

NEW

PAGE 6 PUBLISHING'S

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Issue 54 £1.95
February/March

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CONTENTS

Issue 54 - February/March 1982

BOMB HUNTER by Richard Goss	9
ALTERNATE REALITY - THE DUNGEON by Wolfilm <i>Long awaited maps and hints</i>	12
LASER INVADER by Colin Lennox	16
INDIAN GOLD by Bill Hestell <i>A new and difficult arcade adventure</i>	16
A-Z OF GOLDEN OLDIES by Kirk Gustafsson	20
EXCEL DISK MAGS reviewed by Paul Reon	24
VERTICAL BLANK MUSIC PLAYER by John Young	26
RESTORER by Kit Leffhby	28
THE TIFSTER	30
OKAY, SHOOT! by Robert Patrice <i>What's available for the Light Gun</i>	33
TUTORIAL TIME by Ian Finlayson <i>Using random numbers</i>	34
ZORK II by Linda Neymith	36
KEYMATICS by Ann O'Donnell	38
THE SOFTWARE REVIEWS <i>Cultivation & Chromatics - Dreads - Zebu Land - Fabot & Bros</i>	41
WHY OH WHY? by Gordon F. Hooper <i>Questions everyone needs to ask</i>	44
DISK BONUS - PIPELINE	38
THE ACCESSORY SHOP	47

ST FILE

TIMWORKS 2 by John S Davison	54
AH-73M THUNDERHAWK reviewed by John S Davison	56
UTOPIA reviewed by Sam O'Hare	67
PAUL RIXON'S PD WORLD	68
RUGBY - THE WORLD CUP reviewed by Damon Howarth	68
MEGALOMANIA reviewed by John Swainey	61
FOUR TIMES THE FUN! John S Davison takes a look at the new Fun School 4	62
ROBOZONE reviewed by Damon Howarth	65
SAMPLE THIS! by John S Davison	66
ST GAMES	68
<i>Coslover - The Payoff - Onslaught - Magic Pockets - Shogilder 2</i>	
MAKING MUSIC	70
John S Davison falls in love with Motator	
THE STOS COLUMN	72
Dion Day brings you the latest STOS reviews and listings	

EDITORIAL	4	SUBSCRIPTION FORM	11
LETTERS	6	CONTACT	45

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Mailbag

next show in their diaries
now - 8th 14th November
1988.

Tony Wood,
Harrogate

DARK STAR

Please had enclosed the latest issue of my favourite magazine Dark Star.

I thought you might be interested to see what I got up to with my UM88, KPS51, Panasonic KXP1051, Starwriter Plus, Daisy Dot II editor and formatter! Hope you enjoy reading it, if you could mention it in MAS that would be great. Please write and let me know what you think.

Bob Dyer,
Gravesend

Thanks for the mag, Bob. As usual I have not had time to write back personally but have to say that the magazine is most impressive. If any readers are interested in *Pico*, *mini* and *Micro*, *Print*, *Files*, *videos*, *books* etc. I strongly recommend that you try a copy of *Dark Star*. If you are not particularly interested then I suggest that you get hold of a copy anyway just to see what excellent results can be achieved with a 12000E plus a little bit of application and observation. It certainly puts a lot of user group news letters to shame! The cover price of the issue was £1.50 and back issues are structured (made of 42 inches size of) post and packing so I suggest that you send up £2 now for the latest issue of *Dark Star*, just to see what it is like. The address is: DARK STAR Magazine, 161, Arthur Street, Grimsby, East. Cheques should be made payable to Dark Star.

SOME TIPS

Did you know that if you connect pin 5 (Vcc) and pin 2 (GND) of the serial port to the microphone socket of a standard tape recorder you

AMS MEMORIES

Just a few lines to say what a pleasure it was to see you and the PAGE 9 crew at the AMS 5 show at the Wingley Hall. There was talk made on the stand and many handshakes to be had. We hope that you made enough to send the Page 9 editors to buy each other a well deserved drink afterwards!

It seemed to me that every other person was saying something to do with an Atari! Derek Fern on the Micro Discount stand next to yours seemed to be doing particularly well, as my son had to practically fight his way to the front to collect some advanced ordered goods. He also bought a 68000 expansion to 128K from another stand for £25. Dean Garvaghy was demonstrating an interesting sound program and Gailin was selling an exciting amount of Microline classic hardware (where's it all been hiding from us!). As regards Gailin we heard someone on their stand saying that they now owned the rights to 8-bit systems programs and would soon be marketing them. Needless to say my money was all exhausted by lunchtime and we were unable to stay till the end, but it was well worth the 900 odd mile round trip. It always bothers me that Atari as a company would want to take out on all this obvious enthusiasm (and in obvious reward) for their own product.

In thinking I would also like to take this opportunity of thanking Shearwood Services for organising another good show. Hope to see you all there next year.

Richard S. Matthew Preston,
Windsor, Bucks.

AMS 2

It was nice to see the 8-bit Atari so well supported compared to what I'm used to at AMS 5. There also seemed to be more people around the Atari stands than others. There were bargain prices to be found although you had to fight your way to the front on some of the stands.

Although most of what was on show was old there was one new release from Dean Garvaghy. Thanks to him for the demonstration of High-Status. It allows you to play music with real sounds recorded using 2-bit systems floppy cartridge. Although I have not had the chance to use the program myself, the sound quality was superb and very realistic. He should be congratulated for his continued support. Hopefully his second package for High-Status will be available soon.

All the people with 8-bit stands should be thanked. Page 9, Gailin International, Micro Discount, Dean Garvaghy and Miles Better Software. Anybody who is interested in the arrival of the 8-bit should go to AMS 6 next year.

Robert Dainton,
Mablethorpe

Once again my friends and I made the annual pilgrimage from the North East to Stafford for the 8th Micro Show 5. The support for the Atari 8-bit computer seems to get better year by year. Plenty of hardware and software on sale at affordable prices. An opportunity to stock up on my New Atari User Binders, also printer ribbons, Mouse disks etc. Atari news should book the date for the



Must remember to
write to Mailbag

P.O. Box 54
Stafford
ST16 1DR

can (HAVE) to a standard cassette recorder? The catch is that you cannot **CLOCK** without a decoder, however you can get the tape into an Atari recorder and **CLOCK** it. The point is that if your Atari recorder is designed on record (like mine) you can get better results.

If you have a US Double and 405 1/2, you can use **DOUBLE DENSITY** disks with 180K of storage. The problem is that if you have only one drive you need a D/D disk to start you off. If you have two drives then you can make your own master disk. From basic set the Configuration Block 00:00 and go to 0006 and format your disk. Use the B option to write the 0008 files and strap you go.

I hope that these couple of tips prove useful to some readers.

H.S. Wood,
Bamburgh

CRYSTALS

I liked the little program called **CRYSTALS** in the last issue but unfortunately if like me you have no printer the program stops at line 600 waiting for printer response.

By changing a few lines the program continues to show new patterns every 45 seconds. I have also added a bit of output to brighten up the display, here are the changed lines

```
100 SETCOLOR 1,8:15
SETCOLOR 2, 8:100:15,2
200 SETCOLOR 4,
ENDOFF:15,4
END FOR 0-3 TO
DO:NEXT E:EN
8000 REM
8000 7:40
8000 ? "PLEASE WAIT 45
SECONDS..."
```

I hope your readers like the modification. It must repeat the same pattern twice.

M.L. Morgan
Widnes

PRINTING

I have upgraded my system to a 128K, 1050 with 88 Plus, a 1050 plotter and a Citizen Swift 9 colour printer. I find the set-up very satisfying but a problem has cropped up which you might be able to clarify. How do you get inverse video in at least print out in lettering rather than the Graphics set? It is a big problem as listings which make a lot of use of this.

I am amassing loads of knowledge about 8-bit programming in a rather high-speed manner and thoroughly enjoying myself however it would be nice to eventually put my skills to good use. How about an article on practical ways of harnessing one's computer in the problem of becoming a millionaire?

Finally if anyone with a 1050 plotter needs to really find out its capabilities, I would recommend that they get hold of the Photograph Plot Window (Check Press has some). It is amazing what can be done with the aid of the programs in this package.

John Perry
Folkestone

The best way to get inverse video in print out is by using a special printer driver for the purpose. We use an old commercial program Print Win (long since discontinued) to print our our listings and this will produce all inverse and graphics characters on a variety of printers. There are also a number of such programs in the public domain, such as our PD listing. The problem is that one of these programs are for Epson compatible printers and may not work on a colour printer, although if you can set the printer to Epson's standard mode they should be okay. The other way to get inverse in print out normal lettering is to set the chip address on your printer to 'ignore the right bit'. This is a fairly common feature on printers and you should check your manual to see if it is pos-

sible. If you can do this then you should find that inverse is automatically print out as normal. If you want to use your printer for graphics, however, inverting that you force the appropriate program you will have to reset the chip switch.

How to load about the Photograph Plot Window again which we reported on some way back, might sound like a lot of work. Certainly very useful with the 1050. Finally if I ever discover the way to set the old Atari to use to be some a millionare you can be assured that I will let you know. maybe from Barbados

KEEP BUYING

I recently wrote to Hi-Tec and asked them about future releases. They informed me that they would no longer be doing Atari 8-bit conversions which is yet another blow to the rapidly diminishing Atari 8-bit scene. So, is that it? Not I plead in all haste 8 readers in writing to Hi-Tec and promise to buy any new releases and if they do release another 8-bit conversion buy it straight from Hi-Tec. Show your commitment. It's up to us

Sean Geary,
Chesham

I'm not surprised that Hi-Tec are not doing more Atari 8-bit software since they tried hard to keep secret the games that they did release. I am certainly convinced how software companies fail to promote their products. Hi-Tec had some fabulous Atari 8-bit releases get they never sent out one copy for review despite our requesting and FAXing them regularly. The games we did receive we bought ourselves, once we had finally discovered that they had been released. From a business point of view, I fail to see why we should have to buy games to review so that the publisher can make money from subsequent sales. Of course we want to continue to support the Atari so we feel it our duty to receive any software,

even if we have to buy it ourselves, but that's not quite the point. As I've come gradually disappointed about the sales of their Atari releases but then if they never told anyone about them what did they expect? I hope to Hi-Tec by all means. I figure that I will have some effort but, unless Hi-Tec Atari comes up in proper marketing, you may not have much success.

SUPPORT

With reference to readers who ask for information about where to buy software and hardware, I have recently been sent a list of people who are still supporting the 8-bit system. The list has some 40 plus names and addresses of software companies, PD libraries etc. and covers the USA, Canada and the UK. Also the list has magazine publishers including a new publication named 'Atari-View'.

If anyone would like a copy of this list, please send an SAE (30penn a 10penn) to: **STOURBRIDGE DATA GROUP, BRIDGE ROAD, STOURBRIDGE, WEST MIDDLESEX, EYD 4LA.**

Les Taylor,
Stourbridge User Group,
Stourbridge

Sounds like the sort of thing we should publish. Les, for the benefit of all Atari users and it would mean you a lot of photographs. How about sending us the list and we will publish it in the next issue giving you the appropriate credit. I suppose that less information like this, then what it is to be published. The Atari community needs all the support it can muster and the members of just one user group surely won't be enough to keep commercial support going. On the other hand, if the information makes sense at financial dedicated Atari users all over the UK help someone that's a different matter.

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FROM THE NEWSAGENTS

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THE DUNGEON

WosFilm, an Alternate Reality fanatic from Sweden presents the full maps of The Dungeon together with hints on solving the various quests you will encounter

I have prepared the full map of the Dungeon, and it's split into seven sections because they're split up in the game data. The four first sections (1-4) form into the first level of the dungeons. The rest of the sections make out one level each, getting smaller as you descend into the mysteries. I've also mapped some places you normally can't get in, but with my Character Editor you can get anywhere! The co-ordinates at the bottom and to the left are the numbers you get when using a Location spell or a mapstone. At the top and to the right are the numbers I use with my Character Editor. Having a map makes the game a bit too simple especially if you haven't made the map yourself... :). Mapping is actually a big part of the fun in the game.

SOME QUESTS TO SOLVE (given by the oracle of Wisdom)

Free the prisoner from the palace dungeons with a silver key. Get the two ring halves from the goblin and the troll king, who are at war. Forge them together and bring the ring back.

On the second level, find the site in the room of glass. Don't start off without a touch of class.

Cross the river Stone at midnight. On the other side awaits a king. Free the seven knights who guard him to further your cause.

A Kharouse flew back by the dragons' lair. Answer his queries for a valuable ally. Remember Nabor's domain.

The main quest though, is to collect the three pieces of Arminair's broken staff, and bring them back to him (and his spirit at his tomb, and he'll tell you about the quest). When you're clear this, you get a PAC-card to use when you pass Death's Door to level 4. There you can destroy the Alera's central ruins, and that's it all.

TO SOLVE THE QUESTS

The Prisoner: If you walk around slaying a couple of creatures, you'll soon find a silver key. Enter the secret door on the southern palace wall. Once the prisoner is free, you get a new spell and a staffpiece.

The Ring: The only way you can receive a stronghold from the throne, is to engage each king in mortal combat (this quickly when done). Go to the chambers nearby on the second level to get it released, then offer it to the Oracle.

The glass room: On the second level near the north east corner, there is a bunch of mirrored corridors. Have no weapons at hand when you enter these corridors since "double gangers" are plenty. Also make sure you have some clothing that looks nice and that you can get rid of (i.e. not winged sandals or the like). Enter the oldest horse's room and accept his offer and you'll get a mirrored shield, which is essential to complete the quest.

The River Stone: From 0:00 to a few minutes after, you can cross the river Stone at the threecrossing. The mirrored eyes you should give the ferryman a small fee, and of course I thought it to be worth with a hint of magic, but now should take it literally. The idea comes from the Greek myth of Charon to whom you should give the smallest coin. So, pay the ferryman about 5 coppers, and he'll take you across the river. There is a secret door in the northern wall of the first corridor to the west. Behind it is another long corridor which is blocked by seven undead knights. Slay them all and enter the room of the undead king who will give you a staffpiece.

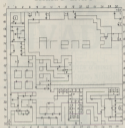
The Fearstone Piece: A gargoyle is to the right of the entrance to the corridors of the great dragons. He gives riddles you should answer, but I don't know the answers (sorry... :). (But I think that if you solve all riddles you get to know what the dragon wants in exchange for the third staffpiece, and that's the bloodstone. Don't try to fight the dragon if you're not extremely powerful. He has about 10000 HP and deathblows won't hurt him very much. I debated him once (after a very long struggle), but eventually my character was defeated. His weapons made high damage to every category in distinction of about 100% of damage, a class of Golden Horns and so on.)

To get the bloodstone: You should pass the winding corridor on the 3rd level, pass the rooms of riddles to the teleporter. You'll find yourself in a corridor which leads to a fountain, but a basilisk blocks the way. He can turn you to stone by looking at you so you'd better have the mirrored shield ready (secondary weapons). Neither spells nor weapons effects (like creation; you must fight him with your bare hands) is certainly worth a while to figure that out. When done, you'll find the bloodstone which you should give to the dragon, and he'll tell... I give you a staffpiece.

When you have all three staffpieces, give them to Arminair at his tomb, use the PAC-card at Death's Door after passing the Guardian (library) of the double ganger in the last room.



Section 0 - Level 1

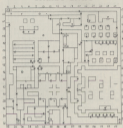


- Direction of access through wall or door (sometimes invisible)
- Two-directional access
- Entrance
- Treasure
- Teleporter
- Landing from teleporter

1. Gemmy Coat Exchange/Vault
2. Burgum Chamber
3. Chapel Sanctuary
4. Squire King's Palace
5. Stairway Leading Down
6. The Parks of Admoner

mapped by *Mr. Ocho*

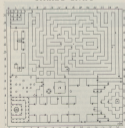
Section 1 - Level 1



mapped by *Mr. Ocho*

7. Don Rappachstein Bar & Grille
8. The Pentam
9. Wizard of Odds
10. Cannon & Pistol Shoppe
11. Guild of Order
12. Wizard of Law Guild
13. Stairway Leading Down
14. Palace Entrance (requires Palace key)
15. Palace Plaza
16. Tavern's Guild

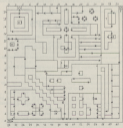
Section 2 - Level 1



mapped by *Mr. Ocho*

17. Stairway Leading Down
18. Healing Fountain
19. Post City South's South
20. Light Wizard's Guild

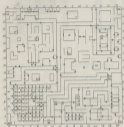
Section 3 - Level 1



mapped by *Mr. Ocho*

21. Oracle of Wisdom
22. Dark Wizard's Guild
23. Troll Kings Palace
24. Stairway Leading Down
25. Shopper's Encounters

Section 4 - Level 2



map by *The Dice*

- | | |
|---------------------------|----------------------------|
| 26. Stairway Leading Up | 31. Fire Crossing |
| 27. Captain's Quarters | 32. Lucky Dragon Brewery |
| 28. Captain's Quarters | 33. Locked King's Passage |
| 29. Captain's Quarters | 34. Midwestern Entrance |
| 30. Stairway Leading Down | (Requires Wilderness Deck) |
| 31. Captain's Quarters | 35. Aerial Entrance |
| 32. Mercenaries' Bunk | (Requires World Deck) |

Section 5 - Level 3

Section 6 - Level 4



map by *The Dice*



- | |
|----------------------------|
| 36. Stairway leading up |
| 37. Death's Door |
| 38. Fearsome Gargoyle |
| 39. Great Dragon's Lair |
| 40. Runic Foreigner's Tomb |
| 41. Elevator |
| 42. Gateway To Revelation |
| (Requires Navigation Deck) |
| 43. Main Control Room |



THE ALTERNATE REALITY CHARACTER EDITOR

WosFilm's Alternate Reality Character Editor is a machine language program not suitable publishing in the magazine but the fully working program is on this issue's disk.

The program is simple to use but you need to know a little about how AR stores its character data. Your character has a checksum hidden somewhere so if you change anything on the character (for example with a sector editor) the game won't load the character. To bypass this you can increase one byte only if you decrease another and vice versa, so that the checksum remains the same. The Character Editor always uses the bytes which tell how many experience points you have to have to increase the character's level, so there is always a limit to how much you can change a character.

In essence the AR Character Editor is nothing more than a highly specialized sector editor but it is the only safe way to enhance your character in *Alternate Reality*.

WosFilm

and you'll find yourself on level 4. Find the *Alcor's* control room and enter with the *stepped shield* to find you'll find our city... Use the elevator to go up again. *Finished!*

OTHER TIPS

Don't be greedy, kill for money or treasure or the *Map* that will soon make the *Devisors* coming, and that's not very funny! If you find yourself attacked by a surprising lot of *Devisors*, generate a new character!

*There's a Magister at location 0030.000 level 11. Works like a *Location spell*, very handy!*

If you need a *surface goal* *swaps* *here* is one at 0030.000, level 11.

A crystal *breakplate* is at 0030.000, level 11. Do NOT go to 007.000. If you do, a *lockdown* will tell into you. You can never drop it, and it'll make you *immobilized*! I'm not sure I remember the way through the "three-door puzzle" starting at 0030.000, but I think it is: middle door, left door, left door, middle and middle. Use the *magister* *irresponsibly* to make sure you took the right door.

If you happen to have a character with an extremely good alignment, you're supposed to be able to get to the chapel *secretary* *interior* you could easily place your character there with a little cheating, I did... If you can, do pay it a visit. It's a really nice place! They give you a ... *inspiration!*

Well that's all I'm giving you. I hope you've found some useful tips, and that you like this amazing game as much as I do. Would it be possible not to like it? Happy adventuring!

INDIAN GOLD

You come to the West to make your fortune but so far it has been an endless cycle of card playing, drinking, whistly, eating, losing and shooting the numerous people who said you stunk.

However, your luck is about to change. It is rumored that a cache of gold coins is hidden somewhere in Indian territory and the treasure is there for the taking - well almost! (and don't let the stories about the marauding cultures and the terrors of the desert deter you). Okay, it could seriously damage your health but what kind of cowboy are you - big leaved? No, of course not! So, plug a joystick into port 1, get your spurs on and ride into the West.

Oh Billy and I forgot. You can't afford a horse yet, can you? How about a sponsored walk?

PLAYING THE GAME

Use the joystick to move the cowboy. To open doors, kill outlaws etc. mark them whilst holding the current object. To pick up or drop objects position the cowboy appropriately and press the joystick button.

Press the button in whenever after death, preserving the current object position. Your enemies will reincarnate as well though, so keep your weapons handy!

If you feel yourself in an impossible position press START to begin again with the objects in their original positions.

The game ends when you find the treasure. Press START to play again.



Bill Halsall's new arcade style adventure proves that the Wild West is as challenging as ever

TYPING IT IN

Cassette and disk users should type in Listing 1, SAVE or CBMS if a copy, then RUN the program. The program will check each line of data and inform you of any errors. Correct any errors and RUN the program again until all errors are eliminated. When this is done answer the cassette/disk questions accordingly to create a text tape or binary disk file.

Cassette users should load the text tape created by firstly removing all cartridges and then turning on the computer while holding down the START key (X1 and X2 users should hold down OPTION as well). Press RETURN and the tape will load and run automatically.

Disk users should clear Listing 1 from memory after saving and running it as above by typing NEW and pressing RETURN. Next, type in Listing 2 and save it on the same disk as the binary file created by Listing 1. RUN the Listing 2 program with the disk in the drive and the game will load and run automatically.

THE A-Z OF GOLDEN (AND NOT SO GOLDEN) OLDIES continued

POLE POSITION ★★★
arc Atari 1984 (I) mid

Creditable conversion of the very popular car racing arcade game, four balls is against the clock as you try to qualify for the main race. High-quality scrolling and realistic sound effects abound. In the heady days of 1984 people (the included) had to fork out £20 for the 19K cartridge version. It is now available for a much more sensible price.

POPEYE ★★
plat Parker Brothers 1983 (I) scarce

Average platform game in which you must help Popeye collect Olive's hankies whilst avoiding big, mean Bluto. Spinach makes an obligatory appearance of course. Graphics are on a functional level, but the music is worth a mention.

POWERDOWN ★★★☆
arc Mastertronic 1987 (I) bad

This game is hard to classify. You have to shoot and dodge things, manipulate items and work out problems. Once you reach the top of the vertically scrolling screen, and have avoided all the hazards and nasties along the way, you will meet the being who has directed all the fun at you. It turns out to be a giant cat! How you eventually dispose of him is one of the best puzzles ever devised on computer. Truly a gem of a budget game.

PREPPIE ★★★
arc Adv. Int./Americana 1982/1987 (I) bad

'Preppie' is a derivative of 'Frogger' only this time you're a young kid out to retrieve golf balls. It's simply a matter of guiding Preppie to the top of the screen, avoiding the mowers and other hazards, and then returning back the way you came. Brilliant four-channel music and colourful graphics make this an interesting family game.

QUEST OF THE SPACE BEAGLE ★★☆
arc Avalon Hill 1984 (C) imp/scarc

This is the sequel to 'Jupiter Mission 1999' and it's basically more of the same. The different sequences range from a 3-D 'Star Raiders' style shoot out in an isometric 3-D maze game. A fairly new programming technique is used called rapid page flipping (between different screens and graphic modes). The side-effect is flicking, which may cause you to become big-eyed after a while.

RACING DESTRUCTION SET ★★
arc Electronic Arts/Amblisoft 1988 (C) mid

This attempt at old car racing on computer has very hard but ultimately fails. There are options games including different vehicles, tracks, weapons and scenery. There is also a track construction option. The game is weak in the graphics department because memory is used for the wealth of game options.

RAID OVER MOSCOW ★★☆
arc Access U.S. Gold 1986 (J/L) mid

Forget about about the dubious subject matter and enjoy this quite good arcade game. There are many different stages, among them a Zaxxon type assault on enemy bases, a ballistic attack on the Kremlin and a booming fight with security robots. Graphics and sound are okay but could have been better.

RAILS WEST ★★★
strat S.S.I./U.S. Gold 1983/1987 (C) full

Quite complex strategy game about the building of the mid-west American railroad in the mid 19th Century. Most mining and trading operations are input from screens filled with statistical information. The only graphics screen is a neatly drawn and continuously updated map of the railroad system. Good fare for those people who like games with substance.

RAINBOW WALKER ★★★
arc Synapse 1983 (J/L) impressive

An altogether colourful, playable and extremely enjoyable game from understated Synapse. This is a '3-blet' variant, but with better graphics and gameplay. You have to colour in each of the squares on your rainbow and avoid hordes of various sorts (who also want to make your rainbow grey).

THE KEY

Star Ratings:-

- ★ poor
- ★ ☆ poor/mediocre
- ★★ mediocre
- ★★ ☆ mediocre/good
- ★★★ good
- ★★★ ☆ good/excellent
- ★★★★ excellent

arc	arcade game	(I)	game is available on tape
pat	portable game	(C)	Game is available on disc
sim	simulation	(I)	Game is available on ROM
strat	strategy game		cartridge
adv	text adventure	full	single (I) or dual game (I) 30-£1.99
gr ed	text adventure with graphics	mid	big screen game (I) 30-£1.99
sp	strategy role playing game	full	full screen game (I) 30-£1.99
arc/adv	arcade game with puzzle solving/strategy etc.	imp	game is (or was) only available on import from overseas
		scarce	no price range available, because game is very difficult to get hold of

The arc and patrol flags and etc. I ratings, unless are indicated as guidelines only. Prices refers to the original catalogue list price and that can vary for local or foreign and rare items. This can also refer to the price of the game in question.

compiled by
Kirk Ruebottom

RALLY SPEEDWAY ★ ★ ★ ☆
arc Adventure Int. 1983 (1) mid

This is a car racing game for one or two players (each with two) containing variable parameters such as maximum speeds, road conditions, acceleration speeds, and even an option to construct your own courses. Your view of the game is from above and the screen scrolls smoothly in all four directions. Easily one of the best two player games ever.

RED MAX ★ ★ ★
arc Codemasters 1986 (1) best

Nice graphics and music fit this game out of the ordinary category. A four-way scrolling view of a planet surface and a character on a bike provide you with the main game screen. It's up to you to hunt about and defeat all the mines planted by the renegades. Colliding with any structure results in the loss of a life.

RED MOON ★ ★ ★
gr adv Level 9 1986 (1) scarce

A fantasy adventure with heaps of text and hundreds of illustrated locations, all crammed into 32K. Sounds is good to be true! Well, the graphics are not spectacular (although I have seen worse in many disk-based graphic adventures) and sometimes it's hard to get your commands understood. Red Moon was state of the art in '86 and still remains a good adventure.

RESCUE ON FRACTALS ★ ★ ★ ★
arc Lucasfilm/Activision 1985 (1,2,3) mid

Probably the only Atari game about which there is nothing more to be said. In any discussion of the best Atari games you must include this. Essential for any collector.



RIVER RESCUE ★ ★
arc Creative Sparks 1986 (1) bud

You have to guide your boat around rocks and crocodiles and pick up islands in an attempt to deliver them further downstream. Your view of the game is from above, and the screen scrolls horizontally at a furious rate. Strong on playability but whether it holds any long-term interest is doubtful.

ROBIN HOOD ★
arc English Software 1983 (1) scarce

In this two-way horizontal scroller you're Robin Hood (a poorly defined one colour sprite) who has to shoot the Sheriff's men (also poorly defined one colour sprites) and grab the gold which appears now and then. The background scenery and scrolling is well done, but the designers forgot about gameplay which is virtually non-existent.

ROSEN'S BRIGADE ★ ☆
arc Dataeast 1983 (1,2) mid

A rather basic shoot 'em up with primitive graphics. Your little plane can roll, zoom, dive and climb while the scrolling battlefield, and in your way stand helicopters, planes and aircraft carriers. Average in '83, dated in '81.

S.A.M. ★ ★ ★ ☆
(SOFTWARE AUTOMATIC MOUTH)
at Don't Ask Software 1982 (3) full

A speech synthesizer on a disk with speech quality surpassing that of many hardware add-on devices. Tone, pitch, speed and duration of S.A.M. can be altered and he will repeat back to you any words you type in. You can also use S.A.M. in your own programmes. An interesting piece of software, a year or two ahead of its time.

SANDS OF EGYPT ★ ★ ★
gr adv Dataeast 1982 (2) scarce

An early disk based graphic adventure with a limited vocabulary and a small number of locations, but highly enjoyable nonethless. The pictures are attractive and the puzzles are well thought out. Especially recommended for first-time adventurers.

SAVAGE POND ★ ★ ☆
arc/atv Starcade 1983 (1) scarce

Highly original game which could also serve as a lesson in Biology. You have to guide a tadpole through his various evolutionary stages. Dragonflies, spiders and radioactive waste are some of the hazards you will encounter, so you have to be wily on the pond. Unique subject matter and nice graphics are plus factors for 'Savage Pond'.



SCOOTER ★ ★ ☆
gr/atv Americana 1986 (1) bud

This budget platform game is set throughout eight scrolling levels and features your character collecting things and avoiding nasties (yes, very original, I know). An element of 'Pac-Man' is also thrown in because you can destroy the badies if you collect certain items. Worth checking out if you like platform games.

SCRAM ★ ★
sim Atari 1982 (1) scarce

Fancy yourself in control of a nuclear power station? 'Scram' features a graphical display of the power station's main features, and by using a joystick you can start pumps, open and close valves, do repairs etc. It can get quite complex. The biggest surprise about this one is that it was written in Basic.



SCREAMING WINGS ★ ★ ★
arc Red Hat 1986 (1,2) mid

This is essentially a conversion of the arcade hit, '1942'. You control an aircraft over vertically scrolling screens, blasting everything that moves. It could be argued that a lot of shoot 'em ups are very refined Space Invaders! This one's no exception, although it is probably more fast and furious than most. Good sound effects enhance the game's atmosphere to a large degree.

SCROLLS OF ARADON ★ ★ ☆
plat Fanda Software, 1984 (1,2) imp/scarc

A four-way scrolling single 3-D 'Pac-Man' derivative could be one way of describing this little-seen piece of software. Well programmed and presented, with gameplay a little on the tough side. It's a shame that this well-revived officially released in Britain.

SEA BANDIT

arc **Datasoft** 1982 (LJ) mid ★ ☆

One of a selection of particularly unimpressive early Datasoft titles, which someone got it released over here in 1985. The 'hunting for lost gold' scenario cannot disguise the fact that this is a fairly disguised 'Breakout' clone. Datasoft later went on to better things.

SEA FOX

arc **Broderrbund** 1982 (I) scarce ★ ★ ☆

'Sea Fox' is a shoot 'em up set underwater. You have a side on view of your submarine and the enemy hunted below. You must eliminate a certain number of the enemy to progress to the next level. Making one here, but it is wanted out with a certain degree of professionalism.

SEARCH, THE

arc/adv **C.S. Software/Red Rat** 1983/1987(LJ) mid ★ ★ ☆

Although written in Basic, this is a thoroughly playable multi-screen fantasy arcade adventure. A redefined character set is used to depict trees, mountains, buildings etc. as you guide your character across each screen. It resurfaced not so long ago as part of a Red Rat compilation.

SEVEN CITIES OF GOLD

arc **Electronic Arts/Arisoft** 1984 (C) full ★ ★ ★ ☆

A huge game set in the 16th Century in which you take on the role of a Spanish explorer/conquistador/commissionary. Trading plays an important part as does exploration of the 2700 scrolling screens. The gameplay screen consists of a small window in the centre surrounded by text information concerning your army, food and amount of gold loaded with the natives. This is an enthralling piece of software, with far too many features and subtleties to mention here. Don't miss the one by any means.

SHADOW WORLD

arc **Synapse** 1982 (I) imp/scarc ★ ★ ☆

A 'Defender' style game for one or two players. The two player version is unusual in that it features a split screen view of the proceedings. In addition the 'Shadow World' contains smooth scrolling and fast action.

SHAMUS

arc **Americana** 1986 (I) bud ★ ★

In a nutshell, this game has you wandering around hundreds of rooms, blasting everything you meet and collecting keys to open up new rooms. 'Shamus' was almost an early 'Gauntlet' except there are no scrolling screens or two player option. Colourful but ultimately boring. Shoot 'em up fans may like it.

SIDWINDER

arc **Futureware** 1986 (LJ) mid ★ ☆

We are promised something special from 'Sidwinder' when we see the nice loading and title screens, but the game ultimately fails to deliver. In this 'Scramble' clone you travel from left to right across a scrolling cover 'backdrop' of trees and houses. Gameplay is far too tough. It can even be difficult just getting airborne! As a no-turn bonus there is a clever construction set so you can create your own screens.

SILENT SERVICE

sim **Microprose** 1986 (LJ) full ★ ★ ★ ★

The ultimate submarine simulator for your machine, striking the right balance between technical detail and playability. Game screens include map displays (zoomable), steering levers, bridge, binocular view, periscopes, damage reports, Quartermaster's Log etc. Graphics are great and sound is atmospheric. 'Silent Service' runs class in just about every department.

SIX GUN SHOOTOUT

arc **S.S.U.** 1983 (C) scarce ★ ★

This is a tactical simulation of classic gunfights of the Wild West. It plays like a wargame. It cannot be recommended to those who like action games. 'Shootout' is one of the lesser S.S.U. efforts. The details and intricacies are here, but the graphics are even worse than usual. Does the type of scenario translate well to a computer wargame format anyhow?

SLAVE, THE

ad **(Mail Order Only)** 1986 (LJ) scarce ★

This is an incooly designed program, purporting to be an adventure writing system. The 'Slave' features one of the most badly written manuals ever. Indeed you may find it impossible to get an adventure to work that was designed with this system. Why haven't we seen any adventures on the market that were designed using this?

SNOKIE

arc **Fursoft/U.S. Gold** 1984 (I) scarce ★ ★

'Snokie' is simply a jumping game set across a horizontally scrolling landscape. Your jumps are neither perfect timing and manoeuvring for you to progress to the next level. Some nice graphical touches include a winking skull which appears whenever you lose a life.

SNOKKER

sim **Thom E.M.U.** 1984 (I) scarce ★ ★ ☆

One of the earliest attempts at computer snooker. You are limited to aiming and shooting with variable power in this one (no screen, turn, topspin or side). The graphics are good (at least the table is green, unlike other computer snooker games). However, the definitive snooker game has yet to appear.

SNOWBALL

adv **Level 9** 1982 (I) scarce ★ ★ ☆

A science fiction text adventure with over 7,000 locations! (Adventure ability a lot of them are identical). You are on a spaceship, reborn from cryogenic suspension, and have the task of trying to save the lives of the other two million frozen colonists on board the ship.

SOCCER

sim **Thorn E.M.U./Creative Sparks** 1982/1986(LJ) bud ★ ★ ★

An early attempt at putting soccer onto computer, and it turned out quite well. Graphics are okay and playability is strong. There are many variables you can set at the start, such as number of players, player versus computer or match two players versus computer. If you have an old Atari 800 and/or four systems then you can all play against the computer, or against each other in teams of two!

SOLO FLIGHT

sim **Microprose** 1984 (LJ) scarce ★ ★ ★ ☆

A brilliant flight simulator programme, one that will appeal to simulator buffs as well as the less serious games player. Your view of your single engine aircraft is unusual in that it is taken from slightly above and behind the aircraft. You still have all the dials and indicators on screen though. Graphics, sound and depth of the game are of a high quality.

SOLO FLIGHT 2

sim Microprose 1986 (Jd) full ★★★★★

This sequel is essentially the same as the original but with a few enhancements. You now have a re-designed cockpit window display, a map which records your flight paths, and an enhanced instructor who guides you in a dialogue box at the bottom of the screen, if you have 'Solo Flight 1' then this sequel is not really worth buying, but if you don't then I can wholeheartedly recommend it.

SPACE EGGS

arc Sirius Software 1981 (J) scarce ★☆

This is a 'Galaxian' type shoot 'em up and nothing more. In 1981 it was considered to be good, but in this day and age isn't better.

SPACE INVADERS

arc Atari 1980 (J) scarce ★★

Yes, it's a re-titled conversion of the father of all shoot 'em ups. You may want to get this for curioity value, but don't expect too much.

SPACE SHUTTLE

sim Activision/Firebird 1984/1987 (J) bud ★★☆☆

This looks and plays better than the earlier, titled Microdeal game of the same name. The graphics scenario remains the same, but in this version things are a little easier to get to grips with. The only drawback is some really lackluster sound effects.

SPACE SHUTTLE

sim Microdeal 1983 (J) scarce ☆

Graphically and musically weak attempt at a space shuttle simulation. Five separate phases make up the game. You have to launch, dock with a satellite and bring it back to earth. This is a fine example of Microdeal's humble origins, before they entered the 16 bit world.

SPACEHAWK

arc Tyrensoft/Microvadis 1987 (J) bud ★★

Reasonable shoot 'em up which formed part of Microvadis's 'Four Great Games Vol.2' compilation. We've seen all this before in countless 'Ultimate' clones. Graphic detail needed a little boosting up, but the shooting is some of the bestest you'll ever see.

SPECIAL DELIVERY

arc Creative Sparks 1985 (J) bud ★☆

You play the part of Santa Claus and guide him on his sled through horizontally scrolling scenes, picking up presents and avoiding hazards. Once you've collected a certain amount you must try and negotiate your way down a chimney. Graphics are not up to much, but there is a nice musical jingle playing throughout.

SPEEDSCRIPT

ut Computer Books 1985 ★★★★★ scarce

Not a piece of software as such, but a book. You simply have to type in its contents and you will have a full class word processor! The typing of the listing may not a lot of people all, but it works out quite cheap when you consider the cost of ready to run word processors.

SPELLBOUND

arc/ade Mastertronic 1986 (J) bud ★★☆☆

Clunky budget game with tons of rooms to explore and puzzles to solve. You control a role title called Magic Knight who interacts with other characters and his surroundings by a process called 'Windmation'. This involves opening windows with the joystick and selecting a relevant command from those which appear in the window. 'Spellbound' is an archetypal arcade adventure, neatly designed and fun to play.

SPIKY HAROLD

arc/ade Firebird 1987 (J) bud ★★☆☆

Harold is a hedgehog and you must guide him through fifty seven locations and find all the food therein. The natives to avoid this time are like the form of dragonflies and other insects. There is a high standard of animation and graphical detail, but the game is too difficult and short on substance to sustain any lasting interest.

SPINDIZZY

arc/ade Electric Dreams 1987 (J,d) full ★★★★★

Professingly programmed conversion of the 'Mystic Madness' type game. Combating an insect-nation built-bearing up camps, down pipes, in lifts, across streams etc. can be extremely frustrating as well as absorbing. There are hundreds of rooms to be explored (each of which can be viewed from four different angles). Graphics, sound and playability are of the highest standard.

**SPITFIRE 40**

sim Mirrorsoft 1987 (J,d) full ★★☆☆

There are plenty of serious combat-flight simulators for the XL0XE, but one gets the feeling that Mirrorsoft could have tried a little harder with this one. Scenarios include the obligatory 3-D 'out of the cockpit' view, maps of Southern England and a control panel from which you can adjust speed, flap, pitch and bank etc. The plane supposedly handles like the real thing (although it does seem a little waxy landing Garry from the sky).

SPRONG

arc Rignose Software/Red Rat 1985/1987(J,d) mid ★★★★★

One way to describe 'Sprong' would be as colorful fifty seven extravaganza. Another way would be an extremely frustrating hopping game featuring a man on a whimsy pogo stick. One thing is most certainly true is very nice graphics. Fun to play as well.

SPY HUNTER

arc U.S. Gold 1984 (J,d) mid ★★☆☆

This one puts you in a car armed (eventually) with four different weapons and gives you an overhead-vertically scrolling view of your battles with the other vehicles on the road. Enemy cars can run you or you can their speed wheels to burst your tyres. You may also find yourself in a speedball at certain times. A well implemented canvas shot of the exciting arcade game.

SPY STRIKES BACK, THE

arc/ade Electric Dreams 1985 (J,d) scarce ★★☆☆

This is an arcade adventure with the emphasis on arcade. Lots of rooms to map (all looking pretty much the same) and items to find. You also need to be quick on the joystick because there are robots to dodge in each room. The best feature of the game is the continuous music with countless different tunes.

Next issue ...
the concluding part of
this series .. don't miss it!

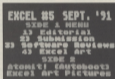
EXCEL DISK MAGS

It's a sad but inevitable fact that support for 8-bit micros—particularly the Atari—has severely declined during the past twelve months. Indeed, the number of commercial organizations investing in XL/XE development projects can be counted on the fingers of one hand! The stark decline of two 8-bit mail-order magazines over a year ago left just one 'big' dealer and several indie-published magazines committed to the Atari market. You'd be forgiven for treating the latter with more than a note of caution—especially after the problems caused by various counterparts in the past—but in the end you've just got to take a chance and hope you will be lucky.

To contextualize the trial, last April saw the launch of a new 8-bit disk magazine from a group of Atari enthusiasts called Excel. Since then the disks have appeared on a monthly basis. Prior to receiving review copies I hadn't paid much attention, mainly because I'd rather browse through a printed document than stare at a flickering monitor screen. I can't criticize Excel, however, since they wanted to launch a 'real' magazine last year, but had to abandon their plans due to lack of support. I use the word 'their' with a bit amount of paranoiac license since the driving force behind the Excel mag, and most of its editorial content, is now Robert Stuart. Robert's talent isn't just a fact for organizational matters, he's also a pretty racy prog runner!

The first edition of Excel was described in the Editorial column of issue 48 as a detailed document isn't necessary here. The principal contents are a reconstruction game called 'Assassin' which was subsequently released on tape and revised fully in issue 51, a couple of neat arcade games and a character set designer for graphics modes four and five. Also included are some pictures and a demo with a scrolling message to the gate of a Paj system (as is a Paj system in the gate of a scrolling message!).

Although generally well received, the disk was criticized for its lack of reading material. Consequently, the editor responded in the several issues by splitting the disk into two logical sections—side one for text, side two for software. The textual contents comprise an editorial with news and gossip on topical matters, a computer too late to enter, I'm afraid, reports on 120 software, a readers survey and reviews of eight commercial programs. What the latter have mostly been covered in past



issues of XAL, reviewing games is a subjective business and it's always useful to have a second opinion. Incidentally Robert, I still think the author of Eufit and Winky could have put more effort into the graphics!

Amongst several trials on the B2 side of the disk, Trial 1 is an excellent shoot 'em up that was first released commercially by Adventure International. Galactic Chase is another commercial game in the form of a traditional space invaders clone and Watch L&A is a demo from the High Tech Team with

good music from Planet 13 and the familiar scrolling message. Last and most definitely best, Search is a rather interesting spin off from English Software's Starquake in which you guide a crane up the chain pipes! and watch out for monsters. Mind you, Starquake wasn't all that exciting either!

Excel Number Three's Incomplete section has nice reviews of Ki-Soft games and others, plus the regular editorial. Software goodies include The Snake—a clever simple sequence sending you to load, edit, and play sound samples stored on disk—and Carwood, a brilliant arcade adventure from Germany. Your quest is to fly through the cavern collecting treasures and negotiating mines. This game is addictive! The old favourite Mystique makes an appearance—looking for her dazed comrades—while Rats is another gem on that has your copy-parked ferns retrieving raindrops from the trees and burying them back to base. Eight Ball is a clone of eight balls (strongly suggested) showing in the upper part of the screen with a panel below in which you can enter various parameters to alter their pattern of movement. The music is brilliant but unfortunately the scrolling message is German! The disk is rounded off with a big (English) random number. That's BEEF! Excel Four, Five and Six are tentatively more of the same. By this I mean more well written reviews, interesting editorial, amusing demos, worthwhile games, neat artwork, a clear professional finish—in fact, everything you might hope for in a disk magazine. The only improvements I'd like to suggest are more instructions for the games and a utility to print out the articles. As present the textual content is hard coded in basic, which doesn't write me as being the most efficient method! If you've pondered over the merits of subscribing to Excel, then ponder no more—just do it! If the forthcoming issues are half as good as those I've reviewed you shouldn't be disappointed. The point is that unless we support Excel and the other remaining 8-bit magazines, our world of 8-bit Atari won't be around much longer.

HOW TO GET EXCEL

The Excel disk mags are available from Robert Stuart, 27 Downey Way, Brentford, Middx, Middlesex, TW9 1JZ. The last issued (October) should be priced at £3 each or £18 for all issues. New issues are £2.95.

reviewed by Paul Rixon

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VERTICAL BLANK MUSIC PLAYER

Have you ever wanted to add background music to your BASIC programs? It is not easy to produce a desired piece of music that doesn't slow your program down. It is possible to simply turn on a note for the correct length of time, but to make your short produce sounds even vaguely like those from a musical instrument you must enter the realm of volume envelopes, and these really do cause a game to come to a grinding halt.

The solution is a short machine code routine that will play a tone in the vertical blank interval. Don't worry if you don't understand the first thing about machine code - you can still use this routine.

The vertical blank interval comes along every 1/60th of a second, after each frame of the television picture has been drawn. Your computer uses this period for housekeeping, but it will also execute a short routine of your own. As your routine is called every 1/60th of a second, this gives an easy way of timing notes.

A READY MADE ROUTINE

Once called, my routine will play a tone in the background without affecting your BASIC program. The example program contains the machine code as data statements (lines 10100 to 10040) and a subroutine to load it into the string VEMM (lines 10000 to 10000).

You can load several sets of volume envelopes to create more melodic sounds. The volume envelope contains the volume of a note for every 1/60th of a second that it plays. It must consist of 30 volumes in the range 0-15. An example is given in the BASIC program, but other effects are possible, you will just have to experiment.

Lines 10000 to 10000 contains a subroutine to start playing the tone in the data statements from line 10040 using the volume envelope in line 10400. The format used for the data statements is:

Number of notes, length of cracker in 1/60ths of a second, frequency of first note, length of first note in multiples of cracker, frequency of second note on.

Lengths of notes are actually stored in 1/60ths of a second. You can have up to 255 notes. If you want to write anything longer you will no doubt think it no trouble to write your own routine to play it! Frequencies must be in the range 0-255. Values which correspond roughly to musical notes are given in the BASIC manual.

John Young provides a routine to add music to your programs without slowing them down

CALLING THE ROUTINE

The machine code routine is called from BASIC with a USR call as follows:

USR(address of routine, number of notes, address of volume-envelope, address of frequency data, address of length data, address of routines 47 bytes)

POKE 252,1 is also required to start the tone.

In the example program the volume envelope and tone are stored as strings, which means that you don't have to find a space ahead of curiosity, although you will get some funny results if you try altering the program while the tone is playing. This overwrites the variable storage area. You can poke the machine code routine and your tone data into page 0 or high memory to get a tone to play unaffected by whatever BASIC programs you load. The remainder of the program (lines 100 to 250) demonstrates how to control the tone once it has started.

No matter how good your music, you will eventually want to turn it off, which is accomplished with POKE 252,0. POKE 252,1 for any non-zero number will start it again from where it left off. Location 200 is the note volume, and 200 counts the length of each note, in 1/60ths of a second, so POKE 249,20 and POKE 200,60 will start my tone in the last 1/60th of the last note, thus restarting it.

I make no apologies for my music, it is intended to encourage you to replace it with your own!

RESTORER

How often have you gone to use a disk only to find that it has been corrupted or you've deleted some important document files? Over the years I've seen many of us here. Maybe the program is the answer to those problems.

RESTORER will restore many files that you may have thought lost forever. If you cannot access the file, because FTOC has been corrupted then RESTORER can help. If you have simply deleted the file and haven't written to the disk since then you will have no problem recovering the file. The program can restore ASCII, Basic or Machine language and you should have no problems provided that the sector links are correct.

HOW THE PROGRAM WORKS AND HOW TO USE IT

RESTORER first loads into memory two short machine language programs. The first enables access to the disk sector. This short program was published in COMPLETE many years ago. The second assists in working out the sector links (this was from a PD program brought out by old Alan Ward). Then program then goes to a Menu.

On selecting item 1 the program goes straight to sector 00, the beginning of the directory, and shows you each file on the disk together with its first sector number and the total number of sectors. If you return to the menu, you can then look for the sector linkage (by pressing 2) and provide a hard copy if desired. If you haven't got a printer then typing "NOCR" when the "Ready" sign appears will enable you to see the sector linkage, press CTRL F to close it down. By the way, if you haven't got a printer then "CLOSE 47-OPEN 47,50,7" must be deleted from line 14 or an error will be produced.

Pressing RRETURN will immediately begin restoring the file displaying necessary information on the screen. Before commencing it does a check to make sure that there is enough memory. If not then it displays how many pages it needs. Just follow the prompts and the file will hopefully be restored.

A filename is asked for before you save the data, but this could be changed to keep the filename as the original which is in "Y&K". The file is saved to disk in a somewhat slow and primitive manner and this does need to be improved again, but for the moment works fine.

If in the Menu mode you hit 2 but haven't already been to the Directory, then you will be asked to supply the First and Total optional, you may supply a "dummy" number sector values, but when coming from the directory the program assumes the values of the last directory file read.

The program restores the file by directly accessing the sector and storing it in STB. It then computes the address of the next sector from the last 3 bytes of each sector in DS, if 'N' equals 'Y' then in the End of File. Note that when storing into STB only 128 bytes are saved on the last 3 due to provide the essential information that determines the sector linkage will have to be changed when restoring to disk, but normally the computer does this for you.

SAVING MEMORY

If you wish to save memory then provided that you know the First and Total optional sector values then you can delete many of the programs. Lines 28-308 and 700-800 can go. This will save 2k of memory. Just add:

```
117 INPUT T%:P%:INPUT T%:G%:G%:G%:G%
```

I have tested this program on many types of file and successfully restored all files including long machine language programs. All ASCII files can be restored without any problems. I have not been able to test the program on files that produce ERROR 104 - File Missing as I have none, but suspect that you will have to use a disk editor to find the beginning of the file. Then you should be O.K.

There are very few checks or traps so hit the BREAK key and restore if you make a mistake, but don't do it if the drive is writing data! If you do by mistake type "CL47/RETURN" before restoring or the disk may get scrambled.

This program could be compacted to save further memory by using "COMPACTER" from Page 6 PD Disk "Utilities 48" (an excellent program, but what language is it written in?) I've often tried to change it to accept a file from "DS" and then have it compiled to make it better, but it will not accept it. Could anyone shed some light on this? RESTORER could then be speed up by using the Turbo Compiler.

The program has been really badly written and I apologise to all you fine programmers out there, but just hope that RESTORER will be of assistance to many of you. Any improvements to the program will be gratefully appreciated.

WHAT THE VARIABLES DO

DS	Stores the data from the selected sector
PT	Address information on each directory file
F%:	Directory filename
T%:	Directory filename to be restored
P%	Actual page(s) to restore
STB	Stores one file sector
END DS:***	End DS with 128 spaces. DS will not get sector without this
STB	Stores the last file
STB	Stores sector linkage numbers
Y	Answer no
N	Answer yes file
Y	% of read sector
N	% of bytes per sector
Y	% of sectors in file
PT	Page - 1,000,000,000, 10,000,000
Y	Flag - 1 file in the sector (more than 1 part 3), file in the sector in 1 part only (file the same as PT)
N	How many parts file will be stored in
PT	% of sectors stored
END	Size of buffer length
Y	Amount of sectors that can be stored in STB. Depends on memory
1	Help determine how many parts file will be stored in

1 and 2)

```

01 1 000 *****
02 1 000 *          RESTORE          *
03 1 000 *          BY              *
04 1 000 *          FOR          *
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99 1 000 *          *
100 1 000 *          *

```

```

01 000 *****
02 000 *          RESTORE          *
03 000 *          BY              *
04 000 *          FOR          *
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```

**a utility to recover
lost, deleted or
scrambled disk files**

by Kit Lethby

THE TIPSTER



New Years Resolutions?

SMARTER THAN THE AVERAGE TIPSTER!

To go with the map and hints for Yogi Blear and the Great Monster in issue 82 here is the solution thanks to Michael Roseman of Natick. To this solution there is a key which may be explained otherwise if it's going to be impossible to understand.

PH-PHONIC MARKET, S-SPEWERS, B-BEEMY, B-BEEMY, C-CAN OF POP, D-DITY, BUBBLES GUM, B-BEET, S-SHRETT, etc.
 D-D-DOOR, D-D-DOOR, etc., U-U-L-L-UP, D-D-DIP, LEFT, RIGHT

Solution

GET PH, G, GET S, PUSH LEFT FOR LEFT, D TUNNEL, R, U, U, GET H, A, GET M, L, D, R, SET C, D, SET T, A, GET T AND BLUE TUBE, G, D, GET T AND M, L, GET T, D, SET T, L, U, GET M, R, L, U, P, GET PH, R, GET T, L, L, L, GET T, G, D, GET M AND VOYD KEY, R, GET M, R, A, GET S, R, GET M, SET T, U, GET C, U, GET M, P, GET PH, G, GET S, U, OPEN D, U, L, D, SET T, U, R, R, GET M, D, CHANNEL, TO AVOID FLASHING BALLROOM, GET M, R, D, R, GET M, U, SET T, G, R, D, GET T, AVOID R, R, SET T, D, GET PH, L, GET S, GET M, L, GET M, R, R, U, L, U, L, D, U, L, U, CHANNEL, L, U, U, U, GET M, D, GET S, OPEN D, GET QUICK DOWN ROOFS, U, U, R, D, R, D, R, U, L, GET T, R, U, GET H, SET T, G, R, R, GET T, R, GET M, R, SET H AND K, L, L, D, GET T, L, D, GET H, D, R, D, P, U, SET T, OPEN SO AND PISCUS BOO BOO, GET PH, D, D, U, U, L, U, L, D, L, D, L, L, GET M, R, R, U, U, R, U, P, D, OPEN SO AND PISCUS SHOOT AND BLASTER, U, U, L, U, L, U, L, SET PH, R, D, R, D, R, D, R, D, R, D, U, L, GET M, U, L, GET M, R, P, GET M, D, SET M, U, R, D, GET T, L, D, GET M, D, R, OPEN D, YOU HAVE NOW REACHED THE TORRID MONSTY!

The New Year has come and gone and so have all those resolutions that you promised to keep and now you can't even remember what they were. Well I have the answer, all you have to do is read this column Tipster for and that should see you through all those little resolutions you missed! Or I shall read the Tipster forever until my eyeballs burst!

We have the solution for Yogi Blear and the Great Monster and the complete map and helpful tips for Price of Magic, Tips The Countess, and a nice map for Crystal Roller, should you without further ado lets get gaming!

Tobias Jerboen did there Tobias, nice to hear you again after such a long time! from Stockholm in Sweden has sent in a couple of nice maps for Crystal Roller and Price of Magic and all the stuff necessary to elaborate the aforementioned game. I did get that someone would come up with the answer to my requests and I was right, (sorry you were a bit slow Sherlockian!) What's it worth? You'll stop reading? Okay then if you're going to play dirty, just look across the page!

QUICK E'S ... QUICK E'S ... QUICK E'S

Spokenword should be a lot easier with this one from Paul Cole of Atlanta as he offers these tips for **BURRY BOB**. Set the special code to 01800 and hold down the 0 key and there goes the 018000 key, start the game, the keys are:

- 0 = BERRY SCREEN
- A = BULL'S SCREEN
- H = ORIGINAL POSITION
- X = RESET SCREEN

Also from Paul is a handy little thing. If you hold down the T key on loading up **CONAN THE BARBARIAN** you are granted immortality while playing the game.

From Harvey Miller comes this tip for **KENNY DALGLISH'S SOCCER MANAGER**. If when you are watching the graphical highlights of a game you tap the left button continuously you can watch the game in slow mo.

ST I hope I bring good by to all those ST fans, here are there who get for finding the cheats and hidden secrets in the world's best ST games.

T The issue there is only one, and by using it, for the best 500 items there is. The **Golden Run Game** is by the **Angels (11)**. On Taps and the 5000-Squid and is available from the Page 4 thing on the site.

I Okay, so to get to the items you must press help twice when it gives you the credits at the beginning and then open it - **DRIPCH**.
P On to the missing letter if you know what a good you are, then it's back and enjoy some beautiful making 'n' dancing options.

GEMS

A few quick gems are available from Joe Elliot and Mark Gray Gates of Miami-Louis and without further ado and with no more pride and pleasure we present you the tips that reach places ... (their strength of that's all)

If you put a heavy weight on the **CONTROL**, and the 5 key in **PHOENIX**, that's right he does had one of the best it breaks the first.

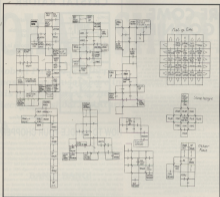
If you bring into a map on your later in **EMERGENCY INCALINE** it gives you another place to pick up a package.

During the final against the **DARKO BARBERS** in **PHOENIX NIGHT**, guard yourself well and throw fire punches. If you have more points at the end of round three, then here there'll be knocked out.

In **RECLUSE** instead of pressing T for the map press **OPTION**. You can still save, about but it is slow.

On level 6 of **REDNEWK INCALINE** stand the ladder between the ceiling spiders. Keep pressing the space bar to pause the game until you have stopped it just as it goes up. Push yourself to the left and take off the game, that'll be it and take the coins.

If you also forget your map in **HIGHLINE ON FRAC-TALOUS** and the last few levels in the same, press F for the ladder and the right will come, allow a bit but to take check and hit the left to open.



PRICE of
MAGIC
mapped by
Tobias
Jorhorn

PRICE OF MAGIC HINTS

- How to get the knowledge: Take *mindwalk*
 How to learn magic: Read *scroll*
 How to find prisons: Cut the mirror with the ring
 How to read parchment: Cast *ESP* on yourself
 How to get answers: Bury knowledge, skull and bones with a shovel
 How to get rewards: Pull the lever
 How to pass werewolf: Carry the wolfbane
 How to be young again: Touch the Red Moon
 How to pass trap: Throw salt at it
 How to get staff: Cut vine
 How to see in darkness: Rub eyebright flowers in your eyes
 How to get balls: Take the monkey to the cold store. Search the store once the monkey has gone
 Secret search: In oak panelled corridor and in the study
 How to get wheels: Hypnotize the fat
 How to get silver shield: Give robes to the Golden
 How to kill spiders: Cut the web
 How to pass Bloodworms: Carry bar
 How to pass Gargoyles: Fall at the entrance of the middle crypt
 How to pass Bloodbeasts: Wave mirror
 How to enter stone rooms: Cast *ESP* spell at door, cast *BGM* at hole, cast *ESP* at door, cast *ESP* at hole, cast *ESP* again and say "Mind opens door"
 How to beat Mygale: Cast *ZEK*, then cast *DED*
 How to get to Stonehenges: Cast *BGM* at the picture
 How to get to other plane: Rub the Talisman

Spells

Name	Cost	Description	Learning place	Focus object
<i>DCW</i>	100	Excuses if target is magic	pendulum	pendulum
<i>MAD</i>	100	Makes target mad	table	gemstone
<i>DEI</i>	100	Detects secret doors	table	leather
<i>FLI</i>	91	Cure target	topaz	stone
<i>FM</i>	91	Turns wall wearing target into a fish	silverrod	silverrod
<i>BOM</i>	81	Brings things to life	clock	trumpet
<i>OL</i>	81	Makes target go berserk	warpage	axe
<i>DEI</i>	71	Detects dangers	great hole	emblem cases
<i>SAM</i>	71	Increases magic properties of target	prism	prism
<i>ZEK</i>	61	Takes you to the mind of target	pendulum	mirror
<i>SPY</i>	61	See room where target is	mirror	candle
<i>SP</i>	51	Lock into room in any direction	front door	crystal ball
<i>BY</i>	51	Makes target fly	ominous chamber	broom
<i>ZEP</i>	41	Lightning strikes at target	warpage	eyes
<i>DES</i>	41	Cancel all spells	alter	wheel
<i>SAN</i>	31	Makes target sane	stoppe	stone
<i>BSA</i>	31	Makes target fearful	blue box	blue box
<i>HYF</i>	21	Hypnotizes target	inscription	staff



HERE COME THE GOONIES

An underground treasure hunt is the solution to the *Goonies* from Ark Park of Booth in Lexington. It isn't backward because it's a treasure and it's comprehensible as it forwards it's a hat.

Level 1

Move from along the bottom and up the ladder. Run left and jump over the star and jump it right to hit the water ladder. Jump on the star, climb the ladder and go up to the underground. Jump on top of it and it will go up and you'll be on the top. Jump on the star, climb the ladder and go up to the underground. Jump on top of it and it will go up and you'll be on the top. Jump on the star, climb the ladder and go up to the underground. Jump on top of it and it will go up and you'll be on the top.

Level 2

Run and the falling ladder by jumping against them when they go down. Move on to the left and stop on the bottom of the power and then a narrow gap way. This is the water ladder. Press the green and the ladder. Go down to the left and go left into the level. Press the left and the ladder will go up. Press the right. Press the left and move on to the left. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top.

Level 3

Go right and go up the ladder and climb on the right and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top.

Level 4

Touch a key to the ladder. Press the left and move on to the left. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top.

Level 5

This level is very important to the solution. It's very important to the solution. It's very important to the solution. It's very important to the solution. It's very important to the solution. It's very important to the solution. It's very important to the solution. It's very important to the solution.

Level 6

When the star falls on the bottom, take the problem of the water ladder. Move to the bottom and the problem of the water ladder. Move to the bottom and the problem of the water ladder. Move to the bottom and the problem of the water ladder. Move to the bottom and the problem of the water ladder. Move to the bottom and the problem of the water ladder.

Level 7

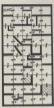
Move from jump right and go up to the ladder. Move on to the top of the ladder and jump on it to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top.

Level 8

Go up to the top ladder and walk right and go to the top. Climb the ladder and jump on it to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top. Press the left and go up to the top.

THAT'S ALL FOOLISH!

CRYSTAL RAIDER



walls
possible walls
rooms in darkness

mapped by
Tobias Jankovics

HOW TO HANDLE YOUR CHOPPER

Andrew Birmingham here you don't have to describe me with a picture from Cambridge has some tips for the helicopter on TOMBARINE that complement those from last issue. He says that when you start don't take off, take your chopper and collect the fuel on the ground. Put your weapons on the tracking "weapon" and use your rubber to run through 2000 a few times and watch for enemy tanks and choppers on it. When it looks on get it to your right and now take off and look a couple of feet off the check and fire. Now land and fly around around on the ground by pushing forwards on the joystick and by using the rubber to steer yourself. When you feel another enemy fly up to it lower and shoot, you can have in front of an enemy tank and it won't shoot back!

That wraps up this issue apart from the help that people need before they start giving their own areas and legs all over a game that you have completed. Do the right thing and live in between that is, not arms and legs.

Stevenson Hill of Marlow-on-Trent asks the question "When is the Atari ST version of Diagonally Demolished game **THINK** to be announced?" Well as far as I know they were never going to do a conversion but you could change their minds if you ST's that includes not as well. Diagonally Demolished done with letters adding them in do a conversion. Diagonally Demolished is going to love me for that and I answer to David Hines just for help with **SPELL-BOUND** all I have to do is to look at issue 42 for the solution. Do that to help with in Diagonally Demolished but not of you but don't!

THE BULK and **STARCROSS** are proving problems for Robert Bell. He was only go into two rooms in the Bulk and goes killed by the gun outside and in Starcross he can only get to 3 rooms. Come on get moving you fool!

All that to tell for me to do now is to hope that you had a Merry Christmas and that you have a happy and prosperous New Year.

Oh so it's that address again!!

**THE TIPSTER
NEW ATARI USER
P.O. BOX 54
STAFFORD
ST16 1DR**

OKAY, SHOOT!

Robert Patrice felt there was not much software in his native France so he decided to shoot his Atari!

After Nintendo and Sega released their light guns, some friends of mine asked me about the same thing on the XL/XE. After searching for a good while I succeeded in obtaining a light gun and software and have now tested all the programs available. I have decided to write this article to answer questions about this product, the most frequent one being "is it worth buying?". For those of you who want to know my opinion without reading all the software applications, go directly to the conclusion.

BANG, BANG!

I will begin with the light gun package. Well, well, well, this box contains a grey light gun with cable and the "DEAD HUNT" cartridge. The light gun has a very modern form and is relatively precise, but the trigger (start program) is awful and unpleasant, do forget this game. Yes, I know, it's a bad beginning, but don't cry, because here comes the greatest!

Have you ever heard of **CROSSBOW**? You probably knew the arcade version who appeared in 1982 under the Exidy label and discovered the VCS version adapted in 1983. But did you see the XL/XE version? Probably not, but let me explain how great this game is. I didn't even know that this game existed until I saw the title in the B & C Computerstore catalog, so I ordered it from the States and got it some months ago. The XL version has the Atari copyright since 1988 under the Exidy trademark.

Imagine a game on cartridge with 8 action screens plus the map screen plus one beautiful presentation screen. That's 10 screens in 1987! And what screens? Each is full of colours and graphics at which you can shoot. The aim of the game is to shoot your friends into the danger zones where footsore crooks are try to kill them. The 8 danger zones are respectively: the **DESERT** full of scorpions, vultures, snakes, rabbits and ants; the **CANYONS** with bats, scorpions falling from the wall; the **WOLAND** and his burning rocks and lava; the **JUNGLE** with monkeys throwing coconuts as well as various plants; the **VILLAGE** which has the most important quantity of enemies with ghosts, snakes, the evil master and people appearing at windows and shooting at you friends; the **RAVE** with bouncing blockers, phantoms, bats, snakes, alligators, bugs and birds; the **DRYWOODS** in which you must avoid the archers arrows, the projectiles, the alligators and open the doorwidge and the **CASTLE HALL** which is the final zone where you must avoid the dragon's fire breath as well as arrows flying from the walls.

As you may now have understood, this game is really great and although one of the most pieces of software for your XL/XE,

it is perhaps one of the greatest games ever!

BARNYARD BLASTER isn't so rare but is the second best game for the light gun. This title has been designed by E-Byle for our XL/XE and has been available since 1987 on cartridge under the Atari trademark. The action takes place in a farm and you have to shoot robbers, turtles and various as well as vegetables. This game is suitable and funny as you have to shoot fixed turtles on a fence, then moving bottles thrown by a farmer, vegetables in the field, and many animals in the barn. So, that's about 4 action screens. Animation and colours are well treated.

CRIME BUSTER is another kind of action as you are a detective and have to kill gangsters. In the first screen, you are in a car on the road and are overtaken by other vehicles. Some of them are driven by gangsters who shoot at you, so you have to destroy them by firing on directional arrows in the low part of the screen indicating the direction of your shooting bullets. Then you arrive in a quarter full of gangsters on which you must fire, but you have 12 sections in the city to clean before ending your mission. It's not a great game as you have to be very precise in the first screen when shooting on arrows, but it is an Atari trademark game and has many screens and each quarter is different.

SHOOTING DISKS

Well, we have now seen all the cartridges available for the light gun, so let's have a look at game disks.

LIGHT GUN BLASTER is the only public domain game using the light gun. It was first published in the February 1988 issue of "Atari User" and is now available in the Page 6 FD library on the FidoDisk disk. All you have to do in this game is to shoot the most numerous coloured squares among other coloured squares. FidoDisk has redesigned the game by including a game manual FD created with Pascal II and, as he says, the Dirty Harry's 44 Magnum!

The latest game I have tested for the light gun comes from Italy and is called **GANGSTER VILLE** from a software house called Lindwood. This game has been written in June in 1988. The aim of the game as you may have guessed from the title is to kill gangsters located in different places. Among the screens I have seen, the action takes place in an hotel, beach, house covered by snow, casino, post and so on, but I haven't been any further because they got me bored!

CONCLUSION

If you can get your hand on a light gun package, do not hesitate, especially if you can have **CROSSBOW** and **BARNYARD BLASTER** which will boost the value of the package! As you have probably understood, the light gun alone is not worth buying but the light gun with the two above cartridges is really a great deal which will bring you hours of fun and entertainment. If you can try all these three elements, you will understand what I mean!

TUTORIAL TIME

USING RANDOM NUMBERS

My subject for this article is random numbers. It is quite short and not too difficult, but like many subjects that seem straightforward it is possible to get it a muddle if you do not understand the basic principles. For convenience I will use the term "random number" throughout this article, but what I am really talking about are "pseudorandom" numbers. Mathematics are very fuzzy about true random numbers and the generation of such numbers is a science in its own right, but for us the numbers generated by the Basic "RND" operator should suffice - unless you want to create a set of random numbers for a precision bond issue or some such project and then you will either have to study the matter in great depth or pay for a set of random numbers to suit your purpose.

THE RND OPERATOR

Just BASIC gives us a random number generator in the RND operator. The operator has to have a dummy variable with a which is usually set to zero, though any number will do, so the expression to use is RND(X). This returns a random number between zero and one which is never equal to one. Thus it is quite easy to make a whole line of random numbers between 0 and 1 each with nine decimal places. Try typing RND(0) and see what happens - you will get results like:

```
0.30084368 and 0.65751470 and 0.18063118
```

This is not very practical, so I will go on to show how to get a random number in the range 1 to 10. First multiply by the required range of numbers in the series (in this case 10: RND*10 - this gives a random number with 9 decimal places in the range 0 to 10 that never quite equal to 10.

Next turn it into an integer: INT(RND*10) - this truncates the number deleting everything after the decimal point, so we now have random whole numbers in the range 0 to 9.

Finally add one and the result - INT(RND*10)+1 - gives random whole numbers in the range 1 to 10. The same expression can be used for any range of whole numbers by replacing 1 with the starting number and 10 with the range of numbers you wish to generate.

PICKING NUMBERS FROM A SERIES

Now we know how to pick a single number randomly from a predetermined range of integers, but often we need to pick a series of random numbers without repeating any, as you would if you wanted to call the numbers for a game of Bingo. Each number can be selected using the technique shown above, but it must first be checked to make sure it has not come up before. If it has already been picked it must be rejected.

One way of ensuring that a number is not chosen twice is to set a flag to indicate when it is chosen the first time. If we look at a series of 100 numbers (0 to 100) we can set up a series of variables FLAG(0) to FLAG(100) to show when each number is chosen. The variable must be initialized to zero at the start of the program to show the number is available and must then be changed to one if the number is chosen. Look at Listing 1. I will not explain it line by line, but it does exactly what I have described above and generates a set of numbers in the range 1 to 100 in a random order, using each number only once. Run this program and you will see the problem with this method. It starts choosing numbers very quickly but slows down as it goes on. This is caused by the numbers being "used up" so that the random number generator is more and more likely to choose a number that has been used before. When it gets towards the end, let us say when ninety numbers have been chosen, there is a 90% chance of choosing a number that has been used already so the program has to keep several times before it finds a number from the unused ten remaining. This situation gets worse as we approach the last number in the series.

There is, fortunately, a way to get away from this problem and that is to choose numbers which have been chosen, and then reduce the range of numbers from which the next selection will be made. This means we are always selecting a number from a range of numbers which is equal in size to the numbers left. Listing two shows a way of doing this. Again, it is written for a set of 100 numbers. What I have done is as follows:

Lines 10 and 20 - make a set of numbers from 0 to 100 in the variables N(0) to N(100) and set the variable RANGE to an initial value of 100.

Line 30 - generates a random number PLACE between 1 and RANGE.

Line 40 - prints to the screen the number stored in the variable NUMPLACED.

Line 50 - if PLACE is the last position in the range (equal to

and jump to line 70 where RANGE is reduced by one.

Lines 60 and 70 - if the chosen number is not the last in the range it is replaced by the last number in the range and then RANGE is reduced by one. To explain that number up, the last number is moved to replace the number just used and then the last place in the range is deleted.

```

00 1 000 *****
00 2 000 * TUTORIAL SUBROUTINES *
00 3 000 * RANDOM NUMBERS 1 *
00 4 000 * by *
00 5 000 * Ian Finlayson *
00 7 000 *-----*
00 8 000 * NEW START SCREEN - FEB 1992 *
00 9 000 *****
00 10 000 PLACED IN FOR MORE TO BE ADDED
00 11 000 *****
00 12 000 FOR COUNTS TO END
00 13 000 REWIND IMMEDIATELY
00 14 000 IF FLAGGED IN THEN DO
00 15 000 PLACEMENT
00 16 000 * END
00 17 000 NEXT COUNT

```

```

00 1 000 *****
00 2 000 * TUTORIAL SUBROUTINES *
00 3 000 * RANDOM NUMBERS 2 *
00 4 000 * by *
00 5 000 * Ian Finlayson *
00 7 000 *-----*
00 8 000 * NEW START SCREEN - FEB 1992 *
00 9 000 *****
00 10 000 PLACED IN FOR MORE TO BE ADDED
00 11 000 *****
00 12 000 FOR COUNTS TO BE RECORDED
00 13 000 REWIND IMMEDIATELY
00 14 000 IF FLAGGED IN THEN DO
00 15 000 PLACEMENT
00 16 000 * END
00 17 000 NEXT COUNT

```

Line 00 - checks to see if all numbers have gone and if so reset.
Line 00 - jumps back to line 10 to find the next number.

If you run this program and compare the time it takes to do the previous one you will see that it is nearly twice as fast. If you then change the overall range to a thousand in each case and time them again you will see the real strength of the second method. It is much faster. With this method the time the program takes to execute is approximately proportional to the range of numbers being processed five times as many numbers take ten times as long while with the first method the execution time gets very long with quite small increases in range.

I hope I have made the use of the END operator a little clearer. The second listing should be very easy to change to meet specific requirements in your own programmes.

Finally I must end with an apology. I am certain that I have lost some mail that was awaiting return and I think there may have been one or two letters from you amongst it. If you have written to me with a query and have been waiting more than a month for a reply please do not continue to suffer in silence. Write again and I will reply. The address is still as follows.

**Ian Finlayson, 60 Roundstone Crescent,
 East Preston, West Sussex, BN16 1DQ**

DISK BONUS

PIPELINE



by Chris Guise

A thought provoking challenge that tests your wits in completing a pipeline as time runs out

The object of Pipeline is to complete a pipe from one side of the screen to the other within a set time limit. You have certain sections of the pipe in place and you must figure out the course of the pipeline by using various angles and straights available. Sounds simple but when the time ticks away and the design is complex you will begin feeling your hair out!

The program itself contains full instructions on how to play but there is a cheat mode which will give you infinite time - it's up to you to discover how to activate it!

PIPELINE is the **BONUS** on the issue's disk which also contains all of the programs from the issue ready to run - do include your Disk Subscribers will have retained their disk with the issue but you can purchase the disk separately for just £2.99. Order from PAGE 8, P.O. BOX 34, STAMFORD, ST16 1CR. Send a cheque or P.O. or order by telephone using your credit card - telephone 0793 213625.

NOTE FOR 486/800 USERS: The intro screen on the issue disk does not run on these machines. As the disk boots a jumble will appear on screen, just press **START** and you will go straight to the menu. You can replace the **AUTORUN.SYS** file on the disk with one of your own to run the menu if you wish.

ZORK II

Now that you have triumphed over all the trials and tribulations of Zork I, after a short well-earned rest, you will want to read your adventuring ego, since again cleverness and ingenuity take the unknown enemies of Zork II.

On pressing up you will find yourself at the bottom of an empty shaft, with the "oh lorded" bones hanging at your feet. You were at the top of this same shafting when you completed Zork I. You were left a sword, but unfortunately, it is rusted dead in a large stone and despite all your efforts you cannot break it free. So looking very wary and rather tired your adventurer begins its wanderings around the unexplored cavern.

The completion of Zork II will see you graduate from a lost, wandering adventurer to a full-blooded Dungeon Master and Explorer. But that you will be only the last bit when, as if, you start the next game, Exarchant. Some people are just glad to see the publisher!

So in Zork II you need to gather all the accomplishments of a Dungeon Master, a staff, an ancient book, a strange key, a food and drink, an amulet and a ring. Once you have all these, the old Dungeon Master - who wishes for nothing else but his retirement - will let you through the dragon door to solve one last puzzle in order to complete the game. Your reward is to become the new Dungeon Master and guardian of the Dungeons of Zork. He then flies off to Santa Prans, for a long

and overcast vacation to the holy pits of Spain, leaving you in charge of the dungeons for eternity, or at least until you find another sucker to take over the tedious job!

But first, you need to obtain the six items required and to find the way to the Dragon Masters door. This is concealed behind a secret entrance which will only reveal itself by an act of charity to an old blind man. His appears sound (being in fact, and he wishes you feeling rather funny).

You will find that there are more characters to deal with in Zork II than in the previous two games. You've met the accepting but useful blind in Zork I, the totally retiring Wizard, the inscrutable Gnome of Zurich and the chaotic Princess in Zork II. Here you will have to contend with at least five characters, and design some more guards. The first person you meet does not appear, initially, to be very trustworthy, but you will discover that you have to trust him with your life as well as your newly found treasure. You need his help to get the chest and yourself up the cliff, he then opens the chest - which you can't do - takes the contents - which you don't like - and leaves you a staff - which you do like!

A walk along the shores of the Palladium Gnome, will not only give you a breath of invigorating fresh air, but may reward you with the sight of an ancient Viking Ship, and an equally ancient Viking sailor hailing you, give a good greeting in reply and you might find him into throwing something at you.

Back in the land of shadow you will be confronted by a hooded stranger (THE hood and cloak perhaps). Now, seemingly as if by magic, the unobtainable sword slips itself into your hand and you lunge into a battle to the death, but control your lust for blood, a fight is necessary but to win this one you mustn't be too violent.

The amulet and key you find south of the creepy crowd if, after a dip in the lake, you go down into a dark place where Gnomes abound. You need more than the old letters, and the solution is this line on the west shore of the lake. The problem is - how to enter the lake without building a flaming torch, without getting it wet and allowing it to burn. The answer may be in wandering your thoughts was useless after it had been captured.

You will experience an earthquake, which amongst other things destroys the Apartment and also opens a passage beside the great door which leads into the museum. In the museum is the Royal Puzzle, which is my favourite puzzle and solving it rewards you with the ancient book. Remember the marble walls are solid and the sandstone walls can be pushed. You have to push the blocks of sandstone around to find one that has the ancient book hidden under it. Here you have to find your way out. You come to this hole in the ceiling and you cannot get out that way, of can you? You realize that two of the blocks have a ladder attached to one side. But it is possible to manoeuvre a ladder under the hole? Remember that to move a block, each you have to be pushed by the north side of it and push. Two immovable blocks of marble sit in the middle of the puzzle, to make it that bit harder! There is an

ZORK III HINTS

1. Can't get through beam room - JORG WEN TH WAE BAC OLE B
-JAG HIL, ODE PORN BIRLE
2. Can't get back up the cliff - BAA CUT JAW SHI EPO WEE O P
-WOL LLE PNE BEE ART SHI ODE THE TPA
3. How do you get to the village - BO LIA BEE, LEM
4. Can't get food and drink - G-GOM BEO MWA TROG ONE BAE
-WIS BAW BEE, JFO BAW HEE HIF TON-OLU WRO BOW BWT BEE
-WILL BEE PVT
5. Can't find secret door - JALD BEM WY WY BA MGL DPE ERA W
-T- Can't get the treasure -FTT W LA WTS BEM BOW OBL BEE JEM
-TDT BEE MCA BEE, OJAJ WPT BUP
6. Can't get back -JAWO TLA BOP EBEM BAC BEO LOS POT WEE W
-JEM LAM HIE OIE W WED BMO TOD T JARA ODE SHI WAE, LT
-WY BAW
7. What does the mirror do - E WEP ORO PUN BBO OBE OPI LEM
-WU TPO BEE BEE
8. How do you move the mirror - T BPO DDA BHT WTS OAD TH
-OP WOB BAE, LT WEL BAE BAE BEE WPT WPT WPT WPT WPT WPT
9. How do you get past the guardians -JAJ WPT WPT WPT WPT
-OBE WPT OLL BEE
10. How do you get the torch across the lake -OL BEO LOS BWT
-BEE OPI WAE BEE WY WY WY
11. What the final solution -WTS ODO ODE WAE KEM BWT BWT
-WIS ODE BEE WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT
-TLL BOW BEM BEE, JT WOL OLL BEE BOL BIL BIL BOW BOW
-TIT OBE WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT
12. How do you find the sword -WAE BEM THE WAE BEE WPT WPT WPT
-WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT
-WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT WPT

KEYMATICS

Keymatics is a fairly short program which gives you some mental arithmetic problems to solve. If this program interests you so much that you can't wait to change the questions, which are stored as DATA statements from LINE 50 to 15 onwards. The existing questions are mainly suitable for ages 11 upwards.

USING THE PROGRAM

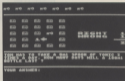
When you run the program you will see 25 brown doors arranged in 5 rows and 5 columns, on a Graphics 1 screen. You move an arrow around the screen with a joystick. If you push against a door and press fire, a figure 1, 2 or 3 appears in place of the door. This tells you the number of questions you must answer correctly in order to "win" the space. The maths problems appear in the lower part of the screen. To answer a question just type a number (or letters) and press return. If you are right the computer will either go on to the next question or put a gold key on the screen where the door was. The space is blanked out if you give a wrong answer. You can go on and select a new door provided you have a green key to open it. You are given 10 of these to start and you need one for each door. The top row of the screen shows how many are left at any stage. The game ends when you get a row or column of 5 gold keys (you win) or when you run out of green keys (you lose).

PROGRAMMING DETAILS

Screen Display: LINE 20 to 23 allows the Graphics 1 display list instructions to put 25 Graphics 3 lines on the screen. This is done by putting in 2s (for Graphics 3 text) and 1s (for text) in the Graphics 1 text instructions) in certain display list memory locations. The questions are then printed onto this part of the screen, using the calculator beginning at LINE 480. This leaves the text window free for printing the player's answer plus the right/wrong message. It also means that fairly long maths problems can be used without cluttering up the screen and that long questions and answers can appear on the screen at the same time.

Arrow Graphics: The 4 arrow positions (i.e. facing East, South, West and North) are defined as user graphics using the char arrays (1-4 and 4-). These appear consecutively in memory and are represented by CHR\$(48) to CHR\$(51). LINE 2300 defines a variable 'D' as being equal to 1 for East, 2 for South, 3 for West or 4 for North depending on the direction in which the joystick is pushed. The arrow printing routine then prints one of the characters - CHR\$(48+41-43) or 43 - according to the value of D (i.e. Y#023488238+D).

Number of Questions: The number of questions per door is determined by the variable 'N' in LINES 2345-50. 'N' is initialised as 1, but may increase to 2 or 3 depending on the value of



by
Ann O'Driscoll

the random number 'R' generated in LINE 2380. To stop a really lengthy process getting loads of questions, a limit of 5 each is put on the 2s and 3s. This means that the maximum possible number of questions per game is 25 (5 x 5 plus 1 x 5); this is why the DATA list has 28 problems in all.

Changing the Questions: The maximum number of questions (NQ) and question length (QL) are set up in LINE 50 and the questions and answers are stored from LINE 5000 onwards. The present listing allows for numeric answers only. If you want the program to accept string answers instead you'll need to re-examine the row strings - one for the answers and one for the user input - at the start of the program. You'll also need to change the references to "ANS" and "TR" in the questions asking routine at LINE 2380. For instance, if your new strings are ANSA for question answer and TRSA for player answer, just change "TR" to TRSA and "ANS" to ANSA in LINES 2500 to 2540 and leave out the STR\$() in LINE 2540.

Detecting Wins: The doors are located on the screen at rows 1, 2, 5, 7 and 8 and at columns 4, 5, 8, 10 and 12 (set up in LINE 2320). Two numeric arrays - C (the column) and R (the row) are used to keep track of the wins. The variables X2 and Y2, determined by the joystick movement routine, are the column and row co-ordinates of the "current" door. LINE 2380 adds 1 to the X2 and Y2 arrays when a door's questions have been answered correctly, a value of 5 in an array means that a line of 5 doors has been won and then the win message LINE 2600 is called up.

That's about it - I hope that you enjoy using KEYMATICS and that the above account of how the program works might be of help if you wish to use some of the routines in programs of your own.

KEYMATICS

01 I AM
 02 I AM A
 03 I AM IN
 04 I AM AT
 05 I AM ON
 06 I AM BY
 07 I AM WITH
 08 I AM AGAIN
 09 I AM
 10 I AM
 11 I AM
 12 I AM
 13 I AM
 14 I AM
 15 I AM
 16 I AM
 17 I AM
 18 I AM
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 21 I AM
 22 I AM
 23 I AM
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 99 I AM
 100 I AM



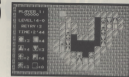
CULTIVATION & CHROMATICS

Kin-fall, have a habit of producing arcade-style puzzle games with above average graphics, great sound and a generous helping to the playability department. The classicists of the disk-based double from the German programmers should therefore come as little surprise.

CULTIVATION is a variation on the Russian theme, a game in which the player is required to remove symbolically painted blocks from a matrix of ever-more-challenging screens. What you must do is push two or more identically

marked blocks together by dragging them into a suitable location with the joystick pointer, so that they explode and disappear. To advance onto a higher level you must clear the entire screen before the timer reaches zero. It seems easy at first but later you discover that a sound strategy is essential. The blocks can slide sideways and drop downwards but can't be moved back up again, so you've got to think carefully to avoid a no-win situation.

Both voice and graphics in **Cultivation** are excellent. The game ticks off with an excellent piece of music and at certain points in the game there are short bursts of digitized speech, just like it's done on the MSX tape pack. The screens are displayed in the highest resolution possible, so there's not a lot of colour but it does look very professional. In case



you get bored with the hard-disk screen supplied, the disk contains an editor so you can build your own.

Put the disk and you'll find **CHROMATICS**, a simplified version of the ever-popular Tetris. The idea is to arrange descending blocks so that they settle to form horizontal or vertical lines of identical colour - which duly disappear. The blocks are all the same shape but consist of three coloured segments, so a block drops towards base you can use the joystick to rearrange the positions of the segments to

your best advantage. The game starts off rather slowly but when you eventually make it to the higher levels there's less room to manoeuvre and more colours to organize. The graphics aren't bad though the music is probably better elsewhere.

Cultivation and **Chromatics** are two more high quality products from the disk. It seems to be based users were ever looking for an excuse to splash out on a disk drive, this great range of German imports is surely the answer to their problems.

The **CULTIVATION & CHROMATICS**
 Publisher: **Se-Soft/Excel**
 Price: **£1.99**
 Format: **Disk**
 Joystick: **Yes**
 Players: **1**
Reviewed by Paul Reed



As you might have expected of a game whose title ends with the letters 'is', **DREDIS** is not another variation on the Tetris theme. Personally I'd like to see a proper class of the original game but programmers seem more inclined to produce their 'alternative' rendition.

The main difference between **Dredis** and 'traditional' Tetris is the shape of the playing area. It takes the form of an inverted 'T' shaped well, consisting of a wide base and a narrower chute from which

the various geometric blocks appear. Unlike those stacking up at the bottom of the screen, the blocks flow either to the left or right and deposit at the far sides of the lower portion. When a block first appears you can determine to which direction it should travel, then as it heads for the chosen extreme you can adjust the vertical position and also rotate it by pressing the joystick trigger. The aim, of course, is to construct solid vertical lines which are automatically eliminated, so creating sufficient

DREDIS

space for subsequent blocks to be positioned. You're required to score a fixed number of lines on each level to advance onto the next. As you progress onto higher stages obstacles are placed in the way so it's harder to complete the necessary lines. Any misplaced blocks on either side eventually force gamblers to wedge the centre of the well - if a block should come to rest at the mid-point of the screen, it's all over.

The graphics are quite simple and, to be honest, could be much better. The blocks seem rather flimsy and the use of colour is somewhat conservative. The music isn't bad but becomes annoying after a while - unfortunately an option to have sound effects instead isn't documented. However there's no denying that **Dredis** is an addictive

game like all Tetris variants and it's nice to see a few play-it-trade also included.

Given the relatively high asking price, I think **Dredis** would be more widely marketed as one part of a double pack - in a similar manner to some of the other disks reviewed in this issue. If you're a Tetris addict who's played all the other games of this nature, it's bound to be a worthy while addition to your collection. If not, check out the **Path to Paradise** first as you may certainly find a superior version of Tetris there.

The **DREDIS**
 Publisher: **Se-Soft/Excel**
 Price: **£1.99**
 Format: **Disk**
 Joystick: **Yes**
 Players: **1/2**
Reviewed by Paul Reed

ZEBU LAND

Do you enjoy Ko-fi's brilliant "Nagus" puzzle? If so you'll be pleased to hear that Easel have imported another similarly addictive challenge from the German publishers.

The objective of **ZEBU LAND** couldn't be more straightforward. Zebu is a little man who lives in a various world of mazes. Zebu's world is divided into fifty separate screens and on each level your task is simply to guide him to an exit. It may sound ridiculously simple but the mazes aren't always quite as friendly as they seem. Bewitching doors can be tricky to negotiate, especially as

sometimes they're blocked by fixed or movable obstacles on the opposite side. Blocks of various shapes and sizes can be pushed around the maze into useful positions - often they provide the only means of escape. Sometimes Zebu is joined by one or more of his three brothers - at this point you can toggle between the different characters with a press of the joystick trigger. All roads do not incorporate safety lanes to complete the level. Unfortunately when hands don't always make light work! The puzzles are cleverly designed and it's wise to remember that everything has a purpose - the problem is finding out what.

The reason the whole experience is so addictive is that initially some of the mazes appear to be completely impossible - and it suddenly you discover the simple trick or sequence of actions that's



needed to solve them! While you're struggling through the maze, you're also got to keep a watchful eye on the timer - if it hits zero, one of your three lives is lost. Fortunately, since there's a possibility you could mismanage Zebu into a stalemate situation, the Optical key can be used to bring about a speedy death! A welcome feature is that every screen is password coded so once you've mastered a level you won't have to repeat it in future sessions.

The graphics aren't exactly stunning but they're not worse

than hundreds of other games I could mention! The overall game design shares several similarities with the equally pioneering Nagus, which I reviewed in issue 52. The loading screens are very nicely done and made on the title page is a bright and breezy composition, quite different to the norm.

Zebu Land gets my vote as the best non-violent entertainment package for 1985. The ingeniously simple theme, professional presentation and craftily designed puzzles can be laid into a perfect mixture.

Title: **ZEBU LAND**
 Publisher: **Ko-fi**
 Price: **£2.99**
 Format: **Disk**
 Players: **1**

Reviewed by Paul Rixon



TABOT & BROS

Another Ko-fi title which generated by Easel. Both games are multi-screen platform style adventures but that's where the similarity ends!

TABOT is a robot super-hero who's somehow managed to get himself trapped inside a speedy castle. In order to escape he's got to locate a series of keys from each of his fifty rooms, but the problem isn't quite that simple. To make things a little more tricky there are various spiders, gapping holes, spikes,

boobers and break-away blocks to contend with. Tabot can use his "vibratile" laser gun to smash through rocks and he can build laser bridges to traverse the dangerous springs. If it all seems too much to cope with, he can call a "dummy" to the rescue - with one key press Tabot is instantly transported to the dummy's side. Finding this, it's time to forget an obstacle!

Now for the bad news. This has to be Ko-fi's least playable game in class! The graphics are nowhere near the

standard set by other Ko-fi titles and worse is the fact that joystick response is quite clumsy. It's far too easy to unintentionally lose a life. I began to think I'd missed something obvious, but after studying the instructions several times over I eventually gave up in frustration and flipped over the disk. Fortunately, here was something in a different class.

Although it could be a useful pop-group, **BROT** is actually a very addictive clone of the arcade game Super Hero Brothers. Your task is to rescue your brother from imprisonment in a secret castle. An unusual option on the opening screen is a chance to select an alternative resolution. You can have a large full-screen playfield or a smaller but smoother display in the central picture frame 3 or 4 respectively. As you run and

jump additionally through the many screens you must watch out for the master and also keep an eye open for a range of goodies. By head-butting the castle walls you can sometimes pick up mushrooms, coins and ammunition to help you along the way. The graphics aren't stunning but they're adequate for the purpose and the way your character bounces across the platforms can be quite amusing. Sound is enhanced by stretches of digitised yells of appropriate moment. Overall, this is a thoroughly enjoyable game. **Adios** Tabot!

Title: **TABOT & BROS**
 Publisher: **Ko-fi/Easel**
 Price: **£3.99**
 Format: **Disk**
 Players: **1**

Reviewed by Paul Rixon

WHY OH WHY?

Why do we computer users generally have accounts of two hundred disks of which we use, at the most, five? If you're like me, you mailed the public-domain library of your e-mail group when you first joined. I know I obtained approximately 100 disks which I took home, tried once and never used again. Another member I know has corresponded with two out-of-town users and they are constantly swapping disks. Why? What is the sense of spending money for postage when you can get disks you never use from your own disks for free?

What am I going to do with all the documentation I printed out from those disks? I always picked up the useless disk at the club library, read back issues and dumped the disk out in my printer, then neatly bound them in folders. After that, I never used the disks again. They are now posing a fire hazard on my desk.

Why do the disks on public domain disks always print out in 40 columns? That has the effect of doubling the previously mentioned fire hazard.

Do you ever stop to think why you need an interface rather than a simple controlling cord to connect your system to the right bit computer? The machine designers of these things do this as they run install a second set of DIP switches. This is done so that the user won't be driving up the wall trying to reconfigure the two sets of switches. It's enough to make you take up collecting spoons as a hobby.

Why does the wonderful disk which you saw demonstrated at the computer store turn into something which is useful only as a counter after you pay \$29.95 for it? Does the exchange of cash trigger something which turns a disk into nondescriptness the instant you try to load it up at home? Can you think of any other reason I have \$1,149.88 worth of disks good for nothing better than contributing to the landfill problem in my area? This could be more wasteful than the most excessive virus.

Does sitting in front of a VDU for a couple of hours or more every day contribute to the hypertension of brain cells? What other reasons would cause otherwise rational human beings to play computer games for hours on end? I have one game where the outcome every time I play is that the evil Overlord of some stinking little planet I never heard of before strikes his atomic laser cannon up my ball sack. This happens every time I play the game, yet I always keep it up again. Until this started happening I had gone blissfully through life thinking that my Mamma hadn't raised me stupid kids. I guess I'll have to reconsider that as soon as I finish the game.

Using a window also leads you into doing things you wouldn't want to admit to. A \$329.25 phone bill can be difficult to explain to your spouse. It's had enough of you actually called and talked to an old drinking buddy by voice for four minutes. If you have to explain that you were downloading files, mirror wars can erupt. Particularly if they end up like the disks in a previous paragraph that no one there can find a use

Gordon F. Hooper asks the questions that sooner or later plague every Atari owner

for, aside from using them to start computers. I would have to be living in Stonehenge times before I'd ever want to start that many computers.

Machines have another danger for the ordinary user. This happens when you are on a long-distance BBS and the sync enters into that mode. This means that you and I can type back and forth to your favorite customer. The problem lies in the fact that I type at the rate of 3 1/2 words per minute. After we've been typing back and forth for half an hour, it suddenly occurs to me that I could have phoned him by voice and had the whole conversation in less than two minutes. I guess it's more fun to do it slow when it's costing you \$1.63 a minute!

Why do I always have to buy a computer when it's first introduced? I paid \$600 for my first Atari 500, it cost \$500 for my 1300X. I paid for in excess of \$1,000 for my ST. How do I get it to permeate into my brain that it's worth for a year and a half after a computer is introduced, it generally is selling for what is practically cheap change? Why do I always assume that the latest computer that Atari is selling will be the one that I need and I will never have to buy another one? My local computer salesman, who is working on commission, must think whatever elemental goals he worships when he sees my excited face walk on the door. He'd better pay to his machine spirits that I was offered to finance his retirement before I run out of coin of the realm. I know Atari will never run out of new computers.

Speaking of new computers, why are they always incompatible with the old ones? Each computer manufacturer has a line of machines which are compatible with other similar ones in the line. This only pertains until a new computer with ten times the memory and a far superior DOS is developed. Then it is mandatory that it be made incompatible with the earlier ones. This might contribute to higher gross profit returns for the manufacturer. In 4 I'm going to end up with an electronic junkyard in my computer room.

If and when I die, I'm going to ask in my will that my latest Atari computer be buried with me. This way I will have the means to reorganize all the designers, commissioned salesmen and useless public domain software authors that will be with me in the rather smelly of Hell. You don't want to think about what I will do with this information. But I just know I will have some positive of authority closer there.

THE ACCESSORY SHOP

ISSUE 54

BARGAIN SOFTWARE

We are still managing to uncover a few new items of software for your N/EE, so check all the new items this issue. Check the inside front cover and the following pages. Some items previously advertised are now sold out but there are still award processors for you to choose, from the most simple to the most complex, plenty of games and much serious software - the choice is yours. As always we are able to offer these items at considerably less than the recommended price so check through the Accessory Shop pages.

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ROM
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OUR PRICE £ 6.95

PROOFREADER

Owners of a word processor will be delighted with this, the long long spelling checker for the Amstrad/Apple cartridge! Proofreader may be loaded alongside a word processor to give you instant access to a dictionary of 30,000 words. If that is not enough you can add your own words as you go. Words are highlighted on screen for correction, unusual words can be searched and you can look up spellings.

DISK
ONLY

OUR PRICE £5.95

BASIC CARTRIDGE

Why would you want a Basic Cartridge when Basic is already built in to your machine? Well some programs, especially some early public domain programs, were not on the 51,511 but they will if you plug in the old version of Basic. Many users complain that having to boot in the old Basic from disk and, at this price, worth having just as a backup.

ROM
CARTRIDGE

OUR PRICE £3.95

HANGMAN

The original computer education game suitable for ages from 8 to adults. Three levels of play with 40 words to seek. You play against the computer by guessing the word the computer has chosen. Easy keyboard or joystick.

CASSETTE ONLY OUR PRICE JUST 99P!

HARDBALL

American League baseball as it's very best. A highly regarded game - check out the review in issue 40 (1983) for more information on the Am! Look over the players, double as the throw the ball to the waiting line of batter, catcher and umpire. In Hardball you can hit, run, catch, throw and also change the battery and do everything you can do in the real game. For one or two players.

ROM CARTRIDGE Normally £14.95
OUR PRICE £7.95

TAIL OF BETA LYRAE

One of our Am! software stars says "The ultimate 'horrible' alien war against graphics and music. The technology of a futuristically swirling alien war is up to you versus the Kling, Pico and the leader and his four followers. They have come out to enter the 'American Beauty' games." This is one of the best original 'science' right up there with the top arcade games of all time. Like your own, you can't even have an intergalactic treat!

CASSETTE ONLY OUR PRICE JUST 99P!

BALLBLAZER

Another from Cavellia, this top quality right versus game takes place in a galaxy across the galaxy. You are dropped into a Ballblazer world that exists that exists over the surface of the planet of 60 minutes per week. The object is simple, just capture your 'Plazoid' through your opponent's goal. This game demonstrates play with first game perfection for both players.

ROM CARTRIDGE Normally £14.95
OUR PRICE £6.95

STAR RAIDERS 2

The original Star Raiders is updated with better graphics and sound. Your job is to clear each sector while knowing that the enemy do and you are always in another part of the galaxy. It will take skill in doubling which sector to visit and you are often to clear a sector so will you have to have to defeat a planet and return later. A great follow up to an old time classic.

ROM CARTRIDGE Normally £14.95
OUR PRICE £6.95

SILENT BUTLER

The all round personal finance planner that keeps track of three bank accounts, calculates income tax, records you of birthdays, anniversary and important dates and generally keeps you up to date on your financial status.

DISK ONLY Originally £14.95
OUR PRICE £6.95

FIGHT NIGHT

BACK IN STOCK!

Fight Night brings you all the thrills of the boxing ring as you face five of the most feared fighters ever. In this separate facility you hold your own training session. The Boxing Combination first allows you and your opponent to create your own perfect boxer, while the mainline facility will take you into the ring to get your perfect boxer against the computer or another opponent. A 2 player.

ROM CARTRIDGE Normally £14.95
OUR PRICE £7.95

STRANGE ODYSSEY

In the galaxy's rim, there are some of the greatest to be discovered from a long and short story collection. Strange Odyssey - selected to bring you the best of science fiction - all the real and more amazing for you. Science fiction stories. You will be able to explore the world and return home! Program (available for a Strange Odyssey) World Atlas (available for a Strange Odyssey) for a Strange Odyssey.

DISK ONLY Original price £18.95
OUR PRICE £7.95

GALAXIAN

Another arcade conversion that retains all of the excitement of the original and still stands as one of the all time classics. This game from Cavellia is fun to remember and just all right. It's one or two players and it will be the best if it is remembered for a long time. Includes an own option for beginners.

ROM CARTRIDGE Normally £12.95
OUR PRICE £6.95

RESCUE ON FRACTALUS

Ask old hands what was one of the best games ever for the Atari and a good proportion of them will say Rescue on Fractalus. This game from Cavellia is an excellent example of computer games combining a space flight simulation with a rescue mission. Super, eye changing. A lot money as you fly through the asteroids to land on the planet and rescue stranded pilots.

ROM CARTRIDGE Normally £14.95
OUR PRICE £6.95

SUPER BREAKOUT

Breakout was the original simple yet totally addictive game and this enhanced version will provide you more challenge. In several variations on the front board you can play for one or two players up to 10 on the Atari! A classic that this game requires quite a challenge.

ROM CARTRIDGE Normally £9.95
OUR PRICE £3.95

LODE RUNNER

Another classic, perhaps the best of all platform games. You are a highly trained futuristic character that is every warrior. Your mission is to collect all 50 of the enemy's treasure chests to recover every last piece of gold. You are equipped with a laser drill that can drill and destroy, speed and agility. Lode Runner includes a unique extra that allows you to create your own levels.

ROM CARTRIDGE Normally £14.95
OUR PRICE £7.95

ONE ON ONE

This basketball with one of America's top players in this great game simulation which features realistic offensive and defensive moves, foul play, fast break, and other skills, come (almost) every and a shattering soundtrack. It's the game of basketball itself. Use or the records you for playing with your head as well as your hands.

ROM CARTRIDGE Normally £14.95
OUR PRICE £6.95

DESERT FALCON

A version of the classic Star Wars that takes you flying across the desert before you can fly over the mountains. In this desert world, you need to use your long range to destroy the landing fighters. The longer you are in the longer you proceed, the more difficult your mission becomes. If you destroy the fighters you get to play the longer round the more fighter planes. Four levels.

ROM CARTRIDGE Normally £14.95
OUR PRICE £7.95

ST FILE



NEW LYNX SOFTWARE

Nothing is as well suited to the ST file, but a large number of ST gamers also have Lynx machines to continue their addictive adventures (by the way, don't forget them, it's as though it might be of interest to report forthcoming software for the Lynx this time).

Start here is most impressive array of software lined up for 1992, some of which will have been released by the time you read this. There are over 30 new titles scheduled for release during the first six months of the year including popular catch-up games such as *TRON*, *CRICKETS*, *Y2K* and *ROCKERS*, *TRON2000* as well as conversions of many of the most popular ST games such as *LEMMINGS*, *SMELTER* (of the *SM&M*) and *THE 39 CLUES*. Other titles include *THE 39 CLUES* (a first spin-off board game for 1992 with the 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100), and yet a magnificent Olympic sport as support, *WORLD CLASS SOCCER* and more.

Some other titles include *GO!*, *THE MERRY MAZE*, a racing game in which you can control your own spaces, *1001 FT* (a *SM&M* CD-ROM) and several arcade style games such as *BAKERS*, *BOOM*, *WREX*, *TRON*, and *TRON2000*.

All in all 1992 looks like being an interesting year for Lynx gamers, provided that it actually releases all their stuff. How many times have you seen a new batch of imminent releases that were quite made of?

NEW BOOKS

Kenns have recently published two interesting guides for those interested in STP in the UK, respectively, *Building Publishing with Computers and Desktop Publishing with Fontworks*. These books each contain introductory notes to STP and the respective software, followed by several chapters which take you step by step through the stages of creating a publication document. Unlike many STP books these take you through the basic principles of page layout and design on their own, including some of the more obscure examples of STP work everywhere will not be repeated. The books retail at £14.95 (so you available now). In the event that you can't find copies at your local store, give Kenns a ring on 0176 844025.

GUIDING LIGHT CLOSED

There are new regulations governing the use of 0900 numbers intended to close down some of the excessive or money-grabbing services.

Unfortunately these regulations apply to all services and involve the massive financial cost which the *Guiding Light* could not afford to carry.

The *Guiding Light* Advisory Committee has had to close the file down. *Justice* will have some compensation for the specific, advertised *Justice* file (*Justice* will continue to exist) and a disappointing array of getting some form of *Justice* going again in 1992. In the meantime I am sure that as usual of the *Justice* and for your for the inevitable help they have given so many of us over the last couple of years and wish them all the best for the future.

ST SOFTWARE REVIEWED THIS ISSUE FROM
TOP TO BOTTOM: *MAGIC POCKETS*, *FYF FIGHTER*
AND *UTOPIA*

DESK TOP PUBLISHING

TIMEWORKS 2

Like many Atari users, my interest in desk top publishing (DTP) was originally aroused years ago by Interleaf's *Illustrator* (First Step program on the 8-bit machines, in fact my family still regularly use it, although it's really designed for just a small range of "desktop" DTP tasks). I've recently been looking for something a little more sophisticated though, and eventually this means an AT based package. GST's *Timeworks Publisher* is one of the most popular, so I was delighted to receive an invitation to GST's galaire (HQ in St. Ives so we use their brand new *Timeworks Publisher 2* demonstrated - and to reflect a review copy.

The package includes staff double ended disks plus a high quality 204 page ring bound manual. The first job is to take the program to your machine's configuration, after which you'll typically find it fits onto just two disks, one for program code and one for fonts. You'll also need a data disk to hold your documents.

Minimum hardware configuration is an ST/XT with 512K and one double ended floppy disk drive. However, 1000 memory and two drives is strongly recommended. Not even if it's just installation. 2MB makes life much easier, and adding a hard disk to this makes it better still. It will also run on a TT. Medium resolution colour displays are supported, but high-res monochrome is preferable. Printer drivers are supplied for Epson 512K pins and GQ laser printers, NEC 24 pins, Canon BJ 110, IBM/AT, HP LaserJet 3/7Plus. Atari users several fullfont drivers, and others compatible with these.

TIMEWORKS PUBLISHER 2

GST Software Products
\$129.95

Reviewed by
John S Davison

NEW FEATURES

Users of the original *Timeworks Publisher* should feel at home with this new version as it has the same look and feel plus a long list of new facilities and improvements. These include four additions of fonts, three additional text styles, importing of text and graphics from a wider range of external wordprocessor and page programs, automatic text flow of imported text files, use of irregular borders for flowing text round graphics, ability to name and export blocks of typed text, custom paper sizes up to 22.5 inches square, five alternative page numbering formats, improved left handling, multi page add/delete, automatic hard back-up of current document, manipulation of groups of text/graphics frames, simultaneous support of up to four different printers, ability to send pictures when draft printing documents, and customizable program defaults. There!

The main working screen displays a window containing the page you're working on, with windows provided for handling pages too big to fit into it. Across the top is the usual menu bar, and at top left is a four icon "toolbar" controlling the program's four main modes of operation - Frame, Paragraph, Text, and Insert modes. Below this is the "Browser" area with contents depending on the mode you're using, e.g. lists of text styles, picture files, drawing tools, etc. Finally, bottom left shows a page tree, indicating the number of the page currently displayed, and whether it's a left or right hand one.

A "master page" may be defined as a template for the overall style common to all pages in the document, e.g. to specify page numbers, footers, page numbering, and column guides. These guides divide each page into vertical columns into which "frames" containing your text and graphics can be laid. You can also define top, bottom, left, and right margin dimensions, distance between columns, page size, and horizontal and vertical page offset. Left and right hand master pages can be defined and the program abstracts them appropriately throughout your document. These definitions (plus additional items) can be saved on disk as a retrievable "style sheet", so you

can easily create other documents later using the same overall style.

PAGE LAYOUT

When starting to lay out the page the screen displays a representation of it. Much except for data from the master page. You can view this in a number of sizes, from twice normal size for accurate positioning of text, etc., down to two pages on the screen at once for viewing the overall layout of left/right page pairs. Vertical and horizontal rulers at the top and left side of the screen can be activated for accurate positioning.

The first layout task is to divide up the page into separate "frames", rectangular areas into which text or graphics may be placed. This is achieved either directly using the mouse or by keying in the frame's position and dimensions. Frames can overlap each other if required, and "handles" on each corner and edge permit you to easily resize or reposition frames on the page at any time. The frames can optionally be made to "snap" to the column guides defined earlier, making accurate alignment a simple task. The frames themselves are normally invisible on preview, but can be given status borders or even filled if required.

Frames may fill with text or graphics. Text may be input in several ways, the easiest being to key it directly into a selected frame. Text editing facilities are fully basic, so for large amounts of text you'll probably want to prepare it with a separate word processor then "import" it into *Timeworks*. This facility can read files in many different word processor formats including First Word Plus, Lotusword, MS Word 4.0, MS Works, Multimate, Word Perfect 4.0 and Wordstar/Wordstar 2000. Other word processors may be used provided they can output files in one of the above formats, or in ASCII (CA/RTT) or IBM Displaywrite RTT formats.

If there's too much input of text to fit into one frame it can be quickly "flowed" from one frame to another, even across page boundaries if necessary. You can also arrange for frame borders to "wrap" text, so it won't become obscured by re-positioning jawline frames etc. The



text just gets "followed" around the edges, and following text gets automatically repositioned as required. Clever!

KERNING

None of the more unusual features include the handling of discretionary hyphens; "non-breaking" spaces; and "kerning" — adjusting the spacing between adjacent pairs of letters to make them look nicer, especially useful with large headline fonts. You can also change the basic style of any part of the text, by highlighting it with the mouse then choosing from bold, underlined, italic, light, medium, bold, rounded, bold, underlined, white on black background, superscript, and subscript styles. You can also use combinations of these, e.g. bold italic, if required.

There's also a choice of fonts supplied in various sizes — Serif, Sans, Bookman, Au-

toris, Gray Lane, Capitals, Sage, Hierarchical, Diagonal, plus Zapf Dingbats for those odd little letters and symbols. These can be supplemented by additional GDS fonts available from ITD Masters and other sources.

Again, you can change a font by highlighting the text and choosing a new font and size.

It's tedious having to manually set the font/style for every block of text, so Timeworks provides a shortcut. Para-graph mode permits you to predefine a font, style, justification, hyphenation, indentation, word and letter spacing, margins, etc., for each different type of paragraph in your document, e.g. headline, subheading, bodytext. To use them, just click on a paragraph to highlight it, then click on the required paragraph type, and the text immediately reformats using the new specifications.

Frames may also be filled with graphics. Timeworks can import graphics files from most popular paint, drawing, and graphics programs including NeoChrome, Degas, IBM Images or software/vector drawings PC Paintbrush, Lotus products, and Deluxe Paint. File types supported include: BMP, P1/P2/P3, IMG, XEM, P11/P12, PCS, EPS, EPS; IFF; plus TIFF format.

If the picture looks wrong on the page you can zoom its frame or slide it around and Timeworks will automatically recast and reposition it, and also top and re-flow any adjacent text as necessary. It's now possible to draw an irregular shaped border around a picture for use as the outer boundary for a more professional look or for special effects. Further, you

can "crop" a picture by "rubber banding" a section of it with the mouse. Timeworks checks the non-selected part then recolors the remainder to fill the frame again. There's also a limited pixel editing capability for bit mapped pictures.

DRAWING TOOLS

You can also switch into Draw Mode to create graphics directly in a frame. Drawing tools available include straight line, polygon, rounded line, box, rounded box, ellipse, and circle. There's a choice of line thickness in broken or unbroken style, with or without arrows on either end. Rounded shapes can also be filled with one of many available fill patterns.

After creating your document you can print as many copies of any selected page or group of pages as you wish. It's also possible to print just the right hand or left hand pages, and to pause between sheets to facilitate page "duplexing" (printing consecutive pages on both sides of the paper). Reverse order printing and multiple copy rotation may also be specified. The output looks excellent even on lowly 8-pin printers, but you must use a screen viewer for best results.

The only problem I had was caused by insufficient memory on my IBM 5171, which caused Timeworks to start scaling the formatted lines to get different sizes, instead of loading the public resources. It gives NO warning of this — you only know it's happened when you see the poor quality. Luckily, screen loading output. Circumvention is to reformat and save each text entries as the AMSCN EPS file, releasing memory for the fonts you DO want. Alternatively, buy more memory — prices are very low at present!

Overall, I'm impressed with Timeworks Publisher 2. It's relatively easy to use, and its features should ensure it's capable of tackling virtually any DTP task, the home, school, club, or small business user class to know of it. There could include producing newsletters, catalogues, brochures, posters, signs, manuals, etc. It may not have every feature of more expensive DTP packages, but at its price it offers great value for money. So, if you're looking for a DTP package put this one on your shortlist.

FLIGHT SIMULATION

AH-73M THUNDERHAWK



In a white street I reviewed a helicopter simulator, and I was pleased to try this new offering from Core Design. Initially I thought it might be just a Coastship clone, as it shares many common features with that classic from Microsoft. However, I soon discovered it's pretty good in its own right.

It's supplied on two double-sided disks and runs on any 386s, but 1MB memory is recommended - presumably because of its elaborate use of sampled sound. The new machine runs a 1MB 503C.

Predictably, Thunderhawk is a flight combat simulator. The scenario casts you as a member of the crack US assault team known as MERLIN, with the job of being the only operational example of the AH-73M Thunderhawk, the latest thing in rotary wing technology. MERLIN's role is to defuse crises or actions anywhere in the world before they escalate into full-scale conflict.

The program starts with a highly cartoon style animated intro using sampled speech, which you'll probably never see and skip over on subsequent loadings. Then after some wiring sampled music accompanying the title screen you enter the "Comms Room". Here you can choose to use the "simulator" to learn how to fly Thunderhawk (see below, it's a flight simulator simulator), view your achievements to date, load/save details of previously completed missions, or enter the War Zones or Release Zones.

In the War Zones you choose your campaign from a selection covering Europe, South America, Central America, Middle East, SE Asia, and Alaska. Each campaign is subdivided into ten missions,

details of which are available in the briefing books from your commanding officer. Unfortunately, each time you die (i.e. frequently) you have to reload your saved position and repeat this briefing procedure before resuming the mission. Even using the skip facility provided it still takes far too long - it really needs a complete bypass option. And while I'm nitpicking here's another nig-

gle - the program won't use two disk drives, but annoyingly insists on swapping disks on one drive.

Next you have to arm the helicopter with appropriate weapons for the mission, either selecting them yourself or via the "Auto arm" option, which chooses them for you. There's a wide choice including rocketed and infra-red, radar, and laser guided missiles, various types of bombs, a runway cratering system, and a nuclear poisoning pack - enough to cope with virtually any situation. As you'd expect Thunderhawk has the latest in weapon delivery systems, and a night vision system for use on nocturnal missions.

Once in the cockpit you see the stars clear "through the windshield" 3D view, with important flight and weapon delivery data projected onto a Head Up Display. The outside view is handled well, with terrain depicting hills, rocks, trees, lakes, etc. appropriate to the campaign scenario. There are also bridges, airfields, factories, and other man-made structures, plus gasboths, submarines, and all manner of other military hardware - all of which explode and burn when hit by your considerable firepower. Below the windshield is an instrument panel, but it has no traditional flight instruments - only displays showing things such as range, weapons inventory, and damage assessment.

In returned view mode you can watch yourself flying, with the viewpoint set to any desired angle and distance. You can also view things from the target viewpoint, or even from the inside or bomb as it's launched towards its target. For me though, it's the enemy aircraft

encountered which provide the real excitement. These include Soviet model helicopter gunships and jet fighters, the animation of which is superb, being smooth, realistic, and often VERY fast! Good standing on your part results in their rapid departure northwards, trailing smoke and flames in spectacular manner. Some missions also have you encountering friendly Chinooks transport helicopters, and you can fly in formation with them, or track around them as you perform your aerial sheepherding role. Great fun!

Flight controls and weapon selection/ firing are all mouse controlled, and are operated with just one hand. It takes a little practice, but soon becomes second nature. It's just as well as you need a hand free to operate keys to release radar jamming chaff and flare devices when enemy missiles start coming at you. I did find control a little over-sensitive sometimes though, particularly when landing.

I like my flight simulators to be based on real life aircraft, so I was initially disappointed to find that Thunderhawk and many of its weapons systems are purely fictional. However, personal prejudice was soon left behind, as the program superbly captures the essence of high performance helicopter combat. As a flight simulator it's not as sophisticated as Coastship, but it's got the edge in terms of combat. It's also incredibly addictive - it took great effort to tear myself away to write this article! In fact, I'm going back to it right now!

- **GRAPHICS AND SOUND** - excellent graphics and good sound help make this one of the most exciting flight combat simulators currently available
- **GAMEPLAY** - very addictive, with enough scope and challenge to maintain interest
- **CONTROL** - it's simple to read for old flight combat fans!

AH-73M THUNDERHAWK

Core Design

£39.99

Reviewed by
John S Davison

UTOPIA

Utopia is a Sims City (Populous style) game. You must develop a colony into the perfect world. Unfortunately, there are always something your enemy does. The game is resource and area driven, enabling building, spying, financing, etc. Utopia is quite difficult to understand at first and it can be quite hard to work out what some of the icons mean, but there is a tutorial that gives you step-by-step instructions and explains all of the icons. It is worth doing this before trying one of the real scenarios.

You must build living quarters, life support facilities, mines and laboratories, and in certain military buildings and food resources and clinics of other structures to help your people not only survive, but enjoy life as well. You must assign people first to building and then to working in the completed buildings.

To help you there are advisors: a senior psychiatrist who deals with crime and morale; a civil engineer who lists all your buildings; a supreme commander for the military side of things; the head of research who will report on your latest inventions and ask for money all the time! There is also a financial consultant who will tell you where all your money is going (it's always being spent on something, how little of it there is and what your income is left with). And finally there is the colony administrator who reports on energy and food resources, how much

was produced and used in the previous month.

The aliens come in many different shapes and sizes, varying in each of the ten scenarios. The only way to get information on them and their city is through spying, which is expensive! No building means no information whatsoever. Getting up to 4,999 G\$ (the local currency) to run spins only gets you low level surveillance, 5,000 to 10,000 G\$ will equip you with normal intelligence activity and fairly good information. If you are really adventurous (or just plain rich) then 20,000 G\$ plus will ensure that there will be special operators in use, giving reliable and detailed information on a regular basis. You can scroll through the graphically presented reports to decide on your next plan of action.

Each race of aliens has different equipment and methods of attack and defense. Some aliens have a mixture of both air and ground forces, but are fairly weak. Others only have ground forces but they are incredibly strong. There are even some more exotic ground and air forces available to refer. To defend against aliens you use missile launchers or laser towers, which you build around your city. The lasers are fired automatically (you may aim them if you wish) but you have to launch the missiles manually; once launched they will lock on to an enemy (either ground or air) and destroy them. Military yards produce tanks and ships with which to attack the enemy city.

Tank and aircraft movement is controlled by placing markers on the overhead map then directing the vehicles to the markers. It can get very frustrating moving markers around in the middle of battles as it takes a fairly long time, and usually by the time your tank has reached the marker the enemy vehicle has moved and you need to place another marker elsewhere. Markers placed on buildings make the tank patrol around the building which keeps it safer than if the tank was



stationary on one side of the building.

For the first few years you get grants from Earth, but then it is up to you to raise your own money. You do this mainly by trade, selling your own goods and also helping those other people, keeping the goods and selling them later for a profit. There is also income from tax, but you have to be careful not to put the tax too high or your colonists will begin complaining.

If you fund your research and build enough laboratories then your scientists will invent things for you, beginning with compressed tank tanks and space mines, converters, working their way up to nuclear transmitters, IEDs, mobile launchers, laser tanks and laser mines, etc. You can choose to give your scientists either a civilian or military grant but remember to fund them regularly as they use money at VERY fast.

A very detailed and varied game, involving between developing your colony, fighting all aliens, and trying to achieve the ultimate objective of making your people happy! When the quality of life reaches 80% then you are awarded a medal and are probably ready to try the next of the 10 scenarios.

■ **GRAPHIC SOUND** - Excellent graphics. Good music with a choice of 4 different soundtracks, or you can have FX which are of equally good quality.

■ **CARESPY** - Very good and fairly addictive. A well designed resource interface makes it very easy to operate.

■ **VERSATILE** - A brilliant game, if you are a Sims city or Populous fan it is definitely worth trying.



Title: **UTOPIA**
 Publisher: **Gremlin**
 Price: **£29.99**
 Reviewer: **Sam O'Hare**

PD Paul Rixon's WORLD

Disappointed that Neochrome has been withdrawn? Well, now there's an alternative

In their recent interviews advertising Atari have been keen to emphasise the creativity applications of ST computing. With the rising popularity of dedicated games consoles and the undeniable success of that machine from Atari's long-time rival, it's hardly surprising that Atari have sought a new marketing angle (though perhaps unaware that they've taken any notice at all).

The pre-Christmas ad's drew attention to the educational, musical and graphical capabilities of ST workstations - computers that can do things, not play things! Ironically the campaign coincided with Atari's decision to crack down on libraries who were stocking certain programs they thought were PD, but were incidentally not. The result was that some creativity applications could no longer be obtained! One of the affected programs was Neochrome, one of our long established 'standards' in the world of ST art. It would seem that the earliest version of Neochrome is officially classified Public Domain, but the later releases are not. The good news is that a new art package was recently added to the Page 8 Library. Time to check it out!

STEP FORWARD RENOIR!

The disk is appropriately named **ARTIST'S TOOLBOX** and as well as the creative programs there are some bonus files too. For starters there's a demo of



XS FX/D'ARTISTE two excellent drawing programs in one

Electronic Arts' **DELUXE PAINT** version 2 is now commercially available. All the basic drawing functions appear to work and although you can't save any pictures, the demo provides an ideal opportunity to 'try before you buy'. However, before you empty your wallet on a full-priced package, be sure to check out the main contents of this disk. **XS FX/D'ARTISTE** is a drawing program with a plethora of useful features. It will run on all STs with a minimum one megabyte RAM and great news for STE owners is that it's been designed to utilize the additional colours available - a total of 4096 in all. If you have GEMM, you can optionally install this with **DOUBTEX** and add text to your pictures using the fonts supplied on disk.

XS FX/D'ARTISTE is divided into two logical components, each connected by a common menu system - hence the strange title. The **D'ARTISTE** part provides the basic painting functions to create your creativity whilst **XS FX** is a collection of special effects that you can apply to existing pictures. The artist originally intended to write a tool that would save pictures for inclusion in his own programs and the file options reflect this key functionality. As well as the ability to load and save graphics in Neochrome or Degas format, the program

has facilities to clip sections of a picture and save them to disk as a 'Pat' or a 'Sprite'. All you do to mark out the required area, then send pictures can be imported back into other pictures, the difference being that Sprites have an associated mask file that prevents the background detail being obliterated. The documentation file explains everything you need to know and includes an example section of code which GFA Basic programmers can use to load clipped artwork back into their own programs.

Although most of D'Artiste's functions are invoked by pointing at icons, several keys must be used in conjunction with selected items.

The space bar is generally used to display a picture from which you can choose the required colour. Shift enables you to alternate the last action you took and Return is used to toggle certain features. The M key takes you into multi-coloured drawing modes whilst the number keys perform a zoom function (the range of the tools available - when drawing freehand for example, they change the size of the 'brush'). For detailed adjustments to the image you can switch into Paul Maguire's mode. As you'd expect there are tools to draw lines (either on-off or intermittently), fill areas with blocks of colour, draw filled or outline boxes, create

circles and ellipses, and splinter the screen with an air-brush effect. Less common utilities enable you to plot Bezier Curves and advance sprites sets.

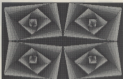
Depending on the memory configuration of your machine, you're allowed either two or five simultaneous buffers for work areas in which to create your artistic fantasies. Some of the options on the **KEY PA** menu therefore allow you to switch between buffers and copy pictures from one buffer to another. With a swift click you can flip the current picture about its horizontal or vertical axis. With similar ease you can mess around with the size of the image - it can be halved or doubled along both or other axes. The luminosity of a picture can be modified globally by adding or subtracting measures of the red, green and blue colour components. If you want to produce some really strange pictures, check out the unique range of special effects: the cosmogonies of Mirage, Crystalline, Mosaic, . . .

Scale, Freeze Up and Smear almost speak for themselves. For a finishing touch you can animate your masterpiece by cycling through a specified range of colours or using limited page flipping techniques. Ignoring all the non-essential bells and whistles, the question is whether or not *Colourspace* is an adequate alternative to *NewsHour 3.0*. A quick comparison provides the answer - yes, although it may be argued that *NewsHour* is a little easier to use, you will soon become accustomed to the *D'Artagnan* interface. *Colourspace* seems to offer the average user all the dazzling tools he's now likely to need, not to mention lots of others he probably hasn't thought of.

If outside sales isn't something you write in a prominent place on your CV, it's useful to know that the public domain is chock full of ready-made pictures which you can modify, copy, use to provide inspiration or simply look at. There are far too many disks to mention here and you're advised to consult the library catalogues for the relevant distributors. The subjects range from wild flowers, animals and cars to set 8 and pin-up girls. Take your pick!

THE LIGHT SYNTH

All this creative activity may seem rather an unnecessary exercise, so why not turn down the lights, turn up the music and relax. There for a reason of **COLOURSPACE**, Jeff Miner's famous light synth started life as *Psychotopia* on the CD4 and was then enhanced and released as *Colourspace* on the 8-bit Atari. The SE version has been further developed into a package called *Trips-a-Tron* and Jeff has devised the ideal advertisement for this product - by re-



creating *Colourspace* on Shareware. Although a small amount of documentation is included, if you officially register with Linemart for the affordable sum of five pounds they'll provide you with a proper manual and a wallet to keep it safe. Naturally Linemart hope you'll enjoy *Colourspace* so much you'll decide to splash out £28 on *Trips-a-Tron*!

Incidentally, the definition of a light synthesizer is that it's an instrument which produces dynamic patterns and colour sequences under the control of the operator. It's generally used with musical accompaniment. The basic instructions are pretty straightforward: 'The first thing you're asked to do is make a cup of tea. I guess *Colourspace* probably do but it does specify tea in the documentation! The next step is to set up your favourite music in the background, and turn down the lighting. Next up *Colourspace*, pick up the mouse and wiggle it around on your desk. Watch what happens, wiggle a some more, and don't forget to sip the tea before it gets cold!

Colourspace is all about patterns and colours. You can pose various keys for different effects - such as changing the symmetry or pattern shapes. There are twenty preset modes available when you load up the system, but you can easily change them. You can design your own patterns shapes, starfield effects and palette selections and assign them to preset 'slots'. You can record mouse movements and play them back later. There are many other features which aren't mentioned in the brief notes provided so the best strategy is to experiment - just press all the keys and see what happens! Reviewing *Colourspace* in

COLOURSPACE

Jeff Miner's totally unique creation that has yet to be copied - now available on Shareware

no way back - it's a program that you experience rather than talk about! You'll either love it or loathe it. J.M. is to be congratulated on his performance in Shareware marketing, an exercise he says has proved very successful. Keep us coming Jeff!

CAT 'N' MOUSE

Now for something that's a bit different - a disk that's completely useless! Well, not exactly. **TOM & JERRY** is a brilliant animated sequence quite unlike those you may have seen before. All you have to do is sit back and watch over ninety seconds of cartoon antics with the famous duo up to their usual violent antics. The superbly animated graphics are accompanied by lots of digitized music and speech and the whole thing fits together into a short story, just like a TV cartoon. The quality is incredible. The program was apparently written in STOS, though you probably won't believe it's true when you see the demo!

SO ... TILL NEXT TIME

Well, that's all folks (sorry, it had to be said). Next issue's topic has yet to be decided so if you have any comments or thoughts on ED matters, why not drop me a line at the Page 8 address. Don't miss that Tom and Jerry demo, it's really good!

HOW TO GET THEM

All of the disks featured in *ED World* are available from the PAGE 8 ST library. Each has a unique reference code which you should use when ordering or making enquiries. Please contact PAGE 8 if you don't have a copy of their *Accessory Shop* bulletin and check the system requirements for each disk. The PAGE 8 CD-ROM 0066 containing a full list of disk names and contents is available from the library, priced at £1. The disks referred to in this article are:

02947 COLOURSPACE
02922 TOM & JERRY
02926 ARTIST'S TOOLBOX

Prices for standard disks are £2.99 each or £2.50 each for 60% or more.
Write to PAGE 8, P.O. Box 84, Bicester, OX11 0BA
Telephone 0783 212828 or FAX 0783 243283 with credit card details

RUGBY

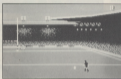
THE WORLD CUP

Now here is a thing, only three months after the event, the game! It is a fictionalized rendering of sports simulations to give a total experience of the game in quarters, but following the first of Rugby that was served up in the Autumn with all the associated fever of England to the final most people must have some idea. Nevertheless it seems that EA Sports in their attempt to produce a simulation have managed to miss some of the game's finer points, such as the difference between a maul and a scrum.

I shall expand on these little anomalies later but, as an introduction, let it suffice to say that Rugby is a game of hand and football in which one team attempts to progress the ball up a field of play while the other side tries to limit or snuff the carrier. It was once taught in many secondary schools and the Welsh were meant to be very good at it.

The game takes most of these concepts on board and even includes a scannable booklet explaining the basic tenets of the game. The instructions attempt to point out that there is a definite hierarchy in which some teams, namely the Home countries, New Zealand, Australia and France are meant to be better than every one else, in some or one field this is Widespread Karma, though. The game is packaged very attractively in a multi-colored box and the accompanying disk is packed with what amounts to a very good game.

Some long time readers may well remember the Advanced Rugby League simulator and be worried that similar problems will arise but it seems me to say this is not the case. This game is very similar to Kick Off in style, with a little grid to allow viewing of the player's placements on the pitch and the option to cycle control to various defences. It is a game that is extremely tough on pop-



take strain if necessitates a great deal of wrist wiggling to enable such tactics as scrums and line-outs to take place.

Basically the team who can juggle the ball best will gain possession of the ball.

Neither exactly the individual teams seem to have been programmed with a base strength in scrumming and it seemed that when using Scotland against Japan a great deal less effort was needed to overcome their pack than was necessary for the pack to win than when playing Australia. Indeed with a computer controlled Australia the scrum became a painless exercise that was a fore-gone loss. This is where the game fell down slightly, since the computer tactics did not reflect actuality. The machine had the sense to realize that any form of tackle reverted to the set scrum, hence it was most rewarding for the attacker to foot an up and under, set up a scrum and let the scrum half repeat this trick on a win. This tactic meant that the opposition never obtained the chance of offensive play and severely limited the 'soft passing team' advantages.

This major gamble aside, the graphics and effects are most pleasing and add to a very strong realisation of the game. The players tramp on and off the field in an ordered manner and even wear their proper costumes, in fact I was so impressed with the authenticity of the teams that I was most disappointed that the All Blacks did not perform their Haka dance to start! The action is very smooth and, as stated earlier, is comparable to the best parts of the Kick Off soccer game. It seemed sad that some personification of the players had not been managed, since their numbers are shown fairly well, and thus any potential identifi-

cations has to be assumed rather than titular.

All the competing nations seem to have been entered in to the game which allows either for world cup replays or for one-off "practice" matches. There is also the facility for players to take on country rivals and play the game head to head thus making it an interesting project for those clubs which found Kick Off leagues so uninteresting. I was disappointed that there were no stat functions for a series, thereby allowing the player to see who kicked most penalties and scored most points etc. but again this is a minor grievance.

The one thing a player must be equipped with for this game is a strong wrist and a very robust joystick. Not since the Duke Theopompus (or rather days have I had to juggle so hard and so fast that my fingers blistered). Overall this is a game that presents a challenge to the individual, both mental and physical, aside from one or two books the game is well represented and at least in the early stages allows for some measure of success against the NT. I actually got Scotland to the quarter finals and the distance to the Scots.

If you are an ardent sports fan this is well worth investigating especially if you have a cast iron joystick.

- **GAMEPLAY** - Fast and furious, good responses from the stick but the free-drag is slow and the wrist, sometimes frustrating.
- **NIGHT AND SOUND** - Looking and spot-effects are strong the graphics large and smooth, overlooking a sports arena needs.
- **OVERALL** - Look this over, not a bad game at all.



Title: RUGBY: THE WORLD CUP
Publisher: Demark
Price: \$25.99
Reviewer: Damon Howarth

FOUR TIMES THE



The Fun School 2 and 3 series of educational programs are classics of their type and have now sold a staggering 300,000 copies in total. They've now been joined by Fun School 4, which like the previous releases consists of three separate packages, each one aimed at a different age group. These are the Under Six, 5-7 year olds, and 7-11 year olds. As before each package contains several different programs, each intended to cover a particular set of skills and to work most effectively with the National Curriculum in mind.

Each package contains one double-sided disk, but a single-sided version is available direct from Europe if required. The programs run on any IBM PC or compatible colour. The accompanying instruction booklet is well presented, although it proved less than helpful in some areas. This booklet also covers a little story around the 'theme character', which links to the program's activities - a great idea as it gives added 'purpose' to the exercises. A special parents/teachers section describes each program's aims, and how it relates to the National Curriculum.

As with previous releases all the program aims are written in ITDG and exhibit the bold, colourful graphics we've come to expect from the Fun School series. They're easy to operate too, most using just the Spacebar and letters key or occasionally the mouse and/or cursor keys. Sound is also well handled, with multichannel music and effects used tastefully and with considerable restraint. In each case the disk manuals into an

amazingly animated startup screen which leads into an attractive graphical menu. There are further moving screens when changing difficulty levels or quitting a program, all helping give the programs a slick, professional presentation. Let's take a detailed look at each of the packages.

UNDER 5'S

This one covers basic keyboard skills, simple reading vocabulary, basic numerical skills experimentation with shapes and colours and even some musical activities. It uses Teddy in the theme character as in Fun School 2 and 3 with 'Teddy's Busy Day' as the scenario for the story.

ADDITION - Teddy's at his nursery school. Teacher shows pictures of objects on the board, and at Level 1 you have to help Teddy count them. At Level 2 the objects are split into two groups with numerals displayed against them, which have to be added together. Level 3 is similar, but uses only numerals. Each correct answer allows one of the class out into the playground, a wrong one triggers a prompt for a bigger or smaller value answer, as appropriate.

TEDDY PAINT - after playtime Teacher wants the boys to do some painting. This program lets you paint on the screen with the mouse, using brushes of various shapes and sizes and in a variety of colours. You can also place freely painted objects in your picture using the themes of beach, country, or playground, or even use them as a 'brush' and paint copies of the object of your picture. The speed this works at is impressive. Colours can be changed manually or automatically rotated as you draw, quickly producing different col-

oured object images. Pictures can be saved and reloaded to/from disk, and there's even a screen print facility, although I couldn't get this to work on my Blue BC 18. Unfortunately this program isn't very intuitive, as functions are chosen by key depression - not from a menu.

FUN TRAIN - after lunch Teddy's mum takes him to the fun fair, where he rides on the Fun Train. This pulls a carriage with a picture on its side, and each time it appears it has a different picture. You have to match the picture with another displayed on the screen. Level 2 replaces some of the pictures with words, while at Level 3 a picture has to be matched with its corresponding word.

TEDDY'S HOUSE - when Teddy and his mum get home they find the house painters have arrived. They're forgotten which colours to use, so you have to help them. Level 1 asks you to choose a colour for a particular part of the house. Level 2 asks what colour a particular part has already been painted; and Level 3 asks you to paint a given part of the house a particular colour. When complete the painters drive away to their van - sometimes with an unexpectedly amusing result.

TEDDY'S KARAOKE - later on Teddy goes to his friend's birthday party, where he helps operate the karaoke machine. Select a melody shape and the machine plays it accompanied by flashing disco lights. It also displays the words, complete with little ball bouncing along over them to help you sing along to them. At Level 2 you control the playback of each song by tapping out its rhythm on the Spacebar. At Level 3 the music plays normally, but stops at certain words and waits for you to key in its initial letter.

TEDDY'S BOOKS - it's bedtime, and Teddy has several friends staying with him. His dad is reading bedtime stories from a book taken from Teddy's bookshelf, leaving a gap where it came from. The books on the shelf are numbered, and you have to indicate which one is missing by pressing the appropriate numeric key. Level 2 is similar, except the books aren't in numerical order.

E FUN?

JOHN S. DAVISON PLAYS AROUND WITH THE FOLKS IN FUN SCHOOL 4

On Levels 3 and 4 there are several books missing, and you have to guess which one's currently being read. If wrong, you're prompted to try a bigger or smaller number as appropriate. Each correct answer causes one of the letters to fall asleep, the level ending when all are asleep.

Summary—a delightful collection of programs which can't fail to captivate its intended audience. However, completing certain higher levels might be quite challenging for some young children, although with adequate supervision this shouldn't be too much of a problem.

5 TO 7 YEAR OLDS

This package helps children learn about the alphabet, develop an understanding of alphabetic and numeric sequences, learn about money, try out their arithmetic skills, improve their vocabulary, and develop keyboard skills. (These characters in Freddy Frog from Fun School 2 and 3 and the story scenario in Freddy Frog's Busy Week.

LIBRARY—on Monday Freddy goes to the library to change his library book, and ends up sorting books into alphabetical order—with your help. Various levels have you sorting books based on the initial letter of their title, on one whole word, on the whole title, and on author's name. Book titles and authors' names can be randomized if required. This program exercises a skill that's often



ignored, and again can be challenging at higher levels.

BASKETBALL—Tuesday sees Freddy in the Squares Basketball team. You have to help him score points by defusing the missing item from a sequence of numbers or letters displayed on cards held up by the spectators. A right answer helps Freddy shoot the ball into the basket, while a wrong one causes him to take the shot and a hit to be displayed. There are four levels of increasing difficulty, and again at higher levels the problems can be quite taxing for younger children.

SHOPKEEPER—on Wednesday Freddy goes shopping at the supermarket, and you have to help him. In Level 1 you have to pick out a coin which will buy a certain item displayed in the window. In Level 2 you may have to select more than one coin to pay for an item. In higher levels Freddy finds himself standing in for the shopkeeper, and needs help working out how much each customer has spent and their correct change. Coin-

tokens buy up to three items and pay with a handful of coins, so it can be quite difficult to calculate the change required. Change has to be given using the minimum number of coins, although the instructions don't tell you this.

LOG CABIN

—on Thursday Freddy's wife drags him off to finish the work on their holiday log cabin. You have to help Freddy fit logs into spaces in the wall to complete it. Each space contains an arithmetic problem, and you have to find the log associated with the matching answer. I'll all the spaces and Mrs. Frog lives

that Squidly and Froggie junior join Freddy in a celebratory dance. Again there are four levels of increasing difficulty, covering addition, subtraction, multiplication and division problems.

OPPOSITE—Friday sees the Frog family visiting a fly pond for a water. Unfortunately the pond's owner appears and demands Freddy answers questions on "opposites" before his wife is allowed to use the diving board. You have to make Freddy jump into the fly pond displaying the correct answer using the cursor keys. There are six difficulty levels, the higher ones involving multiple answers so that Freddy's wife AND her friends can go diving. Their antics will have the kids rolling around with laughter.

TYPING—Did you know that the National Curriculum suggests that by the age of seven children should be able to perform elementary computer-based tasks including simple word processing?

CONTINUED

EDUCATION

This means acquiring keyboard skills along the way, hence the need for program aids like this one. Freddy's final task is to avoid being caught by a rather strange looking creature - by correctly completing his typing exercise! You have to operate the keyboard for him through five difficulty levels, ranging from expository poems and single letters through to entering complete sentences displayed on the screen. Correct entries keep Freddy well clear of those snapping jaws!

Summary - some problems are quite taxing, e.g. arithmetic requiring the 12 times table, and 'opposites' requiring a grasp of quite wide-ranging concepts, although the target age range is 5-7 years. In practice it's probably broader than this, possibly up to 9 years. It's a nice fit for with the the kids thought

7 TO 11 YEAR OLDS

Here's another six programs, including topics of maths, geography, history, and general knowledge. Their character is Agent Q for Spymaster the Spy in his travels, who seems to have replaced Robbie the Robot from the previous Fun School programs for this age group. Hisy avatars is called 'Mr Tinkly Messer', which involves Spenny following the trail of a double agent who's stolen the ancient codes of King Harlan and some important documents. To make progress he has to answer questions - with your help, of course!

PROPORTIONS - this contains three separate tests on proportions, using various quantities of objects from a total of 15, 35, and 50. Answers may be in fractional, decimal, or percentage terms. Successful completion results in a SPYIT message being revealed.

SPY QUIZ - Spenny has to collect another secret message from a house surrounded by a high wall. To scale the wall he has to answer general knowledge questions on English, maths, and science, some of which are quite difficult even for adults! Each correct answer allows him to climb higher, but a wrong answer causes a guard to drop a plant pot on his head which hurls him back to the bottom again. Spenny has to climb the wall

through four levels of increasing difficulty before finally receiving the secret message.

EXCHANGE RATES - the real world hasn't been around, and he needs to buy equipment at the airport before departing. To get it he has to answer questions on currency exchange rates between Pounds, Francs, Deutschmarks, Pesetas, and Lira, and convert money's worth into money for buying equipment. Three levels cover various types of conversions, the higher ones involving more taxing rates to different currencies. This is quite difficult, so you're allowed to use an onscreen calculator up to the times to help you. Another secret message is revealed when you've completed all levels.

TIMETABLE - Spenny asks you questions about flight departures, destinations, and arrivals, answered by consulting the airport's flight timetable. There are four levels, the higher of which have you calculating arrival times based on departure times plus flight time, and departure times from scheduled times plus time ahead of or behind schedule. Completing a level triggers an amusing animated sequence showing Spenny boarding his plane and departing.

SPY TRAVELS - my favourite program, in which you help Spenny navigate to secret destinations. His levels include steering planes, a boat, hot air balloons, helicopters, and submarines across a world map via various oceans, countries, cities, rivers, and other important places in response to messages flashed to you. None of the places are marked or named on the map, so if you don't know where they are you have to find out by experimentation. Wrong answers result in directional clues which you use to locate the required destination.

DESERT DATES - Spenny has to answer questions about famous historical events, by striking appropriately dated tokens in the magical Pyramids of Heliopolis with a large mallet! A wrong answer causes the mallet to break, and you only have five mallets. A correct answer causes the brick to move aside revealing a treasure. Get Spenny through four levels and he'll find the riches of King Harlan and finally complete his mission. Four levels require increasingly accurate answers, in centuries, decades, and finally the exact year an event occurred.

Summary - another great collection of programs to challenge young minds - or even adult minds in some topics if by only disappointment is that the secret messages collected along the way aren't actually used for anything, they're there to support the written scenario rather than the action in the programs.

OVERALL CONCLUSIONS

There's much to praise and little to criticise in these packages. Minor niggles include inconsistency in naming between difficulty levels - some programs do it automatically, while others need manual action. Also, the controls for some programs aren't as simple as they could be - Tinkly's trail being the worst offender. In situations for some programs could be clearer too, Tinkly's trail again needing attention.

The problems presented in Fun School 4 are noticeably more taxing than in the earlier packages. I expect this is intentional, probably in response to feedback from teachers and parents asking for something more challenging. It's no bad thing, except few older kids may need additional help and supervision. However, the programs do usually provide excellent prompts, hints, clues, etc., on receiving wrong answers, and most provide the answers after several wrong attempts.

The programs exhibit the same superb quality as their predecessors, so their success is assured. They're easy to use, have excellent graphics and audio** vs. use both internal and sampled sounds effectively (not sparingly), and cover relevant educational topics. But above all they're ENTERTAINING and great FUN to use, so children will really enjoy using them. If you're shopping for educational software, do your kids a big favour and buy Fun School 4, and don't be surprised if they won't stop using them!

FUN SCHOOL 4

Europress Software

\$24.99 each

Reviewed by John S Davison

ROBOZONE

ImageWorks have produced an interesting piece of science fiction gaming loot. They have taken the starting location in New York in the year 2067 and portrayed yet another doomed version of the Cyberpunk age. Man, it amazes, has managed to live up to all of Ciriopescu's dire warnings and has used up all that Mother Nature has to give and polluted Her unto near death. Therefore the government started a megalomaniacal evacuation which left a great deal of the population scratching about, trying to make a living on the planet. In order to maintain control they left behind a crew of police keeping robots who they named *Wobblers*. It was these machine's duty to maintain peace and good order.

Billy is said not control the violent side of the human without looting, the prime directive, as beloved of Aesop, and thus started the heady road-to-ruination. Then just as the robot nation seemed to be at an all time low new alien creature robots came to delight whatever was left of the Earth's resources and so upset the Earth robots that a war ensued. The player's role is that of the last *Wobbler*, in some state of extreme disrepair trying to save the world.

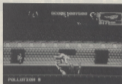
The game starts with a strong soundtrack ruckus the machine and some quite effective graphics showing the machine that it is to be controlled. It bears an uncanny resemblance to the regular police robot from *Mega Cop*, but having much feelings of playfulness aside I guess

of the joystick for button and entered into the second disk of game. Herbie has a very interesting quirk, the game comes with an intro disk that depicts the whole of the story, and then requests the single sided disk be inserted for the game. If you have only got a single sided drive however, beware that it may well be that you cannot play this game to the full, if at all! There is a note in the instructions for such people that they will need to exchange a coupon for another disk to allow access to other levels.

The opening level represents the under ground of New York both train style and sewer style, and has the robot climbing in a descriptive way looking for last bits of equipment in a large scale platform game. The graphic representation of the area and the various monsters are an improvement of the better *Playground* games and had a great deal to the atmosphere of the product. It seems that it is the aim of the player to leave this pit by killing anyone or anything that crosses its path at the same time equipping itself with some more useful hardware. This level takes a great deal of mastering as well as the problems to be surmounted are great and only definable with the pen the robot carries. Should you fight your way out then the second stage actually makes the game feel even more like a good story.

Once upon the streets of New York the Robot needs to find a communication device to allow it to contact the creator of the machines and thus allow a self and general 24-hour radio service to take place. The level also allows the robot to obtain more and better weapons.

The screen is a rather fitting 3D scrolling display of New York and allows for an strong interactive search game. This level almost marries of the old style adventures. This is not in the truest structure of the 3 levels, if only because it allows for a little more empathy with the machine and presents a reason for playing the game. Once the professor has



been found that easy at all! He may well roll all the dice needed to enter the third level and so it is with a more useful machine the player enters into the showdown.

This final part is where both machine sets out to deliver the unenvied human world from the unpleasant politicking Scavengers and their Puritan Guardians. By now the Robot is faster, bigger, and stronger and Herbie is assumed to cross some of the lower barriers in his way and perhaps on another platform style disk and secure trek. This unit is less effective in some ways than the previous two,

although it is in essence far more a large shoot 'em up allowing for more accurate shooting and less thinking about your actions. In essence the robot is assisted by many help versus scavengers and is attempting to reach the main creature and then destroy it with the extremely potent hardware available on its way. Billy is more mental than as I did not manage to penetrate the depths of the Guardian's lair and thus I cannot comment further. My only thought was that if it was tougher than the bottom who kept wasting my robot then the Earth was going to be messy, messy times!

■ **GRAPHICS & SOUND** - This jolt like is good *Playground* game, graphics with loud sounds, with the effect of looting.

■ **GAMEPLAY** - Entertaining but highly frustrating, good wording and joystick reaction though.

■ **HERBIE** - A reasonable character as the main choice/aid although I was not totally restricted it provided some interesting lore.



Title: **ROBOZONE**
 Publisher: **Image Works**
 Price: **£29.99**
 Available: **Domest Rowsoft**

SAMPLE THIS!

John S Davison concludes his series on sampling sounds using your ST with a final look at stereo reproduction

I finally got my hands on a Micro-al/ACE's Stereo Replay sampling package, that is, it runs on my ST80 or TT, so you can at last make samples to fully exploit the ACE's stereo sound system. Being stereophonic it has two the hardware muscle of its monophonic predecessors, and this is reflected in the size of the cartridge—it's now a hefty "L" shaped affair over twice the size of previous Replay cartridges. It still only 8-bit resolution though.

The cartridge now sports four photo sockets, stereo left/right inputs, and stereo left/right outputs. Inputs take line level signals from your sample source, e.g. line out sockets on a CD player, cassette recorder, or amplifier—or even from their headphone sockets. The cartridge outputs connect to the "aux" inputs of a stereo hi-fi amplifier. Playback can also be via the computer monitor or external via the stereo output sockets of an ST/TT.

The package also contains two double-sided disks, and three instruction booklets presented in the same slightly novel-style format as all the Replay products. The content is generally OK, although some of the more esoteric topics could do with a bit of explanation, e.g. image panning and wrapping. The disks contain two programs and some ready-to-use samples, which surprisingly are more only as don't fully demonstrate the package's sonic capabilities.

PRO-SERIES EDITOR

The main program is the sample editor, which is a complete departure from previous Replay editors. It requires a minimum of 512K to run, but really needs more to fully exploit its potential. It won't run in ST80 or TT low resolution mode, but claims to work with anything higher (including TT modes). I tried it in STC medium res colour and hi-res mode and it worked fine. Its main functions are very similar to those in Replay II and Replay Professional (see issues 52/53), but its appearance and operation is totally different. It's based on the editor supplied with ACE's expensive Pro-Series 12-bit and 16-bit sampler packages, which makes much greater use of windows than before.

On booting you find yourself on a new desktop, i.e. the Replay desktop. This shows some familiar icons, including a disk (for loading samples) and a MIX keyboard (for setting MIX parameters). At bottom left is a set of tape recorder-like controls for handling record, playback, fast forward, and rewind of samples. Next to it is the Block Control Panel, more of which anon. There's also a "fast stage" showing sampled memory.

Click on the disk icon to select and load sample files. At last ACE's standard sample format definition shows its worth, as through it the program can read 8, 12, or 16-bit resolution samples in mono or stereo and automatically convert between the formats as required! This gives you access to a much wider range of samples

from PD libraries, etc. as discussed in the last issue. Note that you can only replay them in 8-bit format with this package though. It also reads non-ACE format sample files.

After loading a sample, an icon representing it (including its name) appears on the desktop. The sample's waveform is also immediately displayed in a window, either as a single trace for mono samples or left and right channel traces for stereo. The window can be moved, re-positioned, etc. as required, so you can fit across the desktop if needed. You can keep loading samples until your ST's memory is full, each one represented by its desktop icon. Up to seven samples can be stored simultaneously, each in its own scrollable/resizable window.

Editing can be done on any section (or "block") of the sample, defined either using "markers" or by "rubber-banding" an area with the mouse. You can also place additional markers anywhere within a sample to indicate points of interest and quickly switch the editing cursor between them when required. Any pair may also be used to define a block for editing. The Block Control Panel then displays icons representing the more frequently used edit operations. These include cut, paste, and copy blocks within a sample window or even between windows—a great facility for making up composite sounds from several different sources!

Less frequently used functions may be accessed from the usual menu bar. You'll find familiar features from previous releases here, some with enhancements for more flexibility. For instance samples can be reversed, superimposed on each other, repeated, faded in/out, and volume manipulation performed. There are also some new facilities specifically for handling stereo samples including mapping channels, channel-to-channel copying, channel cross-fading, and image panning—moving the sound about as it plays!

Looping is important for musical applications, so it allows a relatively short sample to be played for any required duration without using additional memory. You can easily drive yourself crackers for should that be happy? trying to

STEREO OVERT?

that good looping points within a sample, as differences in volume, pitch, and timbre at the chosen points can often produce nasty audible glitches in the sustained sound. The editor has some excellent tools to help you avoid this, including a special display to assist you accurately match up the waveform stage across the loop jobs, a "snap" function to automatically position the loop markers at the waveform's zero volume points (always a good place to start), and finally an automatic cross-fade at the loop join to help hide any remaining artifacts. They will don't guarantee you'll make perfect loops, but they do improve the odds!

RECORDING SAMPLES

Selecting "new sample" from the menu now creates a sample file into which you can record a new sample. A dialog box allows you to specify the resolution, whether stereo/mono, and the sample length. Stereo samples can twice the memory of mono samples, so STK is barely adequate — only 16 seconds worth of samples at 22kHz sampling rate.

Clicking on the "record" button brings up a recording control panel. This includes an on/offscope display, used to set the optimum input signal level. It also has buttons for monitoring the input, setting a trigger level to automatically initiate sampling, and a manual sampling start button.

This editor doesn't have a real-time spectrum analyzer, so determining frequency content of a signal involves making a test sample first then using the Fast Fourier Transform facility on it. The FFT display is also useful when using the program's many digital filtering options to clean up or otherwise change the sound of the sample. These include low pass, high pass, band pass, and notch filters, bass or treble enhancement, DC level removal, and a equal frequency boost — fixing at any frequency you choose.

As with previous Playfly editors the sound can also be changed by applying various reverb, echo, and flanging special effects processing to the basic sound. There's also a new facility for "re-sampling" an existing sample at a different frequency to that originally used.

MIDI support is similar to that in Playfly-8, allowing only single notes to be played from a MIDI keyboard. You can assign single samples to individual keys, or play one sample pitch shifted across the whole keyboard, but there's no equivalent of the superb four-note polyphonic MIDIPlay facility supplied with the Playfly Professional package.

STEREO DRUMS

The other major program supplied in Stereo-Beat, a new version of STK's continuous Drumsbeat drum machine program. It's very similar to Drumsbeat Professional described last issue, the main difference being that drum sounds can be individually positioned to the left, centre, or right of the stereo soundstage. Control positioning involves employing the same signal on both channels, restricting the number of different samples playable simultaneously to three.

As well as capturing digital patterns onto there's now also a new real-time facility, allowing you to "tap in" a drum part using the STK numeric keypad while listening to other parts already sequenced.

You can also connect up to six drum pads via MIDI and play the drum samples by hitting the pads. In this mode you can play a maximum of four samples simultaneously. Other MIDI facilities include the ability to transmit or read external MIDI clock messages so Stereo-Beat can drive or sync to an external sequencer or drum machine. It can also transmit MIDI Note On messages, for playing sounds on external sequencers or drum machines. I haven't covered every feature in this package, but I think I've said enough to give you a good idea of its capabilities. To summarise, I think Stereo Playfly is a

terrific product, representing a real advance in both hardware and software terms over Playfly-8. And at \$299.95 it costs just \$20 more than its predecessor!

That's a bargain in my book. Like Playfly-8 its second quality is good but will not really let it — a limitation of the 2-bit technology, I guess. However, to my ears it sounds subjectively better than Playfly-8, probably because of the specially sequenced sounds.

I found few niggles with it — minor quirks in its sequencer perhaps, but nothing really serious. The major criticism is a



polyphonic MIDI keyboard facility. As well, you can't have everything!

Well, that's it. The end of the Sample Third series. We've covered a lot of ground, not only looking at lots of sampling related products for the STK, but also at some of the theory behind how they work and the particularities of using them. As always, if you have any queries on this topic drop me a line via Page 8 and I'll do my best to help.

SAMPLING TIPS

With ANY sample, the quality of sound produced depends very much on the tape used in recording the sample, as well as the technology used. So, if you want top quality results bear the following in mind:

1. Buy the highest resolution sample you can afford. For most people this means an 8-bit system, but go higher if you can. More bits means "higher" — less background noise and fewer quantisation distortions.
2. Ensure you use a top-quality signal source, e.g. hi-fi cassette or CD. Input a rubbish signal and you'll produce a rubbish sample.
3. Always set the correct input signal level with the oscilloscope. Too low a level increases background noise and distortion, but high-levels cause clipping distortion.
4. Use the highest practicable sampling rate. Lower rates mean increased distortion and stretched frequency response.
5. Remember the Nyquist limit (see issue 21) — don't try to record frequencies above about 1/2 the sampling rate or you'll introduce odd sounding aliasing distortion which is a product of digital filtering and not fully remove. Use the author's spectrum analyser or Paul Fournier's Transform display to see what frequencies are present. Filter out those over the limit of SOURCE using your amplifier's low-pass filters, graphic equaliser, etc. Alternatively, consider recording the sounds into a multi-speed tape recorder first then sample them from there with the tape running at half speed. This halves the frequencies, bringing them below the Nyquist limit. After recording double the sample's replay rate to get back to the correct original pitch.
6. Play the samples via an external amplifier, with tone controls set for the best sounding results.

CADAVER THE PAYOFF

The long-awaited sequel to one of the best games of 1990 hit the stands a couple months back. Having fought his way through five levels of fiendish puzzles, mazes and traps to defeat the evil Necromancer, Karamazov the Dwarf came returns to his home village to get his reward. Unfortunately something has gone wrong and you will have to guide the poor little guy through four new levels of mayhem.

You need the original Cadaver Game Disk in order to play The Payoff. This means that it is identical to the original game in the gameplay. There are a couple of new puzzles and spells and a few new objects but basically it is just more of the same superb job-the-strategy graphics adventure!

Level one starts off quite hard, but level two is a real

killer - i.e. you tend to die every time you enter a new room as there are so many deadly monsters around!

As before you must pay the gods an increasing amount of money for each SAVE, so you will almost certainly run out of money on level two and have to contact a 'boss' more careful with your money than that you know how to solve the first part of the level!

It is a good idea to work level three and not have quite so many lights to handle, but the puzzles start getting trickier and trickier through to the climax at the end of the fourth level when you finally get your reward - if you survive; although there are lesser rewards on these levels the traps are deadly!

If you enjoyed Cadaver then rush out and buy The Payoff



immediately. If you haven't played Cadaver yet, then you are missing a treat - I would thoroughly recommend that you get yourself a copy!

There probably won't be any more of Cadaver since the fit and fashions decided to kill Karamazov the Dwarf off in the follow-up to The Payoff. This appeared as a single level called The Last Slapper on a 2-disc magazine cover that a few months back - you can probably pick it up from one of the PC libraries. Hopefully however the Bitmap Brothers will develop the theme to their usual brilliant manner and provide us with more excellent graphic adventures in the future.

FACTS

Title: CADAVR - THE PAYOFF
 Publisher: Strategic
 Price: £25.99
 Developer: John Doolanby

SIGHT & SOUND

Atmos 3-D isometric graphics and animation, lots of nice sound effects.

GAMEPLAY

Superb example of a well developed, well-paced and well-written puzzle game with plenty of time to breathe. You can play for many hours.

VERDICT

Must-Buyup Magic!

FACTS

Title: ONSLAUGHT
 Publisher: Interface Image
 Price: \$9.99
 Reviewer: Dominic Kaworth

SIGHT & SOUND

Good background and 3D, very colorful graphics which play well on screen.

GAMEPLAY

An entertaining and involved game which is a slightly more than just a shoot-'em-up, very smooth of sound.

VERDICT

Good value, very playable and well worth exploring over a period of time.



Although you're a budget reviewer, I do not recall seeing this particular offering before. A very loud and colorful arcade game with some strategic overtones is presented here. In it the player controls a lone female marine who is learning to make his way across various screens of enemies in a multitude of different ways.

The game is set in the imaginary area of Shangri-la place where all the independent kingdoms are warring and looking for a hero to unite them under a common cause. Surprisingly the game comes with a sense of whimsical material which give a dash of background to the world. Indeed

ONSLAUGHT

on the word support side it takes many fantasy adventure games.

The graphics are very strong especially in the major plot lines games which represent the battles. There are a bewildering array of enemies representing the different tribes and races of the enemy each with their own little death machines and large tanks. All the same the basis of these battles is a platform and ladder game of great intensity. To alleviate the platform combat there is a clever rail-shoot mode which involves controlling a hand icon around the screen borders and firing the main ball at a four armed bird in order to fly it's brain. Such are the excesses of imagination! This part of the game although necessary for the play is

perhaps the least satisfying both graphically and in play style. In essence it acts as the large monster at the end of a level but in practice these battles can come more frequently.

In an attempt to appear more fantasy based the game alternates your hero's a flight out of the screen available and points are awarded or lost for attacking the right and wrong combinations of same. Again all this potentially means is avoiding the potential attack and using magic objects upon them rather than sensibly killing everything on the map. The game has a great deal of potential and is saved from being boring by the play area which features which does allow for interesting variations on the theme.

I quite enjoyed this although the play could prove a little difficult for newcomers.

MAGIC POCKETS

Magic Pockets is a graphics-driven platform game. As the Dinopig Kid you must fight your way through 25 levels against snails, green blobs, rocky people, etc. You attack with "Pocketpower" - the longer you hold the button down before releasing it the more powerful it is. It takes three different forms throughout the game. You start in the cavern, firing whiteballs, then it's on to the jungle, where clouds are your weaponry. On the third world, the mountains, you attack with snowballs and on the final level you throw ice T-Cubes. There is an amazing variety of useful objects to collect, e.g. magic potions, cups of tea and coffee, bubble gum, hawking gloves, a dove's bird nest, and a real bike which kills everything it hits - shame you can't take it with you! Also if you collect a gold star you

will get one of another set of very helpful items.

The levels are sometimes messy with 3-way scrolling; lots of dead-ends and ledges (because make the game much more interesting than the average platform game).

It is a bit tedious having to restart the whole game again whenever you die, rather than starting at the beginning of the world you were in, and the Dinopig Brothers tell me that there are no cheat built in. Fortunately you have three credits to spend on extra lives so you can get quite a long way on each attempt. If you are really stuck you can ring 0800-645020 for a hint (but it costs).

You get over powerups from Power Things (some are just funny) which you will get some whenever you kill an



enemy with full Pocketpower. If you pick up a crystal he can't be seen to make the next Pocketpower big as you will fire out even more Power Things.

There are many places where speed is essential, for instance, if you don't hurry at the beginning of level 1 a rocky person will fall through some blocks into your level, take a life, then carry on down, and your bike and try to kill you again with it. It is very useful to find out where certain monsters come from and destroy them before, or just as, they come on in the screen. You should also be careful not to trap yourself anywhere, or you will have to waste a credit to begin the level again.

FACTS

Title: **MAGIC POCKETS**
Publisher: **Benugade**
Price: **£24.95**
Developer: **Alex Gweeney**

SIGHT & SOUND

Excellent detailed graphics, lots of colour and very good animation. Great music and sound effects, including lovely bird sounds.

GAMEPLAY

Makes a little on the hard side but generally very good. Pretty addictive.

VERDICT

Great fun if you enjoy arcade games it is definitely worth a go.

FACTS

Title: **STARGLIDER 2**
Publisher: **Mind Image**
Price: **£9.99**
Reviewer: **Damon Horrocks**

SIGHT & SOUND

Great 3D animation allows for accurate aim, the sound is a little weak apart from landing.

GAMEPLAY

A very good example of 3D graphics being better games, smooth and enjoyable.

VERDICT

A great fun, fun port that is well worth the price-tag.



STARGLIDER 2

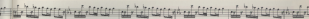
Mind Image have found some clever controllers to draw fire up to offer various modes at budget prices. StarGLider 2 is no exception and gives strong support to their desire of being recognised as a purveyor of quality arcade software. This is the follow up to one of the ST's earliest successes which starred the genre of the 3D but over the 8. Unfortunately even in the original (presumably) neither two were quite enough the accolades of the first, but worth the way of sequel.

The player represents the hero Japan, who has been persuaded in the accompanying 40 odd page long manual

to help his friend Kaira in the destruction and eventual repulsion of the Eigon fleet. The Eigon's 3 version are somewhat agent with the human race the leading force in the original game and because their status as the universe's greatest threat to the human race is being threatened.

In order to make fire and substances into the Eigon locate the couple of buttons are to fly their special ship The forces on a seek and destroy mission. This the game accomplishes by firing a rather good 3D space flight simulator which shows many of the hallmarks of Eigon. The views from the cockpit are composed of fairly thick wall mounted 3D block graphics and there are plenty

of opportunities to fly through space shooting precision missiles and even chances to bomb planets and defence systems. The control may be by joystick or mouse or, possibly the best method, by keyboard. The actual flight simulation and fighting within this game compares very favourably with that seen in Eigon, indeed should the prime attraction of Eigon have been for you the combat, this game will prove heaven sent. It doesn't though have the interesting thinking substance of the special mission capability the other game does have. Once the game control nature of the game is accepted then controls and graphics should well be a fun and exciting game. This is well worth it's budget price for space gamers everywhere. I enjoyed this but personally I prefer Eigon.



which has one of its tracks striped with timbre, Unitor also provides sockets for yet more O-Lab accessories, namely "Thomas Touch" (MIDI), which allows the sequencer's tempo to be controlled by increasing audio signals, and "Steady Eye" (MIDI), which is used for synchronizing it with video equipment. That's flexibility - no wonder the professionals love it!

Patterns may be arranged into a song using a text list, or via the "graphical arrange mode" new to this version of Notator. The latter uses a graphical representation of the chain of patterns, which can be easily edited using the mouse. It's even got an "audio scrub" feature, allowing you to play small sections of a pattern forwards and backwards to help find minor problems in the music.

Notator can also directly control a specially equipped Portastudio track tape recorder via Unitor. The required controls are linked to the tape transport controls via MIDI. Clicking on Notator's Play button starts the sequencer AND the tape recorder, and the two then run in perfect synchronisation. Besides the sequencer is somewhere in the middle of a song and the tape will automatically fast wind to the nearby corresponding position. You can record vocals and other acoustic sounds on tape then treat them just as if they were another sequencer track!

You can apply various parameters to a sequencer track to change its characteristics at playback time only, as the MIDI data isn't permanently altered. For instance you can transpose notes pitch, alter note velocity or compress its range, loop the track independently of the others, and set note range limits all in real time. Alterations can be made actually during playback, so it's very easy to set the effect you're after - just use your ears as you toggle the parameter settings. In fact, normally all Notator's operations can be performed while playback continues uninterrupted, even things like formatting disks and editing.

HYPEREDIT

Notator has a superb range of editing methods including event list, score matrix and Hyperedit. The event list editor is the heart of the system, as it can display and edit every piece of MIDI data present on a track. It also handles the special binary transient tables ("pseudo-events" inserted by Notator for transient control purposes), for instance changing tempo, muting tracks, loading the next song while the current one is playing, or showing the position of various score systems in the score display.

You can also use graphical editing methods along with the

event list, the first being a matrix editor. This shows notes in the form of beams in a matrix, with pitch displayed across the horizontal axis and note start time and duration by the vertical position and length of the beams. It looks a bit like an old piano roll, especially as there's a piano keyboard drawn at the foot of the matrix to help you assess a note's pitch. Notes are edited simply by stretching, shrinking, or dragging the beams around the matrix with the mouse. You can easily alter a note's velocity too. All changes made here are immediately reflected in the event list data, which can be simultaneously displayed in a separate window.

Personally, I don't like matrix editors. I'd much rather use a score editor, and Notator's is a real winner. It's simple, much more than just another means of editing note data though, which is why I'd be dedicating a whole article to it in the next issue.

The final editing method is Hyperedit. This allows you to easily isolate and edit all events of one particular type within a track. For instance, you could pick out and display all the snare-drum hits in a combined drum track. A matrix approach is used again, with time along the horizontal axis showing where the events occur and the vertical axis used for an associated event characteristic, for example note velocity. You can then add/delete/change notes as required, and do clever things like "draw" a gradual change in velocity or volume across a range of events - marked by creating crossfade effects. Each line on the display shows one track event and you can group up to sixteen track events together in sixteen scrollable lines. This enables Hyperedit a useful drum rhythm editor on each line could show a different drum type, but its use extends far beyond this. You really have to see it to appreciate the full potential.

Another interesting feature is the "Realtime MIDI Generator". This gives you sixteen mouse operated "knobs" controls which can be set to generate any type of MIDI data and control it into any sequencer track and MIDI channel. They're particularly useful for generating continuous chains of events needed to smoothly change volume or sound characteristics. For example, you can increase the volume of particular instruments as they take solos and reduce it again afterwards. This can be added AFTER you've recorded the instruments themselves - it's like having an automated studio mixing desk!

REALTIME TRANSFORMS

Notator will also "transform" MIDI data, working either on data already recorded or in real time as the data comes in through the MIDI port. User definable algorithms are used to select which data to change and how to change it. For example, you could reduce the effect of a modulation wheel, wrap drum notes for use with a different drum machine, or delete all notes within a given note range. Comprehensive input and output filtering is provided to remove unwanted types of MIDI data to also available, and with Unitor installed it can also handle realtime merging of up to three simultaneous MIDI inputs. The processed input can even be routed back out via MIDI THRU to other MIDI devices if required.

Despite its complexity Notator's sequencer is surprisingly friendly to use. It's solidly reliable too, and hasn't crashed once despite my fumbling experiments with it. Notator for its popularity and new features - ease of use, superb facilities, flexibility, reliability, and the thoroughly professional look and feel that provides all aspects of it. And that's only the sequencer - wait until you hear what the modulation part of it can do. Join me next issue to find out.

THE

STOS

COLUMN

**Dion Guy
brings you two
super type-in
listings plus
reviews of two
art packages
written in
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authors**

Hello again! Prepare yourself for another fantastic STOS column, packed full of reviews, listings and generally interesting stuff. Last issue I said that if anyone wants a STOS-related product reviewing them get in touch. Little did I know that I would be contacted by millions of KIDS writers art packages! Well, maybe that's a tongue-in-cheek suggestion but seriously I have received two different art programs in depth reviews of both packages will follow shortly, but first - the news!

As mentioned last issue, Fun School 4 is now out. I haven't actually seen the full package but I have seen a small section of the 7-11 year olds version. Without going into too much detail, I found that the package is very well put together. The graphics are of a very high standard, and the educational games have been well thought out. I would recommend any parent to invest in a copy of Fun School 4, if not for the children, then for the demonstration of just what STOS is capable of.

THE LISTINGS

So, what programs have we got lined up for you this issue? Firstly, there is the colour definer accessory that was supposed to go in the last issue but was postponed due to space problems. Secondly, there's another handy program from Hitabo Artists - a sprite finder. Here are some brief instructions:

PROGRAM 1 SPRITE FINDER

Have you ever loaded in a sprite bank and wanted to find a sprite quickly and easily? Have you ever forgotten which sprite number goes with a certain sprite, and had to manually search for it using

the *SPRITE* command? Why am I asking all these questions? No worries, we've all experienced the hassle of looking for a sprite at sometime during our programming lives. This program is the perfect solution. After typing it in, load using it to be fancy, use, load in a sprite bank and then run the sprite finder. From here, you simply use the mouse to find which sprite is at each sprite number.

PROGRAM 2 COLOUR DEFINER ACCESSORY

With this accessory you can experiment with the various colours available from your ST. It is pointless going into means of text explaining how to use the program, as everything is fairly straightforward. Here's how!

REVIEWS

And now - the reviews! The two art packages up for review are *EDIFIED* by Hitabo Artists of *TEP Software* and *The Artful Doodler* by Hitabo Artists of *DMC Software*.

THE ARTFUL DOODLER

Upon loading *TD* (as it shall be referred to from now on) you are greeted with a copy protection screen. I must confess I found this a bit strange for a home-grown art package. Copy protection would be understandable on something like *Demon Paint*, but I cannot help but feel that protection would be too unnecessary in any kind of home-grown software.

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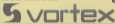
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