

# Page!

Atari users  
Magazine

Issue 17  
90p



CASTLE MORGUE



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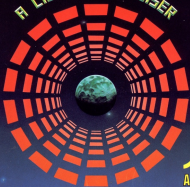
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Atari Users Magazine

September/October 1985

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Les Ellingham

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PAGE 6 is a user's magazine and relies mostly on readers' support in submitting articles and programs. It is aim is to provide Atari's full computing through the exchange of information and knowledge. We will endeavour to pay for articles and programs where appropriate and we hope that you will gain satisfaction from seeing your work published. In fact we hope that you will learn from articles submitted by other readers. All published material is eligible for awards in the Annual Readers' Poll and may receive additional Editorial awards as announced from time to time in the magazine.

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## READY FOR TAKE-OFF?

This could be the start of something big. After a comparatively quiet period since Jack Tramiel took the reins Atari look like making big moves in Europe at last. The PCW show at Olympia looks to be the local point for anyone interested in Atari as detailed in the preview elsewhere in this issue. Many of us have been to exhibitions in the past and we have nearly all come away extremely disappointed at the lack of support for Atari and have probably vowed not to bother next time. I hope that PCW'85 will be different (not least because we will be there!) and will be the turning point for Atari users in this country whether those new to the Atari world or those, like me, who have been there since the days of the EM5 16k400 and the EM45 16k800. Can the complete ST package really be just over £300 more than that price?

Only a short editorial this issue to give us room for a plug for our stand at PCW besides which you won't have time to read much more if you want to type in Castle Moogul!

*Leo Ellard*

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## The 808 Personal Computer Show

Atari will be giving the 520 ST its official European launch at the PCW Show at Olympia in what will be possibly the biggest display Atari has yet arranged in the U.K. Jack Truesdell thinks it is important - he will be there on the opening day.

Turn right through the main doors of Olympia and you will come to the first of Atari's THREE massive stands demonstrating not only the 520ST but the 130XE range and plenty of software. The display, with almost three times more floor space, should far outdo any other manufacturer. Details of exactly what Atari will be showing were not available at the time of writing but there is no doubt that you will find more of interest at this year's show than ever before. One major innovation is that third-party software houses will be demonstrating their software on one of the Atari stands and will give owners the chance to see the very latest software for both the 8-bit and ST machines.

Newsroom in the trade say that over 100 new software items will be unveiled. Among those to look out for either on Atari's stand or elsewhere are:

\* **Clipsart** with a new database for the 8-bit range called MICROBASE + which can be interfaced with Atariwriter and has an average search time for any record of just 1.5 seconds. Also to be shown will be an integrated Accounts package for the ST.

\* **English Software** who will be showing their latest releases and their first program for the ST.

\* **Level 9** with *Red Moon* promising 'something special' for the Atari version and 'possibly' their first release for the ST.

\* **Database Publications** who, as well as Atari Users, should have the first of several software releases.

\* **Precision Software** with *Superscript* for hands-on testing on either SuperType - a new typing trainer.

\* **Thornsoft** with the device of *Colour-space* accompanied by the best in rock music and 'possibly' early developments for the ST. Also, not to be missed, *Jeff Minter's* very own pay-differentially pointed 130XST - the only one of its kind!

Plus... who knows? There are bound to be a number of companies introducing software for the ST who have never written for Atari before. Atari say that over 100 development packages have been sold in the U.K. and many software houses previously 'unknown' to the Atari world are preparing to support the ST and XE in a big way.

PCW85 is not to be missed. Maybe the prototype for the first Atari User Show? The show is held at Olympia and opens to the public from 6th September to 8th September.

## MORE FROM LUCASFILM

Hot on the heels of the (kind) official versions of *Rescue on Fractalus* and *Rollback* come two new games from Lucasfilm and Epyx scheduled for U.S. release in the autumn.

**KORONIS RIFT** is a strategy game set in the future in which you are a techno-scavenger searching for artifacts left behind by a coalition of races that once inhabited the galaxy. You discover a weapons testing ground and drop on the surface of Koronis to scavenge. The rift is a huge Grand Canyon like chasm through which you must fly but the game features also a deal of strategy to watch out for. One of the Lucasfilm team describes the play as 'much the same as a text adventure'. The animation is similar to *Rescue on Fractalus* but also includes incredible GITA animation produced by Jim St. Lewis who was responsible for the robot and spacecraft on Atari's demo disk.

The second game is **EIDOLON** which takes you back in time to the 19th century. The *Eidolon* is like a magic time machine in which you explore an immense cavern on a voyage of discovery. This one is said to use animation techniques never before used in home computers of the kind used for current commercial cartoons. Certainly two to look out for.

## GRAPHICS AND KUNG FU!

English Software will shortly be releasing a new Graphics Arts package for use on 48k systems. They say it includes all of the features of existing graphics programs with the added ability to lift and place individual images from within a picture. This is the one feature that makes many of the dedicated graphics computers so powerful and it will be interesting to see on the ATARI.

For those with less artistic inclinations English Software have announced what they say is 'the first Atari Kung-Fu game programmed in the U.K.'. Requiring 48k it will pit two Kung-Fu experts against each other in one or two player combat. The game is entitled **CHOP SHIEY** and will retail at £8.95.

# News

## BOUNTY BOB STRIKES BACK - CHEAPLY!

After a long wait and a sleek £50 ROM from the U.S.A. (see letters issue 164), *Bounty Bob Strikes Back!* was released by U.S.GOLD in late July on 64k cassette for just £9.95 or 48k disk for £14.95. The cassette version will only run on the 800XL or 130XE because of the massive amount of code originally contained in the 40k ROM. 450,000 owners who feel peeved by a 64k cassette should bear in mind that a game of this size would not normally make it to cassette at all and Geoff Brown of U.S.Gold told us that Ray Fife had no intention of releasing any version other than the ROM. The cassette and disk versions are only available via U.S.Gold in a rare deal that gives U.K. owners an advantage over the U.S. for a change.

*Bounty Bob* may have been a long time striking back but U.S.Gold promise that their future Atari releases will appear at the same time as Commodore versions.

## ANYONE IN CARDIFF?

Dear Editor,

I would be grateful for your assistance in printing the following plea for help.

I have 'output', do you have 'input' and live in the Cardiff area? If so and you are interested in joining or forming an Atari User Group please contact me at the address on this letter. You may even find a computer being put to uses that you had not thought of. I look forward to hearing from all you Atari enthusiasts in the wilds of the Cardiff area.

Yours faithfully,  
Raymond Price,  
Mandeville House,  
9, Lewis Street,  
Conson,  
Cardiff

## 1027 PRINTER

Dear Les,

I was particularly interested in Phil Rea's article in issue 16 regarding *Acadwriter* and the 1027 but I was a bit concerned about his suggestion to re-ink the roller using ordinary stamp pad ink. During seven years as a banking machine engineer, I came across a number of linking rollers that had been re-inked with this stuff and it invariably ruined them. After a while the thin emulsifying ink (which is made for rubber stamps) begins to dry and leaves a tacky, impermeable glaze-over the surface. It is very much better to use the thicker ink that is specially formulated for use with metal dies such as automatic embosser and cheque signing machines. I have successfully and repeatedly used this type without any sign of glazing.

A few more tips. If you select Printer Option 2 you can use Inverse Video to underline but your line feed instructions in the formatting block are ignored and you must insert your own returns where you require double spacing. If using *Wlog* Pagewriter CTRL-Orbits underlining and CTRL-N stops it. When using Letter Perfect, select E for Epson printers rather

than Atari and CTRL-V, N starts underlining and CTRL-V:34 stops it.

I hope that these tips will help others with the 1027.

Best Regards,  
Keith Barry,  
Birmingham



## ILLOGICAL ADVENTURES?

Dear Les,

I have recently finished *The Sorcerer of Claymore Castle* and there are a couple of points you might like to publish to aid anyone who is getting frustrated by it. Firstly, the American for cupboard appears to be cabinet. Secondly, and much worse, Scott Adams has chosen, for some unfathomable reason, to define a new meaning to the word WALK. Whereas RUN, CLIMB and GO appear to be entirely synonymous, WALK means, illogically, something entirely different! I would be grateful if anyone can explain why there are certain places where I can GO or RUN in, but not out, though I can WALK out and certain very similar places where I can GO and RUN both in and out but I can't walk in or out. What does Scott Adams think WALK means?

Infocom was never like this. Having survived some Vogen poetry, I am now attempting to persuade a door that I am intelligent, but I am confident that the solution will be more interesting than guessing that WALK and RUN bear no relationship to one another.

Yours,  
John Sweeney,  
Nottingham

## VAL+GET=PROBLEM

Dear PAGE 6,

I have a tip for anyone who is having problems when using the VAL and GET functions in the same program.

An error occurs when you use the VAL function to convert a numeric string to a numeric value. The VAL function alters the BASIC buffer pointer INBUFF to point to the string where the value is to be taken. Then when you do a GET function the character you GET will be stored in the string that VAL used instead of the location pointed to by INBUFF. The value in INBUFF would be correct if the VAL routine in the C.S. had re-initialised INBUFF but it doesn't.

The pointers for INBUFF are stored at locations F3, F4 hex or 243,244 decimal, so all that is needed to clear this bug is to use the following FORCs after all the VAL statements in your program.

```
FORC 243,128:FORC 244,5
```

Remember you only need to use this FORC if you are using both VAL and GET functions.

Yours faithfully,  
Martin D. Barr

**PLEASE WRITE TO US!** We get plenty of letters about problems with typing or asking questions but not many general letters that would be interesting for other readers if published. If you have a hint or tip or have discovered something, share it with others. Please make sure that your letter is clearly headed **READERS LETTERS**.



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# RENUM

by Mary Lynch

RENUM will renumber any of your programs with a simple UFSH call. Programs will be renumbered in increments of 10 starting at line 10. Line numbers embedded in line statements will be taken care of but the program cannot change variables such as LINE=100. These will have to be changed by hand.

The program may be used by disk or cassette users but has been written for a 48k machine. The code is relocatable and the Date in line 230 which refers to the starting location of the routine can be amended for a machine with less memory.

To renumber is simple, just RUN this program, LOAD your program to be renumbered and type in direct mode A=UFSH(22678). If you have relocated the routine use the new starting location in the UFSH call.

```

00 200 DATA 261,24,266,27,266,267,171,1,6
-184
00 208 DATA 6,6,266,72,277,263,141,1,6,26
2
00 216 DATA 166,2,6,266,266,266,166,238,2
,6
00 224 DATA 172,2,6,177,263,261,16,266,23
2,238
00 232 DATA 2,6,266,261,6,167,6,166,267,1
77
00 240 DATA 263,147,217,232,266,176,267,2
66,248,23
00 248 DATA 216,217,265,266,166,266,166,1
27,233,267
00 256 DATA 267,6,113,266,141,266,24,166,
266,266
00 264 DATA 66,133,266,166,266,166,6,133,
266,266
00 272 DATA 6,166,212,266,266,266,72,266,
166,233
00 280 DATA 263,266,266,66,246,16,246,75,
246,173
00 288 DATA 266,267,266,146,246,146,166,2
66,233,233
00 296 DATA 265,266,133,263,27,276,217,27
2,2,6
00 304 DATA 262,6,267,6,232,267,261,212,1
46,262
00 312 DATA 266,232,176,267,266,266,172,2
,6,26
00 320 DATA 266,6,141,2,6,266,1,6,266,266
00 328 DATA 166,177,263,263,16,246,237,26
6,177,266
00 336 DATA 2,177,266,24,263,266,236,266,
167,6
00 344 DATA 261,267,133,267,266,6,277,266
,261,6
00 352 DATA 166,146,266,277,266,266,126,2
66,133,266
00 360 DATA 261,172,6,6,24,263,266,236,26
2,167
00 368 DATA 6,161,264,133,264,166,6,177,2
61,261
00 376 DATA 6,266,143,266,277,266,266,136
,266,136
00 384 DATA 166,136,133,263,166,137,133,2
66,167,6
00 392 DATA 133,266,133,266,24,166,266,16
6,16,133
00 400 DATA 266,166,266,166,6,166,266,166
,6,166
00 408 DATA 266,146,263,266,166,266,146,2
61,166,2
00 416 DATA 177,263,24,161,263,136,266,16
6,6,161
00 424 DATA 266,133,266,166,6,177,266,266
,6,266
00 432 DATA 267,266,177,263,261,136,266,2
62,66

```

```

00 1 000 *****
00 2 000 *          RENUM          *
00 3 000 *          BY              *
00 4 000 *          MARY LYNCH     *
00 5 000 *          *****      *
00 6 000 *          PAGE 6 INSTANCING - ENGLAND *
00 7 000 *****
00 8 000
00 9 000 *****
00 10 000 01,67
00 11 000 266 261 75 22
00 12 000 266 6
00 13 000 266 6,2
00 14 000 267 6
00 15 000 266
00 16 000 26766,23216
00 17 000 DATA 266,266,266,133,266,166,127,1
66,266,166
00 18 000 DATA 2,177,266,141,6,6,266,177,262
,646
00 19 000 DATA 1,6,266,166,2,6,172,2,6,177
00 20 000 DATA 263,266,26,266,27,261,11,246,
16,261
00 21 000 DATA 22,266,14,261,16,246,16,261,2
5,246
00 22 000 DATA 6,261,23,246,2,261,24,246,116
,261
00 23 000 DATA 4,266,26,266,177,263,261,14,2
46,267
00 24 000 DATA 226,2,6,172,2,6,266,1,6,246
00 25 000 DATA 76,277,262,266,16,266,237,266
,66,266
00 26 000 DATA 274,261,7,266,24,266,2,6,172,
2
00 27 000 DATA 6,266,1,6,246,26,277,263,261,
27
00 28 000 DATA 266,237,266,264,1,6,266,26,17
7,166
00 29 000 DATA 266,14,246,23,236,2,6,266,166
,264
00 30 000 DATA 26,266,23,236,2,6,272,2,6,266
00 31 000 DATA 1,6,246,13,277,263,261,23,246
,27

```

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## 9. MAGAZINE ADVENTURES



If you're a real Adventure addict, you'll be overly aware of the fact that you just can't afford to buy all the two hundred or so Adventures available for the Atari. If you did buy them, you'd soon be flat broke!

So how does the idea of free Adventures sound? Just for a change, let's take a look at of these type-it-in-yourself Adventure listings from magazines.

**KIDNAPPED** by Peter Kirsch (SoftSide July 1981): You have been kidnapped! You awaken on the ninth floor of a strange building in level that your kidnapper has left you unattended. You must try to escape from the building one floor at a time. Each floor is independent of the others. You cannot carry items from one floor to another and you cannot return to a previous floor. Everything you need to escape from a given floor can be found on that floor! This makes you feel like you're playing nine mini-Adventures rather than one big Adventure.

Kidnapped was originally written for the TRS-80. The Atari version did not appear until some months later. The puzzles and storyline are fairly simple and this leads me to believe that it may have been one of Peter Kirsch's early attempts at an Adventure. He later became a prolific Adventure writer and was responsible for many of the excellent SoftSide 'Adventure of the Month' series. These later Adventures show much greater depth and originality. Nevertheless, Kidnapped is a lot of fun and is ideal for beginners.

**THE CURSE OF THE PHAROACH** by Peter Kirsch (SoftSide March 1982):

A curse has been placed on the land following the theft of the two rubies which served as the eyes of the Pharaoh Ichi-abathar's mummy. You must attempt to break the curse by recovering the lost rubies from within the Pharaoh's pyramid and return them to the mummy.

The Curse of the Pharaoh is an illustrated Adventure. It didn't actually appear as a printed listing in SoftSide, but was included on the Atari Disk Version. Unlike Kidnapped, it was written specifically for the Atari and appears to be an experimental attempt at writing an Adventure with graphics. Although the graphics are crude, it is the only illustrated Adventure I have seen that resides completely in memory and does not require any disk access. It's generally fairly easy and is again suited to beginners.

**ESCAPE FROM THE DUNGEON OF THE GODS** by Ray Seto (SoftSide #300:

As a member of a band of rebels planning to attack the evil King Sahuil II, you have been captured by the King's secret police and thrown into the Dungeon of the Gods. Legends say that the dungeon contains a special chest called the Chest of the Gods which has the power to destroy the King and his forces. Your job is to escape from your cell, find the Chest of the Gods and any other treasures and ultimately escape from the dungeon so that the rebels can use the power of the chest to overthrow the evil King.

Escape from the Dungeon of the Gods was originally written for the TRS-80, but an Atari translation appeared in the same issue. One noticeable feature was that all the string assignments and DATA statements in the listings were omitted to prevent giving away clues as the program was typed in. This was a good idea, but it made typing a real headache and slowed the adventure down during execution. This one will appeal to lonesome boys.

**OPERATION SABOTAGE** by Ray Seto (SoftSide #332):

The aliens from the distant planet Zerklike have established a large military complex on Mars which presents a great threat to Earth. Your job is to sneak into the alien complex and destroy it, but you must also find the plans for a powerful defence shield which are known to be hidden in the complex.

Operation Sabotage is another program written for the TRS-80 with an Atari translation appearing in the same issue. It was again omitted to prevent giving away clues when the program was typed in and hence suffers the same disadvantages as Escape from the Dungeon of the Gods. Nevertheless, it's worth typing in. This one will appeal to the science fiction freaks, but don't expect anything too deep.

**ADVENTURE IN THE FIFTH DIMENSION** by Brian Moriarty (ANALOG Computing Issue 11):

The Declaration of Independence has been stolen from its imperishable display case by alien beings from the fifth dimension. You are a top-notch private investigator who has been hired by the government to retrieve the Declaration. You must search the city of Washington for clues, find a

—by Garry Francis of Sydney, Australia—

way into the alien universe, find the Declaration and return it to the police station.

*Adventure in the Fifth Dimension* is an all text Adventure, but as it is written specifically for the Atari, it runs much faster than the *SoftSide* Adventures. Moriarty has used a couple of machine language routines to speed up execution and has also used a sensible screen layout. I liked the way it changed colours for different 'dimensions'. Very enjoyable.

**CRASH DIVE!** by Brian Moriarty (ANALOG Computing Issue 18):

You are a crewman aboard the USS Sea Miss - a Navy submarine patrolling the North Atlantic - when a routine maintenance job in the forward escape tube saves your life. While locked in the airtight tube, a saboteur passes the remainder of the crew. It's obvious that someone wants to steal the sub - perhaps for the experimental sonar-jammer that makes the sub 'invisible' to enemy sensors. Your job is to prevent the sub from falling into enemy hands. This entails finding a way to survive the poisoned atmosphere, getting the submarine underwater so that the enemy can't board it and finally destroying it!

*Crash Dive!* is unique amongst the Adventures reviewed here in that it is written in machine language. It is a great program in every sense - execution speed, playability and display. The latter is very imaginative, though simple, and uses some of the Atari's special features.

**HOUSE OF SECRETS** by David Blaess (Page 6 Issue 10):

You have inherited an old mansion which is rumoured to be built on the remains of a much older building used by an evil warlock. Legend also says that the warlock casted a fortune in gold. Your job is to explore the mansion and attempt to find the gold.

*House of Secrets* needs no introduction to regular Page6 readers. It was the giant program from the special Adventure issue and was voted second in the last annual readers' poll. The Adventure itself is a lot of fun, but is let down by words being split in half at the end of lines and some nasty punctuation. XL owners beware! You'll need a translator disk for *House of Secrets* to run properly because the scrolling routine doesn't work with the XL's display handler. (There is a small bug but it is still playable on the XL and XLc Ed.)

**ADVENT X-5** by J.D. Caster (Antic November 1984):

You are the sole crew member aboard the Advent X-5, a space ship designed to transport small animals. On the way to Rhybas-6, a meteor storm forces you to crash land on Rhybas-7. You must get to the emergency shuttle and blast off for the nearest starbase.

J.D. Caster is the author of a couple of Antic's most popular arcade games including the excellent *Risky Rescue* and its sequel *Escape from Epsilon*. The arcade games are very good, but I can't vouch for the Adventure as I haven't had a chance to play it yet.

**ADVENTURE AT VANDENBERG A.F.B.** by Tom Hudson (ANALOG Computing Issue 27):

As a reporter for the 'Daily Babble', it is your job to follow up on a hot story. In doing so, you overhear some terrorists discussing a plot to destroy the Air Force's newest space shuttle. A bomb has been placed somewhere on the Air Force base and it is set to go off at 9 o'clock - just seconds before the launch. When you report this to the local police station, they won't believe you. (They must have read your stories about Bigfoot being an alien.) So it's up to you to save the space shuttle all by yourself!

Tom Hudson is a long time staff member of ANALOG and has built up an almost cult following with his numerous tutorials, programmer's aids and especially his machine language arcade games. He was never thrilled about Adventures until he played Brian Moriarty's *Crash Dive!* He enjoyed it so much that he went back and played *Adventure in the Fifth Dimension*. He was hooked. Writing an Adventure was obviously the next step and *Adventure at Vandenberg A.F.B.* is the result. It is based around the same structure as Brian Moriarty's *Adventure in the Fifth Dimension* and was inspired by the space shuttle complex at Vandenberg Air Force Base. This one's quite hard in the early stages. Be prepared to die a lot.

**PORTRAIT DUNGEON** by Paul Coppins (Computer & Video Games April 1985):

I haven't played *Portrait Dungeon* yet. Unfortunately, I can't even tell you what it's about, because I lent the magazine to a friend who promised to type it in. I assume that the author is the same Paul Coppins who assists with *Computer & Video Games*'s Adventure columns, so it should be interesting to see what he comes up with.

## CONCLUSION

Of the ten Adventures I've come across and reviewed here, I've played eight and found them all to rate somewhere between good and excellent. You may have trouble finding the old issues of *SoftSide* (as they've gone out of business), but try your utmost to get all the rest, especially the ANALOG ones because they're great!

I realise there's probably a few more Atari Adventures in other magazines. If you know of any, please send me a copy of the article and program listing. Or better still, send a copy of the program on disk and I'll send you some of the above Adventures in exchange (10 Adventures per disk). Also feel free to write to me about the column. I'd appreciate the feedback.

Garry Francis  
Atari Computer Enthusiasts (N.S.W.)  
Adventure S.I.G.  
C.P.O. Box 4534,  
Sydney,  
N.S.W. Australia 2001

# SHOOTING GALLERY

by Geoff Thompson



You must shoot the moving targets by using the joystick to position the cross over the target and then pressing the button. The most important target is the one that moves across the windows of the house. Hit 15 of these and you go on to the next level, into 10 and the game is over. The inverse number on the far right of the score line shows the number of misses. The flag and plane are bonuses but you only have 25 bullets per level. The spray bar will pause and re-start the game.

**TYPING IT IN**

Cassette and disk users should type in listing 1. SAVE or CSAVE a copy; then RUN the program. Answer the cassette/disk question accordingly and the program will then check each line of data and create a boot tape or disk version. To load the boot tape, remove all cartridges; then turn on the computer while holding down the START key. Disk users should type in listing 2 and save with whatever filename you wish on the same disk as "D:TARGET.ORG". You can then RUN the program by typing RUN "D:your filename".

TARGET PRACTICE should work in 16K cassette systems, but there may be some screen interference when it loads.

```

05 0 SHOOTING GALLERY LOADER
06 10 OPEN BL,A,B,"D:TARGET.ORG"
07 30 CLOSE BSA,F
08 10 OPEN BSA,B:FILE
09 40 OPEN BSA,B:FILE OPEN BSA,B:FILE
10 50 CLOSE BSA,B:FILE
11 55 CLOSE BSA,B:FILE
    
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```

12 0 SHOOTING GALLERY
13 2 SHOOTING GALLERY
14 3 SHOOTING GALLERY
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Listing 2





# DE RE PIRACY

## Confessions of a pirate by L.J. Silver

This article was reviewed anonymously together with two double sided disks of "unavailable" software and is completely genuine. It is published to highlight many of the problems that have caused AT&T to have so little software support in this country and in the hope that a few owners will think twice if they are offered illegally copied software. AT&T now has the greatest chance it has ever had to make an impact in the U.K. Will you help or hinder?

Piracy must be eliminated now, or more companies will go down, programming talent will be lost and fewer people will want to enter the software industry if it cannot provide worthwhile employment. Piracy can be stopped, or at least diminished, and in this article I hope to point out some concerns in the right direction for the long-term good of the industry.

I am a software pirate myself, so why am I revealing all this? Well, I am as keen as Atari enthusiasts on all of your and I know what Atari to be number one, where it deserves to be. However, the parasitic nature of software piracy will never allow our favourite machines to achieve pole position, unless it is destroyed at source. I could just give the names of all the definite pirates I know (I know about twenty - some in respectable positions in computer firms) but I won't. I'd be risking more than losing my hardware if Atari and the software companies went piracy to end then they must do the work, after all, they were the main cause.

More than five years ago, when the 400 and 800 were still in their infancy, Atari were charging about £30 or more for rubbish like Asteroids. With the loss of advertising most owners were "stung" by the extortionate prices, whilst the people at Atari continued to be amazed in millions. The average Atari owner had only a few programs. Then the battles started with Commodore, Texas Instruments, etc. - they reduced their software prices to below £15 but Atari did nothing, they continued at £30 per game. Many owners became fed up with this. A great many moved to other machines and found they could afford three times as much software. Others discovered they could easily copy their friends' tapes and disks since at that time software protection hardly existed. Atari, and other companies, should have supported their custo-

mers and sorted out the problems some ago, but they didn't and decided to go down, losing customers to Commodore on the way. I am sure the new Atari will have learned something from that incident.

More money was spent on protection techniques but all the while the pirates became more proficient at breaking protection and were now able to copy any software easily. If Atari and the software producers wanted to attract customers to buy their software then they needed to reduce prices of ALL software to below £15, or else justify how they can expect users to pay out half the price of a television license, but it didn't happen until quite late. The effect of the Atari cut-price was that very few national magazines even mention Atari products, many people prefer inferior machines because they are better supported and small enterprises go into liquidation. Piracy is just the ordinary man's logical reaction to the greediness of the short-sighted software manufacturers.

### O.K. WHAT CAN BE DONE?

Firstly, let's see how a pirate obtains software. There are basically three different types of pirate.

(a) These are those who just receive software for their own use - mainly cassette users - and don't have the technical ability to copy software.

(b) Those who provide software to their friends (usually included). We select software that we or our friends want and don't get it from a type (a) pirate. We stack up rubbish - disk space is too valuable, so we have only about 200 programs each. We also have many utilities for copying disks, tapes and ROMs and are all disk drive owners primarily responsible for supplying class (a) pirates.

(c) The copiers and suppliers who distribute to (a) and (b). They all have Archive chips (or similar) fitted to their drives, enabling them to copy any software. They have every utility available for copying. They have most of the games available for the Atari, not just 200 games, more like 300 disks with up to eight games per side. If they don't have your requested game in their vast disk library then they can get it within a week. The copiers gather at each others' homes (or user group meetings) for massive games transfers.

Pirates can get games that will never be released to the public or games two or three months before official release. All of the following were available about three months before the official U.S. release date: *Dankery King Junior*, *Millipede*, *Tank and Field*, *Vanguard*, *Dimension X*, *New Man 2001*, *New York City*, *Quintrodo*, *Alley Cat*, *Devastator*, *Pitfall II*, *Jeep!*, *Ballblazer*, *Rescue at Fractalus*, *BC's Quest for Time*, *Brace Lee*, *Spyhunts*, *Flight Simulator II*, *Warplanes*, *Frogger II*, *Snoobi*, *Dungeons*, *Angus*, *Archon II*, *Ghostbusters*, *Electrician*. Some of the foregoing and many of the following games will probably never be released or have disappeared from the market or turned up the Commodore 64 machines primarily because they have become so widely distributed that the manufacturers do not consider Atari releases worthwhile. You may never see *Pastiches*, *Designer's Proof*, *Zone Ranger*, *Lost Starfighter*, *Centipede 10K*, *Final Legend*, *Maris Bros*, *Atari Soccer*, *Crystal Castle*, *Ali Support*, *Mr Do's Castle*, *Jump First*, *Up's Down*, *Adventureworld*, *Whisker's Brother*. All of these are excellent games and many were obtained from trade Atari and Activision.

If nothing positive is done to combat piracy then it will inevitably continue until no software companies support Atari machines. There's only one issue, so what can be done? If the software companies really don't know, here are some possible means of bringing the pirates to justice.

The larger companies must together offer the harshest punishments for those who copy and distribute software, e.g. removal of all hardware and software with bankruptcy penalties.

Private investigators should be employed who can track down pirates all over the country. The best pirates to track are at many user group meetings, where all sorts of leads can be obtained. Take a look at ads in national magazines which read "Atari games swap/ sell". From these you can obtain large lots of software - obviously all copies and all at ridiculous prices. Incidentally the magazines themselves must take a great deal of the blame here for providing one of the major outlets for piracy.

Finally take a look at some of the software buy clubs and at certain of the retail shops in nationally known hi-fi retailers.

continued on page 25.



# ATARI ST 520ST

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  - GEM
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  - KEYBOARD (96 KEYS)

# £749

## ATARI 520ST SPECIFICATION SUMMARY

**PROCESSOR:** 68000 (16-bit)

**RAM:** 512K (expandable to 1MB)

**DISK DRIVE:** 300K 3.5-inch floppy disk drive

**MONITOR:** B/W monitor (optional)

**KEYBOARD:** 96 keys

**MOUSE:** Included

**SOFTWARE:** Free software including word processor, spreadsheet, and database

**EXPANSION:** Highly expandable with various options available

## MACINTOSH VS FIB VS 520ST

	APPLE II/III/III+	APPLE II/III/III+	ATARI 520ST
Processor	68000	68000	68000
RAM	128K	128K	512K
Disk Drive	None	None	300K 3.5"
Monitor	None	None	B/W
Keyboard	None	None	96 keys
Mouse	None	None	Included
Software	None	None	Free
Expansion	None	None	Highly expandable
Price	£299	£299	£749

**PERFORMANCE:** The Atari 520ST's 16-bit processor and 1MB of RAM provide superior performance and speed compared to other desktop computers of its class.

## PRESS COMMENT

"The Atari 520ST is a real bargain. It offers the power of a 16-bit computer at a price that is hard to believe. It's the perfect computer for anyone who wants the power of a 16-bit computer without the high price tag."

"The Atari 520ST is a real bargain. It offers the power of a 16-bit computer at a price that is hard to believe. It's the perfect computer for anyone who wants the power of a 16-bit computer without the high price tag."

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# Superscript

Precision Software Ltd.

There are something like a dozen word processors available for the Atari micros, at least there are if you know where to get them, so do Atari users need another one? The answer is yes, provided it is good, easily available and at the right price. Does Precision Software's Superscript fit the bill? Again the answer is yes. In fact for the serious Atari user (would you software say that Superscript is the most important piece of software to have been produced so far by a British company).

Although there are many word processors the only one that has been widely available and the one with which most users are familiar is *Atanwriter* and Superscript beats *Atanwriter* hands down. Superscript gives you not only powerful text manipulation, but also a unique facility to define your own printer driver using a simple text document plus a built in spelling checker with a British dictionary. It is a powerful program and comes with a pretty hefty manual which is needed to understand all of its features.

## FOR 800XL AND 130XE

First of all take note that Superscript is written for the 800XL and the 130XE. Based that literally, it will not work on the 600 or 600. The reason is simply that it takes full advantage of the XL and XE facilities and offers full international characters, including the elusive £ sign on screen. In addition it is the first program that I am aware of to take advantage of the extra 64K in the 130XE by allowing two documents to be worked on in memory at the same time. Here about this later. The first thing you need to do with Superscript is to sit down and work through the tutorial which is essential if you want to use the program to the full. It is possible to compose simple documents by just following the screen prompts, but ignore the manual and you will miss out on many powerful features.

So, boot up Superscript and you will be prompted to insert an Existing Work Disk, Create a Training Disk, Create a New Work Disk or Create a Dictionary Disk. The dictionary disk is easily created, it is just copied from the back of the master disk onto a disk of your own and may as well be created at the same time as your Training Disk. Select Create a Training Disk and several files which give exercises to be used with the tutorials will be copied onto your disk. The Training Disk and the normal Work Disk primarily contain a 'Default' file which is loaded each time to set up the printer driver and certain program parameters which are completely user defined. You can set screen and text colours, margins, standard printing features, screen width or even assign special features to any key on the keyboard and load these in as standard every time you use your work disk. More of these later, let's go back to the tutorial.

## THE TUTORIAL

You start by loading in a letter to use as practice for the standard features of editing and to learn how to view and print documents which is fine for beginners and will get you used to using a word processor. Experienced users could skip this but may miss out a few tips to short cut in using Superscript by doing so. The tutorial then goes on to 'Cut and Paste' editing which simply means moving blocks of text around from single words to whole paragraphs before introducing one of the really powerful features of Superscript -



for 800XL  
and 130XE

script - the ability to do mathematical calculations on tables within the text.

Here also is introduced another fine feature. *Atanwriter* is limited to 40 columns across and it is certainly impossible set out any sort of table without much trial and error. Superscript allows you to define the width of the text screen to a maximum of 240 columns and will scroll across and back as you reach the screen limits. Tables could not be simpler, you just type them exactly as you want them to appear on paper.

## MATHEMATICAL FEATURES

Using the mathematical features seems at first quite complex but a sample document is included and once mastered the technique is simple yet powerful. Each column in a table is defined as a numerical tab at the position of the decimal point, which tentatively can be set as desired, and figures are entered by tabbing across and pressing RETURN at the end of the line. Enter as many rows as you wish and finish off with a row of dashes and you are ready to calculate totals. Simply place the cursor at the end of a line, enter a few keystrokes and the line total will be entered in the final column. Calculate each line in this way and then place the cursor at the foot of the table. A few more keystrokes and every column in the table will be totalled automatically. Any figures included in brackets or with a minus sign will be subtracted and the program has facilities for division and multiplication as well. In fact all of the commands to calculate variables can be included in a format and can be executed with just two keystrokes. There is an example included in the tutorial. Just run it and watch, you'll be amazed!

## MAIL MERGE

Next comes Mail Merge which allows you to take a standard letter and 'personalise' it by automatically inserting names and addresses or other information within the standard letter. An example is again provided. The procedure is somewhat lengthy but once set up is easy to use. Your letter is composed as one file and the information you wish to insert, in the example names and addresses, is composed simply as another text file. You then simply insert markers in your letter, which can be conditional, and start printing. This is where the 130XE is used to good advantage for you can load your letter in the upper half of memory with the merge information in lower memory, thus eliminating disk access.

The use of conditional markers makes the mail merge another powerful feature. You can for instance set up a file, or multiple files, containing a full list of contacts or addresses with as much detail as you wish and then print letters to them accordingly conditionalised down in your main letter. You could for instance write only to those in London or you could exclude London addresses. You could write only to male or female contacts or, if you keep your contact

Be up-to-date, only to people who have expressed an interest in a particular product or service. It is obviously not as powerful as a full database program but for simpler situations is more than adequate.

The manual finishes here but the majority of the manual is unexciting. There is more to what you can do with Superscript. Let's take a look now at the editing features as controlled by the keyboard. At first sight any action seems unnecessarily complex requiring the SELECT key to be pressed followed by selection of the feature required and then selection from a sub-menu. In some cases a further menu is presented. If you don't study the manual you could waste a lot of time performing almost any function but once you have executed a particular action, no matter how complex, it can be repeated by simply pressing CONTROL-R. In fact most of the commonly used editing features can be accessed by using CONTROL with an appropriate character. There are several really neat features here such as changing words between upper and lower case. CONTROL-F will change a word from upper to lower case but will ignore vowels leaving the initial letter as a capital in cases like the start of a sentence. Press again and this turns to lower case. If you prefer to use the cursor movement keys without holding CONTROL, simply change them so that the cursor movement is standard and the arithmetical signs are accessed with CONTROL.

## USER DEFINED KEYS

What if you need to repeatedly use a series of commands? Easy, just assign these commands to any key on the keyboard in either upper or lower case. Press ESC followed by the key and the program will perform the action you have assigned. Almost anything can be assigned to a key from passages of text to single characters or series of commands. Your name and address for instance can be inserted in a document with two or three keystrokes. It can even be automatically corrected or targeted right. Often-used words can be inserted at a stroke or the cursor can be moved as desired. Several examples are given in the manual but the applications are limited only by your imagination. Suppose for example you often transpose two characters. Simply assign a key to reverse them, place the cursor on the first character and change them about. You can change disk drives, obtain a directory, initiate a search, change dates and much more. All that seems quite powerful, but the real beauty lies in the fact that every key stroke you define can be made permanent so that the keyboard is configured to your specification each time you load up a work disk. If you wish you can have different configurations for different tasks and change midway through a session. You may not appreciate the power until you have used it, but what it basically means is that Superscript is not a program to which you need to adapt but a program which adapts to you. Your working version of Superscript will be exactly that, your own personalized program.

## LAYOUT FEATURES

Before I go on to the search and replace functions and spelling checker, a brief word about the layout capabilities as regards the printed document. All the expected facilities such as setting margins and page lengths, centering and justifying text, including leaders and footers are there as well as page numbering but a few more features are included. Margins as well as page numbers can be offset alternately so that if you are producing a bound document the wider margin will always be in the center of the pages. To produce a double-sided document you can print odd numbered pages first, turn the paper and then print even numbered pages. Four levels of indented can be set and released as desired allowing hanging indents, such as you see in numbered paragraphs, to be easily produced. A nice report is included on the training disk to illustrate many of these features.

## SEARCH AND REPLACE

One of the useful features of a word processor is the ability to find words quickly throughout the document and replace or amend them and Superscript naturally has this feature. You may change all occurrences of a word or verify each change or simply find a particular word to position the cursor for editing. It was here that I found one of the few limitations of Superscript as it cannot search for spaces. I often used Altameter to check for and replace inadvertent double spaces in a document. A useful feature of the Search facility is to search forward or backward so you do not need to go to the start of the document for multiple searches.

## THE SPELLING CHECKER

So now let's assume that you have typed your document. Before you print it you will want to make sure that the spelling is correct so allow key strokes (or assigning these to a particular key) bring the spelling checker into action. If you have two drives insert the spelling checker into drive 2 and the program will look for it first in drive 1 and then in drive 2. If it is not in either you will be prompted to insert it. The first action is to analyze your document. You will be told how many words have been used, how many sentences there are and how many paragraphs as well as the average word length. Then the spelling will be checked in alphabetical order throughout the document. This method is slow but it works well and incorrect or unrecognized words will be highlighted for action as they are reached. You may either accept the word in which case all further occurrences will be ignored, ignore the word so that it will be flagged again if found or have the program learn the word and insert it in the dictionary for future use. Words which you use often can thus be added to the dictionary automatically so that each time you use the spelling checker, its vocabulary expands. If a word is incorrect you simply edit it and resume the check. When it is finished you can replace the original document on disk with one keystroke. One point to bear in mind is that, being a British program it checks for English and not American spelling!

The spelling checker has other uses. You can use the disk as a straight dictionary. If you don't know how to spell a word just look it up by typing the first few characters and you will be shown all the words that begin with those characters. While the program cannot check grammar, you can display all the words used with their frequency so that you can see if for example you have used 'trial' or 'trial' too many times.

## CONCLUSIONS

Superscript is usually several times the size of this magazine so you can see that it is possible only to scratch the surface in a review. The program was originally written for the Commodore but the Atari version is no straight 'clump' on another computer. In fact Premier Software have produced a remarkable program especially since the first time they touched an Atari was only four months before producing this version of Superscript. In that short time they have discovered and used more of the facilities of the XL and SE computers than many of the well-established companies in the States that have been writing for Atari for years. I will finish by pointing that for the serious user this is the most important program to appear this side of the Atlantic. It is only the final recognition of the Atari as a serious computer, something we have known all along.

Superscript is scheduled to retail at £69.95 - the same price as the Commodore version. If you think that is expensive compare it with Altameter at £79 plus a printer drive at £50 and a spelling checker at £30. You will save £50 and believe me you will get much more for your money. ■

## GETTING UP TO ANTICS

a tutorial on

by Steve Pedler

Most owners have heard of Atari's ability to re-define characters—even if they are not sure how it is done. Character graphics are a quick, versatile and memory-efficient way of developing game playfields and simple animations. In this article I will show you how to use two of the least understood of the text or character modes.

One problem with using character graphics is that the best-looking characters are only available in Graphics 0, which only allows one colour. In Graphics 1, characters can be any one of four colours, but the loss of resolution makes them look rather chunky. What would be most useful would be a graphics mode with the resolution of Graphics 0 but with more than one colour available, preferably without using extra memory. It would be even better if the characters themselves could be made up of more than one colour. Well, believe it or not just such a mode is available on the Atari. It is known as Antic 4 or on the XL and XE machines as Graphics 12. Antic 5 (Graphics 13) is a similar mode but with less resolution. These modes are used extensively in commercial games, but for some reason tend to be less used by the ordinary Atari user. I suspect that this is partly due to lack of awareness of the existence of these modes and partly due to the need for a little extra programming in order to use them.

Why Antic 4 and 5? As many of you know, Antic is the chip inside the Atari directly responsible for producing the display on the TV screen. It recognises 14 different graphics modes (numbered 2-15 by Antic) plus the three GTIA modes, but unfortunately not all of these modes are directly available from BASIC, at least in the 400/500. I understand that all but one of these modes can be called from BASIC in the XL models, however all the programs in this article should work equally well on both XL, XE and older machines. Antic 4 and 5 are therefore termed as two of the 'hidden' modes. The other three are Antic 3, 12, and 14 and would perhaps be a suitable subject for another article.

How then do we get into these modes? Antic is told how to display data on the screen by means of a set of instructions called the Display List. This isn't intended to be an anti-does display/list as such (yet another article) so suffice it to say that to use Antic 4 or 5 we must either set up our own Display List or modify an existing one. (XL or XE users can simply use a Graphics 12 or 13 statement).

Antic 4 is similar to Graphics 0 in screen format and memory requirements so to use it we merely change the existing Display List. We can find the start of the list easily enough by PEEKing memory locations 560 and 561.

```

00 0 MEM WRITE MODE'S LISTING 1
10 10 GRAPHICS 0
20 20 DISPLAY=CHR$(1);CHR$(CHR$(1))
30 30 PEEK 561,60:FOR J=0 TO 20:POKE 561
  J,4:NEXT J
40 40 LIST

```

Listing 1

```

50 0 MEM ANTIC MODE'S LISTING 2
10 10 FOR J=0 TO 20:READ W:POKE 561+J,W:
  NEXT J
20 20 GRAPHICS 1:POKE 1024+4,PEEK(1024)+PEEK
  (1024+8)+PEEK(1024)+PEEK(1024+16)+PEEK(1024+
  20)+PEEK(1024)
30 30 PEEK 560,6:POKE 561,5:POKE 57,6
40 40 FOR J=0 TO 20:POSITION 0,J
50 50 ? CHR$(ANTIC MOD 7)
60 60 NEXT J
70 70 END
80 80 DATA 12,12,12,12,6,6,6,6,6,6,6,6,
  6,6,6,6,6,6,6,6,6,6,6,6

```

Listing 2

```

90 0 MEM ANTIC MODE'S LISTING 3
10 10 DATA 1000000000000000
20 20 BANTOP=PEEK(1024)+PEEK 1024,BANTOP*2
30 30 GRAPHICS 0:DISPLAY=CHR$(CHR$(CHR$(1)))
40 40
50 50 PEEK 561,60:FOR J=0 TO 20:POKE 561
  J,4:NEXT J:POKE 561,12
60 60 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(

```

```

  1))))))
70 70 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
80 80 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
90 90 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
100 100 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
110 110 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
120 120 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
130 130 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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140 140 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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220 220 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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240 240 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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270 270 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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280 280 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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290 290 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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300 300 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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310 310 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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320 320 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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350 350 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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370 370 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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380 380 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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390 390 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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400 400 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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410 410 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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420 420 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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430 430 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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440 440 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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450 450 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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460 460 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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470 470 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
480 480 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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490 490 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
500 500 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
510 510 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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520 520 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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530 530 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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550 550 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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560 560 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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570 570 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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580 580 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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590 590 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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600 600 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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660 660 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
670 670 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
680 680 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
690 690 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
700 700 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
710 710 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
720 720 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
730 730 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
740 740 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
750 750 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
760 760 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
770 770 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
780 780 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
790 790 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
800 800 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
810 810 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
820 820 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
830 830 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
840 840 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
850 850 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
860 860 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
870 870 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
880 880 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
890 890 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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900 900 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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910 910 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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930 930 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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940 940 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
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950 950 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
960 960 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
970 970 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
980 980 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))
990 990 BANTOP=CHR$(CHR$(CHR$(CHR$(CHR$(CHR$(
  1))))))

```

Listing 3

Precision Software's

## Business Software Family

for your

Atari 800XL and Atari 130XE

*Superscript*

The Intelligent  
Word Processor

"The most intelligent and powerful word processor available" — *Atari's* *AtariWeek*  
"The Best Utility, Computer Magazine, July 1988"

#### What is Superscript? -

Superscript is a powerful word processor, spelling checker, calculator and mailing labeler, all in one package. In Superscript you will find the most powerful word processing capabilities, including: automatic word wrap and automatic text alignment; automatic word and sentence counting; and automatic Superscript file renaming and auto-backup/restore of files. The program files occupy a total disk space of only 100K. For more information, contact Precision Software at 10000 Wilshire Blvd., Suite 100, Beverly Hills, CA 90210.

#### Simple for the beginner

Because it requires no programming, Superscript's simple command menu makes it immediately usable. Each command is highlighted, and each command has an associated keyboard shortcut. In order to use it, you simply move the cursor. You don't need keyboard programming!

Once you are familiar with Superscript, you can take the menu.

#### Powerful for the experienced user

Superscript gives you the ability not only to store a document by storing your calculations, but also to store a document by storing your calculations. This means that you can store a document by storing your calculations, and you can store a document by storing your calculations. This means that you can store a document by storing your calculations, and you can store a document by storing your calculations.

#### Editing options

Superscript gives you the editing options of a business style word processor, with full support for undo, redo, and delete. It also includes a full screen editor, and a full screen editor with automatic scrolling. It also includes a full screen editor, and a full screen editor with automatic scrolling.

#### Good with numbers

Superscript gives you a complete calculator, and the ability to store property calculations. It also includes a full screen editor, and a full screen editor with automatic scrolling.

Superscript's complete and powerful features make it a powerful word processor. It also includes a full screen editor, and a full screen editor with automatic scrolling.

#### Good with spelling, too

The built-in spelling checker goes right through your text, checking the unprintable characters, and checking every word. It also includes a full screen editor, and a full screen editor with automatic scrolling.

#### Mailing with Superscript

Superscript's mailing labeler will help you to create mailing labels. It also includes a full screen editor, and a full screen editor with automatic scrolling.

Now available on Commodore 64 and 128, and Apple II and IIx.

*Super  
TYPE*

The Professional  
Keyboard Trainer

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An endlessly patient tutor helps you to improve your productivity without expensive typing classes or tutors.



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## Antic modes 4 and 5

Without further ado therefore, type in and run Listing 1.

Notice that the default background colour to Antic 4 is black. Notice also that you can't read the characters! Why this should be so we will discuss later. In all other respects Antic 4 is treated as Graphics 0 by the Operating System and all of the screen editing and cursor control features will work normally. You will stay in this mode until you do another Graphics call or press System Reset.

Antic 5 is a little more difficult. The problem is that there is no other mode available with equivalent resolution. Graphics 1 has 20 x 20 resolution giving double width characters, plus a text window, while Graphics 2 has 20 x 10 resolution giving double width, double height characters. Antic 5 however has 40 x 10 resolution (normal width, double height characters), assuming a text window is added. The easiest solution is to construct your own Display List and place it in a protected area of memory such as page six. To do this, type in and run Listing 2.

A brief word concerning this program may be helpful. Line 10 reads the data for the new Display List and PORTEs it into page six of memory. The only data we don't have is the starting location of screen memory and of the text window memory, and this is represented by the asterisk in line 100. Graphics 1 needs the same amount of memory as Antic 5 (even though the screen format is different) and calling Graphics 1 in line 20 automatically allocates the correct amount of RAM. Locations 88 and 89 point to the start of screen RAM, and 660 and 661 point to the start of text window memory. The values in these locations are then PORTEd into the appropriate places on page six. Line 30 redirects the Display List pointer to our new list. One further problem is that although we know that 40 characters can be printed per row, the Operating System thinks it is in Graphics 1 (from line 20) and will only allow 20 characters to be printed per line. We can trick the computer into thinking it is in Graphics 0 (40 characters per row) by PORTEing 87 with zero, which allows us to use this mode fully. Having opened channels to the screen by the Graphics call in line 20, we must use this channel to print onto the Antic 5 part of the screen. One final snag to watch for here - only 10 rows are available for printing (not counting the text window) but the OS, thinking it is in Graphics 0, will allow you to print up to 20 rows without returning Error 041 - cursor out of range. Attempting to print outside of this 10 row limit may cause interference with the OS RAM below screen memory, causing a program crash.

Let us return to why the text is not readable in these two modes. As you know Atari characters are constructed on a grid of 8x8 pixels. Each pixel can either be 'on' or 'off' (i.e. lit or unlit), so that the letter 'A' for example would be made up

continued overleaf

## Getting Up to Antics continued

like this



In Antic4/5 however, each character is constructed on a 4x8 grid, with each pixel being twice as wide as a GraphicsD pixel (technically, one colour clock wide). Either half of the pixel may be lit independently of the other, so that the pixel may also determine colour. The pixel configurations and the colour registers used are shown in Table 1.

Using this chart, you should be able to define your characters in any desired colour or combination of colours. If you look at the above diagram of 'A' in this light, you will see that although retaining the shape of the letter, the character is in a mixture of different colours, making it difficult to read. Antic4/5 characters must be designed to take this into account. The letter 'A' in Antic 4/5, Setcolor 0, should look like this for example



In order to use other colour registers it would of course be necessary to define the letter in a different fashion.

One problem with re-defining characters is that they will no longer be readable in Graphics D. This is unfortunate if your programs use on-screen prompts or user inputs that you want to be readable. However, we can change the characters back to the original set in mid-screen by using a Display List Interrupt. Listing 3 is an example of character re-definition and a Display List Interrupt to set up Antic 4 with four lines of Graphics 0 at the bottom of the screen. It re-defines the characters A, a, and Control-A as upper case 'W' in those colours, and then prints them and their inverse video counterparts to the Antic4 screen. It also prints them to the Graphics D window to show the use of the DLI.

The DLI also restores the default background, border, and character luminance colours so that you can alter the colour registers as much as you like without making the text unreadable. The DLI itself and the machine code routine to move the old character set into RAM are kept as separate subroutines for use in your own programs.

Note that the screen does not have a true text window. Anything printed here will normally scroll into the rest of the screen with further inputs or prompts but line 100 prevents

```
01 0 REM ANTIC MODES LISTING 4
02 00 RESTORE 65
03 00 FOR J=0 TO 25:READ @PROM:PRINT @PROM;:N
NEXT J
04 00 DATA 112,112,112,87,0,0,0,0,0,0,0,0
,0,0,112,88,0,0,0,0,0,88,0,0
05 70 GRAPHICS 1:PROM 112+4,PROM 100:PROM
0 112+8,PROM 081:PROM 1121,PROM 100+1
PROM 1121,PROM 100+1
07 70 PRINT @M,@PROM @L1,@PROM @T,0
08 00 POSITION 1,1:PRINT @M;" @ @ @ @ @ @ "
09 00 T " " " @ @ @ @ @ @ "
Listing 4
```

```
01 0 REM ANTIC MODES LISTING 5
02 1000 DATA 0, 90, 70, 70, 90, 70, 70, 0
03 70 DATA 0+70, 0, 170, 140, 140, 170, 140, 140, 0
04 1000 DATA 0, 100, 100, 100, 140, 100, 100, 0
Listing 5
```

this. To see the effect, press BREAK and then RETURN several times.

The program will need to be changed for Antic 5. Substitute the lines in Listing 4 for their counterparts in Listing 3.

Two points to note. Firstly, the characters don't look as good as they do in Graphics D, because we are defining them with less resolution (8x8 as opposed to 8x8 pixels). Secondly, note the curious way in which inverse video is treated. Those pixels used with only one half of the pixel lit are unaffected, but those with both halves lit (using Setcolor 2) change colour (to Setcolor 3) in inverse styles. This gives us four colours on screen, but only three in any one character.

So far, I have made no mention of the best feature of these modes - the ability to use characters consisting of up to three colours. For a brief example, substitute the lines in Listing 5 for their counterparts in Listing 3. You should see each letter 'A' appear in two colours.

I appreciate that 'A' in two colours is not the most exciting thing you've ever seen, but bear with me a moment. Of course, if you want full multicolour text on your Atari, you will have to redesign all the characters. I will leave this for you, but note two things. Firstly, you will lose some of your character set - whichever you choose to redesign. In the above example, we lost the lower case and Control-A characters. Secondly, design is greatly helped by a character generator utility which supports Antic4/5, my own personal favourite is 'Magic Window' from Quakekuk. The best

Red-configuration	Setcolor	Register	Default colour
■□	0	708	orange
■□	1	709	green
■□	2	710	dark blue
■□ (inverse)	3	711	red/purple
□□ (background)	4	712	black

Table 1



```

IL 8 NEW ARTIC MODEL LISTING 8
LL 87 DATA 2288
JJ 1688 HISTORY 1688
FF 1688 FOR JOB TO BILLBOARD NIPPOKI GURCHO
#1688,8
ZZ 1688 NEXT JIPPOKI FOR DAIPOKI TWP, 2187
PPP 218, 24
ZZ 1688 DATA 8,0,8,0,8,0,8,0
CC 1688 DATA 8,0,8,0,8,0,8,0,2
CC 1688 DATA 8,0,8,0,8,0,8,0,178
CC 1688 DATA 8,0,8,0,8,0,232,232,178
CC 1688 DATA 8,0,8,0,8,0,8,0,178
CC 1688 DATA 8,0,8,0,8,0,232,232,178
CC 1688 DATA 12,12,12,12,12,12,12,12,178
CC 1688 DATA 8,8,8,8,8,8,8,8,8
CC 1688 DATA 8,8,8,21,8,1,8,8
ZZ 1688 DATA 2,2,8,8,8,8,8,8,48,21
MM 1688 DATA 178,178,88,88,88,88,88,88
ZZ 1688 DATA 18,178,88,88,88,88,88,88
CC 1688 DATA 18,178,88,88,88,88,88,88
CC 1688 DATA 18,178,88,88,88,88,88,88
CC 1688 DATA 18,178,88,88,88,88,88,88
LL 1688 DATA 8,8,88,88,88,88,88,88,88
CC 1688 DATA 8,8,8,8,8,8,8,8,8
CC 1688 DATA 8,8,8,8,8,8,128,8,8
CC 1688 DATA 8,8,8,8,8,2,128,88
CC 1688 DATA 8,8,8,8,8,2,128,8,8
CC 1688 DATA 8,8,8,8,8,8,8,8,8
ZZ 1688 DATA 8,8,8,8,8,8,8,8,8
FF 1728 DATA 8,0,2,18,48,187,187,187
MP 1728 DATA 8,188,188,188,188,188,188,188,88
8
MP 1728 DATA 8,48,178,178,188,188,1,8
ML 1728 DATA 8,178,178,88,88,88,88,88
ML 1728 DATA 188,188,178,178,178,178,8,8
ML 1728 DATA 8,8,178,178,178,178,8,8
JJ 1728 DATA 8,8,178,178,178,178,8,8
PJ 1728 DATA 48,178,178,178,178,8,8
CC 1888 DATA 232,232,178,188,187,21,8
CC 1888 DATA 188,232,178,178,188,188,84,8
CC 1888 DATA 8,8,8,232,8,8,8
CC 1888 DATA 8,8,8,8,232,2,8,8
CC 1888 DATA 8,8,18,178,178,178,178,88
CC 1888 DATA 8,8,178,178,178,178,178,88
JJ 1878 DATA 8,8,188,188,178,178,178,88
MM 1888 DATA 8,8,8,8,8,8,188,88
ZZ 1888 DATA 8,21,21,88,88,14,8,8

```

Listing 6

of the public-domain programs is probably 'Create-a-Font' published in *Analog* magazine (February 1984 issue). *Computer* magazine published a very useful utility called 'Antic Aesthetics' in October 1983 specifically for the creation of pictures using groups of multicoloured characters.

Listing 6 is a subroutine intended for insertion into Listing 5 above. The characters were created with 'Antic Aesthetics' and if you can be bothered to type in all that data you will get a better idea of exactly what can be achieved in these modes.

Not only do Antic modes 4 and 5 allow you to create superb displays they give you the versatility of character graphics (including animation) and considerable memory savings. Consider for example that while Antic 5 plots are the same size as those in Graphics 7, Antic 5 requires only 0.8K memory while Graphics 7 uses nearly 4K.

Though this article has started you thinking about the 'hidden' Atari graphics modes and I look forward to seeing more programs appear in *PAGE 6* using them. ■

## FREEWAY ACE PROBLEMS?

Several readers had problems with *FREEWAY ACE* from issue 16. The listing is correct as printed but the program will not run if TYPD 8 has been used to check it. The solution is simply to LIST the program to disk or cassette using LIST "C" or LIST "D:FREEWAY.LST", switch off the machine and then re-enter using ENTER "C" or ENTER "D:FREEWAY.LST". This version, which will run perfectly, should then be saved in the usual way.

The problem is that *PLAYE* must be the first string dimensionalized in view of the way the Player Handle Graphics are set up and the strings already used by TYPD prevent this.

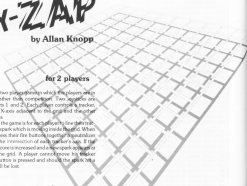
# X-Y-ZAP

by Allan Knopp

for 2 players

X-Y-Zap is a two player game in which the players enjoy co-operation rather than competition. Two joysticks are required in ports 1 and 2. Each player controls a tracker, one along the X-axis adjacent to the grid and the other along the Y-axis.

The object of the game is for each player to line their tracker up with the spark which is moving inside the grid. When both players press their fire buttons together a spark will appear at the intersection of each player's aim. If the spark is hit the score is increased and a new spark appears at the centre of the grid. A player cannot move his tracker whilst his fire button is pressed and should the spark hit a tracker a life will be lost.



```

00 0 000 *****
01 0 000 M      X-Y-ZAP      M
02 0 000 M      SP      M
03 0 000 M      ALLAN KNOPP  M
04 0 000 M      -----  M
05 0 000 M      PAGE 6 MAGAZINE - ENGLAND M
06 0 000 M
07 000 000
08 000 0000 FOR:0000 000
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## Solo Flight Microprose (distributed in the U.K. by U.S. Gold) 48K disk or cassette £14.95

Flight simulator programs for micros have become increasingly popular over the past year and there is now a good selection available for the Atari. Unlike the D.A.C.C. simulator (reviewed in Page 81 issue 9), Solo Flight is based on flying a small single-engine aircraft in a variety of locations in the U.S.A. On booting the disk, you are given the main menu from which you may select either the Practice Flying mode or the optional Mail Pilot game. If "Flying" is chosen, you may also choose the type of flying you wish to practice - this may be Clear Weather, Landing practice, Windy Conditions or Instrument Flight Rules (low cloud and no good visibility). You can select the state in which to fly (Kansas, Washington or Colorado) and this is important since it is much more difficult to fly in mountainous Colorado with its tiny airfields than it is in nice flat Kansas. To play Mail Pilot needs a good working knowledge of how to fly the aircraft and so it is best to start with Practice Flying.

The main flying screen starts with your plane grounded on an airfield somewhere in the state of your choice, and your first task therefore is to take off! The screen itself is divided into two halves. The top part shows the view out of the front window (through you can look out of the sides or behind by using the arrow keys). One slightly odd feature is that you can also see a small picture of the aircraft in the middle of the screen. This is intended to aid the user in determining the attitude and height of the plane, since it also casts a shadow. Although a little unrealistic, it is necessary and you very quickly get used to it. The bottom half is a comprehensive set of instruments including the speed indicator, fuel gauge, airspeed indicator etc. and also Instrument Landing System and VOR navigational indicator. Some of these instruments are dials and others are digital readouts. Controls are provided by joystick and keyboard. The stick controls climb, dive and bank while the keyboard controls the flaps, brakes, landing gear and throttle with the 0-9 keys via Star Raiders. There is a pause key which is absolutely essential since there is no autopilot in this plane and you could easily crash into a mountain while reading the instructions. In-flight emergencies can be simulated for practice purposes.

Take-off is straightforward. Simply taxi to the end of the runway, set flaps, apply full power, and pull back on the stick when the speed is 65 knots or more. You inevitably make mistakes the first few times. It's surprising how much difference trying to take off with the brakes applied or with no flaps actually makes!

Once up, you can fly around as much as you like until your fuel runs out, but you can't relax - just as in a real plane you must watch your instruments and make numerous small corrections to keep correct course and height. In Washington and Colorado you must also watch out for mountains and avoid flying into them. The mountains are one of the few negative aspects of the program, being

depicted on the screen as white outlines only (i.e. you can see through them) which makes it hard at first to realise what they are and how close you are to them. Fortunately, their heights are given on the state maps in the program's documentation and with a little practice it is easy to fly over them.

The next hurdle is to land, and this is considerably more difficult than take-off. You must get the approach conditions - airspeed, rate of descent, nose pitch etc. just right or you will stall, bounce or simply run off the end of the runway. Failure to lower the landing gear leads to an embarrassing crash. The package insert gives some good guidance on the landing procedure, but it is still very much a matter of practice. It is also essential to practice routine scanning of the instruments and flying in windy conditions before trying IFR flying. This is very difficult at first since once above the cloud ceiling you can no longer see anything out of the window! Finding somewhere to land demands an understanding of VOR navigation - a system which allows you to work out

## Reviewed by Steve Pedler

your current position and that of nearby airfields by means of radio beacon cross-bearings. Again, this is well explained in the documentation.

Having mastered the control of the aircraft, you can then go on to try the Mail Pilot game included in the package. This requires you to deliver the bags of mail to the correct destination in the least amount of time. Not only do you have to be able to navigate correctly, but as the game progresses the weather deteriorates and mechanical emergencies may develop (especially at the higher difficulty levels). After each delivery you are shown a map of the route you took to arrive at your destination, and as difficult airfields in bad weather you may have flown all over the place before arriving. If you crash, the program will tell you where you went wrong. At the end you are given a score depending on the number of successful deliveries, degree of difficulty and technical competence in flying the plane.

Overall, this is a very worthwhile program to own. Once you master the principles of flying the plane, there is the challenge of learning to fly by instruments and the immense satisfaction of bringing the plane in safely with an overhauling engine in terrible weather on a difficult airstrip. Instrument flying is very well catered for and the package offers the facility of designing your own approaches to any one of 21 different fields! The documentation is excellent and supplies all you need to know about flying the aircraft. No program is perfect, and I did have one or two small complaints. I have already mentioned the mountains, and some of the instruments use artefacts for additional colour, which made the fuel gauge in particular difficult to read. Other than that, it is very good indeed and can be heartily recommended.



## Reviewed by Ann Ramkaran

Reviewing a language is rather difficult as, to some extent, whether you like it or hate it depends on what you want to do with it. As I use Atari computers in a school, I was particularly interested in the educational uses of Logo.

The Atari version of Logo is written by Logo Computer Systems of Montreal and is a full implementation, not just turtle graphics. It comes in the usual, somewhat extravagant, Atari packaging as a cartridge and two manuals. The manuals are much better than usual and are very useful so that it is possible to get on reasonably well without buying extra books. Some of the sample programs in the reference manual are actually useful. One of the manuals is a 153 page introduction to Turtle graphics and the other is a 209 page reference manual.

### WHAT DOES LOGO DO?

Logo allows the user to define procedures and once defined these stay in memory (unless erased) so they can be used repeatedly. Recursion is allowed so a procedure can call itself. Procedures reside in an area of memory called 'workspace' and the entire contents of the workspace can be saved on disk or tape.

One of the best features of Logo is, of course, Turtle graphics. The Atari version offers four turtles which can move independently and have separate speed control. Commands to move are easy as are turning commands. Error messages are beautifully explicit. For example "I don't know how to ...". A pleasant change from the error numbers given by Atari Basic.

The Atari version differs from many others in allowing collision detection. This is easily available by setting up 'WHEN DEMONS'. Once the demons are enabled they remain active until cleared. This example shows how easy it is to set up collision detection:

### WHEN 19 (INSTRUCTION LIST)

When Turtles 0 and 1 collide (event 19) the specified instruction list or procedure is executed. Position of the joystick and use of the fire button can also be detected.

It is a pity, given the graphics capabilities of the hardware, that there is no choice of graphics mode available. The lines drawn by the Turtles are relatively low resolution which limits some possible applications. A shape editor is provided allowing up to 16

different shapes to be designed and held in memory. The shape of the Turtle can be changed to any one of these very rapidly, allowing simple animation.

As well as supporting Turtle graphics, Logo also provides useful list processing and has abilities for file handling. This might well be of interest to those who find the lack of proper string arrays in Atari Basic a handicap, however, as with all interpreted languages, this type of program runs slowly and offers few advantages over something like Microsoft Basic II. If you need list processing and string handling, look for a language which is written for the purpose.

### EASY TO START

At entry level (Turtle graphics) Logo is easy to understand. A six year old can get the Turtle moving and draw on the screen. At a more advanced level the language, as might be expected, becomes more difficult and is no easier than Basic.

From an educational point of view Logo is interesting to work with. It undoubtedly helps children to learn about problem solving. The big advantage over structured Basic is that the graphics are easy, children like to draw things on the screen and are therefore better motivated. As relatively few commands are needed to get started it is easy enough for young children to use. The Turtle graphics are excellent for investigating simple geometry. It is probably best used with groups of children by explaining the commands available then allowing the children to work out their own procedures to solve problems which so far as possible they choose themselves. In this way the children learn from their own experience.

I would recommend Logo to anyone using the Atari computers in education and also suggest it to parents who bought the computer in the hope that their children would learn more than how to nap aliens!

Logo should be available from local suppliers at approximately £60. Educational users should be able to get a discount if they contact Atari of Slough.

Ann Ramkaran is a teacher in Liverpool. She has a set of programs developed for the school for creating text files in Check. These are on disk and can be printed to a 1020 printer when required. Anne is happy to supply the package to anyone interested (free of charge if they send a blank disk plus return postage to her at 318, Algharth Road, Liverpool, L17 6AA.

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# Castle Morgue

an adventure

by David Blease

All the kingdoms of the known world have a Princess but many have sinister and evil beings that seek to gain power by kidnapping and ransom. The beautiful Princess Marissa has been captured by such a wretch and is held captive deep in the recesses of the Castle Morgue. As principal knight of the kingdom you have spent many months searching for the Princess and have come at last to the drawbridge of the mighty Castle Morgue. The princess lies close at hand and your task is nearly complete but there are many dangers lurking within. Can you overcome these dangers and reach the Princess? How big a soul do you have are you then strong and clever enough to escape?

Castle Morgue is a text adventure in similar vein to House of Secrets (PAGE 8, Issue 18) but has many improvements. The split screen is refined during the vertical blank period getting rid of those occasional glitches of colour. The response time remains very fast and the screen layout has been improved. There are 42 locations and a large vocabulary. As before every problem has a logical solution and there are no 'magic' words.

Typing it is should be easier as there are few graphics characters used and only the occasional command needs to be abbreviated. The program just appears into 25k. Be sure to SAVE a copy before running and if using cassette I recommend that you SAVE at least two copies. The program can be typed in several sections by using LIST to save each section and ENTER to combine all sections into one program that can then be saved.

If you want to play Castle Morgue without getting clues from the listing or just don't fancy all that typing, disk users can obtain a copy of the issue 17 disk from PAGES, priced £3.95 and cassette users can obtain a tape direct from the author. Send £2.95 to David Blease, 32, Melcombe Avenue, Weymouth, Dorset DT4 7TF. Tel: 0305 771193. Please remember to include your name and address and ensure they are legible.

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07 777 0F 1000 0000 00  
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# THE SOFTWARE REVIEWS

## MR DO Datsoft 48k cassette £9.95

MR DO is a straight conversion of the arcade game of the same name. Having been slightly disappointed by the Atari version of MR DO (through an improved version of the 168,80M is apparently available in the States) I was anxious to see how well this version of MR DO from Datsoft compares with the arcade original.

The game is a long leader - well over 25 minutes, in fact - and quite obviously sees every single byte of the specified

48K. Whether it's worth the wait or not is another matter.

The action takes place in a field, of all places, during clearly harvest time. The idea is to guide MR DO around the screen collecting the cherries whilst defending yourself against the inevitable monsters. MR DO's main weapon is his magic powerball, which he throws at the monsters in order to destroy them. It takes a little while for the ball to return to his hand though, so you will have to seek out alternative ways to dispose of the monsters. Dotted about the field are several giant apples. These can be dropped onto the monsters for large bonus points. Boss monsters appear at various stages during the game. The Boss monsters carry letters corresponding to the word 'EXTRA' at the top of the screen. If you knock out all the individual letters making up the word 'EXTRA' you get a bonus MR DO. A nice little animated sequence accompanies this event and gives you a short break from the proceedings. Time to catch your breath before returning to the action again.

Other types of monster you will encounter are handaxes - these appear along with the Boss monster and can be turned to harmless apples by knocking out the Boss monster - and diggers. Any monster can turn into a digger, and these are particularly dangerous as they can

dig tunnels through the soil to get at MR DO.

Watch out for the lucky diamonds which spill out of the apples on very rare occasions (make that extremely rare as I never came across one). These are worth an amazing 8000 points, but more importantly, they enable you to exit that particular screen without having to kill the remaining monsters.

The sound effects are excellent in this game and the tunes are sufficiently varied so as not to annoy you too much. In any case they can be turned off altogether by pressing the 'O' key. There is also a facility for left-handed players, which involves pressing the 'L' key and reversing the joystick a quarter turn clockwise. A good idea this, and one which other programmers may like to copy.

Finally, the graphics just aren't up to scratch considering the amount of memory used. My main criticism concerns the game characters, which are rather poorly defined. Colour choice could also have been better. I feel, and joystick control is awkward and sluggish. I found myself getting caught out far too easily, mainly because MR DO wouldn't respond quickly enough to the controls. The fact that the monsters move at almost twice the speed of MR DO doesn't exactly help matters. I found this a difficult game to get to grips with.

## MR DO VERSUS MR DIG

## MR DIG .... Microdeal .... 32k cassette .... £6.50

Considering that Microdeal first made their name releasing software for the dreadful Deagle 32 computer, and having had first-hand experience of one of their previous efforts for the Atari, namely 'Digger Ranger', you could hardly blame me for not expecting a great deal from MR DIG. However, I must admit I was pleasantly surprised. MR DIG is an excellent implementation of MR DO and is far and away the best Microdeal game I've ever seen.

Comparing is fairly subjective to the arcade original, although there are one or two minor differences which may or may not be due to copyright reasons. MR DIG is much easier to play than the Datsoft version. It allows you to select from ten levels of difficulty ranging from 'Big Baby's Level' (easiest) through to 'Masochist's Level' (impossible). During the course of the game itself you must complete a combination of several screens on the one level before advancing onto the next level, so you are given a better than even chance of getting the hang of the game early on before things start to get tricky.

On the whole the graphics are excellent. The various game characters are colourful, detailed, and easier to make out than their Datsoft counterparts. In particular, like the diggers in this game - they are very reminiscent of the 'wag wags' in DORVILLE FONG (IBM). One tiny criticism concerns MR DIG's powerball. It is dull blue in colour and also a bit on the small side. Consequently you cannot always see if it has returned to MR DIG's hand unless you have binoculars! Joystick response is flawless though, and gives the Datsoft game a proper shouting-up in this department.

Sound is generally good, if rather basic at times. Unfortunately, there is no way you can turn it off from the computer, so I'm afraid you're stuck with it unless you turn it off altogether via the TV set.

MR DIG doesn't have the fancy animated sequences of its American rival, but it does have a 'Hall of Fame' high score table which the Datsoft version lacks.

by Jim Short

### SUMMARY

Points may well give Datsoft's MR DO as the gameplay more closely follows that of the arcade original. If you're short of cash at the arcade game you will certainly find MR DO more of a challenge than MR DIG. Personally, I felt that MR DO was a little too hard and I think MR DIG will appeal to a wider range of computer gamers.

In a game versus game comparison, I most prefer the MR DIG. At £6.50 it is one of the cheapest good quality Atari games on the market. Incidentally, MR DIG was programmed by a lady programmer, Miss Jay. She deserves lots of love for this effort. Let's hope we see more games of the calibre of MR DIG for the Atari than other British software companies in the near future.



# THE SOFTWARE REVIEWS

## DECATHLON Activision

Pussy yourself as the next Daley Thompson! Activision's DECATHLON gives you the chance to become the world's No. 1 computer athlete.

After booting up the game you are given the option of taking part in a full-blown Decathlon or any of the ten individual events, these being: 100 metres, Long Jump, Shot Put, High Jump, 400 metres, 110 metres Hurdles, Discus, Pole Vault, Javelin and 1500 metres. You also have the choice of a 1-4 player game. In a 1 player game, you compete in each event for the highest possible points total. On the track, you run against a computer opponent who acts as a 'pacer man' to get you on to hopefully, greater things. In 2-4 player games, the players compete against one another and the winner is the player who finishes with the highest number of points.

You control your athlete via the joystick. To get him to run you must toggle

the joystick back and forth (left and right) as quickly as possible. All jumping and throwing actions are carried out by pressing the Infection. Your ultimate success at each event depends primarily on your stamina with the joystick and your timing with the Infection. Toggling the joystick back and forth at high speed is incredibly energy-sapping and by the time you have completed all ten events you'll probably feel as if you've just taken part in a proper Decathlon - I know I did!

The computer rewards you with a bonus if you score 1000 points or over in any event. This is more easily accomplished on the field than on the track. I managed to score over 1000 points on every single field event, but the track events were beyond my capabilities, despite the fact that I was using a genuine arcade joystick specially adapted to fit my Atari!

Graphically, this game is very good. The stadium looks exactly like a stadium and courses complete with grandstands

and cheering crowd. Sound is adequate without being anything out of the ordinary. Scrolling is excellent - as it always is on the Atari - and the animation is superb - quite the best I've seen on this type of game. If you've seen the terrible animation of the athletes in LA GAMES 1984 then you'll appreciate what I'm talking about!

DECATHLON is my own personal favourite of all the Track and Field type games currently on the market, mainly because it is so easy to play and also has far more variety than the others. I particularly like the pole vault and high jump events, but in saying that, I found the 1500 metres a bit boring and the 400 metres to be an absolute killer. Minor quibbles apart, this is an excellent game and a worthwhile investment at only £9.95.

A postscript - DECATHLON is a joystick destroyer! Do not attempt to play this game unless you have an extremely rugged joystick, preferably of the micro-switch variety!

## PITFALL II - LOST CAVERNS Activision 32k cassette

This game must be one of the best games available for the Atari at the moment. You play the part of Pitfall Harry back in search of treasure, but this time in the lost caverns of Machu Pichu. He is a very active character, not only running and jumping but also climbing, swimming and going up in balloons. There are many dangers facing him such as bats, snakes, frogs, birds and electric eels.

Pitfall Harry has to hunt through the hundreds of caverns to find three objects, a treasure called Elixaria, a cat and a frog. Gold bars are scattered about on your way and these give you extra points. An unusual part of this game is that you do not lose lives when you come into contact with a creature, you just return to the last cave you ran over, losing some points the further you are from it. I managed to get all three objects and thought I had completed it, but no, there was another level which I have not yet finished. This next level is even more amazing and more difficult than the first.

The graphics are superb and the game is accompanied throughout by pleasant background music, which changes when you go up by balloon or are sent back to a cave. PITFALL II is well worth buying at a very reasonable price of £9.95.

Jeremy Askew

## Reviews by Jim Short and Jeremy Askew

### HERO. .... Activision .... 16k ROM .... £18.95

Activision are currently converting their top VCS games to run on the Atari Home Computers, using the advanced capabilities of the computers to produce much improved versions of all their popular games. HERO. is one of the recent conversions and, for my money, is Activision's best game to date.

You control Roderick HERO. in his mission to rescue trapped miners from their underground 'prison'. Roderick is kitted out with all the latest equipment including a miniature jet pack you strap to his back and eye-level lasers built into his helmet. He also carries a supply of dynamite which he uses to blast his way through solid rock walls. Mocking the various tunnels and passageways, he must then negotiate the labyrinth of tunnels and vertical shafts in order to find the miners who are trapped deep underground. There is only one mine to be rescued on each level of play but HERO. must travel deeper and deeper on each level in his bid to locate the miners. Once rescued the miner will give a wave of a hand when you advance to the next level of play.

HERO. will encounter spiders, snakes and other assorted nasties as he travels which he can dispose of with a quick blast of his lasers. Unfortunately the inhabitants of the tunnels tend to lurk in unexpected places and when faced with a choice of passageways a wrong decision invariably proves fatal for our HERO. making him one of his allotted lives. As with most other games, once you remember the correct layout, you will know which passageways are safe and which are best avoided!

Some of the tunnels are illuminated by lamps. These are usually positioned in the vertical shafts and HERO. must take care not to accidentally knock them out otherwise the whole screen will be plunged into darkness. Definitely not the best way to go about things! In the higher levels of the game, HERO. will face many more hazards such as radio-active walls and lava pools which he must negotiate either with the aid of a raft or by precision flying. The choice is yours.

HERO. is a game which merits the highest possible praise. The graphics are outstanding with horizontal and vertical scrolling up to the usual standard. Sound is excellent and special attention has been paid to the use of colour with, I suspect, extensive use of Display List Interrupts for all those extra colours. Activision certainly have done it get the best from the Atari!

If you are looking for a highly original game with multi levels of play, a game which is a constant challenge and also one which you will not tire of too easily, then look no further. HERO. is the game for you.

# THE SOFTWARE REVIEWS

## DESMOND'S DUNGEON Creative Sparks 16k cassette £8.95

In the past I've always stored the name of a recent release from Thorn GME with mixed feelings, let's face it, they are hardly in the Synapse class. Since switching over to market their software under the 'Creative Sparks' banner however, they have impressed me and. Two of their previous efforts - JWA, EM and SPECAN DELIVERY were both original and highly entertaining games, and now, with the release of DESMOND'S DUNGEON they have come up with a game which proves that the programmers at Creative Sparks are trying to compete with the best.

The game scenario is as follows: Desmond has accidentally stumbled across a seemingly abandoned dungeon filled with gold. All he has to do is ascend up the gold and make his escape. As you would expect, his task is not quite so easy as it first appears. The gold is scattered about over several levels of the dungeon and Desmond must gain access to all these levels with the aid of a series of ladders - a customary item in this type of game. To make things a little more dif-

ficult, Desmond can only carry one bag of gold at a time and he must deposit each individual bag in the 'treasure chest' at the top of the screen before heading off in search of another one.

Huge spiders patrol the dungeon levels. Desmond must avoid them by jumping over them or by dodging up and down the ladders whenever the spiders are approaching. If he comes into contact with a spider he will be momentarily stunned and it will also cost him some power. He begins the game with three lives and a full quota of power. Each time his power is reduced to zero he loses a life and you then have to tackle that particular screen all over again.

Predictably, the spiders are not Desmond's only worry. The evil old Baron who owns the dungeon is not about to give up the gold without a fight, and he flies across the top of the screen in his plane, bombarding Desmond with an assortment of missiles. Each direct hit will cost Desmond some of that precious power, but avoiding all the various objects is more difficult than you can imagine. The Baron's missiles are very unpredictable and have a nasty habit of taking an unexpected 'bounce' in Desmond's direction.

If Desmond manages to get through the dungeon screen unscathed you then advance onto the next screen. Here, Desmond must transfer his gold into the vault with the aid of a mechanical grab at

the top of the screen. Once again, the Baron and the spiders will make things as difficult for him as possible. If you complete this screen you then progress to the next level of play, where the whole process begins again. In the higher levels of play, Desmond must avoid fire and collect keys to recover bags of gold which are out of reach behind locked doors. All in all there is plenty to keep even the most dedicated gamer occupied for hours.

DESMOND'S DUNGEON is a classy piece of software from start to finish, right down to the colourful title screen which kicks off the program. Graphics, sound and colour are of the highest quality and the animation, particularly of Desmond himself, is quite excellent. A further interesting feature is that you can start the game from any level, providing you have attained that level in a previous game. No more harrowing start than level 1 all the time!

DESMOND'S DUNGEON is the best 16K program I've seen in a long, long time. THORN GME (Creative Sparks) deserve a great deal of credit for supporting the Atari faithfully over the years. All owners should repay that loyalty by purchasing this game. At £8.95 (cassette) it's an absolute steal, especially for those people who still haven't had their computer upgraded yet.

Reviewed by Jim Short

## GYRUSS ..... Parker Bros ..... 16k ROM .....

In GyruSS you are controlling a spaceship which is flying from Neptune to Earth. The ship can move in a circular pattern around the screen. Flying from Neptune to Earth is not as easy as it sounds. The intervening space is crowded with several types of enemy spacecraft and you must destroy as many as possible in order to reach Earth safely.

The first type of enemy are planes which are high-speed attack vehicles flying in several different formations. They may appear from far out, in front of you, or they may launch a surprise attack and come speeding past you from behind. These ships can shoot missiles at you, but they don't stop there. If they get half a chance they'll fly themselves straight into you. There are also molecular satellites, so named because they look like giant molecules. These appear in threes, fly in formation and shoot missiles at you. If you destroy the middle satellite you can hit double bullets. The third type of enemy spacecraft is the electromagnetic wave satellite. These come in pairs, shooting a deadly wave of energy between them. There are also meteors coming from out-of-the distance, which you must avoid.

Each time you destroy a wave of enemy spacecraft your vessel 'warps' through space, getting closer and closer to Earth. On your way you pass the outer planets Neptune, Uranus, Saturn, Jupiter and Mars. Each time you reach a planet you play a 'chance stage'. In these stages you get a chance to destroy enemy ships for bonus points. The spacecraft don't fire and you can't destroy you. You can get over 10,000 points during the chance stage, so shooting skill is a definite help here. Bonus ships are awarded at 60,000 points and every 100,000 points after that.

GYRUSS is in the shoot-'em-up class, but is definitely something special. Something that makes the game extra special is the great music played throughout. I'm sure this will be a very popular game.

Jeremy Andrew

## BC'S QUEST FOR TIRES Sierra On-Line 16k ROM

This game is set in the Stone Age with the player controlling a character called BC who rides on a stone wheel. BC has to complete various stages having many hazards on his way in finding his girlfriend. To avoid the hazards he can jump, climb, go backwards and forwards and increase or decrease speed. The game is set on a multiple scrolling screen which is very cleverly done. BC is in the foreground which scrolls quite fast. The background and clouds both also scroll at different speeds. The graphics are very good and are created in a cartoon style. The game is amusing in places, especially when a cavewoman says 'JUMP SUCKER'. It's a shame the game is not very addictive. This is because once you have completed it there is not much of a challenge left. It is not a game I play a lot, maybe just once in a while to show off its graphics.

Jeremy Andrew

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# Matthew's Label Maker

by  
Matthew Jones

compatible with any printer

This program started because I could not find a local supplier of one across labels but it has since grown into a comprehensive label program offering full editing, saving and loading facilities, the ability to modify parameters and a full Help screen. It should be compatible with any printer although, as written, the advanced facilities of enlarged, underlined or 'thick' text apply only to the Epson printers.

Labels can be defined to any size within reasonable limits and can be printed one, two or three across with as many as 100 down although this could be increased if desired. Inter label gaps and label sizes are all catered for and inline editing with insert/delete character or line are included. Error messages are given and error trapping is included.

The program is not intended to be a mailing list handler but the ability to save and load labels to cassette or disk is provided. The filename C: should be used for cassette and the default for disk is D: unless a drive number is specified.

All functions are covered on the Help screen but I suggest that on first use you fill the label screen with characters and print two labels to see how the format matches your own labels. Make sure that you adjust the parameter for number of labels across first. Label size and inter label gaps can then be adjusted to suit. When you are satisfied that you have the optimum label specification, save it as BLANK.LBL. This can then be used as a template each time you wish to define or print a label.

The special facilities of the Epson are contained in control and Escape characters between lines 2200 and 2300 and these can be changed to suit your own printer.

```
00 000 000 *****
01 000 000 MATHIAS LABEL MAKER
02 000 000 PAGE 0 MAGAZINE - ENGLAND
03 000 000 *****
04 00 000 000000,000000,000000000000
05 000000000000000000000000000000000000
06 00 000 000 *****
07 00 000000000000000000000000000000000000
08 000 000 000 *****
09 000 000 MATHIAS LABEL MAKER
10 000 000
11 000 000 a public domain program
12 000 000 for the editing and
13 000 000 printing of labels on the
14 000 000 Atari computers.
15 000 000
16 000 000 This program will print
17 000 000 one side of label, on any
18 000 000 format of label paper.
19 000 000 from one to three wide.
20 000 000
21 000 000 Different copies will be made
22 000 000
23 000 000 All size labels can be
24 000 000 used, with any spacing
25 000 000 between them.
26 000 000
27 000 000 Commonly printed labels
28 000 000 can be saved for later use.
29 000 000
30 000 000 Underline and enlarged
31 000 000 text on Epson printers is
32 000 000 available.
33 000 000
34 000 000 This program was written
35 000 000 by Matthew Jones
36 000 000 Postal Box 817700000
37 000 000 *****
38 000 000 *****
39 000 000 *****
40 000 000 *****
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42 000 000 *****
43 000 000 *****
44 000 000 *****
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## A-Z OF BASIC PART 4

### SETCOLOR (SE)

This will set up the colour registers for the PLOT/DRAWTO graphics mode commands, and the PRINT #6 commands in text modes. They are directly linked with COLOR. There are five colour registers (0-4) accessible through this command, but other registers can be called using POKE statements. Each register is set at a particular colour, called a default colour. These can be changed using SETCOLOR R, C, I where R=colour register, C=colour, and I=intensity (brightness). This can be put directly into memory by POKE location, 16\**C*+*I*. A table follows giving all the relevant details.

SE-0	POKE 708	CAPITALS
SE-1	POKE 709	INVERSE CAPITALS
SE-2	POKE 710	LOWER CASE/WINDOW BORDER
SE-3	POKE 711	INVERSE LOWER
SE-4	POKE 712	BACKGROUND

In graphic modes, SE will colour a point. Which one depends on the mode called. For more detail it is best to consult a tutorial.

### SGN

Returns the sign of a number. It will return - for a negative number, 1 for a positive number, and 0 if the value is 0.

Example: X=SGN(10)

### SOUND (SO)

This opens a sound channel in the form, SO C, R, D, V, where C=channel (0-3), R=a note between F and Z55, D=duration (0-1%), V=volume (0-1%). Experimentation with this will demonstrate all the effects. By using FOR/NEXT loops and N or V values, more intricate effects can be obtained.

Example: SO FOR N=0 TO 255 STEP 1: FOR V=15 TO 0 STEP -1: SOUND N,V: NEXT V: NEXT N

### SQR

Returns the square root of any positive number. Due to the nature of the floating point ROM, some roots may work out to decimal places, eg 2.9999 instead of 3. To get round this just multiply by 10, add 1, divide by 10, and take the integer. If the answer will have decimal places, you will need to use 100, 5000, etc. to work out the correct solution.

Example: X=SQR(100)

### STATUS (ST)

Used to determine the condition of a file opened for input only. X00 is a safer and better form. It will store the error

number in the variable. See DOS2 manual for an example program.

Example: 10 STATUS =1, VARIABLE

### STEP

Used with FOR/NEXT loops to increment or decrement the loop by more or less than the default value of 1. See FOR and NEXT.

Example: 10 FOR V=15 TO 0 STEP -1: SOUND 10,V: NEXT V

### STICK

This will read the position of the designated joystick. The four sticks can be PEEKed directly from locations 630-635.

Example: 10 STICK(0) GOTO 10 REM To find the number returned for each handle position

### STRING

This will read the trigger of the joystick. They can be directly PEEKed from locations 644-647. As for PEEK, 0=pressed, 1=not pressed.

Example: IF STRING=1 THEN "NO"

### STOP (STR)

This is used in the deferred mode to return a program to direct mode without closing files or sound. It will display "STOPPED AT LINE xxx". The program can be restarted with CONT. When stopped, you can print current variable or string values for program testing.

### STR

This will change a number into a string. It is similar to defining a string, but you can change a variable to a string whereas you cannot define a string from a variable. Mainly used to do computations on strings.

Example: A\$=STR\$(000) REM "" Means A\$=100

### THEN

Linked with IF. When the IF part of the conditional statement is true the THEN part is carried out.

### TO

Linked with FOR/NEXT to give the limit of the variable. See FOR and NEXT.

### TRAP (T)

Normally an error during the running of a program will stop and transfer to direct mode. This can be tedious, as the

by Mark Hutchinson

program will have to be restarted each time TRAP with a line number, will send the program to this line number to give an indication of what has occurred. The program can then be automatically restarted by GOTO (the routine that caused the error). TRAP must be reset each time by TRAP to a line that does not exist in the program (normally 40000 - an illegal line outside the computer range). This is useful in debugging a program, but comes into its own whenever you need to stop stupid user responses that would cause a crash. In the following example, if the input is not a number, the user will be told this and given another chance to enter a response, instead of seeing ERRORS. Try entering your name to the program instead of a number, then delete line 90 and do the same again.

```

Example 10 TRAP 100
20 INPUT A
30 "1-1-K":END
100 ?"INPUT A NUMBER"
TRAP 40000:GOTO 10

```

#### USR

This gives entry to a machine language (ML) program starting at the memory/location stated. Normally it will return a value to the variable in the command, but most times this is not required. Several numbers, variables, or strings can be included in the brackets. These will be used by the ML program and are held on the program stack until needed, to move memory from one location to another. If the program is held in a string, the USR function can go to the current address of this string (it can be anywhere in memory) by using

the ADDR function.

```

Examples 10 X=USR(1536)
20 Y=USR(ADDRW)
30 Z=USR(1536, ADDR(A), ADDR(B))

```

#### VAL

This is the opposite of STR\$. It will return the value of string number so that string comparisons can be performed.

```

Example: 10 A$=100: A=SQR(VAL(A$)): ? A

```

#### RIS (X)

This is for general I/O operations and is handy for such things as reading a disk directory without recourse to DOS. It comes in the form RIS-COMMAND, n1, n2, file, where n1 is the device number, n2 and n3 are control bytes, mostly set at 0, and file is the filename to be operated on. For the RIS function, it will be "S" for screen and the device will be n0. A list of command numbers is given below.

#### Examples

3	OPEN	18	FILL
5	GET RECORD	32	RENAME FILE
7	GET CHARACTERS	33	DELETE FILE
9	PUT RECORD	35	LOCK FILE
11	PUT CHARACTERS	36	UNLOCK FILE
12	CLOSE	37	POINT
13	STATUS	38	NOTE
17	DRAW LINE	394	FORMAT DISK

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# Contact

**ANALOG 29:** The only one I've missed since issue 1 so you see how desperate I w! Great price paid for mint condition copy. Les Ellingham c/o PAGE 6

**SYNOPS:** We have a letter from Paul Cameron of Montreal, Canada putting forward an idea of exchanging message bases between his BBS and boards in the US. If you are interested in pursuing this idea (it sounds like a good one), please send a r.s.v.p. to Les Ellingham at PAGE 6 and we will send you a photocopy of Paul's letter.

**U.S. DOUBLE:** Can anyone tell me how to use the Ultrastep VFO without SpartaDev? Steve Hind, 28, Chapel Lane, Ravenshead, Nottingham, NG15 9DA

**BACK ISSUES:** Issues 1 - 7 wanted, any condition or even photocopies. Will pay or exchange ANTIC Vol2 No.3, Vol3 No.1 or ANALOG 19 and 28. Please Help Andrew Thompson, 135, Herlitz Way, St. Dials, Carlisle, Cumbria, GWent, S.Wales.

**ATARI 1300XL:** Does anybody know where I can get hold of a 1300XL? I've written to all the good retailers in the U.S. with no luck. Gerald Forester, 109, Sandpiper Place, Goodsville, East Kilbride, G75 8UP, Scotland.

**EMPIRE OF THE OVERMIND:** I have mapped hundreds of locations but still have no idea of how to conquer them. Can anyone help? Please contact Rick Gillman, 34, Micocroft Road, Newley, Birmmington, B13 8LX, Tel: 021 449 2007

**BACK ISSUES:** Issues 1 and 2 of PAGE 6 wanted in good condition. Photocopies accepted. Will offer exchange. Contact Geoff Webb-5, Skipton Road, Coventry, CV2 3AH or Tel: Coventry 442963

**DOES ANYONE** have a program, or the knowledge to write one, which will plot full size model control sections on my Epson printer. I can offer in exchange a program which will calculate model glider performance. Gordon Turling, Uxbridge (0895) 51551.

**ARROW OF DEATH Pt. 1:** Could anyone tell me how to get into the 'ghost building' without tripping? What do you do with the rope and hook? How do you get into the cave without being killed? David Butler, 30, Birchgate, Bucknell, Shrewsbury-Traa, ST2 8JT. Tel: 0782 281559 (after 4 p.m.)

**WANTED:** 810 disk drive. A.E. Dallas, 24, Minsterbottom Road, Manton Way, Gouthwaite, GL51 0HR

**ATARI 800 PRINTER:** For sale. Offer to Phil Brown, 57, Bank St, Newquay, Cornwall. Tel: Newquay (09573) 2511

**PEN PALS:** I would like to correspond with other 800XL and cassette owners anywhere in the world. I am 11 years old. David Swan, 13, Farming Court, Chingford, Livingston, EH54 5NH, Scotland

**ARROW OF DEATH Pt. 2:** Help! I am stuck at the grill on the stone slab. Is there help on this I can give help on Arrow-of-Death Pt. 1, Standed, Adventureland and even Boulderbush. Also I am just beginning Assembly language and would like to swap ideas or learn along with someone else. Andrew Thompson, 135, Herlitz Way, St. Dials, Carlisle, Cumbria, GWent S. Wales

**LOGO:** Atari owner anxious to contact other users of LCSD LOGO to exchange ideas. Tel: Stan on 051 734 3499.

**PEN PALS WORLDWIDE:** Pen pals with Atari800/XL and disk drive wanted. Mark Jones, 18, Cadoc Road, W. Frinton, Carlisle, Cumbria, GWent, NP44 1HA.

**TIME MACHINE:** Can anyone tell me how to get into the Police Box and/or how to remove the metal plate on the Grass Plate? Mark Jones, 18, Cadoc Road, W. Frinton, Carlisle, Cumbria, GWent, NP44 1HA.

**NEW FOR OLD:** Would anyone swap a 810 disk drive and 430 cassette for my 1050 disk drive and 1000 cassette? M. Myring, 15, Bruce Hill Road, Atherton, Lancs. M29 9RL

**800 DISK DRIVE:** Wanted. URGENTLY! Has anybody got an Atari800 (act 8E) for sale? Mark Jones, 18, Cadoc Road, W. Frinton, Carlisle, Cumbria, GWent, NP44 1HA.

**EXCHANGE ON BELL:** 100 assorted computer magazines, Radio Ranger hand-held action game, Microvision Hand-held computer games system (no. 1 cartridge), 630 the lot (full price) or will swap for any printer that plugs in directly (full pay difference). Alan Whalley, 46, Carrison Crescent, Beckis, Berffshire, Newland, AM8 1AD

**RAM BADED:** Anyone interested in using their Atari for radio communications. I would like to hear from you. I am currently running RTTY and CW transmit and receive and would be only too glad to help or partake in anybody who is interested. John Sheppard, 37, Oakfield Road, Ringwood, Bristol, BS15 2PT.

**RAM PACKS:** Two 1M RAM packs (2000.0) and one 512K cartridge (CXL 4002) for sale. Realistic offers please to Doug Neayr on Boreham 579395.

**SNOWBALL:** Does anyone know how to get the B&B pack from the video viewer? Contact Phil O'Day, 18, Park Avenue, New Larnack, York, YO3 8DB

**NOTTINGHAM USER GROUP:** The Nottingham Mono Club is made up of several user groups covering most home micros. The ATMG group meets on the second and fourth Mondays of each month. All are welcome. The club meets at the Castle Gate Congressional Federation Building - opposite Market & Spencer - in the centre of Nottingham. Meetings start at 7.30 p.m. For further details contact Steven Hind, 28, Chapel Lane, Ravenshead, Nottingham, NG15 9DA. Tel: 0623 795371.

**LADS ASSEMBLY:** Has anyone got the LADS Assembly program from Caspary's Second Book of Machine Language up and running on cassette with an 8030XL? I cannot get it to load. Please help. Les Ibbotson, 1, Mulberry Close, Blythwood, Beds. SG18 0H1

## COMING SOON A GRAPHICS ISSUE

We have a number of reviews and articles for the TOUCH TABLET and would like to put together a special graphics issue. Your contributions on a graphics theme are required. We are particularly interested in a good drawing or graphics program. Send it to:

## YOUR HELP PLEASE!

DRAGGHT'S team is now 17 strong on the XL or NE but not on the 800 and I cannot figure out why. If any reader can come up with an explanation and suggest a fix I would be most grateful.

Les Ellingham

# Beyond ATARI

A series by John J. Smith

looking at aspects of communication

Most of you know about the modem offering communication between computers via the telephone line but there is another way! The ham radio enthusiasts amongst you will have heard of this mode of transmission, it is called **RADOTELETYPE** or **RTTY** for short. Are there any hams amongst page 6 readers?

## RADOTELETYPE

RTTY was originally developed for teleprinters, but now that microcomputers are readily available many genuine teleprinters like the Creed 7b are being replaced to the enthusiast can come in from that cold-drafty garden shed to the warmth and comfort of the living room but due to the completely different systems it is not possible to just plug in and go! The coding system used in RTTY is the Baudot or Murray system using 5 bits instead of the 7 or 8 bits used by computers in the ASCII standard. In addition the baud rate is much slower (50/75/110) due to the mechanical nature of the original equipment.

First let me explain what RTTY is - it is a method of sending and receiving messages by radio. I must make it clear that if you want to transmit or send a message you must have the appropriate transmitting licence to do so legally so this limits the field a bit but all is not lost, if you have a radio with a short wave band tune in and listen to all those bleeps like morse code sounds. Not all of those sounds are morse, some of the very best sounding ones are in fact RTTY signals and as these are ordinary audio signals they can be recorded on an ordinary cassette recorder which can save the sounds for you to play back later.

In order to understand these signals you will need a decoder - a sort of modem - which plugs into either the telephone socket or extension speaker socket on the radio or your cassette and another lead to plug the decoder (modem) into the computer. Once you have this all you basically have to do is tune in your radio until you hear those funny/bleeps whilst watching your tv monitor screen for the printed messages to appear. Be warned though, you are likely to see things like press reports covering news to and from newspapers much of which is copyrighted and any information accidentally obtained by scanning the band should not be revealed to a third party. Some of the commercial users transmit messages in some sort of code, usually in blocks of 5 characters, and although you will see it on screen it will be meaningless. Don't think that your decoder has gone wrong, it just prints data as it is received in the same way it was sent.

There are many ham transmissions both in the UK & U.S.A. and to a lesser degree worldwide and several factors affect reliable reception of the signals. The performance is dependent on the type of radio receiver of course and is usually proportional to cost but there are other things like

the time of day, the weather (yes, really) and choice of frequency which will affect results.

There has been quite a lot published on this subject elsewhere so I will not go into too great a detail here but I think that many PAGE 6 readers will be surprised to learn that their computers can be used like this.

## GETTING CONNECTED

If your interest has been sufficiently aroused you will by now be asking how can a decoder be obtained and what make is the best. Well it would be out of place in a column such as this to list specific items so I suggest that you contact a specialist ham radio shop. If you want to buy one ready made you might even get one off the shelf but it may cost you in the region of £150 to £200 for a ready built unit which might also decode morse code into printed words and come complete with built in AMTOR satellite link! If you want to build a simpler unit yourself, many excellent designs exist and a unit will cost you from £15.00 to £50.

This sort of equipment nowadays usually has RS232C connectors so assuming that you have a suitable interface already for use with your ATARI you should be able to connect too. A printer (even a cheap one) will come in handy too.

One final thing to remember is that computers need software to enable them to know what to do with the information coming in from the radio modem just as a telephone modem does. Several programs do exist, although I don't know of any commercial packages for the Atari. The UK Atari Computer Owners Club have published programs for use with radio or morse or you might like to write your own.

Hope that this article has shown that there are wider uses for your Atari. I think it is important that we do not fall into the trap of looking at our hobby with blinkers on - there is more going on in computing than you think. Although this is a specialist subject everyone should be made aware of just what can be done so that people can then start to specialise in areas that interest them. This is similar to the situation 10 years ago when many people who had electronics as a hobby realised that it was possible to build a computer and get it running. The problem then was that few people knew high level languages like BASIC (which is now a bit of the mill standard) and there was no sound, no colour and no graphics so what few games there were had to be question and answer type games. People persevered though and now look at what can be done. Who knows what may become of using computers on the airwaves.

Let me know via PAGE 6 how far you can stretch your imagination and what you are you using YOUR computer for, maybe something special like ROBOTS? ■





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Wills  
Business Coaching  
Credit  
Looking for a New  
JOB  
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