
The Paragon Report

Perths only free Publication
with Information News and views
for ALL ATARI users
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GFA BASIC 3

Software Development

G.P. Engels and M.C. Goergens



In this book, the authors explore GFA BASIC in depth enabling the user to get the most from this vastly-expanded version of the language. This is the new definitive work on this amazing new SuperBASIC.

Superb as the manual for GFA BASIC 3 is, the development of more comprehensive applications must be left to a book such as this. By working through the programs developed and applying them to your own needs, you will soon gain an understanding of the sheer power of this implementation and the almost unlimited range of applications that can be developed.

Available in 3 options

BOOK only:

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GFA BASIC:

Advanced Programming (Basic 2)

Frank Ostrowski



This definitive work, by the author of GFA BASIC, takes the reader through the stages involved in using GFA BASIC to the full and assume some experience of programming.

The chapters include:

Chapter 1: program optimisation, techniques of re-design for greater efficiency in displays and disk access etc.

Chapter 2: graphics, SETCOLOR, clipping and raster commands, flicker free graphics and image storage.

Chapter 3: develops a fully-flexible dialog box, considers sound control along with, recursion, the EXEC command, the font creation and a microscope function.

Chapters 4 & 5: examine the GEMDOS, BIOS and XBIOS commands and the library applications.

Chapter 6: the resource files

Chapter 7: provides and explains a very extensive example of windows.

The disk contains the major programs from the book along with additional examples.

Available in 3 options

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PARAGON COMPUTERS

Last year in West Germany, Atari 520ST and 1040ST systems achieved a 50% share of the non-compatible personal computer market. The presence of these two computers is a familiar sight in the classrooms, labs, and dormitories of such Universities as Hamburg, Berlin, Bonn, Munich, Frankfurt, Mainz, Stuttgart, Konstanz, Karlsruhe, Freiburg, Ulm, Dortmund, Bremen, Hannover, and the list continues.

In the engineering and scientific communities of West Germany, companies such as DESY, one of the country's most important scientific research centers, and in the chemical labs of BASF, the medical labs of Bayer, the design centers at BMW, and the aircraft corporations of MBB and Dornier, Atari is right at home. In fact, Atari commands 10% of the entire market for computers retailing over 1000 Deutsch Marks.

Atari ST systems help keep track of mega loads of case data and courtroom battles for West Germany's busy judicial system.

Battles on the chessboard are often equally challenging. Three time world chess master Garry Kasparov uses his MEGA system with ChessBase, a technical chess database, to work through strategies and prepare his smashing assaults.

In Czechoslovakia, the German Democratic Republic, and Poland the Atari 800XE and 65XE computers have gained brand dominance and are among the most popular systems being sold in these countries.

In Switzerland, Atari ST systems have made impressive gains in the business and technical communities. Such leading companies as SRG, the Swiss broadcasting company; ASEA-Brown Boveri, one of the country's largest industrial research centers; GRD, the Department of defense; and CERN, the European Organization for Nuclear Research, are now using Atari ST equipment. Atari STs have made impressive gains in the Swiss educational market, where they today occupy a 30% share of this vital area.

The French press has taken to Atari. ST systems are at work helping to generate articles on a daily basis at Quest France, a major French newspaper, and Paris Match, the national news magazine. Atari STs are also part of the team at Radio France, SFP, the national television company, and at CFJ, the Paris press training center. The popular French newspaper, Liberation, has equipped its entire editorial staff with Atari 1040ST systems. Even the paper's in-house

employee newsletter is produced on Atari ST systems using two Atari SLM804 laser printers.

ST systems are at the Ministries of Culture, Army, Transportation, and Agriculture. They are also in place at CEA, the French Atomic Research Center, CNRS, the National Scientific Research Institute, and CNES, the French Space Centre.

At INRETS, the National Institute for transportation research, a large number of 1040STs are being used as economical work stations connected to a large mainframe. Through a special emulator, Atari STs are able to work directly with vector data, thereby freeing the central computer from this task. It is pleasing that the French people have welcomed Atari so enthusiastically.

The United Kingdom's marketing strategy during 1987 called for greater distribution of Atari ST systems and "getting the Atari message to the people" By year end, retailers like Comet, Dixons, The John Lewis Partnership, and W.H. Smith, plus hundreds of independent stores, were providing a strong presence at the retail level. This exposure combined with television commercials and print advertising enabled Atari UK to gain a 40% share of the 16-bit computer market.

Major centres of higher learning such as the School of thermodynamics at Strathclyde University in Glasgow, Kent College's Department of computing and Mathematics, and the Universities of Southampton and Sussex selected Atari 520ST and 1040ST systems.

The Fermi National Accelerator Laboratory in Batavia, Illinois, is perhaps the world's leading particle research physics centre. In study areas both above and below the ground, scientists from all over the world are engaged in the pure fundamental research of elementary particle division. Much of their work deals with imposing particle beams into a nucleus to determine the final components of matter. Computers are essential tools in this research. Dr. Helmut Braun, a visiting physicist from the University of Wuppertal in West Germany, is extremely pleased with the versatile performance of the many Atari STs being used as intelligent terminals networked to Control Data Corporation and Digital Equipment mainframes.

Primary school students enjoy the benefits of Atari as much as particle division experts. In over 1000 schools across the United States students like those in Escambia County, Florida, use Atari

GFA RAYTRACE

Available soon from **PARAGON COMPUTERS**

GFA RAYTRACE opens up many new possibilities for the Atari ST in the creation of realistically-structured and illuminated 3D-scenes. It allows the user to create a 3D-scene by specifying the colours and patterns of the background surfaces, the objects that are to appear in the scene and the type, intensity and position of the illumination. Once the viewing position is specified, the 3D-world can be viewed by its creator. Once a scene is created, it can be edited by means of the built-in editor and then incorporated into an animation sequence to be stored for future use.

Each scene in RAYTRACE is made up of four bordering surfaces and a horizon and each of these can be created from pictures derived from other programs or the many examples provided. Within the scene, the objects themselves (eleven standard forms are provided) are defined and their position and surface characteristics specified. In particular, the reflectivity of their outer

surfaces can be specified from zero to 100% (i.e. matt to mirror-finish) in 10% steps. Light sources can then be placed in the scene and their colour, size and position specified. In RAYTRACE, 48 colours are available on each line, giving a total of 9600 colours from a palette of 512 colours. All objects are placed by means of cross-wires which are displayed in the editing windows in all three directions. This enables the scene to be created with great precision and a preview facility enables the scene to be viewed in a preliminary form, eliminating the longer calculation times experienced in a finished scene.

Once scenes or animations are completed they can be passed on and used by other Atari users by means of the run-only Film Interpreter that is supplied with the package.

GFA Assembler

Available soon from **PARAGON COMPUTERS**

This powerful professional package includes an assembler and linker in one package, along with a free-standing debugger. The program runs on both Monochrome and colour ST's and, in the tradition of GFA, is very fast!

The user interface is uniform and speedy in operation and, because of the integration of the various program elements, there is little waiting time in use. Total compatibility with the GFA compiler is provided and programs can be loaded back into the assembler, once compiled. As with the GFA Interpreter, the Assembler follows in input intelligently,

trapping many syntax errors at source. Abbreviated commands are converted into standard form and the input formatted automatically. Clear error messages are provided, greatly simplifying the correction of errors,

The program works with the mouse and the program size is limited by the available memory. Screen-splitting allows two texts to be displayed simultaneously and the block & search functions facilitate the manipulation of text. Multiple user-defined keys are available, along with complex printer output modes.

BOOK REVIEW

The Atari ST Book

By Ralph C Turner

Reviewed for *PARAGON REPORT*

by

Peter Feszczur

Making a desk top disk, Cold and Warm Boots, the GEM desk top, Clicking, Dragging, Windows, Alert messages, Dialogue boxes, Icon, Formatting, Ram disks, Printer drivers, Multiple selection, Cursor, Mouse, Disk drives, Folders and Files. What has all that to do with computers? It all sounds like some foreign language, especially if you have just bought an ST computer.

Reading the supplied owner's manual only makes it more confusing as it assumes that most people are already users of some sort of computer. There is now an answer, 'The Atari ST Book' by *Ralph C Turner*. Topics covered in this book include:

- RAM DISKS
- USING THE ITEM SELECTOR
- DESK TOP INF FILES
- DESK ACCESSORIES
- PRINTERS AND HOW TO CONTROL THEM
- FILES AND THEIR MANAGEMENT
- DESKTOP TRICKS
- THE AUTO FOLDER
- MODEM & TELECOMMUNICATIONS
- COPYING
- WORD PROCESSORS
- And many more subjects covered.

The book is written in an easy to understand manner, good illustrations with plain simple English instructions. *Ralph C Turner*, wrote this book in 1986 after being asked lots questions by many people on the same subjects. He found that the few magazines and books that were written at

the time for the ST, were well above the beginners understanding and were mainly devoted to programming or games.

Even as a experienced user, I found many answers to problems that no one seemed to be able to answer clearly. i.e. Installing an Application, Adjusting the control panel's palette and setting 'PATHS' (sometimes called pathnames).

A whole chapter is devoted to the subject of COPYING, both files & disks using the desktop, Ram disks or one of the many copying programmes available. Why you cannot copy disks of different format on the desktop etc, the information just keeps on coming. The question and answer format of this book makes enjoyable reading, while at the same time giving necessary information to both the new and experienced users.

I am only sorry that this book was not around when I first purchased my ST. As it would have made my life (*and all of those that were on the receiving end of my questions !!*) a LOT easier.

This information packed book is available from **PARAGON COMPUTERS**, Shop 17a. 5 Short St., Perth. W.A. 6000. But be quick, I'm sure it won't stay on the shelf for long. A *MUST* for ALL ST users, especially the beginners, it will help them get the most out their ST.

QUESTION: How many programmers does it take to change a light bulb ? ?

ANSWER: None. That's a hardware problem !!!!!

PARAGON COMPUTERS

1040ST systems to learn math, reading, and language skills. The software is the CCC MICROHOST Instructional System offered by Computer Curriculum Corporation of Palo Alto, California. This software, which was created expressly for the Atari system, measures and reports student performance and adjusts the level and content for each pupil. According to CCC, "The Atari ST computer was selected for its excellent graphics capability, high memory capacity and affordable price". For this very same reason over 65% of all the Atari 520ST and 1040ST equipment sold in Canada last year was purchased for home use.

During the fall of 1987, Atari systems also began to enter Canada's business and educational centres. At Waterloo University's Center for Ground Research, where hydrogeologists, geochemists, and biologists study worldwide water distribution analysis and sources of supply, over 25 Atari ST and MEGA systems have been installed. The equipment is networked to the school's IBM 4341 mainframe and the Cray XMP/22 Super Computer. Dr. Edward Sudicky, at the centre explained that because the school required a powerful and flexible system, "The standard 640K IBM MS-DOS computer was no match for the Atari 1040ST."

In Lakefield, Ontario, Wayne Snide, general manager of the town's only newspaper, designs, composes, writes, and edits the Lakefield Community Newspaper on an Atari 1040ST. The software he uses is Publishing Partner. In his own words, "Not only is the newspaper much more economical to produce, but with the help of our ST we've cut our production time in half"

At the World Chess Festival in Saint John, Nova Scotia, the pressure was challenging and fierce. Yet every morning the Grandmasters, their seconds, and the international press corps received graphically illustrated and detailed bulletins of the previous day's tournament events. The newsletter was generated on Atari ST systems using ChessBase as the software

Music is an international language, and happily Atari has been recognized the world over for its ability to allow musicians and artists to mix, arrange, and compose their music.

Audiences throughout the world do not have to be told that Canadian jazz pianist Oscar Peterson is recognized as an acoustic genius and chosen as the "The best Pianist" by Downbeat magazine twelve times, and Playboy magazine 13 times. What his fans may not know is that Oscar

Peterson's work place is a marvel of engineering technology. Among his electronic instruments is just one powerful computer. The Atari MEGA4. With the help of his Atari, Mr. Peterson is now able to compose, score, and arrange everything from his jazz trio work to the full orchestrations of his film scores, ballets, and suites, right at home.

The next time you have an opportunity to attend a Pointer Sisters concert, force yourself to look past those three talented ladies to the keyboard artists on stage with them. Greg Whelchel and Marc Ritter are working with Atari ST systems. "We researched everything out there, and felt that the Atari ST offered the most flexibility. We use it for everything. On stage, for sequencing, and synthesizer patch library storage. In the studio we use it to print lead sheets, and at home we use it for business. The Pointer Sisters have composing setups at home so we all use the same system"

There are many more Atari systems under spotlights around the world. In France, progressive jazz artist Jean Michel Jarre composes on his Atari ST. In Germany the progressive rock group, Tangerine Dream, rely on their Atari computer, along with the American blues great B.B. King, jazz guitarist Lee Ritenour, Scott Gershwin at Todd AO studios, and many others. In New York City, Ed Kizer of SitCom Services, Inc., makes what you hear on television sound perfect. "I use ADAP software from Hybrid Arts, Inc., on my MEGA4 too store, enhance, and trigger sound effects during live tapings" It's called "sweetening" and one of Kizer's sweet projects is the Bill Cosby Show.

Musicians and youngsters, university students, scientists, and business people in almost every country in the world have begun to fully understand how much they can depend upon an Atari ST to accomplish their particular work faster, easier, and more economically.

From Atari Annual report

Atari ST Educational Software

ADD WITH OSCAR

So you have your ST, and you also have children. You want all the family to take advantage of the power and the versatility of the machine, but are reluctant to have your children zap mindlessly away at aliens all day.

With ADD WITH OSCAR from AB Software, your children can spend rainy days on the ST, and be learning something useful, while you watch the TV in peace.

Designed with both the child and the parent in mind, the kids can be left on their own with ADD WITH OSCAR after being initially set up by you. 'ADD' presents your children with random maths questions in the form of a game complete with high score for added incentive and fun.

10 questions are asked, and answers are entered using the mouse, with large colourful numbers at the foot of the screen. A correct entry is greeted by a nod from 'Uncle Oscar', and an incorrect one

with a shake of the head. The correct answer is rewarded with a catchy tune.

The child must get a correct answer to continue, (How many times have you seen a so-called educational program ask a question, the child get it wrong, and then jump to the next question, leaving the child totally bemused and not knowing the right answer?)

ADD WITH OSCAR was written for children of pre-school level, as an introduction to the adult way of doing maths, so is suited to children between 4 and 10 years old. Having said that, you may have a 5 year old who finds it too easy or a 13 year old who cannot grasp maths at all, so this is only a guide, ADD WITH OSCAR is written by a company dedicated to producing quality educational software for your children - at a price that won't break the bank!

SPELL WITH OSCAR

Improve your childrens spelling ability with SPELL WITH OSCAR.

Many of the excellent educational programs available at the moment are from the States, but what you may not be aware of is that most U.S. spelling programs tend to use American spellings and names for objects, a possible problem in the future for your children at school.

With AB Software, you can be sure that the words are spelled the 'English' way. In SPELL WITH OSCAR, your children can compete against each other, or try to beat their own score on an amusing and delightful high score table they will love. If they get to the top of the table, Uncle Oscar walks across the screen pulling a trolley with their name on it.

Difficulty levels set the number of letters in the 5 words of each round (from 3 to 7 letters), and various objects move across the screen at the speed you set, (No more 7 and 8 letter words popping up half way through level 1!) A timer 'bonus' gives a score for the word to add an incentive to improving the times.

As the child plays, the program adjusts the level up or down automatically to suit his or her ability, depending on the number of words spelled correctly in the round. If three rounds are attempted without going up a level, then the game ends with a 'no-timer' tutor level with auto letter prompting, or the useful 'next letter help key' in the main game. You can leave the child to play unattended for hours with only the briefest instructions, without having to reset things up for them every 10 minutes,

SPELL WITH OSCAR contains 160 pictures and words on the disk, from 3 letters to 7 letters, and will keep your kids entertained and educated while they have fun. In fact, if you don't have an ST, ADD and SPELL might well be the excuse you've been looking for.

With delightful colour graphics, animation and sound, it will keep your children enthralled for hours.

Available now from **PARAGON COMPUTERS**

Phone (09) 221 3216

VIRUS (the game)

reviewed for *PARAGON REPORT*

by

Simon Haynes

VIRUS

This latest game from Firebird is their best yet. Again they have used solid 3D graphics, but this time the emphasis is on a quick blasting game rather than a strategy game as in *Carrier Command*.

You start on a raised launching pad. Control is via the mouse or the keyboard. Although the keyboard is better for beginners, the mouse is recommended as it is far easier to manoeuvre your ship once you have mastered the controls.

Take-off is achieved by pressing the left mouse button-thrust. Immediately a stream of white-hot gasses shoot out of the bottom of the craft, sending it up into the air. Let go of the button, the stream stops, and gravity begins to pull you back down again.

Using a squirt of gas every now and then it's possible to hover fairly well. Then you can try movement. Pushing the mouse GENTLY in the direction you want to go will tilt the spacecraft, helicopter style. Then you simply add a little thrust, and the craft starts to move. At this stage it is all too easy to get tangled up, flip the craft upside down and crash into the ground.

If you are low enough you will see the landscape start to move below you. There are trees, bushes, radar towers, houses and so on, all drawn in perfect 3d in a multitude of colours. Look at the map and you will see the land masses in green and the sea in blue. You will also see several little blue dots. These are the enemy, the seeders. Their job is to fly over the landscape spraying a red dust which turns the green fields brown and withers the trees. Sections of the map will start to go brown as the landscape is infected. After a short while these infected areas start to sprout pink and orange trees and bushes.

Your job is to destroy these seeders, and as a secondary mission you can also shoot the trees. The left mouse button sends out a satisfying burst of bullets, which explode when they hit the ground, or splash if they hit the sea. It's quite a sight, the hoverplane flying low over a landscape, jet plume hitting and bouncing off the ground, a long line of bullets hitting trees, plant and houses.

All the sound effects are there, from the explosions of houses to the splashing of bullets in the sea. Sometimes it's easy to forget the mission and just concentrate of wreaking havoc on the landscape below.. a tree is hit, there is an explosion, a grey stump and a plume of smoke are all that is left.

The seeders on the first level are defended by drones, and although they are pretty easy to kill, they can be a real pain if two or three gang up on you. On the second level you are introduced to the bombers.. fast moving craft which release virus bombs on parachutes. These bombs explode on impact, and if you watch the map you can see the flashing blue dot moving across it followed by a great swathe of brown.

Forget the seeders, the bomber has to be your first target. Of course, you can't fly up behind it because you will be hit by the bombs. You try shooting a fast-moving target as you go sweeping across it's flight path. Usually you can just hear the faint bullet-splashes from the sea over the whine of the bomber's jet engines.

This game has so many nice little touches it would be a shame to list them and spoil the fun of discovery for the player. From the graceful flying fish to the homing missile tracking a helpless seeder, the effects have been designed with great attention to detail. Congratulations to the programmers.

Oh, yes, anyone seen the sea-monster yet?

THE 'C' PROGRAMMERS CLINIC

by
Steve Quartly

DESKTOP ACCESSORIES

Many of us know how to write a program that can be executed by double clicking on it's icon from the desktop but not many know how to write a desktop accessory, so this is what I am setting out to do, teach you how to write a desktop accessory.

Firstly let me say that I am a self taught programmer and consequently my source code reflects this. So I'm sure anyone with any professional programming experience would probably give it a 2 out of 10. However let me say this.... it works and that is the main thing.

Desktop Accessories

Firstly a brief explanation of how a desktop accessory works. When the computer is first turned on the system looks for any files on the boot disk with a .ACC extender. If any are found they are loaded into memory and, if the accessory is correctly written, a name used to describe the accessory is placed onto the desktop accessory drop down menu, then it sits in a permanent loop waiting for a message from the pipeline to say that it has been selected. When it detects it has been selected the program freezes all other GEM operations, that is windows and menus etc, and then carries out whatever it has to do. After finishing it's task it unfreezes GEM and then drops back into it's permanent loop until it is selected again. There is a limit of 6 desktop accessories that can reside in memory at any one time.

Program Post-Mortem

Working from the top of the source file, anything enclosed in between /* and */ is purely a comment and is ignored by the compiler when it is compiled. Not all the include files listed are actually used by the shell, however I have left them there so you don't have to worry about adding them later when you add your own code. The next two define statements merely define TRUE and FALSE as I used them in virtually every program I write. The variables contrl, intin, ptsin, and ptsout are all required to be set up so that GEM can use them, this is mandatory. Msgbuff is used to store the pipeline messages. This needs a bit of explanation. Whenever a user interacts with GEM in some way, that is opening, closing, moving a window or selecting a drop down menu item, GEM sends a message to the controlling application, using what is called the message pipeline. The controlling application then interrogates this message to find out what action the user took. In our situation the only message we are waiting for is AC_OPEN, that is, a desktop accessory has been selected. This message is stored in various parts of the msgbuff[8] array. The variables phys_handle and vdi_handle store the handle that our application has been given by GEM. Menu_id stores the ID that our desktop accessory has been given by GEM. Dum is just a dummy variable. Test[] stores a string for the alert box that is displayed when the accessory is selected.

The main function is the first function that is executed in this shell. It opens the application with a appl_init call and if it is unsuccessful it exits back to the desktop immediately. The next instruction rsrc_load is only used if you have a .RSC file to load, if not then just delete that line before you compile the program. The graf_handle call gets us our handle ID from GEM. This is used so we can tell GEM which application is talking to it when we do other VDI or AES calls. The next instruction, menu_register, gives GEM our desktop accessory drop down menu title so it can place it in the menu. It also returns an ID for our accessory, this is very important, we use it

to find out if our accessory has been selected by the user. We then leap into our permanent loop which is in the start_accessory function.

Start_accessory first sits and waits for a message on the pipeline, when it gets one it freezes all windows and drop down menus with the wind_update (BEG_UPDATE) command. It then checks if the message was for us, firstly msgbuff[0] contains the type of message that GEM has sent, in our case we are looking for AC_OPEN, that is an accessory item, then msgbuff[4] contains the ID of the accessory that was selected. This is where we check it against our menu_id, if they both match and it was an AC_OPEN message then we go into action! If not then we unfreeze everything and then continue looping. When we go into action we do it by opening the virtual work station, executing your area of new code, closing the work station, unfreezing everything and carry on looping. There are certain situations when writing a desktop accessory that you wouldn't want to freeze the GEM windows etc. In this case just remove the two wind_update calls in this function.

Open_vwork opens the virtual work station. Firstly it sets up the intin variable for GEM, then opens the work station. If there was an error it exits back to the desktop immediately.

Start_program is where you put the code that you want executed. In this working example a simple form_alert box is displayed.

That's it, that's all there is to it. Not as complex as you thought huh??

C Compiler

This file was written to be used with Laser 'C', which, incidentally is an excellent C compiler. If you are thinking seriously about purchasing a C compiler then have a good close look at this one. The file may need to be slightly modified to suit other compilers however the modifications should be minimal as there is nothing tricky about this code, it is all really straight forward.

Compiling and Linking

The program as it stands cannot be compiled and linked until you give the accessory a name and deleted the rsrc_load command. Once you have done this it can be compiled and linked and then placed on a boot disk and installed as a desktop accessory. Compiling the program should be straight forward, it should compile without any errors. However if you are using a compiler other than Laser 'C' you may need to add another file in the linking process. For example with Megamax 'C' you must link in ACC.L and with the Developers kit ACCSTART. With Laser 'C' nothing needs to be added, just the usual INIT.O. Be sure to link it with the extender .ACC so it installs itself onto the desktop when booted. If you forget to, don't worry, just change it from the desktop.

The end result of compiling this source file is an accessory that displays an alert box that waits for you to click on OK. Your code could do anything you want. If you have nothing to use it for just yet, file it away, because I can guarantee it will become very useful in the future.

TRILOGY

from **PARAGON COMPUTERS**

QUICKLIST PLUS

When you have had your ST a while, you soon build up a collection of files on disk which seem to just grow and grow. Then one day you want that certain little Basic routine you wrote a month or two back, or maybe that word processing document. At this point, most users will have the laborious task of checking all of their your disks until they find the right folder containing the right file.

With **QUICKLIST PLUS** all you do is type any or all of the filename you are looking for, and it will tell you in a flash which disk the file is stored on. Entering the names of all your files in your collection is easy, **QUICKLIST PLUS** does that for you, just put in the disk and click on the read icon and it's done!

QUICKLIST PLUS is equipped with most usual database features, such as: load, save disk directory, add, delete, correct, search, sort and has on-line help files.

Fully mouse controlled, and using pictures to represent commands, **QUICKLIST PLUS** can hold up to 1170 filenames in memory, and automatically opens up all folders when reading disks. Unwanted filenames can be easily removed and the database saved to disk. (No limit to the number of databases on a disk other than free disk space).

QUICKLIST PLUS works on colour or monochrome monitors and is compatible with external drives and hard drives.

MASTERMAT

We have all at some time or other, found that a file or group of files we want to keep together is just a little too large to fit on a single disk.

With **MASTERMAT** you can custom format your disks to the maximum your drive will allow. On some drives this means nearly 100K more usable disk space on a 1 Meg disk, although all drives will show a marked increase in bytes free after formatting.

You control the number of tracks, sectors/track, and the option to fast format, where any programs on the disk will then load up to 40% faster. All disks formatted are totally compatible with any ST or drive. **MASTERMAT** runs on any ST in low or high resolution and will work on drive A or B, single or double sided.

PICSTRIP

For the BASIC programmer, **PICSTRIP** is the essential utility for adding graphics to your programs. It enables you to use all or part of your Degas or Neochrome pictures in your BASIC programs, and convert between the two standards.

With **PICSTRIP**, you can give your programs that unique and professional look, and with the BASIC routines on disk for you, it could not be easier to use.

Features:

- * Save colour palette as a BASIC listing
 - * Load Degas save Neo : Load Neo save Degas : Load 'icon' save Degas or Neo
 - * Load Degas/Neo save 32K BASIC screen
 - * Cut out section of a picture for use in your programs, such as a multi-option selector box.
 - * Works in any resolution, with ST BASIC, GFA BASIC, FAST BASIC and HiSoft BASIC
 - * Hard disk compatible.
-

The ATARI ABAQ versus the Rest

The Atari Transputer Workstation (Abaq) represents an order of magnitude jump in price/performance over other systems on the market. Traditional work station companies and high end PC companies such as SUN, APOLLO, APPLE, and COMPAQ should look carefully at what Atari/Perihilion have done.

The heart of the Abaq is the Inmos T800 transputer which out-performs an 80287 equipped AT by a factor of 13 (The nearest processor equivalent is the Sun Sparc/Weiket combination found in the expensive Sun 4). In terms of graphics resolution and colour the Atari also compares favourably with top-end graphics work station (1000 by 800 pixels, 256 colours). These graphics are also fast. Because the transputer is about 5 times faster than the Motorola 68020 at the heart of most current workstations, graphics are about 5 times faster. Production machines will improve on this performance by another factor of 5 probably making the Abaq one of the faster 2D graphics work station around-for any money!

Internally the Abaq is able to take full advantage of the transputers fast links - allowing processing speed to be increased a further 12 times using parallel computing techniques. Furthermore these links are available as an external network giving the Abaq the fastest networking capability around. 8 networked Abaqs, each with 13 transputers fitted, (at a total cost of about \$365,000) gives a total processing power equivalent to a Cray YMP supercomputer (at about \$24,000,000).

At a price of about \$12,000 for the current minimum configuration, software developers have no excuse for ignoring it. It represents the lowest cost platform on which to mount graphics intensive Unix based product available. Parallel processing is beginning to take off in a big way - the Abaq also provides a low cost entry point to this important area of development. In the slightly longer term it is difficult to see how workstation buyers can afford to ignore the Abaq - it represents unbeatable value for money. As for main frames and minis - watch out!

.....

GENERAL NOTES

- A. The previous figures are indicative only (innaccuracies may be present)
- B. Figures in brackets are estimates (others are taken from articles)
- C. All systems are based around colour displays.
- D. Graphics speeds have mainly been estimated relative to processor performance.

SPECIFIC NOTES

- 1. Treat these figures as order of magnitude but remember that you never get one of these machines to yourself (so for real performance divide by number of users).
- 2. The graphics figures assume you are using a typical 9600 baud graphics terminal with some hardware graphics support (eg. Tektronix compatible)
- 3. These figures are representative of top end graphics workstations.
- 4. Graphics figures assume SPARC set used (with similar performance to T800).
- 5. Processor performance increase by extra Transputers but not through other means.
- 6. These machines offer proprietry operating systems (with associated software).
- 7. There are lower entry level machines. These are typically monochrome and without disks.
- 8. All of these machines are capable of using new generation optical devices (1Gbyte+).
- 9. These graphics speeds are based on the T800 (Charity has been ignored).

WORD WRITER REVIEW

By Steve Nicholls.

One of the first serious pieces of software most people purchase is a Word Processor, however in the software jungle there are many packages that seem on the surface to be all you want but on closer examination they turn out to be less than satisfactory.

When you set out to purchase a WP package you must determine the uses and possible projected uses you will have for the WPP.

Ask yourself these questions.... you will obviously think of others also .

- {1} Can I operate it with a minimum of fuss?
- {2} Is it important for me to see on the screen exactly what will appear on my printer? W.Y.S.I.W.Y.G
- {3} Is the programme user friendly, in other words have the programmers of the WP made it easy for you to access all of the commonly used commands?
- {4} Does the WP support your printer or give you the ability to easily customise a printer driver to suit your needs.
- {5} Can you spell words correctly?
- {6} Do you want access to a Thesaurus? Very handy indeed!
- {7} Is it easy to set up headers and footers?
- {8} Can the programme help you along the way if you strike trouble?

These are basic questions you should ask yourself as you set out to determine the software package you need to tackle your WP needs.

The review I am about to write is for the Timeworks WP Word Writer 2.

All of the above questions and many more are easily accommodated by this superb WP package. Many businesses spend many thousands of dollars on a dedicated WP when the purchase of a 1040ST and this package will meet all of their WP needs and more. Of course don't forget the amazing mono monitor available with the Atari.

When I first loaded Word Writer the thing that struck me was the screen display looked good, it felt comfortable, I didn't feel I had just sat down in front of a new WP I had never seen before.

WW uses extensively the GEM environment making it very easy to move around your document using the Mouse and the slider bars. The window you type in can be sized to your requirements, this is both handy and necessary because WW has three rows of 'buttons' at the bottom of the screen that allow you to operate the WP almost entirely with the mouse, this is a terrific feature and one that I haven't seen as yet in other WP,s especially for the price.

If you don't wish to use the mouse to select these buttons each function is assigned to the menu bar at the top of the screen or to a series of keyboard keys. As you can see WW can be used however you desire. In the file section, of the pulldown menu

Timeworks have thought of the ST user who has more than one floppy or perhaps a hard drive, you can assign the data disk, dictionary disk or the thesaurus to whatever drive you like. If you have only one drive it just involves swapping disks when needed, no great hardship.

You can work on more than one document at a time and using cut and paste transfer a block of text between two documents. Marking a block of text within a window can be done with the mouse and larger blocks can be set using the block mark facilities in the menu bar.

Word writer comes with a large selection of printer drivers and an easy to follow tutorial in the manual to customise one of the supplied drivers to suit your own needs.

WW is set up to operate with an Epson compatible printer. When you print a document it can either be the document you are currently working with or a document from disk.

Every function in WW is supported by very classy on screen graphic displays, all adding to the sense that this is a well thought out package, for example when you select the printer option a default screen appears that lets you enter the number of copies required the number of pages, page numbering and position, all in all a lot of thought has gone into making this programme easy to use and isn't that what a WP should be?

If your spelling is like mine and leaves a bit to be desired you will really appreciate a built in dictionary, in the case of WW 80 - 90 thousand words, there is a price you pay for the dictionary and that is greatly reduced file space for writing your document, this is no problem for owners of a 1040ST but 520 owners will have to reduce their document size or spell check it in small sections. It is truly amazing to think the programme can check the correct spelling of a word and let you know in about one hundredth of a second.

The manual that comes with WW is nicely presented, it is not a big manual but it does cover most of the queries you will encounter.

WW does support form letters and the manual explains how to set up the relevant data, and by the way Timeworks are obviously aiming at the small business community because data from their data base and spreadsheets can be imported into the WP to formulate very detailed reports.

Timeworks have given a lot of thought to presenting their WP in such a way as to make it appealing visually and also appealing from the point of view of end use that's you and me.

If I have a criticism of WW it is the voracious use of memory but that is the price you pay for such a feature packed WP package, WW is best suited for use with a 1040 ST.

I believe it has set a new standard for middle of the road WP's to aim for and some of the big boys could spend a bit of time examining the features on offer.

Out of 10 I would rate the WW 2 package as a very usable 9 on a 1040 ST and about a 6 or 7 on the 520 ST.

If you have a business and want a WP that allows you the freedom to use other business software look no further than the WW2 package and the Atari 1040 ST .

Although this is by no means an exhausting review I hope it has been of some value to you as you hack your way through the software jungle.

Editors note

As a matter of interest, this review was typed in using Word Writer 2, printed in draft mode on a 9 pin dot matrix printer, scanned by a Hawk CP14 Scanner, Character read on a Mega4 by AUGUR Optical Character Recognition software, re-spell checked by Thunder spelling checker, imported and typeset with Publishing Partner and then printed on a QMS PS 810. Post Script laser printer

SKELETON (ACC)
written by
Steve Quartly

This skeleton shell will make this software a desktop accessory.

/* These header files have been included so you don't have to add them later.

```
*/  
#include <stdio.h>  
#include <gembind.h>  
#include <gemdefs.h>  
#include <osbind.h>  
#include <obdefs.h>  
#include <fcntl.h>
```

/* Define TRUE and FALSE.

```
*/  
#define TRUE 1  
#define FALSE 0
```

/* Set up the system variable required by GEM.

```
*/  
int contrl[12], intin[128], intout[128], ptsin[128], ptsout[128],  
msgbuff[8], /* This stores the pipeline messages.*/  
phys_handle, /* This is the handle of this program.*/  
vdi_handle, /* This is the handle of this program.*/  
menu_id, /* This stores our desktop accessory ID.*/  
dum; /* A dummy variable.*/  
extern int gl_apid; /* Application ID.*/  
char test[] = "[2][This a test of your new desktop accessory!][ O.k.!]";
```

/* This is the main function that starts our accessory.

```
main()
```

```
{  
/* Open the application.*/
```

```
appl_init();  
/* If an error occurred opening the application then exit.*/  
if ( gl_apid == -1 ) _exit ( 1 );
```

/* Place the name of your resource file where the question marks are. If you don't have a resource file then delete this line.

```
rsrc_load ( "????.???" );  
/* Get the handle of our program.*/  
phys_handle = graf_handle ( &dum, &dum, &dum, &dum );
```

/* Put the name that you want to appear on the desktop accessory drop down menu where the question marks are.

```
*/  
menu_id = menu_register ( gl_apid, " ??? ?????? " );
```

/* Put the program into a permanent loop looking for pipeline messages.

```
*/  
start_accessory();
```

/* This function sits in a permanent loop looking for a pipeline message that corresponds with our accessory ID.

```
start_accessory()
```

```
{  
int event;  
do  
{  
/* Wait for a message pipeline event.*/  
event = evt_mesag ( &msgbuff );  
/* Freeze all drop down menus and windows.*/  
wind_update ( BEG_UPDATE );  
/* Check if the message was for us.*/  
if ( ( msgbuff[0] == AC_OPEN ) && ( msgbuff[4] == menu_id ) )  
{  
/* Open the virtual work station.*/  
open_vwork();  
/* Execute your section of code.*/  
start_program();  
/* Close the virtual work station.*/  
v_clsvwk ( vdi_handle );  
}  
/* Unfreeze all windows and menus.*/  
wind_update ( END_UPDATE );  
/* Continue looping.*/  
} while ( TRUE );  
}
```

/* This opens the virtual workstation.

```
open_vwork()
```

```
{  
int i;  
/* Set up the intin variable for GEM.*/  
for ( i = 0; i < 10; i++ )  
intin[i] = 1;  
intin[10] = 2;  
vdi_handle = phys_handle;  
/* Open the virtual work station.*/  
v_opnvwk ( intin, &vdi_handle, intout );  
/* If an error occurs opening it then exit.*/  
if ( ! vdi_handle ) _exit ( 1 );  
}
```

/* Your program sits in here folks!!!

```
start_program()
```

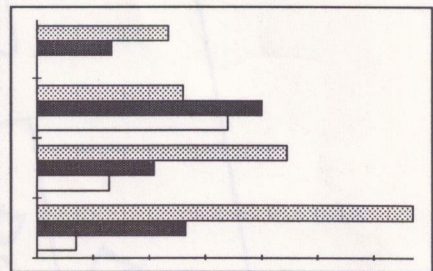
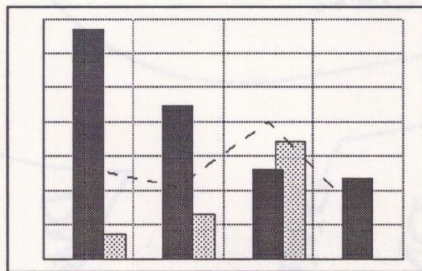
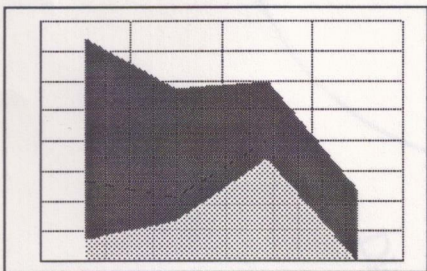
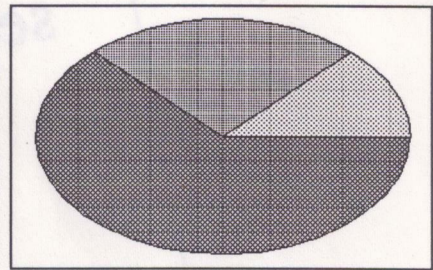
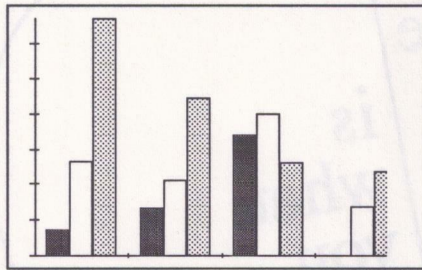
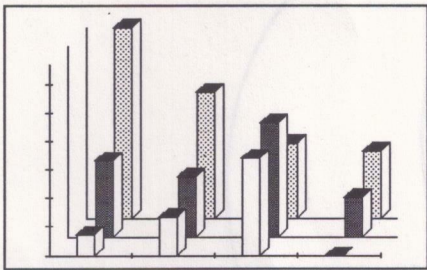
```
{  
/*  
/* Yep place your code in here and each time the accessory is clicked on, it will be executed.  
/*  
/* Open a dialog box to test the program.*/  
form_alert ( 1, test );  
}
```


GraphicSheet

The ST Spreadsheet with Built-in Graphics

GraphicSheet for the Atari ST is a powerful spreadsheet program that makes full use of the ST's graphics capabilities. It is a professional analysis package featuring an enormous spreadsheet, with up to 65,536 rows and 65,536 columns, fully integrated graphics, a built-in calculator and on-line notepad. Data from your spreadsheet can be graphically presented in any of the eight different chart types-bar, 3D bar, line, area, pie, stacked bar and Manhattan. You can display your charts simultaneously with the spreadsheet. The built-in calculator and notepad provide valuable additional facilities, while the Scrapbook feature allows data to be both exported and imported between **GraphicsSheet** and other programs, such as word processors and databases.

GraphicsSheet ST is both easy to learn and to use, since it is fully GEM based. Thus, **GraphicsSheet** will allow you to use multiple windows - up to seven, In one window display part of the spreadsheet, in a second window a pie chart...



- * Spreadsheet can have up to 65,536 rows or columns
- * Multiple windows - up to seven
- * Eight graph styles - bar, 3D bar, line, area, pie, stacked bar, 3D stacked bar and Manhattan
- * Full range of GEM - based facilities
- * All commands under mouse control
- * On - line calculator and notepad
- * Built - in sort routine

PARAGON COMPUTERS

DMC
DESIGN-MARKETING-COMMUNICATION

ca / *amus*
Desktop Publishing

PARAGON COMPUTERS

From earlier and start the time as moral ideas abney are sa out Desktop Publishing (DTP) was to Theorie. So far for the create a graphics Especially with interface to the complex layouts re- printing device. The suits may still differ a picture of his works di- (Ill. 1) lot from screen layout. For this special deve- The reason is with font lopment in technique a new different methods in use: term was created: "WHAT YOU SEE IS WHAT YOU GET" (better known as: WYSIWYG). For every character of every Instead of hacking complex com- style, a bitimage is stored. For mand lines into a terminal and wait- Of course it would be nice to use ing for the printer (or typesetter) to different font sizes. There are two show its magic result, the layouter different ways to do this. Either eve- his computer, which allows him to nry font size is stored as a bitimage, or place and change frames with a small bitimage is enlarged up to his mouse like on a sheet of pa- Enlarging a bitimage means making a pixel into a square, per. With the mouse he only which means, that diagonals will become more and more rough. You could also make large bitima- ges smaller, but then you lose information and fonts become fat.

PARAGON COMPUTERS

Thus printout. mistakes are re- cognised much

becaus they are opti- mized for these diffe- rent uses. This means, its a gamble, where your font will ap- pear on the printer. You would have to make several printouts and then corrections on the screen untill you get the desired result, which actually is opposed to the ad- ded comfort described before. Second: Outlinefonts. With outlinefonts only one size (without any dimension) is needed to generate all the sizes on either screen or printer. Since these devices usually only treat bitimages, the font needs to be transformed. But since this is done only at the very end, just before printing (or showing on the screen), there is no loss of information or smoothness. The only thing that changes is the raster. Thus its always maxi- mal quality. Like everything in life, there are two si- des to the medal. This method isn't perfect either. There are two pro- blems: First, if the

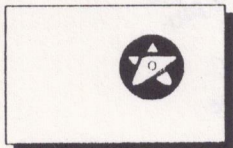
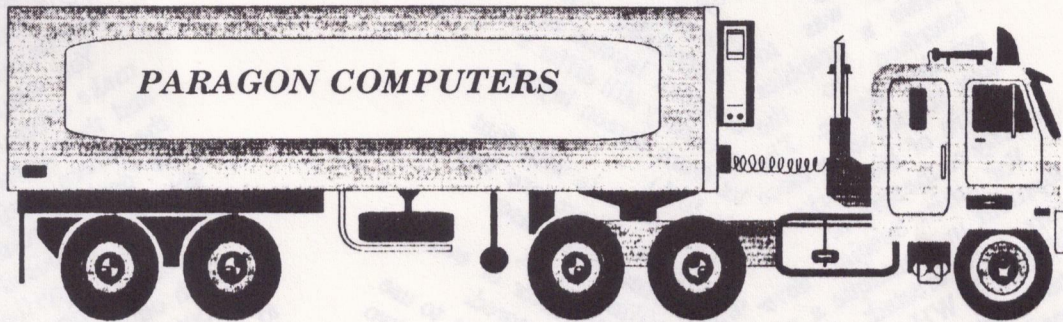
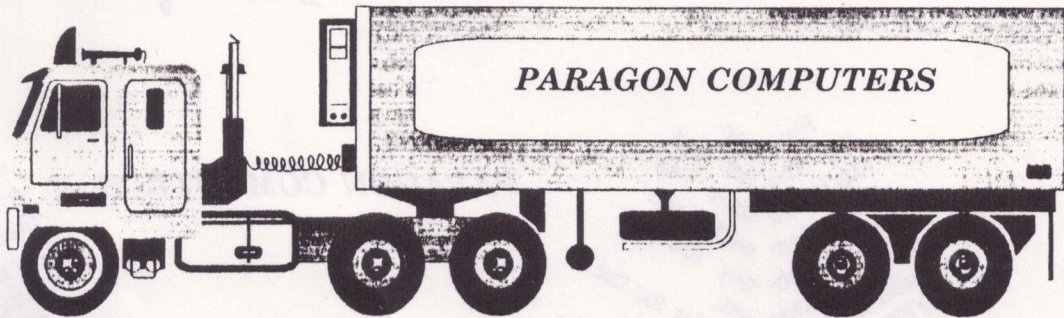
BACK PAGE NOVEMBER
PARAGON REPORT

DMC

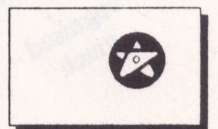
DESIGN-MARKETING-COMMUNICATION



calamus
Desktop Publishing



VECTOR



The ATARI ABAQ versus the Rest

A very approximate summary

Supplier System	IBM 3883 1.2	PRIME 9955 1.2	SUN 4/260C 3.4	APOLLO ON3000 7	ATARI Issue 3	ATARI Issue 4	APPLE Mac II	IBM PC Model 88
PROCESSOR								
CPU	3083J	9955	SPARK	68020	T800	T800	68020	80386
Mips	(8)	(4)	10	2	10	10	2	2.5
FPU	Same	Same	Weitek	68881	Same	Same	68881	80387
Mflops	(1.5)	(8.75)	1.5	0.3	1.5	1.5	0.3	0.3
Expansion	(7)	(7)	Note 5	None	12 times	16 times	Note 5	Note 5
MEMORY (Mb)								
Entry	(32)	(8)	32	4	4	4	1	1
Maximum	(7)	(7)	128	8	64	64	8	16
VIDEO								
Processor	Tek Comp	Tek Comp	SPARK	(68020)	Note 9	Charity	68020	80386
Buffer (Mb)	1	1	1	(1)	1	1	0	0
Mode Num	N/A	N/A	N/A	N/A	1	1	N/A	EGA
Pallette	16.3M	16.3M	16.3M	16.3M	16.3M	16.3M	16.3M	16
Colours	256	256	256	256	256	256	265	16
Resolution (x)	1024	1024	1150	1024	1824	1824	640	720
Resolution (y)	768	768	900	800	768	768	488	350
Other Modes	Yes	Yes	(?)	(?)	Note 18	Note 18	No	Yes
GRAPHICS SPEEDS (pixels/sec)								
line draw	(50K)	(50K)	(200K)	(50K)	200K	(4000K)	(50K)	(50K)
circle fill	(100K)	(100K)	(1600K)	(100K)	1600K	(10000K)	(100K)	(100K)
filled polygon	(100K)	(100K)	(5600K)	(100K)	5600K	(16000K)	(100K)	(100K)
block fill	(100K)	(100K)	(5600K)	(100K)	13000K	(64000K)	(100K)	(100K)
STORAGE								
Floppy Size	N/A	N/A	N/A	N/A	720k	720K	720K	720K
floppy format	N/A	N/A	N/A	N/A	IBM Comp	IBM Comp	Mac	IBM
Hard Disk (Mb)	60000	3000	560	71	160	(40)	40	44
Interface type	(IBM)	(PRIME)	SCSI	SCSI	SCSI	SCSI	SCSI	IBM
Maximun (Mb)	(?)	(?)	Note 8	Note 8	Note 8	Note 8	Note 8	Note 8
NETWORKING								
Hardware	RS232	RS232	Ethernet	Ethernet	T800	T800	Apple	Token
Software	RS232	RS232	Unix	Unix	Helios	Helios	Apple	IBM
Speed (Mb/s)	0.002	0.002	10	10	28	28	0.3	(10)
Included	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Others	(IBM)	Ethernet	(ICP/IP)	(ICP/IP)	Ethernet	Ethernet	Ethernet	Ethernet
OPERATING SYSTEM								
Type	MVS	PRIMOS	Unix	Unix	Helios	Helios	Apple	OS/2
POSIX compat	No	No	Yes	Yes	(Yes)	(Yes)	No	No
Windows (1)	None	None	NeWS	XWindow	XWindow	XWindow	Apple	MSWindow
Windows (2)	None	None	XWindow	NeWS	GEM	GEM	XWindow	XWindow
MultiUser	Yes	Yes	Yes	Yes	Yes	Yes	No	No
MultiTasking	Yes	Yes	Yes	Yes	Yes	Yes	(Yes)	Yes
MultiProcessor	No	No	No	No	Yes	Yes	No	No
Virtual Memory	Yes	Yes	Yes	Yes	No	No	No	Yes
SOFTWARE SUPPORT								
Languages	All	All	All	All	C. Fort	All	All	All
CAD	Average	Average	V. good	V. good	XWindow	XWindow	Good	Good
Business	Average	Average	Average	Average	(Aver)	(Aver)	V. Good	V. Good
PC Emulat	No	No	Yes	Yes	(Yes)	(Yes)	Yes	N/A
Others	No	Unix	Note 6	Note 6	Atari	Atari	A/UX	Xenix
OTHER								
Portable	No	No	No	No	Yes	Yes	Yes	Yes
Xtra Users	Degrade	Degrade	Static	Static	Increase	Increase	Static	Static
Xtrnl Expn	None	None	Note 5	None	Infinite	Infinite	None	None
COSTS								
Entry Level	V. High	High	Average	Average	Low	Low	Low	Low
Software	V. High	High	Average	Average	Low	Low	Low	Low
Support	V. High	Average	Average	Average	Low	Low	Low	Low
Peripherals	V. High	High	Average	Average	V. Low	V. Low	Low	Low
Expansion	V. High	High	Average	Average	Low	Low	Low	Low
MONEY								
Entry Price	1000K	100K	48K	7.5K	6K	4K	4.5K	6K

GFA BASIC 3 Interpreter

Yes! GFA BASIC 3 is here. The best has been bettered! In using this radically new Super BASIC Interpreter, which is fully compatible with the earlier GFA BASIC 2 Interpreter, the existing user is enjoying the best of both worlds; the use of all their old software, along with access to the vast range of new features that Version 3 offers. With its near 400 commands, great arithmetic accuracy, increased number of data types, new structural features, Logo commands, full window management, VDI, AES, RSC commands, and...and... Version 3 offers pretty well every facility the programmer could imagine.

This greater richness of features enables programs to be developed more rapidly, debugged more easily and has all the professional-looking features of GEM. Conversion from other languages is made more simple with the super-abundance of new commands and control of devices such as the mouse can be achieved with great ease.

Editing, Error Detection and Correction

Great improvements have been made to the Editor, providing the ability to jump to any particular program line by its 'row number'. There is a constant display of the current line's number, as well as the time of day. Combined with the new ability to fold procedures, (which allows just the procedure name to appear in the listing), program creation becomes a still less stressful occupation! When errors do occur, the improved TRON command allows either the program or a name procedure to be run, returning in TRACE\$, the command that follows the one causing the problem. Debugging is further aided by the command DUMP which allows the contents of variables, arrays, labels and procedures to be displayed either completely or selectively.

Program Structure

Many new commands such as ELSEIF, OTHERWISE, CASE, ENDSELECT, etc. make the control of loops much tidier, easier to construct and debug. In Version 3, functions can now be multi-line and the variables used in these can be passed back without the need to use pointers as in version 2.0. When desired however, the command LOCAL allows these to become local variables.

Data Structures

New data types are provided in GFA BASIC 3 and the overall arithmetic accuracy is 13 digits. The types available are: Boolean (1 bit/byte depending on context), Byte (1 byte), Word (2 bytes), Integer (4 bytes), Floating point (8 bytes), String (variable length). These can be manipulated in the usual ways and their data extracted and interchanged by means of the commands, CARD, LONG, SINGLE, DOUBLE and CHAR.

Many new bit operations are available in Version 3, allowing single bits to be set, reset, tested or inverted. Such commands greatly facilitate the interaction of a BASIC program with machine-code routines as do the Shift and Rotate commands. Data can also be manipulated in larger portions by means of the SWAP command and the new logical operators.

Graphics, Graphics, Graphics

The new graphics features incorporated in Version 3 lead to both greater simplicity and greater sophistication. In the former case, the incorporation of Logo commands allows graphics to be produced very readily. In terms of sophistication, the LINE-A commands such as ACLIP allows screen areas to be defined that have specific attributes, much like windows. Other commands allow for the rapid drawing of lines, the filling of areas, the detection of mouse clicks and the determination of the mouse position. Windows can now be controlled simply and with great accuracy with the WIND-commands and their size, position, sliders, window symbols manipulated to taste.

VDI and GEM AES

The new commands that support VDI and GEM AES allow a high level of sophistication to be achieved with relative ease. They allow access to the event library and for the easy programming of pull-down menus. Dialog boxes and the object library are similarly made accessible along with the graphics library and the resource files. For the adventurous programmer, the data registers are made available for both reading and writing.

GFA BASIC 3 represents a revolutionary step forward in the development of BASIC. This new SuperBASIC implementation, while compatible with GFA BASIC 2.0, offers a vast increase in number of both commands and functions, providing the user with the latest and most comprehensive BASIC available.

Version 3 Compiler

The Version 3 Compiler will be available in Autumn 1988.

Upgrade from Version 2

Existing GFA BASIC 2 users can upgrade to BASIC 3 for \$85.00 direct from *Paragon Computers*. The original manual and disks must be returned to *Paragon Computers* with upgrade order.

GFA BASIC 3

The SuperBASIC

Psssssst!

- * A Series Programmable Serial Interface is now available, it will allow multi-line usage with the ST. ie., a BBS with more than one caller at a time, up to 8 lines.
- * Sig Hartmann, Exec. V.P. Atari Corp. Rescued Seaman Neil Bradley, stationed on a destroyer in the Middle East, who had severe problems with the mouse for his ST. Thanks to Sig, another is on the way! Way to Go Atari!!!
- * Seems there will be a version of the laptop with a hardisk built in. LOOK for a 286/386 [PC-5/6] clone from our favorite Co.
- * The STGS will debut in the first quarter of 1989. (The first 68000 Game Machine)
- * Atari is strongly considering opening a plant in the GERMAN DEMOCRATIC REPUBLIC. to manufacture semiconductors, 1 & 4mb memory chips.
- * There is still a good chance that the NEW TOS will be able to read more 16mb per partition and also read more than 12 partitions. Soft coded vs Hard coded?
- * According to a prominent mail order house Soft Logic is shooting for an end of the month release of the "Professional" version of it's DTP package.
- * Seems there is a Demo of "Calamus" making the rounds, only problem is...it's in GERMAN!! From what we have seen, the "other DTP packages" had better watch out, this one is ULTRA SUPERB.
- * Neil Harris, known to the majority of users in the Atari Community has resigned from His position at ATARI CORP.
- * Jim Eisenburg, one of two who created the artwork for the desktop we enjoy using is no longer with Atari.
- * Sam Tramiel will press for continued upswing in activity at Atari by personally overseeing all PR releases for accuracy.
- * Atari will be showing a number of new products at the Comdex show this fall.
- * Word Perfect Corp. has announced through Jeff Fowler, that Version 4.1 will be the FINAL release of the ST VERSION. Hmmm, here we go again! AARRRG!
- * Watch for all the ST units to be shipped with "mega" type cases and keyboards.
- * Magic Shadow Archiver will process a "boot" disk so it can be arced and sent over the modem, unarced and processed and be as good as the original. Look for this program it is shareware!
- * Tom Hudson is now writing his CYBER range of software for the new Atari work station.

POWER BASIC

From PARAGON COMPUTERS

Power BASIC is the answer to all your programming prayers; a fast, easy-to-use BASIC compiler conforming to the industry standard. It takes BASIC programs and turns them into speedy and compact 68000 machine code, stand-alone ready-to-run programs. BASIC has long been regarded by many as a 'second rate' programming language, even though more programmers know BASIC than any other language. While many of the complaints against it have been valid in the past, now Power BASIC makes it a serious choice for professional programming:

- * Compile Microsoft BASIC, ST BASIC or practically any other BASIC and execute them up to thirty times faster.
- * Develop stand-alone programs that can be distributed without your source code and without paying any licencing fees.
- * Make the most of your machine's memory - no program or variable size limits.

COMPATIBILITY

The closest thing to a standard for the BASIC language is Microsoft BASIC, used the world over on a large range of machines. Power BASIC conforms to the latest specification and then extends it further to take advantage of the large memory and special characteristics of the Atari ST. It conforms as far as possible with the Quick BASIC compiler for MS-DOS machines, with the extensions found in the Amiga BASIC interpreter. It also has features not found before in any Microsoft BASIC, and compiles existing ST BASIC programs:

- * Structured programming, using long IFs, multi-line functions, CASE, REPEAT and procedures
- * Program line numbers are optional, and alphanumeric labels can be used
- * Full recursion for procedures and functions including local variables and arrays as parameters
- * Five types of variable - choose the right sort for your needs
- * No program size limit - only determined by available memory and disk capacity
- * No variable size limits at all - strings can be megabytes long if you have the memory
- * Integer and character constants, just like C and Pascal

VARIABLES

There are five types of variables in Power BASIC:

- * integers (-32768 to 32767)
- * long integers (-2147483648 to 2147483647)
- * single precision floating point, 7 bit exponent, 24 bit mantissa
- * double precision IEEE floating point, compatible with 68881 maths co-processor
- * strings of any size

MEMORY USAGE - NO LIMITS

There is no program size limit - you can compile programs over 100k (memory permitting). There is no string size limit - the 68000 processor can use 16 megabytes of RAM, and so can your BASIC program. Similarly there is no limit on the size/dimensions of arrays.

COMPILATION OPTIONS

For maximum flexibility the compiler has many options so you can, for example, have all checks on while debugging a program, then when you are happy with it turn checks off for even greater speed and smaller code size. Just some of the available options are:

- * Overflow checks, which can be turned on and off within your program
- * Array subscript checks
- * Line numbers in object code for debugging
- * Produce GEM or TOS programs (.PRG, .TOS or .TTP)

In addition you can make the compiler check your variable definitions to spot typing mistakes and you can allow Microsoft-style underlines for extended program lines.

INTERACTIVE ENVIRONMENT

Just because a compiler is powerful doesn't mean it has to be difficult to use. All you do is type in your program into the built-in GEM editor and click on Compile. You can then choose your options, described above, and compile to disk or to memory. If you compile to memory you can run your program immediately after compilation - all without a single disk access. The editor works in any screen resolution for maximum flexibility. Of course, you don't have to use the Power BASIC editor, the compiler will accept standard ASCII source produced by any editor, including ST BASIC.

STAND-ALONE PROGRAMS

When you compile a program the compiler is intelligent and only includes the library routines your program needs, keeping total program size small - the minimum program size is under 6k. There are no restrictions regarding selling compiled programs, and no runtime licence fees.

COMPLETE MACHINE SUPPORT INCLUDING GEM

Power BASIC allows complete access to the graphics and I/O features of the ST. A compiled programs output can be to a GEM window, like ST BASIC, or to the consol direct, by using a compiler directive. The programmer has complete access to GEM graphics, and can do serial or random-access disk I/O. A BIOS and XBIOS library is supplied for programmers wishing to program at a low level, and the CALL statement allows machine-language interfacing. There are also ST BASIC-style PEEKs and POKEs, together with Microsoft-style PEEKB, PEEKW and PEEKL and the POKE counterparts. The whole keyboard can be read with the IBM compatible IKEY\$ function, and INP and OUT allow total control of the BIOS devices.

Power BASIC is a complete BASIC compiler implementation, allowing unrestricted access to all available memory. Its compatibility gives it a wide range of existing software and an opportunity to convert your programs from and to other machines. The documentation that comes with Power BASIC is also complete: a 300 page ring-bound quality manual and a Quick Reference Guide for those moments of doubt such as the syntax of PRINT USING, for example.

THE POSTMAN

An Australian Postcode Search Utility

Reviewed by Steve Quartly

Product : The Postman
Available : Paragon Computers
Author : Steve Quartly
Cost : \$50.00
Computer : Atari ST or Mega

Do you run a business which involves sending out letters all over Australia? If you do then you will know that one of the biggest hassles is looking up the postcodes for various Australian towns in the phone book.

Well you can all now breathe easy because THE POSTMAN is here. The Postman is an Australian postcode search utility which has approximately 7995 Australian postcodes stored in it's database. The database is in pure ASCII format so as new towns and suburbs are added to Australia they can also be added to the database and consequently it can grow with Australia! Approximately 400 more postcodes can be added to the database but this of course depends on the length of each new entry added.

One of the programs big advantages is it's ability to install itself as either a desktop accessory or a straight program file which can be run from the desktop. All you do is merely re-name it to whatever you want. If the extender is .ACC it turns into a desktop accessory. If the extender is .PRG it is a program file.

The program will run in both medium and high resolutions and when it is run the opening dialog box is displayed giving you the option to continue or abort the program. Clicking on continue takes you to another dialog box which enables you to enter the name of the town that you want the postcode for. You can type in the name of the town, click on continue and within about 3 - 4 secs the postcode of that town is displayed. The search time is extremely quick given the size of the database to search. If you don't know how to spell the name of the town all you have to do is type in the first few letters. The program will then search all the alternatives and display them for you. To step through these alternatives you click on left or right arrows, depending on which way you want to step through them. You can also search for towns by their postcode, that is type in the postcode and all the towns that have that postcode will be displayed. The state is also displayed each time a postcode or town name is displayed.

The program's ability to be a desktop accessory or a program file makes this an extremely flexible program. It could be used whilst you are running any other GEM based program such as 1st Word Plus. Being able to add new postcodes to the database also means it will be able to keep up with the changes and additions to the Australian Postcodes.

All in all, this program is well worth it's price and if you are regularly looking for postcodes, you'll wonder how you ever did without it!

What's more it's written in Australia!

CD-ROM - Atari PC-5

The Atari CD-ROM is supposed to be out at around November, costing \$999.95 retail. At this time, a few software companies will announce CD-ROM products for the Atari ST, and it seems that the reason this product has been held over so long is that after Atari finished developing it, around April, they sent developer kits to certain companies, and it is the wait for both these companies and the upcoming Atari Factory that have kept the CD-ROM from being put out.

But they were not idle during this time. They have provided support for CD-ROM standards, like High Sierra, and made an interface card, so IBM's and compatibles will be able to use it.

The PC-5, Atari's 286 clone, will probably not come out until early next year, and when it is out, it won't sell that well, as IBM clones are now a ten-a-penny, and NO ONE is likely to buy an Atari PC unless Atari sells it for an extremely low price, well below the competing IBM Clone prices, combined with spectacular features (VGA, 2 Megs of LIM/EMS RAM) and HEAVY advertising, all of which would not make Atari that much profit, and which would drain resources that would be best spent on the Atari ST.

The AMY chip is still in production, and will probably not be seen in any Atari product until late 1989! By that time it will most likely be passe!

The Atari Laser Printer has the potential of being popular, but ONLY with the Imagen Postscript Module that Atari is planning to include as an option.

It would be MUCH better to increase the price of the SLM 804, by maybe 200 dollars, but to include the Ultrascript Module as standard. Some people need only a "dumb" laser printer, but MANY will want Postscript compatibility, almost ALL will want to have both at a good price, and it seems that IF Atari can get it out and advertise for it, then Atari might still get the market share that they lost by letting it become vaporware.

ST Game Machine

Atari IS going to make an ST Game Machine, that will be a stripped down ST with Cartridge-based games to be played on an ordinary TV. Look for it to hit the markets during the first quarter of 1989.

If you MUST have the 68000 game machine...

NAME IT SOMETHING TOTALLY ALIEN TO THE ST LINE!

There is VERY little difference between the terms, "ST Game Machine, and.. "The ST IS a Game Machine"!!!!

MOUSE CARE

If you're using a computer equipped with a mouse, take time in taking care of your little opti-electro-mechanical friend. As the hyphens in the last sentence suggest, the rodent's got a lot going on inside, and some simple cleaning can keep it working for you.

First off, remember that more rodents die from mangled cords than anything else. So... keep the excess out of the way (coiled under the computer/keyboard).

Really, only three items need attention: The ball, the rollers, and dust removal. Now, that doesn't sound too hard, does it?

Now, The Procedure:

First, Remove the ball.

Second, Open the mouse up. Look around inside. There will be three or four rollers that the ball turns on. Check that these have no hair or other fibers wound around them, swab them with a Q-Tip dipped in rubbing alcohol. Then, blow dust out of the mouse's interior, particularly around the area where the LEDs are. (If that isn't apparent, just get as much dust out of the inside as you can). Put the mouse case back together.

Third, Wipe the ball off with a tissue moistened with alcohol, and put it back into the case. Don't forget to vacuum your mouse pad. (You do have a mouse pad, don't you?)

Program in GFA BASIC!



Ian Sinclair

Published September 14th, 1988

This book is designed for the absolute beginner on the Atari ST and the author assumes that the reader has no prior knowledge of programming in general or of GFA BASIC in particular. Both version 2 and 3 of GFA BASIC are covered and the important differences between these pointed out.

The book takes the reader through all the stages involved in the creation of a program from the initial program design, through the displaying of messages on the screen to the use of data statements, formulae, functions, loops and string handling. Later chapters deal with sub-routines, data files, screen and printer output, and program editing/debugging.

The entire book is written in an easy-to-understand style with numerous examples of this powerful BASIC for the Atari ST. It will provide the reader with the ability to write useful programs to meet their specific needs for a range of applications.

The Chapters

- 1 **Setting Up:** programming languages, compilers and interpreters and the general principles of programming.
- 2 **Printing Out:** printing rows and columns and placing the print.
- 3 **Using Variables:** assignment of variables, number types, working with number variables, string selection, strings and things, reading the data, getting data in and single-key reply.
- 4 **Working with Numbers:** operators, expressions, translating formulae, functions, print fielding, money amounts, precision of numbers, floating-point numbers, number notes and defined functions.
- 5 **Getting Repetitive:** loops and decisions, WHILE you WEND, alternative repeats and last pass.
- 6 **Strings and Other Things:** string functions, LEN in action, STR\$ and VAL, a slice in time, all right Jack?, middling along, inside, upstairs, downstairs, more priceless characters and the law about order.
- 7 **Complex Data:** put it on the list, manipulating arrays, rows and columns.
- 8 **Menus and Procedures:** rolling your own, put it on paper, foundation stones, first procedures, play away and dealing with details.
- 9 **BASIC Filing Techniques:** what is a file, knowing the names, disk filing, serial filing on a disk, opening the file, printing to the file, getting your own back, updating the file, changing a record, how it works, random access filing, random access commands, padding and an integer file.
- 10 **Smarter screens:** windows and messages, using colour, Menu windows, advanced graphics, data displays, graphs, elaborations, function graphs, bar charts, circles, arcs and ellipses and using the POLY's.
- 11 **Sprites and Sound:** identifiable flying objects, Frankenstein's fun, auto-sprite, bigger sprites, sounds unlimited, the bell, you shall have music and envelopes and waves.
- 12 **The Last Round-up:** merging, variables, error-trapping, brief notes, display commands, Meou use, program storage and disks and systems.

Appendices

- A Making a Program Disk
- B Boolean Action
- C INKEY Codes
- D Setting Medium Resolution

from

PARAGON COMPUTERS

17A, 5 Short Street.

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Ph (09) 221 3216 : BBS (09) 325 5160

GEM Multi-Tasking

30-Sep-88 20:50:31
Sb: #111893-#Farewell
Fm: JOHN RULEY 76227,117
To: Neil Harris 73256,3275 (X)

I just got the word that I can let the cat out of the bag NOW:

I spent last weekend at DRI in Monterey. GEM multitasks. Read that again: GEM MULTITASKS! No compromises-and a *nice* interface, with multiple "virtual consoles", each of which can hold several windows. Desk accs are gone-but, then again, they really aren't. The DESK menu still has 6 positions for application names, which can be used to launch any GEM app as if it was an accessory.

This is all running RIGHT NOW - I saw it work. And here are two biggies: I saw it running on a Hercules monochrome system (720x348 BW graphics) and it was updating as fast as the graphics would allow WITH FOUR WINDOWS OPEN, and you can run DOS programs in it! It traps the screen I/O and displays inside a window - I saw WORDSTAR running on screen concurrently with GEM output.

Folks - it's a whole new ballgame!

John.

From Compuserve

WORD PERFECT & ATARI

a few words from:

Jeff WILSON, Word Perfect Corp

....Once again, the situation has changed, probably for the last time for a while. I will still be working on the ST, but at this point primarily to support and enhance the existing version of WordPerfect. New major versions of WordPerfect and other products have been placed on hold for primarily one reason: WordPerfect Corporation has watched the presence of Atari Corporation in the US marketplace significantly diminish over the last year.

Atari has reduced the number of dealers supporting them, and been allowing only a minimal number of ST's into the US marketplace, has failed to support dealers, developers, or Atari owners, and has, quite frankly, lost WordPerfect Corporation's faith. WPCorp will not commit itself to several years worth of R&D for a market in this condition. Thehold will probably remain in effect until Atari market conditions change significantly. This is not an official statement, but I will not misrepresent the current state of affairs.

As a die-hard Atari fanatic, it disappoints me terribly to have come down to this. However, from a business standpoint, I understand and agree with the decision. I hope that WordPerfect Corporation will be able to complete and release the many exciting projects that have been underway since the release of WordPerfect 4.1 for the Atari, but this will only happen on the condition stated above. We will continue to fully support 4.1 for the Atari, in fact, you will probably see enhancements that would not have come about any other way.

Jeff R. Wilson

from Compuserve

The definition of an optimist is a programmer that writes his code using a pen

from Paragon BBS