

# ATARI COMPUTER ENTHUSIASTS WELLINGTON

Wellington Atari Computer Enthusiasts  
APRIL, 1985

Dear members,

Herewith WACE's newsletter for April. No doubt it will be well into May before it arrives in your letter box, but one of the unforeseen consequences of the change in our meetings from the first to the second Wednesday of the month is that deadlines for the newsletter have receded a week. At any rate, we now have a new editor for the newsletter. Bruce Tinsley is the man and, as he has accepted the job on a "suck it and see" basis, we must all be exceedingly polite to him (I do not want the job back!). All praise to Bruce and, indeed, all contributions to him as well! Keep those letters, cards and articles rolling in. Bruce can be contacted at Databank's Head Office.

## LAST MEETING

Didn't it go well! For me the highlight of the meeting was the stunning success of the "Bugbusting" format, coupled with the use of satellite TVs or monitors to make sure that all could see what was going on up front. The provision of multiple computers was also a great help: the meeting just flowed along, and we hope to reproduce the same ambience this time (ambience is in the dictionary).

## NEXT MEETING

The next meeting is scheduled for Wednesday, 8 May. Once again, it will be held at the "LOAVES and FISHES" which is located behind the Anglican Cathedral in Molesworth St. in central Wellington. The doors will open at 7.15 pm, slightly later than last month, and "Bugbusting" will begin as soon as the computers are set up (would those wanting their bugs to be busted please bring their computers and other gear with them). The less informal part of the proceedings will begin at 9.15 pm and will comprise:

- demonstrations of the new club tape and disks (including the latest "Tinytext");
- a demonstration of how to interface an Atari and an electronic typewriter (who needs a printer?);
- newly arrived commercial software;
- and sundry other matters (the eventual performance is always different to that planned by the committee).

## SUBSCRIPTIONS

These are now due and payable, either at the next meeting or by mail to WACE, C/- PO Box 16011, Wellington. The subscription is \$20.

## OTHER MATTERS

Lynne Street, of 28 Gavin Place, Huntly is offering PILOT cartridges, "new and complete with a manual", for \$20. Interested members might wish to telephone Ms Street on (0817) 87213 to confirm details of dispatch etc.

Your committee wants to know how many Atari 1010s are currently unusable.

Thats it, I quit

## EDITORIAL

Just a short note from your new editor, while he tries to settle into the heady world of publishing.

The only way a newsletter can succeed on a regular basis is by having articles available to print. In the past, the majority of these have been supplied by either the President, the Secretary, or other Committee members. What I would like each of you to do is to note down any items of interest, relating to either your Atari, or computing in general. Who knows, you might be the only person to stumble on to some little secret tucked away in the innards of this marvelous little machine of ours, and you should let the rest of us know about it.

Contributions don't have to be of the highest precision, that's what an editor is for.

If you do have something for me, you can, as Des has mentioned, find me at Databank Systems, on the corner of The Terrace and Boulcott Street. If I'm not in just leave it at reception.

I look forward to your support during the next year.

Bruce Tinsley.

P.S. I dont have a printer, but as soon as I get one, I will be using TinyText, and not the companies word processor.

## AUCTION

It was suggested at our last committee meeting that we have another auction. I had stated at the A.G.M. that we would not have another one but if there is enough interest it may be possible. It could be held in say, July to give me time to test the supply situation. Any member who has any hardware or software surplus to their requirements please contact Eddie Nickless, phone (bus.) 872 023, or (home before 9.30p.m.) 881 443.

Any software must be original, NO COPIES PLEASE and the Club will take 10% commission. Give me the details of the item for sale and the reserve price.

## CLUB DISKS

So far, three "Club Disks" have been produced. They have been well received, and, over the months, more will be made available.

Club Disk #1 comprises Arcade games. If you like shooting the s--t out of assorted aliens, then this disk is for you. If you don't, then it isn't.

Club Disk #2 is a happy mixture of machine and basic language programmes, most from recent tapes.

Club Disk #3's most attractive feature is its "Menuplus" programme which, combined with an Autorun sys., boots up the disk and allows one to pick and chose from about ten other (basic or machine language) programmes. Another programme, "Polycopy", allows one to transfer simultaneously up to three programmes from disk to disk. I now have it on a number of my basic disks.

CLUB DISK #4 will be distributed at the next meeting. It includes:  
Tinytext (the final upgrade). The strength of this programme lies in its much improved printing speed as well as its ability to display finished text as it would appear on the page, ie at up to 80 per characters per line. The instructions are embedded in the programmes.  
Fileindex. Bernard Kerr's programme, which he demonstrated at our last meeting. Home grown and we are proud of it!  
Escape from Epsilon. From Antic magazine, a very good game. Tested and approved by my kids.  
Maniac. A public domain version of "Krazy Shootout"  
Simon. A much improved version of the classic.  
Alphabee. A goodie for the young ones.

Club Disk #5 has not yet been started: nominations of suitable programmes will be accepted by the undersigned,

Des Rowe

## PRESIDENT'S PAGE

At last count we had well over 500 program listings in our Print Library. "A fair achievement" or even "Great Stuff!" would be an entirely appropriate response - but valuable as it is to have this resource, it is of little practical use unless more of these program listings are typed up so that in their new form as computer programs they can be placed in the WACE Program Library and, if you are interested in them, in your own collections. Accordingly, one of the things that I would like to do this year is to get many more of the better programs in the Print Library transcribed onto tape or disk.

You shouldn't think, however, that the club hasn't already done a fair amount of work in this area: it has. In fact since the first members began to met (informally) back in 1981, many willing people have spent long hours transcribing programs for communal use. But, as you will see from the list below of our most recent activity, we have been relying on a much too small group of people for progress in this area. I hope that we can change this.

To keep you in touch with current work we are publishing our transcription list. It records the names and file numbers of the programs, the people who are typing them in, and where the programs are in the transcription process. This process moves through the following stages:

- a) program identified as worth transcription
- b) President calls for volunteer to type it up
- c) if successful response, volunteer given program and types it in
- d) volunteer passes program transcribed onto cassette/disk over to President
- e) President passes program to another volunteer for any debugging etc. required
- f) program sent to our Program Library

From there the program - if it is public domain and of sufficient quality - may possibly be reserved for the club tape series. If it is not, you will have no difficulty in being able to get a copy of it from the Library. But what if the program is not public domain? The legal advice that we have obtained indicates that if you have either bought a copy of the copyrighted publication from which the program was drawn - or have borrowed that publication from a public library, then you may legally hold a cassette/disk copy of the relevant transcribed program.

The following table shows who is typing in what and what stage in the

transcription process we are at. Incidentally, the next time we print this list we will add the sources of the programs.

PROGRAM NAME	FILE NO.	TYPIST	STATUS
RECORD KEEPING PROGRAM	5100/12	Tom Larkin	Being Typed
CHAMPIONSHIP BOXING	7500/23	Tom Larkin	Being Typed
NIGHT FIGHTER	7800/27	Tom Larkin	Being Typed
WHAT IS IT?	?	Chris Richardson	Being Typed
SMALL TALKER	?	Chris Caudwell	Being Typed
VERSE WEAVING	?	Chris Caudwell	Being Typed
BIORHYTHM	5700/1	Sandra Minshull	Being Typed
GRADEBOOK ATARI	2030/3	Mike Munro	Being Typed
AIR ATTACK	7800/25	Chris Richardson	Being Typed
TANK BATTLE	7800/26	Chris Macer	Being Typed
BARS Chris Richardson	2230/1 Being Typed		
GRAPH E's	2125/15	Des Rowe	Being Typed
SAFE CRACKER	?	Chris Macer	Being Typed
DECISION MAKER	?	Sandra Minshull?	Being Typed
HUNT THE RAIDER	7800/21	Des Rowe	Being Typed
PATTERNS	?	Sandra Minshull	Being Typed
EXOCET	7800/29	Sandra Minshull	Being Typed
SOLID STATES REVISED	6100/7		Processing
MERCURY MINE	7600/39	Anne Minshull	Processing
SON OF SOLID STATE	6100/8		Processing
MATT-EDIT	6450/18	Des Rowe	Processing
RIVER RAIDER	?	Eddie Warren	Processing
READING PROGRAM	7252/1	Eddie Warren	Processing
PITCH MAKER	?	Eddie Warren	Processing
MEMORY	?	Eddie Warren	Processing
ORIGEN	?	Eddie Warren	Processing
CALC	2100/11	Chris Macer	Processing ?

LIMITS TO GROWTH	?	Anne Minshull	Processing
HORSEPLAY	?	Paul Wood	In Library
RECTAN	?	Paul Wood	In Library
SPHERI	?	Paul Wood	In Library
TURTLE	?	Paul Wood	In Library
REACTION TIMER	?	Anne Minshull	In Library
SMARTY	7300/7	Anne Minshull	In Library
ANIMATE	?	Jeremy White	In Library
VIDEO 80	?	Jeremy White	In Library
AUTOMATE	?	Jeremy White	In Library
BUFFER	?	Jeremy White	In Library
SCREEN DUMP	?	Jeremy White	In Library
CHARACTER EDITOR	?	Jeremy White	In Library
FLASHING CURSOR	?	Jeremy White	In Library
LINE RENUMBER	?	Jeremy White	In Library
HEXDEC	?	Jeremy White	In Library
DIGITIZE	?	Jeremy White	In Library
STARS 3D DEMO	?	Jeremy White	In Library
SERVO CONTROLLER	?	Jeremy White	In Library
TIE FIGHTER	7400/31	Anne Minshull	?
SOLID STATES	6100/6	Anne Minshull ?	?

We are very grateful to all those who are typing in programs ,and/or who have typed them up in the past. But as I said above there are still many more good programs waiting to be typed in and I propose to bring a number of them to our next meeting to distribute. Do please volunteer : all of us value good programs and none of us by himself could possibly enter in all those programs that we would like to have. That's one reason why we've joined a club.



# Data, words; now software to process ideas <sup>6/11/84</sup>

SOFTWARE authors are driven these days by two ambitions, one technical, the other commercial.

Technically, they are looking for ways to develop the next generation of personal computer programs, software that processes ideas rather than numbers or words.

Commercially, they are hoping their efforts will prove as financially rewarding as Visi-Usi Corporation found "Visicalc" or Lotus Development found "1-2-3."

Michael and Jeanette Bloor of Phoebe Software believe they have realised the first ambition; if they are right, they should have no difficulty realising the second.

They have developed a program called "Progress," designed to automate working habits and procedures. The notion is not new; it has elements in common with Caxton's "Brainstorm." Software Sciences office group automation system and Xerox's screen icons. But Phoebe has put it all together to create a powerful and novel package selling for only £500 (single user micro) or £1,000 (multiuser system, unlimited numbers of terminals).

The Bloors are computer specialists now resident in Ireland and with a background in financial and business consultancy. The seeds of "Progress" were sown in their observation that one of their clients, a medical supplies manufacturer, had to generate 102 pieces of paper completed by 250 different people for its simplest product, a sterile polythene bag.

If the manufacturing sequence was delayed — a critical point this, where medical

regulations is concerned, up to 30 new pieces of paper had to join the pile.

So Phoebe started what was to be a three-year hunt for a computer-based answer. Michael Bloor says ruefully: "Everybody knew what the problem was. The reason an answer did not exist was because it was so bloody difficult."

Now with grants from 31 (ICFC), the Development Capital Corporation and the Irish Government totalling some



£400,000, Phoebe is ready to launch Progress at the Compec computer exhibition next week.

It has some clever programming tricks built in on which the Bloors will not elaborate, but basically the program operates on the thesis that there are set procedures in most businesses and that no progress is made unless individuals carry out these processes in the right sequence.

The example Phoebe uses is personnel recruitment. The disc is inserted into the computer and "booted up" (loaded into computer memory). The top of the screen shows icons of filing trays, documents, plank forms and so forth.

Using the cursor, the user selects, say, a form marked plan. (Phoebe is talking to ACT about voice activation, Hewlett Packard about touch screens and Apple about mice,

but Michael Bloor prefers the simple, low-cost approach; he insists the program has to work on a 64Kb computer with a low-resolution screen.)

The user then draws up the plan of action—a job specification has to be written, advertisements designed, agencies informed. Only after responses from advertisements and agencies have been received can a short list of potential candidates be drawn up—and so on.

Once the complete operation sequence has been "modelled" in the computer, it can be stored away until needed.

Once activated to fill a vacancy, it inexorably works through its allotted sequence of events. The personnel officer, for example, will turn on his screen to find that he is required to draw up a job specification for the vacancy. The program will not move forward until that chore is accomplished and the results stored away.

Mr Bloor believes the program can be tuned to fit other office and industrial routines. He has not, however, managed to get rid of all those pieces of paper for his medical supplies client.

The medical authorities have agreed to the use of Progress in the factory — as long as somewhere, every bit of information held in the system is printed out as hard copy and stored away for six years.

Progress runs on microcomputers using the CP/M 86, Concurrent CP/M, MS/DOS and PC/DOS operating systems and will soon be available for CP/M 80 micros together with some minis and mainframes.

ALAN CANE

**ATARI HARDWARE!!**

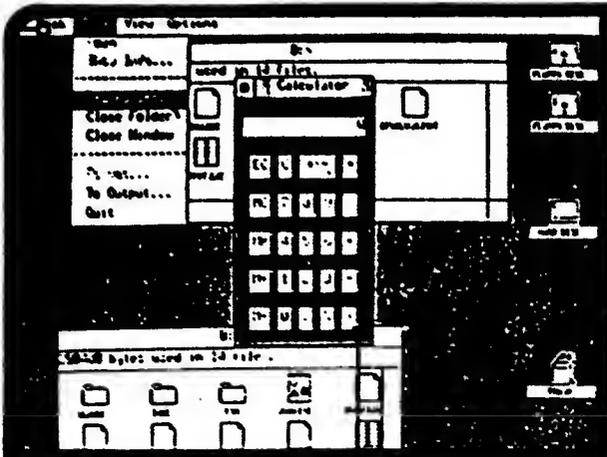
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**SHAPES AND SOUNDS FOR THE ATARI**  
(software)  
John Wiley and Sons  
605 Third Ave.  
New York, NY 10158  
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\$45

This set includes two disks of expandable sound and graphics effects written in Atari BASIC for beginning and first-time programmers. According to Wiley, the effects can be used to create dramatic sound and light shows of music and pulsating graphics, as well as colorful computer games.



# THE EASY-TO-USE ST

## DROP DOWN MENUS:

Information is just a mouse click away. Move the mouse pointer, a menu bar highlights the information.

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THE MOST VERSATILE AND POWERFUL  
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## Main Processor

- MCS68000 16/32 bit central processing unit
- 8 32-bit data registers
- 8 32-bit address registers
- 16-bit data bus
- 24-bit address bus
- 7 levels of interrupts
- 56 instructions, 14 addressing modes, 5 data types

## Keyboard

- Standard typewriter style
- Ergonomic height and angle
- 18-key numeric keypad
- Contains separate microprocessor

## Operating System

- GSX Graphics kernel
- Bit block transfer
- Vector drawing
- GEM user interface
- Icons
- Windows
- Mouse controller
- Pop-up menus
- Memory management system
- Real-time clock

## Video Ports

- Television
- Composite video
- RGB
- High-res monochrome monitor

## Sound Effects and Music

- General Instruments sound chip
- Frequency controllable from 30Hz to above audible
- 3 channels, separate frequency and volume control
- Dynamic envelope controls, ADSR, noise generator
- MIDI interface to control external synthesizers

## Mouse

- Eliminates the need for extensive user training
- Flexible operation

## Graphics

- 32K bit-mapped screen
- 3 graphics modes
- 320 X 200 pixels, 16 colors
- 640 X 200 pixels, 4 colors
- 640 X 200 pixels, monochrome
- 512 colors (8 levels each of red, green, and blue)

## Interfaces

- Centronics parallel for printers
- RS232C for modems
- Disk controller and interface
- High speed hard disk interface (1.33mps)
- 2 joysticks ports (one is configured for a mouse)

The Atari ST personal computer's display is as familiar as your desktop, complete with all the objects you usually work with, such as documents, file folders, a calculator, scissors, paperclips and of course, a wastebasket. With overlapping windows you see your work just like you would on your desk. The ST's *cut & paste* task-sharing ability makes integrating documents easier on screen than at your desk! The 130ST standard with 128K RAM...**ONLY \$399**. The 520ST boasts a substantial 512K RAM...**ONLY \$599**.

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FT. 11/14/84

# How to pick the next software winner

THE GREAT triumph of the personal computer has been its ability to bring computer power to individuals. This has happened through the introduction of software packages and ways of using the powers locked up in the machine that were thought impossible in the now ancient days of data processing.

Visicalc was, perhaps, the best example of a piece of software that made the micro useful to those other than programmers. It brought financial computing to small companies.

Visicalc's imitators and its descendants have never had quite the impact that the original did back in the early days of the micro business.

Now, the micro industry is looking around for a follow-on to the Visicalc success.

One of the most likely contenders is in the field of skills training. Much of the emphasis of the Government-backed Alvey project is on the sort of software that will encapsulate human skills in a computer and enable the rest of us to take advantage of them.

But we shall have to wait a few years for the so-called expert system to become as ubiquitous as the Visicalc-style spreadsheet programs are today.

In the meantime, there are other methods of putting human skills on to computers. Human Edge, a California based software company released a batch of packages earlier this year aimed at providing management, sales and marketing skills in the form of a training package on the IBM PC.

The Management Edge, the Sales Edge and the rest are designed to enhance skills in these areas by putting users through their paces in front of a personal computer. It is too early to say how successful this angle will be but it will certainly be interesting to see how it goes.

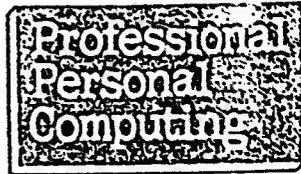
In the UK, skill-building is being approached from a different angle.

At the London School of Economics, for example, the Decision Analysis Unit is looking at ways that decision-making skills can be helped using a personal computer. Using a system called Maud, the Unit is implementing the ideas of an American psychologist called George Kelly together with those of other thinkers including the Cambridge University mathematician,

Frank Ramsey.

Dr Lawrence Phillips of the unit describes Maud as "an interactive system for helping to solve ill-formed problems that are characterised by multiple objectives."

He cites the simple example of choosing a job. In this case the users enter the options open to them—that is a number of different job prospects. The system goes on to request data about the differences between the options entered and asks the



BY PHIL MANCHESTER

The danger is that we may all have the same piece of software advising us

user to enter ratings on a scale of one to nine.

The process is repeated until a bank of data about the users' perception of the problem is built up. It then produces an analysis based on those judgments.

"It is very unusual that the scales that you start off with are the ones that you end up with—the process is iterative and can even show you some new insights into the problem," explained Phillips.

Unlike the so-called expert systems currently being developed under the Alvey project and elsewhere, Maud makes no attempt to understand the data—it merely analyses the structure that the user places on it.

The LSE has been experimenting with a more sophisticated version of the same idea for what it calls the Decision Conference.

"The most important part of a Decision Conference is that it gets managers to see a shared view of their problems—very often they will see them only from their own personal perspective," Phillips noted.

Similar work is being done at the University of Bath with a system called Cope. Colin Eden, a researcher at Bath, described Cope as a "system for manipulating ideas" and compared it with a product

launched at the beginning of this year by Caxton—the Brainstorm.

"It is much more sophisticated than that and a lot more flexible," Eden said.

Although Cope requires a much larger computer to work effectively, the idea could be transported to a micro especially as they grow in storage capacity.

In light of the sort of product that could be in the pipeline for personal computer users in the future, Eden has some interesting insights into this type of software.

"I think the quantitative approach to problem solving can be misleading. It implies a logic which does not map onto the way the mind works. What we really do when we solve problems is to play around with concepts and ideas—and talk to people," he said.

Personal computers could play an important part in the process of playing around with ideas as a means of enhancing those skills that are difficult to define—how to manage, how to sell and how to make effective decisions.

The danger is that we may all have the same piece of software advising us.

DOCUTEL/Olivetti has cut the suggested retail price of its M18 personal computer range. The portable and desk-top models are to drop in cost by \$500. Each machine comes with the MS-DOS 1.25 operating system and a set of eight programmes of business software.

The company says that the price reduction is in response to similar moves by other personal computer makers.

IBM and Northern Telecom seem to be following the same paths with the IBM PC AT and Northern Telecom's family of Xenix-based Vienna products. Both have chosen to use the Xenix operating system and the same processing chip—the Intel 286—for the machines.

Northern Telecom has already started shipment of the first systems using this combination but sees IBM's move as a step towards a world standard.

Texas Instruments has also announced an 18.2 Mbyte Winchester Disk for the TI professional computer. This is for business computing applications where several machines are connected together by a local area network and share a common database.

# Home Computers Do More Office Work

By Bob Davis

4/25/84

Special to THE ASIAN WALL STREET JOURNAL

**BOSTON** — Home-computer owners, who for years couldn't find much to do with their machines except play games, increasingly are using their computers to do office work at home.

That's one of the findings in a new 16-volume survey of 3,000 computer-owning households conducted by Yankee Group, a Boston consulting concern. The study also shows that home-computer sales are concentrated in a relatively few outlets, that many consumers have or soon will buy a second computer and that software piracy is common.

Yankee Group charges \$70,000 for the full survey, which includes, among other things, data from 50-minute telephone interviews of recent purchasers of computers made by Apple Computer Inc., International Business Machines Corp., Tandy Corp.'s Radio Shack, Commodore International Ltd. and Atari Inc.

Although only 4% said they bought a computer primarily to do office work at home, many soon become hooked. The survey estimated 20% of home-computer owners use computers for office work; 49% said they expected to use their computers this way within two years.

The survey found 45.8% of consumers buy computers for the home primarily to learn about the machines, to run educational programs and to play games. Fewer than 1% buy a computer for such esoteric uses as home banking, electronic mailing or plugging into computerized information services.

Shoppers have different uses in mind for different computers. Those looking to buy Apple and Commodore computers, for instance, want them mostly for educational reasons, while IBM personal-computer buyers are more interested in word processing and doing office work at home.

As a result, the survey shows, computer buyers think different attributes are important in different machines. Shoppers are swayed most by price in choosing a Commodore computer, by software availability in choosing an Apple and by the manufacturer's reputation in choosing an IBM.

Computer owners often become dedicated hobbyists, the survey indicates. One-fifth own two or more computers and about one-fourth plan to buy another computer within two years. On average, computer owners also have a library of 10 computer programs; Apple owners had an average 29 programs.

But one-fifth of the computer owners said they copied software, presumably without paying for it. "That suggests a great deal of piracy," said Clive Smith, a Yankee

Group senior analyst in charge of the survey.

Nearly half of the home-computer buyers shop for machines in discount stores and department stores, the survey said, and several large outlets account for the bulk of the sales. The biggest outlets were K mart Corp., which sold 17.9% of the computers, and Radio Shack, which sold 15.7%. Computer stores as a group accounted for only 15.2% of the total.

Yankee Group also surveyed consumers who didn't own computers. About 40% of them said they just didn't need one for the home.

But those who do own a computer are glued to their keyboards more than eight hours a week and spend 3.5 fewer hours with their families than do other people.

## 65C02

Optimized Systems has available a CMOS version of the 6502 microprocessor, called a 65C02, which can directly replace the normal 6502 in an Atari computer. This chip requires less power, thereby running a lot cooler, and for the assembly language programmer, it offers 27 new OP codes. Currently, however, MAC/65 is the only assembler to support these codes unless you write your own Macros, or include it via a .BYTE command. Here are the new commands with a brief description of each:

**BRA** —branch always. This instruction works like all the other branch instructions, except it always branches, and is theretofore like a JMP but taking up one less byte of memory and one less cycle to execute.

**INA & DEA**. Increment and decrement the Accumulator. Works the same as INX, DEX, INY, & DEY.

**PHX, PHY, PLX, PLY**. These instructions work like the PLA and PHA instructions, only pushing the respective register instead of the Accumulator.

**STZ**. This stores a zero into the following location but doesn't affect any register. Address modes available are ABSOLUTE, ABS,X, (ZERO PAGE), (ZPG,X)

**TRB**. This complements the Accumulator, AND's it with the specified memory location, and stores the results in the memory location.

**TSB**. This OR's the Accumulator with the memory location, and stores the results in the memory location. Both TRB & TSB use only ABSOLUTE and ZEROPAGE addressing.

**JMP (ABSOLUTE,X)**. This instruction takes the absolute address, adds the X register, and jumps to that location. It is a very powerful way of setting up a table of JMP addresses, which are then indexed through the X register.

Additionally the BIT instruction has two new addressing modes: ABSOLUTE,X and ZEROPAGE,X.

There is also a very useful new addressing mode. A common assembly language instruction sequence is: LDY #0  
LDA (zero page),Y

The new addressing mode is OPCODE (zero page). The Y register is not used, but one can use the indirect mode as if Y was set to zero. The following instructions can be used with this mode: ADC, AND, CMP, EOR, LDA, ORA, SBC, STA.

Mr. ACE



# Step Back, IBM: TopView May Be

By T. R. Reid

**W**hy is it that IBM's major new software product, TopView, reminds me of Wagner's "Parsifal"?

It's partly because TopView, which quite possibly will turn out to be the most important new personal computer development of 1985, should be in the stores right around Easter time. Easter is the season, of course, when opera companies traditionally perform Richard Wagner's strange but majestic opera about Parsifal, a medieval Knight of the Grail.

In this insanely wonderful musical saga, which has more twists and loops than a beginner's first program in BASIC, Parsifal and his colleagues devote their lives to a mystic quest for the Holy Grail.

In our time, that search for the Holy Grail has become a metaphor for any effort to reach a grand, but elusive, goal. In the personal computer context, the most important such goal facing the industry is the quest for compatibility, for some standard that will permit all hardware and software to be interchangeable among all computers or systems.

Not long ago, when the IBM-PC was new and its MS-DOS operating system was in its infancy, a single standard of compatibility seemed possible. There were a few holdouts—a few rotten Apples, you might say—but many thought the industrywide standard was around the corner.

The experts aren't so sure today. IBM is producing new versions of its computer (such as the AT) that aren't even compatible with other IBM micros, much less machines from other manufacturers. And with each new version of MS-DOS, the IBM implementation (known as PC-DOS) varies a little more from the operating system available for other machines.

Some industry watchers see in these developments sinister proof that IBM plans to build a wall of incompatibility around its personal computer products and thus cut off at the knees all those companies now making IBM clones.

I don't see it that way. I think IBM is smart enough to realize that it, too, has a strong interest in a single personal

## the Future Compatibility Standard

computer standard. That may be the real purpose behind TopView.

TopView is IBM's brand-new "operating environment" for its PC, XT, and AT personal computers (the new program is not available for the PCjr).

If you'll excuse a little jargon, it is a "window-based multitasking program." That is, TopView divides the screen into windows and lets you run several different programs at the same time, one in each window.

I had a chance to test drive TopView the other day and found it a useful tool. You can, for example, call a bulletin board on your modem program and then, while it is dialing and making the connection, shift to another window and continue entering records into a database file.

TopView also permits easy movement of data from one window to the next. That is, it lets you create your own integrated program—a la Symphony and Framework—using the spreadsheet, database and writing programs you're using right now. IBM says most major applications programs will run under TopView.

At \$149, TopView is priced well below

some other "multitasking" programs and it offers features the competitors don't have. IBM plans its biggest software advertising campaign ever, and TopView seems a strong bet to be a big hit.

But the real importance of TopView, I submit, is that it offers a new standard—a new method for achieving compatibility among competing computer systems.

The new test for "compatibility," I think, no longer will be whether a computer can run all IBM-PC or IBM-AT software (not even other IBM machines can do that). It will be whether a machine or program can run with TopView.

As computer expert Rick Cook puts it, "TopView provides a . . . well-defined interface to hardware and software. By year's end, the standard is probably going to be 'TopView compatibility,' not 'IBM-PC compatibility.'"

If that happens, TopView will indeed turn out to be the most significant development of the year—perhaps of the decade.

And that would be something to sing about. Wagner, where are you when we need you?

The main contender for the European market in 1984 is said to be Storage Technology Corporation (\$8m of sales in 1984), but since the report was compiled the company has run into financial trouble and Frost and Sullivan's other two main contenders, Philips and Thomson-CSF, placed in equal second place with \$4m each, may come to the fore. Shugart's sales are put at \$2m, Matsushita's at \$1m.

But plenty of other U.S. companies either offer, or are likely to offer systems, including Drexler, RCA, NCR, Kodak, Control Data, 3M, Texas Instruments, and Xerox. As ever, IBM remains a dark horse and could influence and seriously impact the market on entry. The company has not, as yet, made any definitive announcements. F&S indicates that most of the European and Japanese electronics majors are likely to take an interest.

On the technology front the search has been on for a better recording surface than tellurium, which in its pure form oxidises within two years. Approaches to better archiving qualities have included alloying tellurium with arsenic and selenium, hermetically sealing the discs and using glass substitutes like polymer/dye binders (Kodak) or silver halides are being developed, and Drexon's silver/polymer combination has

makers are believed to have had yield and consistency problems.

Most manufacturers are now claiming a useful life in excess of 10 years. But it is interesting that the U.S. Library of Congress, now piloting an Integrated Automation system using Thomson-CSF disks, believes that long life is not a worry—they plan simply to re-record at intervals, which is what happens with magnetic media at the moment. In addition, non-erasability, far from detracting, seems to make optical disks more attractive in industries like banking, where it provides protection against tampering and gives a complete audit trail.

Optical disk storage seems bound to succeed on space and cost considerations alone. The Philips 30cm digital disc for example, can hold 0.5m pages of text or 30,000 TV-like images. RCA and Philips both expect disk prices to drop to the \$10 to \$20 within a few years, which would bring media costs to 0.2 per cent megabit—and a megabit is the equivalent of about 1,000 pages of A4 type-written text.

WASHINGTON BUSINESS/MARCH 19 11

### MASS COMPUTER STORAGE SYSTEMS

## Optimism for the optical disk

IN VIEW of the embryonic state of the market, Frost and Sullivan in a recent report shows notable optimism about sales of optical disk stores in Europe for this year and the period to 1993.

The market research company predicts that in Western Europe few if any potential users revealing their hands, the exact destination of the units is unclear. But F&S produces a breakdown by applications of where the units are going. Transaction recording could be the

changed files are currently on magnetic tape or disk, microfiche, or even paper. Banking, insurance, airlines, credit cards and the Government are the main areas.

Mapping/remote sensing, magnetic disk back-up and telecommunications store-and-forward systems are each pre-

6/21  
16

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NO. 26

THE #1 MAGAZINE FOR ATARI® COMPUTER OWNERS

# ENRAGE! COMPUTING

JANUARY 1985

## FEATURES

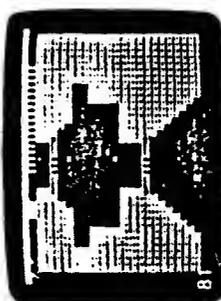
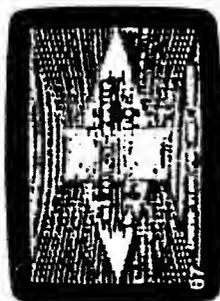
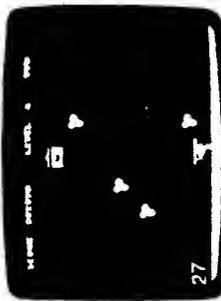
Atari: 1985	.....Jon A. Bell	13
The New Atari: An Interview with Jack Tremel	.....Lee H. Pappas and Jon A. Bell	14
Popcorn	.....Mark and Kathy Sloatman	27
An ANALOG Computing Tutorial: Painless Player Mover	.....Chester C. Walters	37
Magic Palette	.....Michael and Bernard Mikowski	52
Bopotron:		
The New Levels	.....ANALOG Computing Readers	54
An Atari BASIC Tutorial — Part 2	.....Philip Altman	59
Atari Graphics Overlay	.....Jeff Brenner	67
PuLse in Action!	.....Joel Gluck	79
Robot Raid	.....Charles Kormos	81

## REVIEWS

Enchanter and Sorcerer (Inlocom)	.....Mett Hillman	49
Okimate 10 Color Printer (Okidata)	.....Charles Bachand	66

## COLUMNISTS

Reader Comment	.....	6
Unichek/Control Characters	.....	10
New Products	.....Lee H. Pappas	11
Ask Mr. Forth	.....Donald Forbes	18
Griffin's Lair	.....Braden E. Griffin, M.D.	23
BASIC Training	.....Tom Hudson	74
Boot Camp	.....Tom Hudson	85
Index to Advertisers	.....	92



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## FEATURES

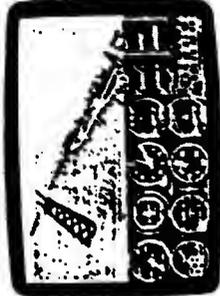
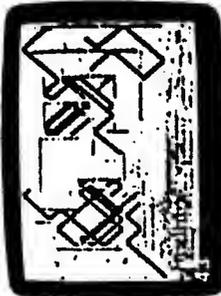
Numeric Keypad	.....Jonathan Buckheit	13
Instant Renumber	.....Angelo Giambra	16
Extending Your DOS Directory	.....Roland S. Chan	31
Screenmaker	.....Vern L. Mastel	36
More Fun with Bounced (in Action!)	.....Joel Gluck	43
English Error Messages in BASIC	.....Stephen Protopchuk	49
Word Adventure	.....Stephen D. Groll	52
Adventure at Vandenberg A.F.B.	.....Tom Hudson	73
MicroCheck	.....Clayton Walnum	81

## REVIEWS

F-15: Strike Eagle (Microprose)	.....Patrick J. Kelley	40
Flight Simulator II (SubLOGIC)	.....Jim Haney	58

## COLUMNISTS

Editorial	.....Jon A. Bell	4
Reader Comment	.....	6
Unichek	.....	8
New Products	.....Lee H. Pappas	10
Ask Mr. Forth	.....Donald J. Forbes	26
Talk to ANALOG Computing	.....	30
Boot Camp	.....Tom Hudson	81
BASIC Training	.....Tom Hudson	86
Index to Advertisers	.....	92



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## WACE TAPES #1 - #23

#1 - #5 WITHDRAWN - SEE BELOW

#6  
SIDE 1  
DEFENCE  
ANIMAL  
GTIA BALL DEMO

SIDE 2  
TOUCH-TYPE  
FLAGS  
CUBE DEMO

#7  
SIDE 1  
SCREAMIN DEMON  
ROSE PLOTS

SIDE 2  
ROAD BLOCK  
NUMBER PUZZLE  
ANTIC 4 & 5 DEMO

#8  
SIDE 1  
OIL MINER  
COLOUR RAINBOW

SIDE 2  
WORD SEARCH  
SPELLING BEE

#9  
SIDE 1  
WACE LOADER  
XMAS SPECIAL  
FLIPIT  
HOOKEY  
BLACKJACK  
PAC INVADERS

SIDE 2  
ROUNDUP (M/C)  
STONES OF WRATH  
LADDER MAZE  
ATARI BLASTER

#10  
SIDE 1  
MINI GOLF  
MOO

SIDE 2  
WORM-SQUIRM  
DEPTH-CHARGE

#11  
SIDE 1  
NOUNS  
FUNCTION MACHINE  
(24K)

SIDE 2  
GEOGRAPHY QUIZ  
ALPHABET TRAIN  
HANGMAN  
WORD SCRAMBLE  
MATH FUN

#12  
SIDE 1  
CHOPPEROIDS  
MLX  
VERIFY & XREF

SIDE 2  
ALPHABLOX  
NIGHT FLYER

DRAGNET  
TAXMAN  
SOUTH ISLAND DISTANCES

FOR #13 AND ALL SUBSEQUENT TAPES:

TO FIND THE START OF SIDE NUMBER TWO, TYPE "POKE 54018,52". THIS WILL CAUSE YOUR CASSETTE TO RUN WHEN THE PLAY BUTTON IS DOWN. SET THE COUNTER TO 000 BEFORE YOU START. WHEN YOU HEAR THE "LEADER WHISTLE" NOTE THE NUMBER ON THE COUNTER. THIS IS WHERE THE FIRST PROGRAM STARTS. (APPROX. 20 ON #14)

#13  
SIDE 1  
MEET THE ROMANS  
PRESCHOOL  
MEMORY MATCH  
BAGELS  
MATH PACKAGE

SIDE 2  
MATHWARS  
MADLIBS  
CANNIBALS & MISS.  
BOURREAU  
DRAGNET  
MATHEMATICS

#16  
SIDE 1  
PLANETARY DEFENCE  
(M/C)

SIDE 2  
BATS  
ETCH-A-SKETCH

#14  
SIDE 1  
KONG

SIDE 2  
PROOF READER  
MISSILE BASE

#17  
SIDE 1  
COUNTING  
ALGEBRA 1  
WORLD CAPITALS  
DOMINOES  
SCRIPTURE QUIZ  
YAT-C

SIDE 2  
ALGEBRA DRILL  
DIVISION  
MULTIPLICATION  
IMPROPER FRACTIONS  
EQUIVALENT FRACTIONS  
ADDING FRACTIONS

#15  
SIDE 1  
YAT-C  
PETALS

SIDE 2  
ARTILLERY  
REVERSE  
DRAW

BEST OF WACE #1 - #5

SIDE 1

LOGO  
DOGGIES  
HARVEY WALLBANGER  
TINYTEXT  
CASTLE HEX  
BANKSHOT

SIDE 2

SCRAMBLED EGGS  
MASTER CATALOGUE  
GOBBLERS  
DAIRY FARMING

#18

SIDE 1

LIVEWIRE  
RETROFIRE  
CLEWSD  
SOUNDS  
LUNAR RESCUE  
COLOUR UTILITY  
LONG DIVISION

SIDE 2

CREATE-A-FONT  
MESSAGE  
ROMAN CLOCK  
MENU  
BUBBLE SORT  
KEYBOARD  
FUGUE  
SWAT.....TYPO

#19

SIDE 1

FILLERUP (M/C)  
BAR CHARTS  
WHEELS (DEMO)

SIDE 2

TROUBLESOME WORDS  
RACE TO 100

#20

SIDE 1

OLD MACDONALD  
ESTIMATION  
UNSCRAMBLE  
COUNTING  
ALGEBRA ONE

SIDE 2

ODDS AND EVENS  
VERBS  
PLURALS  
HANGMAN  
HANGMAN QUOTES

#21

SIDE 1

RATS (M/C - ACTION)  
WORMS " " "  
LIFE " " "  
TOCCATA

SIDE 2

CRICKETS  
REACTOR

#22

SIDE 1

3D TIC TAC TOE  
WHIRL (DEMO)

SIDE 2

MEMORY MATCH  
COMPUTER BLUES

#23

SIDE 1

DUNGEON OF THE GODS  
ELIZA  
KRAZY KLIMBER  
BULL ANT

SIDE 2

CHRISTMAS CARD  
12 DAZE OF XMAS  
PINETOP  
MAPLE LEAF  
SOUND AND LIGHT

#26

SIDE 1

TRAP  
ALPHABET MUSIC  
APTITUDE TEST  
SIGHT WORDS  
LAST SUPPER  
JOYSTICK MATHS  
MAKE A SENTENCE  
MUSIC TONES

SIDE 2

HANGQUOTES NZ  
TYPEATTACK  
FRENCH  
NUMBERLINE

#24

SIDE 1

MYRIAPEDE  
COMPUTER CUBE  
AIR ATTACK  
READER

SIDE 2

SPANISH  
TYPING EVALUATION  
BALLDROP  
CALENDAR  
NERD

#27

SIDE 1

SLOT MACHINE

SIDE 2

BOWLING ALLEY

#25

SIDE 1

FIRE BUG  
ANGLO TO METRIC  
REACTION TIMER

SIDE 2

WORD SCRAMBLE  
WACE DISC MENU