



## THIS IS 'KICK START'

Welcome to the official Amigos podcast magazine. This issue we take a look at how 3D Games are made as well as an interview with our very own Amigos 'Will Williams'.

Amigos Aaron has also contributed his defence for the game 'Lionheart', one I'm sure John may disagree with. What do you think of Lionheart?

As usual your comments are always welcomed;

Neil Mansell aka Spyhunter (spyhunter@amigospodcast.com)

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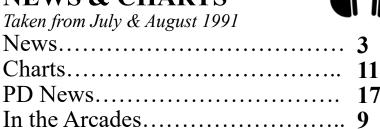


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Amiga News from June 1991



## CDTV HAS ARRIVED

The wait is over - On **Tuesday 30th April** Commodore have finally stopped crying wolf and unveiled a CD player that thinks its an Amiga, their Dynamic Total Vision.

Due to go on sale late this year with a £700 price tag. Although the high street outlets do not expect to have large stocks of the system until October.

## CEBIT '91 - AMIGA 3000 TOWER



Located in Hanover, West Germany, the largest computer exhibition in the world with more than 4,500 exhibitors from 41 countries, spread over 20 halls covering 300k square metres, showcasing to some 600k visitors. The grounds are so big that in addition to its own train station, CeBit provides a free bus and taxi service for visitors.

Some show highlights were the Amiga 3000 Tower which had 5x32bit and 3x16bit slots, 4x Zorro III slots (not on a separate card) and its own video slot labelled 'VDE' (Video Display Enhancer). Along with a

SCSI port and a 25Mhz 68030 (assisted by 68882 FPU) at the heart of the machine. The machine is supplied RAM capable up to 18Mb and either 100Mb or 200Mb Hard Disk with an access time of only 19ms. Its graphic resolutions range from 320x256 to 1280x512 (flicker fixer chip comes as standard).

#### Mirrorsoft and Acclaim Get Together

Mirrorsoft and Acclaim Entertainment have agreed that Imageworks will market and distribute popular Acclaim titles throughout Europe and Australia under the Acclaim and LJN Labels.

#### NEW! 31/2" DRIVE with LED Track Display

High quality double-sided 3.5° floppy drive offering the full 880K formatted capacity per 3.5° disk. Features a special LED display which accurately shows the current track being accessed during any disk drive activity.

ONLY £74.95

#### LZX free

The author of LZX, Jonathan Forbes has released a generic keyfile in response to popular appeal. He points out that this shouldn't be taken as indication that he is returning to development, its just his present to the Amiga community. LZX is the most powerful compression system available and has been responsible for cramming more data on magazine cover disks than any other archiver. You can download the LZX keyfile from Aminet in util/arc.

#### NEW! 'MEGABOARD'

Connects to your 512K RAM upgrade to give 1.5MB

With the MEGABOARD, you can further expand your A500's memory to a total of 2Mb without disposing of your existing 512K upgrade (must be 4 x RAM-chip type, or not exceeding 9cm in length)

ONLY £64.95

valiable from us for C20.05). Installation requires connection to



## PSYGNOSIS CD GAME SYSTEM

Psygnosis co-founder Ian Hetherington has stated he now has plans to produce 3 games based around Psygnosis's revolutionary CD-ROM games system. The first in production is Fantastic Voyage style game titled 'Inner Explorer'. Travelling through fractalised blood vessels in Cathedral-like structures which you can fly around in multiple ships killing rogue viruses. The game will be spread over a 60 year life cycle (Covering some 10+ hours of gameplay) and has an educational element to it.



Psygnosis is also planning to use the 'Fractal Engine' CD-ROM software technology on a time-ravelling sci-fi game with a pure military combat product. They can model around 10,000 polygons on a ship and reduce that to just 30 which can be plotted in real-time and draw anything in-between.

With multi-format in mind, their intentions are to support dedicated machines such the Philips CDi, Commodore CDTV or Macintosh. It is expected to ship their first CD-ROM product in early 1992.

## CYBER FIGHT



Powerdrome author, Michael Powell is working on a new title labelled 'Cyber Fight'. It has spectacular 3D graphics which Electronic Arts speculates is the first 'Virtual Reality' combat game.

Set in the future, five player controlled contestants do battle in mighty exo-skeletal fighting machines.

It will be released on PC in the autumn with an Amiga version planned later this year.

## DROP SOLDIER

Up to 16 players can form a platoon in Drop Soldier, a futuristic strategy RPG reminiscent of The Forever War novel by Joe Haldeman.

Set in the distant future, the drop soldier is a highly trained combat trooper equipped with the latest in military technology, including a power suit which enables you to run faster, jump higher and carry more powerful weaponry than any ordinary grunt. Imageworks programmer Ross Goodley has even surpassed his critically-acclaimed game, Gravity. Expect it to be dropped to PC, Amiga and ST at the end of 1991.









## ALIEN 3

The rights to Alien 3 have been snapped up by Mirrorsoft. With Alien 3 set to smash box office records when its released later this year its sure to be a hit.

Although information is sketchy as to what form the game will take, but the conversion will be handled by Probe who claim it will be completely original.

## GUN-HO

Ocean are set to cash in on the resurgence of Op-Wold style game with 'Space Gun'. A futuristic massacre game which borrows more than a bit from Aliens.

The plot is simple - one or two soldiers, aimed with big pump action rifles, are pitted against several thousand slavering xenomorphs. Add to that eggs that hatch into face

huggers and you've got a possible lawsuit from James Cameron. With Images (the team behind Beast Busters) being rumoured to be producing the Amiga version.

Watch this space for more news.

## CHOCAHOLIC

Gremlin are working on a game that will have a cute character with a mouthful of sweet teeth. The object of the yet-to-be-titled game is to run round vertically scrolling levels collecting chocolate buttons and solving puzzles.

Can you guess what game they were talking about?

## FISHY NEWS

Fred Fish, the Amiga world's number on utility supplier has taken his first guppy strokes into the CD age. American based Hypermedia Concepts have compiled a CD containing every Fred Fish utility to date. Designed to run on a standard Amiga with CD-ROM drive, although a keyboard and extra memory are needed to run it on the CDTV.

Updates are going to be available every 4 months priced at £18 or a one -off payment guarantees a regular supply of up to the minute software.



#### **NEW AMIGA 1500**

HOME

#### CENTRAL PROCESSING UNIT (CPU)

The heart of your computer system with 1 Mb of Ram. Two 3½" Floppy Disc Drives and eight Expansion Slots, fully expandable, accepts all Amiga 2000 peripherals.



#### MONITOR CBM 1084S

Stereo High Resolution Colour Monitor.

KEYBOARD MOUSE

#### SOFTWARE

THE WORKS: A fully integrated Word Processing, Spreadsheet and Data Base Package DELUXE PAINT III: Paint, Design, Animation SIM CITY + Terrain Editor BATTLE CHESS:

Animated Chess Game THEIR FINEST HOUR: Battle of Britain Flight
Simulator POPULOUS: The Promised Land (Award Winning Strategy
Game.) PLUS FREE AUTO FIRE JOYSTICK C.I.T. DUST COVER

UNBEATABLE VALUE!

£999.95



£24.95

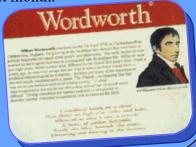


## WORDWORTH

Digita are stating their next word processor as the ultimate Amiga writing package. Wordworth is designed to be as comprehensive as possible. Not only will it read your text back to you, allow you to import graphics and open 10 documents at any one time, but it also comes with a 110,000 word dictionary, a 30,000 word Thesaurus and 26,000 Merriam and Websters medical and legal supplement.

It will use a Mac-style point and click system, were a double click on the mouse highlights one word and a treble click selects a line.

Wordworth will retail for £129 and should be on sale next month.









Software Toolworks have announced the launch of their unique piano tutor, Miracle on the Amiga.

The basic Miracle package comes with software, books, keyboard, headphones and a soundtrack containing over 100 different instruments. It uses AI to gauge at what level to teach the pupil, the points out any problems with their laying and how they could improve. A children's mode transforms the traditional notation into a game to make learning as fun as possible for the younger pianist.

Work is underway on similar packages of different instruments, with Mindscape snapping up the rights to Miracle for the UK. Although details have not been confirmed, it is expected to retail at around £299 (including keyboard) and should be available sometime in September.

## IMAGES SOLO GAME DESIGN

Top software developer 'Images' are set to voyage into the hazardous realm of original game design. With the first batch well into production; Gloops (a sub-aqua platform game), Dino Ball (Speedball with caveman) and Monkey Business (Platform inspired Toki).

Three other products are currently at the story board stages and these might be delayed until a backer is found. Images are currently looking for a distributor, with US Gold heading their hit list.

#### ACCOLADE SIGNUP

Accolade have recently signed up the exclusive rights to market and distribute Capstone products, which means that blockbusters such as Home Alone and Bill & Ted's Excellent Adventure will now be able to appear on your computer.



## FREE JEFF MINTER

Jeff Minter has a new Amiga game but you won't be able to buy it! This is not bad news as Llamatron is a shareware game.

So if you like it send him a fiver.

Amiga News from June 1991

## INDY'S BACK

Indy's Back but this time without a film.

Indiana Jones latest adventure, entitled The Fate of Atlantis has been written by movie maker Hal Berwood and will only be appearing in comic-book and compute form. US Gold is releasing two different versions - an adventure and an action game.

Lucasfilm Games is producing the adventure, which bodes well considering the standard of their last Indy adventure. Attention to Detail are handling the arcade version following the success of their Night Shift game. Prices and release dates have yet to be announced.



## CONVERTING DOMARK

Remember the good old days when games went 'blip-blop' and 'ping', well reminisce old chums with the news that Domark have signed up Super Invaders '91, the winning Taito coin-op. The update will have cleverer invaders, spiffy backdrops and different size and shaped aliens. Other games include Hydra (recently released), RBI II and Thunderjaws. October will bring beat-em-up Pit Fighter and Race Drivin' in November.

## VAT

You may have noticed some strange prices - £25.53 and such. This is due to recent VAT increases (15% to 17.5%), with many large companies not rounding things up by a straight pound but adding the VAT onto the old price; although some companies have made the decision to absorb the increase.

## ADVENTURING HELP



Virgin Mastertronic are putting together two volumes of hints, tips, maps and object tables covering all 10 Infocom games in its budget series, including Hitchiker's Guide, Enchanter, the Zork Trilogy and Leather Goddesses of Phobos. The books will cost £9.99 each and due to be published in August.

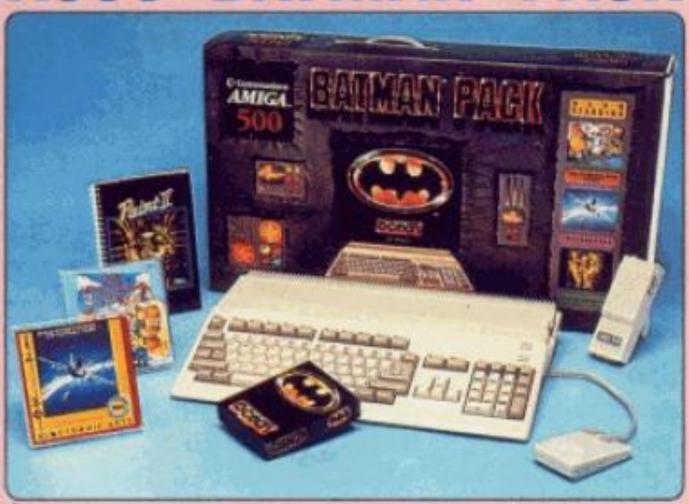


On another note, US company Sierra has newly setup in the UK has already put its customer support telephone lines into operation. Call them on 0734 303171 for help with any Sierra product. Modem owners can get through to Sierra's bulletin board system for hints, enquiries and downloadable demos.



Even US Gold have setup a helpline specifically for players stuck on its adventures and RPGs. The lines are all 33p per minute off-peak, 44p per minute peak. When you call you will be asked which part of the game you need help with: the telephone tape will then switch to that topic at your spoken prompt.

# A500 BATMAN PACK



8

The Commodore A500 Batman Pack must surely rank as one of the most popular computer packs ever! The pack features the Commodore Amiga 500 computer with mouse controller and TV modulator, plus four top software titles. The software includes: 'Batman The Movie' - Rid Gotham City of the cunning joker, in Ocean's top selling title based on the blockbuster Batman film; New Zealand Story - high quality conversion of the leading arcade game: Interceptor - Doglight with two F-16's in this leading flight simulator; Deluxe Paint II - top quality Amiga graphics package which set the standard for others to follow. Return the coupon for further details.

#### PACK INCLUDES:

A500 Computer & Mouse	£399.99
A520 TV Modulator	£24.99
Batman The Movie	£24.95
New Zealand Story	€24.95
Interceptor	£24,95
Deluxe Paint II	£49.95
The state of the s	

TOTAL RRP: £549.78 Less Pack Saving: £150.78

PACK PRICE: £399.00



#### "In the Arcades"





PUBLISHER

Arcade Software Developments (ASD) was setup in 1991. Its sole aim was to develop superior quality software that stands out. They also aimed to encompass unique graphics, sound and gameplay, backed up superior coding from its in-house programming team.

Stephen Lies, ASD's Managing Director and Director of Projects entered the industry in 1988, learning from the raw talent of people like Nick Wilson, Clive Townsend and Simon Francis. Already with 7 years of computing experience behind him, he joined the industry with a vast amount of knowledge of what makes games that are slick and highly enjoyable, that people want to play.

Before setting up Arcade, Steve completed an ITEC college course where he studied business practice and office skills, going on to manage a computer and software retail outlet, achieving record sales using unique marketing strategies. With this experience he then went on to work for the Virgin Group at one of their London Megastores, where he headed the information department and general enquiries. Here he gained invaluable insight into the likes and dislikes of the average games player by carrying out numerous public surveys.

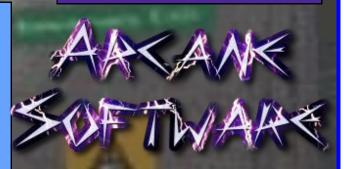
Soon, with both the management and retail experience he had gained, it was time for him to start his own development group.

Kevin Williams started his career in computer games and co-designed 'The Last Ninja'. He took his skills to both Electrocoin and Capcom where he designed software for arcade machines before moving onto Rediffusion, where he designed the entertainment software for the virtual reality capsule, 'Commander'. All of the game designs are now overseen by Kevin; he also manages to supply Arcane with some of his own.

Arcane have recently announced that they intend to launch themselves as a mainstream publisher. On December 14th, Arcane Entertainment was officially born with Arcane Software Developments as an additional label.







Their first project was the famous 'Powermonger' intro for Bullfrog/ Electronic Arts. They were then asked to do the Populous 2 and Birds of Prey intros. With the latter widely described as the best intro to ever. They also scripted the produced the intro to Desert Strike (Amiga) although this was not used as the game ended up on too many disks.

Their only game released to date is Rubicon, but this however was not developed solely by ASD. Currently they are developing an product original for Virgin Interactive Entertainment, including the artwork and intro animation for 'Werewolf KA-50', a new combat flight simulator - and two of the in-game characters for Dragon, the game of the film.

With Arcane's future plans stretching to possible investments in Multimedia and continued steady expansion, as well as producing 'stunning original games'.

Their first independent release will be Turbo Trax (A500, A1200, CD32) and if it plays as well as its looks, it will sure be a winner. A lot of time has been spent getting the traction and skidding just right, a game to rival the feel of Skidmarks for sure.

Next year will also see the release Supreme Warriors and Estairs XII, an A1200 shoot-em-up. With a strong marketing arm on their side, Daze Marketing, they are now in a position to push the Arcane name and its product to the very maximum of its potential.



## AMIGA TOP 10 (UK)

- Fantasy World Dizzy (Codemasters)
- 2 Lemmings (Psygnosis)
- 3 PGA Golf Tour (Electronic Arts)
- 4 Speedball 2 (Mirrorsoft)
- 5 Gods (Renegade)
- 6 SWIV (Storm)
- 7 Final Whistle (Anco)
- 8 Little Puff (Codemasters)
- 9 Treasure Island Dizzy (Codemasters)
- Viz (Virgin Games)

## AMIGA PERIPHERALS

- Citizen Swift 24
- 2 Philips 8833 MK II
- 3 ATonce-Amiga
- A590 with 2Mb RAM
- 5 Commodore MPS1270
- Citizen 124D
- 7 Roctec Genlock
- 8 Commodore A501
- 9 ICD Adspeed
- ICD Ad IDE

Top 10 Films based on Total

Gross (£\$ million).

Robin Hood:

City Slickers

4

5

7

6110

Naked Gun 2.5

The Rocketeer

Dying Young

Jungle Fever

## MUSIC TOP

US

UK

Jason Donovan -Any Dream Will Do

Paula Abdul -Rush Rush

Bryan Adams -(Everything I Do) I Do For You

Color Me Badd -I Wanna Sex You Up

- 3 Erasure - Chorus
- EMF Unbelievable
- Color Me Badd -I Wanna Sex You Up
- Luther Vandross -Power of Love
- Kenny Thomas -
- REM -
- Thinking About Your Love Losing My Religion
- Salt-n-Pepa -
- Extreme -
- Do You Want Me
- More Than Words
- Paula Abdul -
- Jesus Jesus -
- Bette Midler -From A Distance
- Michael Bolton -Love is a Wonderful Thing
- Incognito ft Jocelyn Brown Black Box -Always There
  - Strike It Up
  - - Divinyls I Touch Myself Another Bad Creation -

Europa, Europa

My Father's Glory

Don't Tell Mom the

Kickboxer 2

\$1.2

\$165.

\$124

\$86.9

\$46.7

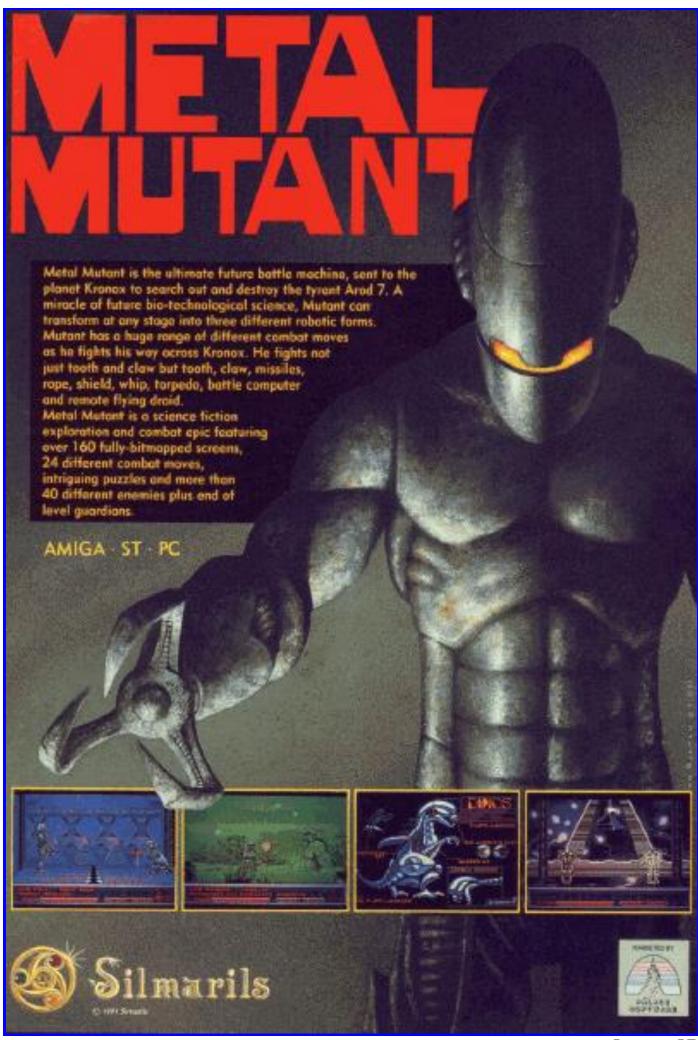
\$33.6

\$32.4

\$25.1

\$5.5

\$1.7





Waaay back in Amigos Episode 29, Boat and myself covered a game called Lionheart by Thalion Software. It was at my suggestion that we cover Lionheart, remembering it as a quality title that I'd enjoyed back in my initial run with the Amiga. I played it the week of the show as I always do, and I really enjoyed it, and knowing that Mr. Boat was a big platformer fan, I knew this would get over big with him. The day of the recording came, and you can imagine my surprise when off air Boat BURIED the game...deep beneath the earth's crust. I mean he beat up Lionheart so badly over a

period of weeks and months that it became shtick woven into the fabric of the show. I'll admit, at the time Boat raised what seemed to be some valid points, and I caved to a certain degree. Lionheart was relegated to the stinker pile with First Person Pinball and Thundercats and that was that.

I hadn't played Lionheart since that fateful day. We cover a lot of games, and with that and my casual gaming with the boy, my leisure time is mostly spoken for. So it was with amazement I found myself with a rare quiet moment at home this past weekend. I'd finished shooting some video for an upcoming Amigos Plays project I'm working on, so I was in the position to just sit and PLAY something. Without thinking, I clicked the Lionheart icon. In a few moments, I was playing and enjoying the game we'd tossed in the crap pile so long ago. As I played and became engrossed in the game,



a thought leapt from somewhere in the back of my brain and filled my mind with the message I'd sort of always known was there: I'd done this game a disservice. I knew then and there I'd be writing something to stand up for this fine title.

So with all that in mind, I submit my case for Lionheart to the court of public opinion...

## EXHIBIT A: GRAPHICS



Look at Lionheart..."LOOK AT IT!" Damn, it's got some fine, grade A graphics. Say what you will about the ugly box art, but this game is amongst the all time Amiga greats in the looks department. Brilliant art and colorful sprites abound, and the parallax scrolling is top shelf. One aspect of the art style that can't be overlooked is the way that the many colors are melded in such a fashion to give the game an organic look with a metallic sheen. The sky starts as a beautiful pink hue that changes and blends with oranges and blues as you advance through the game...it's quite stunning. The water and lava

effects are amazing as well. This is a tour de force of graphical brilliance, and Henk Nieborg should be congratulated on what he accomplished with Lionheart. It's amazing that this level of graphical grandeur was produced on the ECS. One may only ponder how much better this game could look in AGA.









Lionheart could have one of the most underrated soundtracks in all of Amiga gaming. Matthias Steinwachs handled both the score and sound effects for Thalion, and he did an amazing job. The tracks range from epic and orchestral to quirky little ditties with almost a "Shadow of the Beast' feel to them. I also appreciate the overall tone of the tracks. There's always a hint of sadness or loneliness that fits the game nicely. Matthias really used his music to set an appropriate mood, whether it was a drippy and mysterious cave sequence or a hard charging battle tune for heavy action areas. Steinwachs also needs to be commended on his sound effects. The various pickups in the game are always accompanied by a satisfying ring, and explosions and combat are equally as well done. The effects don't overtake the music...they are often subdued...but in the end it works very well. It's all truly great stuff.





## EXHIBIT C: THE STORY

Most platform or adventure games have little to no backstory. Generally "rescue the girl" is an acceptable reason to play. Lionheart goes a bit further with a nicely fleshed out background tale that explains why Valdyn is questing and what he can accomplish. The game also features two different endings, one being quite melancholy. After reading the backstory in the manual, the narrative is continued on screen with a great opening cinematic that picks up the tale and gets the player out of the gate running. Also of note is the very awesome ending sequence (I won't ruin it here) and a touching credits roll that has each person who worked on the game giving some thoughts, shoutouts, and comments...the last of the bunch simply states "Don't let the Amiga die". I concur.

#### EXHIBIT D: PLAY MECHANICS + LEVEL DESIGN

There are a lot of very common tropes in platform games...tried and true elements that pass from game to game with little to no change....and Lionheart has many of them. Yes, there's no way around it. Floating, moving, flying and disappearing platforms..it's got 'em all. But to it's credit, Lionheart reinvents a few of these features and in my humble opinion makes them its own. Moving platforms are now huge beetles to ride. Floating platforms sink under the character's weight. Platforms on lava levels turn to ash after use. You use creatures TONGUES for platforms for pity's sake! The game also adds a running momentum element that's pretty unusual. In certain downhill areas, your cat man gains speed and can jump further than usual...a classic element with a twist. It's all about using old ideas in a new way, and they are used well and make sense in the levels they populate. And speaking of the levels, they are HUGE! The levels in Lionheart are large and varied, and full of secret areas and levels. They encourage exploration, and that ups the replay value considerably. Getting around these levels is cleverly done as well. Some levels have you run and jump, some have you ride a mount, and one even has some dragon mounted shooters elements! Its equates to a variety that never seems dull or repetitive, and makes you wonder with glee what they've thought of next.



## EXHIBIT E: CONTROLS

Yup, i'm going there. This game has taking somewhat of a pounding over the years for it's controls. I submit to you, gentle reader, that not only are the controls in this game not that bad, they are GOOD. Allow me to elaborate. Right from the start, the game has built in support for two buttons controllers. The achilles heel of the Amiga was always that damnable one button joystick. Sure it was fine in 1985, but it should have been upgraded WAY before the Amiga CD32 controller came around. Having built in support for two buttons frees one from the dreaded "UP for JUMP" control that is the bane of many Amiga platformers. With a two button controller, I think Lionheart has excellent running and in air control. This game requires pinpoint jump accuracy, and I think it pulls it off very well. But wait, what of the elephant in the room? What about the SWORD CONTROL!? Well what of it?!? If you ponder the bind the programmers were in here, you'll conclude, as I did, that the way the sword control was mapped was as well as they could have done it! Listen, if the Amiga had a SNES style gamepad, where various buttons could have been mapped to control all the different sword swings and sweeps, then of course that would be ideal. That, however, isn't possible. With a need for a one button solution, it's crystal clear to me that what Thalion came up with was the only way to go. I also think that it works! Much like the controls in Turrican II, it's a mechanic that takes time and practice to master, but once bested, you'll understand that it's effective and logical and works pretty darn well.

Well, that's my pitch. I think most people with a brain would surely agree that Thalion hit it out of the park with Lionheart, and the game is near the high water mark for the Amiga. And for those, like Boat, who disagree with yours truly and continue to slander this fine game, I can only say it's your loss. No matter what, at least now my conscious is clear.

Amigos Aaron



Finding it too hard then why not cheat....

Press **Down** on the **Joystick** to crouch, then pause game play. While remaining crouched, hold **[Ctrl]** + **[Help]** until the screen begins to shake to enable cheat mode with unlimited lives.

Press one of the following keys to activate the corresponding cheat function.

F1 to F10 Level Select

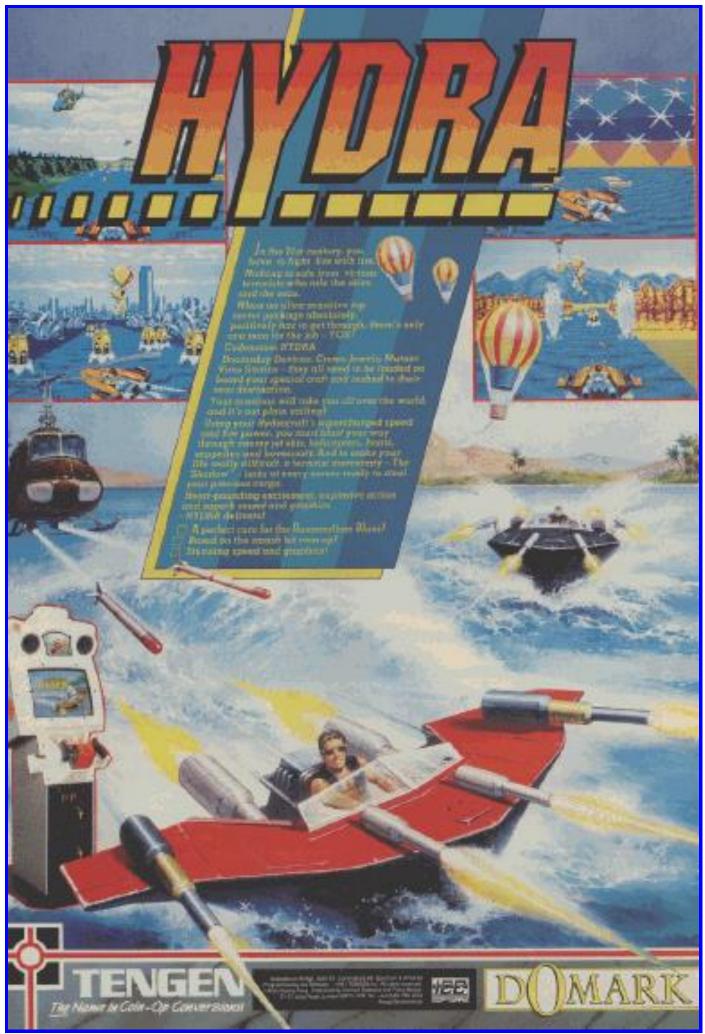
1 to 5 Additional Level Select

**Enter** Ground Shake

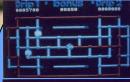
Ctrl

**Help** Toggle 1/2 Mouse Buttons

Free Movement Mode by using the mouse to move your character, then press [Ctrl] again to place him at the current position. Press the **Right Mouse Button** to pause game play



## PD OF THE MONTH



#### **PD Big Drip**

Get all washed up with Drip. 15 addictive levels that make quite a splash. Premier PD # 395



#### **PD Druids Slideshow**

Druids, demons and horned beasts are just some of the many weird fantasy characters that populate the new graphics slideshow from Demons. Sector 16 # 530



#### PD More Eric Schwartz

More Aerotoons from Eric Schwartz are coming to your screens (or PD Disks) as amusing anims such as Juggette II and Latenight. Senlac Software Disks #1054, 1060, 1061



#### **Bodly Go**

The fantasy artwork of Tobias Richter can be seen in this two disk set featuring the amazing compilation of his work. ARC PD # 129A/129B

#### Sector 16

The latest Sector 16 work contains two demos and two excellent games. The Bubblefields features bob-packed screens aplenty. The other demo by the Crusaders is much better and an amusing Atari take.

The two games are Grid Runner (programmd by Anders Bjerin) and Cave Runner. Sector 16 # 525



#### **PD Crionics**

Crionics return with a filled 3D vector romp with the highlight of the disk being the 'Trip to Mars', an impressive fast-moving 3D journey down the highways and byways of the Red Planet. 17Bit # 913

## PD TOP IO

- 1 Applecus Animation
- 2 Phenomenal Phenomena
- **3** Games Galore 3
- 4 Robocop Animation
- 5 Games Galore 5
- **6** Anarchy System Violation
- 7 Simpsons Demo
- 8 Acme Megademo
- 9 Madonna Nude
- 10 Amazing Tunes 2

Charts Compiled by 17Bit (June 199

#### PD Bass

Bass make a comeback to the demo scene with a visual and sonic extravaganza. Strictly PD # 233



#### PD Depeche Mode

The mean and moody Basildon Boy's electronic music gets the remix treatment courtesy of Symbiosis. Tracks on offer

include See You, Photographic, Little Fifteen, Route 66, Blue Dress and the classic Shake the Disease. 17 Bit # 926

#### **PD Spaced Out II**

Spaced Out II features some tasty electronic noises and sampled tomfoolery for your money. ABOTS # 993





## REAL-TIME 3D

#### **How it works: Real-time 3D Games**

All objects in a game, whether planes, buildings, landscape, rooms, the lot - are defined by 3D co-ordinates, one co-ords for each corner point (or vertex) on the shape: so a cube has six points defining it. The coordinates define where the point is in three directions: x for left-right, y for up-down and z for into-out of the screen or depth.

All 3D games have to store the three co-ords for all the objects and then translate the 3D definition of an object onto a 2D screen to decide how its seen. This is the tricky part...

## STEP 1: POLYFILLA

Everyone starts with a polygon filler. Even before 3D.

You give it coordinates on screen, you tell it how many to them there are and it fills it. Then it has to convert everything to 2D coordinates before it can draw it. Performing perspective calculations that gives you 2D co-ordinates, filling those in between.

The way the screen is addressed, the only really sensible way of doing it is by splitting it all up into lots of little horizontal lines. It calculates the two ends of one scan line, fills that and so on down the screen.





## STEP 2: CLIPPING

The complication is that the 2D co-ordinates could be outside the screen. That is what's called Clipping. Effectively you take a polygon and clip off the bits you can't see.



## STEP 3: THE 3D BIT

So the 3D part is just a lit of 3D co-ordinates, X, Y and Z for the objects. The 2D part of the system and the 3D part of the system are very separate indeed. The 3D part just converts the 3D co-ordinates into 2D, then there's a separate 3D part to draw them all.

Although generally it is very simple. All you do is get all your 3D co-ords, then multiply them by a matrix, divide by Z and multiply by a constant and there you go - that's your 2D co-ordinates.

#### So what's the matrix for I hear you ask?

Well it defines your shape with 3D co-ords, XYZ. Now when you view it, it can be any angle relative to you. So you calculate/define a matrix which represents the rotation you have to apply to this shape so it looks right to your eye. Now you have new 3D co-ords, which are effectively 3D co-ords relative to you, rather than relative to the absolute world, they're relative to your eye-point. Then you just apply perspective to those points.

## STEP 4: PERSPECTIVE!

So you have to apply perspective. First of all you've got XY and Z co-ords. The 2D 'X' co-ord will be some constant times X over Z, and the 2D 'Y' will be some constant times Y over Z. Basically it makes them get smaller as they get further away. The larger Z is, which is the distance from the screen, the smaller the numbers become (So you simply divide the other two numbers by Z).

After that you multiply them by a constant to make them more reasonable, you add on the centre of the screen to make them even more reasonable.



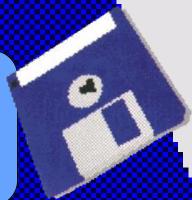
## STEP 5: THE PAINTER ALGORITHM

This is incredibly trivial: all it says is you have to draw things that are further away from you before you draw things that are closer to you, because things that are closer to you obscure the things that are further away. You don't even see the further away ones flicker onto the screen before the closer ones are drawn, because it doesn't actually let you see the screen until it's finished drawing them.

## STEP 6: ADVANCED CLIPPING

One of the simplest methods for this is to find the co-ords of the original polygon, feed it through something that clips off the top, then feed it through something that clips off the bottom and in the end you come out with another polygon that could have an awful lot more edges.

That method turns out to be quite slow which means you have to think out of the box (so to speak) for example just clipping the Y co-ord. Not bothering to work out vertically. Horizontal doing it line by line, very simple but effective.



## STEP 7: POINTS OF VIEW

A game also has the player to think about too. The player's viewpoint is an object as well, a point in space, so its orientation has to be defined as well.

The player has his matrix which means which direction he's facing. To calculate the viewpoint all you have to do is subtract that object from all the other objects and rotate it by the inverse of its matrix and that will give you what it can see.

So at any time in the game you can say a different object is the viewpoint, there's no further calculation involved.

## STEP 8: ZERO REF POINT

Normally this is the player, you define the world where everything has a position, but at some point you have to convert that to everything relative to the player and the player's orientation.

So when the player moves the whole world spins around the player, so you allow for rotation of the player by taking the centre point of all the object - all objects are normally defined relative to their own centre point - and rotating those about by the opposite of the player's rotation.

So that means there are several layers of reference: the points of an object are defined relative to the object's centre and the centre points are all defined relative to the player.

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# STEP 9: COLLISION DETECTION

This tells the objects when they hit other objects. So you check the positions of everything relative to all the other things and see if they're colliding. Potentially this is slow; if you have 20 objects that's 400 tests. So you find ways to speed this up.





## STEP 10: SORTING

Another key is sorting within an object. This is a bit like the depth sorting that the Painter does, but it works on the faces of an object. If an object is convex, then you just plain draw all the polygons you can see. For example if you draw a cube you only ever see 3 faces of the cube at any one time, so you don't wan to draw the other 3. So you have to work out which ones you can see.

The simple method to doing this is defining your points in your originally shape going clockwise, so if you look at the front of your cube, the front four points go clockwise, then after you perform your perspective calculations you have a look at the 2D points on the screen and see if they're still going clockwise. if they are then its still visible. It makes sure you're not looking at the back, the mirror image of the front.

## STEP 12: MOVEMENT

To move the object you just calculate the vector and add it on to the position. A vector is a simple way of describing movement in 3D co-ords.

#### STEP 13: CLEVER

The objects colour is stored as part of the object. Circles appear difficult to draw but it's because when its at an angle it looks like an ellipse, even when it's quite an oblique angle. This makes drawing ellipses easier than

working out the circular points. Basically working out the angle of the ellipse and in effect just parallel project; which means no perspective.

## STEP II: Z CLIPPING

If you have an object where part of its behind you and part of its in front of you, like a spaceship that's passing you, you can still see part of it. You have to work which part of its in front of you. The perspective calculations just go completely haywire so you need to work out this new 3D polygon before you work out the new 2D polygon.

This technique is called 'Z Clipping' and what it does is to take a plane in front of you and chop everything off there. If you do that then the object cannot be sorted (see Step 10).

If an object is entirely convex, drawing the faces that are visible and not drawing the faces that aren't is enough, but if the object is concave, with bits that fold in on themselves, then trying to work out the order in which to draw the polygons can get fiddly.

Remember that all 3D objects are dealt with as polygons, flat shapes, not as whole 3D things,





You could quite easily draw a surface onto a polygon, but as the angle of the shape changes the angle of the picture doesn't, and that's not what you want. So you have to be recalculating the angle of the texture which is quite complicated. Calculating every single point on the polygon, every pixel on the polygon.

Who knows what will be next? Texture Mapping, Fractal Scenery, Faster polygon drawing. The future can only get better and more 3D.

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# MOONBASE

#### **Lunar Colony Simulator**

"...coming in fast and low from the northeastern edge of Imbrium, the lander brushed the top of the debris shield on Pod 3 West as the pilot struggled to gain minimal TDA (touchdown altitude). Priority 2 codes allowed the crew a certain amount of added speed and flexibility, but the fine fine had been crossed, the room for error gone."



Gripping stuff!

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## WILL WILLIAMS



#### What's your first memory of computers?

In the early to mid 80's I wasn't fortunate enough to own a machine, despite my futile attempts to persuade my parents that one would further my computer science endeavours, I guess they saw right through that one;)

I did however have a few friends that owned 8-bit machines, one early game I remember playing was Ace 2, although the platform we played on is vague, it was likely a C16 or Amstrad CPC. Another school buddy owned an Atari 8-bit, we took turns playing a 1942 like top down shooter, with each turn we would rewind a cassette of the Top Gun sound track and blare out Danger Zone at top volume.

It wasn't until 1988 or '89 that I saw my first Amiga at a computer store in Perth, Western Australia. It was an A500 running F-18 Interceptor, I was floored by the sight of seeing the Golden Gate Bridge whiz by. That year my family was planning a trip to the UK, my brother in law tried in earnest to persuade my parents to let me spend the summer with them instead of the trip and in turn I'd get the A500. Again, unfortunately it did not eventuate.

#### What do you do for a living?

I made my way into the fledging internet industry back in 1997 and I've been here ever since. I've worked throughout the development spectrum, visual and UX design, front-end JS/HTML/CSS and frequent forays into the server development side.

#### Do you have any other computing skills? (retro or modern)

A little Basic and Assembly on the '64, low level micro-controller programming with C. LUA, NodeJS, electronic engineering fundamentals and wielding a soldering iron like a light saber.

## How much Amiga exposure did you have 'Back in the Day'

Games, lots of games! And many hours and days working in Deluxe Paint and Vista Pro. It could be said, like a lot of other early Amiga users, that the machine shaped our futures. Most people I knew who owned a computer had an Amiga, which lead to a very healthy "sharing" scene, I even swapped games with one of my high school teachers!



#### What is your favourite Amiga game (why)?

There's so many good ones! Probably the one that stands out the most is Syndicate. It was at about the time it came out that I discovered the writings of cyberpunk writer William Gibson. The dark theme and open world play of Syndicate was a first for me and I couldn't get enough of the cut scenes of digitized video.

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#### What is your worst Amiga game (why)?

I hate to say it but it's probably Akira, perhaps it was the name it had to live up to or the anticipation of it's release, but ultimately the game play just stinks. Such a shame, it could have been so much more.



#### What made you decide to contribute to the Amigos team?

I think deciding to contribute was more of an organic evolution, I had been listening since episode 2 and writing content for my own site. I shared a few relevant articles with the guys and they asked if I would like to continue submitting content directly to the site. My only wish is that I had more time to contribute to the team.

#### If you could choose to work your dream job what would it be?

I find the history of game design, analysing platform differences and the industrial design of hardware really fascinating. But I'm pretty sure no one will pay me to collect and play vintage games. Otherwise building IOT and robotic systems would be a blast. Next step, Skynet!



## Is there any game or item you would like John and Aaron to cover?

I'd like to see more productivity programs covered, perhaps a Pro-Tracker review. That was a side of the Amiga I never got into.

#### What would you like the future of Amigos to be/include?

I think John and Aaron are doing stand up job, I admire their dedication and persistence to deliver a show each week. The same goes for everyone else chipping in where they can to produce quality content for our favourite platform. As for the future of Amigos/Everything Amiga, I think it's on the right track and steadily growing. There are many life times of subjects to cover on the Amiga (and even more to come!), running out of content isn't going to be a problem.



#### COUNTING VIRTUAL



Check out Will's Site; Virtual Sheep (CVL) is an analysis and commentary on our digital past. Typically focusing on that node in history were we could feel the change that was coming, but hadn't quite arrived, the mainstream internet. Other thoughts and writings can be found on Twitter: @willwilliams68k and http://www.whiteoutlabs.com. Corrupted sectors and malformed data structures are complimentary.

http://countingvirtualsheep.com/



Zak was the 2nd adventure by Lucasfilm to be released that utilised the SCUMM engine (Maniac Mansion being the first) in 1988.

The story is set in 1997, 10 years after the game's production and is based around the various playable characters: **Zak** (full name Francis Zachary McKracken) is a writer for the tabloid newspaper, "National Inquisitor", **Annie Larris**; a freelance scientist and **Melissa China** and **Leslie Bennett**; two Yale University co-ed students.

The plot has all the characters at first unknowingly working together in their attempt to prevent the alien Caponians from slowly reducing the intelligence of everybody on Earth by emitting a 60 Hz "hum" from their "Mind Bending Machine".

These aliens have begun their evil plans by taking over "The Phone Company", an amalgamation of various telecommunication companies around the world.

The Skolarians, an ancient alien race, have left a defence mechanism hanging around to repulse the Caponians, which needs reassembly and starting up. Unfortunately, the parts are spread all over Earth and Mars and this is where the main characters come in to save the world!!!

The project was led by David Fox and Matthew Alan Kane as codesigner and co-programmers, alongside New Age writer David Spangler for the game materials. It was originally meant to be more serious game, resembling the Indiana Jones series. but Ron Gilbert persuaded David Fox increase the humorous aspects of the game.

Being heavily inspired by many popular theories about aliens, ancient species and mysterious civilizations. The many places visited in the game are common hotspots for these ideas, such as the pyramids of Egypt Stonehenge, Bermuda Triangle and the Face on Mars.



Like Maniac Mansion it was released in 1988 for C64 and IBM PC (MS-DOS). It was planned for Apple II (but never released) and ported to Amiga and Atari ST in 1989 alongside an enhanced graphics IBM PC version.

The FM Towns computer also had a version released in 1990; Produced by **Douglas Crockford**, arriving on a CD

-ROM with 256-color graphics and a remastered sampled audio soundtrack.

It was also re-released on 19th March 2015 on gog.com allowing the 256-colour version of the game to available outside of Japan.

#### **Protection**

All official versions of the game except the FM Towns port require the player to enter copy protection codes (called "exit visa codes" inside the game) whenever they fly outside of the United States.

These codes were printed in black on a dark brown paper sheet included in the game package to make photocopying more difficult. They consisted of Commodore 64 graphics characters, making it difficult for would-be software pirates to include them in a text file with a pirate copy.

If the player enters the wrong codes five times, Zak gets locked in the Kathmandu jail and his guard makes a lengthy anti-piracy speech. Nonetheless, pirated versions of the game quickly popped up anyway, in which the player may enter any code; with modern day cracked versions completely remove the need to enter exit visa codes.



Many reviews, online and in print have rated Zak McKracken as among the best adventure games every made although some have commented on wishing Lucasfilm would produce a game that did not depend on jokes and puzzles to tell its story (Compute!) as well as the large number of maze puzzles in the game.

#### Did you know?

The Nation Inquisitor

- The girls in the game were named after the programmers' wives or girlfriends: Annie Larris was David Fox's wife's maiden name, Leslie was Matthew Alan Kane's girlfriend, who also worked as a major play tester during the game's production.
- Each time Leslie's helmet is taken off, her hair is a different colour. This is an in-joke referring to the real Leslie Edwards/Bennett, who changed her hair colour practically every week.
- The "words of power" (Gnik Sisi Vle) that mend the Yellow Crystal in Stonehenge read "Elvis is King" backwards.
- > Zak's phone bill at the start of the game is \$1138, in reference to George Lucas' THX 1138. \$1138 is also the balance of Melissa's cash card.
- > When Zak or Annie reads the telephone in the telephone company's office, it gives a phone number. When calling that number, the representative goes to the phone and asks if it is Edna calling again (a reference to where you called Edna in Maniac Mansion).



🍼 FROM THEN TO NOW

## FAN SEQUELS

Some Zak McKracken fans have created and released their own sequels, so called fangames; here are some of the best:

#### The New Adventures of Zak McKracken

Released in March 2002 by "LucasFan Games"

It contained graphics from the Japanese FM Towns 256 colour version and country-specific backgrounds from various Neo-Geo games.

The original release was notorious for containing a somewhat perverse ending. However, the ending was soon changed. This sequel is very short and fairly limited compared to the other fan sequels.



JI IN 1991

#### Zak McKracken: Between Time and Space

Released in German in April 2008 and re-released as a director's cut in German, English and French (subtitles) in May 2015 by "Artificial Hair Bros."

The game consists of hand-drawn 2D scenes and sprites and pre-rendered 3D videos. It uses the Visionaire Studio engine.



Other notable but unreleased fan sequels include:

#### Zak McKracken and the Alien Rockstars

Planned for a final release in 2007 following the release of a demo. Although after several project restarts and lead changes the project was stopped. However, the game engine's source code was released on Sourceforge.

#### Zak McKracken and the Lonely Sea Monster

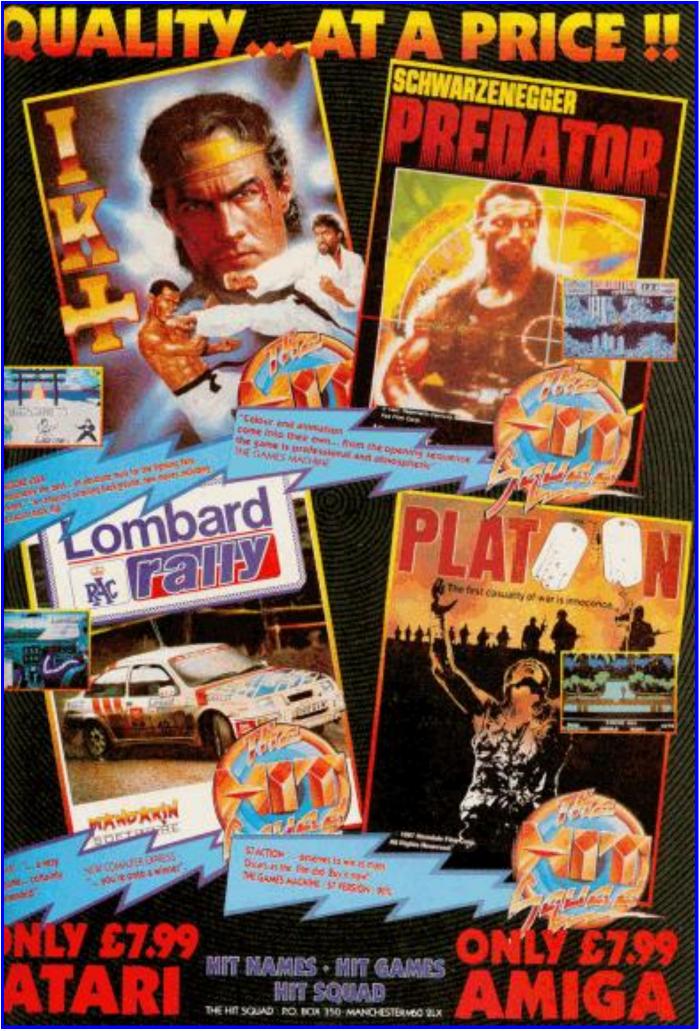
Scheduled for1st July 2007, but has come to a halt. It was supposed to maintain the look of the original.

#### Zak McKracken goes looking for Hot Coffee

(2014) This is far from anything finished, it's rather an elaborate tech demo. The same developer is working on this that was heavily involved in the Between Time and Space from 2005 to 2008; working on animations for this Zak McKracken fan-sequel.



en Walk to Put on Turn on ose Pick up Take off Turn of od Interact Call Headlin









Changes are afoot to the Power A500 desktop computer from DCE (Germany). The changes will mean more power but not more money.

It is being launched a mid-price machine, somewhere between the A4000 and A1200 but in reality it is closer to the A4000 in spec while being closer to the A1200 in cost.

The board is designed to work as much a possible with industry standard parts. The idea is that it will offer 100% of the functionality of the Amiga, but at a much lower price. It will fit into a standard PC style ATX case, use PC keyboards and PC monitors (by using a scan doubler).

The board will come with four Zorro II slots, two buffered IDE interfaces and a flash EPROM for ROM updates. There will also be a bus slot for an Mpeg decoder card.

Originally to be released as a 68030 system (as pictured); however several potential supplies of the 68040 processors have turned up. This is good news as these will be fitted without any significant rise in the price to the end user. It also looks like the A5000 will be equipped for PPC usage in some way.

So whether '030 or '040 processor, contact Power Computing for more details (Bedford, UK).





## AMIGA BOX ARTIST

#### **Peter Andrew Jones**

Peter had started to make a name for himself as a fine painter (1974). With the encouragement of a visiting lecturer he would secure his first commercial cover art job through Puffin Books and Penelope Farmer's 'A Castle of Bone'.

Peter continued to provide commissioned artworks throughout the 70's and into the 80's for various sci-fi authors before turning his attentions to a different form of publishing; the role play book.

cover for **Fighting** Fantasy's the 'Warlock of Firetop Mountain' would radically eschew cover art traditions and give the artist an even greater international presence due to the book's success. It led to further roleplay book commissions in the Lone Wolf and Kult series'.

By the early 80's Peter would start commissioning artworks for the fledgling UK video game scene with one of his first box arts being for Llamasoft's space shooter Laser Zone (1983). It would early example recommissioned art being used for cover arts, and help pave the way for this European trend that lasted a decade longer.

1989 saw the artist team up with software house Psygnosis where he would contribute such classic works as Blood Money (1989), Matrix Marauders (1990) and Spellbound (1990).

It would also be a period of exclusive cover arts with fine examples including Artura (1989), Black Tiger (1989) and Knights of Crystallion (1990) sitting comfortably alongside previous works, along with stylistically lighter and more 'arcadey' looking box arts such as Last Duel (1989), Badlands and Venus the Flytrap (both 1990). The mid 90's his last video game cover being Cytron or Shadowlands (both 1992).

All known box arts would certainly have been primarily created using his favoured media; hand-mixed oil paint, but with a penchant for mixing applications of oils and acrylics and using airbrush, a single box art could have been diversely produced.





1983 Laser Zone

1984

Warlock of Firetop Mountain

1987

Falcon: Renegade Lord

1988

Echeon

1989

Alien Legion Artura **Badlands** Black Tiger Blood Money F.O.F.T. Interphase The Kristal

Last Duel Stryx Targhan

1990

Dynasty Wars Knights of the Crystallion Matrix Marauders Omnicron Conspiracy Spell Bound

Venus the Fly Trap

1991

Gauntlet III

1992 Cytron Shadowlands The Big 100



## AMIGA BOX ARTIST







