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PAGE 6 PUBLISHING'S

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Issue 42 £1.75
February/March

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The next issue of
NEW ATARI USER
will be on sale 22nd March
Editorial copy date is 12th February

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Editorial address: P.O. Box 94, Baffins, ST16 1DB, ENGLAND Tel: 0169 21006
Editor & Publisher: Les Ellingham - Advertising: Sandy Ellingham
Printed by Stephens & George, Marley, Tyne (0665 558) - Page layout by PAUSE & - Letterbox output by The Setting Studio, 281 232 1817. Originated by Barry 2079 47882 - Newsbyte Distribution by Diamond Computers, Unit 1, Burgess Road, Ingham Lane, Hastings, E. Sussex TN36 4HR Tel: 0424 40002
NEW ATARI USER is published bi-monthly on the last Thursday of the month prior to cover date.

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NEW ATARI GAMES

Atari plan to continue to support the XL and XE throughout this year with around six new software titles per month planned...

ZEPPELIN RISING

Zeppelein seems to have a had a quiet period Atari wise for in that just imagine that? But are back with a resurgence with his new releases planned for January and February...

Later in will be WORLD SOCCER a simulation about soccer and SO-SOFT SIMULATOR which sounds quite interesting.

Meanwhile Zeppelins are busy negotiating with other companies for more new Atari software and hopes to include a 'super duper' sports soccer which will bring a number of previously unreleased titles to the Atari...

HARLEQUIN SUCCESS

Harlequin Games of the newly formed company, Harlequin, reports that response to the news from last issue asking for programmers to help with conversion work to the Atari was excellent and they now have enough programmers and products lined up to last them a couple of years!

Harlequin are still negotiating with some of the big boys for conversion of various titles to the Atari and have recently made an agreement with Shakespeare First title to be converted will be PERDUE PRINCE and there will be more to follow...

If only a few of the titles Harlequin can going after make it then it will be good news, Atari certainly may well, at last, get some of the classics that have been around on other machines for many years.

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Table with 3 columns: NAME, Cass, Disk. Lists various Atari titles and their prices.

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Mailbag

we ribbon in my printer?

Dean Corrology,
Doverport

It is great to get your feedback on the Alternative Minko Show. We had a great time but were curious to know how visitors would react since, by no stretch of the imagination, was this our first *Stinky Atari Show* from yesterday. It was relatively small and raised a lot of different computers with radio, electronics and all sorts of odds and ends that I had more excitement than I have found at any show since the very first Atari Show. It was relaxed and interesting with plenty of room to wander around in complete and total discovery. We didn't need an aid or great deal, since the stands were so cheap, yet we had a great day and made more money than at the last Atari Show at Alternative Palace!

The organizers have an Amateur Radio Rally booked for the end of April at the National Maritime Museum in Birmingham and asked us if we would be interested in coming along in a small caravan and Atari Show in the hall at the same time. What a fantastic idea! This is likely to be a very great, informal, show-in-show in most and that we will let you know next issue if it comes off. We will also give you details of next year's Alternative Minko Show as soon as we know the details. That's for now!

As for your questions, Dean, Show are still supporting the 8-bit but only just. They only seem to be interested in what they have left in stock and, yes, a Minko CPM2 ribbon drive fit the XM800 I. Try any of the Minko club members you see in Computer Whopper and the like or, as a last resort, an office supplies shop. You'll get a fortune on the latter though!

TRUE CONTACT

I thought I would drop you a line to say a very big thank you to the mag for a somewhat unusual review. I

THE ALTERNATIVE VIEW

I am writing in response to the Alternative Minko Show held in Stafford. This was the first Computer Show that I have attended and it wasn't by the best!

All that was missing was Father Christmas as it was a veritable glut of Atari 8-bit delights. It was a wonderful experience to wander around actually buying software which I had previously only read about and loads of bargains to boot. I made four new Atari friends all of whom have written to me, after a year of thinking I was the only one out there. What a lovely bunch of people all the Atari owners are from the 'big boys' like Callisto and Page 8 down to some small 'voo man' models like Dean Corrology and Derek Pann. Nothing was too much trouble for anyone and I thank everyone concerned for putting on a great show.

The one thing I did notice was that, by far the largest crowd were Atari 8-biters, and I say most Atari 8-biters of every ilk. I topped back to Liverpool complete with 28 new games and programs, approximately 2200 lighter but what a day! Well worth it, I will definitely be going again in 1985. See you there!

Keith Taylor
Mossleyville

FROM FAR AWAY

I travelled down to the Alternative Minko Show and Electronics Fair, a return journey of about 400 miles and I must say it was well

worth the journey. I have already put the date of next year's show in my diary as a treat!

It was good to see the number of companies and User Groups that support the Atari 8-bit and to see that Atari is not just a games machine. Advice was freely given by both companies and User Groups and you were not pressured into buying goods. Unfortunately the pocket and change bank were not big enough to buy all the bargains.

I was also surprised to see the amount of support there was for the other 8-bit machines.

T.W. Wood
Hastings

AND FROM AN EXHIBITOR

I'd just like to let your readers know what a great show the Alternative Minko Show was. I was exhibiting at the show and had a great time, but only did I have a profitable day, but had great fun trying to answer people's questions and also picked up a few bargains for myself! If there is anybody out there who didn't go, then you missed a good day. I made a few interesting discoveries during the day, people will want software on tape and the most popular type of software is still 8-bit.

And now a few questions. Are Show Mag still supporting the 8-bit Atari? Secondly, where can I get a printer ribbon for the XM800 I printer? I remember you saying in an article that this printer is really just a Minko CPM2, so does this mean I can use a Minko

appreciate the articles, reviews and so forth, but I have a special reason for being grateful.

You say you are always interested in new users for the Atari, well how about computer dating? Let me tell you a little story. A few months ago I replied to an ad in your Contact column for a proposal, purely to exchange ideas etc. I found I was corresponding with a lovely lady of similar age and interests. Gradually letters flew were flying up and down the country at an incredible rate and things progressed to three hours on the phone every night (should get married). A while back we met and hit it off straight away, love reared its head and we are now planning our futures together!

I bet you didn't realize what goes on through your Contact column! Thank you for the ad in, without Page 8 there would be no romance evenings around the keyboard because we would never have met! All the best and long live Page 8 from two devoted readers.

Rob and Fran

Hey guys! Reminds me about Harry Cook many years ago although he didn't fall in love! (maybe remember that?) Are you still married, Nancy? Trouble is, the Contact column is now going to be inundated with proposal requests. No personal replies, please!

NINJA AT LAST

I have recently written in System 3 about a conversion of either Last Ninja 1 or 2 and their latest game called Myth.

They answered my letter saying nothing has yet been produced but hopefully sometime in the near future a conversion will take place. I was overjoyed and I'm sure all those 8-bittons out there who have been waiting for the Last Ninja will be too.

I have a complaint about your mag. Not enough reviews for the 8-bit Atari. There is far too much on the SE, after all there are lots of mags for the ST and only one for the 8-bit. How could you add some colour pictures to the mag. The Tipster, however, is great.

Stephen Gray
South Merton

P.S. Could you please print this letter?

Okay, Stephen, printed it is, even though it will make The Tipster even more difficult to keep under control! The Last Ninja is slightly being converted to the 8-bit although not by System 3. You should find it out as another label later in the year. As regards reviews for 8-bit products we've said it before and we'll say it again. If products are released we will review them. We can't write reviews on our editors' games. Sorry 8-bit game not written for review is reviewed. One or two get missed because companies don't bother to send them in. If you like writing letters why not write to every company that issues a new 8-bit game to ask them if they have sent NEW ADAM USER a review copy. That would help us and make sure you could read the review.

NO ARENA

After finally completing all 11 sets in *Arena* (Really). The Dungeon, I was wondering if Dataeast were ever going to release The Arena on any machine, let alone the 8-bit Atari!

Could you please find out for me if they are going to release it as I am desperate for something new to play on my trusty old Atari.

Andrew Hodges
Boschton

Well news, Andrew! Dataeast were bought out by another company, and there are no plans to continue the *Arena* (Really) series on any

computer. Although the *Arena* was partly written, the new owners pulled the plug on further development and it looks like it will never appear. The chances of another company picking it up, particularly for the Atari, are very slim.

PASCAL

Please could you tell me if you know whether any version of Pascal has been produced for the 8-bit Atari. I have an XL with 1050 disk drive and I assume that I would have to purchase for a second hand version, but as it is just to keep my wife's hand in with this language, this would not be a problem.

K. L. Laidlaw
Hawthay

The only two versions of Pascal for the 8-bit Atari that we know of are Grapec Pascal and Pascal Language System by APS, both issued many years ago in the States but never available here. The chances of getting a copy now are remote but you might be lucky. The company that issued Deeper Pascal is Deeper Software, 837 Forest Grove, Richardson, Texas 75080, U.S.A. Whether they are still around is anybody's guess. APS was part of Atari and has long since disappeared but some APS prog runs are still around.

XL/XE TO ST

My son has recently had an Atari ST. He would like to learn typing skills and the small program S-TYPE in your magazine looks an ideal way to do this. Could you tell me whether there is an easy way to change the settings for use with the ST or do you have the settings to enable him to type it in?

K. G. New
Sharnbury

This enquiry is typical of many we receive from people

who want to run the listings in NEW ADAM USER on their ST but, unfortunately, it isn't so far done, at least not exactly. If you were a very good programmer you could find ways to convert a program, or rather take the basis of a program and rewrite it, but there is no other way to use XL/XE listings on your ST. There is an XL Emulator available in the public domain but it is not suitable for beginners and would be very difficult to use unless you were already familiar with the XL or XE. Sadly, the ST is not a programmable machine in the same way as the 8-bit Atari is and in most cases you will have to resort to buying commercial software. Having said that, in this instance, help is at hand for our brave and excellent new Typing Tutor written in SPOKE available as part of our public domain library. The program is better than some of the full price commercial programs, get onto a mere £2.99! If you have one of our latest Anniversary Strip updates, drop us a line or give us a ring.

STACEY

My family has owned two 8-bit Ataris for several years, a 600XL and an 800XL. These give us a lot of pleasure, as does reading your magazine. From time to time we get problems which tempt us to write to you for a solution but a tendency to procrastinate means we never do - until now that is. Reading issue 40 has left us with a question which compels us to break the habit of a lifetime and actually write to ask what Stacey supposed to do?

R. Beardsworth
Newark

Good to see someone made the explicit message! Stacey was supposed to help us out in all sorts of ways and generally be a nice person. Trouble is she's a better person than she's supposed to be and she still comes back to see what day she is missing!

GO FLYING

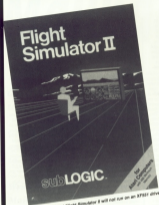
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tari
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DR

THE TAPESTER

Are you stuck on one of your favourite games? Wouldn't it be nice to see what that next screen is like, if only you could last long enough to get to it? Now you might be able to, if your favourite game is one that The Tapesiter brings notes for. In this ability, written especially for cassette users, enables you to amend certain games to make them easier to complete.

Typing It In

The program listing contains a number of ROM statements which refer to various games. Type the whole listing in as it stands and **SAVE** it onto your master. Alternatively you can create up to fourteen different programs by typing in only the **DATA** statement that refers to the game you wish to modify. You must ensure that the **ROM** statement is left out and that only the word **DATA** and the numbers following are typed in. If you do the latter then the **TYPE** codes will not match so it is best to type in the lines with the **ROM** statements and then remove them when you know your typing is correct.

Running The Tapesiter

You need need to create special listings for whatever game you wish to modify. If you have typed in and saved separate listings then you may just run the appropriate program. If you wish typing in the master listing you should **LOAD** this and then remove the **ROM** statement from the appropriate line leaving only the word **DATA** and the numbers following.

Now place your game tape in your cassette deck, and press **PLAY**. **ROM** The Tapesiter program and it will load the game and offer it before the game runs. Whatever cheat you have installed will then be in place and you should be able to get further than ever before!

How It Works

For those who are interested in these things this is, briefly, what the Tapesiter does. The program sets up an **ASCII** in page 6 which loads in the first four bytes of a machine code line. The first and second bytes are ignored but the third and fourth bytes tell the program where the game loads its memory (high byte, low byte). The game is then loaded in at this point and then the extra data from the Tapesiter program is added at the appropriate point.

There is no formula for amending a game. All these cheats were discovered by trial and error using a disassembler. It takes a long time!

Anyone got any more cheats that can be added to this program? **NEM ATARI USER** would be delighted to publish amendments or enhancements to this program. Write to **NEM ATARI USER, P.O. Box 84, Stafford, ST16 1DR.**

```

05 1 ROM *****
06 2 ROM 00 000 00000000 00
07 3 ROM 00 00 00
08 4 ROM 00 00000 00000
09 5 ROM 00 00
10 6 ROM 00
11 7 ROM 00 000 0000 0000 0000 00000000 00 00
12 8 ROM *****
13 10 ROM***** BIT "RELEASE MISS" ...
14 10 ROM 0000 0100 01000 0000 0000 000001,0
15 0000 0000 0000 0000
16 10 10 0100 0000 0 0 "000000 00 0000"
17 000
18 00 0 00000000 ...
19 00 0 00000000
20 00 0000 000 00 000 00 0001 00 0 000000 0
21 0000 0 000 00 0 000 00 0000 0000 0 000
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THE TAPESTER

Here's what you can do to your favourite games!

- BATTY BUILDERS** makes the player immune to falling bricks and dynamite!
- STRATOSPHERE** Infinite lives to make the game a bit easier!
- FIREFLEET** removes collision detection so that you can fly through anything!
- CAPTAIN STICKY'S GOLD** Infinite lives again!
- ATTACK OF THE MUTANT CAMELS** Get your own back on those camels with indestructibility!
- CRYSTAL RAIDER** Infinite lives!
- HOVER BOYFEE** Now you can start up to level 16!
- SUNSTAR** Infinite energy!
- ROBIN HOOD** 255 lives to make things easier!
- DIAMONDS** Complete this classic with infinite lives!
- THRUST** Infinite lives again!
- PANTHER** Infinite lives!
- AIKWOLF** Have a go at level 5 - it's unbelievable!
- DAN STRIKES BACK** Crack this old favourite with infinite lives!

Daniel Welch's program could put the Tipster out of a job! Now you can cheat on over a dozen top Atari cassette games

DISK BONUS

BRIK-BAT

by Trevor Briscoe

A superb variation on one of the all time classics with a construction set to build your own games



Brik-Bat is a game for two players (one can be the computer) who control bats at either side of the play area. The object is to finish the game with more points scored than the opponent. The game ends when the game timer runs out (if operating) or when either player has no bats left. The player with the highest score wins regardless of the number of bats left.

Many great features including:

- Up to 100 screens per set
- Special Bricks
- Laser Cannon Fire
- Slow or Fast Balls
- 1 or 2 players

BRIK-BAT is a real challenge for players of all abilities!

PLUS

BRIK-BAT CONSTRUCTOR

Create your own screens or modify the existing screens with the Brik-Bat Construction set. Lots of features in the easy to use edit mode. Hundreds of screens may be created and saved to disk or cassette to create your own unique version of BRIK-BAT.

The are comprehensive instructions for the game and construction set on the disk and further printed copies are available on request.

BRIK-BAT is the BONUS on this issue's disk. Disk subscribers will have received their copy already but the disk is available separately for just £2.95. Send a cheque or Postal Order with a written order to PAGE 4, P.O. Box 84, Stafford ST16 1BB or use the order form on page 48

BRIK-BAT IS ALSO AVAILABLE ON CASSETTE - SEE PAGE 49

MACHINE CODE LIBRARY

In the sixth
and final part
of this series,
Stephen
Williamson
presents some
odd routines
to include in
games or
serious
programs

There is no filler in this, the last part of the Machine Code Library series. There are four short uncompiled machine code routines that can be used in a variety of ways.

All the source code listings were written using the MAC/II-Assembler cartridge but should work with all Atari computers.

For now, Machine Code users I have included BASIC listings that set up the machine code routines in a BASIC program. No knowledge of machine code is needed to use the BASIC versions.

A QUICK FLASH!

The first routine adds a flashing cursor to the standard text (Mode 0) screens. Lots of computers, including the Atari II, have flashing cursors built into the operating system. A flashing cursor is especially useful in word processing. I am writing this using Superscript (the best word processor for the Atari XL/XE). When the screen is full of text a non-flashing cursor can take a frustrating amount of time to locate whereas Superscript's flashing one is all ways noticeable.

Location 755 is known as the Character Mode Register. Various values can be stored in this register to affect both the cursor and the characters. A zero is normal inverse characters, 1 is blank inverse, 2 means normal characters and 3 is solid inverse. Puts 755 with a value between 4 and 7 and the characters invert! Impressive—but not a lot of practical use. The cursor is transparent with values 2 and 6, and absent with a value of 1.

The cursor flash program sets up a Vertical Blank Interrupt routine that alternately puts a value of 1 and 3 in register 755. This switches the cursor off and on.

Listing 1 is a BASIC routine that sets up the VBI. After the program stops at line 110 you can then do all convenient editing

with the flashing cursor. You can type in all these program listings without fear of losing the cursor in a mass of text.

One effect of the routine is that all inverse characters also flash. This can be a useful means of highlighting text or messages in a program. For routine editing purposes I have stopped the user from writing inverse characters by storing a notice of zero in register 894, the Inverse Character flag. This trap can be removed by deleting lines 270 and 280 in the source code or by adding the commands found in line 100 in Listing 2. These NOP (No operation) instructions are added to the machine code. The speed of the flashing cursor is controlled by the DELAY register (205). This is set to a value of 8. To change the rate after line 190 in the source code or add a line 53 to the BASIC program:

```
00: POKE 204,n
```

where n is the delay value that you want to use.

GRID EDIT

Listing 3 is a routine to put your Atari into grid edit mode. Of all the routines in this series this is perhaps the least careful unless you do a lot of math in spaced exercise books and into the square environment. It is a routine searching for an application. Write to New Atari List if you find something to do with it. The routine works by modifying the standard Atari character set. By performing an ORA operation, a vertical line is added to each character and then a horizontal line is added to the top of each character. When editing in this mode all letters fit inside the spaces that make up the grid.

Listing 4 is the BASIC version. Hope you are impressed!

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```

Right and far right - Listings 3 and 4 - Grid Edit
Other listings overlap

THE RANDOM FACTOR

Listing 3 does have a use, especially if you are programming a card game. It simulates shuffling a deck of cards but can also be used whenever you want to randomly sort a group of numbers. It is copied from a section of Las Vegas Casino which I write for *Asquillo*.

Line 180 determines for 'alph' if the sort which simulates how long the shuffle goes on for and the chances of an individual card remaining in the same position. The 'alph' is set to 180 but this can be altered in line 181.

Lines 186 to 226 place the 52 values that represent the cards in order starting from location 10000. This stack area is given the label STORED and represents the deck. At this stage the program simulates a new deck of cards when all the cards are in order. The shuffle routine times 280 to 300 then randomly rearranges the numbers.

To sort less or more than 52 numbers enter line 180, or in the BASIC version (listing 4), change the value of the variable N1 in line 70.

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Left and above - Listings 1 and 2 - the flashing cursor

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```

SPEED OF SORTS

The final routine is an example of a machine code sort. There are many applications where data needs to be sorted and there are various methods of doing this. The insertion sort puts a mixed group of numbers in ascending order. If you want descending order then just reverse all the numbers once the sort is complete. The program can sort any number of values but each value must be between 0 and 255, because computers don't like counting above 255.

The insertion sort is not a particularly quick sorting method but is one of the simplest to understand. A set of over 50 numbers takes a few seconds but that is a considerable improvement over the BASIC version of the insertion sort. This type of sort is not recommended for large numbers of data - your Atari could be kept busy for a long time sorting a group containing a few thousand numbers. There are sort routines which are quicker but they are much more complex. The program works through the stack of numbers examining each pair of numbers it finds. If the first number is larger than the second, it swaps the pair of numbers around. If a swap

occurs then a flag is set to 1 (lines 400 and 410). The routine keeps doing this, going up and down the stack again and again until no more swaps are possible (i.e. when the FLAG value is zero which means that all the numbers are in ascending order. Lines 180 to 220 in Listing 7 and lines 80 to 100 in Listing 8 put numbers numbers in the stack area (labelled STORED), but of course this part of the routine can be deleted if the routine is part of a program that has already allocated values to the STORED. In the machine code version STORED start at location 10000, but to prevent a clash with other areas of a BASIC program, the BASIC version puts the stack starting at 1500. This restricts the maximum number of data to 256 in the BASIC version.

As that's it - the end of the series, I hope that you have found some of the machine code routines useful. All the routines have been written to be adaptable so that you can customize them for your own programs. If you don't need already a machine code programmer then I would recommend learning machine code is more difficult than BASIC but it's not that difficult and it does allow you to do as much more with your Atari.



Welcome to the first Spidee issue of 1990 - a warm and progressive happy New Year to you all! I trust you're getting over your Christmas festivities and settling down to some serious game playing.

Included in this edition are the answers to the prayers of dozens of readers - a complete solution and map to **SPELLBOUND** and the correct sequence of events with maps for **ACTON BIKER**.

Finally, though, I must kick off with the game that has received the most requests for help since The Spidee stepped into these pages - the "busted" **QUEST FOR ETERNITY!** The most prolific help has been sent in by Raphael, Epitome of Pittsburgh. Raphael has apparently overcome the many bugs in this game and actually completed it! I would dearly love to set his hitherto-closed answers out in their "Gory" fashion but I believe that the full solution would cost many minds night and day. So here you go!

QUEST FOR ETERNITY THE FULL AND FINAL SOLUTION

LOOK PANEL - ENTER HELP - B - GET SPOCKET - E - S - E - CONNECT PIPE - PRESS BUTTON - GET SCREWDRIVER - GET KNIFE - W - W - GO BOO - GET MANUAL - GET FELLOW - GET MEMORY - GET UP - LEAVE FELLOW - GET MEMORY - READ MANUAL - LEAVE MANUAL - E - N - W - E - WEAR SPOCKET - PRESS BUTTON - GO DOOR - REMOVE SPOCKET - D - E - UNWEAR COVER - GET COVER - GET CIRCUIT - W - U - WEAR SPOCKET - GO AMBUCK - PRESS BUTTON - REMOVE SPOCKET - GO DOOR - W - GET ANALYZER - E - E - S - E - ROTAR SATLAK - LEAVE ANALYZER - W - N - N - E - WEAR SPOCKET - PRESS BUTTON - GO DOOR - REMOVE SPOCKET - D - E - FT DANALIN - LEAVE COVER - SCREW COVER - N - U - U - E - LOOK OOH - PRESS BUTTON - W - E - WEAR SPOCKET - GO AMBUCK - PRESS BUTTON - REMOVE SPOCKET - LEAVE SPOCKET - GO DOOR - LEAVE SCREWDRIVER - PRESS YELLOW - PRESS GREEN - W - E - PRESS BUTTON - GO DOOR - E - E - GET VEGETATION - CUT VEGETATION - LEAVE KNIFE - GET NUMBER - B - GET WINGS - W - REFLECT LIGHT - LEAVE NUMBER - GET BAR - S - GO AMBUCK - PRESS BUTTON - LEAVE VESSEL - GO DOOR - S - E - D - OPEN CHAIR - LOCK CHAIR - GET YOGH - LOCK CHAIR - GET BLASTER - LEAVE WING - LEAVE BAR - U - S - W - E - PRESS BUTTON - GO DOOR - N - E - N - GO DOOR - W - W - SWITCH BLASTER - LEAVE AMBUCK - GET AMBUCK - S - S - THROW AMBUCK - LOCK TOWER - W - GET TRANSMITTER - (the below line is applied on the screen as "Transmitter") - W - N - LOOK PANTS - GET MODULE - FT MODULE - S - E - TRANSMIT - LEAVE TRANSMITTER - E - N - S - E - GET PLATFORM - S - W - LOOK CHEMICALS - GET PHAL - E - U - E - W - GO AMBUCK - PRESS BUTTON - GO DOOR - S - PRESS YELLOW - PRESS GREEN - N - E - PRESS BUTTON - GET VESSEL - GO DOOR - N - N - GET WATER - D - PUT IMPASSUM - S - GO AMBUCK - PRESS BUTTON - GO DOOR - W - PHAL VESSEL - E - PRESS BUTTON - GET SPOCKET - GO DOOR - N - B - GET WATER - PHAL PHAL - CLIMB COLUMN - LEAVE VESSEL - D - SWITCH BLASTER - BLAST ICE - BLAST ICE - WEAR SPOCKET - GET BROWN - THROW BROWN - REMOVE SPOCKET - GET BROWN - W - N - WEAR SPOCKET - E - N - N - REMOVE SPOCKET - PRESS GLASS - WEAR SPOCKET - S - S - W -

SPELLBOUND

Many readers have sent in tips, maps and solutions on this one. Here is a compilation of all the information received on this game.

Drop the **ADVERT** then pick up the **TELEPORT KEY** and **TELEPORT**. Keep walking **RIGHT** until you pass by **THOR** and reach the little ledge. Jump into the ledge and walk **LEFT**, past the flowers, until you come to a **GLOWING BOTTLE**. Pick it up and **TELEPORT**. Now pick up the **TELEPORT PAD** you're standing on and walk **LEFT** until you come to a **RED HERRING** - pick it up.

Continue to walk **LEFT** until you come to the **ADVERT** (this is where you started the game) and drop the **TELEPORT PAD**. Carry on walking **LEFT** until you reach the **LEFT**. Call the lift and enter when it arrives. Leave the lift to the **SECOND FLOOR** and walk **RIGHT** until you come to **SAMSON**. Sometimes Samson is already in the lift. Take the **RED HERRING** from **SAMSON**, go back to the lift and drop the **RED HERRING**.

Now move the lift to the **ROOF**. Walk over to **LADY BOGMAW** and pick up the **BOTTLE OF LIQUOR**. Carry on walking **RIGHT** until you come to the **MIND OF COMMAND**. Pick it up and **TELEPORT**. You should now be standing next to **FLOREN THE DWARF**, so give him the **BOTTLE OF LIQUOR** and **COMMAND** him to **MAKE UP**. Take the **TELEPORT PAD** and walk **LEFT** to the lift. Drop the **TELEPORT PAD** and **MOVE** the lift back to **FLOREN THE DWARF**. When he appears, **COMMAND** him to **SLEEP**. Enter the lift, move to the **SECOND FLOOR** and find **ELRAND** - take the **MEGLINER** from him. If he's reluctant to release the **MEGLINER**, **COMMAND** him to be **HAPPY** and try again. Now **TELEPORT** back to the lift.

SAMSON THOR and give him the **MEGLINER**. **COMMAND** him to **SLEEP** and he will fix the Control Box. Now **COMMAND** him to **SLEEP**. Enter the lift and move to the **BASEMENT**. Pick up the **RED HERRING**, walk **RIGHT** and drop the **TELEPORT KEY**. Pick up the **POWER PONG PLANT**, **CAST** the **FUNATICS PROTECTION SPELL**, drop the **PLANT** and the **RED HERRING**, and pick up the **TELEPORT KEY**.

REMOVE SPOCKET - LEAVE SPOCKET - GET GELD - D - D - E - D - GO AMBUCK - PRESS BUTTON - GO DOOR - S - PRESS YELLOW - PRESS GREEN - N - E - PRESS BUTTON - GO DOOR - E - S - LOOK BROWN - SWITCH - GET SILVER - S - SWITCH BLASTER - BLAST COPPER - LEAVE BLASTER - E - D - E - E - GET WATER - N - N - U - N - N - E - FT PLATFORM - FT BRIDGE - FT SILVER - FT GELD - E - FT TWIN - PULL TWIN - S - GET PHAL - N - LEAVE TWIN - S - W - N - GO AMBUCK - PRESS BUTTON - GO DOOR - E - PRESS YELLOW - PRESS YELLOW - PRESS GREEN - N - E - PRESS BUTTON - GO DOOR - W - N - CLIMB COLUMN - W - D - FT FROTH - W - GET QUARTZ - E - D - S - D - E - GO AMBUCK - PRESS BUTTON - GO DOOR - S - PRESS YELLOW - PRESS YELLOW - PRESS GREEN - N - E - PRESS BUTTON - GO DOOR - N - E - N - GO DOOR - W - N - S - E - LEAVE QUARTZ - U - PRESS SWITCH - D - GET QUARTZ - D - N - N - E - E - S - S - W - GO AMBUCK - PRESS BUTTON - GO DOOR - E - PRESS YELLOW - PRESS YELLOW - PRESS GREEN - N - E - PRESS BUTTON - GO DOOR - E - E - S - GO DOOR - FT QUARTZ - ...

To complete your Quest For Eternity!

Enter the lift and move to the GROUND FLOOR. Walk RIGHT until you find a LAMB. Pick it up. SUMMON LADY BOSMIRE, give her LAMB to her and COMMAND her to HELP. She should bring a hole through the wall. Stand on the POOL OF LIQUID and CAST the AMAROUS PRODIGIOUS SPELL. Go back to the lift and move to the FIRST FLOOR. Walk to the extreme RIGHT of the floor, pick up the TRUMPET and TELEPORT. COMMAND THOR to WAKE UP. Then enter the lift and move it to the FOURTH FLOOR. Move RIGHT, SUMMON THOR and COMMAND him to HELP.

Return to the lift and move to LEVEL TWO. Walk all the way to the RIGHT. SUMMON ELRAND, give him the TRUMPET and COMMAND him to HELP. He will blow the trumpet and make the wall collapse!

The key to solving the game lies in the CRYSTALS. One is found on the FOURTH FLOOR, another at the far end of the BOSS and the last on the SECOND FLOOR. Collect them all - when you have them, take them to the GROUND FLOOR and get the CRYSTAL BALL from SAMSON. Get the WHITE GOLD RING from the SECOND FLOOR,

then go back to the end of the GROUND FLOOR and SUMMON a character. When he or she appears, give the CRYSTAL BALL. Pick up the WHITE GOLD RING and CAST the CRYSTALLINE SPECTRAL SPELL. (You also need the MAND OF COMMANDS, THROW ALL THREE CRYSTALS AT GEMBAL TO FREE HIM)

NOTES

1. A BRIMBLE is trapped inside the GLOWING BOTTLE. Once the bottle is dropped, the BRIMBLE is released. COMMAND it to HELP for more clues.
2. To please OSIR, the CLERIC at the end of the SECOND FLOOR, give him the BOON OF SHAMONS (it can be found on the same floor). To get to OSIR, destroy the wall between you and him - go to the FORTH FLOOR, move RIGHT and SUMMON THOR. When he appears, COMMAND him to HELP (he must have the MEDIUM). He will launch a bolt of lightning at the tower which breaks it down. This must be done on ELRAND can destroy the wall which hides OSIR.
3. If you pick up the STICKY BUN on the FIRST FLOOR you won't be able to drop it, thus limiting the amount of objects you can carry.
4. Pick up the BOON OF BUNES along with the BUNESTONE, and you can read it.
5. If you wish to fix the BROKEN TALSMAN, give FLOREN THE BRASS BAR OF GOLD, the BROKEN TALSMAN and the TUB OF CLAY - then COMMAND him to HELP.



SPELLBOUND

Map courtesy of Paul Dobson

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| 1. BRIMBLE | 2. BRIMBLE | 3. BRIMBLE | 4. BRIMBLE |
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| 41. BRIMBLE | 42. BRIMBLE | 43. BRIMBLE | 44. BRIMBLE |
| 45. BRIMBLE | 46. BRIMBLE | 47. BRIMBLE | 48. BRIMBLE |
| 49. BRIMBLE | 50. BRIMBLE | 51. BRIMBLE | 52. BRIMBLE |
| 53. BRIMBLE | 54. BRIMBLE | 55. BRIMBLE | 56. BRIMBLE |
| 57. BRIMBLE | 58. BRIMBLE | 59. BRIMBLE | 60. BRIMBLE |
| 61. BRIMBLE | 62. BRIMBLE | 63. BRIMBLE | 64. BRIMBLE |
| 65. BRIMBLE | 66. BRIMBLE | 67. BRIMBLE | 68. BRIMBLE |
| 69. BRIMBLE | 70. BRIMBLE | 71. BRIMBLE | 72. BRIMBLE |
| 73. BRIMBLE | 74. BRIMBLE | 75. BRIMBLE | 76. BRIMBLE |
| 77. BRIMBLE | 78. BRIMBLE | 79. BRIMBLE | 80. BRIMBLE |
| 81. BRIMBLE | 82. BRIMBLE | 83. BRIMBLE | 84. BRIMBLE |
| 85. BRIMBLE | 86. BRIMBLE | 87. BRIMBLE | 88. BRIMBLE |
| 89. BRIMBLE | 90. BRIMBLE | 91. BRIMBLE | 92. BRIMBLE |
| 93. BRIMBLE | 94. BRIMBLE | 95. BRIMBLE | 96. BRIMBLE |
| 97. BRIMBLE | 98. BRIMBLE | 99. BRIMBLE | 100. BRIMBLE |

**You can't keep The Tipster down
- there's more over the page!!**

THE GIVEAWAYS

Now here's a problem because that old Tipster has put together several readers' hints and tips to provide the answers to this issue's problem games, so who do we give that lovely Databank Watch to? Well it has to be Raphael Exports doesn't it - maybe the only person in the world to have battled in the end of Quest For Diversity. Figuring out how to use that Databank Watch ain't gonna be so easy, Raphael!

This time we have an offer ANY TEN BUDGET ATARI GAMES of your choice! If you are the chosen one and can think of ten budget games you don't already have we'll send them to you, provided that they are still available! Get thinking and hurry that old Tipster under a ton of mail.

Multi-Mouse

Routines for Mouse, Trackball, Joystick and Touch Tablet that you can use with your own programs

Have you ever looked back at one of your programs and tried to change it from joystick-operated to use your brand new mouse? Or have you ever felt it was too tedious programming for a Trackball, and put it off hoping to change it later? Or did you never realise you might want your new Joystick program to work with anything but a joystick? If so, console yourself with me, with Multi-Mouse, because, I hope to have quenched the majority of problems you can get with these devices.

FOUR CONTROLLERS

There are four separate device drivers. Each program sets up a device called `hd` (hd for Mouse) which is called using the standard CIO procedures, i.e. `OPEN`, `CLOSE` etc. Each program is for a different input device but they all contain the same codes using the same instructions, therefore they can interchangeably every time you load the computer. Not only that, but they all use only 2k of memory (and only a third of that is program - the rest is player/trouble data used to locate the pointer on screen).

When you first boot up your computer, you load in the relevant device handler and can then use the following commands. It will assume you are using channel 1 for the hd device:

```
OPEN #1,X,Z,"hd"
```

where X is any number or variable - it doesn't make any difference. A pointer will appear on the screen in black with a white outline. This means it is always visible.

```
MOVE #1,X,Y
```

which will enable the user to move the pointer around the main screen area. When the user presses the trigger button on the device they are using, the X and Y variables are loaded with the co-ordinates across and down of where the user left the pointer. These co-ordinates will be equal-

led to the nearest plottable point in the current screen mode. For example, in Graphics 7, X will be in the range 0 - 129 and Y will be in the range 0 - 85. The text window is not taken into account in split-screen modes, because you can still plot and DRAWTO points under the text window.

```
POINT #1,X,Y
```

which will move the pointer to the co-ordinates given by X and Y, again dependent on the current screen mode.

```
CLOSE #1
```

will make the pointer disappear.

Note the following:

- a) The input device should be in port 2. This enables hardened games to keep their joystick in port 1.
- b) Pressing trackball has no effect until a trigger button is pressed.
- c) The hd driver works in any graphics mode. In GTA graphics mode 40, however, the cross cursor is not visible over the standard background, this is probably something to do with the background and cross both being the colour of PEEK(0), but it's still rather weird that it doesn't affect any other colour.
- d) Changing graphics modes is likely to produce a load of flashing garbage when the pointer should be. Don't worry, just close the device and re-open it.
- e) You cannot GET, PUT, PRINT, INPUT, or STATUS from the device. You will get an ERROR 146 function not implemented.

**Article and routines
by Simon Trew**

COMPATIBILITY

All present these devices are available

MOUSE.COM // Mouse driver
TRACKBALL.COM // trackball driver
TABLET.COM Atari Touch Tablet driver
JOYSTICK.COM standard joystick driver

All devices are 100% compatible with each other. They work with all basic programs that have enough memory. They also work with the Assembler cartridge and any other language providing the code does not start below address 12800 or relocate at 12810 (such as a Basic program). It will not work with Turbo Basic which uses this area of memory. For this reason I plot a relocateable version for the future. Assembler users can, of course, change the load address for compatibility with Turbo Basic.

TYPING IT IN

This is the part of my article that most people give up on, so I have tried to make it as painless as possible.

If you haven't got an Assembler, you will have to type in the BASIC DATA statements or buy an Assembler. The first is cheaper, but the second is easier and you will be supporting your local Atari dealer. Not convinced? Oh well, here goes:

USING BASIC

Type in the BASIC program COMBUBAS and SAVE it. Note the BEMs pointing to bytes you may alter if you wish. You may leave out all BEMs if you wish. Run it and you will have created a file called -CURL00, which is the file contains to all devices and contains the data for setting up the player-minutes, M1 driver and so on.

Now type in any of the subsidiary driver programs you have. The JOYSTICK.BAS one is the shortest at 78 bytes. After saving

```

01 0 0000
02 0 0000
03 0 0000
04 0 0000
05 0 0000
06 0 0000
07 0 0000
08 0 0000
09 0 0000
10 0 0000
11 0 0000
12 0 0000
13 0 0000
14 0 0000
15 0 0000
16 0 0000
17 0 0000
18 0 0000
19 0 0000
20 0 0000
21 0 0000
22 0 0000
23 0 0000
24 0 0000
25 0 0000
26 0 0000
27 0 0000
28 0 0000
29 0 0000
30 0 0000
31 0 0000
32 0 0000
33 0 0000
34 0 0000
35 0 0000
36 0 0000
37 0 0000
38 0 0000
39 0 0000
40 0 0000
41 0 0000
42 0 0000
43 0 0000
44 0 0000
45 0 0000
46 0 0000
47 0 0000
48 0 0000
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66 0 0000
67 0 0000
68 0 0000
69 0 0000
70 0 0000
71 0 0000
72 0 0000
73 0 0000
74 0 0000
75 0 0000
76 0 0000
77 0 0000
78 0 0000
79 0 0000
80 0 0000
81 0 0000
82 0 0000
83 0 0000
84 0 0000
85 0 0000
86 0 0000
87 0 0000
88 0 0000
89 0 0000
90 0 0000
91 0 0000
92 0 0000
93 0 0000
94 0 0000
95 0 0000
96 0 0000
97 0 0000
98 0 0000
99 0 0000
100 0 0000

```

```

101 0 0000
102 0 0000
103 0 0000
104 0 0000
105 0 0000
106 0 0000
107 0 0000
108 0 0000
109 0 0000
110 0 0000
111 0 0000
112 0 0000
113 0 0000
114 0 0000
115 0 0000
116 0 0000
117 0 0000
118 0 0000
119 0 0000
120 0 0000
121 0 0000
122 0 0000
123 0 0000
124 0 0000
125 0 0000
126 0 0000
127 0 0000
128 0 0000
129 0 0000
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167 0 0000
168 0 0000
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171 0 0000
172 0 0000
173 0 0000
174 0 0000
175 0 0000
176 0 0000
177 0 0000
178 0 0000
179 0 0000
180 0 0000
181 0 0000
182 0 0000
183 0 0000
184 0 0000
185 0 0000
186 0 0000
187 0 0000
188 0 0000
189 0 0000
190 0 0000
191 0 0000
192 0 0000
193 0 0000
194 0 0000
195 0 0000
196 0 0000
197 0 0000
198 0 0000
199 0 0000
200 0 0000

```

Listing 1 - CORE.BAS The program to create the basic driver for all devices

and running this, you will have a file called (in this instance) IOYSTICK.OBJ. Go to DOS and copy the CORE.OBJ file to IOYSTICK.COM, then append IOYSTICK.OBJ to the IOYSTICK.COM file. If you can't do any default as to how to do this, consult the DOS books. In SpartaDOS, the format would be:

```

COPY CORE.OBJ IOYSTICK.COM
COPY IOYSTICK.OBJ IOYSTICK.COM&A

```

In DOS 2.5 choose option C and type: the filename

```

CORE.OBJ, IOYSTICK.COM

```

then choose C again and type

```

IOYSTICK.OBJ, IOYSTICK.COM&A

```

Now the file IOYSTICK.COM can be loaded from the DOS 2.5 Minus option L or installed. RETURN.SYS, FOR 2.5 users, should note that a MEM.SYS utility needs to be loaded (such as the RAMDRM) as the driver uses the area of memory overwritten by DUP.SYS. In SpartaDOS, you just need to type IOYSTICK as place it in a .BAT file (or rename it to RETURN.SYS).

USING AN ASSEMBLER

If you have an Assembler, you have two options:

- a) If you don't intend changing the program much, type in the CORE.BAS program and save it. Assemble it to a disk file called CORE.OBJ. You may then type in the subsidiary driver files, for example IOYSTICK.ASM, and assemble to a disk file called IOYSTICK.OBJ. You can now ready to combine these files in the same way as for basic programmers.

- b) If you intend changing the program a lot, then the address are likely to change and you can't really assemble the programs in two separate bits. Type in the CORE.ASM file as before and save it. Then continue typing in the relevant drivers, for example IOYSTICK.ASM, but omit the equate lines to this file as stated, or you will get error messages with duplicate identifiers. In other words declaring things twice. You may now save this file as IOYSTICK.ASM and assemble it straight to a disk file

called IOYSTICK.COM. The time saved in not having to copy you will lose in slower assembly, unless you are really busy and have a MAC/68, in which case you will lose the time changing the equate signs to EQU and * to ORG and so on. It's just a matter of preference.

Right, now you should have a set of 1 or more drivers which you can use in your programs. If you've come this far then congratulations! You've typed more for this entry than I have!

EXAMPLE PROGRAM

Here is a quickie program which draws lines to any point on the screen you 'click' at.

```

10 DRAWSPACE T
20 COLOR 1
30 OPEN #1,4,0,"M:"
40 MOVE #1,X,Y
50 PLOT X,Y
60 MOVE #1,X,Y
70 DRAWWTO X,Y
80 GOTO 80

```

continued overleaf


```

1000 LDA #00001,0  ; 0001 000000
1001 JMP #000  ; 000000
1002 LDA #000  ; 0000
1003 LDA #000  ; 0000
1004 LDA #000  ; 0000
1005 LDA #000  ; 0000
1006 LDA #000  ; 0000
1007 LDA #000  ; 0000
1008 LDA #000  ; 0000
1009 LDA #000  ; 0000
1010 LDA #000  ; 0000
1011 LDA #000  ; 0000
1012 LDA #000  ; 0000
1013 LDA #000  ; 0000
1014 LDA #000  ; 0000
1015 LDA #000  ; 0000
1016 LDA #000  ; 0000
1017 LDA #000  ; 0000
1018 LDA #000  ; 0000
1019 LDA #000  ; 0000
1020 LDA #000  ; 0000
1021 LDA #000  ; 0000
1022 LDA #000  ; 0000
1023 LDA #000  ; 0000
1024 LDA #000  ; 0000
1025 LDA #000  ; 0000
1026 LDA #000  ; 0000
1027 LDA #000  ; 0000
1028 LDA #000  ; 0000
1029 LDA #000  ; 0000
1030 LDA #000  ; 0000
1031 LDA #000  ; 0000
1032 LDA #000  ; 0000
1033 LDA #000  ; 0000
1034 LDA #000  ; 0000
1035 LDA #000  ; 0000
1036 LDA #000  ; 0000
1037 LDA #000  ; 0000
1038 LDA #000  ; 0000
1039 LDA #000  ; 0000
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1041 LDA #000  ; 0000
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1051 LDA #000  ; 0000
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1057 LDA #000  ; 0000
1058 LDA #000  ; 0000
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1062 LDA #000  ; 0000
1063 LDA #000  ; 0000
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1079 LDA #000  ; 0000
1080 LDA #000  ; 0000
1081 LDA #000  ; 0000
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1099 LDA #000  ; 0000
1100 LDA #000  ; 0000
1101 LDA #000  ; 0000
1102 LDA #000  ; 0000
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1105 LDA #000  ; 0000
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1109 LDA #000  ; 0000
1110 LDA #000  ; 0000
1111 LDA #000  ; 0000
1112 LDA #000  ; 0000
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1120 LDA #000  ; 0000
1121 LDA #000  ; 0000
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1123 LDA #000  ; 0000
1124 LDA #000  ; 0000
1125 LDA #000  ; 0000
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1127 LDA #000  ; 0000
1128 LDA #000  ; 0000
1129 LDA #000  ; 0000
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1176 LDA #000  ; 0000
1177 LDA #000  ; 0000
1178 LDA #000  ; 0000
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1187 LDA #000  ; 0000
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1189 LDA #000  ; 0000
1190 LDA #000  ; 0000
1191 LDA #000  ; 0000
1192 LDA #000  ; 0000
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1199 LDA #000  ; 0000
1200 LDA #000  ; 0000

```

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1201 LDA #000  ; 0000
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1230 LDA #000  ; 0000
1231 LDA #000  ; 0000
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1234 LDA #000  ; 0000
1235 LDA #000  ; 0000
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1241 LDA #000  ; 0000
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1269 LDA #000  ; 0000
1270 LDA #000  ; 0000
1271 LDA #000  ; 0000
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1278 LDA #000  ; 0000
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1282 LDA #000  ; 0000
1283 LDA #000  ; 0000
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1285 LDA #000  ; 0000
1286 LDA #000  ; 0000
1287 LDA #000  ; 0000
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1289 LDA #000  ; 0000
1290 LDA #000  ; 0000
1291 LDA #000  ; 0000
1292 LDA #000  ; 0000
1293 LDA #000  ; 0000
1294 LDA #000  ; 0000
1295 LDA #000  ; 0000
1296 LDA #000  ; 0000
1297 LDA #000  ; 0000
1298 LDA #000  ; 0000
1299 LDA #000  ; 0000
1300 LDA #000  ; 0000

```

```

1301 LDA #000  ; 0000
1302 LDA #000  ; 0000
1303 LDA #000  ; 0000
1304 LDA #000  ; 0000
1305 LDA #000  ; 0000
1306 LDA #000  ; 0000
1307 LDA #000  ; 0000
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1309 LDA #000  ; 0000
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1316 LDA #000  ; 0000
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1322 LDA #000  ; 0000
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1325 LDA #000  ; 0000
1326 LDA #000  ; 0000
1327 LDA #000  ; 0000
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1329 LDA #000  ; 0000
1330 LDA #000  ; 0000
1331 LDA #000  ; 0000
1332 LDA #000  ; 0000
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1369 LDA #000  ; 0000
1370 LDA #000  ; 0000
1371 LDA #000  ; 0000
1372 LDA #000  ; 0000
1373 LDA #000  ; 0000
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1376 LDA #000  ; 0000
1377 LDA #000  ; 0000
1378 LDA #000  ; 0000
1379 LDA #000  ; 0000
1380 LDA #000  ; 0000
1381 LDA #000  ; 0000
1382 LDA #000  ; 0000
1383 LDA #000  ; 0000
1384 LDA #000  ; 0000
1385 LDA #000  ; 0000
1386 LDA #000  ; 0000
1387 LDA #000  ; 0000
1388 LDA #000  ; 0000
1389 LDA #000  ; 0000
1390 LDA #000  ; 0000
1391 LDA #000  ; 0000
1392 LDA #000  ; 0000
1393 LDA #000  ; 0000
1394 LDA #000  ; 0000
1395 LDA #000  ; 0000
1396 LDA #000  ; 0000
1397 LDA #000  ; 0000
1398 LDA #000  ; 0000
1399 LDA #000  ; 0000
1400 LDA #000  ; 0000

```

Exciting stuff, huh? Try changing the graphics mode in line 14, and it should still work. Note that the pointer always appears in front of the graphics, except in Graphics mode 0 and 8 (and, probably BASIC mode 4) where the pointer does not appear in front of the graphics or text but takes on the luminance of the text in the player's column. Try it yourself! If you don't understand that, you can normally get around any problems by using a large difference in luminance between foreground and background. You will get a sort of filter effect around the arrow which can actually be quite useful.

HOW IT WORKS

If you're one of those people who'd rather not know, then skip this section. For the rest of us, I shall attempt to explain how I did things and why.

THE CORLASM PROGRAM

The first instruction in this code is a RCL, which might seem as if I'm going about things the wrong way, but as you may have guessed I use SparcDOS and one of the things it does is jump to the first byte

of the code as well as jumping to the run address. So the RCL just avoids any routine happening. For non-SparcDOS users, this has no effect.

The first module from **Lines 1300 to 1400** sets up the display and clears the Player/Missile (PM) area on an OPEN command, and on this is the most basic routine I put it first.

The next few lines **1000 to 2300** contain the data for the arrow. The first set of bytes is for the foreground of the arrow and the second set is for the border. Having a two-colour arrow means it never becomes invisible.

Lines 2400 to 3270 are called when any part of the program wants to change the X co-ordinate of the arrow. POINT does this and so does each driver when you move whichever device you are using. The X co-ordinate contained in the X register is checked to make sure it is on the main screen area. XOFF is a constant declared at the top of the program and is used to determine which point across the stripe to take as X, for example if you had a cross-hair cursor the point to calculate from would be somewhere in the middle of the stripe. X is 0 or 4. Most of this later.

Lines 3300 to 3700 do the same for the Y

axis. As many people are aware, a player's missile does not have a Y co-ordinate, it extends right from the top to the bottom of the screen in one continuous stripe. Therefore to plot in the Y axis we move the cursor up and down in that strip. First we store the arrow from player 0 and 1 and replace them in their proper positions. When calling this and the SCRAMBLE routine, the co-ordinates are not the standard graphics mode co-ordinates but the player/missile co-ordinate system.

Lines 3700 to 4310 are called whenever a laser occurs or when the program is first loaded. The laser handler (DOVEC) is first located through the routine and then the M1 table is placed in the CEO handler table (M1TABLE). Then M1TABLE is checked and if it is found to be less than the end of the program, it is replaced with the address of the end of the program. If M1TABLE is greater than the address of the end of the program it is left be, as there may be other utilities further up in memory than this driver. For example a keyboard buffer driver.

Lines 4330 to 5290 handle an OPEN command, most of which actually occurs in SETUP. Note that the X register is saved (continued next)

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Listings 9 and 10 The joystick Driver Review in Brief:

Right in Assembly

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TO THE RESCUE



by Wouter Schul

Grab your helmet, slide down the pole and into the big red engine. There's a fire!

A big apartment block in town is burning and it's your job to rescue the occupants as they jump from various floors. You must operate the rescue blanket held by two brave firemen and catch people as they fall in order to bounce them into the waiting ambulance. You have to be quick and must be careful that falling sparks do not damage the blanket. If this happens you must go over to the ambulance to collect a new one.

If you rescue enough people, the owner of the building might want to give you a medal but you'll have to be quick to collect it, as the fire is still raging!

SCORING

Each person caught
2 points

Man in Ambulance
10 points

Collecting medal
extra life

The game ends when you
have dropped too many
people

PRINT-FILER

John S. Davison tries a new utility that allows text and graphics to be combined

Have you ever wanted to create a fancy letter heading using Bowdler's excellent Print Shop, and then print out below it a letter created with a word processor? Or needed to embed a computer-produced graphic into some text you've written? If so, Print-Filer could help you, as its purpose in life is to produce and print composite documents containing a mixture of text and graphics.

The package consists of just one single-sided disk. Instructions are in a file on the disk, and if you follow the guidance on the disk's start packet you'll soon have three printed out pages. In fact you end up with a six-page document containing both the instruction text and graphics from several sources. That's right, Bowler produced it all using Print-Filer! The disk also holds the main program code, plus several demo files for you to look at and experiment with.

To use Print-Filer you'll need a machine with 64K memory (800K, 4.5K, 1.00K), a disk drive, an Epson compatible printer, and graphical print software which will run in 48K. When you boot up Print-Filer it cunningly installs itself in the RAM under the Operating System ROM. This is why your other software should be able to run in 48K, otherwise Print-Filer would be fighting it for the same memory area. A special cut-down version of Print-Filer is supplied, however, which can share some of that memory with certain other programs. Once Print-Filer is installed you can then load your print software, and run it as normal.

DISK OR PRINTER?

Print-Filer boots under the ROM watching for print requests from your other software. When it sees one it asks whether you want to use the printer or screen, or write the output to disk instead. In this way you can, for instance, get Print Shop to write that fancy letter heading (or anything else it creates) into a disk file instead of direct to paper.



Print Shop inserts printer control characters to speed down to the next page after printing the letter heading. If you want your text to follow the heading, you need to remove those redundant control characters by using Print-Filer's editor, which you load as a separate program.

Talking is when things start getting hoity. Graphical print data looks totally uncomprehensible to most people, so you need help if you're going to edit it. Print-Filer's editor breaks the data stream up into individual print commands, and lets you list them with one command per line. It translates some of the commands into English for you, such as ESCape, and CR (Carriage Return), but everything else tends to be hidden. You can request it to be displayed, but it's then shown in hexadecimal format!

To REALLY understand what's going on you need to be thoroughly on fait with your printer's command codes, however if all you want to do is shoot some text

behind a letter heading, or sandwich a graph between two chunks of text you can get away with knowing a bare minimum about them.

I tried using AnswerWise Plus to produce the text to append to the letter heading, but you can't use Print-Filer to capture the text as AnswerWise Plus needs that memory under the ROM for itself. It is capable of printing directly to disk anyway, so you cut then use DOS to copy/append it to your existing Print Shop graphic file. After further editing you may then print the composite document using the Print function provided in Print-Filer's editor.

Another possibility is to keep the graphics files separate from the text and use your word processor's 'read file' command to insert the graphics into the text at the appropriate point. I tried this with AnswerWise Plus, but it misinterpreted the graphics data stream and got thoroughly confused. This approach worked fine with text Office 8, though.

BOTTLENECK

Print-Filer is also capable of handling more complex editing tasks such as selectively copying/embodying part of one graphic into another. By this and you'll suddenly realize some aspects of Print-Filer are about as friendly as a Bottleseller with extra bellows! I'm not joking - you have to manipulate the print line data directly in memory, and keep track of everything yourself using hexadecimal addressing! OK, so Print-Filer helps you do hexadecimal arithmetic and hex-to-dec conversions, but for heaven's sake! It's almost as bad as machine language programming!

Overall, Print-Filer is a good idea, and with skill and patience you can produce good results with it - particularly in conjunction with Print Shop and Mini Office 8. I suspect it may be just too complex for the general user, but all you techy types may find it a useful utility to have around.

PRINT FILER IS AVAILABLE FROM RAMBIT PRICE £8.00

HEXSAVER

Remember the ANALOG magazine loader program that most people use to load machine language games? Now you no longer need to use it - Nick Higgs new program HEXSAVER is twice as fast!

Hexsaver is a program which will take any object code file and produce from it a self contained BASIC program which can be used to type in the file. It's chief use would be for the typing in of machine code files.

When you run Hexsaver there are three simple prompts.

The first is **INPUT FILENAME D:**

The cursor will be at the end of the D: and you simply complete the filename of the file you wish to convert.

The second prompt is **OUTPUT FILENAME D:**

Again the cursor is at the end of the D: and you simply complete the filename of a temporary file in which you will LIST the BASIC loader program complete with hexadecimal code.

The final prompt is **FINAL PROGRAM'S OUTPUT FILENAME D:AUTOREM.SYS**

The cursor is on top of the the A of AUTOREM.SYS and if this is the name of the file you want the BASIC program to recreate then just press RETURN. If you require to use another name then type over the filename AUTOREM.SYS and be sure to delete on characters remaining from that name.

When you have typed the three filenames HEXSAVER will read in the file to be converted and then LIST the BASIC loader and hex code to disk using the filename you supplied to the second prompt. As each line of data is written the message WRITING LINE xxxx will be displayed until the complete file has been LIST to disk. As the file is in LIST format you should remove it by typing NEW and then ENTER (filename). Once loaded the program should be READY to load to disk. If you use the same filename as your temporary LIST file then that file will be overwritten.

RECREATING PROGRAMS

In use HEXSAVER is extremely fast, checking your typing and writing to disk as it goes - and I hope that it becomes the new standard for type-in magazine programs.

NIM AFARI USER is slightly impressed by this program although its major disadvantage is that it cannot create boot tapes. We would like any contributors who submit machine code listings for disk only to use HEXSAVER as the BASIC loader. Authors will find it fast and easy to use and readers will be delighted with its speed.

5. THE FINAL ROUND UP

I would like to start off this issue by apologizing for the absence of this column for the past two issues. This was unfortunately unavoidable, and I hope I haven't lost too many people because of it. Anyway, thanks to those of you who have stuck with the articles - I have had a surprising amount of mail, which only goes to show what a readable language both the language and the 8-bit machine still have. I still have a few people to reply to - I will get round to it, as I try to reply to everyone's letters.

LETTERS

Andrew Stephenson from Kewborough in Yorkshire sent a very interesting letter singing the praises of Turbo Basic. As he points out, the language has all the extra features, yet leaves the programmer more electricity than the old basic. Andrew was interested in finding out if he could write a program in TB, compile it, and then distribute it to interested parties, along with the runtime unit, without infringing copyright. I'm happy to say that you are perfectly at liberty to do this - in fact, the entire Turbo Basic language package can be freely distributed without copyright infringement, as long as this is done without profit to the person doing the distributing. In other words, as long as you don't charge people for the programs (apart from a nominal copying amount, or the price of an LHM), you are free to distribute them as you wish - in fact, this helps to spread the language, so more people get to hear about it. If Andrew, or anyone else for that matter, lets me know about programs they have written that they think may be of interest to others, then I will be more than happy to pass on this information to other readers.

Nigel Edwards from Leighton Buzzard kindly sent me a disk of programs as well as a listing. He had trouble trying to get a couple of programs from Stephen Williamson's excellent Machine Code Library to work under Turbo, so set about writing the code to correct this. The article in question was in the [LHM]PL7 issue, and dealt with the loading and saving of screens to disk. As I have included a somewhat simpler program in a similar vein here, I've decided not to include his program, however if you are interested drop me a line and I'll be happy to send a copy of his program.

James Foster, among others, noticed another difference (mistake in issue 09 - I stated at one point, incorrectly, that the hexadecimal digit A through F corresponded to the decimal numbers 11-16. This is WRONG, and as I mentioned later on, it actually equals 10, B is 11, C is 12 and so

on. Apologies for any confusion.

Finally, Max from Leytown asked about some of the commands which I hope to explain this issue, as well as including some very useful programming aids written for Turbo Basic. These arrived too late to be included in this issue, but I'll try and include them next time.

I'll try and finish off my tour of Turbo Basic this time with a look at all those commands that I've raised over in previous issues, along with a summary of where and when I covered the others.

COMMAND ENHANCEMENTS

DIM As well as providing us with enhancements to the original basic, TB also modifies and improves on some of the earlier language's commands. The first such command is DIM, and has, as before, the format:

```
DIM var
```

```
or
```

```
DIM array
```

where *var* is a real variable, all a string name, and *n* an integer. In old basic Basic, this command merely set aside space for the array in memory, without bothering about the contents of that memory. In TB, the DIM statement allocates the space, and also **CLR** each of the elements in the array. In the case of a numeric array, the elements become zero, and with a string, the elements become null characters (ASCII value 0). For example:

```
DIM A(10)
```

sets aside space for 10 elements, as well as setting A(1),A(2) ... A(10) to have value zero.

INPUT How many times have you had to first print a prompt onto the screen, and then have another statement to get the response from the user. If the answer is "noisy", then the modified **INPUT** command will come as a boon. As well as doing as it did before, you can also have an optional string of text before the variable:

```
INPUT "This is a prompt" ; A,B,C
```

The first string is printed, and the cursor appears immediately after the string where you can type in the values required. For example:

```
INPUT "Please type in a number -> " ;NUM
```

will prompt for a number, which will be stored in the variable NUM.

```

00 1 REM *****
01 2 REM      THREE DATES      *
02 3 REM      TAVING AND LEADING *
03 4 REM      SPACED TO PAGES *
04 5 REM      BY              *
05 6 REM      SOURCE COMMENT *
06 7 REM      *****
07 8 REM      NEW ATAKE (NEW PAGES) 90 *
08 9 REM      *****
09 100 REM
10 110 REM MAIN
11 120 REM
12 130 REM
13 140 REM
14 150 REM
15 160 REM
16 170 REM
17 180 REM
18 190 REM
19 200 REM
20 210 REM
21 220 REM
22 230 REM
23 240 REM
24 250 REM
25 260 REM
26 270 REM
27 280 REM
28 290 REM
29 300 REM
30 310 REM
31 320 REM
32 330 REM
33 340 REM
34 350 REM
35 360 REM
36 370 REM
37 380 REM
38 390 REM
39 400 REM
40 410 REM
41 420 REM
42 430 REM
43 440 REM
44 450 REM
45 460 REM
46 470 REM
47 480 REM
48 490 REM
49 500 REM
50 510 REM
51 520 REM
52 530 REM
53 540 REM
54 550 REM
55 560 REM
56 570 REM
57 580 REM
58 590 REM
59 600 REM
60 610 REM
61 620 REM
62 630 REM
63 640 REM
64 650 REM
65 660 REM
66 670 REM
67 680 REM
68 690 REM
69 700 REM
70 710 REM
71 720 REM
72 730 REM
73 740 REM
74 750 REM
75 760 REM
76 770 REM
77 780 REM
78 790 REM
79 800 REM
80 810 REM
81 820 REM
82 830 REM
83 840 REM
84 850 REM
85 860 REM
86 870 REM
87 880 REM
88 890 REM
89 900 REM
90 910 REM
91 920 REM
92 930 REM
93 940 REM
94 950 REM
95 960 REM
96 970 REM
97 980 REM
98 990 REM
99 1000 REM

```

```

00 100
01 110
02 120
03 130
04 140
05 150
06 160
07 170
08 180
09 190
10 200
11 210
12 220
13 230
14 240
15 250
16 260
17 270
18 280
19 290
20 300
21 310
22 320
23 330
24 340
25 350
26 360
27 370
28 380
29 390
30 400
31 410
32 420
33 430
34 440
35 450
36 460
37 470
38 480
39 490
40 500
41 510
42 520
43 530
44 540
45 550
46 560
47 570
48 580
49 590
50 600
51 610
52 620
53 630
54 640
55 650
56 660
57 670
58 680
59 690
60 700
61 710
62 720
63 730
64 740
65 750
66 760
67 770
68 780
69 790
70 800
71 810
72 820
73 830
74 840
75 850
76 860
77 870
78 880
79 890
80 900
81 910
82 920
83 930
84 940
85 950
86 960
87 970
88 980
89 990
90 1000

```

GET AND PUT. While on the subject of output, it's perhaps worth mentioning the command **PUT**, which can now be used to display a character on the screen, by specifying its ASCII number. For example:

```
PUT 65
```

prints the character "A" on the screen, and is in fact identical to doing **PRINT "A"**. It is useful for displaying control characters in a terse, simpler way. Just remember that anywhere you see **PRINT CHR\$(n)**, you can now replace it with **PUT n**. Hence, **PUT 125** clears the screen.

GET is the opposite of **PUT** (surprisingly enough) and is a simple way of waiting for a key press, and then storing the key pressed, without needing to worry about opening and closing channels, as you had to in Atari Basic. So:

```
GET WHEELKEY
```

will store the value 65 in **WHEELKEY** when "A" is pressed on the keyboard. This is equivalent to doing something like **OPEN #0, 4, 0, "R"; GET #0, WHEELKEY; CLOSE #0**. Given the choice, which would you use?

LIST, DEL, SOUND and CLOSE. Also conveniently, **LIST** has been modified so that you can list program lines from a certain line to the END of the program, even if you don't know what the last line is. For example:

```
LIST 100,
```

will list all the lines from line 100 to the end of your program.

If you're feeling destructive, then you can delete multiple lines in one swift blow. In this case, there is no original command to do a similar job, so DS introduces a new keyword, **DEL**, which you can use to get rid of bits of program. **DEL START,STOP** will delete all the lines between **START** and **STOP**. So:

```
DEL 10,100
```

deletes all the lines between 10 and 100 (inclusive). This saves you the trouble of tediously typing 10 then 20 then 30 ... and so on ad nauseum.

A couple more modifications are made to the keywords **CLOSE** and **SOUND**. If you use the word **CLOSE** on its own in a

continued on next page

program, it now closes ALL 7 channels (1-7), SOUND on its own turns off all the sound channels.

PROGRAMMING OPTIONS

A few people have written in to say that they discovered the available commands as I did, with a disk editor editor! They mention the commands "E", "F" and "B", and wonder, as I did, what they do. Well, all can be revealed!

When Frank Ostrowski wrote the language, he "altered" the programming environment, and "corrected" an anomaly of the old basic, but left the programmer the option to revert to the old system.

The most noticeable visual change is the indenting that TB automatically induces in your programs. Although this is generally thought to be a good thing, you can revert to no indentation by typing "L-". To switch the indentation back on, type "L+" or "L" - this is the default.

When you write programs and want to check for all possible mistakes and/or errors you can use the TRACE command. In Turbo Basic, including "B" or "E" allows the BREAK key to trigger the TRACE call - in other words, the program doesn't have to stop when you press BREAK. "B" switches this option off. You can switch this feature on and off throughout the program, perhaps enclosing a part of the program which you do not want the user to stop in by "B" - "E", (i.e. using the line "B" before the bit of program, and "E" after).

Finally, there is a bug in Altai Basic which means that FOR loops which go backwards exceed at least once. So

```
FOR A=0 TO 1: PRINT "This is an error 1": NEXT A
```

would print the error message even although the loop shouldn't really execute at all! Using "E" or "F" corrects this bug, but if you really meant that this bug is a feature, then "E" will return you to Altai Basic style loops!

DISK I/O

The **INPUT** and **PRINT** commands are useful additions to the programming library, and I've included a short program which shows how they can be used to load and save a Graphics B screen. The format is **INPUT #N,ADDRESS,HOWMANY** and this writes **HOWMANY** bytes from memory address **ADDRESS** onwards to channel **N**.

BCGET operates in a similar fashion (**BCGET #N,ADDRESS,HOWMANY**). This reads **HOWMANY** bytes from channel **N** into the memory address **ADDRESS** onwards.

These two commands are convenient for writing blocks of memory to disk, tape or memory (including screen memory, as shown in the accompanying listing). **BCGET** and **INPUT** are actually useful shorthand. For example

```
INPUT #1,DPBEEK(58),100
```

```
and
```

```
FOR A=0 TO 64: PUT #1,DPBEEK(58)+A: NEXT A
```

do the same thing, namely writing 100 bytes from screen memory to Channel 1.

ODDS and ENDS

A few more commands will finish up this five part introduction to Turbo Basic. These, together with the others I've tried to describe, should hopefully leave you with a wealth of features to use in your own programs.

PAUSE: Rather than have empty loops like

```
FOR A=1 TO 10000: NEXT A
```

to cause delays in your program, a command **PAUSE** is available. **PAUSE HOWMANY** will stop the running of your program for **HOWMANY**100 seconds. So

```
GO PAUSE 500
```

will stop your program at line 500 for 5 seconds.

INSTR and **UNINSTR**: These are somewhat strange commands in that they do not appear in many languages. Usually, you have to write a procedure to do this for yourself, but Turbo gives you two ready writers routines. What do they do? Both commands allow you to find a small string inside a larger one. For example, the string "future is Promiser" contains the sub-string "Promiser". Basically, what these commands do is to find if a smaller string is contained within another, and if so, where that string starts. An example should serve to explain. Say we have a string variable **TEXT**, and

```
TEXT="test"
```

Then, the command

```
PRINT INSTR(" This is a test",TEXT)
```

would print out the value 11, as this is where the smaller string "test" appears in the larger one ("This is a test"). However, if the smaller string is NOT present, then

```
PRINT INSTR(" This will return zero",TEXT)
```

will print out the value 0, as "test" does not appear in the target string. More generally,

```
INSTR (STRING,LITTLE)
```

will look for the string **LITTLE** in **STRING** and, if it is present, will give a number which tells you where the substring occurs, or will give 0 if it is not present.

This might all seem glib/obscure, but by it to get the bang of the command, and you'll be surprised how simple and useful it is. After experimenting, you'll probably find out that **INSTR** doesn't check for words of different case (capital and small letters). So

```
PRINT INSTR(" This is a test", "TEST")
```

will print zero, as the word "test" is in capitals in the substring, but lower case in the larger string.

The command **LENSTR**, however disregards the case of the strings, so the earlier example will give the expected answer of 11 if you replace **INSTR** by **LENSTR**. You can, in addition, also add a number to the arguments that **INSTR** and **UNINSTR** take.

For example:

```
PRINT SMITH ("This is a test, as it is", "10")
```

will print out 0 (the first occurrence of 'a'), whereas

```
PRINT SMITH ("This is a test, as it is", "10", 10)
```

will print out 21 (the position of the 2nd occurrence of 'a'). The number 10 tells the computer to only look at the first string after the 10th letter, in general.

```
SMITH (BAGS, LITTLE, 6)
```

will look for LITTLE after the 6th letter in BAGS.

Don't worry if you don't follow this completely - practice, and you'll quickly become expert!

TIME and TIMES: These // The last two commands - and about that(ish). As you would expect,

```
A=TIME
```

stores the time in variable A, but in a somewhat format, whereas,

```
A$=TIME$
```

stores the time in a readable fashion, in A\$. This is only really of use if you either set the time beforehand, or have a built-in clock card; the TIME function, however, can be used to time how long a bit of your program takes, for example:

```
----- Start of your program
```

```
----- 1000 A=TIME$
```

```
----- The bit you want to time
```

```
----- 9000 PRINT (TIME$-A)
```

will print out on the screen how long it took the computer to execute the program lines between 1000 and 9000. Simple, eh?

FINISHING OFF

Well, I've made it. I'm sorry if the above seems a bit of a muddle, but I felt I had better complete the picture, so to speak. You now know as much as I do, so I'll leave to watch what I say from now on and not let any errors creep in! The accompanying listing is a short demonstration which saves a GB-S screen to disk, and then loads it in again. It should be easy enough for you to see the save and load routines within your own program, with very few changes - I hope you find it useful. Unlike 0 shown which commands I've covered, and in which case I explained, or tried to explain, them!

That about sums things up for another couple of months or so, in other words, all that remains is for me to ask you to write in with any suggestions, comments, or programs you wish to pass on. From now on, I will have to rely more heavily on your ideas, so please do get in touch - I will do my best to reply. Finally my thanks to Andrew and Scott for help with the article.

Write to GORDON CAMERON,
c/o 13 Blair Bank, Soar, Perthshire, PH2 6SE

TURBO BASIC COMMAND SUMMARY

| # | Command | Usage | Description | Issue |
|-------|-------------|-------|--|-------|
| - | - | - | Generating an entire line of - comments | 04 |
| 1 | A\$ | | Stores (Q) in A\$ (Q) | 04 |
| AND | AND | | Stores (Q) in AND (Q) | 04 |
| 0 | 0 | | Labels (with a label label LABEL) | 07 |
| 10 | 10 | | Includes/Excludes BREAK key trap | 06 |
| +1 | +1 | | Includes/Excludes loop correction | 06 |
| -1 | -1 | | Includes/Excludes indentation | 06 |
| BASE | BASE A,B | | Stores 0 bytes from channel A to B | 06 |
| BASE | BASE A,B | | Stores last (Q)Q system 1 | 06 |
| BASE | BASE A,B | | Stores 0 bytes for channel A from A | 06 |
| BASE | BASE A,B | | Stores last (Q)Q system 1 | 06 |
| CHDIR | CHDIR X,Y,Z | | Chdir off (Q)Q with path 1 and Z | 06 |
| CLEAR | CLEAR | | Clears all channels 1-1 | 06 |
| CLS | CLS | | Clears the screen | 06 |
| END | END | | Normal value of Base 10 HEX | 06 |
| END | END A,B | | Deletes all lines from A to B | 06 |
| END | END A,B | | Deletes file attributes | 06 |
| END | END A,B | | Sets elements to (Q)Q (Q)Q | 06 |
| END | END | | Integer division of A by B | 06 |
| END | END | | Logic between (Q)Q and (Q)Q - operation | 06 |
| END | END | | Stores as (Q)Q (Q)Q (Q)Q (Q)Q | 06 |
| END | END | | Y loop (Q)Q (Q)Q in A and A+1 | 06 |
| END | END | | Integer value of all variables | 07 |
| END | END | | Line above last error occurred | 06 |
| END | END | | Value of last error | 06 |
| END | END | | Variable, procedure PROGRAM | 27 |
| END | END | | Exit from a (Q)Q (Q)Q | 06 |
| END | END | | Stores (Q)Q (Q)Q | 06 |
| END | END | | Sets 0 to channel A | 06 |
| END | END | | Sets any which contains (Q)Q | 06 |
| END | END | | Stores the fractional part of A | 06 |
| END | END | | Stores ASCII of file pointed to A | 06 |
| END | END | | Jump to line with LABEL | 27 |
| END | END | | Same as (Q)Q (Q)Q | 27 |
| END | END | | Comments internal (Q)Q to line 10 string | 06 |
| END | END | | If (Q)Q (Q)Q | 06 |
| END | END | | Q something (Q)Q to something | 06 |
| END | END | | Q something (Q)Q to something | 06 |
| END | END | | Returns key pressed or null | 06 |
| END | END | | Prints with A\$ to A and B | 06 |
| END | END | | Find (Q) in A\$ (starting at C) | 06 |
| END | END | | Links lines from (Q)Q to end of string | 06 |
| END | END | | Links lines on disk | 06 |
| END | END | | Removes (Q)Q from A | 06 |
| END | END | | Copies (Q)Q bytes from A to B; for channel (Q) | 06 |
| END | END | | Stores (Q)Q (Q)Q depending on value of A | 06 |
| END | END | | Set to load A\$ or A\$ depending on A | 06 |
| END | END | | Set area which has (Q)Q in A | 06 |
| END | END | | Prints (Q)Q (Q)Q | 06 |
| END | END | | (Q)Q defined (Q)Q for (Q)Q | 06 |
| END | END | | Defines a procedure name (Q)Q | 06 |
| END | END | | Prints the character with ASCII of A | 06 |
| END | END | | Stores a random number between 0 and 1 | - |
| END | END | | Returns (Q)Q (Q)Q in (Q)Q | 06 |
| END | END | | Returns prog from A to become B with (Q)Q (Q)Q | 06 |
| END | END | | Repeat (Q)Q with condition (Q)Q (Q)Q | 06 |
| END | END | | Switches off all opened channels | 06 |
| END | END | | Displays last or specified channel (Q)Q | 06 |
| END | END | | Returns numeric value of clock time | 06 |
| END | END | | Returns string value for time | 06 |
| END | END | | Set (Q)Q (Q)Q | 06 |
| END | END | | Set every variable given to (Q)Q (Q)Q | 06 |
| END | END | | Stores number part of A | 06 |
| END | END | | Set (Q)Q (Q)Q (Q)Q (Q)Q | 06 |
| END | END | | Opposite of (Q)Q | 06 |
| END | END | | Sets condition (Q)Q met, code repeated | 06 |
| END | END | | END | 06 |

N.B. (1) Arguments in square brackets denote optional arguments
(2) If - means indicates a block of program, perhaps split over several different lines

Mark Hutchinson's RANDOM NOTES

Well, as promised I have given a list of 800 numbers to Les. This list gives you 167 telephone numbers, local rates etc. in America to choose from. Please let us know how you get on. Oh yes, an I&L for the list would really be appreciated. If you come across any good public domain programs it would be nice to add those to the PAGE 4 library.

ATK&I have been pushing some new models recently that you may have heard of, the TL, Felix and Stacy. But when did you last hear of the AT&M Transputer Workstation? Sales have been slow but steady and sometime in the new year AT&M will be bringing out a new version with 16-bit later" chips. I have not heard anything official about the 16-bit though. However, one of our readers is busy trying to persuade me to upgrade my system to 16MB, OS card etc. I wonder, does Santa know how good a boy I was this year?

I am not sure about my 8-MHz memory but it would sure come in handy for me! Heads up those who heard about a disk controller for the 8-bit that will allow you to run 1 MEG 8T drives. Nice as that may be I would much prefer to work on the 8-bit disk format than try to accommodate an 8T file using 8M! Did anyone get to see the 12.0.0. catalogue? It sounds fun if you fancy a MIMP on the 8-bit. There is word on an American interface for 8T drives that uses the parallel port, making things a lot faster. Well, copying a disk that is 700K in size could be time consuming.

Another interesting tidbit that I was told concerned the 8-bit board that allows emulation of the PC as well as Commodore and Apple. All for £180! That would allow you to use Windows - if you are a masochist! Over here Simon Snow of Stonegate is supposed to have written a fine 80 column device handler. How about it Simon, fancy giving us a review? Alan Norman from Hatfield, for one, would really enjoy it. I have to thank Gavin Moran for all this information and yes, I would like to see your system in action. I might even go ahead with the upgrades on my system.

In issue 41 I wrote about a five line program that was sent in to us and said it reminded me of a child's toy which I could not remember the name of. Lo and behold, Derek Thompson has a program published in the next issue called "Spin". I believe the toy was a Fisher Price production called "Spinograph". Peace of mind at last.

Recently I received a letter from a Mr. Thompson who took me to task over a paragraph about software books. He would like to see "Bakers of the Lost Ark" and "The Hobbit" appear in the 8-bit. I am not too sure when the next reader survey will be taken, but it would be nice to have

another question included, "What program would you dearly like to see for your 8-bit?"

Iwould like to thank those people who kindly took the time to write to me with solutions about the 12000 keyboard. One solution came from John Hurdle who sent a copy of an old Atari User Mailing page. This describes the problem of cursoring as being caused by the 5V line feed for the function keys. The solution is to change a resistor and clean up the contacts. I will sort them all out and let you know how I get on.

Another letter told me that he thinks Edmund Blake of New Computer Express is not really such a bad chap. I did not know anything about this until I read it in PAGE 4. I wish I had read the article but then I never knew NCE existed. I will not get involved in this issue but it is nice to see comments about children firms. Please let us know if you come across any shady dealers.

Sometime soon I would like to write an article about word processing. If you would like to help me out I would appreciate any hints or tips about Amawriter or 2EWriter. I will be explaining a bit of the jargon involved so Les might split this article into two parts. If so then perhaps hints and tips on other word processors would not go amiss. There are a lot of 8-bit's being used now and I am sure that other readers would like some help. I often get asked about various printers but as I use only one in Texas Eagle PR10 I cannot comment about others. I would be glad if we could give you an up to date assessment of current printers but, as the models change so quickly, this would be a massive undertaking.

In Christmas I am going to put my feet up and forget all about computing for a while. Unfortunately the new year will see me spring cleaning the computer room and filling everything away. I keep doing this in bits and drabs but somehow I think a concerted effort in January would not go amiss. I hope that you have a more pleasant holiday to look forward to.

These you have it, the last article written in 1989 and the first published in 1990. It has been an interesting time for me but, thanks to promotion and a career change, I have had far less time to spend at home with my computers than I would like. I found it all too easy to just head in a particular game and spend a few hours doing very little. That game was Solitaire cards and as it takes some thinking to complete it is annoying how time passes. I hope that all our readers had an enjoyable year and I hope that they continue to support PAGE 4 (sorry, New Atari User - old habits die hard) next year. Here is nice time.

CLEVER PLAYER BEAT DRAGON

A new 8-bit board game from Activision? Well, not quite. SHANGHAI was actually produced several years ago but was not released in the UK. Ironically, it was manufactured in Britain and exported for exclusive sale on the Continent. You might never have seen it were it not for Calisto Computers, who have kindly imported it back again! The only slight drawback is that the inlay card is printed in German! Shanghai is an ancient Chinese game of strategy, memory and luck. It requires a collection of 144 'Mah-Jong' tiles

which are arranged into a pile called the Dragon. The player takes it in turns to remove tiles from the Dragon and the game ends when there are no remaining tiles or no legal moves. The Dragon is constructed from stacks of tiles up to five-tiles high. The player has an overhead viewpoint but can distinguish the different faces by the colouring and borders of the tiles. A tile can only be removed if it's on top of a stack and has an unblocked path to the left or right. Each of the tiles has a symbol, and the object of the game is to remove sets of tiles having symbols that match. If you need help, the computer can highlight all the legal moves.

Tiles are removed by 'clicking' an arrow shaped pointer over them, using either a joystick or D-pad. The tiles are small but are very neatly



down in the highest resolution graphics.

A generous helping of options are accessed by a series of clever pull-down menus which are also ideal for creating your 30-second friends with the power of the 8-bit! The 'file' menu includes a save game feature, although it doesn't seem to work when I test it. The 'game' menu allows the selection of four different playing modes for one-up to fifty number of players. The most interesting mode is 'Choi'

compete to see who can find the most moves. Time limits from ten to sixty seconds are enforced and points are awarded for legal moves made within that limit. Shanghai is, in my opinion, the best non-board game I've reviewed in this magazine and full marks must be awarded to Calisto for transplanting another 'game you can't get' into one that you can, and at a very reasonable price too! Very highly recommended.

Title: SHANGHAI
Publisher: Activision
Price: \$4.95 disk
Players: Unlimited
Loading: 1:30 minutes
Reviewed by: Paul Dixon



CYBOR-SIREN is another B-Ware release from the 'Dad' programmer who were also responsible for Gong, which is reviewed elsewhere in this issue. The game is available on both cassette and disk, but you've got to buy directly from B-Ware.

The time it appears that a mad Professor has got a vessel of damned souls with his wacky experiments - and has taken to using the nearby village for ingredients! Unfortun-

ately, he didn't ask them first and the remaining people of the village have infiltrated the Professor's castle and taken him hostage in protest. Much as you'd like to help rescue the Professor, it does seem a bit on the dangerous side for a mere turn-based servant called Gregor to deal with if I don't write the parts so instead you decide to embark on his last unfinished project - the Cyber-Siren monster. What you're got to do is collect all the various monster parts from

ARMS, LEGS, ANYONE?

the great infected depths of a dark, dingy (and devilishly dangerous) dungeon (oh dear!) Getting back to reality, what we have is basically a plot-form hopping, droid scoping multi-screen arcade game. Not unless a dozen others I could mention. There are various problems to contend with as you search for the pieces of the Cyber-Siren. For a start, there are skeletons which pop up out of nowhere and are almost impossible to avoid. Then there are ghosts which are slightly more avoidable but just as annoying, plus laser beams, locked doors and fire pits! The graphics aren't too bad although I've a feeling the author may be colour blind, and by all accounts, some deaf, too!

Cybor-Siren is an extremely frustrating game as you actually have very little control other than whether your character

survives or not. There's no healing when a skeleton or ghost will appear and the lasers seem equally unpredictable. The only way out is to switch into 'cheat' mode, where you become immune to the effects of all enemies. Even then, you can still get stuck in a no-win situation! Having experienced the ending, I've certainly little incentive to continue with the rest of the game. Good luck to the village, that's what I say!

Coming soon, we're told, from B-Ware are the Mutoids, Return of the Mutoids II and Alien Brain lobes. Uurgh! Watch this space if you dare!

Title: CYBOR-SIREN
Publisher: B-Ware Software
Price: \$4.99 disk/cass
Players: 1
Loading: 1 minute (disk)
Reviewed by: Paul Dixon

TOP OF THE LEAGUE

It's described as "the football game to beat of the others" - and let's face it, there have been an awful lot of others! But this one, Cognito Soccer Manager, is the "ultimate" in football managerial games. So how does it differ from the rest?

Well, **KENNY DALGLISH SOCCER MANAGER** stands out by the fact that it takes entirely on the team approach to play or instruction. Right from the start you are faced with a series of symbols - some more obvious than others - and required to "click" an arrow cursor over your chosen selection.

There are five choices on the main screen allowing you to enter the boardroom, proceed with the game, look at some matches and decide on the amount of information you want to see later on. You may just want to see the final scores or you can view the full blown "match highlights" with graphic goal replays plus details of substitutions and injuries in each match progresses.

In the club boardroom you can quit the chairman, Physio, Coach, Scout, Team Manager and Accountant for their thoughts on your progress. The principal options from the main playing screen allow you to view details of the forthcoming fixture and your current position in the league, check the positions and ability of your squad, sell unwanted players and proceed with the match. If you



choose the latter option you are asked if you want to change the players' positions. If you do, an overhead view of the football pitch appears and you can place the ten players wherever you want them to go (the goalie doesn't get a choice, of course). Depending on your earlier selection, you are next informed of the match result or presented with full highlights of the big event.

There are lots of icons to play with and Cognito advise you to adopt a "click and find out"

method of learning how to play. The instructions explain all the main options but they don't tell you everything. I haven't mentioned the sound, and that's because there isn't any - not a single beep! Perhaps an appropriate tune wouldn't have gone a mile in a "futuristic" release. Still, overall it's a notably unique approach to a much explained game concept and I think that anyone with an interest in football will find **SOCCER MANAGER** a worthwhile investment.

Title: KENNY DALGLISH SOCCER MANAGER
Publisher: Cognito
Price: £8.95 (cash)
Players: 1
Loading: 10 minutes (load)
Reviewed by Paul Dixon



Kix is a relatively new title dealing exclusively in re-releases. This is good news for newer Atari owners as it means that they can now pick up some of the best US Good hits of a fraction of the original cost. **Acco-Base's HARDBALL** is one such game which first appeared on the Atari market in 1986. Second time around, it remains one of the finest sports simulations in existence! **Hardball** is an imitation of American baseball and it does help if you are already

familiar with the rules as the instructions supplied are quite brief. The game opens with a selection screen where you can decide whether to play against the computer or a human opponent, either at home or as a visitor and with or without a designated hitter. From here you move on to the Manager's decision screen. This shows you the selected players for both teams with details of their positions and past performance. Below, there are various decision options such as substitutions and

ON THE THIRD STRIKE

position exchanges. Play begins with a screen depicting the pitcher, batter and umpire in excellent quality graphics. Underneath there's a status panel and, to the right, an inset plan of the entire pitch showing the positions of batters on their way around the field. Using the joystick controls displayed on-screen, the pitcher selects a type of pitch from eight possible choices. He then decides on the location of his pitch and the batter must try to determine a corresponding location of swing. The secret from the batter's point of view is to try and predict the type of pitch he's going to receive, and therefore whether he should swing or not. If he hits the ball or can take several attempts, the screen switches to a half-split view of the ball, allowing joystick control of the bat as he tries to catch the batter "out". The

batter can decide whether or not to step off the various bases. Again, on-screen prompts show you the possible joystick responses.

The game is a delight to watch in the graphics department - the animation of the pitcher is superbly done. The visual effects are matched by several topical tunes which play at regular intervals and are interspersed with suitable sound effects of the nearby spectators.

Hardball is another classic that shouldn't be missing from any games collection. If it's not in yours, now's the time to make orders.

Title: HARDBALL
Publisher: Kix
Price: £2.99
Players: 1/2
Loading: 1.5 minutes
Reviewed by Paul Dixon

OFF YER BIKE!

In the past, Alternative Software haven't been noted for producing particularly exceptional games. Now, it seems, they've suddenly applied their stockade and produced a package that could well become a major hit in the budget league. The name of the game is **RED MOUNTAIN BIKE SIMULATOR** and, as you might have guessed, it's a simulation of cross-country cycling.

The general idea is to guide your cyclist over a series of obstacles - logs, holes, rocks and bumps - without allowing him to fall off. You race against

either a computer or human opponent and the winner is the first to reach the finishing post. Controlling the bike requires skill and practice as you have no fewer than eighteen gears to select via joystick and trigger presses. The trigger by itself makes your cyclist jump off his bike and you must then wiggle the joystick - Decathlon style - to walk him past the stone and logs. If you should forget, he falls spectacularly over the handlebars and ends up in a big heap!

The screen is split into three sections with the middle one focusing the necessary status indicators for each player. Above and below the panel there are two independently scrolling windows giving each player their own individual view of the proceedings, from a side-on perspective. The graphics are, generally, quite well done. On the

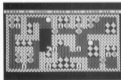


quad front there are two good tunes which liven up the opening screen and main game. Like most tunes, they do become a bit of a nuisance after a while and unfortunately, if doesn't appear that you can turn them off (no pleasing some people!). There are various options on the opening screen which you select by pointing an arrow cursor at a row of symbolic icons. 'Night mode' causes the display to almost totally black out, so you can't properly see the obstacles or posi-

tion of the bike. There are two alternative courses to choose from but if you don't like those supplied you can design your own using the in-built course editor. Layouts can be complicated to be as simple - or challenging - as you like and saved to cassette for subsequent use.

The Mountain Bike Simulator seems to have lots of good features and I'm pleased that Alternative are continuing their 8-bit support with some good quality software. Let's hope there's a race to come.

Title: RED MOUNTAIN BIKE SIMULATOR
Publisher: Alternative Software
Price: £2.99 cassette
Pages: 1/2
Loading: 14.5 mins
Reviewed by: Paul Dixon



You may recall that 8 Bytes - the Hinky-based computer dealer - recently decided to drop some of the inferior brands of micro in order to become an Atari specialist. Not content with stocking other companies' products, 8 Bytes have their own software label and the good news is that there are several new releases lined up for the 8 bit. Perhaps 'new' isn't quite the right word to use as for as DARG is concerned since it originally appeared in 1987 as

a product of STV Software (which are they now?). Darg, the character, is a space alien who has crash landed on Earth and, quite naturally, is pretty keen to get back to where he came. Darg needs energy crystals to power his ship back into action and it's your job to help him collect them. Maybe you wouldn't have volunteered had you known that, by a remarkable piece of good luck, they are all buried on the site of an Army ammunition dump! The plot is a reasonable ex-

SCOOPING UP CRYSTALS

ample for what turns out to be a fairly straightforward 'Boulder Dash' spin-off. You control Darg - who can only be described as a very intoned, rose-scented yellow blobble - as he darts around each screen, scooping up the blue crystals. As in Boulder Dash, each screen presents a particular logic problem that takes more than a second of thought to successfully conquer. You have to be quick though as a time limit is applied in the guise of an ever decreasing oil supply. Darg can also get killed by falling rocks and exploding bombs and gas crates. The trick is to use these to your advantage, so that you can get to those crystals that are seemingly out of reach.

There are twenty levels in all, each graphically similar but cleverly defined and posing a unique and challenging prob-

lem. You can't practice the screens individually if you like since 8 Bytes - as if to put the finger out of a job - have kindly printed a method of cheating with the instructions! The sound isn't too special, but it's considerably better than some of the other games I've come across recently. Don't expect to find Darg at your local computer store as you can only buy it directly from 8 Bytes - on disc or, by special request, cassette. Reasonable graphics, reasonable sound and a puzzle theme - not a load time game worth!

Title: DARG
Publisher: 8 Bytes Software
Price: £5.99 disk/tape
Pages: 1
Loading: 1 minute (disk)
Reviewed by: Paul Dixon

Hot Rod Raider is a machine code driving game for 1 or 2 players requiring 1 or 2 joysticks as appropriate. As Player 1 you control the white car by using a joystick inserted into Port 1 and attempt to amass points by disposing of as many enemy vehicles as possible before being destroyed yourself. You can choose between firing bullets, rockets or dropping oil on the road. To fire a bullet press the joystick trigger. To fire a rocket push the joystick forward as you press the trigger. To drop oil pull back on the joystick as you fire. You are limited to 20 rockets and 10 oil drops. You have an unlimited supply of bullets. Your lives are not unlimited - you only have 1 - so make the most of it! To accelerate push the joystick forward and to decelerate pull it back. Move it from side to side to steer.

In the 1 player game the computer controls the enemy vehicles. In the 2 player game Player 2 controls them by using a joystick inserted in port 2. Pressing the trigger fires the weapon according to the vehicle on screen. The joystick controls speed and steering like Player 1 but Player 2 only has 2 speeds whereas player 1 has 3.

On loading the title screen displays. If no game is selected after a minute or so the Demonstration Mode comes into play with the computer showing game play. To select a 1 player game press joystick trigger 1 whilst in the Title or Demonstration Modes. For a 2 player game press joystick trigger 2. Play commences immediately.

Happy firing - and mind the lamp post!

TYPING IT IN

Console and disk users should type in Listing 1, XE1 or XE1V as copy, then RUN the program. The program will check each line of data and inform you of any errors. Cancel any errors and RUN the program again until all errors are eliminated. When this is done answer the console/disk questions accordingly to create a boot tape or binary disk file.

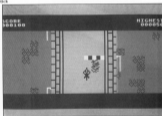
To load the boot tape remove all cartridges then turn on the computer while holding down the START key (XL users should hold down OPTION as well). Press RETURN and the tape will load and run automatically.

Disk users should type in Listing 2 and save it on the same disk on the binary file created by Listing 1. RUN the Listing 2 program with the disk in the drive and the game will load and run automatically.

Note for disk users: If any other programs have been used prior to Listing 2 being loaded it is recommended that the computer be turned off and on again before Listing 2 is loaded and run to ensure that the game isn't corrupted by any data left in memory.

BILL HALSALL'S ALL ACTION CAR CHASE GAME FOR ONE OR TWO PLAYERS

HOT ROD RAIDER



Listing overleaf

TAILS OF ENEMY VEHICLES, THEIR WEAPONS AND POINTS VALUE

| VEHICLE | WEAPON | POINTS |
|------------|----------|--------|
| RED CAR | NOTHING | 10 |
| BLUE CAR | GUNS | 20 |
| YELLOW CAR | OIL | 30 |
| MOTOR BIKE | ROCKETS | 40 |
| TRUCK | GRENADES | 50 |

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Line 100 calls subroutine "style" to find if you want 1 or 2 pages to a month. This subroutine can easily be changed if you want to introduce more alternative formats for your diary pages.

Line 120 calls "findday%" which finds the day of the week for the first day of the month.

Lines 180 and 190 call one or other of the two page print subroutines.

Lines 160 to 190 cause a loop back to line 30 if there is a requirement to print other months or years. If not a printer want is set (CHR(127)=CHR(94) for the Passcom's) to leave the printer in its standard configuration, then the program ENDS.

PRINTYEAR SUBROUTINE

This subroutine is the same as part of the main loop except that instead of asking for a specific month to print it uses a FOR NEXT loop to cycle through all the months thus printing pages for a full year.

STYLE SUBROUTINE

All this does is find out whether the diary should be printed with one day per month or two.

continued overleaf

KEYPRESS SUBROUTINE

I have used this in previous articles, all it does is return the value of the key pressed in the variable KEY.

INITIALISE SUBROUTINE

Line 1000 initialises string variables.

Lines 1020,1030 fill variable MONTHS with the names of the months. The screen spacing is used to make all months the same length (9 characters) by padding with leading blanks.

Line 1040 fills LINE1 with 60 underline characters.

Line 1050 - This sends a string of characters to the printer to set the left margin in 30 characters. The numbers I have used are OK for a Panasonic KX-F1100 and, I believe, most Epson compatibles. Check your printer manual for an equivalent, or in the last resort leave this line-out. I have moved the margin to more or less centre the printing on the page so that holes for the binder can be punched in either margin.

FINDDAYY SUBROUTINE

Lines 2000,2010 check for a leap year. The rule is that a leap year occurs in every year that can be exactly divided by 4 but not if it is exactly divisible by 100 unless it is exactly divisible by 400. Do you get that? Years 100, 200 and 300 are not leap years but 400 is and multiples of these values are the same. If it is a leap year LEAP=1 and 1 is inserted into the string LONGDAY to reflect the extra day in February.

Lines 2020,2030 work out what day of the week the first day of the year is. The days are numbered from 1 (Monday) to 7 (Sunday). One day is added every year and an extra day in leap years. The final number is reduced to a value between 1 and 7 by taking away the number of whole weeks in the total. INT(DAY-1) is used rather than INT(DAY) as-on to end up in the range 1-7 rather than 0-6. The variable DAY now holds the value of the first day of the year.

FINDDAYM SUBROUTINE

Line 3000 sets DAYM equal to DAY, the first day of the year. If the selected month is 1 (January) there is no need to go further as the first day of January is the first day of the year, so we RETURN.

Lines 3010 to 3060 comprise a FOR NEXT loop from month 2 (February) to MONTH, the selected month. Each pass through the loop adds the number of days above 28 in the previous month to DAYM. These values are recovered from LENGTH. If DAYM goes beyond 7 it is reduced by 7 so that it always stays in the range 1-7.

SUBROUTINE PAGEPRINT1

This sub-routine prints out one month of diary on one page. The normal standard computer paper is just long enough if it is set up with the print head very close to the perforations. If you are using single sheet A4 it fits more easily.

All the routine does is to print month and year on the top line, then a dividing line followed by the days/dates in sequence with dividing lines between.

Finally CHR\$(12) is sent to the printer. This is a form feed on a Panasonic (or Epson-compatible) - for other printers look up the code in your manual. This leaves the printer ready for the next month.

TURBO BASIC



the language for the XUSE that is rapidly becoming the standard replacement for Atari Basic.

- Turbo Basic has many new commands and is easy to learn
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SUBROUTINE PAGEPRINT2

This is very similar to PAGEPRINT1, but uses two pages for a month. This fits easily on the page and gives much more space for entries on weekdays, but I have kept the weekstart to single lines. You will see that there are two FOR NEXT loops, the first for 1st to 15th of the month and the second for 17th to the end. There is a form feed between the two pages and at the end of the second.

DEVELOPMENT

With the sub-routines to find the first day of the year and first day of the month in place it is comparatively easy to configure the printer to your own specific needs. You can print standard personal organiser pages or calendars. Once you have achieved the format that you want print all your pages and then photocopy them onto quality paper if the standard binary computer paper is not good enough, or print direct onto single sheets of quality paper. If you are careful with alignment you can print onto both sides of the paper to keep the thickness down.

If you get into difficulties or if there is something you would like to see in future articles write enclosing a SAE and I will try to help - send a cassette or disk if the problem is complex, I will return it.

My address is: Ian Finlayson,
60 Roundstone Crescent, East Preston,
West Sussex, BN16 1DQ

ST FILE



Just as this issue was being prepared the **SOFTWARE** reached their offices, unannounced, as part of the Power Pack or Expert Pack which was supposed to include the **SOFTWARE**. The latter machine is optional. Is new game and the ST will get some time for software to appear which uses the extra features of the ST (basically more available colours, a bit of hardware scrolling and stereo sound) but in the meantime you can have great fun in finding out what software doesn't run on the new hardware too. Alan here does it again, folk! of the ST for £19.95 installed which contains an amended version of the desktop which improves many of the previous features like disk copying and has a new selector box which is still not a patch on the Little Gears (selector available as freeware) but it doesn't run some of the existing software (especially the 2D based products), although an upgrade file already been issued. If you buy STOS make sure you get the latest version of the update disk with your purchase. Other games which won't run in their present versions include *Kingmaker*, *Overlander*, *Protektor* (altered Bazaar and probably many more). All these games are being changed but watch out if you buy mail order as you may not get up to date tapes.

Elvira seems to have settled down with new releases coming regularly. First to look for is *SOLDIER 2000* in which you play a female soldier in the future (Stewart have the U.S.G.C.B. available which sounds pretty terrific) but it is from a Great (or is it) Construction kit which, supposedly, allows you to create your own games masterpiece using the tools that the professionals use. **SMOULDER** must be out by now surely? Lots of pre-release stuff was floating around before Christmas for one of the most typed game of the 80s. *HELL* is become one of the best bits of the *Warrior*? **WARRIOR** just received a review this issue and is claimed to be a new type of computer game that has taken three years to develop. It's an adventure which the authors claim is more intelligent than Elvira's. The idea is 20 times better than Elvira's? Demand are still being accepted up until the last day and **STOS** **WARRIOR** is the label to look out for but they say that it will not be released until late 1987. Meanwhile, just as we were to press, *Gene Kelly* **BEVERLY HILLS COP** hit the streets and looks likely to be the smash of year so far, at least it should sell a lot of copies just on the packaging which prominently features Eddie Murphy.

It's going to be an interesting year as far as prices are concerned with several new labels putting out ST software at £4.99. Beach 14, part of the Interceptor Group released half a dozen titles last year, some released this issue, which include *ROLL YOUR OWN*, *EXTENSION*, *GARLIC NUT*, *WAP*, *KA/SHINE* and *THE BLADE*. Code Masters and Mastermind also have a number of £4.99 titles and there should be many more available shortly ensuing. But it is, that the main distributors and retailers are willing to sell them (many of the titles are re-releases and not particularly sophisticated but there are one or two new releases) and some real gems at the price. If the good ones take off then we could find a real hot deal in the ST world this year as previous happened at £3.99 and £14.99 suddenly became rather expensive in comparison. Labels like **1986** could be the year in which the proliferation of software manufacturers begins to abate and we get back to some sense. There are going to be some who go to the wall, after all how much can you make in discounting £4.99 games? Let's hope that it's not your money in the post when the announcements begin!

ELVIRA - MISTRESS OF THE DARK



The falconer with his falcon

The falcon attacks!



A Skeleton Warrior. None too Friendly!

One of the soldiers after your head



All screens shots taken from Horror Soft's latest release boasting not only excellent graphics but also digitised sound and a full MIDI sound track

SURREALISM IN THE SKY

What's the connection between the Hawaiian Islands, a seventeenth-century sailing ship, a thirteen-foot-tall high-gated plane, and the secret jewel of the goddess Pele? You'll never guess in a million years, so I'll tell you. They're all features of *Hawaiian Odyssey*, the latest Flight Simulation II (FS2) scenery disk.

It might appear to have taken a completely fresh approach with this exciting new FS2 scenery disk. So start with the packaging, is totally different from its predecessors, looking more like a game package than a piece of serious simulation software. The contents are much the same as before though, containing the usual single-sided disk, map, instructions, and detailed airfield diagrams.

The subject of the disk is Hawaii, those magical like situated halfway between the west coast of America and Japan. At first sight it seems very much like any other FS2 scenery disk. It covers the eight major islands in the Hawaiian group, and includes 26 airfields. Five of these are equipped with ILS (Instrument Landing System) for your weather-appraiser, and also VASI (Visual Approach Slope Indicator), the system of coloured runway approach lights designed to help you land in clear weather conditions. There are radio navigation aids aplenty, so you'll have no problems finding your way around. Total area covered is about 100 miles by 100 miles, which is fairly small compared with

some of the earlier scenery disks.

EXPLORE A VOLCANO

The Hawaiian Islands are mountainous, and this is reflected in the scenery on this disk. Six of the islands have at least one mountain, with more on some islands. Two of the them have huge volcanic craters, which you can actually fly down inside if you're brave - and this is where the fun begins.

Descent into the main crater of Kilauea and you'll be thrown into an instantaneous space/time warp! Suddenly you're skimming the waves at the other end of the island chain, and if you look around you'll see a late seventeenth-century sailing boat under full sail.

Make a slow descent into the main crater of Moana Loa and you'll find yourself in a worldland, seemingly featureless except for the Seven Pillars, each one leading to a different alternate reality. Enter any portal and you're instantly transported to the strangest of strange lands. Here you'll find an airfield made of massive truncated pyramidal shaped towers, which deliver all attempts to land on it. You may also find an aircraft carrier floating 1000 feet above the ground, and airfield runways suspended at various heights in mid-air. Again, they're impossible to land on, which is a great pity.

MONSTER KEYBOARD

Other weird sights include a gigantic gated plane, the keyboard of which is about the size of a normal airfield runway. Yet again the object seems to have the density of air and you just sink straight through it if you attempt a landing. Nearby there's a huge wall with a doorway in it. Fly through this and you'll find yourself in the biggest kitchen you've ever seen. It's complete with fitted units, fridge, and other kitchen furniture, and if you search carefully you'll even find a fly about the size of your aircraft sitting on one of the worktops. This isn't realism - it's surrealism!



'transported to the strangest of strange lands'

The other portals lead to equally bizarre sights. I won't spoil any more of your fun by telling you about everything that's here, so buy the package and find out for yourself.

If you tire of the portals, try the quest for the secret jewel of the goddess Pele. This has you wandering from one end of the Hawaiian group to the other, following large floating carriers laid out on the ground. Follow them to the end of the land and you'll find something that Pele Pele fans will instantly recognise!

All the graphics on this disk are of the usual excellent Sublogic standard, with everything depicted in full 3-D colour-filled form. Runways have received extra special treatment, with many having threshold markings, distance markers, and touch-down zones with dimensions and placement in ILS specifications. You can't get more realistic than that, can you?

Although I thoroughly enjoyed this disk I did find it less reliable than previous Sublogic products - it bombed out two often for my liking. Conventional scenery is a little sparse too, the only real buildings being a few tower blocks in Honolulu, and the US Arizona National Monument at Pearl Harbor. Overall, though, *Hawaiian Odyssey* is a welcome addition to the FS2 scenery disk library and is different enough to add yet another new dimension to the best FS2 package. FS2 fans will love it.



Title: Flight Simulator II
Hawaiian Scenery Disk
Publisher: Sublogic
Price: £19.95
Reviewer: John S Davison

MOUSE CHAMPION!

Waste of money buying another mouse isn't it?

Les Ellingham used to think so until this little beastie arrived

Ar you one of those folks who get quite frustrated with the slow speed of the Atari mouse and resort to one of the many public domain programs to speed up the mouse reaction? These programs certainly work but can be a pain in that you must remember to run the program or boot with the right disk to automate them each time and occasionally they clash with other programs. A better solution to the problem is a better mouse but until recently there have been no alternatives for the ST, at least not at anything like a sensible price.

Now from the land where STs are born (Taiwan) comes a new, relatively cheap, mouse that is compatible not only with the ST but also the Amiga and Amstrad. The price is still fairly steep at £19.95 but you can pick them up for less, and you do get a few free goodies like a mouse mat, some carrying case, a mouse holder and a discount voucher for a very small range of Electronic Arts software.

Now a mouse is a mouse isn't it? Well, that's what I thought until I got this little beast home and fiddled it up. Over in the far East they have obviously been doing some genetic engineering on mice and this one really is a joy to use. It claims a higher resolution, at 288 dpi, than standard mice which means that they cannot faithfully film about the screen and the buttons click smoothly and effortlessly. In addition it has a more ergonomic shape that leads to much finer control.

At first you will find that the resolution is too high and you will move the mouse far too quickly with the result that the cursor slips on screen. Move it down with slight and gentle movement and you will find the Nakaba mouse effortless to use. Go back to a standard Atari mouse and you will not believe how slow and clumsy it is.

As well as its ergonomic shape, the Nakaba mouse has a much larger tail than its less developed cousin which, strangely, can be a bit of a nuisance. As there is a plug in adaptor for the ST about nine inches in length the mouse already plugs in some distance from the computer and a foot almost six feet in length means that you can either work from the other side of the room or have masses of cable whirling round your desk. I have resorted to buying most of it under the keyboard!

Upgrading your mouse might be considered to be one of those trivialities that, believe me, once you have tried this one you will wonder why you didn't buy one before. I bought mine at the Computer Shopper Show only because everything else was so boring and I desperately wanted to buy something. As it turned out it was a real treasure. The recommended price of £19.95 is high, even though other mice can cost a lot more, but you can get them discounted to around £10. I paid a mere £24.95 at the Amstrad User Group stand which made it a real bargain, so if you can't find one of your local ST shop, take a look through one of the Amstrad magazines.

My advice is to throw that Atari rat away and treat yourself to a real pedigree show mouse!



THE NAKABA MOUSE - A real pedigree mouse for £19.95

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THE GAMES

SUMMER EDITION

This latest sports simulator is linked to the Seoul Olympics and the player is invited to compete in eight events, namely: Archery, Velodrome Cycling, Diving, Hammer Throwing, Hurdles, Pole Vault, Ring and Grooves Parallel Bars.

After an opening ceremony portraying Korean traditional pictures, you are presented with a map of the Olympic Village with icons representing each of the eight events placed in the relevant stadiums. Position the cursor over the event you want to practice - and practice is highly recommended, if only to see what lies before you! To begin select the 'OTHER OPTIONS' icon, and then decide which country you wish to represent. You may compete with two or more 'human' players or against the computer.

ARCHERY entails setting the bowstring and aiming at the target, taking into account the changeable wind direction factor. This is the **ONLY** event that doesn't require a time limit.

VELODROME CYCLING presents a 3D view from behind two cyclists (with an aerial view of the whole stadium along-side), one of whom is under joystick control. Speed is built up by frantically wiggling the joystick, but it is also possible to 'slipstream' directly behind your opponent to save energy and effort, and then make a break for the line when ready.

DIVING appears to be easy, but it is more difficult than you think. Set the desired

tension on the springboard and away you go. The spring must be precisely timed to allow any of the 14 possible dive variations to take place.

HAMMER THROW takes a while to get used to. Wobble the joystick and watch your hammer turn faster and faster, then hit the fire button at the correct moment and away it goes ... try hitting go while the hammer is facing directly at you!

HURDLES ... again, your success is totally down to the speed of your joystick wiggling prowess, although precise timing of your legs over the hurdles is crucial if you don't want grazed shins.

Pole Vault allows you to view your vaulter from the front. Speed fans up by moving the joystick left and right in synchronization with his foot movements, plant the pole correctly and away you go ... hopefully!

The next two events take place indoors and are a little more complicated, however you will find comprehensive instructions for these latter two (with diagrams) in the game documentation.

THE RINGS require you to move from position to position in a graceful sequence to attract maximum points, wiggling the joystick at a certain speed to perform the move indicated by a floating icon on the screen.

THE SHIMVON PARALLEL BARS is in a similar vein, but you simply push up or down to select the direction of motion and your little gymnast does the rest.

The graphics are extremely varied due to the different events but are always of a high standard. Animation is smooth and there's plenty of it throughout this particular package.

There are also some nice humorous touches, as in the Archery event when a disgruntled little male appears cursing in 'Korean' if you should bury your arrow in the ground below the target. Your competitor will also be seen crying like a big baby if he fails to come up to scratch on the indoor event!



'much practice will be required'

Simple control systems make it easy for anyone to get into the game straight away, but clearly designed events mean that much practice will be required. The only drawback with this type of package is the amount of disk swapping and the time lapse between events. This 51 version comes on five disks so be prepared for many delays.

The Games - Summer Edition is a useful multi-format sports simulator and this makes it a winner for athletics fans or of fortune.

- **EIGHT & SOUND** - Both digital and 3D graphics are utilized and are very impressive. The music is fine with great sampled sounds and spot FX, and the occasional humour ties in nicely with the general 'feel' of the game.
- **GAMEPLAY** - Smooth execution of most of the events and so much variety that you'll be spoilt for choice.
- **VERSATILE** - The complete lay-about's chance to compete in the Olympics ... but have a spare joystick warmed up, just in case!



Title: **THE GAMES - SUMMER EDITION**
 Publisher: **U.S. Gold/Epyx**
 Price: **£24.99**
 Reviewer: **John R. Norrally**



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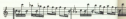
MAKING MUSIC WITH YOUR ATARI

*John S Davison's
regular guide to
all the ways
of making music
on your favourite
computer*

Last issue's announcement about the arrival of the ST public domain software for the Formica PS3-480 and 480 home keyboards seems to have created quite a stir! The new PS3 disk in the Page 4 PD library is an instant hit it seems, so there must be an awful lot of you PS3 owners out there. For those who haven't got the disk yet, here's a few details to whet your appetite.

The programs were written by David Gymer of Louth, Lincs, who needed certain MIDI utility programs for use with his PS3-480. As there was nothing available commercially he decided to create them himself. Like many programming enthusiasts Dave is letting the rest of the ST community benefit from his hard work by releasing the code into the public domain. Thanks Dave, it's very much appreciated!

The PS3 disk contains several useful utilities, including a PS3 patch editor, a drum machine program, a MIDI System Exclusive librarian, a music tabulator sheet pattern, and a few sample voice patches and drum patterns to get you started. As a bonus, Page 4 have added several song files in Activision's Interim Studio format arranged specially for the PS3 machines. There's also (very) brief documentation on disk for each of the main programs.



BUILDING PATCHES

The most interesting program for me is the Patch Editor. The PS3's front panel gives you access to only nine of its voice parameters. Dave's program now makes it possible to get at the rest via MIDI System Exclusive facilities. It lists 36 voice parameters on the screen, and you just key new values into them as required. Push one button on the PS3 and you can instantly play the new voice patch you've created.

One small snag - there's nothing to explain what these parameters actually are or what they do! Useful clues can be gleaned from the sections of the PS3's instruction manual entitled "Exclusive Data Format". It doesn't explain things in detail, but the information there plus a little experimentation should soon give you a basic understanding of which parameter does what.

The Patch Editor can only download voices to the PS3's voice banks, so you can't upload an existing voice to inspect or modify its parameters. It does have disk save/load facilities though, so once you've created a voice you can store it for later use. On booting the program provides parameters for a 'default' voice, and this plus the supplied sample patches give you a good starting point for experimentation.

This program means we now have a way of collecting and distributing PS3 voice patches. If any of you create patches you're particularly proud of, why don't you send them to me (see page 4) for possible inclusion on a future PS3 Voice Patch Library PD-disk, or publication in this column? Send them on disk (with .MID files, if you want to experiment), or just copy the parameter names and values from the editor screen onto paper and send that. Dave Gymer closed his work with the Atari community - here's your chance to do the same and help repay him. Deeply benefits, so get cracking now!

PSS MEMORY DUMP

The next program is the System Exclusive Librarian, which allows you to bulk dump the PS3's memory into the ST using MIDI System Exclusive facilities. This means you can now capture and store the five voice patch memories, the onboard sequencer's five melody and chord memories, and the rhythm pattern memory. In anything you can customise on the PS3 can now be saved to disk for reuse at any later time!

Even better, each of these items can be split out of the bulk dump and saved as separate files, so you can build up libraries of voice patches, songs you've sequenced, and rhythm patterns. These are really good facilities to have and will add enormously to your enjoyment. The only extra PD file to see is a way of splitting the sets of five voice patches out into separate voices so you could load them individually into the Patch Editor. Any chance of implementing this, Dave?

The drum machine program turns the PS3 into a drum machine (drums, surprise). Instead of the PS3's single two bar drum pattern capability, this utility lets you program an infinity different two bar patterns on you wish, via a very easy to use grid based editor. These may then be linked together and looped as required to form the rhythm track for a complete song. There's a load choice of only nine percussion instruments from the PS3-480's

set of 32, and you can't synchronize the rhythm with the PSS's internal song sequencer—you have to play along live with it. But then at the price, who's complaining?

The final program is rather out of place on the PSS disk, as it's a utility for printing out blank guitar tablature forms. Guiltless sometimes use these as an alternative to conventional notation when writing music down on paper. There's not much to say about it really, except that it's designed to use the IBM character set on Epson compatible printers, and seems to work OK.

Overall, I can't see how any PSS owner would want to be without this disk. It adds enormously to the enjoyment of using the instrument, and at £2.95 it's an unbeatable value for money!

GOING ONE BETTER

I've been using my PS480 for well over a year now, and have become a tremendous amount about MIDI and electronic music making from it. But—the upgrade has recently arrived, and I succumbed to the charms of a Yamaha PS-200 synthesizer. If I was amazed by the PS480 when I first got it, then I've been knocked headfirst by the PS-200 if you're contemplating upgrading, or just want to start with a more 'professional' instrument you may be interested to hear about the differences between this type of instrument and the basic PSS machines.

First and foremost is the sound! I fell in love with it the first time I heard it, as the instrument produces some genuinely rich sounds. As supplied it has 100 preset patches, plus a further 100 programmable memories for your own patches. These can be saved on an optional 32K RAM card if required. An additional 100 presets can be plugged in on MIDI cards, so you can have up to 300 different on-board voices available if you wish.

It uses the same basic synthesis method as the PSS machines, but employs a much more complex version of it. It's called Frequency Modulation (FM) synthesis, now considered old fashioned by the pundits as it's been around for about 3 years. The PSS machines use the most basic form of FM, using only two interacting digital waveform generators (called 'operators'). The PS-200 has four operators, and these employ it with a far richer sound than its little brother. Also, these operators may be interconnected in several different ways (known as 'algorithms') to produce sounds which are impossible on the PSS. For instance, you can emulate the sound of a whole orchestral string section, rather than just that of a single voice, as on the PSS.

If you think 32 patch parameters on the PSS is too little you should see what you have to do with a four operator machine! To give Yamaha their due, they've fitted the PS series of synthesizers with 'easy edit' features, which considerably simplifies the job of patch editing but, as on the PSS machines, this cuts down the control you have over the parameters and restricts the possibilities. So, for total control of all the parameters you have to use an 87 based patch editor.

DIGITAL EFFECTS

The PS-200 also has a built-in stereo digital effects processor, and this contributes massively to the quality of the sound. It can add a wide range of hall, room, or

plate reverberations, delays, chorus, distortion, gated reverb, and reverse gated reverb to the synthesized sound. I particularly like the reverb, as they add a smoothness and spaciousness to the sound that's a joy to hear.

Like the PSS, the PS-200 has a built-in sequencer, but this one's much more advanced, it has eight tracks, each with eight voice polyphony. In comparison, the PSS has only five monophonic tracks. As well as real-time recording it also has step-time, punch-in/punch-out, quantiles, and song edit facilities, and your sequenced songs can be saved not only on optional RAM card for long term storage. In fact, it has most things on 87 based sequencers has, but it's not nearly so easy to use.

The other big difference is that the keyboard is designed for adding expression to your music. The PS-200 keys are full size, unlike the mini-keys on the PSS. Also, they're velocity sensitive so hitting them faster produces a louder sound. They're also aftertouch sensitive, so pressing them harder after the initial depression can trigger additional effects, such as vibrato, tremolo, wahwah, or tone shifts. Unlike the PSS, the PS-200 can't produce sound on its own. You have to plug in headphones or a separate amplifier and speakers to actually hear anything. It doesn't have the automatic play 'fun' features of the PSS either—you have to play that part for real. It's only eight voice multitrack (compared to the PSS's twelve), and you have to manually allocate voice polyphony to MIDI channels. This is a real pain after using the PSS's dynamic voice allocation feature.

As you can see, making music can become rather more complicated when using more advanced equipment. This could mean you have to spend 10000 times on the technology and 1000 on the music, which is not the idea at all! It's here that the 87 running good software can be of great benefit, taking care of the complexities for you. In future articles I hope to be able to look at some of these products in detail to see how much they do help.

MIDI-MASTER

Remember I mentioned MIDI-Master (the MIDI interface for the 8-80 machines) a few issues back? The reason I haven't mentioned it since is because we've had great problems finding stores which stock it to connect it to the 8-80 machine's serial port. Well, we finally found enough to make up just 12 interfaces, and as in the process of getting these manufactured, Ives, 32 lucky 8-80 owners will be able to buy them and start making music via MIDI. If they're ready by the next issue (I'll tell you more about it then). In the meantime, if you know the whereabouts of any someone Miles plugs (plug made up on leads will not do), please tell us, as I'm sure the demand for MIDI-Master will far exceed the current batch of 12 (if 12 were sold within a week of the preliminary announcement, even though they were out, at the time, available - 10).

That's all for this time, folks. Don't forget to write to me (page 6) with your music queries, suggestions for things you'd like to see covered, or to send those killer PSS voice patches you'd like the world to know about. I'll be delighted to hear from you.

THE PAGE 6 PSS DISK

The Page 6 PSS Disk for the Yamaha PSS series is available from PAGE 6 PUBLISHERS, P.O. Box 64, Harpenden, Herts SG8 5JF price £2.95.

NEODESK



An example of the various icons that may be used in Neodesk. These in the window easily and quickly allow different versions of work in progress. On the desktop are icons for frequently used programs, any of which may be run directly from the desktop without opening any windows, just double click on the icon. All of the icons are user definable.



Files may be shown as list and there is a wide choice of information that can be shown or not. Here small text is used but the normal size that GEM uses is available. Information not normally required such as date and time can be included and a Template option allows you to show only files with particular extensions or filenames. Full wildcard selection is available.



Here files are shown as list with the details of size, date and time included. Neodesk fits as many files as it can in the window, according to the amount of information you have selected. In this instance there are 18 files in list view. These can be quickly switched to single column if it is easier to view them that way.

If you are a serious user of the ST then, like me, you probably don't buy that many programs. Once you have found the programs that suit your particular use of the computer then you tend to stick with them. In my case the programs that I use most are First Street, Publisher and Protext with maybe four or five regularly used utilities and it is very rare that I actually need any other programs. In order to actually buy something new I need to be sure that it will get as much use as the other programs I have. I bought Neodesk, after seeing the public domain demo version and it certainly lives up to the aforementioned criteria, in fact it has become the one program that I use every time I boot up the ST and I now wouldn't be without it.

A TOTALLY NEW DESKTOP

Neodesk completely replaces the GEM desktop and provides a totally flexible environment that addresses most of the problems of GEM and adds many new features that you may not have even considered but which quickly become indispensable. The most obvious new features are the user definable icons used to replace the standard GEM icons and, while at first these seem rather gimmicky, they quickly provide a much faster way to recognise all the different files on your system enabling you to work much faster.

Working faster is one of the major advantages of Neodesk. The GEM style windows are retained but the 'grow and shrink' boxes are dropped and other features added like a 'go to back' button. There is no horizontal scroll bar, instead all files are fitted into the available width ensuring that only vertical scrolling is required. If you are viewing in text mode then even that may not be necessary as you can use small text and take out non-essential details like time and date. In this way over 100 files can be shown in a window! Most users will find that more than adequate.

The various drop down menus of GEM are either replaced or enhanced and little problems like not being able to rename hidden or locked files are solved. Much more information on disks or hard disk partitions or files is available and Neodesk can give your disks unique volume names which can be quickly and easily changed. Have you tried doing that with GEM?

MANY MORE OPTIONS

Formatting floppies and copying information is now a real joy since there is a built in formatter that allows you to select the number of tracks and bytes per track and use a 'welder' format for faster booting. Copying from disk to disk is much faster and gives you the option to copy with or without format or to just copy all files, much better than trying to highlight them all in a window.

Copying files in general becomes a delight as Neodesk will try and copy in as few passes as possible and in the quickest way. All files to be copied are first read into memory and are then written out to the destination disk with a progress report on screen as you go. An added bonus, much used, is a Move function which copies files to other drives and also removes those files from the original drive. On a hard disk this is much, much faster than a standard copy and then delete.

Having wasted a lot of money in the past on programs that don't perform, Les Ellingham needs to be convinced that a program is really useful before buying it. Does Neodesk qualify?

A lot of the facilities available, once selected may be saved in a desktop file for useable GEM, any number of different desktop files can be created and used, if you switch between colour and mono then Neodesk will recognise and load the appropriate desktop so that you always have the best setup, having the best setup is one of the real advantages of the program and perhaps its strongest feature is the ability to take any program out of a window and drop it on the desktop. This means that your most used programs can be run directly from the desktop without ever opening a window and it doesn't matter where those programs are or in what folders.

CREATE YOUR OWN ICONS

There are many other facilities that I have not mentioned such as the ability to perform a search or command from the keyboard, the use of key commands to replace all drop-down menu items and many others. The one extra feature that must be mentioned is the icon editor which enables you to create your own custom icons. This is an easy to use grid editor, much like a sprite editor, with which you can create any existing icon or create your own. Alternatively separate icon files can be loaded in and individual icons can be added to your personal collection. Several hundred such icons are available in the public domain.

ESSENTIAL FOR HARD DISK USERS

Neodesk really comes into its own when used with a hard drive but it can be used quite effectively in a twin drive system. On a single drive its use may be quite limited since it needs to reload each time you start a program but even then many of the facilities may prove to be quite useful. For Hard Disk users I would say that Neodesk is almost indispensable and if used with the shareware programs (Neodart) to customize and the Little Copy file transfer, which is everything that the GEM selector boxes should have been, it will transform most ST into a totally different, much more flexible and more powerful system. I cannot recommend Neodesk highly enough, it is now the one program that is used more than any other I own and worth every penny of its price.

Neodesk costs £29.95 and should be available from most reputable ST dealers, although it seems a little difficult to locate. A public domain demo version is available from Page 6 price £2.95 and is highly recommended if you are not quite convinced that your system needs upgrading.

A number of standard icons are available with Neodesk but if you don't like them you can quickly and easily design your own with the Icon Editor. Other, niche items, icons are available in the public domain and most of those used in the setup illustrated are taken from the Page 6 Utility Set ST224 which contains hundreds of icons and an excellent demo version of Neodesk.



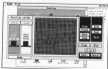
The comprehensive Neodesk Control Panel has more features than the GEM version including a useful control panel that stays on screen throughout rapid programs, icons those that don't use GEM! Again like the icons, along the top, previously selected if you don't like the style choose something that you do like!



Neodesk contains a useful printer feature that allows you to configure your printer and queue without files for printing, no matter where they are on the disk. To print files you can just drag them to the printer icon or use the 'Queue'. All printing is carried out on a background task so you can get on with other work.



Lots of options may be set and the desktop can be saved in a variety of ways. Unlike GEM, you are not restricted to one single format, and can save several different desktop setups. Neodesk saves resources, modes and other desktops so that if you switch between each, the relevant desktop setup is loaded.



FERRARI FORMULA 1

The strains of Feathered Mac's 'The Chair' echoed in my mind as I looked at this game. Sadly the loading music was not a patch on this but the game certainly was. The one claim to be a Grand Prix Motor Racing simulator which is an apt description, the packaging includes a comprehensive instruction booklet that needs to be fully read and understood in order that the utmost value may be gained.

It is possible to quick start the program and use the mouse to steer, accelerate and brake but that degrades the program to a poor car race game of which there are several comparable and some better versions. The interest in this is from the pit modifications and the changes needed to suit the Ferrari to race on each of the Grand Prix circuits of the world.

The game proper starts before the opening of the 1986 racing season of the test track in Italy and here, after peering the manual, it is possible to select your favoured gear, suspension, tyre and engine settings or rely on your chief mechanic's advice which is a normally fairly good. Once the settings are decided, and practice of the test track has you feeling confident, it is possible to accelerate the real time clock to the next race. Once more practice and qualifying rounds give each to fine tune and renew the engine and other parts so that the real race may take place.

The track starts in the manner of Pole position with semi-transparent opposition appearing and disappearing round bends. It is possible with



practice to win races and obtain points on the Grand Prix table, but make a mistake and you could be hospitalized for many days even missing the next race.

The sound effects are weak and unconvincing, the graphics being only feeling reminiscent to the tracks concerned, although all major circuits or trademarks are included. Perhaps this game does not want judging as an arcade race game but rather as a long term tactical simulation.

I enjoyed it as a challenge and also on the level of understanding the problems a Grand Prix team faces throughout a season.

FACTS

Title: **FERRARI FORMULA 1**
 Publisher: **Electronic Arts**
 Price: **\$24.99**
 Reviewer: **Damon Rowboth**

SIGHT & SOUND

The spot effects and engine noise are weak, while the graphics only adequately convey the impression of the race track.

GAMEPLAY

Facilitates interesting, becoming to control the car is a challenge but it is not a fast arcade game, more an acceptable race game.

VERDICT

A good simulation of a Grand Prix season - only buy if that is your interest.

FACTS

Title: **PALADIN**
 Publisher: **Orion/Andromeda**
 Price: **\$14.95**
 Reviewer: **John Greenway**

SIGHT & SOUND

Average graphics, adequate for the type of game, minimal sound effects.

GAMEPLAY

Slow and cumbersome in places, but sufficient variety to keep you busy for a few hours.

VERDICT

Not a great game, but good value if you want to build your own dungeons.



Paladin is an RPG which uses a bird's eye view of your hero and the terrain around them similar to the battle sequences of the Ultima series and the 3D Fantasy RPGs, but speed over a much wider scrolling area. There are 10 short quests to full, after each of which your Paladin may improve in his abilities. The quests can be played in any order (apart from two which are linked). You get some helpers in each quest. Swordsmen, Mages (with not a dozen spells at their disposal, e.g. Detect Evil, Invulnerability, Protect), Priests and Rangers (who can use a couple of the spells). Scorpions and may be any

of 13 items, such as Crossbows, Amulets of protection, Potions of Healing and Orbs of life. The objectives involve rescuing prisoners, finding scrolls, being enough of the enemy range from Dragons and Trials to Sorcerers and Spells, all deadly. Play a great entirely mouse-driven. Each of your characters is given an allocation of Movement Points each turn, based on basic ability, load, health and status. Every action - moving, fighting, etc. - takes a certain number of MP's. Once you have moved all your guys then the enemy gets to use his MP's which can be quite deadly as each enemy may be able to aim multiple blows of your guys, and you can only cast of the

END of the enemy phase! Unfortunately the mouse reacts very slowly and there are not enough icons on the screen. For example, there is a Sword icon for Attack, but none for Cast Spell. Instead you have to hold down SHIFT while clicking on the Sword icon. Mind similar strange combinations of key strokes and mouse clicks have to be used to switch characters, turn, or to end your turn. The other downer is that it is a bit slow, the screen scrolls slowly every time you move a character, and slow GEM windows open to call your attention. Dungeon Master II can't be the biggest bonus is that you can create your own quests. The game includes a complete Dungeon Editor with over thirty terrain types for you to build your own twisted adventures or Dungeons.

PALADIN

DRAGON SPIRIT

Dragon Spirit is a conversion of an arcade game that still pops up in some local pubs and attracts some interest. Basically it is a scrolling game in which the object is to drop bombs on, and breath flame jets, at the opposition - evil minions of a cruel serpent demon. The player is, in fact, a large three-headed dragon and is going to save the Princess Alicia. There are of course the mandatory end-of-level monsters to defeat to progress to each of the 8 levels all of which need the acquisition of bonus eggs and gems to ensure the full ending power of the creature.

The game comes with a sparse set of instructions that even the Capcom series. Why is it that software companies assume that everyone has played the original arcade game? But fortunately this is

not too great a handicap since most become clear after brief playing.

The game presents a slightly different light on the scrolling game although there is little that is different in the actual gameplay. The overall impression is that this is a watermarked conversion that keeps most of the original's features and does not lose too much in the translation.

The scrolling is reasonable and the sound effects are adequate, although something that it did not generate the excitement or desire for repeat playing that I experienced in X-Men 2 for example.

The graphics are pleasant and unassuming, allowing some perspective sprites to loom out of the distance and

threaten the creature. I felt that a great deal of what the game had to offer had been done before and in some cases better. Had the game appeared twelve months ago I would have rated it as an innovative version of Salamander or X-Men as it only claims to originality in the dragonification of the hero which to the does not make a great deal of difference in the end. If there are still players who enjoy the form of scrolling shoot'em up then it will satisfy their cravings but it is fairly bland and does not have the dramatic quality to make it a cult or even well remembered game.



FACTS

Title: DRAGON SPIRIT
Publisher: Tengen/Domark
Price: £19.99
Reviewer: Damien Rowboth

SIGHT & SOUND

The spot effects are relevant and the sound track suitably, graphically it is quite pleasing

GAMEPLAY

An arcade but slightly slow conversion that does not question the player's skills

VERDICT

A set of plain vanilla type of game - nothing to commend it but little to praise if either

FACTS

Title: WAR MACHINE
Publisher: Smooth 15
Price: \$4.99
Reviewer: John Davidson jr

SIGHT & SOUND

The graphics are not the best you'll ever see, but they are both fast and colourful. The high quality sound will certainly fit great effect

GAMEPLAY

A very addictive arcade experience, which is on a console this time

VERDICT

Demotives rather for money. One of the best budget on boxes I have ever seen



WAR MACHINE

'secret weapon' which is needed to kill the Alien Queen, booming around the mining colony are the usual bug-eyed hordes, who try to hinder your progress. Also you'll encounter deadly acid pools which one conveniently placed to drain away your energy of different stages of the game.

The graphics are very bold and colourful, and what not being the most well defined and tightly defined, they are very effective. The action is fast and the multi coloured aliens, coupled with your rain-bow coloured laser beams and the wild and wacky backdrops make the game a positive feast of psychedelic vision. As with so many other releases recently, the sound is sampled. The noise of your

communications with the mining installation on planet X2078 have been lost. It is believed that the problem is caused by the decoded enemy. The Alien Synchrobs. You have been selected for a dangerous mission to destroy the Alien Queen and her henchmen. If you fail the hordes of the synchrobs will swarm across the entire universe leaving a trail of destruction in their wake. War Machine is basically a large multi screen arcade game which has your character slipping around the colourful mining colony trying to destroy various pieces of alien equipment. You also have to find the parts of a special

powerful laser weapon to use softening, or are the decaying explosions when you destroy something. The music on the title screen also involves sampled voices and is most effective.

I found the game very enjoyable to play, but the thing on the cover which makes this game even better is its price - it's just \$4.99 if only we could have more software of this quality at the price.

War Machine is both colourful and fun to play, is amazingly addictive, and it gives more value for money than any other game released so far.

'more value for money than any other release'

STRIDER

Another arcade-conversion from Caspcom, with the normal loads of instructions found with these games. Fortunately the game is joystick controlled and a brief read shows the enjoyable nature of this beast. Aim up, game.

The scenario casts the player as Strider the super-powered owner of some form of hi-tech (or magical) titanium sword who has, for some reason, to infiltrate the Russian Red Army and bring back the secret. For some reason the Red Army is headed by an equally successful superhuman who has to be defeated in the final mission.

The infiltration takes place in loud music and spot effects and fast, furious action but there is a keyboard option to those who prefer to work out the real strategy. The instructions request to mention

that a small flying saucer needs bleeding to be your pet and reflector for your sword's laser blasts. It took me quite some time to realize the floating piece of metal that dived within the rocket was in fact friendly and that it was of little importance.

The game scrolls across highly colorful and detailed screens and the intelligent control system allows a vast variety of poses for Strider as he hacks and slices his way to the goal at the end of the level. The enemy sprites are well designed and animated well, and some possess a degree of intelligence that is almost dangerous. The backgrounds show a great deal of imagination and imbue a strong sci-fi fantasy feel to the game. Eventually I found myself en-



joying the game, and realized that a great deal of joystick wiggling had passed unnoticed, so much so I missed two appointments! Despite the rather gung-ho story line, which is the current flavoring of the cold war may seem irrelevant, the game is rather good. I suspect that the screenshots on the box are taken from the arcade version since, although the 3D graphics are colorful and strong they do not really compare to those on the box. The game has enough uniqueness and slick movement about it to make it a favourite for hack and slash merchants and it even contains an element of tactics in it.

FACTS

Title: **STRIDER**
Publisher: **Caspcom/USA**
Genre: **Action**
Price: **\$24.99**
Reviewer: **Dorian Howarth**

SIGHT & SOUND

Both graphics and noise take the 3D up to standard, smooth scrolling with total effects and music tied to the arcade feel.

GAMEPLAY

Fast and furious, most better than many run of the mill games.

VERDICT

Enjoyable, enthralling and addictive qualities abound, certainly worth trying.

FACTS

Title: **SAFARI GUNS**
Publisher: **New Deal Productions**
Price: **\$19.95**
Reviewer: **Dorian Howarth**

SIGHT & SOUND

Visually contains a wealth of jungle scenes; the compiled sound effects are nicely atmospheric but subsequently become

GAMEPLAY

Fast and smooth in play but a long time in loading, the 3D becomes repetitive after time.

VERDICT

I enjoyed the game, but only in small doses, the concept is novel and the game deserves some success for that.



SAFARI GUNS

Screens of America and Mercedes Dennis and David Allen brought the target shoot game gives the player the opportunity to play animal guardian in Africa, the object of the enterprise is to shoot with a camera as many different types of animals as you can, and to shoot with your rifle as many poachers as possible. The two shooters (Mook and Daming) are toggled via an on screen icon and both work and sight from mouse control. It is unfortunate that the poachers realize that you have an inbuilt desire to kill since they pop-up to shoot of the player of quite alarming speeds. Taking pictures of the

animals as they move is also a tricky job especially since points are scored for both uniqueness and quality of photo.

The version I was testing was rather slow to start up and although it contained some rather pictures of the African bush accompanied by complete jungle noises and drums there was an interminably long wait for the game to start. Another great problem was that although I was offered the choice between German or English language versions the only language I would use was German. Fortunately, this was not too great a problem since the instructions are fairly simple and the multi language format gives just enough information to get by on.

Once the action starts it is fairly fast and furious and the whole is reminiscent of the gunshot recognition test from police firing ranges. For all the more on screen are enemies and so speed and care needs to be exercised before shooting a potential poacher then is possible does appear you receive a down the middle view of him and unless your rifle finger is swift and accurate that is one life gone.

The game rests on the graphics which are very good. A great deal of smooth, fast, motion is maintained on screen and the game becomes most absorbing and fairly addictive, at least until the novelty wears off. While the advice is presented well and entertaining, each level is very much like the preceding one and the game does begin to lose its attraction.

ROLLER COASTER RUMBLER

Amongst all the shoot 'em ups that are released over the year, it is sometimes difficult to select only one that really stands out from the others. — until now! Imagine taking your turn as the intrepid Conductor of Alice Towers, armed with a hefty machine gun and complete freedom to shoot at everything that moves - or anything that you don't particularly like.

The instructions are a little sparse but if doesn't take too long to get well into the game. The car is controlled by joystick and you aim and fire with the mouse - both hands occupied as you would be holding onto the car and toting a machine gun of the same size. Anything coloured and moving can be blasted away, anything grey is dismissed resulting in a surrounding 'clang' when you

bullets hit it. Darn track gantry sports a pair of swinging spheres (big balls really) that are shot at as you approach. If you miss, then pressing the fire button on the joystick switches to a rear view so you can have a second shot - but watch out for that rear lot coming up!

As you proceed, a series of wares (stuff) will fly overhead and drop more 'targets' before you which must be taken out as soon as possible before they increase your damage level. If you run out of time or bullets you have 500 rounds per level; the game will end abruptly. If your car sustains excessive damage you will ungracefully leave the rails and plunge headlong into the ground.

There is also a sort of light simulator mode where you



can happily fly about a multi-coloured landscape blasting everything in sight to improve your aim-and-mouse-manipulation skills - you're gonna need 'em! The light simulator option could easily pass for a game in it's own right! The solid 3D graphics are very impressive and, although I must confess to being a little confused with the controls of this game initially, after the first 'ride' there was no stopping me!

Roller Coaster Rumbler is, to quote the Python team 'some thing completely different', totally absorbing, brilliantly implemented and a real treat to play. I recommend you buy it and see!

FACTS

Title: **ROLLER COASTER RUMBLER**
 Publisher: **TYPE SOFT**
 Price: **£19.99**
 Reviewer: **John D. Barnsley**

SIGHT & SOUND

Very well defined 3D graphics with starting explosive effects - the roller coaster is an added bonus

GAMEPLAY

Totally addictive from the outset!

VERDICT

A unique combination of light simulator and arcade shoot 'em up game that for all shoot 'em up fans!

FACTS

Title: **SHUFFLEPUCK CAFE**
 Publisher: **Interbound/Domark**
 Price: **£19.99**
 Reviewer: **John Barnsley JR**

SIGHT & SOUND

The graphics are fantastic being superior down and smoothly animated. The sound effects are all sampled and of a very high quality

GAMEPLAY

Simple but effective. Extremely addictive

VERDICT

This is a game which can truly be played as both challenging and fun



How about a friendly little game of Shufflepuck? Shuffle what?

The latest release to be distributed through Domark Software is a superb interpretation of the old classic, 'Air Hockey' game which used to be the rage in academies in a time long since past. For those of you who haven't the foggiest idea what I'm talking about, the basic idea in 'Air Hockey' is to hit a 'puck' (with your 'paddle') backwards and forwards across a table. The puck glides on a thin cushion of air, and can move very fast. The objective is to score a goal against your opponent by getting the puck past him without him returning it.

SHUFFLEPUCK CAFE

In Shufflepuck Cafe, you have stumbled into the gobby's lair den of all hockey enthusiasts, and these people

take it very seriously! If you choose to enter the tournament you must play against each of nine opponents, all of whom have their own unique personality and playing style. The characters range from the utter wally called 'Big Henry' through the mystical 'Perseus' Benji and all the way to the supreme champion Bill Rounch. Alternatively, you can choose to play one of the characters individually.

Your view of the game has you looking down the table towards your opponent with your 'paddle' in front of you. Once the game has started, it is the fast player to reach 10 points who is the winner.

Graphically, the game is absolutely superb. The characters are all wonderfully drawn and the selection screen where you choose your opponent has to be seen to be believed! The screen depicts the whole interior of the cafe with all of the characters around the Air Hockey table. I was very impressed by the tremendous quality of the game. The sound is unusually good, as all of the same effects (and the music) are sampled. Each individual character makes a variety of different sounds, from grunts to words of congratulation.

The game contains many very nice touches and proves the point that it is often the simplest ideas which make for the most enjoyable games. I can highly recommend 'Shufflepuck Cafe' - it is superbly presented and great fun.

CONTINENTAL CIRCUS



The latest release from Virgin Games is an excellent conversion of the three-dimensional racing game 'Continental Circus' by Itofo.

The Continental Circus consists of a series of eight races, each running on a different track in a different country. To complete the series and earn the right to compete at the main One Level you must enter the 'Circus' and complete each stage within a qualifying position. Drivers entering the 'Circus' are given four credits, which, if one stage is not completed, can be traded for another offer of starting from the same position.

Your view of the proceedings is from behind the car, with the road stretching out into the distance in front of you. Control is very simple, the car has a five-high gear shift and an accelerator to control

speed, what left and right controls the car's position on the track.

Having played more racing games of this type over the last few years, I can say that what 'Continental Circus' is not the most original game concept it does have a few tricks up its sleeve, the game immediately offsets comparison with the game which started them off, 'Pole Position', however this one is not just another 'up off'! Throughout the races you will confront many obstacles, as you would expect, but added to the usual chicanes and other stuff, you also have to contend with the weather! Sudden downpours of rain can seriously hinder your progress if you are not prepared. Cognitively the game is almost flawless, the scrolling is

smooth and the backdrops and graphics are superbly drawn. Having played the original on a number of occasions, this is one of the few times that I can actually say that the 3D version of this excellent game looks very good! To play the game is tremendous fun and of times can be quite infuriating as you run out of time about two seconds away from the finishing line! I really enjoyed playing it and I look forward to getting further and further towards the final goal.

Overall, I can safely say that 'Continental Circus' is one of the few excellent arcade conversions, Virgin Games do to be congratulated.

FACTS

Title: **CONTINENTAL CIRCUS**
 Publisher: **Virgin Games**
 Price: **£19.99**
 Reviewer: **John Seaton jr**

SIGHT & SOUND

Superbly drawn graphics and backgrounds with some very smooth animation, the sound effects are more than adequate for the game.

GAMEPLAY

An extremely playable game, very much in the classic Pole Position mould, it is a truly addictive.

VERDICT

A great racing game, either on the most original idea it is an excellent development of an old formula.

FACTS

Title: **NORTH & SOUTH**
 Publisher: **Infogrames**
 Price: **£24.99**
 Reviewer: **John Seaton jr**

SIGHT & SOUND

Excellent cartoon style graphics and animation. Great sounds - crashes of bones and wood effects all over the place.

GAMEPLAY

Easy to pick up - enough variety to keep you interested - 3D4-Action-type game.

VERDICT

This is the kind of game that depends on the (open and close of an) should have been great fun.



NORTH & SOUTH

each encounter by comparing relative strengths and throwing in tactical dice for you

against a Combat Resolution Table.

As if that wasn't enough variety, you can also play as North v Computer, South v Computer or two players, you can set either side to one of three difficulty levels and you can choose from four different years to start the game - the 'Board is set' up to be roughly accurate to that point in the war - playing a Southern Confederation against a Northern Confederation starting in 1864 is NOT easy!

The train and fort upgrade sequences are almost identical, one player taking against the other series various obstacles, while the other has to slow you down with punches

and knife throws - simple but effective.

The battle upgrade sequence is excellent with individual control of artillery, cavalry and infantry, plus minor terrain variations such as trees and chimes - trying to cross a bridge under cannon fire is usually pretty suicidal if it's not entirely full as you have to take your hand off the joystick and press SHIFT to switch between units, while your computer opponent does it all automatically!

Only the French could design a joystick based game for a machine with two joystick ports and force one player to have to use the keyboard! It does play quite well from the keyboard!

North & South comes on a double-sided disc - consult Infogrames before buying if you are single-sided.

HARD DRIVEN

This is a car driving simulation which comes from a very popular and highly successful decade machine. Simply put it is up to the operator to guide a sports car which, I am informed, resembles a telephone in handling and general characters. First, around a speed track and a stunt track. The control for this is user definable and can be any combination of mouse, joystick and keyboard. The description sounds nice but the game is not so, the emulation takes practice and skill to find success with which makes the game very addictive. The speed track is well presented with fast bends and all the attendant problems of a race track, together with increasing effort for the main aim is to obtain the fastest possible time and eventually qualify to race with the computer car in pure adren excitement.

The most effective part of the game is the stunt track which needs very careful and skillful driving, from the in cabin behind the wheel view all the various problems become frighteningly real. The bridge with a hole in the middle that needs leaping at no more than 60 mph is scary but the real test operator is the loop the loop which needs a minimum speed of 60 to negotiate while steering on a spiral and eventually being upside down. The cockpit view is more effective than many flight simulators. This together with strong spin effects and goal life music promises to make Hard Driven one of the games of the 90's.

Graphically the scrolling is smooth and fast and although some oncoming vehicles look a little blocky the effect is



strong and realistic. I found that using the option for Automatic gears and the mouse as steering wheel and accelerator provided the best control mix. In the early stages the car feels difficult to handle but even when directional mistakes do make the action replay helps the player to identify and correct mistakes. I enjoyed the feeling of satisfaction of negotiating the banking at over 100 mph with as much anti roll control as possible. Once the racing slope is realised then the computer car will improve of the same rate as you so leaving every race is a challenge. I cannot recommend this one highly enough.

FACTS

Title: **HARD DRIVEN**
Publisher: **Domark**
Price: **£19.99**
Developer: **Stephen Hewarth**

SIGHT & SOUND

The scrolling tracks are colorful and usually along the gear effects impressive and, apart from many scenarios, the graphics great!

GAMEPLAY

Scrolling user definable, and engaging, well worth the time it takes to master.

VERDICT

This is a must for anyone who wants to try auto driving without buying their own cars. Same as their brother!

FACTS

Title: **DEVE FACTS DOGS OF WAR**
Publisher: **Elite**
Price: **£19.99**
Developer: **John Davidson for**

SIGHT & SOUND

Presentation is very good, the sounds are of a high quality and the graphics are real eye candy!

GAMEPLAY

What gamelets! If you are already eager to see longer than a mission it is very, very too difficult.

VERDICT

It's OK, but I prefer something with more early stages.



DOGS OF WAR

In appearance the game is very much like Commando. It's a scrolling shoot

You are a mercenary soldier, available for dangerous and violent work any time, anywhere. A number of missions have been offered to you for varying sums of money. Having selected a mission and bought your own weapons and ammunition you then have to stay alive as long as possible. On completion of one mission you can then go on to choose another, collecting large amounts of money for your violent deeds, that making yourself a very hot commodity in the process. On completion of all of the twelve missions (some forced) you are given the choice to join either the Regular or Salvation armies!

then up where you control your men, who has a number of chosen weapons at his disposal. To complete your mission you must find your target, determine what you have to do to accomplish your task, and - stay alive! Easy? You've got to be kidding!

Each successive go involves you first selecting your mission and then selecting your weaponry so that you have as much firepower as your budget will allow. You are then transported to the part of the world where your mission is to take place. Approximately the second time you will have been down to anti-aircraft, squashed, battered, and shot by every member of

whichever revolutionary group you are sent to overpower! Graphically the game is quite impressive. The backgrounds and menu selection screens are all very well drawn and give the game a very high quality look. The actual game screen is also well drawn and it scrolls by very smoothly. The sonic effects throughout sound simple and are again of very high quality. In terms of presentation I find it difficult to fault the game. The only problem is that it is too darned hard! When I first played the game I appeared to spend the majority of the time causing the pros and cons of the weapon selection screen rather than in the game itself. It seemed as though I was being killed off as soon as I started if you find every other game too easy, give the one a go!

SCAPEGHOST

The end of an era! After providing us much entertainment (and frustration) to so many adventures, for so many years (13 adventures in 7 years to be precise - Erik the Viking never made it to the Atari), Level 9 have decided to move on to other types of games.

In *Scapeghost* is their final offering in the traditional text adventure style (with pictures on the ST) and they have certainly gone out in style. *Scapeghost* is an excellent game which will provide old adventures with many hours of propelling enjoyment.

The plot is slightly offbeat. In most adventures you have to expend a lot of effort in avoiding the various horrible deaths that await you at every corner - in *Scapeghost* you don't have to worry about dying at all, you start off the game already dead! As you reach your funeral you realize that you have been given a second chance at thwarting the drug dealers who murdered you - all you have to do is develop some special powers and employ them in a number of clever ways.

As the moments drift away and you start exploring your surroundings you will find that being a ghost does have some rather awkward limitations - like not being able to pick up simple objects for a start (don't try some weightlifting to build yourself up - but start VERY easily)! Once you have mastered this you will find you can still only manage one object at a time, but the game is so well designed that this is not a

problem - just type *BLIN TO OBJECT* and the game will remember where you left it and take you there in a matter of seconds.

The game comes in three parts as usual, to facilitate loading for those who only have cassette - and the small cassettes apply - excellent on it if you can't expect a perfect

pauses and vocabulary from a game designed to run in only 64K! But Level 9 seem to squeeze more in to that 64K than anyone else, so the adventure is still very enjoyable and fun to play, especially since they have still managed to squeeze features like *RAM SAVE/BUTTON* and *UNDO* (the last novel even on the MSX2).

Part One is set in the cemetery and is mainly to do with recruiting enough of the other ghosts so that you can slow the drug gang's plans down. In Part Two you gain the powers to hear and cool things, touch through things and examine the past.

These form the basis for some nice little problems to solve as you hunt the gang's old hideout looking for clues with which to bring them to justice. And in Part Three you find you can bend metal, change things with static or even manifest your ghastly presence to the mortals you encounter. All of which you will need to use in order to rescue an old colleague and help the police to finally catch the villain.

Most of the game is fairly straightforward, and in the first part you get lots of hints from a friendly old ghost called Joe, who follows you around and lends a helping hand whenever you can't work out what it is you want him to do. The game seems atmospheric and funous - I loved it when Joe wandered off muttering something about 'stack overflow' when I tried to give him too many commands at once! (Better to use *FOLLOW ME* than trying to persuade the ghosts to go somewhere and wait for you!) The sections get progressively harder and Part Three has some interesting challenges. But, never less, Level 9 have the best best advice in the business. Even if you don't need any help it is worth reading off to your free time sheet, it is packed full of background information,



SCAPEGHOST is available on both XL/XE and ST - pictures from ST version

jokes and cool hearings, not to mention hundreds of clues!

For the extra money on the ST you get more text, allowing scope for a little more atmosphere and a few extra jokes, some more excellent, variable text size and some excellent pictures.

Cool back to Level 9 in their new ventures - I am sure that they will be just as enjoyable, albeit in a rather different format to that which so many of us have come to know and love over the years.

- **GAMEPLAY** - Standard text adventure with lots of good features. Very fast response times on all machines. Good plot. Well implemented.
- **GRAPHICS** - ST version has hand-drawn, atmospheric, acrylic-looking pictures.
- **SOUND** - none.
- **VERDICT** - Another winner!



Title: **SCAPEGHOST**
 Publisher: **Level 9**
 Price: **XL/XE cassette/disk £14.95**
ST £18.95
 Reviewer: **John Savary**

THE ROUNDUP

At this time of the year there are always a lot of releases for the ST and it is impossible to review them all. Steve Dodson Howarth and John Davison Jr take a quick look at the games received since the last issue which didn't quite make it full review

JOE BLADE

Smooth 16

\$4.99

This is one of the new budget lines that one has appearing and it is a release of a game that was well thought of some time ago. The game is still as entertaining and fresh as it was at full price, and consists of guiding the hero to rescue hostages from the enemy and also stopping time bombs through a busy city game leading onto either entering in the style of Impossible Mission. The game is humorous and standing clearly worth \$4.99.

GAMEPLAY: Smooth and entertaining, with few problems in any department, a 4 or 5 out of 5.

VIEW AND SOUND: Good cartoon graphics add to the atmosphere while good effects and the soundtrack effect add to the tension while problems solving.

VERDICT: Not quite as different and well worth buying if you did not obtain the original. Highly recommended.

SPEEDBOAT ASSASSINS

16 Bits/Megatech

\$4.99



This is for as I know it a new game for the budget line. It comprises the player taking in small but beautifully aimed questions into various enemy hotspots and then, with the aid of a helicopter neutralising them. The game about player configuration of the controls and is most challenging. Controlling the boat isn't easy and it takes me a long time even to start the first level proper.

I am not sure whether this makes the game off putting since the initial can become exciting after the introductory time in two minutes. The control sequences are adequate and fair to fair, avoiding bullets and mine do not take a great deal of crossing.

GAMEPLAY: Possibly too difficult, otherwise everything is very responsive to the controls.

VIEW AND SOUND: The backgrounds are not exciting but the movement is smooth, sound is of adequate standard with not being too noisy.

VERDICT: Not bad for a cheapie, it is nice to see a new game rather than a rehash, but I did not particularly enjoy it.

COMMANDO

16 Bits

\$19.99

Commando has always been very playable and its latest incarnation sure different. A very satisfying treat.

VIEW AND SOUND: The graphics are small and obscure with some very smooth animation and quality. The sound could best be described as unobtrusive as you don't really notice it unless you make a point of listening.

VERDICT: Another game dragged from the past. However it was very playable and the Object-Oriented-Game-O-Knowledge of mine. It is presented well and my only quibble is the price. It is far too expensive.

FASTLANE

Action

\$19.95

An interesting game, which could be described as a pipe-flying simulator, that involves much more skill than most driving games. It is a surprise playable after a while.

VIEW AND SOUND: The graphics are not the most impressive I've seen, but the use of perspective is very good. The animation is very lively and the controls are quite stiff. The sounds are a terrible monotonous droning.

VERDICT: It's not bad, but don't expect to improve the lot of it. It is a commendable accurate driving simulator, though.

ROADWARR

16 Bits/Megatech

\$4.99

Another old game brought back of a cheap price. I seem to remember that this was included in one of the game packs that went with ST some time ago. The game is one of two player in competitive co-operation. It is your job as a pilot of a helicopter to clear the game roads of enemy tankers on a rolling road. It is vital that your partner neutralises some co-operation although in the bonus stage it is advantageous to destroy your partner or to blow it off the road. On the whole an entertaining diversion.

GAMEPLAY: Not quite so slick as the original but still an entertaining romp. Sense of the situation!

VIEW AND SOUND: Good smooth scrolling with bright colours and a pleasant jolly along the way. The game does not show its age if at all.

VERDICT: Never one of my favourite games but enjoyed the Out of Two if Never Comes, the price makes it attractive and a fair buy.

KELLY X

Megatech

\$4.99

A memorable and exciting game based on one of the oldest themes ever! Shoot the spacebots as they fly past you in space - that's all there is to it. Light!

VIEW AND SOUND: The graphics appear to be quite clear at first, being of the old three dimensional variety. However, they do nothing very special. The sound, on the other hand, is a downright disaster.

VERDICT: Not bad for \$4.99, but somebody somewhere must have a slightly more odd and imaginative I do hope it starts to find someone who makes other titles to produce something better of the same price.

JOE BLADE 2

Smooth 16

\$4.99



Another of the budget releases, this time Joe is being to clean up a criminal city in a being to version of the original adventure. The same formula is repeated with the sub game involving around entering numbered files instead of the joystick. The game does not have as much of the appeal of the original and of times it does incorporate some obsolete problems that blow do not seem to lead where they should.

GAMEPLAY: Not quite so slick as the original but still an entertaining romp. Sense of the situation!

VIEW AND SOUND: The graphics are different and do not become better otherwise they are of the same standard as the original, are not quite so musical effects.

VERDICT: Not as good as the original, although still a bargain of the price, if you need Joe Blade then this should go down fine.

STOS

COLUMN

A super new programming competition with over £200 worth of prizes!

A new input routine

News of upcoming products

A type-in light synthesiser

Since the last issue you may have noticed that quite a few new STOS products have been released, some of which may be reviewed elsewhere in this issue. To mark the launch of these products I am proud to announce, in conjunction with Shadow Software (makers of SkyStrike Plus and Mandarin Software (you know who they are don't you?), a competition which could mean fame and fortune (well, fame anyway) for one or more lucky readers.

To become rich and famous all you have to do is create a classic 8-bit game, the only stipulation being that you use STOS to write the code. The **FIRST PRIZE** is a pot on the back from me and what could be called a STOS programmers pack, which includes **STOS MUSHMAN, BASTARD FLEET, THE COMPILER, SPIRITS GO, THE TOTAL MAP EDITOR (BONUS), and MINI-OFFICE PROFIT, SERIAL (GAMES, SPIRAL-SHRETT AND GRAPHICS** worth over 2,000 **SECONDS-PRIZE** is a copy of **GAMES GALORE, SKY-STRIKE PLUS, LANCELOT, TIME & MAGIC** and **MANDRILL** (not the Plus version). Finally **THIRD PRIZE** is granted to most-educators and consists of the **THREE FUN SCHOOLS 2 PACKAGES** (and it's 8-8's and over 8's). Everybody who enters will get a copy of my STOS public domain educational program called **Treasure Troads** which features digitised speech, high quality graphics and a very strange pair of feet.

After the competition is over all games entered will be put into the Prize 6 and STOS Club public domain libraries, this will allow other STOS users to study and enjoy them. If any of the games are considered to be so outstanding that they wipe the floor clean with the 8-bit game they are trying to emulate there is the possibility that they could be marketed by Mandrill or Shadow Software so if you want to see your name on computer screens all over the globe get programming now and send your entries to me at the usual address at the end of this article, and don't forget to include your name, address,

telephone number (if you have one), any particular requirements the program has (I mean memory, two disk drives, three eyed green space when sitting on the moon - etc.) and finally please tell us what the game was called in it's 8-bit form.

All entries will be judged by myself and representatives from the companies supplying the prizes. The **closing date is APRIL 21st** as you have **THREE MONTHS** to come up with an 8-bit classic close and remembered it doesn't matter how good the game is, if it's late your entry will get buried at the bottom of my filing cabinet and won't surface until I clean it out! Obviously if some cosmic catastrophe occurs the prize list may be subject to (very) minor alterations, but if all goes well some lucky person is going to have a very large parcel knocking itself on their doorstep some time in May.

Just in case you are a first time computer user and you haven't the slightest idea what I'm talking about when I refer to 8-bit classics (I hope you enjoyed your holiday on Mars) I'll give you some ideas. My personal favourite 8-bit game is Mr Do but don't let that throw you because I'm not the only judge! Just there are also Space Invaders, Pacman, Manic Miner (an old Spectrum game), Berwick, Missile Command, Asteroids, Silver Wolf, Lode Runner, Jetpac, and a myriad of others. Remember, we the judges are not looking for innovation and originality, just a good old fashioned blast from the past written in STOS.

BETTER ON THE AMIGA?

Big news, AmIGOS (the Amiga version of STOS) should be in the shops any day now. I have had the privilege of following it's development (thanks Richard) from a mere word processor mock-up to it's current state which (in my humble opinion) makes STOS on any other version of BASIC look antiquated and useless. It has the raw power and speed of Assembly language and combines it with the elegance and simplicity of BASIC. I will do a page long overview of the whole package in the next issue. Why? I leave you ask. Well, because AmIGOS will be the foundation for a new version of STOS (previously called

STOS PLUS) that should be ready by the end of this year, although in the constantly changing world of computers this date may be a little optimistic. I leave it up to Petrosi Lorenz and the rest of the development team to prove me wrong (please).

THE SHOPPER SHOW

This column is being written just after the Computer Shopper Show finished in London last November (all contributors to the magazine have to head in their suitcases and programs will follow publication), if you could not make it to this remarkable event I'll tell you what you missed, just about everybody involved with STOS turned up, so you could have chatted to Adam Borghall (author of the title file) and DOMS, Adam Fortington (Acorn's leader who draws all the graphics for Shadow Software's products), Stephen Hill (author of the STOS manual) and the new STOS book for advanced users), Simon Cook (author of the winning entry in Mandrake's STOS competition), Richard Yarnes and Christopher Payne (Mandrake's Kayshik addicts), Sandra Shorley (Acorn's former owner and engineer of the STOS public domain library) and all sorts of...

Richard Yarnes spent most of the day demonstrating various new TTOS products the most interesting of which was STOS Vidi (watch this space for a review) which could be seen digitizing scenes from the film THX-1138 in real time using a bit line program. Simon Cook brought along the very latest version of Cotton Copers, the one and two player beat 'em up structured just like a classic cartoon involving a cat and dog fighting it out in front of wonderfully colourful backdrops, the graphics are really cute but Simon assumes me the control drew that well (I wish I couldn't draw that well). The game contains some excellent speech (or should that be screams?) and should hopefully be in your shops about next year. The interesting thing about Cotton Copers is that Mandrake's controlling it with a new STOS extension that allows users to read BOTH joystick ports (more than one mouse, one joystick). Sandra Shorley supplied me with

some new STOS public domain software including another upgrade that maintains compatibility with the new version of STOS (for the TT) that is about to be released, check out the Page 6 library for the very latest word in all public domain software.

SOLVING SOME SOUND PROBLEMS

Hands up all of you who have had problems playing J&B's Maestro samples in your compiled programs, why isn't it? The solution is quite simple and relatively painless, just follow these simple instructions:

- 1) Boot the backup of your STOS language disk.
- 2) Insert the backup of your Maestro disk and load the program called "INSTALL.BAS"
- 3) Type `FOR I=START(1) TO END(4)`
- 4) Save the corrected copy of "INSTALL.BAS" onto your Maestro backup disk.
- 5) Run the program and re-install the Maestro extension onto your language and compiler disks.

You should now be able to compile programs using these samples without those wonderful beeps appearing when you run them.

MUSIC WHILE YOU LOAD

Have you ever wanted to play interrupt driven music to keep the player amused while loading the next part of your latest mega game? The secret is in how you manipulate STOS commands, the interrupt music system is programmed to stop while executing some of the STOS commands so these must be either executed before you start your music or just avoided altogether. The commands to avoid are LOAD, BE, WAIT, and ERASE all of which cause STOS to shift memory about. As if the LOAD command is annoying, there you cannot see how do you read files from disk whilst playing music? Easy, just use this command to save the trouble you wish to load

```
MOVE "bankname.bank", START  
(name) to START(name+length(name))
```

where "name" is the bank number and "bankname.bank" is the filename of the bank. To incorporate these blocks of memory back into your programs you must first reserve space for them, at the beginning of the program, then to load them while the music plays on:

```
BLOAD "bankname.bank", START(name)
```

continued overleaf

```
00 MOVE 0000, 0000 : MOVE 0000, 0000 : MOVE 0000, 0000 :  
00 MOVE 00, 00 : MOVE "LONDON BANK AND SHOPS"  
00 MOVE "LONDON.BANK"  
00 MOVE "LONDON.BANK"  
00 MOVE(START(1) TO END(1)) : MOVE "LONDON BANK AND SHOPS"  
00 MOVE "LONDON.BANK", START(1) TO END(1)  
00 MOVE 00, 00 : MOVE "LONDON BANK AND SHOPS"  
00 MOVE "LONDON.BANK", START(1)  
00 MOVE 00, 00 : MOVE "LONDON BANK AND SHOPS"  
00 MOVE "LONDON BANK AND SHOPS"  
00 MOVE 00, 00 : MOVE "LONDON BANK AND SHOPS"  
00 MOVE "LONDON BANK AND SHOPS"  
00 MOVE
```

Music while you load - simply and quickly!

LINES 520-540 set up the initial variables for the drawing routine.

LINES 550-600 these are the interesting lines which draw the pattern on the screen, by changing the values to achieve different effects.

LINES 610-630 check the mouse keys and jump to the appropriate line accordingly. **LINE 650** cycles colours 1-15 into STOS default with a delay of 10/25ths of a second.

LINES 690-620 change the palette and continue the colour cycling depending on which FILED you press.

LINES 690-630 make up the subroutines which change the colour palette, play about with the values to produce your favourite colour scheme.

BYE .. BYE

That's about it for this issue, my thanks go to Richard Vanner of Mankwari and Aaron Feiberg of Stoson Software for the generous offer of price's for the competition, and also to Purple PD (an Amiga public domain library) for the great program that allowed my Amiga to read CD disks, a utility which I used to great effect in transferring some STOS stuff to AMOS. In two month's time it should be able to review STOS with ST, STOS III, Stephen Hill's new STOS book, STOS musician and any other stuff that had not winged it's way to me by this issue's deadline. On the programming side I should (if all goes well) be presenting a few new scrolling demos, another useful routine and some utility programs.

Just a quick reminder, before I go, about the STOS CLUB. If you wish to join, it costs £10 for an bi-monthly issues and really is pretty handy. Membership allows you access to a STOS telephone helpline and other useful things. If if you need a STOS 'in-between issue's of New Atari then send a cheque or Postal order for ten quid made payable to 'Aaron Feiberg STOS CLUB' to the following address, and don't forget to include your STOS serial number.

STOS CLUB
1 DOWNER MOOR
WIMBORNE VALLEY
BAMPTFORD
W. SUSSEX
EX12 6SW

Lots of people have been sending me their programs over the past couple of months, all of your contributions are very much appreciated. I'm planning to do a master issue of the INPDATA and OUTDATA zines to include all of your useful addresses (some of which clash of the internet but soon it will be possible to save

partially re-entered data as well as other job additions. If you wish to send me any programs, for the columns or PD library, or if you have any useful problems with STOS, I can be found typing away at the editors below. Any disks you send will be returned as soon as possible but please remember to include an S.A.E. if you wish an ultra speedy reply (James Telford was annoyed by the letter he received 48 hours after writing to me!).

The address is
**PETER HICKMAN
34 CLEVERLY ESTATE
WORMHOLT ROAD
LONDON
W12 0LX**

NEW STOS PD DISKS

A number of new STOS public domain disks are available for an **Amiga** May this time in making the following:

STOS STI FIXER - enables STOS to run properly on the STX. Also includes version 3.04 system

STOS MANDRO SAMPLES - Twenty carefully sampled samples ready to use in your programs

STOS TYPING TUTOR - A brilliant, and long needed, typing tutor with many, many facilities. Both basic and advanced versions are on the disk as STOS is not required to use the program

All disks are £2.95 each. Orders should be sent to Peter S. P.O. Box 24, Bafford, ST20 1BB as credit card orders can't be accepted on STOS DISKS. Further details of these disks are in our issue 42 Square (paid), available on request.

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New Atari User

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ST Action

A BLAST and a Half!



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