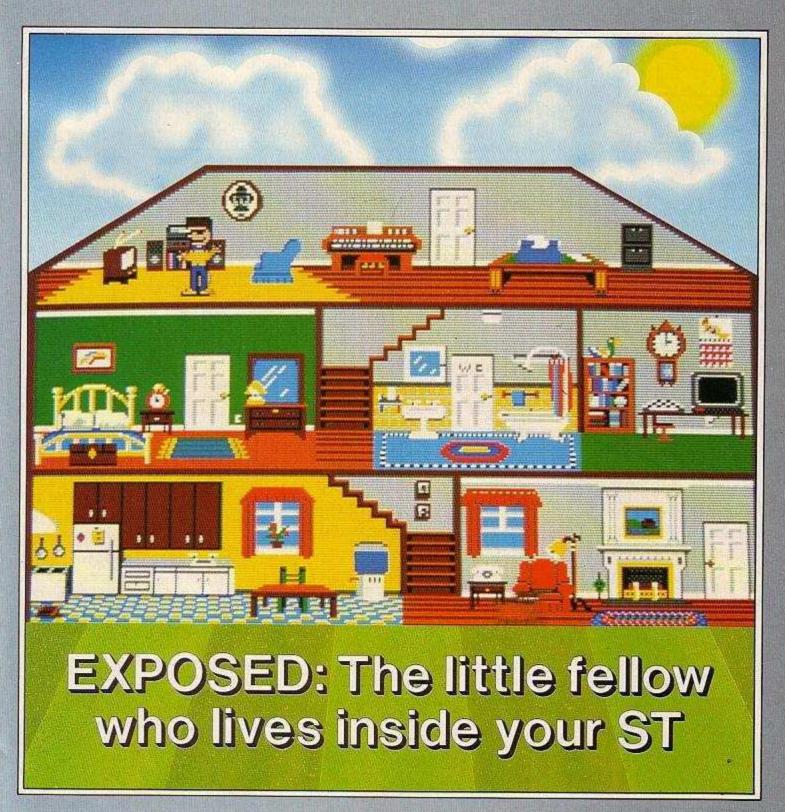
Vol. 1 No. 8

October 1986



Advice on screen dumps, 1st Word and Degas Reviewed this month: Leaderboard • Flash STAccounts . K-Graph . Thunder

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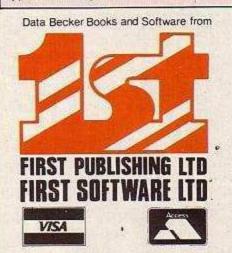
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ATARI swept into the prestigious PCW Show with all the poise of royalty dropping in on Ascot. From its 1,000 square metres of stand space on the upper floor it gazed imperiously – if not disdainfully – down on such lesser mortals as Amstrad.

Mind you that brash and vulgar rival had attempted to steal some of the thunder the day before with the launch of its IBM clone.

But if Atari was at all concerned, no one was showing it. Instead it turned the first day of the show into an unofficial first birthday party for the ST.

First came the news that 250,000 of the machines have now been sold worldwide – though no one was prepared to come up with an accurate figure for the UK.

But of more interest to current British ST users was the announcement that now more than 650 software titles are available.

And that – as Rob Harding, Atari UK's marketing manager gleefully pointed out – far exceeds that of the IBM PC in its first year. In fact there is a growing confidence in the Atari camp that the IBM PC will eventually be superseded by the ST as industry standard.

The thinking behind this is that it is becoming generally known that IBM itself is more than a little brassed off with being cloned all round the world.

So it is becoming increasingly likely that the giant of giants in the computer industry may well pull out of this market sector.

What would follow would be a bloody battle between the clones, with Amstrad's almost certainly coming out on top. Now this is where the Atari thinking starts to make sense, for Amstrad is little more than a packager of other people's good ideas.

It could be argued that Alan Sugar's organisation has never had an original thought in its corporate life.

In fact, Amstrad readily admits that such words as research and development just aren't on its payroll. They follow, buy cheap, sell cheap and make a killing.

But once they've become number one in PCs where do they go from there? Who else is there to follow?

"This will result in the IBM PC market grinding to a halt," observed a most senior Atari man, "and that will leave the ST out on its own . . ."

Not that Atari is prepared to write off IBM just yet. After all, it is still struggling to perfect its own IBM emulator for the ST.

It currently has a prototype which will run part of Lotus I23, the package that every clone must run if it wants to be accepted. But it won't be released until it can run the entire program and conform to other points on what the company's boffins describe as their "wish list". And until that happens no one will even speculate on a price tag.

Meanwhile back at the PCW Show, Atari announced its own clone – but this turned out to be of the software variety. dBMAN is a £99 version of dBase III, which usually retails for in excess of £500.

The package allows the user to create anything from simple mailing lists that use a single file to complex applications such as order entry systems using many files with multiple indexes. Features include 10 active databases, up to seven index files per database, unlimited memory variables, and the software supports dBase, SDF and DIF delimited file formats.

It comes with a 300 page manual which claims to

Show was an Atari celebration

be suitable for both the beginner and the advanced user which – if true – would in itself be some sort of breakthrough.

Back to the show once more, where Atari for its second trick on opening day produced Fastcom. This allows ST users – for a modest £49 – to embrace electronic mail and access bulletin boards and informational databases.

Naturally those people wishing to avail themselves of the delights of such organisations as MicroLink in the UK or The Source in the United States will also require a modem.

Atari insists the security of data transmission is assured through the utilisation of the X-Modem and binary protocols. For the uninitiated in comms, this does not mean it is safe from hackers, but rather that the data will not become mangled on transmission.

Do you want to turn your ST into a versatile, intelligent terminal graphics workstation at a fraction of the normal cost? Atari offered the answer at the PCW Show. It takes the form of the Terminal/ST software package with a price tag of £69.95. This allows the machine to emulate DEC VT100 (character based) and Tektronix 4010 (graphics based) terminals connected to a mini or mainframe directly or via a network.

Mike Cowley reporting



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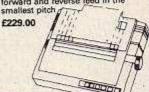
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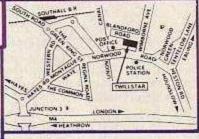
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I HOPE that those of you who visited the Atari Village at the PCW Show at the beginning of September enjoyed yourselves, saw all the new hardware and software, and managed to meet lots of new Atari friends. For those of you who didn't go, Andre Willey takes a look at the new hardware in this month's editorial and we will be presenting a full show report in next month's issue - Don't miss it!

Now to your problems. Mr. Van Tienen from Bury St. Edmunds asks whether ST disc drives from companies other than Atari are totally compatible with the Atari drives. A number of companies have recently started to produce 3.5in drives for the ST, most notably AST and Cumana. These are usually 1mb drives and are as much as £90 cheaper than Atari's SF314 drive. So where's the catch? Well, eight bit owners will remember the same situation with the disc drives for their machines. About four years ago various companies in the States started to produce cheap disc drives for the Atari 800. Although they were said to be totally compatible, they were found not to like certain program protection schemes. The non-Atari drives worked perfectly except when trying to load some - and I stress only some - protected programs.

Now we have the same potential problem with non-Atari drives for the ST. Though the drives for the ST should be easy to make since the disc controller is housed inside the ST itself, there are two potential problems.

The first is that small differences from the Atari drives that don't show up now might start causing loading problems in two or three years' time when the software companies are using more exotic methods of software protection.

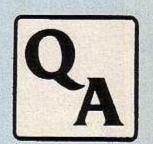
The second problem stems from GEM, which allows you to open a directory window, change the disc in the drive and then press the Esc key to re-read the directory. The Atari drives have a special circuit which tells the ST whenever you change a disc. The AST and Cumana drives both have this circuitry, but some others might not.

What you must consider is whether you want to save £90 now and have a possible problem later, or pay the full price and play safe. I'll keep

Hints

- How many times have you started a screen dump using the Alt+Help key combination only to find that there is no paper in the printer or you are printing the wrong screen display? Luckily the designers of the ST had you in mind when they included a command to stop the screen dump before it has finished. To do this simply press Alt+Help again and the screen dump will stop as soon as the printer buffer is empty.
- Also, if you use the Show option to look at a document and you don't wish to view the entire text, simply press Control+C keys at the More prompt and you will be returned to the desktop.

Save now and pay later...



you posted if I hear of any drives that are causing problems, but so far the AST and Cumana versions have a clean bill of health.

* * *

My thanks to Robert Young from Borehamwood who has written to tell me how you can insert printer codes in your 1st Word documents. If you look at the character chart which is displayed behind the document windows in 1st Word, you will see that it includes many characters that are unavailable when using most printers.

You can use these characters to trick 1st Word into sending special codes to the printer when your document is printed. For example you can now use superscript, subscript and even condensed modes in your documents. To do this, simply edit the printer installation file by changing the codes for the letters into the codes for the special printing modes. To use that mode, you simply include the character at the place where you want the mode to start.

* * *

On the subject of 1st Word, Ian Carman has written to complain of the problems he's having with version 1.00. It is unfortunate that some dealers are still supplying STs with old versions of 1st Word. The latest version, 1.06, solves all of these problems and has been available for some time. If you take a disc to your local dealer and ask him nicely, I'm sure that he'll give you an updated copy.

* * *

Several of you have written in to ask for the fix to the Degas bug which Kev Bulmer mentioned in his graphics article in the May issue of Atari ST User. Sometimes when you load a black and white picture into Degas the picture is reversed. The only solution seems to be to start drawing the picture from scratch.

However, there is a simpler answer – one click on the Set Colors option and the picture will be restored to its normal colours. Hopefully we'll see this bug permanently fixed in the next version of Degas.

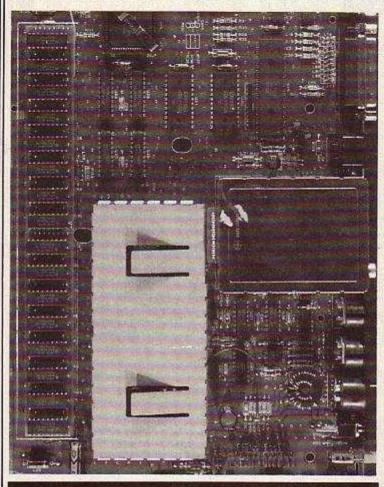
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That's it for another month. Keep the questions rolling and I'll do what I can to solve your problems. If you'd like to help your fellow ST users, why not send in your favourite hints and tips?

Send your
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queries to:
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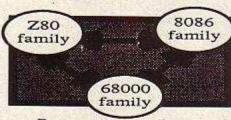
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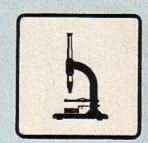
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Communications come in a Flash



Program: Flash Price: £39,95

Supplier: Antic Software, imported by Software Express, 514-516 Alum Rock Road, Birmingham. Tel: 021-328 3585.

Last month we took a look at communications — using your computer to talk to another which could be almost anywhere in the world. To do this you need two things. The first is a modern, which allows you to connect your ST to the telephone and thus to any other computer with similar facilities; without it you are limited to direct connection with the other computer.

The second thing you need is software. To start with, you can try using the VT-52 Emulator desktop accessory provided with your computer, which will allow you to send and receive text but nothing else. If you want to make the most of your new found link with the world, you need a sophisticated communications program.

There are a number of relatively simple public domain programs which can be used, but they all tend to be rather raw. One of the first of the more advanced packages to come from the States was PC Intercom, which offered a host of features, but at a rather advanced price.

However, now there is an alternative for less than £40. Flash, from Antic Software, does almost everything that PC Intercom could offer plus an awful lot more.

Perhaps I should say from the outset that this is a text-based comms package, and that it originates from the United States, which means there is no support for the split baud rates used by some British databases. Such rates as 1200/75 are simply not used in the States, where they prefer to use 300/300 or 1200/1200. The other omission which will be noticed over here is the lack of the Prestel standard, which again is not used in the States.

In fact it was Prestel that brought about the need for 1200/75, as it only required short single-key entries from the user — the long-winded menus being sent by the system. This meant that it was most convenient for Prestel to send its information quickly — hence 1200 baud — but the user need only send at a fast typing pace — 75 baud. The split baud rate can be achieved quite easily by using a speed buffered modem such as the Miracle WS4000, but there is little you can do about the lack of a Prestel decoder.

That said, this package more than makes up in other ways. You are provided with three main

modes — Atari text mode, VT-100 and Vidtext. The first is a straightforward character-only mode. VT-100 also allows the host system to control the on-screen cursor and text and is quite impressive when used with systems that support the standard, such as MicroLink. Vidtext is the system used on CompuServe to provide graphics as well as text, and is of little use unless you plan to communicate with the States.

Flash can configure a wide range of parameters including full and half duplex, multiple baud rates, word size/stop bit settings, linefeeds On/Off, echoplex (echo text back to the host system in the same way as bulletin boards do to you), screen size, printer echo, Xmodem and many others. Any option can be called by pressing the Insert key and then entering your command.

These commands are two character significant, so BA 300 means the same as BAUDRATE 300. All operations have Insert key commands, but many also have quick access by using the Alternate key. For example, Alternate+H selects hardcopy and Alternate+U selects an Ascii file upload.

Clicking on the right mouse button takes you to the control panel and buffer screen. The normal menu bar is now visible, having been removed during comms to get the full 24 line display for VT-100, and features pull-down menus to cover every aspect of Flash.

Below this is the text buffer, which includes a very useful word processor. With a 520ST with TOS in rom you have about 250k in the empty buffer – or about 60 A4 pages of text – and you can either capture text from an on-line session, load from disc or type in directly from the keyboard.

With text in the buffer, you have normal word processor cursor and cut/paste/delete functions. Once you have highlighted a block, you may deal with it separately from the rest of the buffer – either uploading it, or saving it back onto disc. Uploads and downloads may be achieved via plain text transfer or by Xmodem, and each has its own menu item to allow total fexilibity. Pauses, metering and prompting on any character are available for text, and Xmodem features 128 or 1024 byte blocks and the option of blank fill or terminate block options for EOT (End Of Transmission). Any upload can operate from disc or straight from the buffer, or from the current marked block.

Flash also allows you to create as many macro functions as you like. These are similar to short

André
Willey
looks over
a budget
comms
program



programs which Flash will execute to do various tasks. The 10 functions keys can each have a text string assigned to them, with the Shift key doubling this up to 20 single-key commands.

Any feature of Flash can be accessed from these keys via the same command protocol as the Insert key commands mentioned earlier, and text and carriage returns can be freely mixed with internal commands. Any function key can call another, or it can call a disc file where more instructions or text are stored. These disc files may be of any length and it is possible to write very powerful operations and to call them with a single key.

Pressing the left mouse button brings up the dial window which allows you to select the name of the system you want to call. All you need to do is click on the relevant item and Flash will do the rest. This operation can be customised to use any auto-dial modem, but is initially configured for the popular Hayes standard. Even the number of automatic re-tries can be set according to preference.

The dialler can also be called by the command or function key systems, and entering DIAL ATARI will search the dial directory for the first entry beginning with Atari, and then dial it. If the directory entry is followed by an @ and a filename, Flash will run that command file as

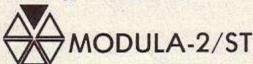
soon as it has logged on. This allows an entire log-on sequence to be automated to a single key.

One very nice feature is the WT – Wait for Time – option. This will pause a macro until the system clock reaches a certain time, then continue execution. Thus you can tell your computer to phone the States at cheap rate while you are asleep, download some information, log-off again and sit and wait patiently until 7.30 when it will ring its bell to wake you up before printing a hardcopy. Perhaps later revisions might also interface with a teasmade . . . ?

I have been working with Flash for a couple of months now, and have been trying desperately to find something about it that I didn't like. One minor problem I found was that when printing or buffering a VT-100 session the horizontal tabs were not accounted for apart from on-screen, so some text on menus was crammed together on the stored copy. Also, uploading from a disc file rather than from the buffer could be a little quirky, but with a 250K buffer, who will notice?

Presentation	. 9
Features	
Ease of use	10
Value for money	10

Quality Language Compiler for Atari ST Programmers



RRP: £99.95

Modula-2/ST offers a Mac-like program editor using both mouse/menu and keyboard commands, Linker, Compiler and friendly GEM-illustrated manual.

It has the best "jump to compile error feature" yet seen by Bruce Webster of Byte Magazine. All compilation errors are stored and displayed one after another on the screen for speedy correction.

The full GEM interface and graphics are supported and GEM software may be developed using windows, mice, menus and graphics.

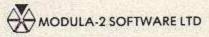
Modula-2 is the logical development of the Pascal language (Pascal programmers will only take a few days to adjust). Modula-2/ST is a highly productive language producing fast, quality, 32-bit standalone code.

"A fine example of what a good language should be" and "a good way to move away from DRI's C" is the way Sol Guber describes Modula-2/ST in Atari User.

To fully exploit the potential of Modula-2/ST, we recommend a minimum configuration of 1MByte disk storage and the purchase of any of the recently published books on programming with GEM.

Modula-2/ST is available from the following distributors:

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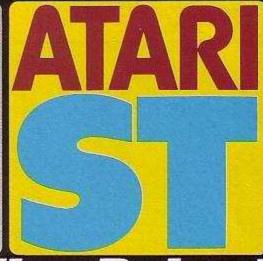


For further information please contact: Jane Parkhouse at Modula-2 Software Ltd, 29 Alma Yale Road, Bristol BS8 2HL. Tel: 0272-742796. Telex: 449273

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FORMATION TO DECIDE

POWER FOR BUSINESS

POWER FOR BUSINESS

The list below shows some of the new business products which have been recently issunched for the Atari STrange. It gives an indication of the ST's potential to business buyers looking to install a powerful, low-cost system:

CP/M EMULATOR

CP/M EMULATOR

BM COMPATIBILITY

20Mbyte HARD DISK

LOTUS 123" CLONE

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Any ST computer will provide its user with a very powerful asset, utilising a vast range of applications, particularly in the business world. Many software companies have been quick to recognise it for its business potential, and have produced programs for the ST which harness this potential, in addition, there are several peripheral and hardware products becoming available to add to the ST's Power For Business. Software now available includes dBMan, a dBASE III clone as well as HAD Base, a dBASE il clone, for fact, First Software have now launched Ashton Tate's original dBASE II program for the ST. In addition, PC Intercomm is a VT100 emulator which enables you to use any ST keyboard as a terminal connected to a maintrame or mini. Other programs include a powerful accounts package by Cashlink and a Lotus 1-2-3" clone called VIP Professional, Microsoft have announced that their powerful word processor-Microsoft Write will soon be available for the ST. Many packages are available for very specific market applications including a powerful CAD (Computer Aided Dasign) program called Basy Draw from Migraph: in addition, there is an angineering tool called PC Board Designeer by Abacus Software which will enable the user to design printed circuit boards. For luther details of how the ST can help in your business, return the coupon below. We will be pleased to send you our latest newaletter and price list.

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I to WORD - Word Processor by GST using GEM

IS ASIC - Personal Basic by DR (with manual)

I COO - Logo language by DR (with manual)

I NEOCHROME - A powerful colour systems)

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- 7) MEGAROIDS Asteroids type game by Megamex
 8) DOODLE Simple paint/doodle drawing package (works on mono or colour systems)
 9) CPIM EMULATOR Allows use of DR's Z80 CPIM software to
- run on the ST range CP/M UTILITIES Various utilities to use with CP/M DEMONSTRATION & PUBLIC DOMAIN SOFTWARE Various

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User-friendly takes on a whole new meaning...

I'VE got a friend. His name is Fritz. He lives in a nice little house with his dog, Sheila, and I visit him as often as I can.

Come to that, most of the staff in the office drop in on him from time to time. In fact, visiting Fritz has often caused work here at Database to come to an abrupt standstill.

Fritz is my Little Computer Person, and he lives inside my 520ST. Most computers have Little Computer People (or LCPs) living inside them, but they are too shy to come out. You may have noticed them at work when a file suddenly vanishes, or a program simply won't run for no readily apparent reason. This may well be the work of your very own LCP.

In order to meet your own LCP, all you need do is give him a pleasant house to live in. Those thoughtful people at Activision have done just that, with their new game, Little Computer People.

Upon booting up, your LCP friend will soon notice this nice new house, and after a little trepidation, he will move in. Each computer has a different LCP inside, and the program writes back to the disc periodically to record the current health and status of your own LCP.

If you forget to provide food and water he will get rather distressed and go very pale. I must admit to feeling rather guilty the last time that happened, and I had to feed the poor chap immediately.

Although he doesn't speak in English, Fritz is an active chap. He often writes me letters, and I regularly send him presents. He seems to like receiving records, because he usually goes straight upstairs to play them. He is quite keen on music, because he plays the organ too. If you have a synthesiser connected to your ST via the Midi port you can hear him play, too. Otherwise the sound comes from the monitor as usual.

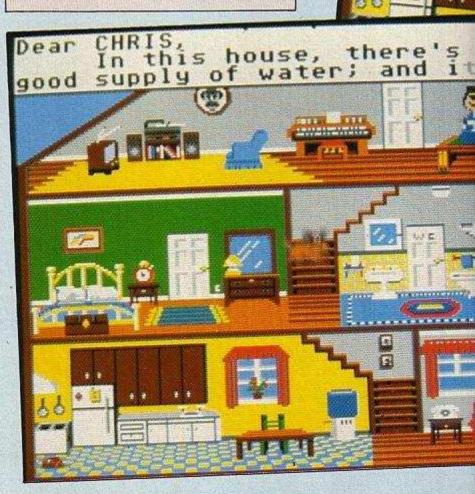
You can ask an LCP to do all sorts of things, or to play games with you. Fritz quite often suggests a game himself, and he will often bring the subject up when nothing much else is happening. He seems keen on cards and word games, which suits me fine.

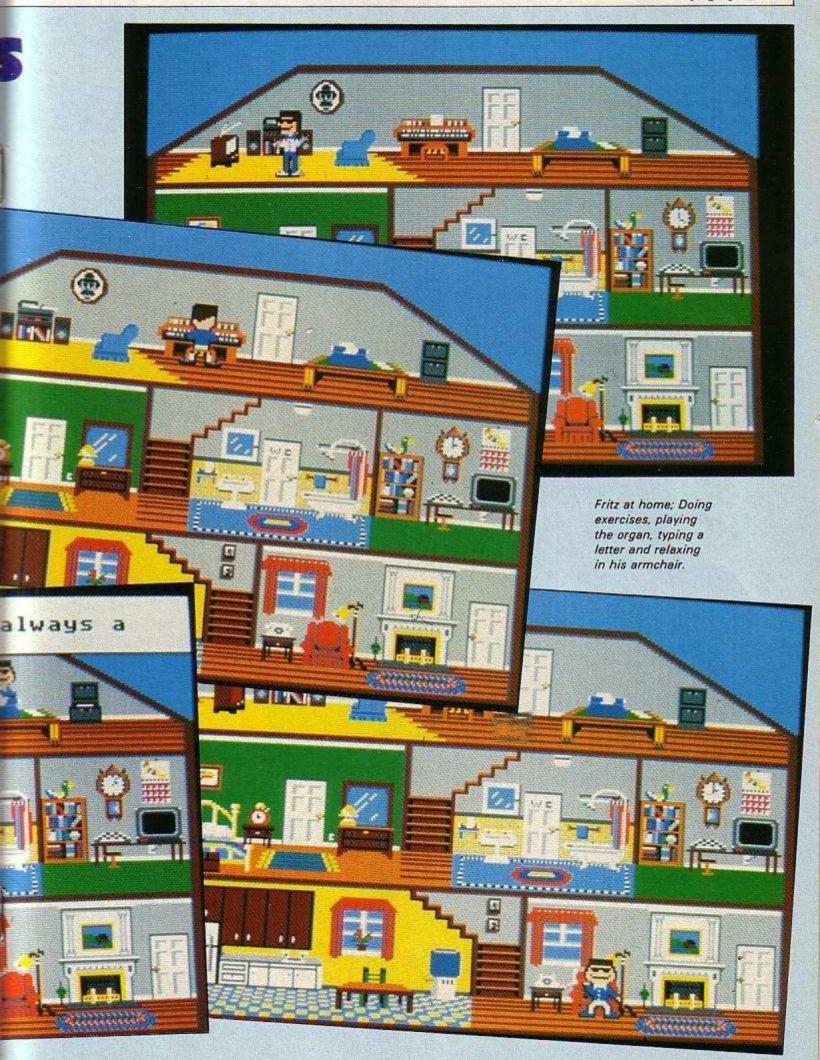
By ANDRÉ WILLEY

The whole program is well thought out and very original. It takes account of the time and date when deciding what Fritz will do next - for instance, try getting an LCP out of bed at 4 o'clock in the morning - I've tried, but he simply wallops the alarm clock and goes back to sleep!

All of us at the office have found him addictive to watch, and some have even taken him home with them at night.

Sound	7
Graphics	8
Playability	
Value for money	
Overall	





If anyone says our 1040 there are over 600 way



The 1Mb 1040STF.

This is the state of the art 16/32 bit technology at an unbeatable price. The American magazine 'Byte' commented, "for some time to come the 1040STF will be the clear leader in price/performance."

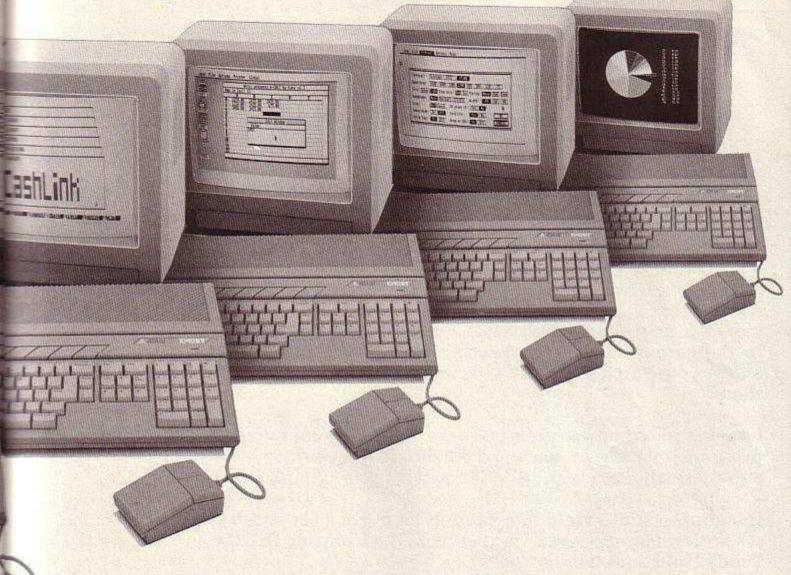
As for software, the doubting Thomas should simply take a look at our latest software catalogue. And bear in mind too that the 1040STF will also run software written on several other operating

systems, including CP/M.
The grand total is something over 600 software titles covering all categories — accounts, programming languages, word processors, communications,

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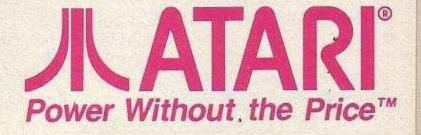
The 1040STF has a 1024K RAM integral 1Mb double-sided 3½" disk drive, two-button mouse and built-in power supply. Basic and Logo programming languages, graphics programme and word processor complete the package.

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GEM is (c) Digital Research Ltd. Teddy is (R) Silicon Chip Ltd. Atari is (c) Atari Co STAccounts is (c) Silicon Chip Ltd. Program: Leaderboard

Price: £24.95

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3388.

LET me see now. I'm in the rough, about 150 yards short of the green. The north easterly wind's blowing pretty strongly and I've got to clear the lake about 90 yards ahead. Better watch out for that gaping bunker on the left, too – a hooked shot and I'd be up to my plus-fours in thick sand.

A full-blooded whack with a 5 iron should be just right to put the pill slap bang up against the flag. Start the backswing, get the shoulders right behind it, snap the wrists thus and – FORE! Oh, niblicks! I've sliced straight into the branches of those trees!

Well, whether you're a duffer or a Sevvy, or even if the nearest you've come to swinging a club is on a seaside crazy putting course, you're going to love Leaderboard.

This is a superb golf simulation, offering a testing game across four different courses. You don't play against the computer, rather you pit your skills against the course and, optionally, up to three other human players.

Each game can be an 18, 36, 54 or 72 hole match, using any combination of the courses available. There are three skill levels to pick from, ranging from novice which leaves your shots unaffected by slice, hook or wind, to pro, which leaves you susceptible to all.

Each hole is depicted in 3D perspective against a varying horizon and is played up the screen. At the bottom of the picture, and so facing towards the hole, is a smoothly animated golfer (the current player) who realistically swings and smacks the ball at your command.

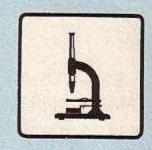
Control of the golfer during play is by mouse only and is perfectly satisfactory. You first select an appropriate club from the three woods, nine irons and pitching wedge (but not putter — you are given that automatically and only when on the green). A small cross hair can be moved to determine your line of aim.

Pressing the right mouse button starts the swing, while the length of time it is held down determines the power of the shot. A further press at the moment the club connects with the ball effectively "snaps" the golfer's wrists. The more premature the snap, the more vicious the hook, the later the snap, the wilder the slice.

To help gauge power and the right time to snap, two indicators are shown at the right of the screen. These graphically depict the build up of power and the approach to optimum snap time.

When struck, the ball sails convincingly away to land in the distance, after which the picture is swiftly updated to show the new view to the green. Once on the green, the two indicators are replaced by a single power indicator. While putting, the wind has no effect and slicing or hooking is impossible – thank goodness – but you must take account of the green's incline,

Golf as it should be played





shown by the slope indicator.

Other information on show is a score indicator (score on this hole for each player and how many each is under or over par for the round so far), a wind strength and direction indicator, current club selected and remaining distance to the green, or hole if already on the green. Between holes, a fully detailed leaderboard is displayed.

On the top-selling version of Leaderboard for the Commodore 64 every hole was made up of water-separated fairway islands – attractive but totally unrealistic – and a green, while the mountainous horizon was always the same, no matter where you were.

A great game has been much improved for the Atari ST. There is still plenty of water but thankfully far less of those daft islands. Bunkers, trees and rough have now been incorporated, making the courses very realistic.

When your ball curled off to the left or right of the picture on the 64, it was deemed out of bounds and you had to retake the shot. On the ST, even if your ball does go out of the picture you get to play it from where it lands.

The horizon now varies – mountains (red and sometimes snowcapped), skyscrapers, clouds and boulder formations – and the vista is adjusted according to where you land.

But it's not all unmitigated praise. The few sound effects could have been a lot better given the ST's capability. The whoosh of club swing and the crash when ball hits tree are OK but the rest – splash of water, clack of putting stroke and

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rattle of ball into cup - are pretty dire.

The game is not entirely bug-free. Despite the instructions stating that you could abandon a hole and go on to the next by pressing H, the program refused to respond to this command. Once or twice I also managed to play my ball from the middle of a lake.

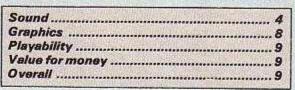
It seemed easier to hit straight shots on the ST version than the 64, probably because the authors have slightly slowed down the speed of the snap run-up. I would have preferred a slow or fast option.

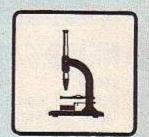
But those are small niggles. Leaderboard is

first rate and hugely entertaining, whether you're into golf or not. The variety of levels, player participation and courses give it depth enough to keep you coming back time and again.

Pass me my mouse, caddie, let's see if I can break 190.

Bob Chappell





Accounts time - saver

Product: STAccounts

Price: £150

Suppier: Silicon Chip, 82 London Road, Kingston-upon-Thames, Surrey. Tel: 01-549

OF all the various tasks that the new businessman must face, keeping the books up to date must surely be one of the most difficult.

When his accountant first shows him the large amount of work that must be done in order to keep the accounting of the business running smoothly the ordinary businessman starts thinking in terms of early retirement or a live-in bookkeeper.

Owners of small businesses are constantly having to spend their non-working days slaving to get the various ledgers ready for the coming week. Falling behind one week causes a ripple that can be felt as little as three months later when the VAT men arrive with their adding machines.

STAccounts sets out to solve these problems for the small to medium sized business. Written in C with some routines in fast machine code it is integrated with Gem, so all selections are made with the mouse from the usual drop-down menus. The package is split into four separate parts: Sales Ledger, Purchase Ledger, Stock Control and Nominal Ledger. Each part of the program can communicate with and use data from the others.

It can support up to 300 sales, 300 purchase accounts, 10 VAT rates and 10 discount rates. Every time a rate is used in the ledgers it is referred to by its number. If the VAT or discount rates should change, the only alteration that needs to be made is to these 10 settings.

A separate data disc is specially set up from the program. The different parts of the program can generate reports ranging from VAT sales and turnover to aged creditors and from total turnover to statements of accounts.

The 44 page manual covers every angle of the program in detail and takes great pains to explain jargon as much as possible. A few more examples would have been useful, but overall the

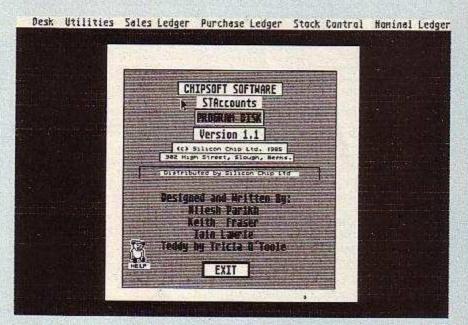
manual supplies all the information that someone who is setting up a business or computerising his accounts will need, and is presented in a simple and helpful way.

Most ST programmers assume that since the mouse is so easy to use they don't have to provide any Help screens inside the program itself. Silicon Chip has taken the unusual step of providing in-program help via a small icon of a teddy bear located in the bottom left hand corner of the screen. You simply click on this and a full screen explanation is given about the part of the program you are currently trying to use.

Although STAccounts doesn't have the extra facilities, such as a built-in word processor, that Cashlink Accounts has (see the review in the August issue of *Atari ST UserI*, it is less than half the price. In addition it can be used with one or two 500k drives whereas Cashlink requires at least one 1mb drive.

Is it worth having an accounts program at all? To answer this question you must weigh up the cost of your time saved and the saving in accountant's fees. But do make sure you see the software demonstrated before you commit yourself.

Andrew Bennett



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- grammers to modify them. The source code is well documented.

 CHOICE OF LINKERS All Metacomoo languages include a linker where appropriate.
- Metacomico program modules can also be linked using the Digital Research linker

 FRIENDLY ENVIRONMENT All Metacomico languages now include MENU +, an easyto-use programming environment using pull-down menus and the mouse.
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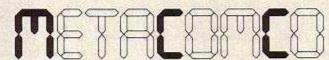
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SIGNATURE	ly. Please add £6.00 towards delivery dutside LEX.	COUNTRY	TEL NO:

Program: K-Graph Price: £39.95

Supplier: Kuma, 12 Horseshoe Park, Pangbourne,

Berks. Tel: 07357 4335

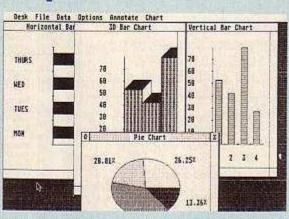
AS its name suggests, this program produces graphs either from data typed directly into the program or loaded in from another program such as K-Spread. K-Spread is Kuma's spreadsheet program, reviewed by Andr'e Willey in the March issue of Atari ST User.

K-Graph can produce everything from ordinary line graphs through 3D bar graphs to pie charts. Up to four different graphs can be displayed simultaneously on screen. The various values and the axes can be labelled and a number of patterns are available to fill in the graphs.

Graphs can either be printed out or saved to disc in a format that can be read into Degas for further editing. K-Graph is supplied with a 56 page manual which deals with each of the many aspects of the program and includes many examples.

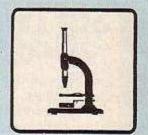
This is an excellent program for anyone

Bar graphs? Easy as pie charts



wishing to produce graphs from data produced by K-Spread or typed in by hand. Owners of K-Spread should note that K-Graph will only accept data produced by version 1.25 or greater. If you have an older version, Kuma will be happy to replace it if you return the disc to them.

Andrew Raiston



Lost for a word?

Program: Thunder Price: £39.95

Supplier: Ariolasoft, 68 Long Acre, Covent Garden, London WC2E 9JH. Tel: 01-836 3411

HOW many times have you spent hours looking through your dictionary for the correct spelling of some obscure word? And how often have you spell checked documents that you assumed were finished, only to have the spell checker tell you that every second word is completely misspelt?

Thunder, from Ariolasoft, is the answer to both of these problems. It works in one of two ways, either as a stand along spell checker or as a desk accessory which checks your spelling as you type.

As an ordinary spell checking program Thunder performs well, checking at a rate of over 2,000 words per minute against its 50,000 word dictionary. When Thunder meets a word it doesn't know it shows the word in context and asks you whether it is spelt correctly.

You are given the usual options of adding the word to the user dictionary, correcting the word, or leaving it alone. The program also suggests up to seven possible alternatives for the word's correct spelling. You simply click on one of these or type the correct word and Thunder inserts it into the text at the correct position.

As a desk accessory, it checks the words as you type and sounds a bell if you type a word that

it doesn't know. When you select the Thunder option from the Desk menu you are given the same choice of up to seven words to select from, or you can type the correction and Thunder will replace the misspelt word with the correct version.

Although not exactly cheap, Thunder is probably the best spelling checker on the market for the ST and compares well with Turbo Lightning, which has caused a storm of interest on the IBM PC.

Andrew Raiston

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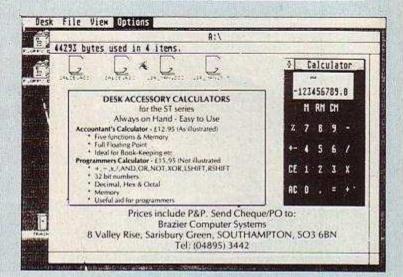
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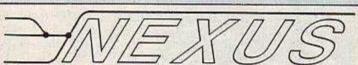
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