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# AMIGA

ISSUE 11 ■ JUNE 1990 ■ £2.95

## FORMAT

## DISCOVER NEW WORLDS

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of fractals, where chaos rules

### COVER 11 DISK

#### TOWER OF BABEL

PLAYABLE DEMO OF  
RAINBIRD'S IMMENSE  
FORMAT GOLD GAME



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- F29 Retaliator ■ Gravity
- Their Finest Hour
- Tower of Babel

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spreadsheets ■ Which PRINTER do you need?  
■ Review of the NEW Amiga 1500 ■ The books you  
NEED to read ■ How to BEAT *Rainbow Islands*

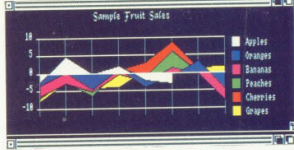




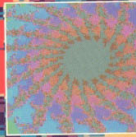
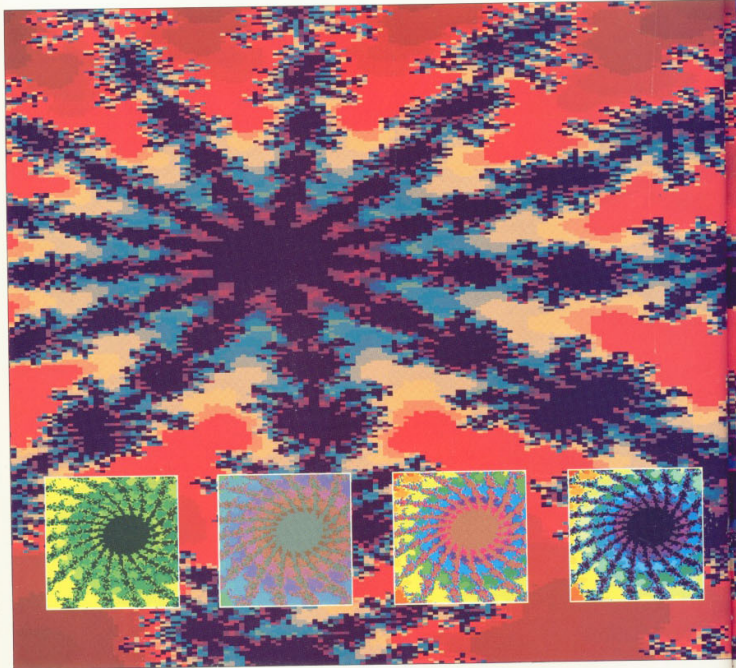
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AMIGA  
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1990

EDITOR Wade the Nasty PRODUCTION EDITOR Noonan the Word REVIEWS EDITOR Smith the Game TECHNICAL EDITOR Holborn the Code STAFF WRITER Evans the Tip ART EDITOR Neal the Crayon DESIGN ASSISTANT Dyson the Scalpel DISK EDITOR Monteiro the Floppy CONTRIBUTING EDITORS Bates the Song (Music), Larkman the Brush (Graphics) CONTRIBUTORS Mark Smiddy, Tim Smith, Dave Jones, Steve Jarratt, Pat McDonald, Adie Stewart, Trenton Webb ADVERTISING MANAGER Jennie Evans AD SALES EXECUTIVE Paul Steer AD PRODUCTION Fiona Milne AD SERVICES James Leach PUBLISHER Ingham the Wallet ASSISTANT PUBLISHER Nolan the Offer.

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EDITORIAL/ADVERTISING

30 Monmouth Street, Bath, BA1 2AP = 0225 442244 FAX: 0225 446019

SUBSCRIPTIONS/MAIL ORDER

The Old Barn, Somerton, Somerset TA11 7PY = 0458 74011

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**BOOKS 123**

**SCREENPLAY 41**

# CHAOS RULES

Discover the fascinating world of fractals and chaos theory, where maths, art and evolution collide. P 15

**Disk Extra**

## TOWER OF BABEL

FABULOUS 3D PUZZLE ACTION FROM RAINBIRD

**AMOS:** Full working demo of the most eagerly awaited Amiga utility ever  
**■ FRACTALS:** A fractal generator to use in conjunction with our cover feature  
**■ MENACE CODE:** Latest instalment of source code for budding game programmers  
**■ JPDIR:** Access CLI commands from the-Workbench  
**■ OSK:** An on-screen keyboard that dispenses with the real thing  
**■ SAUCER:** Another witty Workbench hack  
**■ SHOOTOUT:** Wacky, bouncy blasting action.



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## SCREENPLAY

FORMAT GOLD

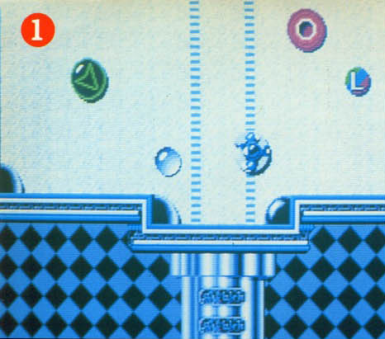
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Member of the Audit Bureau of Circulations  
**40,371** Jul-Dec 1989



**1** **TRIBAL**  
Sports games are Electronic Arts bag at the moment with the imminent release of this futuristic multi-player game. It's fast and furious action all the way as three players at once battle with each other to knock a puck around the strange pitch and bash it into an opponent's goal.

The game can handle up to eight teams competing in either a knock-out contest or in a league. The game can be tuned from a pure hectic arcade game to a more sedate version including statistics and tactics. Stay tuned sports fans!

**2** **WORLD CHAMPIONSHIP SOCCER**  
Sports games are Elite's bag at the moment (deja vu!) Just making it in time for the world cup will be this viewed from above

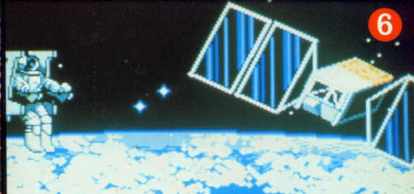
# COMING ATTRACTIONS

Just cast your peepers over these up and coming goodies and start saving your dosh, as **ANDY SMITH** reveals what's new and hot.

soccer game for one or two players. It's licensed from Sega and features all the usual bits like corners, free kicks, men running around with a ball - that sort of thing. There are even some tactical bits where you can select your team before starting the five matches which might just take you to the final.

**3** **TOURNAMENT GOLF**  
Elite are also working on a golf game, another Sega conversion, for one or two players that allows you to play on three 18 hole courses. Choose your clubs but take account of the wind direction and alter your player's position while lining up for the shot, then keep your eyes on

the strength meter while you make the shot and hope you don't end up in any of the bunkers, water, trees or rough. US Masters champion Nick Faldo may not have become an expert by playing this game, but with a bit of practice you could find yourself playing good enough golf to drive him off the fairway..

**5****7****8****6****9****4 LAST BATTLE**

Elite's third imminent game, a Sega conversion again, is a one player sideways scrolling beat-em-up. You have to make your way through over 30 stages of enemy territory punching and kicking baddies as they come at you with all manner of mean and nasty weapons. Leap and cavort around the screen taking out the baddies and moving through the stages until you come across and (hopefully) defeat the end of level guardians.

**5 TURRICAN**

Rainbow Arts reckon complex shoot-em-ups are the way of the future, so they've been busy working on one. Turrican features some 13 levels with over 1,000 screens and it's a sideways scrolling affair. There are a host of extra weapons to pick up and

super-huge end of level guardians to destroy, which you would expect from such a game, but there are also secret rooms, extra levels and bonus rooms for the inquisitive player to discover.

**6 MURDER IN SPACE**

In space no-one can hear you shout 'Aaarrrrgggh-hhh!'. Amateur 'tecs out there will soon be able to test their deductive powers with this Infogrames game set in space in the year 2005. A murder is about to go down and it's down to you to find the perp' and the eight crew members. There's more to it than that though, the game relies on animated dialogues throughout and there are even arcade games to play, like when you have to manually pilot the station on which the game is set.

**7 XIPHOS**

3D space odyssey fans will be pleased to know Electronic Zoo are working on just such a game. It's a mix of games with the ability to play it as a pure arcade game where you fly around blasting the enemy ships or you can play it in mission mode where you will have to do a lot more strategic thinking. Both games include digitised backdrops and surface detail on many of the 3D craft you meet within the game. There's a lot more to it than that though, as you will soon be able to discover for yourself.

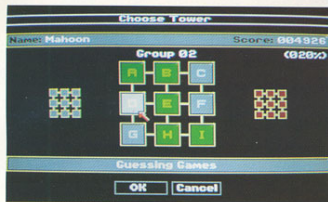
**8 DYNASTY WARS**

China around 184 AD was a riotous place apparently, so US Gold reckon it's just the place to set a chop-em-up. This one or two player coin-op conversion sees the player in the

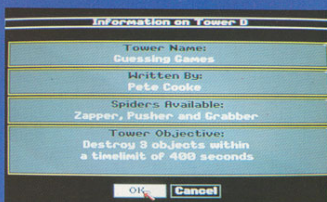
role of a rebel out to smash a bunch of warlords who have overthrown the Han Dynasty. There are eight levels to battle through and four characters to choose from, each with peculiar attributes which change as your warrior progresses through the game. Loads of jumping up trees backwards and slashing around with big swords here, hiya!

**9 FINAL COMMAND**

Ubi Soft have spent a long, long, time working on this adventure game set in the future. You play agent YG 30 on a mission to discover what's happened to a bunch of scientists who were building a teletransporter on the planet Ipsos III. Armed with a laser pistol, a mini computer and a telepathic headset can you solve the mystery in this great looking adventure?



Pick your tower from the block of nine...



...and read the tower objective.

# TOWER OF BABEL



RAINBIRD £24.95 ■ Mouse



A quick look around from an observation tower gives you some idea of what you'll be up against.

Anyone familiar with the Bible and the book of Genesis will recognise the title of this game. According to the book, the descendants of Noah, wishing to be closer to God, built a huge tower intended to reach up to heaven. This actually struck God as being a bit cheeky, so he cursed the workers with many different languages just to confuse them and foil their plans – up until then everyone in the world had spoken the same language.

Here's where the game comes in. During the construction of the tower – this is The Word according to the manual writers – a passing spaceship from the planet Zantor decided to give the masses a hand and lent them three spider-like robots. Unfortunately, things turned sour and the humans ended up hating the robots and doing their damndest to destroy them. After killing all the rebel humans the robots now just wish to get to the top of the tower and return to their homeland. If they don't manage it, the Zantorians will wreak havoc upon the Earth.

You're going to help the robots. Unfortunately, the evil humans have devised many traps and pitfalls to hinder the robots.

This is a solid-3D strategy and puzzle game. The tower is broken down into 125 mini-towers each of which has its own specific objective – for example to destroy two objects and collect three Klondikes, which are power packs for the robots.

The towers are grouped into blocks of nine and once you've completed seven in a group you can progress to the next block. The objective for each tower is outlined at the beginning and you're then told which of the three robots

are available. The three robots are: Zapper, so called because it's the robot that can destroy certain objects; Pusher, because it can push things; and Grabber, well, you can probably guess!

There are two main methods of controlling the robots. The first involves jumping straight into one and controlling it by clicking on movement arrows with the mouse pointer. The other way – which comes in especially handy for the towers in which you've got a time limit to beat – involves programming the robot with up to eight instructions – such as turn right, fire, move forward four squares – and then letting the robot get on with it. All three robots can be programmed in this way so they can accomplish tasks simultaneously.

You know what you have to do, and what you have to do it with – all you need to know now is what sort of things you're going to come up against.

For starters the tower is made up of (usually) more than one chequered level. Moving from one level to another requires a robot to move onto a lift square and activate it. Then there are the baddies, robots that can zap your robots, and proximity mines and the like that just get in the way.

Every tower can (honest!) be completed but it often involves moving blocks and other objects around. Many of the towers have only one solution. *Andy Smith*

GRAPHICS	8
SOUND	7
INTELLECT	7
ADDITION	8
OVERALL	85%



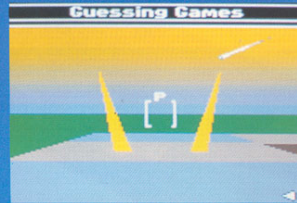
On the top of this tower is a zapper firing through a converter (which turns the zaps into pushes and vice versa).



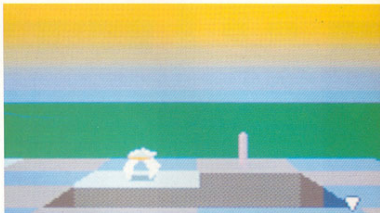
So send Pusher up the lifts...



...and when his push shots fire through the converter...



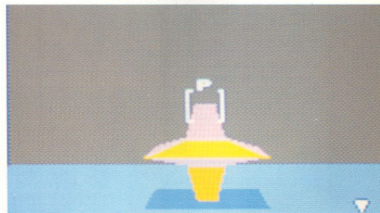
...they turn into zap shots.



There's no point sending Pusher down this lift, though, he needs to go back.



Now send Zapper up and down the middle lift.



And blast the harmless hoppers to finish the tower.

### GRAPHICS AND SOUND

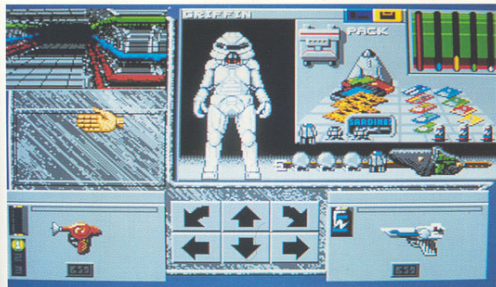
The sound effects and music are fine, but they're nowhere near as good as the graphics. TOB doesn't really cry out for good graphics, because the puzzling nature of the game doesn't rely on them, so it's even nicer to see they've been very well done.

### LASTING INTEREST

The number of towers is going to keep you playing for ages (fortunately you can save your position), and once you've completed the whole game you can set about designing your own levels - yup, it's got its own tower designer. Bags and bags of lasting interest.

### JUDGEMENT

A superb game. Everyone who's been lamenting the lack of superior software on their state-of-the-art machine can take heart - this is the sort of stuff that makes owning such a machine a joy. Cerebral stuff that's not completely lacking in the action department either. If you liked *The Sentinel*, this is a must.



This is the way you want to be: armed and ready for anything!

# XENOMORPH

PANDORA £24.99 ■ Mouse

Wasn't the film *Aliens* good? A lot of people in the software industry seem to think so, as more than a few games have been released based around James Cameron's classic.

The latest to appear is *Xenomorph*, which puts the player in the boots of the Captain of supply cruiser *The Mombassa Oak* on a trip to Atargatis in the Sirius system. Tales have been told of ships that have set out for Atargatis never to return, which doesn't bode well for your trip!



I'm afraid there's no way this ship's going anywhere with a damaged computer!

The run starts off easily enough with all systems running properly, but the Crossover Drive malfunctions while travelling into Hyperspace (or Big Empty as the trade-runners call it). The computer system and drives have been badly damaged, so you must search the base on Atargatis for supplies and equipment to make good your escape. On reaching

the base, you soon discover the reason for the lost missions. The whole place is overrun with alien creatures – deadly enemies that kill anything not of their own kind.



No clothes and a credit card. Right, where's the aliens...

The game starts with you in the cockpit of the *Mombassa Oak*, dressed in just your spotty underwear and armed only with a credit card. The surroundings are viewed via a 3D window which at the press of a button switches to show your inventory screen.



A gun! That could prove to be very useful. Who knows?

Suits and weapons can be found in the remaining cargo section of your ship ready for you to take on the marauding aliens, but extra

gear that may be handy such as radiation suits, rifles and mines must be found to get to the deeper sections, where the necessary equipment for your ship lies.



This is exactly what we are looking for – a way down.

Some sections of the base have become dangerous, so there is a danger of becoming contaminated with radiation poisoning if you do not take the greatest of care. For this reason, medical supplies are essential to the well-being of would-be escapees.



The disks give an idea of what went on before your arrival.

Do you think you can overcome these amazing odds? Well, get your kit on and get out to your space ship, then! **Maff Evans**

## GRAPHICS AND SOUND

Instead of the usual filled-3D effect, *Xenomorph* uses a 'flick-screen' 3D system of bitmapped images to simulate movement through rooms and tunnels. Occasionally this gets confusing, but overall the effect is well implemented and convincing. The most impressive use of graphics comes in the form of the equipment. There is a myriad of weapons and technological systems for the player to pick up and use, each fitting into the game well. Unfortunately the sound is of a somewhat lower standard. Only a few actions have corresponding spot effects, such as inserting a card in a slot, firing a weapon or opening a door. If more use had been made of the sound then the game would have been a lot more atmospheric, but as it stands it doesn't have much of the 'outer-space' feel of games like *Infestation*.

## LASTING INTEREST

There is no doubting the fact that *Xenomorph* is big. Use of a map is essential if you're going to get anywhere at all, as it's easy to either get lost in the tunnels or to completely miss a vital location if you're not paying close attention. Once you are familiar with the layout of the base, however, it will still take a while before proper use of the weapons has been worked out – ammo is short and there are a lot of nasty creatures – so you'll be playing for a few weeks at the very least.

## JUDGEMENT

Alien-infested complexes seem to be all the rage at the moment, so it's nice to see a game that manages to create an inspired and involving environment to challenge the player.

Considering the competition that *Xenomorph* is up against, the game stands up rather well. The feel is much more 'tech' based than something like *Infestation*, using a whole host of computer equipment to complete the mission. Unfortunately, the weak sound loses to the atmospheric edge created by *Psygnosis'* adventure, but – this gripe aside – *Xenomorph* isn't half bad!

GRAPHICS	7
SOUND	5
INTELLECT	6
ADDICTION	7
OVERALL	83%





Fresh orders from StarCom.

Space is big – very big – and very cold too. Since the dawn of time, Man has looked to the heavens and, for one reason or another, wanted to be away from Mother Earth to find out what else is out there.

By the year 2321, we know what's out there. Outies, an alien race keen on colonising our arm of the Galaxy, have appeared and declared war on the human race (who are also keen on colonising our arm of the galaxy – it's our galaxy after all, isn't it?) by turning a sun into a black hole. The reason behind this is that black holes allow instantaneous travel to other parts of the galaxy. The objective is to rid the galaxy of the aliens.

Gravity is a single-player sugar-coated wargame. That means it's essentially a wargame, with bells and whistles to the extent that you're hardly aware you're playing a wargame. You're

in direct control of a scout ship and have 15 others at your disposal (other scout craft can be sent on independent missions and you can take control of any one at any time simply by nominating it to be the flagship).

The game is played by accessing various control modules from a main screen. Orders come through from your superiors, StarCom, and then it's down to you how you carry them out. Of the main modules you'll be using the first is the Holotank, a sort of 3D map that allows you to plan routes for craft in your control and also keep an eye on how both yourself and the Outies are doing in building colonies. Another main module is The Grid, which allows you to see your ship and which is where all the action happens. It's a graphic representation of Einstein-Minkowski four space where height indicates strength of gravi-

tational forces. Then there are modules for controlling drive systems, weapons and so on.

Getting to grips with just issuing orders is complex enough, but things really get intense when you start bumping into Outies. You're armed with basic weaponry, should you wish to take things into your own hands, but by far the best method is to issue orders to your drones. The game contains a whole programming language which allows you to program and release drones which can then take care of themselves (hopefully – it depends how well you programmed them).

For example, you can launch a drone and tell it to just continually orbit a black hole until it detects an alien presence and when it does it goes hell for leather to either destroy the alien or die in the attempt. Of course, more subtle programmes can be created.



Einstein-Minkowski four space, where all the combat with the Outies takes place.

It's all very well flying around the galaxy, sending ships on missions and programming drones, but the real object of the game is to build colonies. Without colonies you can't buy new equipment, which means the Outies are going to get the upper hand. It's all a question of maintaining a balance between destroying the Outies and increasing man's presence in the galaxy, with colonies acting as the scales.

Andy Smith



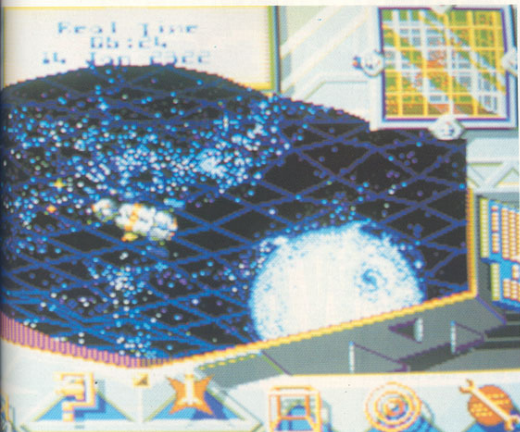
The Holotank, where you get a 3D representation of your bit of the galaxy.



A quick check of the system tells you everything's all right.



The Holotank again, which can be rotated until you are quite clear where everything in this bit of space is placed, relative to everything else.



# GRAVITY



MIRRORSOFT £24.95 ■

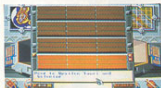
Mouse and Keyboard



A look at your ship to check for any damage.

## GRAPHICS AND SOUND

The sound is perhaps not as good as it could be, being limited to the occasional blast and explosion. The graphics, however, are much better. The module design is good and is easy to use and all the 'real-time' 3D stuff is fine. It does tend to make your Amiga look like an ST, but then so do a lot of games – the real point is whether the graphics do their job properly, which, you'll be pleased to find, they do.



Issue orders and you're away.

## LASTING INTEREST

There is a multitude of options which you can alter to make your life more complicated, the main one being the amount of work shared between you and StarCom – that is the amount of strategic work you have to do or let StarCom do for you. Let StarCom handle most things while you familiarise yourself with the game. This increases the game's lasting interest substantially, but it was hardly lacking in the first place – it's going to take you a long while to learn to play well.



The drone-programming module.

## JUDGEMENT

A lot of work has gone into Gravity. It's highly polished and hangs together very well. It may not be everyone's cup of tea, but if you're prepared to put the effort in (because it takes some effort in the early stages to get to grips and find out just what is happening) you'll find it becomes very involving and very satisfying. Prepare yourself for some long playing sessions. A great game that has been well thought out and well executed.

GRAPHICS	8
SOUND	6
INTELLECT	7
ADDICTION	8
OVERALL	91%



The world leader selection screen. The leaders have different playing styles, but they all want to rule the world in the end.



At the end of each turn you get to see what actions the leaders ordered last turn.

# NUCLEAR WAR

US GOLD £19.99 ■ Mouse

It really is a mad, mad, mad, mad world, you know, and if we stopped and thought about it we'd be in tears most of the time. New World Computing Inc have the right idea: take a very serious issue and poke fun at it.

Nuclear War is a simple, single-player wargame played between four players – three computer-controlled – who all want to rule the world. At the start of the game the player picks which world leader he'd like to be from a list of 10 dubious characters such as Mao The Pun and Infidel Castro. He also picks the opponents and the game begins.

Each world leader is given a

country containing five cities, the idea being to protect your cities and knock out the enemy's. Once a leader's five cities are gone, he is out of the game. Nuclear War is played in turns and you can choose on action per turn. The available options include: build, where your citizens do nothing but build up your nuclear arsenal; propaganda, where you try and entice the citizens from another country to come and join you; defence, in which you simply deploy some defence equipment if you think you're going to be hit by another country; and finally you can elect to make ready your own strike on another country.

The whole game is played by trying to guess what the world leaders are going to do and if possible keep them sweet, so they don't bomb you but go after someone else instead. Then it's simply a case of seeing who can hang on the longest to inherit a desolate Earth.

Andy Smith



For your first turn you've built up your nuclear arsenal.

## GRAPHICS AND SOUND

There are few sound effects but the graphics are much better. It's not really a visual game but everything has been done well and with the tongue firmly in the cheek.

## LASTING INTEREST

It's far too simplistic and limited to have you playing more than a few times.

## JUDGEMENT

Simple, easy-to-understand fare that has a wicked sense of humor to recommend it but little else. Certainly no meaty gameplay.

GRAPHICS	7
SOUND	4
INTELLECT	4
ADDICTION	6
OVERALL	51%

# INTERNATIONAL CHAMPIONSHIP WRESTLING

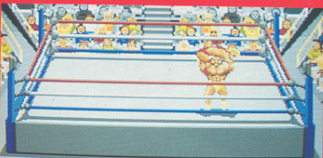
HEWSON £24.99 ■ Joystick

Wrestling is enjoying something of a comeback at the moment thanks to international personalities like Hulk Hogan and the Ultimate Warrior, and cashing in are Hewson.

It's a one or two player game in which the player has to take on such greats as Ivan 'The Bear' Trosky. All the usual moves are there, initiated by pressing the fire button and

moving the joystick to a effect a move or make a throw.

There are three difficulty levels but that doesn't help things much. The gameplay is appalling: both awkward and unrewarding. Only seriously dedicated fans need bother with this. Wrestling games don't appear too often, for a very good reason... Andy Smith



"Aaaaahh, oneaaaa, twoaaaa, threeaaa"

GRAPHICS 6 / SOUND 3 / INTELLECT 2 / ADDICTION 3 / OVERALL 24%



Your ship emerges from a Mair Gate.

# SPACE ROGUE

MINDSCAPE/ORIGIN £29.99 ■

Keyboard, Mouse or Joystick

Anyone who has played *Elite* will know roughly what this game is about. You play a square-jawed young hero, striving to become the best pilot in the Far Arm. You can trade, go bounty hunting, or try your hand at piracy (definitely not recommended unless your ship is equipped with some mean hardware).

In *Space Rogue*, humans have never developed faster-than-light travel. Travelling between stars would take years were it not for 'wormholes', strange tunnels in space that connect systems. A mysterious alien race, called the Mair, constructed travel gates around the wormholes and humans used them to found the Imperium. Unfortunately, the wormholes don't connect all parts of the empire.

The Far Arm, where the game is set, is an isolated region on the edge of the Imperium. Deneb is the capital, and controls a number

of systems. Each system consists of one or more stars, along with planets, asteroid belts, anti-matter clouds and other navigational hazards. Nearby is an area claimed by a hostile alien race called the Manchi, who occasionally raid across the border.

The game begins when your ship, the Princess Blue, discovers a derelict scout. The Captain orders you to go and take a closer look but unfortunately while you are poking around ten Manchi ships turn up and blast the Princess into space-dust.

The scout is something of a Marie Celeste: everything is working, but there is no sign of the crew. By law the ship is yours to keep, and thus your career begins. But there is more to it than that: the scout's crew were up to something important, and as you discover more you find you have unexpected friends and enemies...

Adie Stewart

## GRAPHICS AND SOUND

There are a number of different screens, each with its own unique style. The most important is the cockpit of your craft, where you control such things as docking and space combat. The navigation panel provides a map, and a menu that covers most of the other controls. The graphics are clear, but are chunky and poorly animated. The same is true for moving around inside bases, while in-system travel is literally nothing more than looking at a map and reading the occasional message.

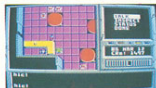
Sound consists of an occasional beep, whistle and bang - even in the introduction, where the programmers had a chance to show off, there was little more than a rumble and a shrill siren. The sound can only be described as woefully inadequate.



Surviving in a scoutship is not to be recommended!

## LASTING INTEREST

The packaging is impressive: plenty of paperwork, including a very nice map of the Far Arm and an instruction book. The designers have even included two cardboard ships for you to make! The game can be played using keyboard, joystick, or mouse: if you do play using the keys you need fourteen spare fingers, and what makes it worse is that you can't redefine the keys at all. In order to use the mouse you need to have passed a course in 3D astronavigation: stopping the ship spinning was a headache, and combat was a nightmare. Only the joystick proved useable, and required only a few additional keys.



Sampling a few tipsies in the cantina leaves you smashed out of your face!

## JUDGEMENT

*Space Rogue* is, well, primitive and the graphics are a big disappointment. Don't get me wrong, the game itself is playable and intriguing, but it certainly lacks that vital spark.

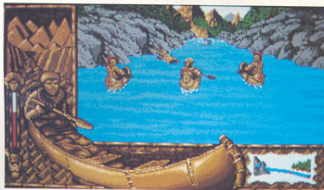
GRAPHICS	5
SOUND	3
INTELLECT	7
ADDITION	5
OVERALL	55%



A close pass on an Imperial Titan battlecruiser.



In-system navigation guides you safely past the sun.



The arcade canoe section. Bliff the Indians with your paddle.

# COLORADO

PALACE £24.99 ■

Joystick or Keyboard

Palace have enjoyed a good deal of success since their signing up of French software house Delphine, thanks to great games like *Bio Challenge* and *Future Wars: Time Travellers*. Now they've signed up another French house, Sîmaris, and are hoping for more of the same.

Colorado is an icon-driven arcade adventure. You play the part of one David O'Brian, a trapper, womaniser and drunkard in the American South at the end of the last century. After an uncharacteristic act of bravery, you were rewarded with a treasure map which you believe will lead you to the location of a lost gold mine.

The game is viewed side on, for the most part, and the idea is to explore the land, solve mysteries and fight unfriendly Indians. You're armed with a gun, tomahawk and knife and fighting involves holding the fire button down and moving the joystick around - as you'd expect. When in non-aggressive mode, you're in direct control of Dave and can decide where to go and what to do.

At the start of the game you are standing on a river bank having just climbed out of a canoe: a pathway heading off screen leads to adventure. Clues and objects found scattered along the way can be picked up and carried.

## GRAPHICS AND SOUND

A very nice-looking game. The backgrounds are very well drawn, the sprites are nicely animated and the overall look of the game is good. The sound effects and music are not so memorable but they do their job perfectly adequately.

## LASTING INTEREST

The problems and puzzles require quite a bit of thought and some of it lateral as they're not as logical as they might be. It'll take a long time to solve, but fortunately the game will save your position every time you pitch camp.



Along the riverbank and all ready for some action



No, it's not a bear-a-gram, this monster means business.

Once an area has been explored to your satisfaction and you wish to move on, simply jump into your canoe and enter an arcade game. As you paddle downstream you must avoid boulders, logs and unfriendly Indians before pulling in at a new location. Wander around, solve the puzzles, and maybe in the end you will make it rich.

Andy Smith

## JUDGEMENT

This could have been a lot better. The control of your character is awkward and frustrating which spoils the enjoyment. The basic game structure is not much more advanced than old Spectrum games like *Pyjamarama* and the thousands of similar games around in the early Eighties. Definitely one for those with immense patience and determination.

GRAPHICS	7
SOUND	5
INTELLECT	4
ADDICTION	5
OVERALL	62%

# HOT ROD

ACTIVISION £24.99 ■

Joystick or Keyboard

If you're one of those people who hangs around in an arcade all day, you might just remember a driving game called *Hot Rod* from Sega.

The game is in a similar mould to *Super Sprint*, the only difference being that *Super Sprint* is better. The view is an aerial one of your own car and the three others that you have to race against. The object of

the game is to get around the track as quickly as possible thereby obtaining loads of dosh with which to build up your car. Once you've done this it's just a case of trying not to crash or run out of fuel because if this happens it's back to square one.

The gameplay suffers from a few flaws in conception: the screen is not centred on your

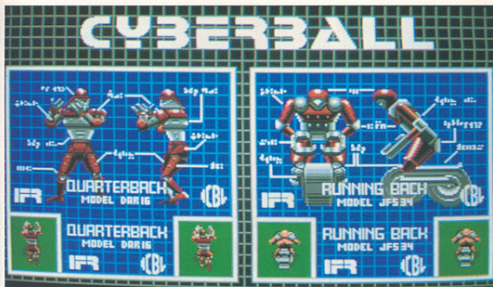
Collect the symbol in front of your red car in order to gain extra points.



car, so every time the leader pulls away from you the computer places you behind him and you lose twenty points from your fuel. When you run out of fuel you'll find yourself saying 'hello' to the end credits. You also don't get a real impression of speed; but you can have a few friends along to join in the mayhem which partly makes up for it.

The sound is quite reasonable, adding something to the overall appeal of the game. The graphics are colourful enough, but again they are not amazing. Generally the game is unremarkable but if you did like the arcade game or you have a soft spot for racing games as a genre then you are likely to find it pleasurable for a while. Adrian Price

GRAPHICS 7 / SOUND 5 / INTELLECT 1 / ADDICTION 5 / OVERALL 66%



For technical freaks, here's the spec on a couple of players.

# CYBERBALL

DOMARK/TENGEN £19.99 ■ Joystick

American football is a strange game at the best of times – though it's enjoying something of a boom at the moment on this side of the Atlantic – but just imagine what it would be like if all the players were massive robots who wouldn't look out of place in the comic 2000 AD. Domark's conversion of this Atari coin-op gives you the chance to find out.

The game contains six teams, two in the instruction league and four in the pro division and you play the part of a player/manager of one team. Each team contains a handful of robots and the game is played (more or less) with the conventional American Football rules. One team starts on offense and the other on defense. The offense team has to attempt to get the ball across the opposition's goal line and thereby score a touchdown. The defense, of course, have to stop them.

Play usually continues until the ball hits the ground, at which point it stops and the offense and defense line up again at the point where play stopped and go through the whole process again. There are, however, a few important differences, the biggest being the ball itself.

Normally, the offensive team have four attempts to move the ball at least 10 yards forward. In cyberball there's no limit to how far the ball must go, but after every play the ball warms up and if it doesn't cross either the centre line or the goal line within four attempts, it blows up. This not only gives possession to the other team but it also does a great deal of damage to your robots.

The way to get your robots repaired is by either gaining possession of the ball or scoring some points, so try not to let too many get blown up eh!

There are six periods to each game, each period lasts three minutes and as well as the clock ticking down during play, it also ticks down while deciding which plays to make. This is the manager side of things, when at every break in play you get the chance to choose the formations and try to outwit the opponents (both during defense and offense).

Crash and sack your way through the game and take on another opponent. In two player mode you and a mate can play on the same side and take on the computer team. **Andy Smith**

GRAPHICS	7
SOUND	6
INTELLECT	4
ADDITION	7
OVERALL	71%

## GRAPHICS AND SOUND

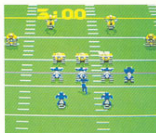
There are some nice effects and bits of sampled speech. The graphics are good too and are very close to their coin-op parent. Fine in both departments.



Deciding a play on offense. Your funds are very low though, so you will have to pull out all the stops and put together some good plays now.

## LASTING INTEREST

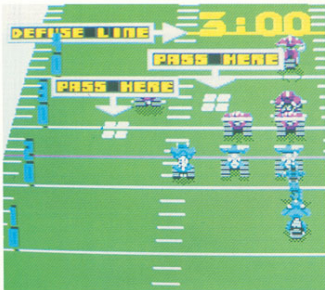
It's not a laster. It will not take long to learn how to beat the other computer teams, which is a shame, things perk up when you play in two player mode – but not quite enough.



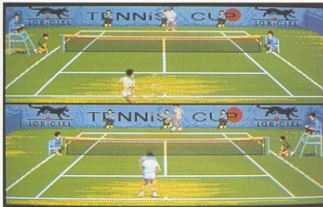
A running play. Notice the runners positioned just behind the quarterback waiting for the ball.

## JUDGEMENT

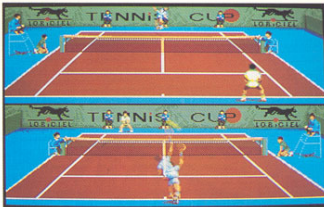
A simple, playable and enjoyable game which has been well converted. It's not going to keep you going for months but it's good for short-term fun.



The start of a passing play. Once the ball is thrown control switches to the receiver who you have to get to the area marked to receive the ball. If he makes it he can carry on running until tackled.



In the middle of a grass court singles match. The two screens mirror the action from either player's point of view.



A sudden change in the weather and the game is continued indoors. Here we are mid-serve, with the player's action pose freeze-framed.

# TENNIS CUP

LORICIELS £24.99 ■

## Joystick

Tennis has come a long way from two oblong bats and a small white square blipping around a rectangle. Loriciels' latest simulation brings a new sense of realism to the game with simultaneous two-player viewpoints, and a high level of aesthetic authenticity.

As expected, the game supports a whole range of gameplay options, such as the type of court (clay, hard, grass and indoor), length of game (1, 3 or 5 sets), and speed of play (high, medium and low). You may also select to practice against a ball-hurling device before deciding to play a match proper.

Having opted to compete against a human or computer-con-

trolled opponent, you can then choose the venue: whether it is to be a friendly one-on-one, or as part of a grander competition, such as the Davis Cup.

Your player's nationality can be appointed via a host of national flags (could it be a subtle French sideswipe at the Brits that the Union Jack is oddly absent?) and your playing characteristics can be customised to suit. A range of playing abilities – such as service, volleying etc – are allotted a percentage rating from a set credit allowance. Your player's characteristics can then be saved to disk, allowing a player's prowess to be gradually improved with time.

Steve Jarratt

## GRAPHICS AND SOUND

The players are beautifully animated, and the split-screen views are extremely realistic and detailed. The single fly in the visual ointment is that the screen jerks to one side or the other instead of scrolling smoothly, which can be slightly off-putting.

Sampled sound is used to great effect throughout, with amazingly clear speech for the score, game status and line calls. Digitised spot effects like the thwack of ball on racket and turf similarly help to boost the believable atmosphere.

## LASTING INTEREST

Sports simulations have terrific longevity due to the nature of the beast. With loads of options, a good two-player game and a decent computer opponent *Tennis Cup* should be a reasonably long term investment.

## JUDGEMENT

The split-screen viewpoint is a distinct improvement over previ-

ous attempts, since there is invariably some discomfort when one player is forced to play from the opposite 'end'. However, the narrow screen means that the ball often flies out of view – especially during the all-important service – resulting in several moments of complete confusion.

There is also a terrible buffer between pressing the fire button to initiate a stroke, and your player actually doing it. This proves to be a serious hurdle for the first few games until you get into the swing of things.

Tennis is tense, take it or leave it. This offering from Loriciels is nicely executed, but not so amazingly ground-breaking that it could replace any other half-decent tennis game in your collection.

GRAPHICS	8
SOUND	9
INTELLECT	4
ADDICTION	7
OVERALL	83%

# DYTER 07

RELINE £19.99 ■ Joystick and Keyboard



When all the patrolling robots have been destroyed the flaming volcano crater is extinguished, allowing the Dyter 07 to descend to the next level.

They have never been noted for original software, reLINE, and to be frank this is *Choplifter* with knobs on. If you're unfamiliar with the aged coin-op and its multiple conversions, the aim is to guide a helicopter across horizontally-scrolling landscapes, blasting everything that moves, and buildings that don't. Prisoners, released from the derelict constructions, are collected for return to base.

In *Dyter 07*, the little prisoners are replaced by equally little scientists who, upon repatriation, busy themselves building new weapons to bolt onto your chopper, such as shields,

multi-way shots, missiles and soon. Another twist is that the chopper carries a small tank for land-based battle plus an amphibious craft for aquatic attacks. Destroy all the robot enemies specified by the radar and you can exit this landscape to the next. And that's about yer lot.

The sound and graphics maintain an amateur status throughout, and there's precious little to get the grey cells into gear. The action is predictably hectic and moderately entertaining at first, but the invariant and incessant blasting action just grows ever more weary. Steve Jarratt





## BRIEF ENCOUNTER



Here's where you sign in.



Pick your plane...



...and load up with the weapons. Check the mission briefing first or you could make the fatal mistake of loading up with the wrong sort of firepower.



That bridge needs destroying to halt the tank and truck convoy that want to cross it.



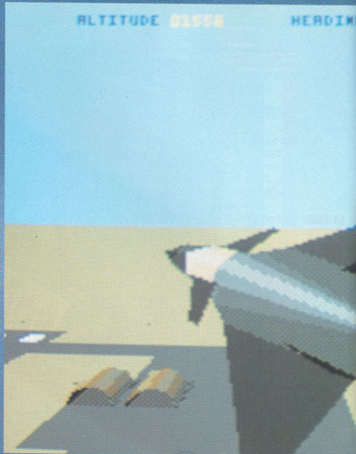
That's stopped the tanks, so now it could be a good time to go for the trucks.



There's a nice convoy, just right for strafing. They've pulled off the road because you're around.



An out-of-cockpit view of your airplane polishing off a couple more of those trucks.



## F-29 RETALIATION

OCEAN £24.95 ■ Joystick, Mo

Aircraft technology has advanced massively in the last 20 years, especially since the introduction of the microchip. Nowadays pilots, especially fighter pilots, can spend less time bogging themselves down with flying the planes and more time concentrating on the important things like hitting the enemy and ensuring they don't get the chance to do the same.

Within the next couple of years the 'superplanes' that first appeared on drawing boards ten years ago will start entering service. Two possibilities in that line up are the Lockheed F22 and the Grumman F29, both of which star in this combat/flight simulator devised by Ocean and loosely based on the believed performances of the planes.

Set in the future, when the planes are in operation, the game contains four theatres of war:

Europe, Middle East, Pacific and America. The American theatre is just used as a training ground against simulated targets. The other theatres give a list of missions to choose from – the exact number depending on your rank, which you decide for yourself.

Spend a while getting to know the planes (at Lieutenant level where you have infinite weapons is a good idea) and once confident enough, select a theatre. Work through the missions – every time you get killed a new pilot's log has to be created – and once you've completed them, the war you're in moves on a day, more missions appear and the war situation is updated. The missions range from deep strike, where you're hitting anything from SAM sites to bridges and battleships, to dogfighting with incoming bombers and fighters. Get bored with one sort of landscape and

LOOKING



LEFT: An outside view of leaving the base in the Middle East on another mission in the F22.

ABOVE: Three bogies coming in - let loose with a sidewinder.

BELOW: In the Pacific this time, and that battleship isn't going to be there much longer.

### GRAPHICS AND SOUND

The spot effects are fine, a few more would have been appreciated, but most of the sound is limited to the rushing air and the low drone of the engines - atmospheric but not outstanding. The graphics are another story. The 3D is super fast - arguably the fastest yet seen in a combat flight sim - and the ground detail is superb. The variety offered by the different theatres is also very nice to see and overall it's obvious a lot of work has gone into making this look as good and as fast as it plays.

### LASTING INTEREST

Heaps of missions and several difficulty levels - who could call for anything more?

### JUDGEMENT

Excellent stuff! If you've saved the world already in F-16 Combat Pilot and are looking for some new challenges then this is the one to go for. The emphasis is much more on the action side than the flying side and everything hangs together terrifically well.



# ATOR

e or Keyboard

you can always ask to be posted to another theatre.

For the very impatient or for those who fancy a quick flight without having to do a mission there's always the Zulu option which puts you in mid-flight against an enemy plane. As you would expect, everything is viewed from the cockpit - although out-of-cockpit views can be accessed at the touch of a button - with most of the mechanics handled from the keyboard (lifting and dropping landing gear and such like). So all you really have to do is go out there and get 'em.

Andy Smith



GRAPHICS	9
SOUND	7
INTELLECT	7
ADDITION	8
OVERALL	92%



50 goblins and a greedy snitch leap out of the scenery! What action now?

# MIGHT & MAGIC II

US GOLD/NEW WORLD COMPUTING

£29.99 ■ Keyboard

**F**antasy – the stuff dreams are made of. Another computer sword and sorcery role-playing game hits the Amiga scene.

The world of CRON (yes, CRON) is now all of 900 years old. For the first few centuries, elemental beings of pure force warred over it. The earth elementals managed to subvert the fire, air and water elementals.

200 years before the game starts, human spell-casters – under the supreme command of king Kalofin, Number One mage – managed to split the elementals up and herd them into their own separate reservations.

Prior to the start of the game, the second greatest magic user in history, Corak, has been behaving peculiarly. He holds mystic summonings and travels magically.

Now, he warns of an evil escaped criminal from the past who is loose again to hatch plots and gain domination over all. Will you take up the cause and defeat this adversary? All of this background information is contained in a few pages of well-written, imaginative scene-setting.

The game itself is more familiar in outline. You control a party of adventurers, individuals who are generated as novices. They can progress in their chosen areas of skill: chivalric Knight, dextrous Robber, saintly Paladin, holy Cleric, stealthy Ninja, tough Barbarian, sureshot Archer or potent Sorcerer.

Only six characters may be used at one time. These can be chopped and changed from a roster of 26. To take pressure off the

merry band, other people can be hired. Such hirelings must be paid off each day, or else they disappear back to the smoky inn where they last stayed.

A simple 3D window displays the direction in which your characters face. They move forwards, backwards and turn to each side. Hundreds of different creatures exist. Some of them can aid you: a blacksmith from whom you buy equipment, a priest who heals characters. Other creatures tend to be unfriendly, hacking your party up unless you can beat them to the draw.

CRON is big. Starting at the town of Middlegate, you can explore the kingdom and the four elemental zones. The latter areas are accessible when you can gain protection from certain spells. Forests and mountain ranges block your way, but these can be braved if some members of your party are talented in relevant ways. Time travel is possible, but it will be a while before new characters achieve this.

The spell system is a little clumsy, the combat one-sided (terminal to your enjoyment) until you can build up the party's expertise. It's an enjoyable caper that people who appreciate the likes of the *Bards Tale* series will get into.

Pat McDonald

## GRAPHICS AND SOUND

No graphics are used to convey what your characters are like. Everything to do with them is text. The creatures of CRON are animated with a few frames, and the background landscapes are pleasing to the eye. Sound exploitation is almost non-existent. There are a few spot effects to be heard, but they are not exactly striking.



Design a hero using a few dice and a little luck.

## LASTING INTEREST

New characters are woefully weak. Six experienced characters are available whenever you want, and combat is usually fatal if you don't use them for your first forays. Later on you can play with more confidence. In terms of depth, atmosphere and size, *MMII* is a compelling game that needs effort to get started. Be warned, fantasy fans!



Nasty sludge beasts lurk under the town of Middlegate.

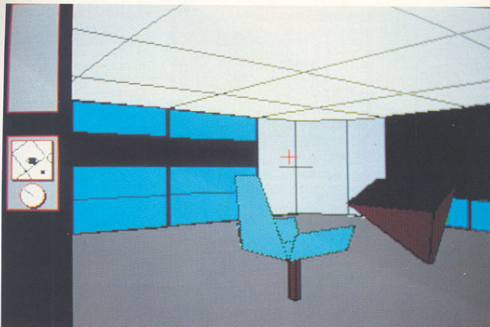
## JUDGEMENT

The game lacks a lot in the way of appeal. The graphics look good, but the different options are confusing at first. The manual is written with this in mind, and manages to guide you gradually. Once sussed, no worries: but the initial frustration may prove too much for many people. Such fast-reaction game-players will see it as too tough and dull: hardened adventurers will rise to the challenge.

GRAPHICS	7
SOUND	4
INTELLECT	9
ADDICTION	7
OVERALL	73%



The blacksmith will sell you a variety of items – but at what price?



The command centre, complete with James T Kirk-type chair.

# THE COLONY

MINDSCAPE £29.99 ■ Mouse

The Regional Space Marshal was flying his DAS Cruiser through Delta Space when a message came through on the sub-space radio. "This is Commander Bagdasarian of space frontier colony Delta 5-5. We have been overrun.... I repeat, we have been overrun...." The message was lost in a wash of static interference.

Thus begins your adventure as lone Space Marshal in an attempt to rescue the colonists on Delta 5-5 and stop the spread of the alien

threat. Now where have we heard that before...?

The Colony takes place in a 3D environment, combining solid polygon graphics for the internal views and wire-frame representations of the outside world. The game starts with you in the main control room of the DAS Cruiser, having just awoken from a crash landing. All non-essential power systems have shut down, leaving the ship in darkness. After restoring power to the lighting systems

you begin the quest to liberate the planet and make your escape.

The ship's drive systems have been damaged, so as well as destroying the alien forces you must recover special equipment from the base to repair the cruiser. You must use any systems you can find to gain access to further sections of the game, finding the codes to use on the right equipment and kitting yourself out with enough weapons to survive the alien threat. **Maff Evans**

## GRAPHICS AND SOUND

Influences as varied as *Star Trek* and *Battlezone* can be seen throughout the game, the latter particularly in evidence in the surface sections. The graphics are so similar to the arcade tank classic that it could almost be the same game! However, despite the use of filled 3D graphics, the game has a very sparse appearance. The update is extremely slow, making turning a simple corner a slow and sometimes disorientating procedure. The sound is extremely disappointing, consisting of a few beeps and crunches instead of the state-of-the-art effects we all know the Amiga can supply.

## LASTING INTEREST

As with most games of this type the plot is long and involved, but instead of using different elements in key locations it becomes a case of finding something in a drawer and trying it where nothing else works. All the puzzles are overly simple, relying more on luck than judgement as to whether they can be carried out. The only real problem is the excruciatingly difficult battle scenes. There is no time to find your feet with this game - it's straight in at the deep end. Death occurs time after time after only a minute on the planet's surface, a point that will discourage even the most ardent arcade adventure fans. A player can only take so much before disks start to be hurled across the room.

## JUDGEMENT

As we've said before, *Aliens*-inspired 3D adventures are popping up everywhere these days so to be successful a game either has to have involving gameplay or incredible atmosphere. Unfortunately, *The Colony* is lacking in both these elements. The graphics are sketchy and unrealistic and the gameplay is repetitive and frustrating. If you are lucky enough to get into the complex you may find yourself playing for a couple of days. On the other hand, if you repeatedly fall foul of the surface guards after scores of attempts, the game just might lose its appeal.



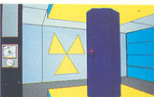
Move up to the desk so that you can investigate further...



...and a message is displayed.



Switch on the lights in the damaged ship via the control panel.



The damaged ship's reactor. You'd better repair it or you'll never make it home.



The airlock's closed, so a code will be needed to grant you access to the surface.



No sooner does our hero set foot outside the ship than he's under attack from alien beings.

GRAPHICS	4
SOUND	2
INTELLECT	6
ADDICTION	3
OVERALL	51%



Record the action using the on-board camera and watch the replay to your heart's content.



The plane selection screen. For the next mission let's get inside one of those Me 111s.



The in-flight map, which tells you what's around and what you should be bombing.

You can keep your Retaliators and keep your supersonic high altitude bombers. What you really want are good of Spitfires and Messerschmitts to do dog-fighting in – or so Lucasfilm will have us believe in their follow up to the great Battlehawks 1942.

Anyone with even a basic knowledge of recent British history will recognise the immortal words used in the title, so it's no shock to find out that this game is a combat flight sim based on aircraft that were around in the first half of the Second World War.

First of all, you can decide which side to fight for, but remember the decision here limits which craft are available to fly – no Spitfires in the Luftwaffe! The Brits have got Hurricanes and Spits to fight in while the Germans have not only fighters, but medium and long range bombers and dive bombers. Each plane has several missions set aside for it that can be played in any order. The missions are varied and range from straight dogfights to scramble and intercept missions.

Once a mission is completed the combat records are updated (unless you altered some of the options before the battle to make life easier) and stored to disk. This way you can get together a list of pilots to select to fly with you on future missions, ie do particularly well on one mission and the computer can fly that pilot on another mission and will attempt to keep up the pilot's usual standard while you fly another plane and (hopefully) do just as well.

Then there are the campaign games if you feel like playing for a long while, where you take charge of your side's airforce and try to either bomb the blitzes out of blighty or not, depending which side you're on. **Andy Smith**

# THEIR FINEST HOUR

US GOLD/LUCASFILM £29.99 ■  
Joystick, Mouse or Keyboard



The cockpit – a couple of Schweinhund Englisher pig dogs in Spitfires closing in.



Jump into the left gunner's position and try to fend them off.



More from behind – yahoo! That's one of the enemy successfully downed.

## GRAPHICS AND SOUND

The sound effects are superb the droning engines, bullets and explosions are very atmospheric. The graphics are also good, but slow and there's a severe lack of ground detail (that doesn't detract from the action though).

## LASTING INTEREST

There are heaps of missions, loads of planes and plenty to keep you busy. If you get bored flying a fighter try being a whole crew and not only flying a bomber, but acting as rear, side, forward, underneath, on top, inside-out, back-to-front, behind-the-bikesheds gunner and the man that presses the buttons and shouts 'bombs gone'. Once you've flown all the possible permutations there is even a mission builder to design your own – what more do you need?

## JUDGEMENT

TFH is a great game, it captures the real dag-a-dag-a-dag-a flavour of WWII dogfighting (How would you know – Ed). The 3D graphics may not be state-of-the-art but it's the gameplay that counts and there's plenty of that. If you want a combat flight sim and you don't want missiles but like to see the whites of the enemy's eyes, then this is what you're after.



GRAPHICS	8
SOUND	8
INTELLECT	5
ADDICTION	7
OVERALL	90%



Kill the spirits by throwing rocks!



No time to horse around!

# CASTLE MASTER

DOMARK/INCENTIVE £24.99 ■ Mouse or Keyboard

Has any member of your family ever been snatched by a 30-metre dragon and carried off to a wizard's lair? Well, it's the kind of thing that used to happen all the time in the Dark Ages, or so Incentive would have us believe in this all-singing, all-dancing, cheese-eating, Freescape spectacular.

Freescape pioneered 3D adventuring way back in 1988, when *Driller* utilised solid geometric blocks to create an arena you could walk on, crawl under and touch. It was inevitable that Incentive would eventually turn to the usual adventure fare of castles, wizards and ghosts.

Legend (and the title sequence) has it that your twin's been nabbed by the aforementioned dragon and stashed in Castle Eternity. So you set out to conquer the fortress armed with your wits, courage and a handful of rocks with which to 'kill' any ghosts you meet on the way. This may not be the world's most desirable arsenal, but it will do.

The castle comprises four towers, each with three levels. Throw in a catacomb maze and a gatehouse or two as well as sundry other essentials like a chapel and you've hours of frustrating entertainment guaranteed.

The first priority is staying alive – not as simple as it sounds. There are three things that any savvy knight should know. Eating plenty of cheese – huge wedges of Cheddar are everywhere –

keeps you strong, falling in or off things is fatal and when you bump into something that goes bump in the night the ghoulies drain your strength quick.

The game is controlled either from the keyboard, or by mouse or joystick. Two sets of cursors (direction and aim) appear on screen together, which means your first few steps are faltering. The icon controls are fine for rapid strides or swings in one direction, but they lack the response for fine movement, so keys are the only option for close control. And you'll need it to walk tightrope-like catwalks – one slip and you're gone.

Naturally, it isn't feasible to burst in, grab your bro' or sis' and bug out – that would be too easy. First you have to find the right keys to open the right doors. A monumental task in itself, because the darned things aren't labelled. And there are more mysteries to solve en route, too, if your quest is to end in a reunion and not in a morgue. Strange 'pentacles' have to be collected, while literally littering the place are unmarked potions that do everything from restoring strength to granting you the nifty ability of 'stone travel'.

To find the treasure, pentacles and keys means you have to look at, in and under everthing. Well, almost everything – try performing a James Heriot on the back end of the horse and all you manage to get is an 'aaaaeueughht' message. **Trenton Webb**

## GRAPHICS AND SOUND

The Freescape is better than ever, with fast movement in a clear, sharp landscape: yet it's no stunner. To keep the Castle motif alive grey and blue dominate the colour scheme. The result is markedly less spectacular than the golds seen in *Total Eclipse*. There's a sense of 'been there, done that', because solid 3D ain't the technological marvel it once was, and all the cheese in the world can't change the fact.



Castle Eternity is littered with supposedly 'helpful' riddles.

## LASTING INTEREST

Castle Master will quite simply have you running around for months. Castle Eternity is huge and crammed with enough apparently inaccessible rooms to provide a challenge to any true gamer. The ability to play brother or sister adds longevity, as each has different abilities: there are places she can squeeze through, but he has to crawl or take a different route. Luckily a save game option minimises the intense hair-tearing associated with sudden death.



There two secret rooms here, but where the devil are they?

## JUDGEMENT

Castle Master deftly overcomes two major stumbling blocks. Firstly Incentive have managed to produce a new game and not settled for *Total Eclipse* in grey. Secondly they've survived the transition to the rather run-of-the-mill realm of dragons and dungeons by adding humour, riddles intricate conundrums.

A huge, interlinked puzzle, Castle Master demands mental dexterity, lateral thinking, mapping abilities and fast reactions to survive. The game doesn't exactly sprint along, but so what? The slower pace offsets the lack of instant amazement with a lasting intrigue and a real hook.

GRAPHICS	9
SOUND	5
INTELLECT	8
ADDICTION	7
OVERALL	89%





Stay cool and with a good aim it will be your turn to put one away.

# WORLD CUP SOCCER ITALIA '90

VIRGIN £19.99 ■ Joystick

Well, it only happens once every four years and it's such a big event that software houses can be forgiven for inundating us with games attempting to cash in. What is it? Why, the World Cup of course.

Already there are half a dozen games with Italia, World Cup, and anything else that sounds vaguely connected to the event, in the title – in the hope that football fever will sweep the country and everyone at all interested in the event will rush out and buy a game

based on it. There's only one game with the official World Cup license though – this one (but then again there are licences for other stuff like the England team, Adidas and probably the laundrette that washes the kit.)

It's a one or two player game in which you have to play through a qualifying match and then the quarter finals, semis and eventually the final. The game uses the familiar view from almost above perspective and it's played like most other footy games except

for one important difference. Normally the footballer the player controls is highlighted (it is here too) and control switches automatically to the player nearest the ball. That doesn't happen here, instead the player has to hit the firebutton to switch players and once a player is selected, if he's near enough, another press of the fire button will cause him to either kick the ball if he's in possession or attempt a tackle if he isn't.

The perspective changes once an attacker from either side is in the opposition's box, to a view from behind the player if attacking or behind the goalie if the other team are attacking. Suppose you're attacking you then usually have one shot to beat the goalie. When defending and controlling the goalie you then have to try to save the opposition's shot, which usually involves making a dramatic diving save. Play through the matches, and after a few attempts you may just be lucky enough to walk off with the cup. **Andy Smith**

## GRAPHICS AND SOUND

There are some great pieces of digitised speech and crowd noises, but the rest are simple thuds of foot against ball. The graphics are great too especially from behind the goal mouth. The animation's not as hot as it might be because it's a bit jerky but not to the extent that it does any harm to the gameplay.



The view from behind your goalie (note the flat cap).

## LASTING INTEREST

It's tricky to get to grips with and the computer controlled teams are no pushover, so the game is going to keep you playing for a while. However, it's got much more lasting interest in two player mode though.



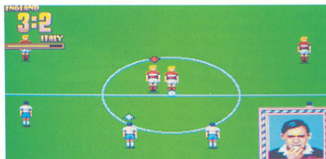
Already one goal up, and England are storming (!) towards the end of pitch guardian (goalie to you and me).

## JUDGEMENT

One of the better footy games around at the moment. The gameplay lets itself down by not having automatic switching of players but that doesn't take too long to get used to. It's only in the second division compared to Kick Off but it's the best of the crop, so far, that are based around the World Cup.



A triumphant England team make it through another round (but they get knocked out in the next one).



The teams make ready for a kick off after a goal has been scored.

GRAPHICS	7
SOUND	6
INTELLECT	3
ADDICTION	7
OVERALL	74%





You've found your first hostage, all you have to do is run into him to perform the rescue. That switch on the right operates the escalator to the next level.

# ESCAPE FROM THE PLANET OF THE ROBOT MONSTERS

DOMARK/TENGEN £19.99 ■ Joystick

Planet X was doing fine, thank you very much, until the Reptilions arrived. This evil race are set on destroying Earth so they've captured professor Sarah Bellum and have enslaved all planet X's inhabitants and are forcing them to build an army of robot zombies. You, Jake, and your buddy Duke are going to rescue the hostages and save Sarah (and the day).

Armed with a ray gun and a fistful of bombs you have to work through the planet destroying the robots and their equipment and

rescuing the hostages as you go. The planet is made up of several sections, each section divided into three or four levels. Getting from one level to the next usually involves finding and switching on the escalator or climbing up the conveniently placed ladders.

Rescuing the hostages is simple enough you just have to walk into them and they are then beamed aboard the orbiting shuttle (every shuttle load earns you some extra energy as well as points). Sometimes however the hostages are entombed in glass

cases that have to be de-activated before the hapless human can be saved. Fighting off the incoming enemy robots and Reptilions is a very different matter though.

On every section of every level you'll find progress hindered by all manner of weird and wonderful robots that fire and bash into you causing a dramatic loss of energy and eventually life. Destroying them involves blasting them with the ray gun. Some robots take more than one hit to be killed, but you can increase the power of the ray gun by picking up green crystals left behind when certain robots are killed. It's possible to regain energy by shooting open cabinets which sometimes contain food (sometimes extra bombs). Then there are the traps. Often a level will also contain traps like spikes that thrust out from the wall or floor tiles that electrocute, most of these can be passed with careful timing.

Clean out a level and you then have to jump into a small spaceship and negotiate your way through a bonus maze level before confronting an end of level guardian. **Andy Smith**

## GRAPHICS AND SOUND

The pumping music that plays throughout is great and so are the sound effects, even better though are the isometric 3D graphics. Everything is well drawn, well animated and there's a touch of humour in there too - just watch as your man clings on for dear life when you walk him accidentally off the side of a level. An excellent conversion.



There's energy giving food in the locker and those green crystals increase the power of your gun.

## LASTING INTEREST

In one player mode you get half a million credits - well a lot anyway - so it's easy to get well into the game. In two player mode you can get even further, so it may not take too long to complete it - especially if you can survive past the end of level guardians who can be really tough. You will have a lot of fun getting there though.



Shoot the console to de-activate the glass cages.

## JUDGEMENT

It's entertaining, it's great fun, it's a great conversion and it's very playable. It does get repetitive after a while but play with a friend and you will have more than a couple of laughs. Certainly one of the more enjoyable coin-op conversions around at the moment.



The first end of level Reptilon - handsome chap isn't he?

GRAPHICS	8
SOUND	8
INTELLECT	4
ADDICTION	7
OVERALL	82%



The bonus level and boink! Wrong way!

# THE WHOLE TRUTH ABOUT games programming

## PART 5

# aliens 2

As we get close to the complete *Menace*, **DAVE JONES** fills in the details of how to animate aliens.



Following straight on from last month's ramblings about the features required by the alien movement routine, this month's Coverdisk contains the source code that implements all the functions discussed last time. It is quite lengthy – lucky you don't have to type it in! – and consists of three main sections:

1. The control of aliens in a path.
2. The starting/stopping of paths.
3. Drawing the aliens in each path.

The drawing of the aliens is broken down into three further stages:

1. The replacing of backgrounds saved from the previous printing of the aliens.
2. The saving of the backgrounds where the next set of aliens is to be drawn.
3. The actual drawing of the next set of aliens.

### Big Clipper

Note that no clipping of BOBs (Blitter Objects) is carried out in *Menace*. Clipping, a very common feature in games, ensures objects move smoothly onto the screen from the borders rather than just instantly appearing. The aliens in *Menace* do not appear instantly, though, so you may have realised that some form of clipping must be taking place.

The simplest way to achieve a clipping effect is to make the physical screen size larger than the one that is being displayed. In *Menace* all aliens are a maximum size of 32x24 pixels. If this area is added to each side of the displayed screen size it gives us an area of the screen into which we can draw an alien that will not be displayed (see Figure Two). Once we start moving the alien onto the screen it will glide smoothly on.

Once again, the trade-off between speed and memory comes into play. We can keep the screen the same size as the displayed one and use software to calculate how much of the alien is clipped, only drawing the correct amount, or we can sacrifice the extra memory to dispense with the software clipping. In some games it becomes essential to use a software clip. Basically if you plan on having large moving objects in a game, then there will probably not be enough memory to allow the

extra screen size around the displayed screen to accommodate and hide large objects.

### Blitter Pill

The aliens are drawn using the blitter (surprise, surprise). The blitter is much, much faster than using the 68000 to move memory around – even small bits of memory – and let nobody try to tell you different, especially ST owners. Blitter sprites are masked, shifted and drawn in one operation for each plane (three planes in all).

The graphic data is stored in the most common way for blitter data. This is each plane of graphic data stored sequentially in memory, with a plane of mask data last. The mask is simply all the planes of data ORed together. The mask is used to 'cut out' of the screen the pixels where some data from the BOB has to be placed. Without this, the pixels that are there affect the BOB data resulting in the wrong colours appearing.

Alien stored as:

**Plane 1** 4 bytes x 24 scanlines = 96 bytes

**Plane 2** 4 bytes x 24 scanlines = 96 bytes

**Plane 3** 4 bytes x 24 scanlines = 96 bytes

**Mask** 4 bytes x 24 scanlines = 96 bytes

Total = 384 bytes per anim

To draw an alien BOB requires three separate blits, one for each plane of the screen we are drawing into. All four blitter channels are used and are assigned to:

Blitter A channel = mask  
Blitter B channel = data  
Blitter C channel = screen  
Blitter D channel = screen

Two channels point to the screen data as the screen is used as both a SOURCE and a DESTINATION channel. The blitter is used to perform the function of ANDing a

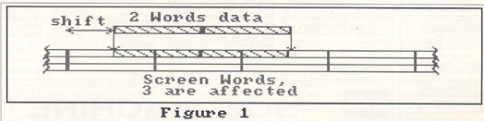


Figure 1

word from the screen with the inverse of the mask word and then ORing the data into the result. This function first removes the data from the screen where the mask has >1 bits present, then draws the data into these bits. This is performed for all three planes. The one mask is applied to all planes but the data for each plane is, of course, different.

### Shift Work

The shifting operation incorporates a neat little solution to a problem that many people have asked me how to get around. If a 32-pixel wide BOB is to be drawn onto the screen with the blitter, then we would tell the blitter it is two words wide by however deep. This is ONLY true if the BOB is not shifted: ie its X position is a multiple of 16 pixels (or an even number of bytes).

As soon as we want to place a BOB on ANY pixel position we will be affecting THREE words in length on the screen (see Figure One). This is due to the fact that we must use the blitter to shift the BOB right as it draws it into the screen. The common solution most people use is to store their graphics with an extra word at the end of each scanline: ie aliens in Menace would be stored as 48x24 pixels in size. This extra word is for the blitter to shift the data into: a maximum shift of 15 is needed.

Note that the the blitter width when drawing shifted BOBs is always one word greater than the actual BOB width to accommodate for the shift. This overhead obviously increases the memory required to store all the BOBs you may have to store (unless they do not require to be shifted as in character sets). There is indeed a way the blitter can handle this, although not documented in the hardware reference manual.

The basic aim of the problem is to give the blitter an extra word of zero at the end of each scanline, but still manage to store the BOB at only 32 pixels wide. Now, if we do store the BOB only 32 pixels wide but blit on the 48 pixels required what will happen is that some extra data will appear on each scanline where the BOB is drawn. This will be data from the next scanline down in the BOB due to the blitter fetching this extra word. In effect, the LAST WORD of the scanline will contain data and not zeroes.

However, the LAST WORD should ring a bell when we are talking about the blitter as the blitter has a feature called first and last word masks for its A channel. Normally these each have a

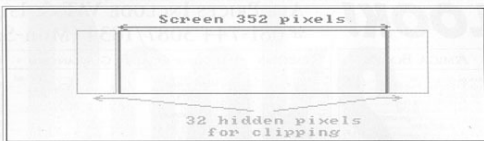


Figure 2

value SFFF, which masks off no data in the bit (the first word in the A channel bit is ANDed with the blitter A first word mask, and similarly the last word in the A channel bit is ANDed with the blitter A last word mask). If, however, we set the last word mask for channel A to S0000, and assign channel A as our mask channel (ie channel A will point to the mask for each plane bit) then the extra word of data picked up by the blitter will be ANDed with the word S0000 which will force the data to be zero. This then gives us the desired effect of having a zero word at the end of each scanline of data.

One small side effect still remains, though, in that the blitter has fetched an extra word of data for the BOB, this data coming from the next scanline down in the BOB data. We therefore have to change the MODULO for the mask & data channel to a value of -2. The modulo is simply a value added to the blitter pointer at the end of each scanline. This would normally be zero if the data was arranged sequentially, but because we have fetched an extra word of data, we have to pull back the blitter pointer to that extra word otherwise every subsequent line of data would be out by 2,4,6... bytes of data. So to summarise:

1. Data is stored sequentially as Plane 1, Plane 2, Plane 3, Mask
2. The exact size (4 bytes x 24 scanlines) only is stored
3. Blitter channel A will point to the mask for each bit
4. Blitter channel B will point in turn to each plane of data
5. Blitter channels C & D will point in turn to each screen plane

The width of the bit will be 3 words, as the data is only 2 words wide the last word will be masked to 0, and the modulo will be -2 for the mask and data channel

The modulo for the channels C and D is the width of the screen minus the width of the bit.

Having a blitter to handle most of the drawing of objects is really a godsend on the Amiga. Try switching to a machine that has no hardware support for drawing, where

you rely only on the processor, and you are immediately faced with many problems and compromises in trying to achieve what the blitter can handle.

This is one of the reasons why Amiga games can be exactly the same as an ST version if it was developed first. Porting a game from the ST to the Amiga can usually be done in a matter of days with no problems. Take a game written for the Amiga, though, that makes heavy use of the blitter, and you will need some major rewriting of code. This is the main reason why people tend not to make full use of the Amiga hardware when designing and writing a game for both 16-bit machines.

### Back on the Path

Now back to the path movement control that was discussed last month. The final bit to explain was how the commands are actually defined as data. The file 'paths.s' on this month's Coverdisk contains the data for all the paths for Level One of Menace. All the paths were designed and entered by hand. This is not the ideal way to do things, some form of path editor would have been better, but if it's your first game you are writing you tend not to be too ambitious. It's best to concentrate on actually finishing a game!

A single path starts with the definition data exactly as described in last month's structure. This describes the speed, animations, etc.

Following this is the movement data. We basically had two types of data:

1. A coordinate pair which were relative or absolute.
2. A command byte with optional parameters.

Looking at the coordinates first, we must decide upon the maximum values these can be. For relative coordinates a limit of +/- 16 would suffice. For absolute coordinates we have to look at the screen size to determine the limits. Basically the minimum X & Y will be 0,0. The screen is 352 pixels wide, but 32 pixels are added to the left and right for the clipping as described. This gives us a max-

imum X,Y of 384,168 (note the x,y coordinate defines the upper left of the BOB, so although the screen is 192 pixels high the maximum Y is 192\*24 = 168).

The BOBs are not clipped at all on the Y coordinate as they appear behind the foreground on the dual playfield screen. Thus the border graphics that are always present top and bottom hide the fact that BOBs can suddenly appear at the top or bottom. From the maximum values we see that the Y coordinate would fit in a byte but the X coordinate would need a word to hold any value. To save memory and keep both coordinates the same it was wise to store the absolute coordinates divided by two. This imposes a slight restriction in that only even coordinates are allowed, but this is never noticeable. We can now store the x,y absolute or relative coordinates in a byte with a value from -16 (\$10) to 192 (\$C0).

### Illegalities

As there are some values that are illegal when it comes to the coordinates (\$C1 to \$E0) we can embed the control commands discussed last month into the coordinates to further save memory. A maximum of 16 commands were allowed and these were assigned the values \$E0 to \$E7. The flow was then along the lines of:

```
Fetch the X,Y coordinate bytes
If X bytes is in the range $E0
-$E7 then execute a control
command
else if the offset mode bit is
set the coordinates are
relative and are added to X,Y
else the coordinates should be
advanced towards.
```

And that is basically that. This month's source implements this form of control, the data being acted upon is in the file 'paths.s'. It is very simple to try changing the coordinates and commands to form your own paths. ■

**Next month will see the game becoming playable with the firing and collision detection routines added so at last you can blast and be blasted!**

# BOOKS

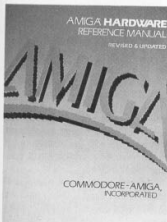
## Bonanza

Even the most learned amongst us need a good book occasionally. **JASON HOLBORN** puts on his spectacles and searches for ultimate knowledge.

We would all like to be top programmers, but there's one thing that stops us - Amiga programming is sooooo difficult! OK, so programming in AmigaBASIC is pretty simple to get started with: but once you start delving into the Amiga's darker regions, things start to get rather hairy. All those pointers and structures can be bad for your health unless you're equipped with the programmer's best friend - a good reference manual.

The Amiga certainly isn't short of its fair share of programming books - if you can think of a particular area of Amiga programming, chances are that someone has written a book about it. Whether it's getting down to serious programming with Intuition and Exec or 'bashing the metal' in assembler, you're bound to find a book to suit your needs.

It's been a while since we took an in-depth look at the latest books for programming boffins, so here's a run-down of the latest arrivals. Once again, Abacus have increased their domination of the Amiga books market with the release of two new titles to add to their already impressive range, but Computer! publications are hot on their heels with three new releases. Meanwhile, Addison-Wesley, publishers of the official Commodore Amiga documentation, have released the updated version of the acclaimed Amiga bible, the Hardware Reference Manual. All this within the space of one month!



### HARDWARE REFERENCE MANUAL

THE Amiga hardware programming book is back, and this time it's brought with it a whole host of new information and a spanking new designer cover (gone is the hideous purple and white of the original!)

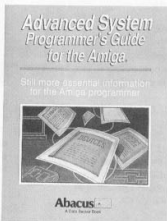
Surely not a single Amiga programmer worth his salt has failed to hear of what must be the most important reference material for the Amiga. Operating system programmers have

an excuse for not owning this book, but a hardware programmer without Addison-Wesley's book is like an Amiga without a monitor!

The Hardware Reference Manual is the definitive source of information on the Amiga custom chips and peripheral interfaces. If you're a programmer who wishes to control the Amiga hardware directly, this book is a definite must.

Manual is the definitive documentation of the Amiga hardware. If you intend programming the Amiga at such a low level, this book is a necessity.

### ADVANCED SYSTEM PROGRAMMERS GUIDE



This latest release has been updated for Version 1.3 of the Amiga operating system, to cover the new Amigas (the original Hardware Reference Manual covered the A1000 only) and to correct a couple of mistakes that cropped up in the original release. The book provides an in-depth description of copper, blitter, playfield hardware, sprites, audio, system control and interface hardware.

New additions to the manual include a tutorial on writing safe, upwardly-compatible software (are Commodore trying to tell us something!) The Hardware Reference

Manual is the definitive documentation of the Amiga hardware. If you intend programming the Amiga at such a low level, this book is a necessity.

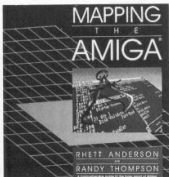
Although Addison-Wesley's Amiga Hardware Reference Manual is generally looked upon as the bible of hardware programming, Abacus' Amiga System Programmers Guide has been hot on its heels for the position of number one reference book for games programmers.

Unlike the Hardware Reference Manual, Abacus' book also documents many areas of the Amiga systems software. This latest publication takes over where the first volume stopped with a look at the intricate aspects of the Amiga operating system including extras added to the OS with the release of 1.3 Kickstart and Workbench. The book includes sections on the Amiga interfaces (audio, video, RGB, parallel, serial, expansion etc), Exec structures (nodes, lists, libraries and tasks), Multitasking (task switching, intertask communications, exceptions, traps and memory management), I/O (device handling and requests) and devices (trackdisk, console, narrator, gameport etc).

If you're a programmer who uses the Amiga operating system extensively, then this latest release from Abacus will prove an invaluable addition to your reference material. In contrast to the official documentation, Abacus has managed to document

some of the most complex aspects of the Amiga in a crystal-clear form. Once again, Abacus has produced another classic that is a must for every Amiga programmer.

## MAPPING THE AMIGA



Compu! Publications boldly claim that their latest title is something pretty special. As they claim, Mapping the Amiga isn't just another programming book for the Amiga, it provides the most in-depth reference material on the Amiga systems software and hardware that has ever existed (ever!).

The first thing to establish is that Mapping the Amiga is a reference book only — it is not designed to teach you the 'ins and outs' of the operating system. Mapping the Amiga is therefore for the experienced Amiga programmer. If you fall into this category, then read on.

The book provides a complete listing of the Amiga function calls and system structures. Each library function is listed with a description of its use, which library it can be found in, its library offset, syntax in C, Assembler and Modula-2, parameters and return values. What more could you possibly ask for?

As if this wasn't enough, the book also provides one of the most complete and comprehensive listings of all the Amiga hardware registers. Each and every register is listed complete with an in-depth description of its use. This section alone makes this book an invaluable addition to your reference material.

So are Compu! going a bit over the top by claiming that Mapping the Amiga is the 'be all and end all' of Amiga books? After just a quick flick through you'll soon come to realise that this is no idle claim: Mapping the Amiga is probably one of the most useful reference materials available.

## AMIGADOS REFERENCE MANUAL

Enough of the programming books, here's a book that will be of interest to all Amiga owners. If you've ever

## DESKTOP VIDEO HEAD TO HEAD

We've all heard of it, but very few of us have actually got the slightest idea what it's about. Yep folks, we're talking Desktop Video. So what is Desktop Video? To most of us it means one thing — video titling. But as anyone who is involved in the video industry will tell you, there's a lot more to it than just adding static titles to your home videos.

Just arrived are two new books that promise to impart to you everything you would ever need to know to get started in Desktop Video. Here's how they compare.

### AMIGA DESKTOP VIDEO GUIDE

For all you frustrated Amiga video enthusiasts, Abacus' latest book could be the answer. The book provides an in-depth look at the basics of video, videotape equipment, video/Amiga interfaces, software, hardware and much more. Whether you simply intend to add titles to your holiday videos or you're hoping to give Steven Spielberg a run for his money, this book is a must.

Topics covered include genlocks, digitising and scanning, video recorders and cameras, paint and animation programs, special effects, home techniques and professional video techniques.

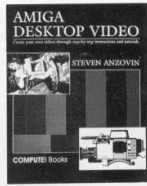
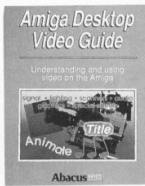
Abacus' book is undoubtedly best suited to the home enthusiast. It provides much of the information needed to get started without falling into the trap of becoming too technical — it's all very well talking about the structure of a video signal, but most of us will find this about as useful as a hair dryer in a hurricane.

### AMIGA DESKTOP VIDEO

Videophiles are certainly starting to be spoilt for choice with the release of Compu!'s entry into the Amiga DIV market. The book, which was written by Steven Anzovin (who also wrote the incredibly popular titles *Speeches of the American Presidents* and *It Hurts: A Parent's Guide to Children's Needs*), acts as an introduction to the fascinating world of Desktop Video on the good old Amiga.

Subjects covered include the use of colour, creating animation, combining audio and

video, composing Amiga music and creating 3D graphics. Want to know about things like colour reference bursts and vertical synchronising pulses? For the techies among you who enjoy torturing yourselves with such things, the book provides an in-depth look at the technical side of video production including a breakdown of video signals and the like. The only disadvantage of this technical section is the fact that it is geared towards the American NTSC video standard — which isn't really a great deal of use to us PAL people on this side of the Atlantic Ocean.



### PRICES

All the books included within this feature (and more) are available from Adamssoft on 0706 524304.

**Hardware Reference Manual**  
Addison-Wesley £21.95

**Amiga Desktop Video Guide**  
Abacus £16.95

**Advanced System Programmers Guide**  
Abacus £29.95

**Amiga Desktop Video**  
Compu! £16.95

**Mapping the Amiga**  
Compu! £19.95

**AmigaDOS Reference Manual**  
Compu! £18.95

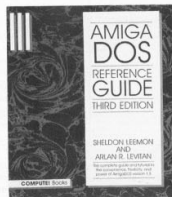
wished to learn the intricacies of the Amiga's Command Line Interface, then a good book is what you need. So many exist on the subject that picking the one that is best suited to your needs can be a confusing and often frustrating process.

Frather than being a new release, Compu!'s latest publication is a revised version of their popular

AmigaDOS reference book that has been updated to include all additions to AmigaDOS with the release of 1.3 of the operating system (took their time, didn't they!)

As well as the usual run-down of what each AmigaDOS command does, topics covered include creating command-sequence files to automate almost any task, from editing the StartUp-Sequence to writing complex batch files. All the standard DOS operations that you need to know about are covered, including copying and delete files, creating directories, using the RAM disk and getting the most from the two AmigaDOS editors, Ed and Edit.

If you already own an AmigaDOS reference book, this latest release isn't really worth the extra cash — you'll find very little that is genuinely new. However, if you would like to harness the power of AmigaDOS, then Compu!'s new book is well worth investigating. ■



What are you doing reading a magazine? It's summertime! Get out to a rock festival, frolic in the sunshine, eat an ice-cream. Wait a minute - what about that maths revision you should be doing? Get back to those books NOW! ...still here? Well, all right then, if you MUST have a few tips and hints on those there new-fangled computer games, then who are we to disappoint you.

Here's the business on the new classic *Rainbow Islands* from Ocean, as researched by your very own AF team.

## THE END OF THE RAINBOW

You may have seen other playing tips that described every creature in *Rainbow Islands* in painstaking and pointless detail. The way we figure it you can work that stuff out easily as you go along - what you need to know is the helpful stuff about diamonds, secret rooms and cheat codes. Now that's Gamebusting.

### GETTING THE DIAMONDS

You can blast baddies till you're blue-indigo-violet in the face, but the key to the game is collecting diamonds - but you knew that of course. Most important is collecting them in the right order - red first and violet last - because this reveals the secret room at the end of each island. So what are the best methods for doing that?

There are two basic ways of turning creatures into diamonds: killing them by crumbling a rainbow near them or destroying them with magic stars. However, you also have to make the diamond land on the correct part of the screen to make sure that they are the colour you need.

The screen is split into seven vertical strips - red on the left, through to violet on the right. The baddies spin in the same direction as they were moving when they were killed and if they fall too far out of view off the bottom of the screen they will disappear.

It's important to remember that bad guys don't have to be underneath a rainbow when it is broken, just near enough to it. This is very valuable because you can shoot rainbows underneath things without alerting them to your presence or risking getting shot. However, with things that can't fly or shoot on the first couple of levels, it's easy to trap them under a rainbow and just stomp on them.

# GAME

# Busters



The latest and greatest hints and tips on beating the newest and toughest games, brought to you by the nicest and brightest **MAFF EVANS**.

## THE SEVEN BOSSES AND SECRET ROOMS

By revealing the secret room you can avoid having to kill off the boss on each island. You can either try to jump straight in through the door or you can take the difficult route - kill off the boss and then go in, thereby getting more bonus points - but don't get killed or the door disappears. The secret rooms provide big bonus points and permanent special powers.

### INSECT ISLAND

You should not have too much trouble killing the spider without losing a life and in the secret room you will find speed-up boots - which, like all the other powers in the rooms, you will then retain even after losing a life or losing a credit.



### COMBAT ISLAND

Once again it's worth going for the kill on the helicopter as well as going through the door, behind which you will find permanent double rainbows.



**MONSTER ISLAND**

Dracula is one of the toughest bosses and worth avoiding if you think you might die, particularly because the bonus you get in the room is permanent fast rainbows. Just leap straight up the middle of the screen and get in the door before Drac even appears.



**TOY ISLAND**

The jack-in-the-box who whirls around the screen is also worth giving a miss. Once again you can just leap into the door before he appears and get the wings that await. These are important because the next island is lousy with areas that have very few platforms, which means flying up is very useful.



**DOH ISLAND**

Our old friend Doh is a doddle if you have the wings – just float next to him and pile the rainbows in. You can do it before he even gets a shot off. It's another important room to get into because it gives you a continue option for the last two islands – without it you will not be able to use remaining credits. There is also a 'Warp to Level Seven' option, but that deprives you of an important bonus from Level Six.



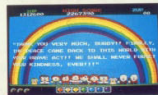
**ROBOT ISLAND**

Another tough boss because of the lack of platforms, but if you learn his pattern it isn't too bad. Trouble is, after getting this far, do you really want to take the risk? No, me neither. Behind the door is the very useful fairy, who makes surviving the last island and getting the diamonds a lot easier.



**DRAGON ISLAND**

When you're this close why bother with the dragon: just get into that door for a massive score bonus and the congratulatory screens.



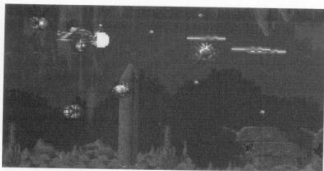
**THE CRUCIAL CODES**

At the top of each secret room you will find a row of eight symbols. They correspond to letters which, when typed into the title screen featuring the colour-cycling rainbow, will give you a special bonus for the game.

The codes you get from each of the seven rooms are as follows: Island 1 – BLRBJSBJ – fast feet Island 2 – RJSBJSBR – double 'bows Island 3 – SSLLRRS – fast 'bows Island 4 – BJBJRJS – hint A Island 5 – LLSLBSL – hint B Island 6 – SJBLRJSR – we don't know what it does! Island 7 – LBSLRLJL – continue on all rounds

Hints A and B also pop up during play, but only tell you about collecting the diamonds. When you have typed the code in on the rainbow title screen, click up a credit and an icon should appear in the bottom left of the start screen – as the red bottle has in our screenshot. That is then operative throughout the game, but you will have to re-enter a code after all the credits have been used up.





**X-OUT**

Following the tip last month that oh-so-many people sent in after playing the demo version on our wonderful Coverdisk, here is a cheat for even more money (cor).

Quite a few people have written in to say that at the end of the game a message appears revealing the items to use for 500,000 credits. Buy the most expensive ship and the cheapest satellite,

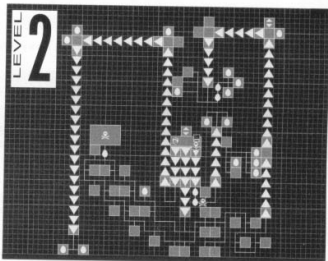
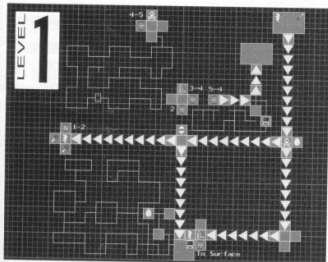
then discard the satellite over the horned beastie on the right. Now look at all the dosh you've got!

**Lots of people,  
All over the place**

**ROTOR**

Flying a state-of-the-art gunship may be an attractive proposition, but it's not much fun if it keeps flying into walls all the time. If you want to access the higher levels

**INFESTATION**



It's all very well buying a game with fast 3D graphics and involving gameplay, but what if you can't even get into the complex to see them? Never fear, help is at hand...

To gain access to the complex, simply find the terminal on the surface (the coordinates are about 90,30) using the MMU and plonk yourself in front of the screen ready to 'interface', if you know what I mean! When the screen asks you for an access code, type in KAL SOLAR and the on-screen message should tell you that the transporter has been activated. Now zoom back to coordinates 50,50 (next to one of the radar towers) and enter the transporter in the direction of the arrows. The screen will dissolve and you will reappear inside the complex. Now to get your hands on them there alien egg things!

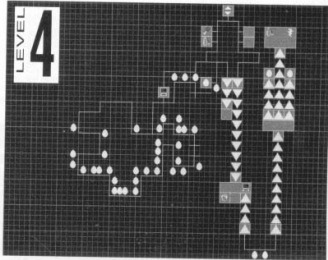
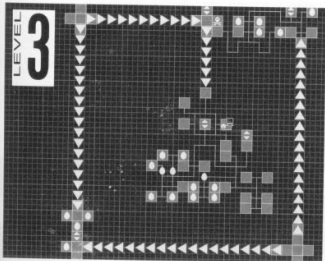
**INFESTATION KEY**

▶ Shuttle Tube	Infra-Red Unit	⬇
● Alien Egg	Screwdriver	⚡
⚡ Battery Charge	Transporter	↔
⊕ Oxygen	Terminal	⌘
🍖 Food	Lift Card	📄
🚪 Cygnide Cat Bridges	Boulder	⬤
🚗 Lift	Cooling System	❄

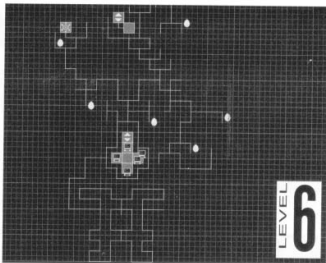
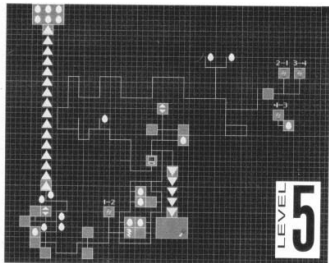
Your suit uses Oxygen and battery charge at a rapid rate, so keep your helmet up and power off as much as possible. However, always check the atmosphere and radiation level of a room while protected by your suit before chancing the elements, and make a note of poisoned areas and vacuums for future reference.

Most of your travels will be via the ventilation ducts, which are all covered by gratings. To get into them you need a screwdriver, which is in the hangar at the top left of the complex.

Collect it, go to the network at the top of the map (using the transporters) and pick up the lift card. Go to the lift in the middle of the map and down to Level Six. Find the cooling system and switch it on to prevent the reactor from overheating too quickly. Now go for the eggs! Maps sent in by Lee Dobinson, Southend on Sea.







but don't have the expertise to get to them legitimately, then try these level codes:

- 1 - GAG
- 2 - LIP
- 3 - SLY
- 4 - MEN
- 5 - AWE
- 6 - TNT

Another code which allows access to the Battle Simulator is PIT. So now you know.

**Scoon,**  
Richmond, North Yorkshire

### SUPERCARS

How many budding drivers out there would like to wipe the smug smile off that car dealer's face? Well if you enter your name as RICH at the start of the game, then you will have 500,000 spondoolicks to wave at him. If you still can't get to the second level, then

enter your name as ODIE at the start or even better BIGC to gain access to the third stage.

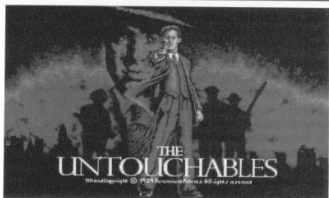
**Gary Smith,**  
Potters Bar, Hertfordshire

### ROCK AND ROLL

It seems not a month goes by without a tip for Rainbow Arts' roll-around puzzle game! For this one, just get into the game and find the 'special hole' on Easy Living (Level One). It's just after the spade, in front of the dead-end beneath four left-pointing arrows. Found it? Good. Now simply fall down the hole and... nothing happens. Not until you press the left mouse button anyway, at which point you will find yourself on Level 33. Yes, 33 - one after the last level!

**Simon Goodway,**  
Houghton on the Hill, Leics

### UNTOUCHABLES



We'd all like to be heroes like Elegant Mess in the film, but even in Ocean's licenced game things can often go wrong. Some tips my good man, and don't spare the lemons!

First of all let's get the obvious cheats out of the way. If you type SOUTHAMPTONGAZETTE, you can press F10 to skip levels. Pressing 'Help' on Levels 2, 3 and 6 puts you half-way through the level.

Even with a cheat it can be quite hairy with all those guns going off, so here are rough guides to the levels.

#### LEVEL 1

Duck down when things get heated, as only the book-keepers' bullets come in low enough to hit you. Only pick up violin cases when it's really necessary, as they can help you out of a tight spot, but they're in short supply.

#### LEVEL 2

Go for the liquor bottles first and shoot the First Aid boxes if your energy gets a bit low. Particularly dangerous villains to watch for are the bottle-throwers.

#### LEVEL 3

Always come out from behind the wall and fire quickly, going for the grenades thrown from the cars first. Be especially careful of the men with machine guns.

#### LEVEL 4

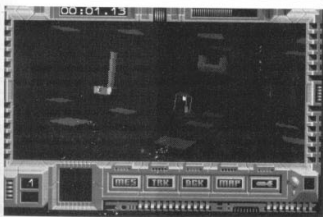
Try to keep to one side of the baby's pram, and don't walk into anybody. Oh, and watch for members of the public - we don't want innocent bystanders hurt, do we?

#### LEVEL 5

Shoot the plant pots for more life and be quick taking out the men that run across the screen. Spend as little time loading your gun as possible, as the criminals can do a lot of damage in that time.

Duane Baird, Balham, London

### INTERPHASE



Most 3D games have some sort of object viewer, so where is the one for Interphase? All you have to do is start the game and type in 'Ferry' (remember to use Shift for the F). A message should appear

telling you that the code has been accepted, in which case use the left mouse button to cycle through the objects.

**Matthew Jones,**  
Bishops Waltham,