeks and enter the more difficult words into Spell Dic. You can of course continue to update it.

Superword (one disk)
Author: Damian Computer Services
Registration: £15 UK
Performance: 8/10
Ease of Use: 8/10

Superword is a flexible and efficient Word search Puzzle generator which will provide many hours of entertainment for all ages.

The puzzle can be any size up to 39x39. You specify the size and choose the set of words you want included. You can choose one from the nine supplied with the program or create your own list using your word processor.

The files supplied are: Names of plants (200 words), Places in the UK (170 words), Rivers of the world (309 words), Names of writers (300 words), Common Christian names (248 words), Types of fish (300 words), Birds of the world (250 words), Names of minerals and ores (145 words), Mammals of the world (265 words).

SuperWord will now set to work and compile your puzzle. You can then view it on the screen or, more conveniently print it out. Now you can produce your own professional quality puzzles as you want – great for keeping the children amused. Run off a few for a train or car journey.

Hobbies and Pastimes

Landscape Plants (one disk)
Author: Jean E. Olson
Registration: $50
Performance: 6/10
Ease of Use 8/10

The Landscape Plant Manager is a plant selection oriented computer program developed for use by students in ornamental horticulture curriculums and members of the landscape industry.

The program describes different plant types and takes into account soil types, location and prevailing weather conditions.

Through various menus within the program, one can store and retrieve information on plants used in the landscape.

The main feature of the Landscape Plant Manager is the ability to find plants in a data file based on from 1 to 24 different criteria including such characteristics as form, height, spread and hardiness zone.

Depending on computer memory and disk storage capacity, a Landscape Plant Manager data file can hold from 500 to 5,000 different landscape plants.

The shareware version of Landscape Plants comes with a database of 50 plants and shrubs. A very useful computer-based reference source for anyone interested in the subject.

Knit-Wit (one disk
Author: Cresby
UK Registration: £49
Performance: 7/10
Ease of Use6/10

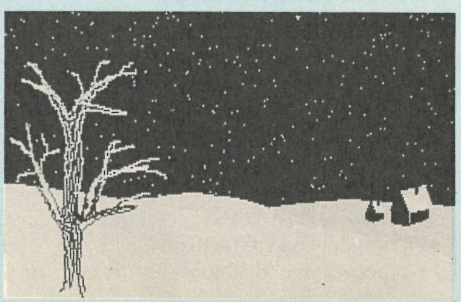
The author describes this as the 'Swearware' Knitting Pattern Generator. and although the program has a serious function, which it performs well, users will find the author's offbeat sense of humour creeping in from time to time.

This program is fully operational and allows any home knitter to produce professional quality knitted pictures on his or her garments.

The pictures are created to your drawing and, when finished the program will convert the design into a conventional knitting pattern. You can be sure that the knitting pattern will conform

exactly to your original drawing - no more frustrating and time consuming counting of rows and stitches!

Stitch is the paint package to draw and edit the design. Knit generates the actual Knitting pattern. The sizes are optimised for double knitting. Gener generates jumper .Gar files to your sizes



Amusements and Diversions

Love Fire (one disk)
Author: Pinnacle Software
Registration: Nil
Performance: N/A
Ease of Use 9/10

Imagine a cross between a romantic love story and an adventure game and you get some idea of the flavour of Love Fire.

Basically it is a novel-on-a-disk in which you are able to decide how the story develops. Every so often a decision has to be made by one of the characters or you are offered alternative outcomes to a particular event.

You have to type in what you want to happen and the storyline proceeds from there.

The author maintains that this program is for women only but I'm sure men would find it quite amusing! It is written in the style of Mills and Boon.

Babble (one disk)
Author: Korenthal Associates Inc
Registration: $25
Performance: 7/10
Ease of Use: 8/10

Babble! is described as a Creativity Tool For Writers. In effect it is an automatic writing program which analyses samples of text for style and content, and then generates a steady stream of nonsensical prose.

You can Mix Shakespeare with Harold Robbins (or import your own writings); apply special effects like Stutter and Subliminal. Text is controlled on-the-fly using Babble!'s unique 'text-mixing studio' control panel, and changes appear instantly.

By mixing up words and ideas, and by finding connections between things which are not obvious on a straight reading of the text, Babble! is useful both as a writer's tool and as an idea generator for brainstorming sessions. It has been used to name products, inspire marketing and advertising materials, and rescue authors from writer's block. Babble! is also valuable simply as a toy for people who love words!

A rather strange program which probably has little practical value but which is capable of giving everybody a good laugh every time it is run!

Early Learning

Amy's First Primer (one disk)
Author: Rob Robinson
Registration: $10
Performance: 9/10
Ease of Use: 9/10
PC 1 DISK Requires CGA

It makes sense to get youngsters used to computers at an early age. They don't suffer from the same techno-fear that adults do and of course they enjoy pushing keys and seeing things happen on the screen.

This disk features six delightful programs will give your child a head start in school with the alphabet, numbers, counting, shapes, matching, problem solving, and pattern recognition.

The program was written by Amy's father to help her work with things her kindergarten friends were doing at school. Much care has been taken to ensure that the programs have no negative rewards or traps that might make a young child shy away from the computer. All the programs wait patiently for the answer and celebrate with obvious glee.

Creative use of the ABC Song helps your child associate letters with pictures like apple, boat, car etc.

Beary Fun Counting lets your child count sets of pictures and build a boarder full of happy bears. Beary Fun Letters displays a picture and helps your child find the starting letter on the keyboard. Bunny Letters lets your child connect pictures with their starting letter by guiding bunny round the screen. Help the Froggy provides a simple maze. Your child uses the cursor keys to guide the frog to the lily pad where flies are buzzing for dinner. Load the Truck gives your child an order form - a colourful shape which has to be selected from a range of shapes and loaded on to the truck. The tractor backs up and hauls the load away when correct. The recommended age range for this selection is 3 to 6 years.

Hoorah for Henrietta
Author:Scetlander
Registration: £24.95
Performance: 9/10
Ease of Use 9/10

Henrietta and Hopeless Henry are getting married in the morning.But all is not well. That mischievous bird, John the Parrot, appears at the last moment and is determined to create havoc. He steals the groom's wedding clothes and kidnaps the groom himself. If Henry isn't rescued in time, John will cover him in cold custard! You must help Henrietta collect Henry's coat, hat, boots and trousers, otherwise the wedding will be cancelled! Can you get Henry to the church on time?

Hoorah for Henrietta links mathematical exercises to an absorbing storyline featuring Henrietta, Hopeless Henry and John the Parrot. An endless supply of randomly generated problems at all levels guarantees boredom-free practice.

It improves everyone's mathematical ability and makes the process stimulating and entertaining. It also provides practice in addition, subtraction, multiplication and division over a wide range of ability levels.

A major feature of the program is the extensive Parent/Teacher's Control Section which enables easy adjustment to suit every user. We strongly advise careful study of this section to ensure a comfortable starting point for each student.

The registered version incorporates eight levels of difficulty – only one is available on the shareware version.

Henrietta's Book of Spells
Author: Scetlander
Registration: £24.95 UK
Performance: 9/10
Ease of Use: 9/10

Parents often ask about the ideal time to introduce children to educational software. Many have been impressed at how easily their youngsters took to using exciting games on a computer. While these can play a useful role in developing keyboard skills and co-ordination, for example, most are very restricted in their educational value and are of little or no assistance in helping with school work.

Nevertheless, the best educational software need not be dull. Indeed, if such programs are to maintain the user's interest for long periods of time, they must provide constantly changing problems at just the right levels of difficulty to gently stretch – but not strain – the student's abilities.

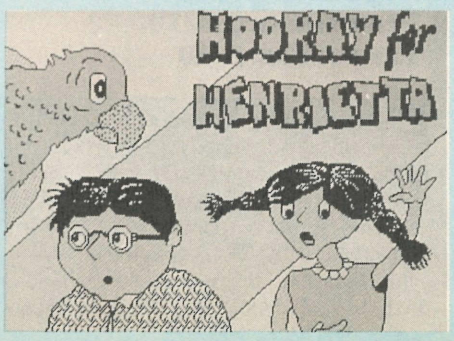
Scetlander programs can bring otherwise boring exercises and lessons to life. They command attention, yet never lose patience. They challenge students of all abilities - from the most academically gifted to those with severe learning difficulties. And by using special keyboards and switches, almost no-one is too young or too disabled to benefit from the magic of our computer assisted learning programs.

For younger children particularly, colourful animations, sound effects and a game element can often add to the motivation. And with regular practice, results will improve.

Research has shown that children who are ahead in the early years of their schooling are likely to remain ahead throughout their academic careers.

Early access to a computer can, undoubtedly, provide a significant, added advantage. It is an extremely powerful tool which can be used with great effect right across the curriculum.

It is, however, never too late to start! Henrietta"s Book of Spells of improves everyone's language ability. Try it yourself! It's effective and it's fun.



Exploring

Exploring Words (one disk)
Author: Various.
Registration: Public Domain
Performance:6/10
Ease of Use: 8/10

Here is a selection of shorter programs which all fall under the disk's title category.

First off is a neat word processor designed specifically for youngsters. It brings up the text on the screen in double-normal size characters on a pleasant blue background. It can be used as a regular word processor and features, erase, edit, overstrike, insert, word wrap etc. Text can be printed out in large size too. Sample files of rhymes are supplied and the program makes a friendly introduction to the subject.

Hangman is based on the classic pencil and paper game where letter-by-letter you have to guess the hidden word. Each time you fail another part of the little man is drawn on the screen. There are several variations on the theme and the opportunity for parents to enter in their own set of words, tailored to the age range of the child.

Letterfall is a good exercise in learning the position of letters on the keyboard. A letter literally 'falls' down the screen and has top be typed in before it reaches the bottom.

Spelling Bee is a nicely presented spelling game with a little bee flitting around the screen. The set of words supplied can be amended or replaced if required.

Exploring Maths (one disk)
Author: Paul Dawson
Registration: $10
Performance: 7/10
Ease of Use: 7/10

Another selection of shorter programs gathered up under the subject of maths.

Funnels and Buckets is a learning game. Playing it improves your skill in adding, subtracting, multiplying, and dividing.The object of the game is to Pop equations by solving them as they fall from a funnel. The funnel glides across the ceiling.

As a player, your job is to type in the correct answers to the equations before they reach the buckets. That will Pop them,and the more you Pop, the higher your score. At fast speeds, Pop-ping will challenge even an adult.

You have to watch out for the dastardly villain and the benevolent cleaning lady.

Prime-It introduces the magic world of prime numbers, which have fascinated

mathematicians and others for centuries. Prime numbers have some characteristics unlike their non-prime friends.

Do prime numbers ever end, ie, do numbers ever get big enough that they have to be divisible by some number smaller than themselves? Why don't they behave neatly and occur in some pattern?

This program allows you to do your own investigations over a limited range of numbers. Here you can generate prime numbers in any part of the region from 1 to 64500. It also allows you to check individual numbers up to 262144.

Maths is useful in drilling children in computations such as addition, subtraction, multiplication, and division. The set of equations are defined by the user (or parent) within a text file. Each line of text is an equation.

Algebrax teaches and tests on the subject of simple algebra.

Mathematics

Fun With Maths (Googol Maths)
Author: Paul T. Dawson
Registration: Unknown
This program requires at least CGA and 512K
Performance: 8/10
Ease of Use: 9/10

The quickest turn off to youngsters as far as educational software is concerned is to tell them that it is educational software. Several programs have attempted to disguise the fact by adding splashes of colour, pretty pictures and sounds but none have mastered the art so well as in this particular effort.

The author does not try to hide the fact that these programs look and play like games. But in order to score points and make progress the player has to answer a series of arithmetic problems.

The games are the classic favourites - Space Invaders, A Ladders and Platform Donkey Kong game and Growing Snake game. They all offer choice of skill level and involve the four basic arithmetic operations -addition, subtraction, multiplication and division.

There is plenty of colour, sound and the overall presentation is slick. Suitable for ages 5 to 10.

Maths Tutor
Author: D.S. Dalal
Registration: $35
Performance: 7/10
Ease of Use: 8/10

Maths Tutor is designed to work in conjunction with all levels of students and personal computer users. The suite of programs supplied on the disc offering a positive environment in which to learn, expand on and solve many math operations quickly and effectively.

It is split into two main sections. The first introduces the basic principles of the subject and does not presume any prior knowledge. It covers the four common arithmetic functions - addition, subtraction , multiplication and division then moves on to integers, fractions, exponents and equations.

The second section covers more advanced mathematics and includes Trigonometry, Logarithms, Determinants, Linear Equations etc.

Each section presents the topic and sets up tests to see if the student has grasped it. While the presentation is fairly dry (no fancy graphics or sound) the program offers a sound and useful aid in tackling and understanding the subject.

Using The Computer

PC Tutor (one disk)
Author: Computer Knowledge
Registration: $15
Performance: 9/10
Ease of Use: 8/10

The majority of PC users have little or no knowledge of the way in which the computer and user interact, ie the 'operating system'. It is true to say some knowledge certainly is needed even to undertake a few simple tasks, such as finding out what is on a disk, deleting files, copying files, taking back ups and formatting blank disks.

Most PC manuals are virtually incomprehensible to the newcomer. Reading them can often make matters worse. What better way to learn how to use your computer than on the computer itself?

The author of PC Tutor has gone to great lengths to ensure that his program helps, not hinders, and he does not assume any previous knowledge. The course is interactive, presenting the user with information, then asking for a response on the keyboard.

The program covers Computer History, Introduction to DOS,Computer Terminology, Sub-directories, Hardware, Batch files, the keyboard and an Introduction to Programming.Material is presented in a series of screens and the user has the ability to move forward or backward through the tutorials, or jump to selected locations using a menu. Short quizzes test you on your knowledge but you may bypass these when reviewing

Fast Type (one disk)
Author: Trendtech
Registration: $20
Performance: 8/10
Ease of Use: 8/10

Fast type is a typing instruction program specifically designed for PC styled keyboards. These quick-start instructions will get you going right away. You must have a Colour/Graphics Adapter Card(CGA) or equivalent (EGA), (NOT Hercules)

For Drills Place the fingers of each hand on the home keys (ASDF JKL:) and type each letter as you are prompted for it. The selection of letters for you to type is random, the number of characters you have to successfully type is displayed before you start. When the drill is finished your WPM and other data will be displayed in the text panel.

For Lessons type each character pointed to by the cursor (and when you reach the symbol, press the enter key (Ÿ) (for 'carriage-return'). When you finish the lesson your WPM and other data will be displayed in the text panel.

There are five drill, lesson, and feature selection menus and two sub-menus for selecting additional keys to learn. The primary menus can be displayed by pressing function keys F1 to F5 anytime while the screen keyboard is displayed. And, while any selection menu is displayed you can go to another menu either by selecting it from Menu #1 or by first holding down the ALT key and pressing F1, F2, F3, F4, or F5.ALL menus have the Help Facility available.

Foreign Languages

French Tutor and other Languages (one disk each)
Author: Andrew Bartorillo
Registration:$10
Performance:6/10
Ease of Use: 8/10

The programs on this set of discs comprise a series of Language Tutors for learning French Spanish, German, Italian and Hebrew.

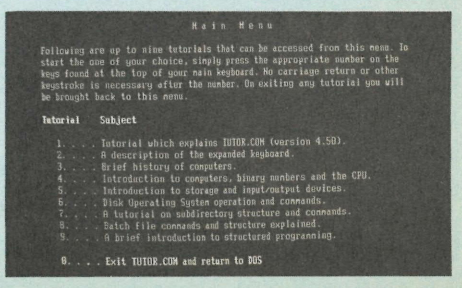
Each disk is self-contained and offers a complete tutorial on one language. The following text refers to all the tutorials.

Language Teacher is a series of menu-driven language tutorial programs. Each program in the series contains hundreds of word combinations and verb conjugation forms. A printer can be used to take advantage of its versatility.

Also included is the capability to select language-to-English or English-to-language combinations, choose multiple choice answers,be retested on misses, print a multiple choice test, and to run a full quiz diagnostic routine with line printer output.

Of particular interest to non-English students is the capability to select the direction of the combinations.All word, phrase, and verb conjugation selections are done randomly by the program the user being unable to predict what the next selection will be.

The program package is not designed to teach conversational language or pronuncia-



tion but, instead, to provide practice drills in order to increase your working vocabulary and to enhance your use of the conjugation forms.The extent of the vocabulary of each program is around 800 word combinations and about 1800 verb conjugations.

Humanities

The World (one disk)
Author: N/A
Registration: $20
Performance: 7/10
Ease Of Use: 7/10

The concept of this program is to produce graphically presented outline maps of any part of the world and support them with text-based data on the appropriate location.The opening screen shows a world view.

The ? in the upper left allows you to choose when to go on. You need to enter the file you wish to see presented. Unfortunately the program doesn't list what is available so you need to check before running it.

The main menu displays as follows: 1 - Select by LAT and LONG 2 - Select by large area name 3 - Select by area of EUROPE 4 - Find using CITY or COUNTRY name 5 - Capitals of the USA 6 - National Capitals 7 - Other CITIES of note 8 - Enter new info on Tracks 9 - The Global view 10 - Point at a location 11 - Approximate distance between Cities 12 - Plot any one Track 99 - EXIT to DOS ?

For example, if you know the latitude and longitude you want to look at, choose option 1. You will be asked for latitude first then longitude.

World then asks if you want a World view or nearby Cities, then asks for a scaling factor (a number from one to five). A default scale of 3 is selected by pressing the enter key. The largest area is 1 and the most detailed is 5. Scale 5 will show you the names of all World capitals and any locations you have.

Whilst the graphics are fairly crude, this program has plenty of information and facilities and is a good introduction to world geography.

Monarchs (one disk)
Author: Peter Waters
Registration: None
Performance: 7/10
Ease of Use 9/10

Monarchs is essentially a database of English Monarchs from they ear 827 to date but it offers very user-friendly interaction to provide instant access to the information it contains.

A quiz,'Master-Brain', is also included.After loading, a bar menu provides selections for the following options:- 1. Screen list of all monarchs. 2. Select by monarch name and browse. 3. Select by year. 4. 'Master-Brain' Quiz. 5.'Master-Brain' Top 10 Table. 6. Hard copy of all monarchs. 7.Hard copy of all reigns. 8. Hard copy details of named reign.

After making a selection, you are presented with the name of the selected monarch together with the date of the start and end of the reign, the duration of the reign and age of the monarch at death.

Pressing N or P shows similar details for the next or previous monarch. Pressing D at any time at this stage, displays details of events in that monarchs reign. Usually a second page of details available and where this is so, there is an invitation to select it.

There are 60 monarchs plus The Commonwealth and if hard copies of each are made together with the three sheets from item 7, a handy 64 page booklet will be obtained.As per issue 2

Drawing and Painting

Desktop Paint II (two disks)
Author: Compass Systems
Registration: £20
Performance: 9/10
Ease of Use 9/10
Requires Hercules or EGA/VGA graphics

The use of pictures can make a big difference to the appearance and readability of a publication. Most Desk Top Publishing programs have the feature for importing pictures but not for actually creating and editing them in the first place.

There is a wealth of what are known as 'Clip-Art' images available in the public domain but many of these need to be altered or enhanced to suit individual requirements.This is where Desktop Paint steps in. You can use it to create a drawing from scratch or, load in a suitable clip-art picture and edit it. It offers all the standard drawing features plus a selection of graphics tools. Formats supported include IMG, TIF, PCX, MAC and WPG. A mouse is required.

Desktop Paint is an excellent drawing program. It is designed more for professional quality Desk Top Publishing applications rather than just as a children's doodler, hence it is not in colour

PC Draft II (two disks)
Author: Natural Software
Registration: $50
Performance: 9/10
Ease of Use 7/10

PC-Draft II is a high resolution pixel oriented drawing and graphing utility, which is designed to facilitate a variety of drawing and drafting needs.You can produce drawings up to 1280 by 700 dots using the colour graphic adaptor high resolution graphics mode (640 x 200 dots per screen). Such a drawing will more than fill an 8-1/2 x 11 inch printed output (at 150 dots per inch resolution).

Built-in functions allow you to draw circles, lines, boxes, arcs and curves; draw bar, line and pie graphs; create patterns with which to fill areas; cut and paste objects and save objects to files for later use.

PC-Draft is both menu driven and command driven — all drawing commands may be selected from the menus or may be entered by a single keystroke command such as [C] to draw a circle or [L] for line.

You can zoom in to precisely edit one pixel at a time, record graphic keyboard macros saved in files for later playback and for animation effects and load and edit fonts.

Drawings may be printed on a variety of printers including those compatible with IBM and Epson Dot matrix, HP Laserjet+, and HPDeskJet printers. Also you can save the output to the printer in a file for later batch printing.

You can save portions of the screen or full drawings in GEM .IMG file format. These can then be directly imported into such DeskTop Publishing programs as Ventura Publisher and WordPerfect 5.0.

PC Draft II offers many more exciting features such as screen capture in all graphics modes, its own programming language called PIX. Highly recommended, professional standard throughout.

The Night Sky (four disks)
Author: A.C. Stevely
Registration: £4.95
Performance: 8/10
Ease of Use: 8/10

The Night Sky is a computer planetarium capable of plotting depending on your disk system, either 24,000 stars to magnitude+7.49, or 45,000 stars to magnitude +8.49.

It is a very easy to use menu – driven program. This program was written by an amateur astronomer who, when he is not looking at the stars, drives a London Transport bus!

He has spent many hours working on this program, which was originally started as an exercise in programming. Only when it was almost finished did the author think of distributing it as a shareware program.

Users can select from 28 different locations worldwide. If your city is not on the list then you will have to look up the latitude and longitude of your city in an atlas.

For anyone interested in the subject and for serious astronomers this program is a must.

Christian Software

Bible Companion (one disk)
Performance : 8/10
Ease of Use:8/10

A Bible Companion is just that. It is a companion to assist you in your study and reading of the Bible.

Reading Plan Bookmarks.:Here we have the 'hub' of the program. Two Bible readings will be highlighted on your screen based upon the current date. It takes on the average 20-30 minutes per day to read the highlighted readings.If you use A Bible

Companion on a daily basis you will have read by the end of one year's time the Old Testament once, and the New Testament twice. Printed bookmarkers are available to the user if a printer is attached.

Map, Charts and Dictionary: There are two map features that are available to the user. The Holy Land - Palestine option allows the user to locate many of the topographical features of Biblical Palestine. The Acts of the Apostles option allows the user to locate nearly all of the cities and regions mentioned in the New Testament book of Acts. By typing in the feature you wish to find, the program will do its best to display it on the selected map.

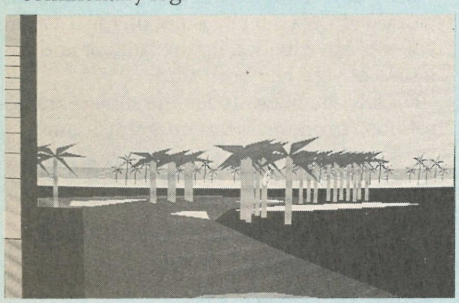
The charts should explain themselves. The dictionary was designed to assist the average reader in understanding some of the many archaic and obscure words found in the King James translation. You can use the dictionary by pressing the Page Up and Page Down keys, and also by pressing any letter key.

File Viewer: The purpose of this option is to provide a way to read Bible text while still being able to gain access to some of the more useful utilities of this program, such as the Dictionary and Maps -both of which can be called up while viewing a file. Most shareware/public domain distributors have the Bible on disks that can be used with the 'File viewer option.

Seedmaster (nine disks)
Author: Unknown
Registration: Unknown
Performance: 9/10
Ease of Use: 8/10

The author of Seedmaster has done a lot of research into the needs of both ministers and Bible students and has come up with an extremely powerful and versatile work.

It combines the complete Bible – New Testament and Old Testament with an amazingly clever database/hypertext system which acts as a complete concordance and commentary log.



Seedmaster features more than 36 fast search methods. These can be based on a single word or a sequence of words, which in turn can be further defined in terms of and/or logic functions eg look for all the occurrences of both the words Moses and Bullrushes.

Users can add their own notes and comments for each verse in the Bible using an on-screen pop-up notebook.

Seedmaster features multi-window scrolling to display up to three sections of the Bible at a time plus extensive display and print options. Needless to say it requires a hard disk based system to operate. Files are archived on the nine-disk set.

An essential aid to church ministers and Bible students.

Power Menu (one disk)
Publisher: Shareware Publishing
Registration: £49.95
Performance: 9/10
Ease of Use: 8/10

Menu Systems

One of the biggest frustrations for a new user of a PC is the unfriendly operating system which comes with it (unless of course you are fortunate enough to have a high performance computer and Windows).

A newly unwrapped computer with a hard disk drive will probably just present you with the C> prompt when you switch it on. You then have to know about sub-director tree structures, DOS commands and the appropriate name to type in to get any programs running.

To overcome this problem several authors have written new 'front-ends' to MS-DOS which improve the interface between you and your programs.

These are usually in the form of an on-screen menu system which lists the options and programs available, tells you which keys do what.Power Menu is one of the best examples of the genre. It is easy to install and menus are completely user-configurable. You just type in the title you require, the name of the program and where it can be located.

Plenty of on-screen context sensitive help is provided and there are several useful additional utilities if you want them.

Disktree (one disk)
Author: Richard Smith
Registration: $20
Performance: 9/10
Ease of Use: 8/10

Making order out of the chaos of the thousands of files contained on even the smallest of hard-disk drives is both important and incredibly tedious.Without control and order, files get lost, space gets wasted and productivity drops as users spend more and more time just keeping track of what files are where.

Of course, in a perfect world, users would save their data according to a sensible and logical standard of what files should go where.

Unfortunately, no one does this with any real conviction and when things get confused, there is no quick way of sorting the mess out.

DiskTree is an attempt at creating an affordable, powerful and easy-to-use.

It offers full Microsoft mouse support, extended screen resolutions, i.e. 43 and 50 line modes, Up to 26 drives in memory at once and between 10,000 and 13,000 files and directories held in memory.

The Directory structure is displayed in pictorial fashion and can be traversed using either the keyboard or mouse.

Features include: Files, directories, directories trees and even entire drives can be moved, copied or deleted with ease. Search for individual files or directories. Option to auto view files during file operations. Files can be viewed, edited or executed.

File and Disk Management

Flexibak Plus (one disk)
Author: Adrian Mardlin
Registration: £29.95
Performance: 8/10
Ease of Use: 8/10

Flexibak Plus is a flexible, easy to use hard disk back-up system that takes a logical, simple and unique approach to the back-up problem.

With a conventional back-up system, you are required to take a full back-up approximately once a week and do daily incremental back-ups which are placed on separate disks.

Should you need to restore from the back-up, you must first restore the full back-up and then each of the incremental back-ups up to the last back-up taken.

With Flexibak Plus, all this is different as the concept of full back-ups and incremental back-ups is removed.

Instead, you only need to take a full back-up once and then all subsequent back-ups are placed on the same back-up disks, giving some long term speed increases, simpler file restoration and an improved back-up management capability.

Flexibak Plus: Selective back-ups allow you to specify, both globally and by directory, which file groups should be included in, or excluded from, the back-up, potentially dramatically reducing the number of back-up disks required.

Incremental back-ups are placed on the same disks as the full back-up, so you only ever need to take a full back-up once.

File management system means that Flexibak Plus keeps track of what has been backed up.

It will also inform you if any files have gone missing from your hard disk since the last back-up.

This facility is particularly useful because it allows you to recover accidentally deleted files.

File compression is included in the system as is the capability to handle up to 20 hard disk drives.

The alarm system warns you on booting your computer that you have forgotten to take a back-up for a specified number of days.

Maxiform (one disk)
Author: Herne Data Systems Ltd
Registration: $10
Performance: 9/10
Ease of Use: 9/10

Are you tired of running out of space on your floppy disks? How would you like to fit 420k on a 360k disk, 800k on a 720k disk, 1.4 meg on a 1.2 meg disk, or an incredible 1.6 meg on a 1.44 meg disk?

Sound impossible? Well not any more. If you are using DOS version 3.2x or later, then this innovative new shareware program from Herne Data Systems is just the thing for you.Using MAXI Form for all your floppy disk data storage needs is like getting an extra one and a half disks FREE with every box of floppies that you buy.

In most cases, no special software driver programs are required to access these disks. However, in cases where reliable stand alone operation cannot be achieved (it is a complex function of ROM BIOS details, DOS version and disk controller characteristics), the simple device driver SMAX.COM can be used to patch the BIOS code and provide resident support.

To use MAXI Form you will need a 100% IBM compatible computer (PC, XT, AT, PS/2, Convertible, etc) with at least one 360k 5.25 inch, 1.2 meg 5.25 inch, 720k 3.5 inch or 1.44 meg 3.5 inch floppy drive.

The 1.44 meg drive can be used to format 800k 3.5 inch disks; and the 1.2 meg drive can also be used to format 420k disks or 800k 5-1/4 disks.

Note that with many BIOSes, you will need to use the TSR driver program SMAX.COM supplied with Maxi Form to read and write MAXI style disks (especially 800k, 5-1/4 inch disks).

Children's Games

Mummy's Busy (one disk)
Author: Various
Registration: Various
Performance: 7/10
Ease of Use: 8/10

This disk contains a selection of entertaining programs suitable for 4-10 year olds and provides an excellent way to keep them amused while you are trying to get on with your jobs - hence the title!

Cards is based on the popular TV programme called Play Your Cards Right You have to guess whether the next hidden card is going to be higher or lower than the one on display. Points are awarded for successful answers.

Memory is a game of Concentration or Pelmanism. A deck of 54 cards is laid out face down. You try to match the cards. If the two cards match you receive two points and they will be removed. The cards are animals and there are four of each, with the exception of Hyena, of which there are only two. Matching the Hyena cards will give you four extra points.

Be careful: if you match Cat and Mouse or Hawk and Dove you will lose two points – they hate each other.

But, on a one time basis, if you match Dog and Horse or Lion and Tiger you will get a bonus of two points – they love each other.

Wari is played on a board which has 12 compartments arranged in two rows of six (the arrangement is similar to that of an egg carton). The numbers of the side represent the quantity of the computer's 'counters', and the numbers on the lower represent the 'counters' on the player's side.

A movement consists of taking all the counters from one compartments on your side and distributing, one counter into each of the adjacent compartments in a counterclockwise direction.

You score points by capturing counters. A capture occurs when you sow your last counter in an opponent's compartment which previously contained either one or two counters. The counters from that compartment are then removed from play.

The game can end in several different ways. Play must end however when the board is empty and all the counters have been captured or whenever one player has captured more than half of the counters. Wari also permits a stalemate, where each player chases the other around the board fruitlessly.

Numgame is a counting game for five-year-olds. It asks the child to count up the faces on the screen and type the number. Remind them to press the enter key after entering the number.

Finally Battle which is a straightforward shoot 'em-up game for under sevens.

Funny Faces
Author: Z-ware
Registration: $10
Performance: 9/10
Ease of Use: 9/10

Many of the paint packages on the market today require some degree of skill to generate recognisable pictures. This often times creates frustration on the part of very young children when using the software.

This is not so with Funny Faces It was designed to provide children with a creative form of amusement. It allows children to create animation style faces without requiring them to possess strong artistic skills. It is similar to the popular pastime known as Mr Potato Head but is played on the computer screen instead.

The user selects a basic face and, from a wide choice, select hair, eyes, noses, mouths, ears, eyebrows and beards.

Funny Faces will run on IBM and compatible computers equipped with 512K of memory, a hard disk, and an EGA or CGA colour monitor with a graphics adaptor.

Basic operation of the Funny Face II program can be achieved through the use of just two keys as all activities may be selected from a MENU on the screen.

Images can be saved and retrieved from disk. Print support is available for 180 different printers. Random images can be created using the demo mode. Pictures created by the demo mode can be captured by pressing any key while the demo image is still on the screen. Children can colour in the faces (up to 16 colours on EGA)

Robomaze (one disk)
Author: MVP Software
Registration: $15
Requires CGA or EGA/VGA
Performance: 8/10
Ease of Use: 8/10

In Robomaze II you are a freedom fighter against your country's tyrannical dictator. Employing sophisticated animated graphics, Robomaze II takes you on an epic journey never before experienced on the PC.

Robomaze II took two years to produce because its graphics are extremely intricate. Screen updates occur constantly so that animation is as smooth as any game yet created for the IBM.

With more than 40 graphics screens, even the most discriminating game player will be amazed and delighted. The game boasts novel graphics, extraordinary characters, striking special effects and imaginative challenges.

There are three games in the complete Robomaze II trilogy. The Lobby is volume one. Having tunnelled from the secret headquarters of the Resistance into the basement of the Tower, you battled through the terrifying Maze of Death to reach the lobby. In The Lobby you must fight your way through the first 40 rooms of the Tower.

But the evil dictator's devious henchman, the Mad Scientist, has concocted all sorts of cunning schemes to prevent you from succeeding, including diabolical traps and fearsome enemy robots.

Monuments of Mars (one disk)
Author: Apogee Software Productions
Registration: £12.50
Disk works with all types of graphics modes
Performance: 8/10
Ease of Use: 9/10

Apogee is the leading publisher of shareware games and have won several awards. All their games offer 16-colour graphics (on the appropriate adaptor) and extensive range of sounds.

In the game, NASA has sent several manned missions to explore the mysterious monuments...but every mission has ended in disaster.

Soon after the astronauts landed on Mars NASA lost contact with them and no one knows why. You're the final hope. You have been chosen for a special mission to rescue the missing astronauts and to discover the secrets of the Martian monuments. The game begins just after your ship lands on Mars

near the site of the 'Cliff', one of the many monuments.

Will you suddenly vanish like the astronaut explorers before you? Can you find the entrance to each monument and discover what secrets are hidden inside?

Hi Resolution Games

Kung Fu Louie (three disks)
Requires EGA/VGA
Author: Unknown
Registration: $30
Performance: 9/10
Ease of Use: 8/10

In the history of the New York City brawls, groups of vigilantes, gangbangers and renegades, otherwise known as ruthless streetfighters, stormed the neighbourhoods.

Through constant battles and rumbles, the leaders arose, bringing a new breed of mayhem to the streets. Karate, kung fu, tae kwon do, shinobi-jutsu/ninjutsu, and all other martial arts quickly became influenced with the 'art' of streetfighting.

Soon, corrupted masters and students began to take control of the streets. Now, it's Kung Fu Louie to the rescue. His task is to rid the city of the streetfighting gangs. He needs your help to control his movements and actions.

Two karate students have got together with a team of programmers to produce a high quality game which compares very favourably with commercial equivalents, both in terms of the excellent animated graphics and the realistic gameplay.

Highly recommended commercial standard animated graphics game

Duke Nukem (one disk)
Author: Apogee Software
Registration: £19.95
Performance: 9/10
Ease of Use: 9/10

An incredible EGA/VGA game with large animated characters, and huge levels. Your mission is to stop Dr. Proton, a madman bent on ruling the world with his army of Techbots. As the irrepressible hero Duke Nukem, you'll chase Dr. Proton deep into the Earth, then to his lunar space station, and eventually into the Earth's nuclear ravished future.

This is an astonishing Sega Genesis style game with more animation than ever seen on an IBM PC! Also features dual scrolling play fields, with huge 3-D backdrops. No other IBM game has emulated this eye-popping effect. Watch Duke somersault and cling on to ceilings as he escapes traps and battles Proton's robot guards. This game is sure to be a show stopper!

Other features include four-way scrolling levels, cinematic effects, demo mode, built-in hint mode, arcade sound effects, joystick support, high score chart, save/restore up to nine games, unlimited continues, keyboard reconfigure, sound on/off toggle, cheat mode, and much more...

Hard Disk recommended

Commander Keen and the Vorticons of Mars (one disk)
Publisher: Apogee Software
Registration: £19.95
Special Requirement
EGA/VGA graphics
Performance: 9/10
Ease of Use: 9/10

Commander Keen is certainly a very impressive piece of software. From a technical point of view the programmers have squeezed a lot out of the PC and have achieved a standard of animation that was not thought possible. Apparently they use a 40 frame per second scrolling rate which is better than that used on standard cartoons.

The game itself is equally brilliant, using full 360 degree scrolling play fields, arcade standard sound effects, joystick support and hundreds of screens to explore.

The story of Commander Keen parallels the escapades of Flash Gordon and other super-heroes. The shareware version is a fully working game and is the first in a series if three - the other two have to be paid for by registration with the publisher or their agents.

Keen's first adventure takes you to Mars, where the Vorticon invasion force is planning their conquest of Earth. While Keen is exploring Mars the Vorticons steal pieces of his ship and hide them within their vast cities. Can Keen recover all the pieces and repel the Vorticons?

Sports Simulations

Caddie Hack (one disk)
Author: Paul Simoncic, MICODE Developments
Registration: $20
Performance: 9/10
Ease of Use: 8/10

Caddie Hack is a golf game written for EGA and VGA systems. A CGA version is available on registering.

It is probably the most realistic golf simulation yet released and it makes excellent use of graphics to present both a perspective and vertical view of the course. All actions are user-controlled and the game play appears to be quite authentic.

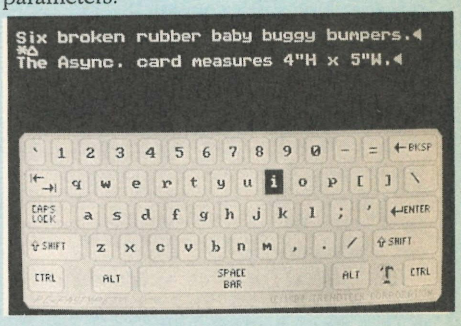
The program is developed using a new course architect system called ARCH which uses a database of polygon sets to create the images of fairways, bunkers, water traps and greens.

Tapping the space bar begins the shot. Tap the space bar a second time to select the power of the swing. If you wait until the swing pointer has passed 100 percent power (and gone into the yellow area), your power is reduced dramatically. If the swing pointer reaches the top of the yellow area, you miss the ball.

Tap the space bar a third time to make contact with the ball. If you tap the space bar too early, you miss the ball. If you wait too long until after the pointer is well into the yellow area below the grid, you also miss the ball. If you do hit the ball, but hit it early, it will slice right and with reduced power. Hitting late will hook left and also reduce power of the shot.

Club selection is based upon distance to hole, wind, and playing level. The built in caddie usually picks the right club. To keep the game interesting, the caddie will not judge course hazards so choose your club wisely when near water.

The registered version offers a lot more choices of course and operational parameters.



Soccer Game (one disk)
Author: Wizard Games UK
Registration: £12
Performance: 8/10
Ease of Use 8/10

The object of this outstanding game is to become a successful manager of a football team. At the outset you are contracted for a number of years to a fourth division team. From this lowly base you try to build up a reputation which ensures other teams have an avid interest in desiring your managerial qualities to be present at their club.

Consequently, when your contract expires you may, if you're extremely talented, get offered a contract from a first division team.

If, however, you are incompetent as a manager (whether by spending too much of the club's money, selling too many of their shares, losing too many matches, etc), your contract will not be renewed and no other reasonably-minded team will offer you another contract.

The game will be over. Whilst under contract it is still possible for you to be sacked - for gross misdemeanours - but not possible for you to leave your current club for another. Success is measured in a number of ways.

Largely it is a personal matter. Some people may play the game to win a European cup, others only for the FA cup; some will play the game to amass large sums of money, others to be top of the first division. Others still will be playing to remain as an active manager for as many seasons as possible.

The Soccer Game uses a database of 1270

players, 100 teams, 100 treasurers, 100 scouts, 100 physiotherapists, 100 managers, 100 assistant managers.

Ford Simulator II
Author: Ford Motor Company
Registration: None
Performance: 8/10
Ease of Use: 9/10

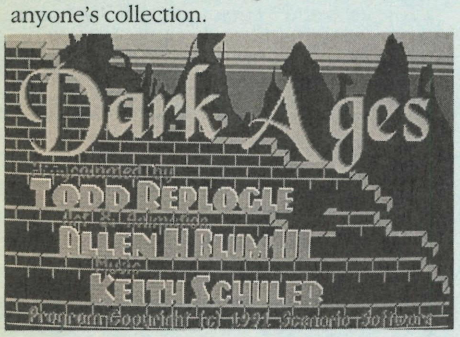
Although primarily designed as a marketing tool – to get American users to buy a Ford vehicle – Ford Simulator offers a considerable interest too.

The program is very well presented using a MAC-like screen. The graphics are good and the program both informative and entertaining.

First of all you can study the technical specifications of the range comprising cars and pick-ups using the Info Section. You can even watch an animated graphic display of a working piston engine.

Next, pick a vehicle of your choice, take the wheel and test drive it on a selection of courses. there are the city challenge, tour the airport, visit the shopping centre, take to the back roads or, even more fun, three varieties of drag strip.

Ford Simulator supports keyboard, joystick or mouse control and there are three skill levels to choose from. A great addition to anyone's collection.



Skill & Strategy

Star Trek (one disk)
Authors: Various
Registration: None
Performance: 7/10
Ease of Use: 7/10

What hasn't been written about this classic program – or rather entire suite of programs! Back in the early days of computers, when programmers started to get bored with the tiresome task of producing 'serious' stuff, they were watching what has now become the cult classic TV series (the original one with Captain Kirk and Mr Spock of course).

It seemed a natural progression to base a strategy-style computer game on the Star Trek theme. Thus was born the early versions of Star Trek - the computer game. of course in the days there were no such things as graphics cards so the game was very much text based.

Even so, the clever designers managed to make very effective use of the extended IBM character set to produce maps, dials, indicators and computer output.

The Star Trek theme has evolved quite a bit since then and this disc features three different versions - one similar to the original mono version, one for CGA users and the newest for EGA screens.

The fundamental basis is that you are the captain of the enterprise and your task is to boldly go, seeking out and destroying the enemy Klingon Ships by judicious use of the maps and data at your disposal and of course application of the weaponry on-board. A must for any PC games collection.

Facing the Empire
Author: MVP Software
Registration: $15
Performance: 7/10
Ease of Use: 8/10

Facing The Empire is a one-player strategy game that takes you to the far away stellar world of Lyra.

The Lyrans are a peaceful people, but now they are under attack by the evil Morte Star Empire. As their new commander, you must drive the Morte out of the Lyran stellar periphery. Your task is to build up the Lyran Star Fleet, develop defence and attack strategies, gather intelligence on Morte positions and movements, locate Morte bases within the 64 stars of the Lyran stellar periphery, protect the eight Lyran planets from Morte attacks which can occur at any time, and deploy attack flotilla groups to defeat the enemy.

Games may be saved and resumed later. As you complete successful missions, you are promoted through four skill levels (Novice, Captain, Commandant, Admiral), each level being more difficult but more rewarding.

The game automatically keeps track of skill levels for up to 100 different players on one disk. Designed for the novice to advanced user. A good game with more depth to it than it might seem at first glance.

Graphics Adventures

Kingdom of Kroz II (one disk)
Author: Apogee Software Productions
Registration: £9.95
Performance: 8/10
Ease of Use: 9/10

Kingdom of Kroz uses high-speed 16-colour text-based graphics and therefore works on all machines. It features a tremendous sound effects library.

This shareware game is the first in a series totalling seven different games. The author has adopted an unusual and effective method of registration. instead of asking for payment for this, the first game in the series, he asks satisfied users to pay for the subsequent games in the series.

You must navigate through dangerous chambers, solving puzzles and avoiding pitfalls. Collect gems, whips, chests, nuggets, tablets, keys and scrolls to aid your progress. This game is as much strategic as it is pure arcade fun. A unique combination of arcade action, strategy and adventure unlike any other game you've played. Some levels are puzzle oriented, which makes a great change of pace from the high action parts of the game. No two games are alike!

Dark Ages (one disk)
Author: Apogee Software
Registration: £19.95
Performance: 9/10
Ease of Use: 9/10

Dark Ages is the first shareware game to support the Ad Lib and Sound Blaster music cards. It features a movie-style soundtrack of eight unique songs and themes. It also has sound effects that don't require an Ad Lib (or Sound Blaster) card to enjoy.

The EGA/VGA graphics are colourful and stunning, with fast scrolling screens and high-speed animation. Dark Ages has such demanding graphics and animation that it requires an 80286 (or 80386) machine to run at proper speed, otherwise it may run too slowly. Therefore, Dark Ages may only run on the newer, faster PCs and compatibles.

In the game, you're the Prince of the Great Kingdom, who as a child watched your father die at the hands of Garth, a power mad warlord with uncanny magical abilities. Garth sent you away from the Great Kingdom to be raised as a peasant, and to never fulfil your destiny as the future King.

But Garth made a terrible mistake. The very peasant he choose to raise you was once the Kingdom's greatest hero, long since retired and forgotten. And over the years you were raised as a warrior and as champion of justice, and the time has come for you to claim your heritage, and free the Great Kingdom from the dark age of Garth.

Hugo's House of Horrors (three disks)
Author: David P. Gray
Registration: $19.95
Requires EGA graphics
Performance: 9/10
Ease of Use: 9/10

Hugo's House of Horrors is an exciting and challenging adventure game for all ages, using a combination of colourful three-dimensional animated graphics and text. You control Hugo's destiny as he tries to rescue his sweetheart, Penelope, imprisoned somewhere inside the haunted house, and must solve the various puzzles and challenges encountered during his quest.

To move Hugo, use either your arrow keys or the numeric keypad. If using the keypad, diagonal movement is possible.

Use simple english to instruct Hugo to per-

form an action. For example 'Look around' or 'Look at door' to look at things. To pick something up try 'pick up the gold' or 'get gold' or 'take gold'. Many synonyms are allowed but if Hugo doesn't seem to understand, try re-phrasing your command.

Certain actions carry a bonus score when carried out, as does picking up useful objects. When you have successfully completed the game, your score should match the maximum score shown on the status line at the top of the screen.

If you have trouble solving some of the puzzles in this game, there is a free hint booklet available. This contains a range of hints, from subtle to obvious, for each room.

To obtain your hint booklet you have to register. The registered version allows you to record and playback games and comes with a pre-recorded game which automatically runs from start to finish, achieving the maximum score possible.

This is a very good example of the quality games now available as shareware.



Classic Adventures

Alice in Wonderland
Author: R.C. Johnson
Registration: $10
Performance: 7/10
Ease of Use: 8/10

Alice in Wonderland is an adventure game based on Lewis Carroll's novel, Alice's Adventures in Wonderland. Although you need not be familiar with the novel to play, there are occasionally places it would help.

However, you will notice immediately (if you know the novel), that the author has added some possibilities that Lewis Carroll never thought of.

This game is meant to be played as an accompaniment to reading the novel, to make a great literary classic more interesting (as if it needs it). Reading the novel and playing the game as a supplement can be extremely engaging for adults and teenage children. Younger children may find the game too difficult.

There are 16 objects in Wonderland to interact with. You'll know them when you see them. You may pick them up, drop them, put them in your apron pocket, or manipulate them in a few other ways.

There are 10 creatures or other characters you can interact with. You may talk to them with the command TALK. You can interact in other ways, as well. These are the characters from the novel. They will behave in roughly the same way as they do in the novel. Some pose danger, some can help you, and some are merely there.

You will discover that your size can change in this game. You start out your normal size, and then may grow or shrink, depending on your actions. At times, you will have to be very small to accomplish certain tasks.

Dungeons and Dragons
Author: RO Software
Registration: $25
Performance: 8/10
Ease of Use: 8/10

Dungeons and Dragons is a computer fantasy role playing game inspired by the manual paper game Dungeons and Dragons. This game is not for everyone. The author states it is not for those who lack imagination.

But those whose imaginations know no bounds will find that the 'world' of dungeons and dragons that they themselves have a hand at creating is one in which fantastic is fact and magic really works.

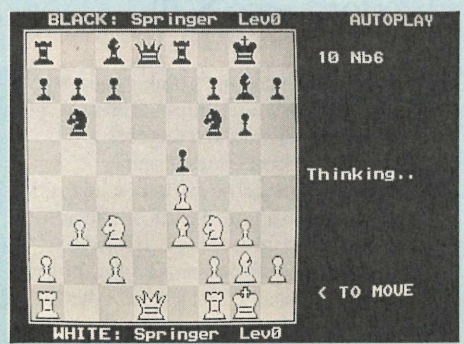
Anyone who has played this game to any extent will realise that it is somewhat more than just a clever computer game, that the characters you create may contain a tiny bit of yourself, and that the urge to return and explore just one more level down, if not carefully controlled, can begin to take precedence over work, family, eating, sleeping...

If you are patient and skillful, your character will live to grow in power and wealth, and will be able to explore deeper and deeper into uncharted regions from which few return. But be warned! If you are too bold or too greedy, you won't survive long.

As long as it remains alive, your character will remain in the DND character file, waiting for you to return and bring it to life.

There are three character types: fighter, magician, and cleric.Each has some advantages and disadvantages. Fighters are much better in combat and harder to kill, but magicians and clerics can cast spells. Each has its own unique characteristics.

Experience is gained by killing monsters (immediate) and gathering treasure (cumulative). In order to advance a level, you must double your experience. This total is updated continually during your expedition, therefore you may advance a level at any time. It would take the whole of this magazine to describe DND completely so, take our advice and get yourself a copy!



Board Games

Power Chess (one disk)
Author: Unknown
Registration: Unknown
Performance: 9/10
Ease of Use:9/10

Chess is a very good exercise for any programmer to get his teeth into due to the fact that it takes only a few logical rules to generate a massive range of possible outcomes.

Not surprisingly therefore, there have been very many versions of the game through the years ranging from text based ones with no board graphics at all through to arcade action commercial games like Battle Chess where the pieces literally fight it out.

Power Chess is to date probably the best shareware Chess game released. It's screens are clearly laid out with nice large pieces and a separate area on the right for information and instruction.

The program obeys the international chess rules and recognises stalemate and technical draw. It shows playing time for black and white, index of the last 21 moves, index of all possible moves, computer hints for next move, go back on a move plus game save/restore facilities.

A range of standard openings is supplied on the disc. the pieces are moved using the arrow keys and a cursor. Power Chess runs on all types of display and adjusts itself accordingly. It is also available in several languages.

Global Battle (one disk)
Author: Phil Munnelly
Registration: £6
Performance: 8/10
Ease of Use: 8/10

Global Warfare Simulator is, as its name suggests, about a world at war. The game is played by up to ten players, any number of which can be a human players. All others are controlled by the computer. If no human players are set up then the game will play as a simulation.

Each world is divided up into a number of continents which are themselves divided up into regions. Each region is occupied by one or more armies of a single player. The ultimate object of all players is to take over the number of regions required to win the game.

After the initial option setup, the game begins by allocating the initial armies to each player. The number of human players will have been set up as part of the initial options.

Each game turn involves each player being allocated additional armies depending on the number of regions held, with bonus amounts being given for controlling complete continents. The player can opt to attack a region of another player during their turn, but in doing so loses the armies generated by the regions (but not the continents).

SOFTWARE CITY

Unit 4, B.D.C., 21 Temple Street, Wolverhampton. WV2 4AN.
Tel: 0902 25304. Fax : 0902 712751

VISA

CALL US ON : 24 HOUR CREDIT CARD HOTLINE 0902 25304

Access

PC SELLERS

	5¼"	3½"
3D Construction Kit	34.99	34.99
3D Pool	9.99	9.99
4D Boxing	21.50	21.50
A10 Tank Killer Enhanced Version	27.99	27.99
ATP (Airline Transport Pilot)	27.99	27.99
Austerlitz **(New Price)**	9.99	9.99
Baby Jo Go Home **(New)**	21.50	21.50
Backgammon	17.50	17.50
Bards Tale 3	21.50	21.50
Battle Chess 2	17.50	17.50
Battle Chess 2 Windows	24.99	24.99
Battle Command **(New)**	21.50	21.50
Blasteroids	7.99	7.99
Blood Money	9.99	9.99
Breach 2 Enhanced	21.50	21.50
Brian Clough's Football Fortunes	10.99	N.A
Bridge Player 2150	21.50	21.50
Budokan	9.99	9.99
California Games	7.99	7.99
Castles	24.99	24.99
Champions of Krynn	21.50	21.50
Chessmaster 2100	17.50	17.50
Chessplayer 2150	17.50	17.50
Chuck Yeager Air Combat	24.99	24.99
Colossus Bridge 4	13.99	N.A
Colossus Chess 10	17.50	N.A
Colossus Mah Jong	13.99	N.A
Command HQ	24.99	24.99
Conflict Europe	9.99	9.99
Corporation	24.99	24.99
Curse of the Azure Bonds	21.50	21.50
Death Knights of Krynn	21.50	21.50
Defender of the Crown	9.99	9.99
Dino Wars **(New)**	17.50	17.50
Elite Plus	27.99	27.99
European Super League	17.50	17.50
Eye of the Beholder	21.50	21.50
F14 Tomcat	24.99	24.99
F-15 Strike Eagle 2	24.99	24.99
F-16 Combat (CGA or EGA)	17.50	17.50
F-19 Stealth Fighter	27.99	27.99
F-29 Retaliator	24.99	24.99
F117A Nighthawk	27.99	27.99
Ferrari Formula 1	9.99	9.99
Flight of the Intruder EGA/VGA	27.99	27.99
Flight Sim 4	36.99	36.99
Flight Sim 4 Add-on Package Design Scenery & Extra Planes	21.50	21.50
Football Magare 2 + Expansion Pack	9.99	9.99
Fun School 3 (u 5)	17.50	17.50
Fun School 3 (5-7)	17.50	17.50
Fun School 3 (7+)	17.50	17.50
Geisha	17.50	17.50
Ghengis Khan	N.A	27.99
Golden Axe	21.50	21.50
Gunship 2000	27.99	27.99
Hard Drivin	7.99	7.99
Heart of China (EGA or VGA)	27.99	27.99
Heroes of the Lance	17.50	17.50
Heroes Quest	27.99	27.99
Hitch Hikers Guide to the Galaxy	9.99	9.99
Immortal	21.50	21.50
Indiana Jones Last Crusade (Action)	7.99	7.99
Jack Nicklaus Golf &Course Design	27.99	27.99
Jack Nichlaus Clip Art	10.99	10.99
Jet Fighter 2	27.99	27.99
Joe Montanas American Football	24.99	24.99
Jungle Book	7.99	7.99
Kick Off 2	17.50	17.50
Killing Cloud	24.99	24.99
King of Chicago	9.99	9.99
Kings Quest 5 (EGA or VGA)	27.99	27.99
Kings Quest 5 HD (VGA)	31.99	31.99
Klax	7.99	7.99
Leather Goddesses of Phobos	9.99	9.99
Leisure Suit Larry NEW VGA VERS	27.99	27.99
Leisure Suit Larry Looks for Love	27.99	27.99
Leisure Suit Larry 3	27.99	27.99
Leisuresuit Larry 5 (EGA or VGA)	27.99	27.99

	5¼"	3½"
Lemmings	24.99	24.99
LHX Attack Chopper	27.99	27.99
Licence to Kill	7.99	7.99
Links	27.99	27.99
Links Bayhill Additional Course	12.99	12.99
Links Bountiful Additional Course	12.99	12.99
Links Firestone Additional Course	12.99	12.99
Links Hyatt Additional Course	12.99	12.99
Links Pinehurst Additional Course	12.99	12.99
Manchester Utd	17.50	17.50
Mario Andrettis Racing Challenge	21.50	21.50
Martian Memordum (LD or HD) **(New)**	27.99	27.99
Mavis Beacon 2 (Typing Tutor) **(New)**	24.99	24.99
Mega Fortress (HD or LD	24.99	24.99
Mega Traveller 2	24.99	24.99
Merchant Colony	24.99	24.99
Mig 29 Super Fulcrum	31.99	31.99
Might & Magic 3 (HD or LD)	27.99	27.99
Moonwalker	7.99	7.99
No Greater Glory	24.99	24.99
North and South	7.99	7.99
Outrun	7.99	7.99
PGA Tour Golf	21.50	21.50
Police Quest 3 (VGA)	27.99	27.99
Pool of Radiance	21.50	21.50
Pools of Darkness (HD)	21.50	21.50
Populous **(Special Offer)**	9.99	9.99
Populous/Sim City	24.99	24.99
Populous Promised lands add on	5.99	5.99
Ports of Call	24.99	24.99
Prince of Persia	21.50	21.50
Railroad Tycoon	24.99	24.99
Red Baron (EGA VGA)	27.99	27.99
Rick Dangerous 2	17.50	17.50
Rocket Ranger	9.99	9.99
Sarakon	13.99	13.99
Secret of Monkey Island	21.50	21.50
Secret of Silver Blades	21.50	21.50
Secret Weapons of the Luftwaffe	27.99	27.99
Shadow Sorceror **(New)**	21.50	21.50
Sherman M4	7.99	7.99
Silent Service 2	24.99	24.99
Sim City / Populous	24.99	24.99
Sim City Architecture 2	10.99	N.A
Sim Earth	27.99	27.99
Sorceror (infocom)	9.99	9.99
Sorcerors Get all the Girls	21.50	21.50
Space Quest 1 (VGA new ver 3D Graphics	27.99	27.99
Space Quest 4 (VGA or EGA)	27.99	27.99
Speedball	9.99	9.99
Speedball 2 (VGA or EGA)	24.99	24.99
Star Trek 5	21.50	21.50
Tennis Cup (VGA)	7.99	7.99
Terminator 2	21.50	21.50
Test Drive 3	21.50	21.50
Tetris	17.50	17.50
Their Finest Hour	21.50	21.50
Their finest Missions	10.99	10.99
Three Stooges	9.99	9.99
Thunderblade	7.99	7.99
Tony La Russa's Baseball **(New)**	24.99	24.99
Toobin	7.99	7.99
Trivial Pursuit	17.50	17.50
TV Sports Football	9.99	9.99
UMS 2	27.99	27.99
Ultima 6	24.99	24.99
Waterloo	9.99	9.99
West European Scenery Disc	12.99	12.99
Western Front (HD)	24.99	24.99
Wing Commander (HD or LD)	24.99	24.99
Wing Commander Mission Disk	10.99	10.99
Wing Commander Secret Missions (H/I)	10.99	10.99
Wing Commander 2 LD	N.A	27.99
Wing Commander 2 HD	N.A	27.99
Wing Comm 2 Speech Access Pack HD	12.99	12.99
Wonderland	24.99	24.99
World Class Leaderboard	7.99	7.99
Xenon 2	9.99	9.99
Zork 1 or 2 or 3	9.99	9.99

SIXTEEN BIT COMPILATIONS

★ AD & D ACTION ★
Heroes of the Lance, Hillsfar & Dragons of Flame
PC ALL FORMATS £24.99

★ SIM CITY COLLECTION ★
Sim City, Terrain Editor & Architecture **PC ALL FORMATS £31.99**

★ FIVE INTELLIGENT GAMES★
Chess, Bridge, Go, Backgammon & Draughts
PC ALL FORMATS £21.50

★ VIRTUAL REALITY VOL 1 ★
Midwinter, Carrier Command, Stunt Car Racer, Starglider 2 & Int Soccer Challange
PC ALL FORMATS £24.99

★ FAST LANE★
Stunt Car, Hard Drivin, Chicago 90, Vette & Ferrari Formula 1
PC ALL FORMATS £21.50

★ VIRTUAL WORLDS★
Driller, Total Eclipse, The Crypt, & Castle Master
PC ALL FORMATS £21.50

★ VIRTUAL REALITY VOL 2★
Virus, Sentinel, Weird Dreams Resolution 101 & Thunderstrike
PC ALL FORMATS £21.50

★ AIR COMBAT ACES ★
Falcon Gunship & Fighter Bomber
PC ALL FORMATS £24.99

★ MOVIE PREMIER★
Teenage Mutant Hero Turtles Gremlins 2 Back to the Future 2 & Days of Thunder
PC ALL FORMATS £21.50

★ AIR & SEA SUPREMACY ★
Silent Service Gunship F15 Strike Eagle Carrier Command & P47 Thunderbolt
PC ALL FORMATS £24.99

★ QUEST & GLORY ★
Midwinter, Cadaver, BAT, Iron Lord & Bloodwych
PC ALL FORMATS £24.99

★ THE TOP LEAGUE★
Speedball 2 Rick Dangerous 2, Falcon Midwinter & TV Sports Football
PC ALL FORMATS £24.99

★ TEST DRIVE 2 COLLECTION★
Test Drive 2 (The Duel), Musclecars, Euro Challenge, Super Cars & California Games**PC ALL FORMATS £24.99**

★ PRO SPORT CHALLENGE★
J.Nichlaus Golf and Championship Courses, Cycles & Powerboat USA
PC ALL FORMATS £21.50

MEGA SOUND
The perfect Audio card for your PC. FM Music Synthesiser Micro Chip. 11 Melody Voices or 6 Melody Voices + 5 percussion Instruments. Digital Surround effects. Power Amlifier 2/4 Watts per channel. Standard " Walkman Gold plated Earphones included Drives Stereo Power Amplifiers or Ster HiFi Sets. Fully Ad Lib Compatible. Adjustable Volume Control
NEW LOW PRICE 55.00 INCLUSIVE OF CARRIAGE

3.5" DOUBLE SIDED, DOUBLE DENSITY WITH LABELS
1 0.59 10 5.50 25 12.50

5.25 50 PIECE DISC BOX	**£6.99**
5.25 100 PIECE DISC BOX	**£7.99**
3.5 40 PIECE DISK BOX	**£6.99**
3.5 80 PIECE DISK BOX	**£7.99**
MOUSE MAT 80mm	**£2.99**
SQUIK MOUSE (9 PIN)	**£14.99**

HINT BOOKS

Bards Tale 1 or 2 or 3	5.00
Buck Rogers	7.99
Champions of Krynn	7.99
Colonels Bequest	8.99
Conquest of Camelot	8.99
Curse of Azure Bonds	7.99
Death Knights of Krynn	7.99
Dragons of Flame	4.00
Elvira	4.99
Eye of Beholder	7.99
Heroes of the Lance	4.00
Heroes Quest	8.99
Hillsfar	7.99
Immortal **(New)**	7.50
Indiana Jones the Adventure	4.99
Kings Quest 1,2,3,4	8.99
Leisuresuit larry 1,2,3	8.99
Loom	5.00

HINT BOOKS

Man Hunter in San Francisco	8.99
Might and Magic 2	5.99
Police Quest 2	8.99
Pool of Radiance	7.99
Powermonger **(New)**	7.50
Quest for Glory 2	7.99
Savage Empire	5.99
Secret of the Silver Blades	7.99
Space Quest 1,2,3	8.99
Starflight 1,2	5.00
Ultima 5,6	5.99
Wasteland	5.00

Hints and Tips for 40 titles including Codename Iceman, Future Wars, Hound of Shadow, Indiana Jones, Leisuresuit Larry 3, Loom, Manhunter in San Francisco, Police Quest 2, Space Quest 3, Battle Tech, Champions of Krynn Etc.Etc.Etc.Etc...

ORDER FORM AND INFORMATION

All orders sent FIRST CLASS subject to availability. Just fill in the coupon and send it to: SOFTWARE CITY, Unit 4, The BDC, 21 Temple Street, Wolverhampton. WV2 4AN.

ORDER FORM

NAME.....
ADDRESS.....
.....
POSTCODE.....**TEL NO :** .....

Name of Game	Computer	Value
	Postage	
	TOTAL	

POSTAGE RATES : Please add 50p for post & packing on all orders under £5. EEC countries add £1 per item. Non EEC countries add £2
PAYING BY CHEQUE - Cheques payable to Software City.
Card Type.....Expiry Date.....
Card No: .....

Signature :.....
Date :.....

EUROPEAN ORDERS
MASTER CARS
EUROCARD ACCEPTED

PCR 01 / 92

Quiz Games

Pop Quiz (one disk)
Author: Software Creations
Registration: Unknown
Performance: 7/10
Ease of Use: 8/10

Pop Quiz (or Rock'n'Roll Trivia) can be played by 1-4 players. The object of the game is to be the player that scores the most points. Points are earned by answering trivia questions that appear on the screen.

Each correct answer is worth from 1 to 100 points, determined by the amount of time that it took to answer the question.

On the screen are displayed the Counter which ticks off the time allowed to answer each question (The number of points awarded for a correct answer is determined by the amount of time left on the counter), the message box, the Questions Window, the Answers window (multi-choice) and the spinner which determines which of the six categories will be used for questions on each turn.

Pressing any key stops the Spinner at a category on which a question is asked, offering a choice of four answers from which the player must make his or her selection. If the wrong answer is chosen, a message stating so will be displayed in the message box. If you wish to see it, pressing F1 at this point will display the correct answer. It will then be the next player's turn.

If the question is answered correctly, the number of points awarded is displayed in the message box while the player's score is added to in the Players box.

The game ends when any player answers a question correctly in each of the categories, and thus receives all six stars. The winner of the game, however, is determined by total points, and this is not necessarily the person who first gets all six stars.

Registered users get 1000 additional questions

Trivia Quiz (one disk)
Author: Bob Perry
Registration: $10
Requires CGA
Performance: 6/10
Ease of Use:9/10

Trivial questions and answers continue to be popular and there are now various arcade machines devoted to the subject in pubs up and down the country. So it comes as no surprise to find that there are several Trivia type quizzes available for the PC.

This is probably the best one currently available. It runs on CGA screens and EGA/VGA owners should be warned that they must force their computer into CGA mode (using the Display program on their System Disc) before running Trivia Quiz otherwise you will just get a random, uncontrolled pattern on your screen.

This Trivia Quiz makes pleasant viewing with attractive use of the relatively simple graphics and a bit of sound. The idea is that you score points by entering correct answers to wide assortment of multi-choice questions.

There are five categories altogether and game play is quite fast particularly on 286 computers.

Card Games

Mahjong (two disks)
Author: Nels Anderson
Registration: $22
Performance: 8/10
Ease of Use:9/10:

Mahjong is an ancient Chinese game whose origins are supposed to date back some 3000 years.

This version has similarities to solitaire played with cards and also with dominoes since it is played with tiles. When I first discovered the game my initial impression was that the game would quickly become dull but having played it for a while and having given it to friends we've all found that it is quite addictive despite its apparent simplicity. This disk contains versions of the game suitable for all types of screens.

The object of the game is to remove as many of the tiles from the playing board as possible within the rules of the game. Tiles are always removed in pairs and can only be removed from the left or the right edges. Any tile that is not on a left or right edge is considered blocked and cannot be removed.

Note though that the tiles are arranged in 5 levels and each level has a left and right edge so there are many more unblocked tiles than it would first appear. Note that the tile on the top of the pile blocks all four tiles below it, and tiles on row five block both rows four and six.

Two Bridges
Author: WR Software
Registration: $9.95
Performance: 8/10
Ease of Use :8/10

Bridge is often regarded very seriously by enthusiasts and therefore a lot of time could be spent in sharpening up your game. It may of course not be possible to gather round three friends to play and in some cases you may not want to play with them until your playing abilities have improved.

So in comes your trusty computer to stand in - no arguments and no criticisms if you play a wrong hand either This disk actually has room on it for two different Bridge simulations each has it's relative strengths but both offer a practical solution to the need to practice on your own.

Bridge Pal is particularly useful as the manual that accompanies it on the disc, not only tells you how to use the program but also describes the card game of bridge itself.

You can select HELP on the first Bridge Pal menu for a brief introduction to the program. If you have played bridge before, this HELP information may be the only thing you'll need to read.

So now you can brush up your Bridge playing without embarrassment!

Game Compendiums

Fun and Games
Author: Various
Registration: Mostly Public Domain
Performance: 6/10
Ease of Use: 9/10

It seems extraordinary in these days of sophisticated, animated VGA graphics, AdLib stereo sound cards and complex gameplay that many users continue to ask for old faithfuls such Space Invaders and Pacman. But they do, whether it's through nostalgia or the fact that they've still only got a CGA monitor, we're not sure but this selection of favourite classics continues to sell and sell.

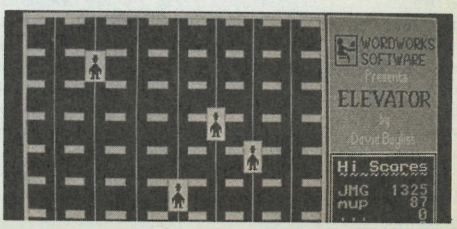
This particular selection contains six other oldies but goodies. – Ribit, Breakout (aka Bricks), Donkey Kong, Q-Bert, Jumping Joe and a variation on the theme, proving that not all programmers are sexist, called PacGal.

Classic Games are straightforward to run up and play. They all operate from the keyboard and some offer a joystick option. They use standard CGA graphics so the resolution is not the best and the range of colours is limited to the old IBM standards.

Having said that, despite their age, these games still offer many happy hours of pure entertainment and still stand up well against more modern efforts which quite often are so complicated as to put people of persevering with them.

Classic Games
Authors: Various
Registration: Mostly Public Domain.
Most require CGA
Performance (given their age): 7/10
Ease of Use: 9/10

Another very popular selection of classic games - most of which require CGA graphics. Fun and Games features Pango, Bouncing Babies, Elevator, Centipede, Pyramid, Dragons, Pac and Osbit. All programs are easy to run and require no special setting up - in fact they can all be run from a start-up menu. The selection offers plenty of entertainment for all ages.



AZURE COMPUTER SYSTEMS

535 Bromford Lane, Ward End,
Birmingham. B8 2EA. Tel : 021-789-6216

Access VISA

FRIENDLY-FAST-EFFICIENT SERVICE
24 HOUR CREDIT LINE AVAILABLE
MAIL ORDER ONLY

TOP IBM PC GAMES

3D Construction Kit	38.49
4D Sports Boxing	21.99
4D Sports Driving	21.99
688 Sub Attack	21.49
AIP	28.99
A10 Tank Killer	28.99
Back to the Future 3	18.99
Bards Tale 3	21.99
BAT	21.99
Battle Brit - Finest Hour	24.99
Battlechess	21.99
Battlechess " Windows"	21.99
Battlechess 2	21.99
Bill Elliots Nascar	24.99
Bill & Ted Ex Adv	21.99
Blue Max	24.99
Bridge Player 2156	21.99
Buck Rogers	24.99
California Games 2	21.99
Castles	24.99
Centrefold Squares	15.99
Champion of the Raj	18.99
Champions of Krynn	21.99
Chessmaster 2100	18.99
Chips Challenge	21.99
Cohort	24.99
Collossus Bridge	15.99
Colossos Chess X	18.99
Command HQ	28.99
Conflict Middle East	24.99
Corporation	22.99
Crime wave	21.99
Crystals of Arbores	18.99
Curse of the Azure Bonds	21.99
Das Boot	25.49
Death Knights of Krynn	21.99
Deluxe Strip Poker	15.99
Demoniak	21.99
Dragon of Flames	18.99
Draggons Lair 2	31.99
Draken	24.99
Duck Tales	18.99
E-Motion	18.99
Elite Plus	28.99
Elvira	28.99
Eye of the Beholder	21.99
F14 Tomcat	25.49
F15 Strike Eagle 2	24.99
Desert Storm Disk	12.99
F16 Falcon (EGA)	33.99
F19 Stealth Fighter	28.99
F29 Retaliator	24.99
First over Germany	21.99
Flight of the Intruder	28.99
Flight Sim V4	38.99
Gateway to Spy Frontier	21.99
Gold of the Aztecs	21.99
Golden Axe	21.99
Gunship	24.99
Heart of China	28.99
Indianapolis 500	21.99
It Came from the Desert	24.99
Jack Nichlaus Unltd Golf	28.99
Jack Nichlaus Courses	12.99
Jetfighter 2	28.99
Joe Montana	24.99
Keys of maramon	23.99
Kick Off 2	18.99
Kings Quest IV	28.99
Kings Quest V	28.99
Knights of Sky	28.99
Legend of Blacksilver	15.99
Leis Suit Larry 2 or 3	28.99
Lemmings	24.99
LHX Attack Chopper	28.99
Life and death 2	21.99
Lightspeed	28.99
LINKS	28.99
Courses	12.49
Macarthers War	21.99
Magic Candle	22.49
Mario Andretti Racing	21.99
Martian Dreams	28.49
Megafortress	25.49
Megatraveller	24.99
NAM	24.99
Nightshift	21.99
Obitus	25.49
Operation Stealth	21.99
PGA Tour Golf	21.99
PGA Tour Golf Courses	12.49
Police Quest 2	28.99
Predator 2	18.99
Prehistorik	18.99
Prince of Persia	21.99
Puzznic	21.49
RBI 2	21.99
Railroad Tycoon	28.49
Red Baron	28.99
Rick Dangerous 2	18.99
Rse of the Dragon	28.99
Risk	18.99
Rorkes Drift	18.99
Rules of Engagement	24.99
Savage Empire	24.99
Secret of Monkey Island	21.99
Secret of Silver Blades	21.99
Silent service 2	24.99
Sim City/Populous	24.99
Sim Earth	28.99
Sorceror get the Girls	21.99
Space Quest 4	28.99
Supremacy	24.99
Turbo Outrun	21.99
TV Sports Basketball	24.99
UMS 2	28.99
Ultima VI	24.99
Warlords	21.99
Wing Commander	24.99
Sec Mis 1	12.49
Sec Mis 2 - Crusade	12.49
Wonderland	24.99

DUE SOON

Bards Tale Cons Kit	Call
Birds of Prey	Call
Battlemaster	20.99
Cadaver	19.99
Captive	Call
Conq of the Longbow	29.99
Cruise for a Corpse	22.99
Cybercon 3	Call
Dungeon Master	29.99
Eagles Riders	21.99
F23	29.99
Falcon 3	Call
Floor 13	Call
Gods	19.99
Indiana Jones & Atlantis	Call
Magic Candle 2	Call
Manchester Utd - Euro	Call
Midwinter 2	29.99
Planets Edge	Call
Powermonger	Call
Pro Tennis Tour 2	22.99
Sim Ant	Call
Reach for the Skies	Call
Secret of Monkey Is 2	Call
Strike Commander	Call
Thunderhawk	Call
TV Sports Boxing	Call
Ultima VII	Call

OUT NOW

Battle Command	29.99
Bloodwych	24.99
Blues Brothers	19.99
Chuck Yeagers Air Combat	24.99
F117A Nighthawk	29.99
Gunship 2000	29.99
Heroes of the Lance	7.99
Immortal	22.99
Iron Lord	9.49
Leis Suit Larry 1 (VGA)	29.99
Leis Suit Larry 5	29.99
Lone Wolf	19.99
MIG 29 Superfulcrum	32.99
Might and Magic 3	29.99
Megatraveller 2	25.99
Movie Premier Comp	22.99
No Greater Glory	24.99
Never Ending Story 2	22.99
Police Quest 3	29.99
Pools of Darkness (D&D)	22.99
Populous	10.99
Populous Promised Land	5.99
Riders of Rohan	25.99
Robin Hood	22.99
Sec Weapons of Luftwaffe	28.99
Shadow Sorceror	22.99
Space Quest 1 (VGA)	29.99
Speedball 2	24.99
Stormorik	10.99
Spellcaster 201	29.99
Strike 2	22.99
Spot	19.99
Super Car park	24.99
Time Race	19.99
Team Suziki	29.99
Terminator	24.99
Terminator 2	22.99
Willie Beamish	29.99
Weaver 2	21.99
Western Front	22.99

BUDGET PC

3D Pool	9.49
Baal	9.49
Ballistix	9.49
Barbarian	7.49
Bionic Commando	7.49
Blasteriods	7.49
Blood Money	9.49
Budokan	10.49
Californis Games	7.49
Captain Fizz	9.49
Carrier Command	9.49
Conflict Europe	9.49
Defender of the Crown	9.49
Escape From Hell	9.99
Ferrari Formula 1	9.99
Hitchikers Guide	9.49
Indiana jones (Arcade)	7.99
International Karate	6.99
Leather Goddesses	9.49
Menace	9.49
Moonwalker	7.49
North and South	7.49
Outrun	7.49
Planetfall	9.49
Rocket Ranger	9.49
Sherman M4	7.49
Shinobi	9.49
Sinbad	9.49
Speedball	9.49
Stryx	9.49
Three Stooges	9.49
Wishbringer	8.99
World Class Leaderboard	6.99
Xenon	7.49
Xenon 2 Megablast	9.49
Zork 1 or 2 or 3	9.49

PERIPHERALS

Soundblaster Soundboard	119.99
Soundblaster (PS/2)	184.99
Adlib Soundboard	84.49
Visual Composer (Adlib)	109.99
Analog Edge J/S	17.49
Analog Extra J/S	28.49
Analog Plus J/S	23.99
Comp Pro PC Pack + SW	44.99
Comp Pro PC Pack No S/W	28.99
Game Port 2 Joycard	15.49
Game Port 2 Plus Joycard	19.49
Game Port 2 & Edge J/S	11.99
Quick Shot Warrior J/S	11.99
Quickshot QS113P PC Pack	19.99
Quickjoy M5 J/S (SV201)	15.99
Quickjoy M6 (SV202) An	13.49
Speedking Joycard	12.99
Pilot Mouse & S/W	28.49
Soundblaster Space Pro	224.99
Logitech Bus Mouse	65.99
Logitech Serial Mouse	65.99

COMPILATIONS

Advanced Dungeon and Dragons	22.99
Air Sea Supremacy	24.99
Big Box	24.99
Challengers	21.99
Fast Lane	24.99
Full Blast	21.99
Magnetic Scrolls Coll	25.99
Intelligent Strategy Games	22.99
PhantasieEbus edition	21.99
Power Crash	21.99
Power Pack	21.99
Pro Sport Challenge	21.99
Roadwar Bonus Edition	21.99
Sporting Gold	21.99
Virtual Reality	22.99
Virtual Reality 2	22.99
Virtual Worlds	22.99

SPECIAL OFFER

MIRACLE PIANO TEACHER
£289.99

SPECIAL OFFER

SOUNDBLASTER
+ Wing Commander 2
+ Speech Disks
For Only **£149.99**

SPECIAL OFFER

SOUNDBLASTER PRO
+Wing Commander 2 Pack For Only **£255.99**

SPECIAL OFFER

CINEMAWARE GAMES
Defender of Crown
Sinbad, Rocket Ranger
£25 for all three

SPECIAL OFFER

SIM ACTION
Carrier Command
Sherman M4, North and South

SPECIAL OFFER

ARCADE ACTION
Xenon 2, Speedball,
Indiana Jones
£24 for all three

HINT BOOKS

Over 50 Hint Books available for Sierra, Origin, SSI etc.
Prices from £4 to £9.
Call for details.

SPECIAL OFFER

EDUCATION
Many Educational titles
Call for Details

ORDER FORM **P.C. REV 01/92**

NAME : .....

ADDRESS : .....

.....

TEL NO : .....

PAYMENT ❑ **Chq** ❑ **Access** ❑ **Visa**

CARD NO : .....

EXPIRY DATE : ..... **SIGNATURE :**

ITEMS	DISK SIZE	HD	VALUE

We stock over 500 different games. All orders are sent first class and new titles are sent on day of release. All prices for UK include P&P. Europe add £2.50. We accept cheques, visa, access and Postal Orders and prices are subject to change without notice.

THE ADVANTAGE TOP 50

1 (1). CLASSIC GAMES
2 (3). TUTOR COM
3 (2). PRINTSHOP
4 (4). SIGNSMITH
5 (6). PC KEY DRAW
6 (5). SCRABBLE
7 (8). FORD SIMULATOR
8 (7). WORLD ATLAS
9 (11). PACE FINANCIAL CONTROLLER
10 (13). HENRIETTA'S BOOK OF SPELLS
11 (12). PC MONOPOLY
12 (10). AMY'S FIRST PRIMER
13 (15). FRENCH TUTOR
14 (9). PRINTER TOOLBOX
15 (20). EXPLORING WORDS
16 (14). HOORAY FOR HENRIETTA
17 (17). ARCADIA
18 (16). EDUCATING JUNIOR
19 (18). MATHS TUTOR
20 (21). ANDY'S WORD GAMES
21 (23). DUNGEONS AND DRAGONS
22 (22). ESSENTIAL UTILITIES
23 (25). NIFTY NUMBERS
24 (19). GALAXY LITE
25 (28). PC FILE V
26 (26). CROSSWORD SOLVER
27 (27). MUSIC MAESTRO
28 (24). GENE GENIE
29 (30). FUN AND GAMES
30 (43). GRAND PRIX
31 (39). HELPDOS
32 (32). AS EASY AS
33 (29). PLAY 'N' LEARN
34 (40). KEEP THEM AMUSED
35 (31). STAR TREK
36 (34). LEARNING MATHS
37 (35). EXPLORING MATHS
38 (33). FLO DRAW
39 (37). PC DRAFT II
40 (36). WACKY WORDS
41 (48). CIRCUIT DESIGNER
42 (38). DISK COMMANDO
43 (47). KNIT WIT
44 (41). FORM MASTER
45 (44). POWER MENU
46 (NE). SOCCER GAME
47 (NE). FASTYPE
48 (42). CHESS & CHECKERS
49 (45). SKILL AND STRATEGY
50 (50). STAR TREK II

PC REVIEW SHAREWARE ORDER FORM

Enter the titles you require and pay by cheque, PO or credit card.
Our special price per disk is £2.25 including VAT.

PLEASE STATE DISK SIZE WHEN ORDERING	
P & P	**£1.95**
TOTAL	

I authorise you to debit my ACCESS/VISA card with £

NUMBER | | | | | | | | | | | | | | | | **EXPIRY**

NAME .....

ADDRESS .....

COMPUTER .....**DISK SIZE 5.25"/3.5"**

ADVANTAGE (PR) 56 Bath Road, Cheltenham GL53 7HJ
Tel 0242 224340 Fax 0242 226755

The P.C. Leisure Specialists

Access | SALES ACTION LINE : 081-893-3630 | VISA

PC ACTION

INTERNAL CD-ROM
+
SOUNDBLASTER PRO

5.25 SLOT INTERNAL CD-ROM 380mS ACCESS TIME
+
SOUNDBLASTER PRO
+
MIDI ADAPTOR 1/1
+
VOYETRA SP JUNIOR SOFTWARE

AMAZING VALUE AT ONLY £499.95 COMPLETE !!!!

SOUNDBLASTER V.2.0 £119.95

SOUNDBLASTER MCV For PS2 £189.95

SOUNDBLASTER PRO With Midi Adaptor 1/1 £199.95



Soundblaster Accessories

J306 Mains Speakers	*£39.95*
C/MS Chips Option	*£19.95*
Midi Adaptor 1/1 with Voyetra SpPro	*£49.95*
Midi Adaptor 1/5 with Voyetra SpPro	*£69.95*
Voice Editor Software	*£49.95*
Software Developers Kit	*£59.95*

LATEST RELEASES

Software	
Leisure Suit Larry 5	*£34.95*
Police Quest 3	*£29.95*
Space Quest 1 New VGA	*£29.95*
Leisure Suit Larry 1 New VGA	*£29.95*
Willie Beamish	*£29.95*
Wing Commander II	*£29.95*
Wing Commander Speech disks	*£13.95*
Gunship 2000	*£29.95*
F117A Stealth Fighter	*£29.95*
Megafortress	*£29.95*

TETRA COMPOSITOR MUSIC CONSTRUCTION SET AND RECORDING STUDIO FOR THE PC £59.95

Joysticks/Cards/Rollermice - CH Products

Flightstick	*£34.95*
Gamecard Automatic - 33Mhz	*£29.95*
Gamecard Automatic - 33Mhz MCA	*£34.95*
Rollermouse Serial	*£74.95*
Rollermouse PS/2	*£74.95*
Rollermouse Bus	*£79.95*

Joysticks/Cards - Suncom

Analog Edge	*£17.95*
Analog Plus	*£24.95*
Analog Xtra	*£29.95*
Gameport II Plus	*£22.95*

All prices include VAT and Postage
No hidden extras !!

Extensive range of PC Entertainment titles in stock and full range of Soundblaster accesories - please phone for full price list

PC ARENA

Welcome to PC Reviews first episode of the new PC Arena! Now you have the chance to buy, sell, or just ask for something you've wanted for weeks!
What could be easier.....

Here's how it works :
1. All entries cost £5 for a maximum of 25 words, including your address and/or telephone number. Each entry must be sent separately with its own £5 cheque. Please do not send cash.
2. All entries are personal, this is strictly a reader service.
3. All entries must be written on the form below (photocopies are accepted but anything else submitted will not be).
All entries will be served on a first come first served basis. If we don't have the space to run your advert we will hold it until the next issue unless you clearly state otherwise. If we cannot accommodate it in that issue, we will tear your cheque into several small and unbankable pieces.
All entries must reach us by the end of December to have a chance of being printed in our January issue.
TO APPLY
Fill in the coupon, along with your name, address and telephone number. We'll print all your details, unless you specify otherwise; and post it, along with a cheque for £5 (made out to Emap Images) to PC Arena, PC Review Magazine, 30-32 Farringdon Lane, London. EC1 R 3AU.

PC ARENA COUPON

Fill in the form below including your address and telephone number and send to PC ARENA, PC REVIEW MAGAZINE.
Your advert will appear in the earliest possible edition.
Please tick one box for your category .

❑ Hardware for Sale ❑ Software for sale
❑ Hardware wanted ❑ Software wanted
❑ Miscellaneous

Name : .....
Address : .....
.....
Telephone No : .....
Signature : ..... Date : .....

CONDITIONS : The advertisement manager reserves the right to alter, reject or suspend an advertisement without assigning any reason. Advertisements are accepted subject to approval of copy and to the right of the advertisement manager to alter, reject or cancel any order without explanation. The proprietors are not liable for any loss from any cause whatsoever, nor do they accept liability for printers' errors. The advertisers shall indemnify the publishers in respect of any claim, cost and expenses arising out of any libellous or malicious matter or untrue statement in any advertisement pubished for the advertisers, or any infringement of copyright, patent or design therein. The placing of any order will be deemed to be an acceptance of these conditions

Dear PC review

Pleas for more software helplines, our rating system discussed and a tirade against key disks are just some of the areas dissected in this month's letters.

A question of sport

Is it possible to buy Emlyn Hughes International Soccer by Audiogenic for the PC? I have looked in all the software shops in the area where I live but they don't seem to have it.

Other games I would like on the PC if they are available are 1) The Untouchables, 2) Chase HQ 1 and 2, 3) Super Cars 1, 4) Lotus Esprit Turbo Challenge, 5) Rugby World Cup, 6) Hill Street Blues.

Why don't you have a special page for penpals, etc. I think it would be great and might improve the sales of your magazine. What do you think? I don't know many people with an Amstrad PC or any other compatible PC.

Paul J. Walker
Beckingham
near Doncaster

PC review REPLIES

Emlyn Hughes isn't yet available for the PC, although Audiogenic does have plans for a PC version – for 1992 or maybe 1993(!) – so I wouldn't hold your breath. Gremlin has no plans at all to bring out either Super Cars or Lotus Esprit. The Untouchables is available (on 5.25" disk only), so is Hill Street Blues, but Chase HQ isn't, and neither is Rugby World Cup.
As for the special page, we began our readers' advertising section, PC Arena, in issue 2, where you can certainly ask for penpals. See page 139 of this issue for details.

Designer scenes

Can I introduce your readers to our flight simulation club for the Flight Simulator 4 and Aircraft and Scenery designer?

We are a small band of people who draw up scenery for the Western European scenery disk. Members send in the scenery and the club organises the distribution to members every three months and charges £6 a year for disk and postage etc. We also have our own newsletter to swap hints, tips and information. The club is UKFSC, 173 Arncliffe Drive, Heelands, Milton Keynes, MK13 7LG.

Steve Harding
Milton Keynes

Matt on the carpet...

I was surprised by your reviewer Matt Regan's criticisms about the control of Secret Weapons of the Luftwaffe and Their Finest Hour. I found the joystick control to be excellent. There is no delay in response to stick movements, which are progressive and accurate. There is a realistic difference between the handling of fighters and bombers. I also find the mouse and the keyboard work fine.

This brings me on to the problem of joy-

Can't you take the hint?

I've got a new PC at work – a Dell 316, plus colour monitor – and I was looking to buy a recreational diversion, definitely not a game for playing when the boss was around, you understand, but something which would allow me to become fully conversant with the outstanding display and processor capabilities of my new machine. You get the picture.

Anyway, I bought a game called Spellcasting 101, Sorcerers Get All The Girls. I bought it 'blind' – I hadn't seen your magazine at this time – so it was a matter of an amusing box illustration, an attractive sounding plot, and what they had in stock.

PC review LETTER STAR

OK, back to the desk, open the box, read the instructions, install, no problem, start game, goggle at pictures and sound – remember I've seen nothing more impressive than Supercalc 5 up to now – and we're off playing. This is fantastic, exploring, getting, looking, picking up, all the bit. But here's the rub. For those of you familiar with the game, everyone's dead except Ernie and I've got the surfboard, the adventure is about to open up with me zapping round solving and spellcasting, and I am totally and utterly stuck. I travel from location to location and in only one of them, the island of Amazon women, can I make any progress.

Now I am not stupid and I'm not easily deterred so I start again, and again, and again. I can make no progress at all and suddenly £25 stops looking like money well spent and I feel as though I've thrown my money away.

I feel frustrated, even cheated, because there is no help available. In the box there are details of hint lines but they are all in America.

The point is this, how many people have shelled out an awful lot of money only to feel like I do and presumably never buy a game again? What can a novice do to learn the skills to get their money's worth out of a game? I don't want it served up on a plate but after the 30th or 40th restart, I'd like to be able to throw up hands and say help. But who's listening?

Obviously I would be grateful for any help anyone can give me with Spellcasting but my grouch isn't with this game specifically, but more in the way of a general observation. That's where you could come in. I can appreciate that yours is a publication for the enthusiast, but don't forget the beginner.

As you point out, PC-based gaming is the growth area so it follows that a lot of newcomers will be coming onboard. It is the software house and publications that cater for us who will gain our loyalty and increasing custom. Incentive enough, surely.

Chris Lawton
Lytham St Annes
Lancashire

PC review REPLIES

One reason why the hints and tips sections in magazines are always popular is that they are often the only place to find detailed help. It's true that in general the American software houses can be more clued up about offering hotlines and hints for their games, but the publisher of Spellcasting 101, Microprose's UK division, also has its own helpline: phone (0666) 504399 and they should be able to help you.

stick control in MicroProse games, where I do have problems. While control at first is normal, right turns soon become difficult, then impossible. This happens in Knights of the Sky, F15 Strike Eagle and F117A, the latter two losing control the most quickly. Is this a common problem? And do you have any suggestions how it can be overcome? I have no such problem with other companies' games. MicroProse regrettably doesn't offer a mouse alternative in the last two games and its keyboard control is moderate.

My set-up is a 386 running at 25Mhz. My joystick is a Konix Speedking analogue model, and I recently removed the original controller card in favour of using that included in the Sound Blaster card, without any improvement. I have also discussed the problem with two dealers and they have both suggested there is no problem with the joystick or cards.

On the matter of control generally, I think many software houses could learn a great deal from the classic Microsoft Flight Simulator, where control in all modes is second to none, and excellent sensitivity adjustment options are offered.

Finally, bearing in mind the variety of PC hardware speeds how about a review of joysticks and cards which include tests on, say, a 33Mh 386, a 16Mh 286 and an average XT? Those reviews I have seen to date gave no clues as to suitability for different hardware speeds.

D Crabtree
Wigston
Leicester

PC review REPLIES

MicroProse says that no-one has reported this problem before, and as a quick fix, suggests pressing Alt-J to re-align your joystick when things start going awry. For more detailed help, call MicroProse's telephone hotline on (0666) 504399.

Making the grade

I didn't think it was possible, but you have improved on PC Leisure. The only thing I find wrong with the new magazine is the new grading system. It's too simple. The previous sonics, graphics, lastability "malarkey" helped me to select a game according to my specific desire. With the new system too many games are generalised under the same mark and puts games like Wing Commander II in the same category as Team Suzuki. I would really like to see a five star system.

C.J.
Berks

PC review REPLIES

But you could argue that in the five star system far too many games were awarded four (or even five) stars. I appreciate that Team Suzuki and Wing Commander 2 are very different types of games, but being awarded the same mark doesn't necessarily mean that they must be identical in other respects. If a film magazine gives a subtitled Polish movie the same rating as T2, it doesn't imply that they are "in the same category".

Fast ... and furious

I would like to know which games can put out SVGA, ie 256 colours on 1024 x 768. I recently got a TI'ko PC with a 386SX but at 25MHz! I am not sure how it does it myself, but I'm in the funny position where even at 16Mhz it's just too fast.

I'm talking about games like Mechwarrior or Deathtrack where, literally in the blink of an eye, it's 'Game Over, man.' Is there any way I can slow the processor down? Maybe change some settings in the BIOS?

The other question I have about my hardware is that a game port exists at the back. I assume this is for a joystick. The thing is that on a Soundblaster card there is another game port. Can I run two joysticks or are they both the same port? If so, can I change it somehow or do I have to buy a proper joystick card with two ports?

I am glad you exist because what else is there on the market? It's either wading through reams of Amiga or ST games or mind-numbingly boring articles on business applications. In fact, the latter is worse because of the way they treat games for the PC, as though they were some closet activity suitable only for small sections of the magazine. Whoever invented boss keys should be shot!

Now for the crossword, or should I say lack of it? Are you going to feature one and what about the results of the last one in PC Leisure?

Charles Tsang
Kensington
London

PC review REPLIES

Your best bet for finding out specifics about the speed and how to manipulate it is to call TI'ko and ask them – the number is (0506) 857666. The solution to the final PC Leisure crossword was published in Issue 2. We haven't run a crossword in PC Review largely because of our European connections – it would be a bit much to ask our compiler to make a crossword work in five languages! However, he is working on a more numerically-based puzzle which we hope to bring to you in the future.

Working on the Nightshift

After reading J McNaught's letter in issue one, I have adapted his method of installing the Nightshift demo, which came with issue eight of PC Leisure, for use with a single disk drive without a hard disk.

1) Format two 3.5" disks to 720K and label them one and two.

2) Put disk two into drive A: and type MD Night.

3) Type B: to change your A prompt to a B prompt.

4) Put the Nightshift disk into drive A: which is now acting as B: and type Install B: A:

5) Follow the on-screen instructions, putting the Nightshift disk in when it says 'Insert disk for drive B:' and disk one when it says 'for drive A:'

6) When disk three file appears there will be no error so carry on.

7) When complete, put the Nightshift disk into drive A: (acting as B:) and type Install B: A:

8) Follow on-screen instructions and type N to overwrite Y/N until disk two file; then put disk two into drive A: and type N. Carry on until installation is complete.

Now for the loading instructions.

Type A: to change the prompt back to A. Insert disk one into drive A: and type IML. When you enter the boss's office a message will appear on screen saying 'Insert disk three'. Insert disk two into drive A: and press Return. When this happens again insert disk one, then disk two. You will have to do this on each shift. You are now into the game.

Robin Ware
Burgess Hill
West Sussex

Missing – but not forgotten

You are missing three very important 'ratings' for each game:

– does it run from the DOS prompt or must it boot itself?

– is it a Windows 3.0 game? Will it run from within a DOS frame in W3 or is it incompatible?

– will it terminate quietly and safely, or must one re-boot?

I am a home-based computer consultant – my machine is a a Tandon 386/25, 4Mb RAM, 110Mb hard disk, etc – I use DOS 5.0 and Windows 3.0, and I like to relax from time to time by playing a game – hence the above specific questions, which I know are echoed by a great many in businesses up and down the country, large medium and small, bosses and staff.

Lunchtimes, breaks, before and after hours, games are being played. They are relaxing and stimulating; they teach, and hone, mental and keyboard skills and dexterity. But unless they are properly house-trained, polite, and well-behaved, they will not be bought. If they are they will not be played and give all games a bad name, a very large market share is lost.

I have bought games which must boot the machine. One came from MicroProse and its sales and technical staff were very good. They sent me various replacements until I found one that fitted my requirements. Other firms are on my blacklist!

Some games run under DOS, but not in

W3. Others run in W3 but do not close down sedately. Fair enough – but tell us.

I am not saying that all games must meet my standards, just that the review should indicate how it behaves.

I also put in a plea for details of copy protection – yes or no – and the type involved, such as key disk, hidden file, manual question etc.

Any disk is vulnerable and key disks, by virtue of sod's law, exponentially vulnerable, plus they are a pain. Hidden files are apparently less trouble, until one has to de-frag the hard disk. Questions in the manual are much better, but I am opposed to any and all types of copy protection, practically, politically, psychologically, philosophically and pugnaciously.

That is why the question of the type of protection is relevant. If the review summary tells us, we are forewarned.

May I finish by telling you about the games I personally like and dislike.

Golf games. I have over 10, including shareware, and all are registered, as are all the other 30-odd s/w programs that I use.

Card patience such as Mahjong. I have just discovered the magnificent shareware from Nels Anderson, who does the equally superb Shooting Gallery.

In fact, most games that require thought and do not require lightning-fast reactions or exceptional manual dexterity. Consequently, I do not like arcade zap 'em, blast 'em games or any time-dependent/critical types.

Peter Tetley
Old Woking
Surrey

PC Review REPLIES...

Windows 3.0 has sold something like three million copies in under two years, but mainly to the business community. I'm not sure about adding yet another set of specifications to our list, but, as ever, if the demand is there, we'll certainly consider it.

These days, most games will let you quit properly to DOS without either a soft reset (Ctrl-Alt-Del) or, even worse, having to switch the machine off physically. Here, I think our reviewers would almost certainly mention it if you couldn't quit without a hard reset. As for copy protection, nearly everyone finds it annoying – but does anyone feel quite so strongly as Mr Tetley?

The sound of perfection

You *have* to publish this letter! I have a very, very strong point to make in reference to D Purvis's letter in your November issue. He mentioned, and I quote, "Neither AdLib nor SoundBlaster are as good as an Amiga". I think you'll find that most demo groups, games companies, etc, use either Soundtracker, Noisetracker or Protracker or some other similar package for the Amiga. I have a program for the PC which plays any Amiga SoundModule (music consisting of samples, produced with the above packages) to perfection through a SoundBlaster card. There is also a package available for the PC – which I think is shareware – which is not unlike the above packages for the Amiga. It also supports the features of converting Amiga to PC, PC to Amiga samples. Another point is that the Amiga has four channels of sound, which can be turned into eight-plus (although it's not very common). The PC can produce 11 channels of sound through a SoundBlaster (in stereo!). So please, D Purvis, get your facts right.

Simon Clark
Cheshire

PC Review welcomes letters on any subject under the PC sun. The editor will chop them to fit the space if need be, and we'll assume letters are to be considered for publication unless you specifically state otherwise. Send all correspondence to Letters, PC Review, EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU. Star Letters win software prizes!

ON THE SPOT

Every month PC Review invites you to join us on a visit to one of the country's leading PC software producers – a chance for you to put companies On the Spot. Ask all those burning questions and find out what goes behind the scenes to bring you your PC games. Each company visit is then featured in PC Review (see page 29 for a report on our visit to Electronic Arts).

This month, we've been able to add Microprose to our list of planned trips, so anyone who wants to visit the masters of the flight sim now have the chance to do so.

If you want to take part in a PC Review On the Spot visit, just fill in the form below and we'll be in touch.

Name.....

Address.....

.....

.....

Daytime tel no:.....

Evening tel no: (leave this blank if you prefer)

.....

Age: Under 21 ❑ 21-35 ❑ 36-50 ❑ Over 50 ❑

Which company would you like to visit?

Domark ❑ Sierra ❑ Mirrorsoft ❑ US Gold ❑ Virgin ❑

Microprose ❑ Other (if applicable) ❑

.....

Any particular reason for your preference(s)?

.....

.....

.....

Send this completed form, or a photocopy, to

On the Spot, PC Review, EMAP Images, 30-32 Farringdon Lane, London EC1R 3AU

PC Review January 1992

PC review

WINNERS

Picture This (PC Review Issue 1)

We were completely mind-boggled by the sheer weight of entries to this competition – maybe it had something to do with the first prize, an Amstrad 5286 Games Pack. Anyway, our staff writer disappeared under the pile of postcards after a week, and several rainforests bit the dust the week after.

Many thanks to everybody who gave our postroom staff such a hard time!

Still, there could only be one winner of the Games Pack (PC plus games software) itself, so congratulations to Donna Cooper, of Feltham in Middlesex, who was first out of the industrial vat we had to hire to shuffle the entries in.

Five copies of Domark's Mig 29M Super Fulcrum go as second prizes to N Channon, of London NW10; Alan Dixon, of Chelmsford, Essex; John Kelly, of Aberlow, Banffshire; Stephen Norrie, of Leamington Spa, and Nigel Zee, of Harrow Weald, Middlesex.

Third prizes were five copies of Pitfighter: the winners were John Carroll, of Glasgow; Mike Mulrooney, of Wigan; Paul Rogerson, of Preston; Ian Watt, of Alvaston, Derby, and K G Llewellyn, of Tamworth, Staffs.

Finally, the fuve runners-up, who each win a Pitfighter T-shirt, were Matthew Clarke, of Melton Mowbray, Leics; John Hazeldine, of Hersham, Surrey; J W Campbell, of Porthleven, Aberdeen; Gregor McInnes, of Wislow, Cambs, and D Aitken, of Dyce, Aberdeen.



And the answers? Picture A came from Prince of Persia; Picture B from F15 Strike Eagle II, Picture C from Links. Most people, we're glad to say, got all the answers right.

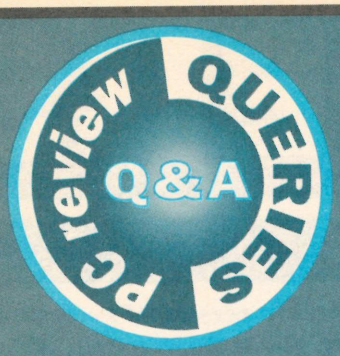
Name That Tune (PC Review Issue 1)

There was a good healthy response for this competition as well, with no fewer than three Tecnoplus Sound System packs on offer. In case anyone is still puzzling over this one, tune 1 was Frère Jacques, tune 2 was Itsy Bitsy Teeny Weeny Yellow Polka Dot Bikini, and tune 3 was Bridge Over Tourbled Water.

Winners: the three Tecnoplus Sound Systems go to P D G Clarke, of Chelmsford, Essex; Nigel Johnston of Reading, and Paul Mumby, of Brigg, S Humberside. Congratulations.

Runners-up

Also, there were 10 Quickshot joysticks to be won as runners-up prizes, which go to: Nick Edwards, of Basingstoke, Hants; Imran Dadabhoy, of Birmingham; Samer Abdin, of London SW19; Steve Morris, of Portsmouth; Adrian Blagg, of Beeston, Nottingham (and a great place to come from, as well); Daniel Hunt, of St Alban's; Simon Wood, of Uxbridge, Middlesex; Nigel Print, of Sales, Cheshire; Jon Croft, of Seaton Carew, Hartlepool, and Neil Davidson, of Workington, Cumbria.



Confused about the mysterious workings of your PC? Bewildered by hardware options? Stricken with software seize-ups? Whatever the problem, share it with Q&A, and we will endeavour to help.

MONO BLUES

I have recently bought an Amstrad 2086 with a monochrome VGA monitor. When I tried a game that claimed to be VGA compatible, it doesn't seem to work. Which is wrong, the game or the computer?

John Leland
Salisbury

It's a disappointment how few games really allow for monochrome displays, but not surprising considering how many different types are available. Let's look at how this problem arose.

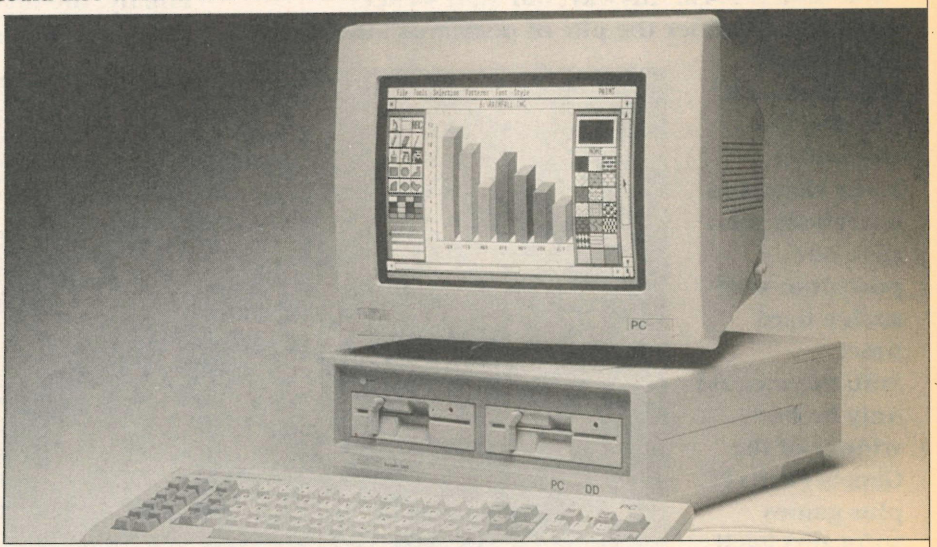
The original IBM PC had a choice of two screens. The cheapest by far was a green screen that displayed only characters, but they were quite easy to read. A lower resolution colour screen was available at extra cost. The characters on the colour graphics adapter (CGA) screen were made up from less dots, and were less easy to read, so the monochrome variety were popular with businessmen who didn't want games anyway. Even worse, the first monochrome screens didn't have any graphics. Games also look better in colour, so that was where the publishers directed their attention.

Some help was at hand from software adapters which allowed some CGA games to run on Hercules screens, which are a type of improved monochrome display that shows graphics as well, made by a company called, yes you guessed it, Hercules.

Amstrad firmly avoided this confusion by making the PC1512 operate only as a CGA, with a clever extra gadget so the monochrome monitors converted the different colours to different grey scales, like a monochrome TV does.

CGA was soon superseded by a better standard known as Enhanced Graphics (EGA). Although it was possible to have a monochrome EGA screen, once again, almost no games ever supported it. Fortunately, almost all the EGA systems could also work in Hercules mode. The Amstrad 1640 Monochrome could do Hercules and monochrome EGA, but still wasn't popular for games players. Worse still, if you had a Sinclair PC200 then the monochrome option didn't support graphics at all.

Out of this muddle came the latest standard called VGA. This works much more like the PC1512, where the monochrome screen can display grey scales if you run colour software. On many machines, including the Amstrads, there are switch settings to make it do



We've had a rush of queries about processors this month, so we've devoted much of the space available to these questions. Problems specifically relating to Amstrad's PCs also made up a large part of the postbag, so we've also concentrated on these pleas of help as well.

FAST CARDS

I finally managed to persuade my father to buy me a VGA graphics card for my Commodore PC20 III. When I was installing the card I noticed the processor was an 8088. Please help me – how much would it cost to replace it?

Tom Montago-Smith
London

It isn't advisable to replace the 8088 in the sense of taking the old one and throwing it away, but you can fit an accelerator card (assuming you have a slot free) where you will 'replace' the 8088 as the PC's processor with a more powerful one.

You can buy accelerator cards that have 286 or 386SX chips on them and this will speed up your PC. As for the price, the two companies we spoke to CTS on (0235) 559944 and Hypertec on (0672) 63936) only had 286 cards at around £300. Though it may be worth trying other manufacturers, whatever the price, we recommend saving up and getting a 386SX accelerator.

FITTING CHIPS

I have seen advertised a replacement chip for the 8086, called the NEC V30, which is said to improve the speed of the PC. I have an 8086 and PC and I would like to know if the chip can be easily fitted and how? By how much would it increase the speed of my PC?

Also, would I have any compatibility problems with the rest of the motherboard?

Matthew Watkins
Sheffield



this automatically. Check that DIP Switch 6 at the back of the machine is switched ON.

STICKING POINT

PC review Q What's the difference between an Analogue joystick and a digital one and can I use the one from my trusty old Spectrum with my new PC?

Andrew Cartwright
Cardiff

PC review A Early home computers, including the Spectrum, came equipped with a digital joystick port that was standardised on a format introduced by Atari. There are simply four switches, one for each direction of movement, and a fire button or two. The same arrangement is used in the small paddles that come with games machines like the Amstrad CPC plus.

PCs normally have a more sophisticated analogue joystick that is similar to the stick on a model radio control transmitter. The more you push the joystick, the more the computer notices. Of course, the PC needs some special electronics to work with an analogue joystick. Sometimes that is built in but more often you need an extra card, which will fit into a spare expansion slot. Most PC sound cards also include a joystick port, more often called a Games Port.

However, you could use your Spectrum joystick with the digital joystick port that was fitted to the keyboard of the Amstrad PC1512 and PC1640. Make sure the game you are playing allows you to customise the playing controls, because the joystick is simply seem as a few extra keys on the keyboard.

SULKY MOUSE

PC review Q Help! My Amstrad mouse has stopped working. I wanted a longer lead on my keyboard so I've invested in an extension cable. But now the mouse is in a sulk. It still moves round the screen, but the buttons don't click any more.

Louise Fox
Lewes, E Sussex

PC review A You must have a fault in the new keyboard cable. In fact, the mouse button clicks are fed into the side of the computer and then 'backwards' down the keyboard cable. Then they are mixed in with all the normal keyboard presses and sent back to the computer. This saves some money. Not much, you may think, but multiplied by over a million it all adds up! Your new extended cable probably hasn't got a full set of wires inside, so go back and ask for one that's suitable for your Amstrad.

NO RESPONSE

PC review Q When I start up my Amstrad the hard disk doesn't respond, and the error message I get is the rather unhelpful "1701". What does that mean?

Richard Ellis
London SW11

PC review A It probably means you don't have a genuine Amstrad Hard disk controller, for a start! One of those would give you a message like 'Disk Not Ready'. As well as being painted on the hull of the Starship Enterprise, 1701 means the computer has failed the first test in section 17 of the tests it does every time it is turned on.

In this case its a very general hard disk drive failure kind of error. Check that all the cables between the disk controller card and the hard disk itself are properly plugged in and that the controller card is seated firmly in its socket. On some Amstrads the card is hiding in a fourth slot just inside the cabinet. Also make sure that the power lead is still intact between the drive and the motherboard. If the fault persists, then its off to a dealer for a full check-out, I'm afraid.

PC review A The NEC V30 is a direct 8086 replacement (and the NEC V20 a replacement for the 8088), and is referred to as 'pin compatible'. Assuming it is not soldered in, you can lever out your old chip and replace it with the new one and you are unlikely to experience any compatibility problems. The performance increase is seen to be anywhere between 15-30 per cent over the 8086.

However, I would recommend that if you seriously want to improve the performance of your PC, you buy an accelerator card rather than change the chip. You are going to get a far greater performance improvement by upgrading to a 386SX than a V30, and it will also open up the world of 386 software to your PC instead of locking it into less powerful technology.

KEEP SOLDERING ON

PC review Q I want to buy an accelerator card and have been informed that I have to check my processor (which is an 8.5MHz 8086). Firstly, is it true that if the processor is soldered in, I can't upgrade my PC, and secondly what does an 8086 look like?

SP Hones
Leigh-on-Sea, Essex

PC review A If the processor chip is soldered in, you are in trouble. The manufacturers we talked to said it was impossible to run their accelerator cards with the old chip still in place. It is possible to unsolder it but very, very difficult and I certainly wouldn't recommend it.

Secondly, to hunt down the 8088/8086, first look for two long wide chips or chip sockets near to each other. They are about two inches long and three quarters of an inch wide. There aren't many chips bigger than this on the motherboard so they should be easy to spot.

The socket will have room for a 40-pin chip and is likely to be empty; this is the maths co-processor chip socket (the 8087). Look for a big chip near it, probably with Intel 8086 (or in some cases NEC V30) written on it.

If you need help, or have any information which may assist other readers, don't bottle it all up, write to Q&A, PC Review, EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

Computer games? I thought I could handle it ...

Addiction is the latest buzzword in the computer games market. Hordes of our nation's children are being turned into shoot 'em up junkies by the mere act of loading a disk, it seems.

First there was an earnest discussion on the morning TV show Kilroy, as its ex-MP presenter coaxed concerned parents into telling tales of lost schoolwork, zombie-like behaviour and anti-social tendencies in their computer-addicted offspring. Coaxed even further, many of these parents added that it was a great relief when junior finally stopped playing on the computer (or, more usually, a console) and went to bed, since this meant that they could then spend hours blasting at the baddies themselves.

From Kilroy to killjoy: a Professor Eugene Prevenso, contacted by the Independent on Sunday, for its article, entitled Keyboard Junkies, suggested children should instead play games with "educational content and intellectually stimulating information", and cited as an example "Where in the World of Time is Carmen Diego?"

PC Review has never heard of this particular title, unless Prof Prevenso is thinking of Where in the World is Carmen Sandiego? and its companion program, Where in Time is Carmen Sandiego? Neither of these are very near the top of our collective Christmas lists, but the Professor may have a point. Being forced to play through the entire Carmen Sandiego canon for hours on end might well cure you of any tendency towards computer addiction.

We're also concerned about the way the word "addiction" with all its attendant sinister connotations keeps being used in these debates with no proper definition of terms. Doesn't addiction imply a chemical stimulus and reaction – and as far as we know, Nintendo hasn't taken to impregnating its cartridges with LSD?

Perhaps obsession would be a better word, but then, all sorts of people of all ages are harmlessly obsessed by all sorts of things and it wouldn't make nearly such an emotive story, would it? If anyone reading this knows that computer addiction is a scientifically proven condition, please let us know.

More answers on a postcard ...

After Quit's plea in issue one for more interesting examples of "Answers on a postcard" in our competition, we've been gratified by the effort some of you have taken. Andrew Booth submitted the Glen Baxter postcard and the camels come courtesy of Penelope Crawford. The camels, incidentally, are about the only printable examples we have of a surprisingly large collection of dubiously salacious cards. It won't help your chances of winning anything, you know ...





Move over Amiga

The World of Commodore fitted comfortably into Earl's Court for the exhibition of the same name last month. The show was dominated by products for the Amiga, predictably enough, but enough of the exhibitors remembered Commodore's less well-known range of PCs and took the opportunity to show off PC products. This included a joint celebration by Mindscape and Origin to mark 10 years of the Ultima series – and to state that from Ultima VII onwards these games would not be appearing on the Amiga at all.

QUIT

PC Review's guide dog

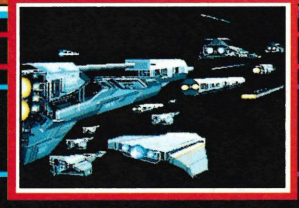
After perusing the unusual postcards, and picking the winners, competition entries then undergo even more mutilation, with teams of flunkeys from the EMAP crypt delegated to cutting out the stamps from each entry.

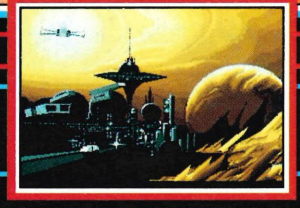
These then go to the Guide Dogs for the Blind appeal - each kilo of stamps earning around £1.50 towards the £1,000 needed for one guide dog. So far, we've raised approximately one back leg, we reckon, so keep sending in your entries and we should have a whole dog by next summer.

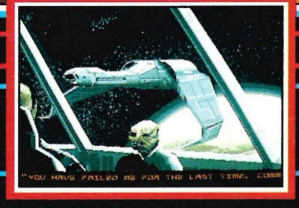

A320
A·I·R·B·U·S
...is on final approach.

EPIC











T.V. SHOTS TAKEN FROM CBM AMIGA FORMAT

EPIC - A LEGEND BEYOND TIME

A legend is born, a supremely advanced one-man starfighter of awesome power and destructive capabilities that, in the right hands will wreak havoc amongst inter-galactic transgressors - that legend is **EPIC**.

ocean®

A 3D 'epic' that reaches a milestone in polygon technology in terms of speed, graphical detail and pure out-and-out playability. A multitude of missions, ranging from devious to manic, take you deep into the heart of this sci-fi conquest of outer space. **EPIC** - a masterpiece of software engineering.

IBM/AMSTRAD PC & COMPATIBLES

OCEAN SOFTWARE LIMITED • 6 CENTRAL STREET • MANCHESTER • M2 5NS • TEL: 061 832 6633 • FAX: 061 834 0650