

Tariland News

December 1999

Special Edition



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We can offer advice on ...

- Hardware
 - Software
 - Internet
 - Repairs
- ... Don't hesitate to contact us (details below)!

Tariland has offered support for New Zealand Atari users since 1982. We can offer advice on all aspects of Atari systems. Since October 1999 PC users are also welcome in the club. Most people contact us via telephone, mail or internet as opposed to club meetings, but we still have monthly meetings in Auckland.



NEXT TIME IT CRASHES TRY PRESSING THE REBOOT BUTTON.

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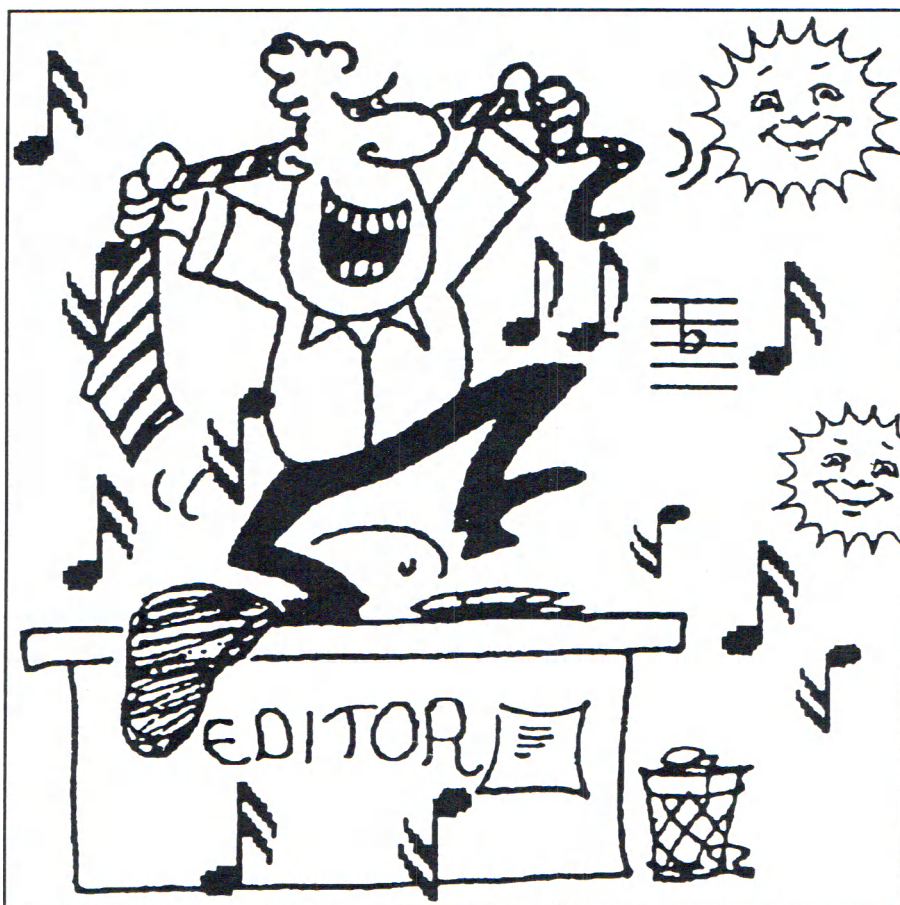
Meetings

Club meetings are held on the second Saturday of every month, except January, alternately at The Lutheran Church hall and the residence of Brian and Mario Becroft.

The next meeting will be on Saturday the 12th of February 2000 at the Lutheran Church Hall, End of Akiraho Street, off Mount Eden Road.

Message from the President

by Brian Becroft



Hi there everyone. A warm welcome to you all - and especially to this 'end of the century' magazine special! we have gone to considerable lengths to make this a magazine to remember. The last time we did anything like this was in February 1996. Remember the 100-page "BigMag"? This month as you will have noticed, our club magazine is more than a

trifle different! We have obtained more articles than usual from club members, contributors from overseas and the internet. The personal articles focus mainly on an overview of the past years. I have also included a look back at some of the cover pictures from past - since we have taken responsibility for the magazine. You will notice that there are some articles of lesser print quality, this is because we have scanned these articles directly from club magazines.

As for the cover, credits go to Mario Becroft, a fitting theme don't you think! And A lovely example of Mario's artistic talent too. He designed the picture using a technique called "Raytracing".

Mario has been quite active in the past two years developing new Atari products - to acclaim from the Atari Community worldwide. Read about his products in this mag and what he has in mind for future projects - it is rather surprising.

There is an historical focus on Atari History. The story of the ups and downs of the Atari Company and the innovations they brought to the

market-place - often before their time.

Because there is so much flash computer equipment around, people often question what relevance the little Atari ST can possibly have today. Well it does linger on, often people have modern computers and their Ataris running together. One common factor mentioned by most Atari owners who now use a PC is, they miss the simplicity of operation of the Atari. I myself use a combination of PC and Atari Computers. When I have been using the PC for some time and then go to use the Atari, I notice the same thing - I realise that just using a PC is often in itself stressful. It is a real relief to use the Atari!

Only recently we had an inquiry from a business here in Auckland about buying another Atari ST computer. In passing, we gathered that they put documents into envelopes to be mailed out in large numbers. There was mention that they sent out Telecom's bills and some council business. Sounds like a very large affair!

It goes to demonstrate a point - as long as your computer is doing its job and can be serviced, it is worth having, - I envisage that our stable of Ataris will be doing their job for a long while to come.

Enjoy!

Brian Becroft

Brian Becroft December 1999
President Tariland Computer Club

Double Density Discs for sale

80 cents each (\$8 per 10)
- plus postage -

Suitable for use with Atari
ST's with double density
floppy disc drive.



As always there will be no meeting or magazine in January, but we look forward to seeing you all at the February meeting.

Computers - My Ten Years

by Brian Becroft

I chanced upon computers in late 1989, so 1999 marks a ten year anniversary for me. My reason for buying a computer was to compose music. I was astounded at what was possible with a computer, a keyboard and the right software. I purchased a 1040ST, colour monitor, Notator music software and a dot-matrix printer.

Gee-whiz

Two things about the computer and music set-up were amazing to me - one was the ability to print out my music so easily and the other was how accurately it recorded my performance.

It was not until several years later that I understood more about the technical side of the software and the music editing possibilities.

To be honest, it was not until the early nineties when my son, Mario, was about ten, that I began to understand much at all about how the computer and the software actually worked. For about three years it was largely a mystery to me, and I found people hard to find who could help me to understand computers and the music software - even at the club meetings.

The beginning

One day Mario came home from visiting friends and showed me a long print-out of programming code he had written for a graphics programme on his friends Amiga Computer. He had read some books while on this visit and applied what he had learnt. From that point on Mario went ahead in leaps and bounds into the technical side of computers - mainly programming, although he has a strong artistic streak in him too. This helped me to understand what computers were about - he could explain things to me in a way which could be understood. It made me think a lot about education and how people learn, and as we had Home-Schooled Mario for quite a while I figured that computers had to be a great tool.

We were always held back by lack of money - we were on a benefit after

all, but I remember the day we bought the Atari SLM-804 Laser Printer, about the mid-nineties, and the thrill of seeing the crisp printouts of text and graphics. Our Computers interest focused a lot on

Desktop Publishing, and I managed to get hold of a legit. copy of Calamus.

We had joined the Tariland Club about 1990 or so, and several years later chanced upon producing the magazine. This was a big commitment and took most all my time and resources, for a time Mario also produced the magazine for a school he attended.

This connection to the Tariland Club has lead us to develop other interests especially with Mario. Essentially this was a progression of his initial technical bent - we always wanted to know and understand how the computer actually worked - no one seemed to be able to tell us, and we wanted to be able to make electronic projects and do repairs, this was not all clearly thought out - but it came to this in the end.

Hardware development

About two years ago Mario started making up his own electronic designs and since we were most familiar with the Atari ST computer, this was a good place to start. By now all will have heard of his products - the Mouse interface that lets you use a PC type mouse on your Atari - the monitor adapter that lets you use a VGA/SVGA monitor on your Atari as monochrome. Then came the two models of IDE Hard



Drive interfaces for the STFM and STE Computers. Lately he has released his PC Keyboard/PC Mouse Combo Adapter.

To someone who is NOT technically literate - like most of us - it may not be understood how much effort and work goes into making these seemingly small products. I have stood on the sidelines, so to speak, and witnessed the process whereby Mario comes by the idea for a product and works out the design and eventual manufacture of the final article.

I do participate in a certain fashion, we talk at length about all kinds of details and problems, mistakes and milestones of the project in hand. However, for the real work of designing and making the Printed Circuit Boards (PCB) Mario has taught himself everything he needs to know in this area of digital electronics. And you will excuse me I am sure, when I say how proud I am as his father to see him progress like he has, often in circumstances which are not at all ideal.

I help at times with the assembly of the products which involves soldering of very small components - in some cases SMDs - Surface Mount Devices. These are simply resistors, capacitors and other electronic components that do not

have wires like the bigger equivalent components. They are so tiny that they simply sit on the PCB top surface, between the copper tracks. This makes for a much more compact physical product. I often use special glasses to magnify the work area while I am soldering.

This design and manufacture (not yet a "business") hobby has motivated me to pull out all the stops I can in order to facilitate the progress Mario can make. This nearly always depends on the amount of money we can put in to any particular area. Unfortunately the Atari add-ons Mario makes do not generate sufficient money to splash out on big purchases.

There were two people that were important to Mario being able to "get up to speed" with the necessary minimum electronic equipment. His Mother presented him with a digital oscilloscope - 100Mhz/ 1giga-sample/second sampling rate! And his Grandmother gave him some start-up capital. You would be amazed at how costly everything is when you are trying to operate on a shoe-string. He has a lot of money tied up in all sorts of "chips" and discrete components. You see, now he has several products, there are the overheads of carrying all the components for a batch. The return may not be realised for a long time afterwards. Because his products are made in small batches, it is very difficult to get the prices down as low as we would like, and the number sold is small. The result is that he does cover costs, although the time factor for development is another question. The ideal position would be to make a product which has promise of mass sales. Then he would be making some reasonable money. This is not possible when making products for the Atari Computer. I look upon this whole "experiment" as simply a part of his education. We could not find a suitable kind of education in the "school system" or it was not flexible enough to suit our lifestyle and "pocket". So, in effect, we have created the classroom at home, and I feel sure this kind of approach which is based on self-initiative could be applied in other situations to facilitate self learning.

Creatatape

To continue with my story - as the Tariland Club has shrunk over the years, now steady at 20-30 members, we have become all the more involved with the support for the Atari computer. In the early nineties I set up my Music Studio (CREATATAPE). In here we have a Stacy Laptop and a C-LAB Falcon Computer, running Notator and Cubase Audio respectively. For a time I made up CDs for people, mainly bands, this has now become so cheap that there is not any money in it. I made three CDs of my own compositions and more to the point - have helped out so many people over the years with the finer points of their music software and the repairs to their Computers!!

Changes

We have seen the Tariland club change in the ten years since 1990. Then it was a big affair and Atari products were still commercially supported in the shops and so on. Now there is no commercial support by shops or dealers, and the club has become the focus for support and advice. The club meeting is not the focus is once was, it is the ongoing advice on a daily basis that fulfils current needs.

The really strange paradox is that we can offer a far greater level of support now than ten years ago. The two reasons are: Mario is an expert designer and repairer of electronics and Ataris! But the other as yet unspoken "world" is the INTERNET! Yes, we were one of the early ones about five years ago now. Atari Owners, Chris Thorpe and John Clarke, came to Auckland and started the Internet Service Provider (ISP) called "ICONZ". I well remember going into "town" from where we live at Kumeu on the outskirts of Auckland to visit Chris just off Queen Street to see their "Control Room". I still remember that John had obtained these huge native wood counters, I think from a bank, and all the computers and large monitors were on them. They ran the Mosaic Web Browser I recall. It was all so marvellous and thrilling to be connected. We had a "fast" 2400 baud modem, we could do all the

common things like email, Usenet groups and web browsing, at least that is the services I used the most. We used a "shell" account, whereby everything is displayed as text - no pictures. I hold that even today this is the fastest way to get around the 'net.

Over the years we obtained a better Modem, one that Mario has set up on our TT030 and we can receive Faxes, it also operates as an answering machine - very handy indeed! Mario has the TT030 running a version of the "Unix" operating system, we have five computers on our network, a mixture of Atari and PC computers. Life became a lot easier for us (the TT030 is the centre of our computer set-up) when we stuck a lot more RAM in the TT030 - I think there is around 40MB of RAM in there now. I have an old 486 on the network down the other end of the house at the breakfast table. This means I can read my email and browse my favourite Usenet groups over the rice bubbles, or surf the web for that matter. I must say that a 486 computer is mighty sloooow! But it gets there. Another 200Mhz PC is among others on the network where I do alot of my graphics. When Mario finishes his SCSI-to-Ethernet Adapter we will connect the Music Studio onto the network. That will bring the Falcon and the Stacy together with the other five computers. I can't wait for Mario to finish this project!

I hate Windows and what I call that fool who dreamt up such a nightmare and then monopolised the PC market with such an inane product! Where ever possible we try to use non-Microsoft software and the Unix operating system on our computers. A Windows computer disdainfully occupies space out of the lack of choice in the market place. (for our pocket)

New projects

And what are the latest and greatest things we are doing with Computers?? Mario has always been interested in Computer Programming, he has several little games that he is entering into a competition - to be drawn on Christmas Day of 1999. The decision is made on the maximum votes in

your favour cast by people all around the world on the Internet.

I know Mario has designs that he is working on - the SCSI to Ethernet Adapter for all Ataris. This will make the job of networking your Atari machines possible. Then there is the VME graphics card with high resolution true colour graphics. This is aimed at TT030 or Mega STE users, as these type of Atari Computers have the VME expansion slot. Further on into next year we want to then adapt that graphics card to suit the ST computer. This will be a first for the ST computer since it was released roughly fifteen years ago. The ideal at this stage is to have the ST graphic card and CPU accelerator. This upgrade is a very major one and will be expensive, but then again, if you are still a loyal user of the humble Atari ST then you will be able to support decent graphics programmes and perhaps more appealingly - get onto the Internet and see the pictures in full true colour as one fully expects to these days. The old ST supports only black and white in the high resolution mode, which is the only resolution worth worrying about for serious use. Well, the ultimate upgrade for the Atari ST Computer is coming - hopefully later on next year. It will be a worthwhile challenge for Mario to design this project, I understand from what he tells

me that one can easily make a graphics card these days by using of the shelf graphics chips. Well he is not taking that easier path, but instead designing the whole graphics circuitry from the "ground up" and using the modern FPGA chips. These wonderful chips are programmable, so he does all the hard work of circuit design in the computer software and then "dumps" this into the FPGA chip. FPGA stands for "Field

Programmable Gate Array". This gives a great deal of flexibility for the design of digital electronics, as the chip can be re-configured quite easily to try out a change in the design. As you may appreciate, what Mario is up to is complicated and getting the design to work needs knowledge, tools, time, and perseverance!

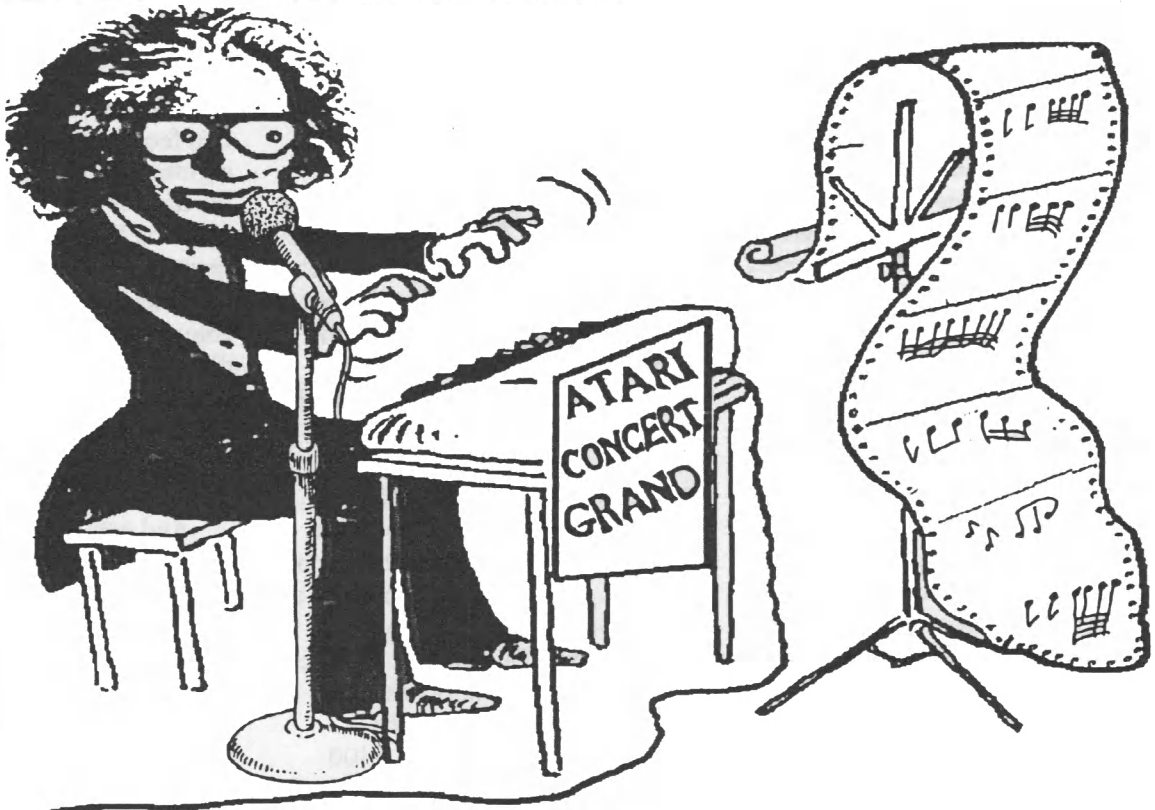
Family research

Of my own computing, I have been researching our family history, now this is not quite what you may think. I am not so interested in our family tree - another member of the wider family has done this job. What I am using the computer for is recording conversations of relatives and scanning on my flatbed scanner all the photo albums, documents, letters etc. This also involves transcribing the recorded conversations to add the known text information to the photos - apart from the stories that people have to tell. Then the aim is to reference all this material with a database which can generate reports to your criteria. Having all the photographs also means you are able to print out photos or albums to needed requirements, and to make copies of the whole collection as this is all recorded onto CD-ROM. Well this is quite a job I can tell you. But I figure the job only has to be done once.

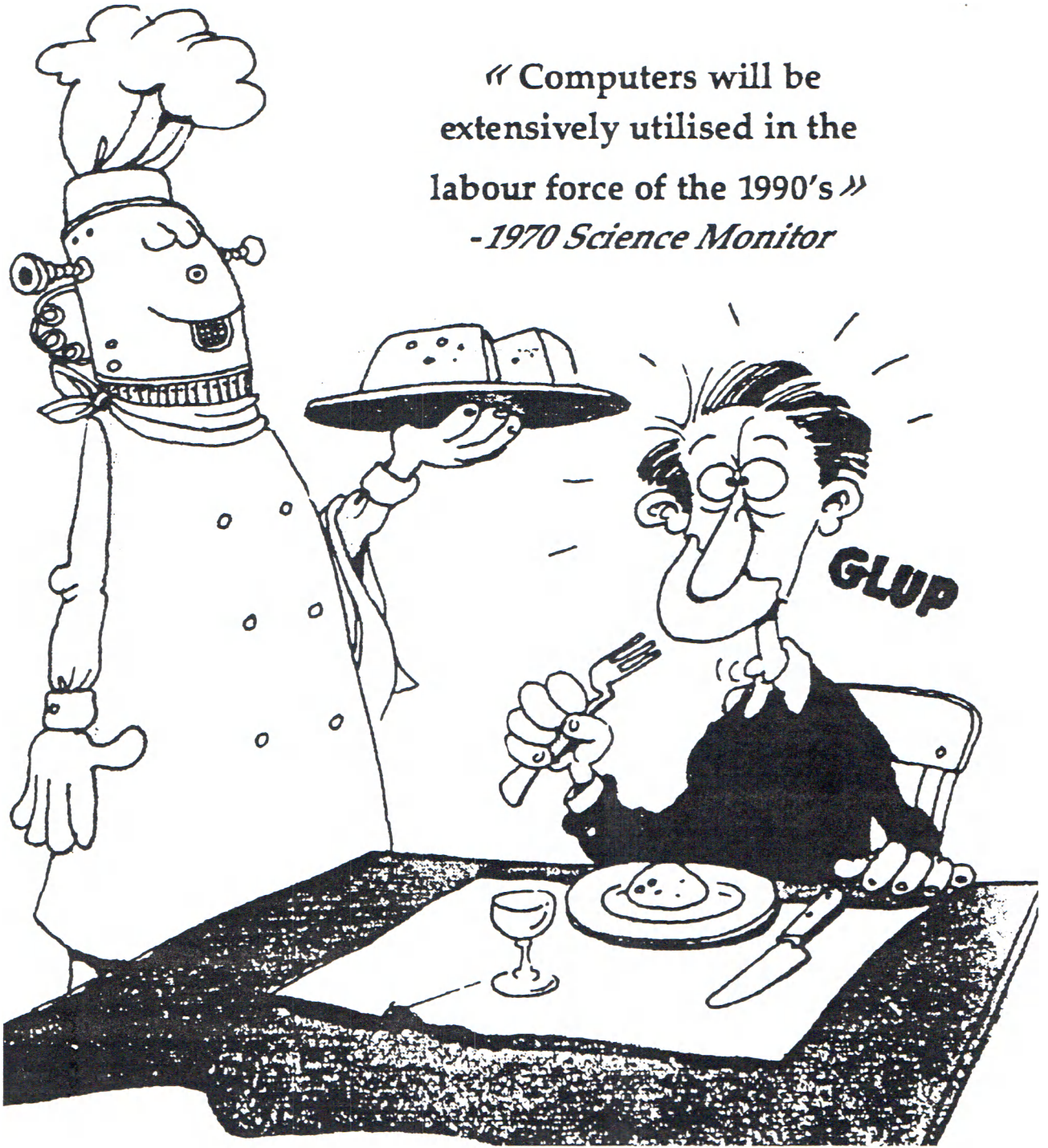
For the past two years Mario and I have designed Christmas Cards on the computer, this year we did six and have had good feedback. Go here to have a look on my web page! <http://gem.win.co.nz/brian>

Conclusion

Well that sums up pretty much what we've done and are doing with our computers over the past ten years. What does the future hold? Hard to say, but I hope Mario progresses and one day earns some decent money for all his efforts. I personally have a project I hope Mario can help me with. This involves setting up a home security system with automatic video surveillance - one that catches the crims BEFORE they get a chance to even get inside your house. And lets you know the instant they make their approach. I am upset by all the home invasion type of crimes we have in our country. I am sure that people do not need to be killed like they sometimes are by this sort of crime. With a little bit of capital we could develop a foolproof system. One would like to see this available for ordinary home owners. One day we will do it, maybe it is the way that we will eventually get off this benefit and make some money.



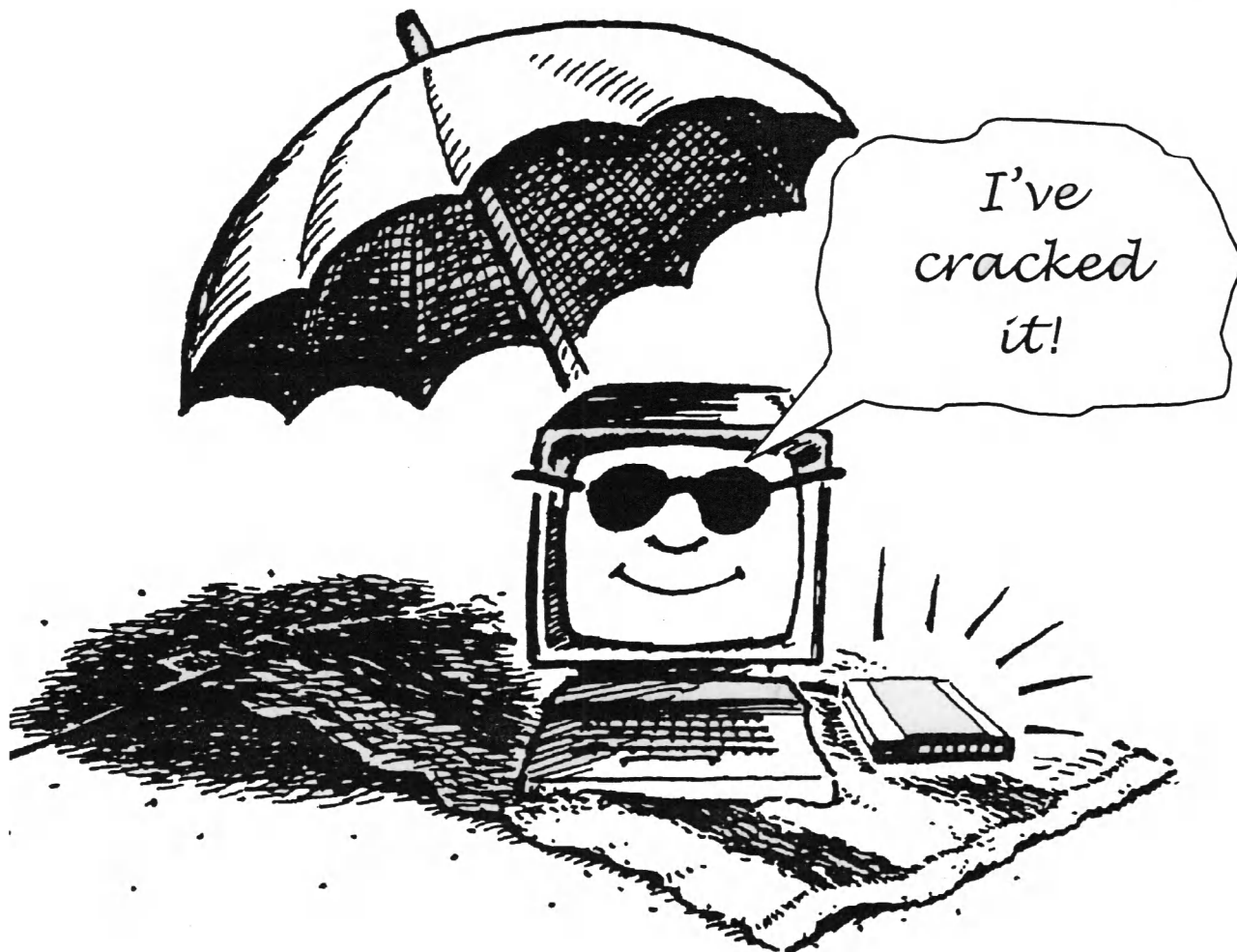
“ Computers will be extensively utilised in the labour force of the 1990’s ”
-1970 Science Monitor



The name is Baud....., James Baud.

All computers wait at the same speed.

BREAKFAST.COM Halted...Cereal Port Not Responding.



Is Life a Beach?

With the mainland of Europe in Hitler's grasp, the British government in 1940 organized its best mathematicians and electrical engineers under the leadership of Alan Turing, with the mission of cracking the German military code. It was recognized that with the German air force enjoying superiority in the skies, failure to accomplish this mission was likely to doom the nation. In order not to be distracted from their task, the group lived in the tranquil pastures of Hertfordshire.

The result of the group's exhaustive efforts was a machine called Robinson, named after a popular cartoonist who drew elaborate "Rube Goldberg" machines. Robinson was the world's first operational computer. Robinson and a later version called Colossus succeeded brilliantly and provided the British with a transcription of nearly all significant Nazi messages.

Remarkably, the Germans relied on Enigma (their enciphering machine) throughout the war. Refinements were added, but the world's first computers built by Turing and his associates were able to keep up with the increasing complexity. Use of this vital information required supreme acts of discipline on the part of the British government.

Cities that were to be bombed by Nazi aircraft were not forewarned, lest preparations arouse German suspicions that their code had been cracked. The information provided by the Robinson and Colossus machines was used only with the greatest discretion, but the cracking of Enigma was enough to enable the Royal Air Force to win the Battle of Britain.

The world's first software engineer

The first person to write seriously about programming computers to emulate human thought was Ada Lovelace, the companion and assistant to Charles Babbage, the 19th century inventor of the "Analytical Engine," a "mechanical" computer. Babbage's computer never worked, but its design was a remarkable foreshadowing of the design of modern computers over a century later.

Although she never had an opportunity to run (and debug) her programs, Lovelace wrote programs for the Analytical Engine and is regarded as the world's first software engineer. She also wrote essays on the possibility of computers playing chess and composing music. She finally concluded that though the computations of the Analytical Engine could not properly be regarded as "thinking," they could nonetheless perform activities that would otherwise require the extensive application of human thought.

excerpt from article by Ray Kurzweil

EXPLORER 32



MUSIC

by Brian Becroft

*Explorer32 for Roland D-Series Synthesizers
A great programme for your Atari computer.*

I bought this Editor/Librarian in about 1990 and have had a lot of use out of it over the years. I must admit I have used the librarian side of it only to import new libraries in and then dump down to the Roland D110. There were several libraries with it, (one being for the D-50) which makes for an interesting spread of sounds straight off.

For those loving the sound synthesis side of things, you're going to have a ball making your own libraries! It is an absorbing task in itself and can take you down many inward sound journeys in the process. There was a sound I made once which I really liked, but I lost the settings and haven't been able to get it back since. Those into sound synthesis in a big way get to appreciate the magic of all the noises these synthesizers are capable of but it could be a fascinating thing even for a non-musical person! I haven't generated any libraries of my own but I had a lot of fun with the automatic mixing functions for making new sounds, and just great for tweaking existing sounds. For those that have Notator, put Explorer into a SoftLink partition. When you need to do anything with a sound it is a quick flick of the keys to call up the Explorer programme and then back to Notator.

So if you have any of the Roland synthesizers like the MT-32, MT-100, E-10, E-20, D-5, D-10, D-20, D-110, D-50, and

D-550, then I'll make your day. Check this programme out, it is very powerful and convenient. In the Editing screen, all the functions of the whole synthesizer are on screen, actually a very fast scrolling double-screen. There are no dedicated screens popping up when you click on wave forms, everything is as you see it on the screen, all four partials worth, for those that understand the basic sound block of these Roland boxes. Any envelopes are easily dragged with the mouse, a handy feature being that you only need click near the envelope point for you to engage it for dragging to new positions. There is none of that tiresome clicking the mouse in a field which you have to type a number in. There are numbers too, if you want but they scroll fast and with control. Just point and click all the way, and it is very fast. Want to copy an area, just grab it with the mouse and drop it where you want. Interested people really should check it out! Michael Hayden had a good time writing this programme and the result is an intuitive interface which is a joy to use.

Back in 1990 I paid \$300 for the programme. Michael now has it as Sharware. If you like the programme, then the payment of DM50 is very good value. It is handy getting the manual, and also some existing libraries to boot. If you want a new angle on sound synthesis, then don't hesitate to order this disc from me. Tel. No. at front of magazine.

Computers, Hardware and Internet *by Mario Becroft*

The following article was originally written for and published in the Atari Computing magazine.

A brief history of Tariland

The local Atari club in Auckland, New Zealand has been running since 1982 when the 8-bit computers were still state of the art. It is called Tariland, which represents Atari with the A removed in order to avoid infringing on Atari's trade mark. In the past the club had a large membership but in the 1990's, along with everything to do with Atari, it began to fall into decline.

My father and I came into the club in around 1992 and when the membership consisted of about 10 enthusiasts. At that time Tariland was to be dissolved, but we took it up and revitalised the monthly magazine and all the other services which Tariland provided. In a couple of years we had reached a peak of 100 members, our meetings in Auckland were regularly attended by many Atari users, and interesting articles filled our magazine which gained a considerable reputation among various Atari clubs around the world.

Since then we have had to reduce

our efforts and our membership has fallen from that peak, but we still manage to publish a small monthly newsletter and assist a number of Atari users from around the country.

Atari made some very good decisions and some big mistakes, but what ever you may say, their machines were ahead of their time in many ways, and even now I find I still use my TT for the largest part of my work. It forms the centre of our computer room which also includes four pentium PC's and other Atari equipment. However it is true that the TT would long ago have fallen into disuse if it was not for the excellent MiNT operating system which is continually being updated and provides networking facilities comparable with any modern UNIX system, which is simply far in advance of anything else available on the Atari. Although there is little Atari development going on, vast amounts of up to date software from the UNIX world can all be used on the Atari thanks to MiNT.

Since the hardware can be maintained indefinitely, I see no reason why Atari computers, and of course the new clones, will not continue to be used for many years.

Hardware developments

Apart from publishing Tariland's monthly magazine and attending to other club business, during the past few years I have been able to develop several useful hardware devices for Atari computers.

In the first place I designed the Serial Mouse Interface. With Atari mice becoming scarce, an interface to enable the abundance of PC serial mice, trackballs and touch pads to be used seemed useful. A serial mouse has a RS232 serial interface, this being totally different to an Atari mouse which is a passive device. The serial mouse interface is based on a Motorola microcontroller, or MCU, which contains essentially a simple 8 bit computer on a chip. The MCU is programmed to transform the serial data into 2 Atari mouse signals per axis. The phase relationship of these signals allows the computer to determine the direction of movement.

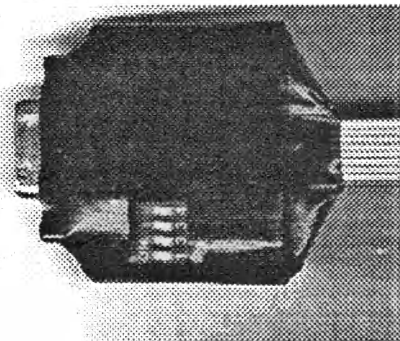
Although the concept is simple obtaining smoothness of movement presented some difficulties, but these were overcome and the result was very successful.

Initially I had no particular idea of making this product available for sale, but when many people enquired about it I finished the design and made it presentable. Until now this has been the most popular of my products having sold close to 150 units, and although the initial rush is over, I am still selling more each month.

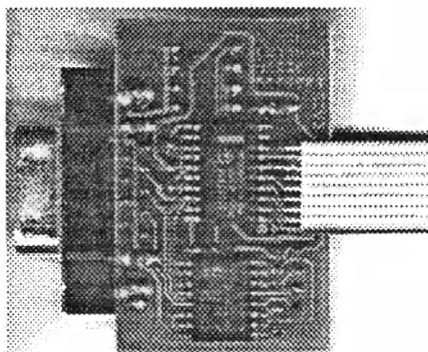
The next project that I completed was an IDE interface for the ST. Atari already used an IDE interface in the ST Book and the Falcon, and my one is compatible with these. There is really only one way to design such an IDE interface and there is not much to it in principle. However fitting the board in the ST proved to be difficult. The board attaches to the CPU, but there is very little room above the CPU in most STs, and there are no less than three different locations for the CPU depending on the motherboard revision. Making the board fit every combination was difficult, but I think I have succeeded by using a short (although expensive) ribbon cable to connect the board to the CPU.

I later completed an STE version, which is fundamentally the same but as the STE's CPU is almost invariably socketed, I was able to make the installation much easier by having the board attach to the CPU socket with no soldering or pin cutting required.

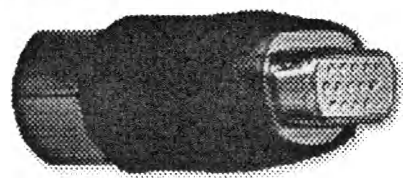
Despite all this, I have been working slowly on a fourth project for over a year now, and although it has proved to be one of those nightmarish projects that never seem to end, I have finally completed it during the last few weeks. I am referring to my PC AT keyboard interface, called Qwertyx. The Atari keyboard contains a microprocessor



The Serial Mouse Interface



Inside the Serial Mouse Interface



The VGA Monitor adapter

known to programmers as the IKBD, which handles all keyboard, mouse and joystick operations, in addition to several other behind-the-scenes functions. Qwertyx completely replaces the IKBD with an 8-bit Motorola MCU containing my own program. This program provides the same API as the Atari IKBD, but PC AT keyboard, Serial mouse, Atari mouse and Atari joystick interfaces, as well as a configurable keyboard map stored in EEPROM and a number of other features. All of this is configured with a GEM program. Developing and debugging the firmware took a lot of work, but I am very pleased with the results.

Future projects

Currently I have two Atari projects "in the works," namely, a SCSI Ethernet adapter and a VME graphics card, both of which I hope to finish towards the end of the year, all going well.

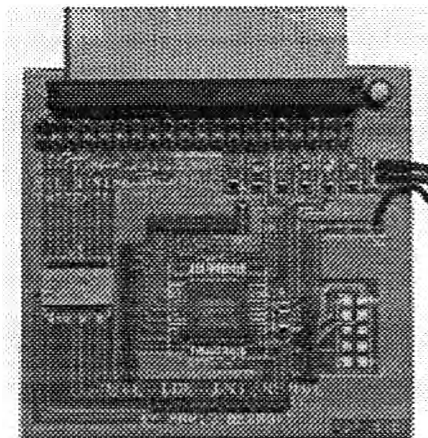
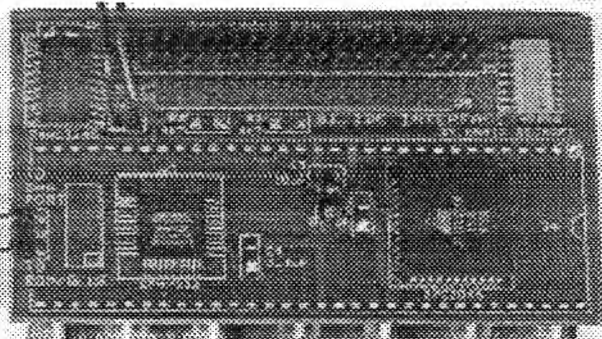
The Ethernet adapter connects to an Atari computer via the SCSI port, and works with the Atari ST using a SCSI host adapter, as well as the TT and Falcon with their inbuilt SCSI interfaces. A possibility is an ACSI version for attachment to ST's without a SCSI host adapter. With this device and software such as MiNTnet or STiNG (for which drivers would be provided) the Atari computer could connect to any 10 megabit ethernet using TCP/IP. This enables data to be transferred

between computers at speeds approaching a megabyte per second under optimum conditions, which is not much slower than some hard disc drives. With appropriate software, hard disc drives and printers can be accessed via the network, and an Atari computer could easily operate in a network with PC, Macintosh or other computers.

The VME graphics card suits any A24:D16 VMEbus system, including the Atari TT and Mega STE, and provides colour graphics capability suitable for connection to a (S)VGA monitor or another video display screen. The advantage of the card is that it provides much higher resolutions and more colours than are otherwise available. Resolutions up to 1280x1024 pixels are achievable at 65,536 colours without loss of speed.

The heart of the VME graphics card is a large Altera FPGA and 4 or 16 megabytes of high speed SDRAM. This means that engineers could use the card for all kinds of other purposes apart from graphics output, and the card is designed to be very flexible in this regard. But for most users, the card would be pre-configured for VGA graphics output.

A device that I designed some time ago but never finally finished is



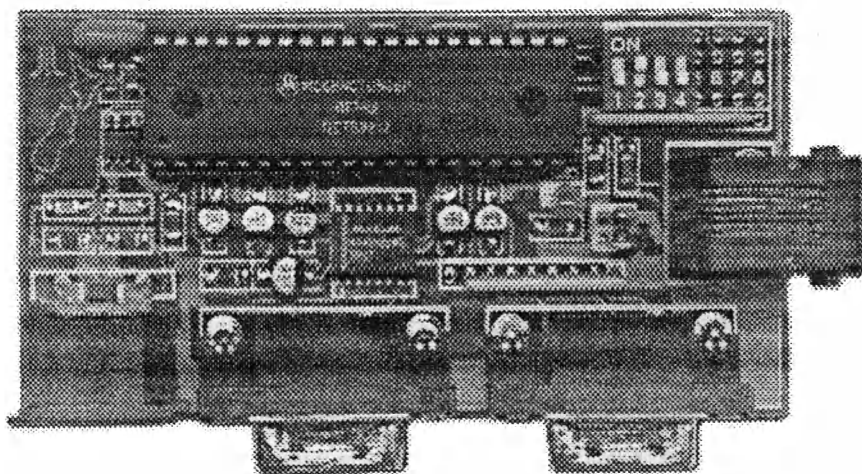
The STFM (top) and STE IDE interfaces

a CPU accelerator board with cache, which enables a 68000 CPU to be attached running at any clock speed, limited only by the speed grade of the CPU being used. Large speed improvements are possible because the 256Kbytes of cache memory operates at the full speed of the CPU, ensuring that the CPU is not slowed down by the ST's 8 MHz memory subsystem.

Later I intend to combine many of the above designs, including the CPU accelerator (which would be updated to utilise a 030 processor), into a single card for Atari ST and STE machines, forming a single comprehensive upgrade. This is something I will be doing next year.

In conclusion

I have already written at length and I have not yet mentioned my various Atari programs, including the Currency Converter and several GEM games, however you can read about these and my other projects on my WWW site or contact me by email. I have not had much contact with other Atari developers but I would be most interested to hear from anyone who would like to talk about any of the projects that I have been working on.



Qwertyx - the PC AT keyboard and Serial mouse interface for Atari machines

My internet addresses are changing and as I write this I don't know what they will be, but please check my advertisement in this issue. This will also mean that by the time this magazine is published you should see me around on the usenet again, from which I have been absent during this year owing to problems with my news server.

I would also like to take this opportunity to thank all the people who have put such a great deal of effort into publishing this excellent magazine and wish them all the best. And thanks also to all the dedicated Atari enthusiasts who keep the platform alive, and will continue to do so for the foreseeable future.

A lot has happened since I wrote the above article, originally published in the final issue of the Atari Computing magazine. I have made significant progress on the SCSI ethernet and VME graphics card, both of which I hope to demonstrate in operation before the end of the year.

Qwertyx

Qwertyx, the combined PC AT keyboard and Serial mouse interface for the Atari has been well received with orders coming in from several Atari dealers around the world. The last stages of development were somewhat rushed but fortunately no major bugs have been observed and all feedback has been positive. I only wish I could sell the units at a lower price, but this is impossible with the small quantities associated with the Atari market. Unfortunately this is one thing that Atari users have to put up with, as the economies of scale cannot be realised in this small market.

About Ethernet

The IEEE 802.3 standard defines a networking system commonly known as Ethernet. Originally developed by Xerox, Ethernet after some revisions was adopted as an international standard and is now one of the most widely used systems in the world for interconnecting computers. It is a very simple, cheap and effective way of connecting many computers for the transfer of data.

With ethernet, data is transmitted serially through a single wire at a rate of 10 megabits per second, which allows real data transfer rates in the region of 1 megabyte per second to be achieved. This high data transfer rate is ideal for transferring large volumes of data or enabling a large number of users to utilise the network.

Ethernet provides the communications medium, and any number of services may utilise the medium to do useful work. Most networks use TCP/IP, a standard system for transferring data in a reliable manner over various physical media. TCP/IP is well supported on the Atari and using a TCP/IP implementation such as MiNTnet discs and printers can be shared between computers (including other Atari or PC compatibles) and any number of other network services may be used including email, ftp, http and so on.

While RS232 serial links can be used on all Atari machines, ethernet is about 100 times faster than fast RS232 serial ports and this speed, approaching that of a hard disc drive, makes a network much more useful. Also unlike RS232, which supports point-to-point connections with only two computers, ethernet allows many hosts to be attached to a single network.

Unfortunately, until now the only Atari machines capable of utilising ethernet are the Mega STE and TT, via VMEbus cards, and the recent Atari clones with ISA and PCI busses. The SCSI ethernet adapter that I am working on, however, would enable any Atari computer with a SCSI port (including ST's with a SCSI host adapter) to connect to ethernet.

The Internet

The computer that we have installed at Web Internet in Auckland on behalf of Tariland is performing flawlessly and we have already received over 20,000 "hits" to our WWW page from at least 1,500 unique IP addresses. Most of these were to my own WWW pages that deal with my Atari hardware products since the Tariland WWW page does not contain much useful information yet. However I am working on that when I have time, and I have a

couple of projects in development including a database of links to Atari-related WWW sites.

We also have a mirror of Hallvard Tangeraas' Atari Hyperlink Launchpad and FTP site hosted on our machine which all Atari users can benefit from (these are also available from several other sites around the world). The hyperlink launchpad contains a wealth of references to WWW sites of Atari dealers, developers and users, while the FTP site includes a number of useful programs for Atari users. There is an article on the Atari Hyperlink Launchpad elsewhere in this issue.

We can host WWW pages for club members and any members who are interested should contact us at the usual address.

Dial-up internet access

I would also like to remind readers that Web Internet is offering a special deal for Tariland members who would like to access the internet; the usual \$40 setup fee on new accounts will be waived for club members. Web Internet has dial-up numbers in Auckland and other parts of the country, and very competitive pricing. Please contact us if you are interested in getting an account with Web Internet, and we can supply the necessary Atari software. (We can also help setting up with other ISPs.)

We have received enquiries from members outside of the Auckland region in regard to the above services. Unfortunately at this time Web Internet is not able to offer shell access outside of Auckland. They do, however, offer the usual PPP access in the following locations: Whangarei, Kaitia, Hibiscus Coast, Rotorua, Hamilton and Tauranga.

The situation regarding shell accounts is caused by technical limitations and is not likely to change in the near the future, but if it does we will be sure to let members know via these pages.

Shell or PPP?

In the early days of the internet, users would dial in to a UNIX computer to access the internet using a command line interface known as a shell. Any personal computer equipped with a modem and terminal emulation program was sufficient to

talk to the big UNIX computer, and from there users could access computers all around the world via the internet.

Nowadays most people connect to the internet via PPP. With PPP, the user's personal computer becomes part of the internet, rather than just a terminal attached to a computer that is attached to the internet. This offers much more flexibility in the user interface, since most PC's have a graphics display that cannot be fully utilised by a text-only terminal emulator. It also means users can run any internet software on their PC, instead of being limited to what their internet service provider offers.

On the other hand, PPP requires much more computing power (although this is not significant with modern computers), is much more complicated from the point of view of the user, and typically is slower than shell access because all data being accessed must be transferred via a slow modem to the user's PC. Also on slow computers the client

software often runs slowly compared with the simple terminal emulator used to access a UNIX shell.

PPP can be used on all current Atari computers, but shell access is often easier and faster, and the only option for older 8-bit machines. The main disadvantage of shell access is that the display is text only, with no graphics.

Not many internet service providers offer shell access any more. This is why we have put in place arrangements with Web Internet to offer shell access for club members in the Auckland region. Regrettably the shell service is not available in other parts of the country.

UUCP

In Auckland we are also able to provide, via Web Internet, a UUCP service for email and usenet. Email, where messages are sent directly to a specified recipient, and Usenet, where messages may be read and posted in public forums, are two of the most popular services available

via the internet, and although both can be accessed with a PPP or shell account, UUCP offers several benefits. For one thing UUCP is easy to set up and use (although maybe not as easy as a shell account) and UUCP software is available for all Atari machines.

The key feature of UUCP as used for email and usenet, however, is that all reading and composition of messages is done offline. The time spent online is kept to minimum because the computer can automatically dial an ISP, transfer messages and disconnect without any user intervention. This reduces costs and keeps a telephone line free for other use. While this is also possible with PPP, UUCP is in our opinion much easier to use and more flexible.

UUCP is not useful for interactive services like the WWW and FTP, however, so most people would have a PPP or shell account as well. (Web Internet can provide all three services at no additional cost.)

Home of the Tariland Computer Club

ariland
Computer Club

Who we are

Tariland is an Incorporated Society which has existed since 1982, our aim is to support users of Atari computers, including the Atari ST, STE, TT, Falcon and Atari clones, and any other Atari equipment.

We currently have about 25 members from around New Zealand. The membership fee is only \$30 (New Zealand dollars) per year, and members are entitled to receive our monthly magazine or newsletter and attend monthly meetings in Auckland. We do hardware repairs at no or very low cost for members, and we import Atari software and hardware. Members can telephone us at any time and we will help with any hardware or software problems.

Part of the Tariland WWW page as seen in the CAB WWW browser running on an Atari TT. Although the page currently lacks content I am working on more useful contents for the page. Maintaining a WWW page takes a lot of effort, especially in regard to hypertext references to other sites. Other sites often move to new addresses, making references invalid. One of my current projects is an automated system for maintaining a searchable list of WWW references and ensuring that the addresses are kept up to date.

Report From The Deep South

by Mike Chirnside

Having recently sent off my sub to Tariland I thought it would be a good time to review some of my Atari highlights for the year.

On the hardware front I have recently installed a high density drive kit from Systems Solutions. The kit arrived by courier a week from my phone order--great! The installation involves a fair bit of soldering to chips etc and is not helped by a pretty dodgy manual. I had a practice on some old computer parts and gave it a go. It's now been working for a couple of months and its nice to be able to use HD disks, with my DD external drive it gives me quite a bit of flexibility. The downside is a floppy is always going to be slow! The drive also occasionally struggles to read DD disks. Generally it has been reliable and works well.

While I was on the phone to System Solutions I also splashed out on a copy of NVDI, not the latest version but an older (and cheaper) version. This version uses an improved version of the old bitmap GDOS rather than the newer font systems used by newer versions. If, like me, you are mainly interested in the software acceleration, ver.2.51 is excellent value. It has made a huge difference to realtime editing in my sequencer (KCS Omega) and for me, this alone has well and truly justified the purchase. Not all programs show such a dramatic improvement but most things appear a lot slicker. A couple of minor niggles when entering Tiger edit in KCS Omega I have to click on a menu item to get the mouse to appear. DC Xtract which I run as an accessory still works but doesn't display the files to be extracted.

Continuing on the software theme it's great to see the continuing development of internet software like Newsie and Sting which will run on a standard ST. With these programs and CAB I've had lots of fun.

I was going to talk about some of the neat software I've found on the net but I might save that for the next newsletter.

In the meantime I will finish with a plug for Tariland. It's a pity I can't

make it to meetings. But it's great to know that Atari support is close at hand.

Feel free to contact me:
Mike Chirnside
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Dunedin
Ph: 03 454 3092
email: mikec@earthlight.co.nz



Two men were arrested, one for drinking battery acid and the other for eating fireworks. At the police station, one man was charged and the other was let off.



Using the program 'Outline Art' we created this 'Tariland Circle.' We used it in our advertising and in the magazine. Members may remember other kinds of graphics in a similar vein. They were all drawn using the same program.

Milan "Your Personal Computer"

by Jörgen Nyberg

I have noticed that at least in Europe, there is a lot of interest in this new "Power Computer". Here are some of my thoughts after using it for 6-7 months. I used to have a STE with 4 MB Ram and a SM124 monochrome screen. So it was quite a leap to go to 48 MB Ram and a 17 inch SVGA. And I really must say that I use my computer much more for serious work now than I used to.

Buying a new computer

I gave it a lot of thought before I decided to splash out the money, but since I already had been thinking about buying a PAK 68/3 for my STE I already had half the money saved. And it was only 1/3 of what a decent MAC would cost me and about half a PC so I decided to stay with TOS.

Then it was time for the waiting game, it was something like 6 weeks delivery time. The main reason was that they have a production rate slightly over 50 computers a month. And they sold them faster than they could manufacture them, that's the main reason why they haven't exported them outside of Europe.

Hardware

The CPU is a MC68040 at 25 MHz with built in Fpu and cache. Speaking of the cache, some older programs don't work with it on but if I switch the cache off, start the program, and after its loaded I switch it on, then everything is fine. Then there's a 512 KB Flash-Eprom for the TOS, which is upgradeable via software, 3 slots for ISA-card, 4 slots for PCI-card, 4 Simm slots for 72-pins EDO-ram, 2 IDE-slots. It came with 16 MB ram installed, mouse, keyboard and a S3-Trio graphics card with 2MB onboard ram that can go up to 608 x 800 in 32 bits colour. I'm using 1024 x 768 in 16 bits colour to get some more space. Then I also added a little extra, 48 MB ram, useful if your working on big pictures and have 4-5 prg's working at the same time. 16x CDRom, useful because you get a CD with software on. SCSI card so I can use my old hard disks.

Milanblaster, a Soundblaster card with software. Zip-drive (250MB) as backup, USRobotics V.90 modem, HP Deskjet 690C printer and a 17 inch Hyundai SVGA-screen.

Software

First there's Milan-MultiOS 1.2 and Ming (desktop). Tos 4, HDDriver 7.6, BubbleGem 0.7, QED 4.10, ST-Guide, Aniplayer 2.02, Gemdemo 0.5, GemJing 1.30, LHarc 3.12, Olga 1.3, Start Me Up 7.02, STZip 2.0, Multistrip 1.4, Toswin2, Bigdos, Metados and 2 games Dr Who and Swap. Home-versions (some functions disabled) of Arthur 1.8, Draconis 1.0b, Papyrus 6.20, Smurf 1.04 and Texel 2.1.

Milan-Multi-Os

Everything was installed when it came so it was easy to get started. Basically it's NAES although they call it Milan-Multi-Os. That means preemptive multitasking which is easy to get used to. I have only started the computer in single tasking one time, to test some old software. And because it's basically NAES you can upgrade the kernel (freeMint).

Ming

The desktop is Thing 1.27 although it's called Ming, at least I think there's no difference, I haven't spotted any. It's a modern desktop with a lot of functions. One can use Cut and Copy between windows or Drag&Drop. Real time scrolling, with selectable speed. Automatic sizing and placing of windows. Selection of files in background windows. Auto-locator, press "z" and all files beginning with z is marked and then continue with the second letter and so on. Right mouse button can either act as double click or you can have context menus on it. You can choose font, or have mini-icons, group windows, alias, eCPX, and much, much more.

Compatibility

Generally speaking most things work, some older programs don't like multitasking. Games does not work

because they call the hardware direct, except GEM games which work just fine. But I'm not much of a game player, I use it mainly for internet and office work. For word processing I use Papyrus 5 (latest Swedish version) and Qed. For internet I use Sting, CAB, aFTP and MyMail. When I'm coding on my homepage I use Joe. And for graphics it's Smurf and Positive Image.

Final words

I really can't compare it with my STE, the leap is too big. I mean just starting programs is now a matter of seconds instead of almost minutes. The feeling of the speed is something like a PowerMac G3 100-133 MHz (my personal opinion). And having all those lovely pixels is a blessing when working in several programs at once. If you are considering upgrading to a new computer and want to stay with TOS there's really just two alternatives. Milan or Hades and considering that you get something like 2.5 Milan for the same price as one Hades there's no competition I think. I am very pleased and don't regret the buy one second. If any of you have questions about anything concerning Milan don't feel afraid to ask me, I will try to answer, no questions are silly or stupid. There was one guy who wanted to test if a database from -85 worked before he bought a Milan, one would think that a new database would cost him peanuts but he "was used to it" (yes it worked).

Jörgen Nyberg

E-mail:

jorgen.nyberg@mailbox.hogia.net

Homepage:

<http://www-pp.hogia.net/jorgen.nyberg/indexc.html>

*Computers make
very fast,
very accurate
mistakes!*

A day in the life of a Milan user

by Jörgen Nyberg

Let's start by saying that when I had my old STE I mainly used it on the weekends but nowadays I use the computer every day. I get up at 11 p.m. or a little later, have some breakfast, a cup of coffee and read the newspaper. Then I start my Milan and check if there's any mail and if there is, reply (usually I get 3-5 mails a day). For e-mail I use a program called MyMail, coded by a swedish guy which means that the swedish special characters work flawlessly. Then it's on to writing some letter (or article maybe) or preparing something for work. That is what I'm using Papyrus for. It's a document processor much like Word for the two big operating systems, but with a little bit more graphic tools. Then it's time for dinner and at 3:30 p.m. off to work. I work as a foreman in a fish factory but it's getting more and more computerized so I'm forced to work with Windows 98, and let me tell you, some things take more time on a PII 300MHz Windows machine than on a 8 MHz STE. Finally, at around 2 a.m. i can click on "do yo want to turn the computer off" and go home. When I

get there it's video time, X-files or some sitcom and then I turn on the Milan again. I connect and check the mail, again, then I start Newsie and check the newsgroups. If there's anything I think I can help with I send some replies, must have picked something up during the years with Atari. After that it's time for CAB and I at least check my hotlist with the check module. If there's anything to upload or download, then I start aFTP which is an ftp program from Attack, excellent program. And after I disconnect, it sometimes happens that I start Joe, a HTML text editor, and change my homepage or expand it or try some new things. There you have it: a normal day in my life, which usually means my computing clocks up to 1-2 hours on the Milan.

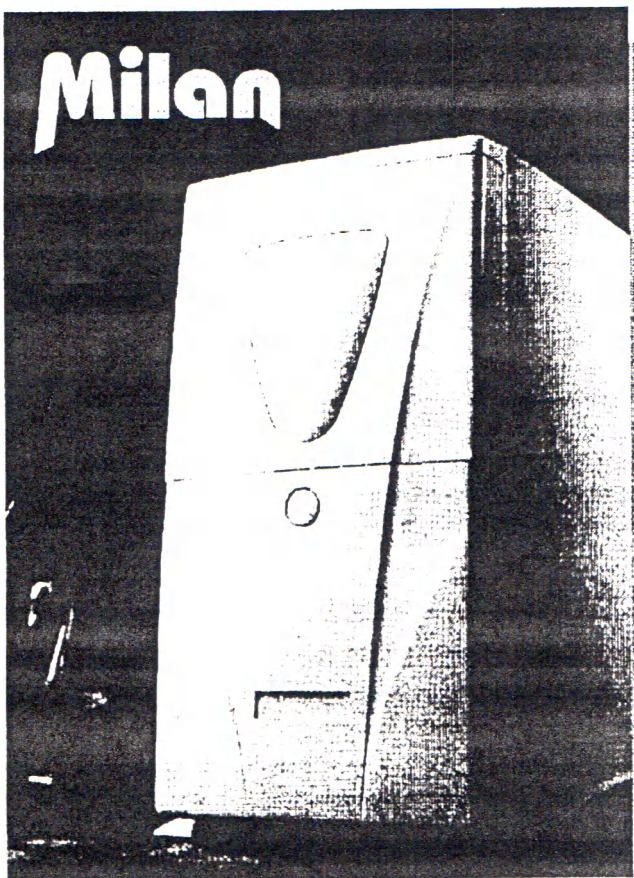
Jörgen Nyberg
nyberg@atari.org
<http://nyberg.atari.org>

Here's some links to the programs I mentioned:

MyMail
<http://www2.tripnet.se/~erikhall/programs/mymail.html>
Papyrus
<http://www.rom-logicware.com/Newsie>
<http://www.primenet.com/~rojewski>
Joe
<http://www.multimania.org/nef/Sting>
<http://www.ettnet.se/~dlanor/sting/html/>
aFTP
<http://www.pwp.cz/atack>

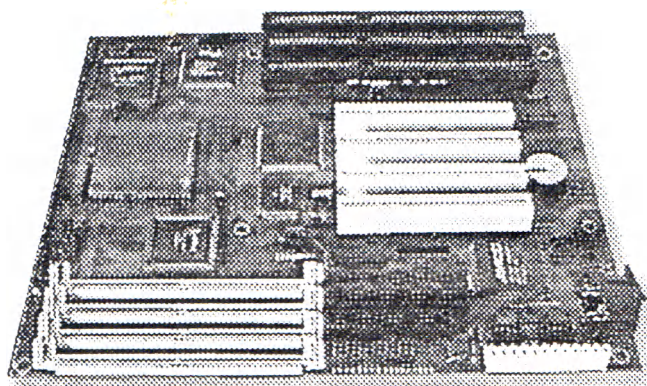


*My software never has bugs.
It just develops random features.*



To the left, the special Milan mini-tower case. The Milan is also available as motherboard only, which can be installed in any industry standard AT case.

Below is a photograph of the Milan motherboard. Visible are the ISA slots at upper right, below these the four white PCI slots, and at lower left the 72-pin SIMM sockets. Above the SIMM sockets the large square 68040 CPU is visible.



About the Toronto Atari Federation *by Ken Macdonald*

Time to look back, waayyy back. At least as far as 1981, when the Toronto Atari Federation was founded. Yes, TAF is 16 years old this year and still going, if not going quite as strong.

Back in 1981, TAF was an eight bit club only, as the Tramiels had not yet appeared on the horizon with the first Sixteen-Thirtytwo bit computer (ST) and it was a happening place! TAF started out meeting in a school, and stayed there for many years.

When I joined in 1990 though TAF was meeting in a huge hall in the North York City Centre and had a membership of around 400 to 500 people, a 24 hour BBS, a massive disk library doing brisk business at the meetings and in mailings, and a card stock coloured cover newsletter called the Phoenix. To quote Norm Thomas (First Phoenix Editor-Issue 1 November 1983) on the name for the Phoenix "The ... dictionary defines Phoenix as both 'a thing of beauty or excellence,' and 'a thing that has been renewed or restored after suffering calamity or apparent annihilation.' Just another way to spell Atari (1985). Eleven stores offered TAF members a discount in 1985! Now there is not one store that offers a discount, but a plethora of vendors internationally (not to forget Homa House Systems, Anodyne software, in Ottawa or Nadek Enterprises in Burnaby (Vancouver) B.C. Below I have attempted to list some of the salient items that give you an idea of what TAF has experienced over the years. Please ignore the mistakes! :-)

Changes

Phoenix newsletter

8.5"x11" stapled in the corner

8.5"x11" folded stapled coloured paper cover

11"x17" folded bound card stock coloured cover

11"x17" folded stapled coloured paper cover

8.5"x11" stapled in the corner

8.5"x11" folded stapled coloured paper cover

Bulletin Board System

24 hour BBS on a 520ST (2.5 MB)

24 hour BBS on a 520ST (2.5 MB) with AtariNet (Bill Scull).

24 hour BBS on a TT with AtariNet, FidoNet. TAF Info-Line

24 hour BBS on a TT with AtariNet, FidoNet, internet e-mail, TAF

Infoline, TAF Web page.

24 hour local BBS on a MegaSTe, TAF web page.

The TAF Online BBS is the only BBS in the world running FoReM BBS software (originally designed for the 8bit, rewritten for the ST)

Library

Large eight bit Library, monthly 8bit column in the Phoenix.

Large eight bit and ST Library with monthly Library column in Phoenix.

Small eight bit Library, large ST Library, monthly ST column.

ST Library with a monthly column small ST Library, monthly column on software - not necessarily about the Library

The Libraries high point was 1990, when 8 050\$ of Library disks were sold, and a low point was 1999 when only 307\$ worth of Library disks were sold. From 1989 until the summer of 1999 the TAF ST Library sold 43 611\$ worth of disks (11 716

disks!) at this point the Library is pretty well moribund.

Meeting

Dublin Heights Public School
Dublin Heights Public School
and Willowdale Middle School,
bi-monthly meetings.

Lewis S. Beattie Secondary
School cafeteria, bi-monthly
meetings

North York City Centre - large
hall Burgundy Room

North York City Centre - small
hall Rose Room

Shows

TAF Flea Markets (read
'Auctions')

TAF Flea Markets
CAUC [Canadian Atari Users
Convention] (co-sponsored with
Atari Canada, Nov. 1988)

TAF Flea Markets, CAUC2 April
1990

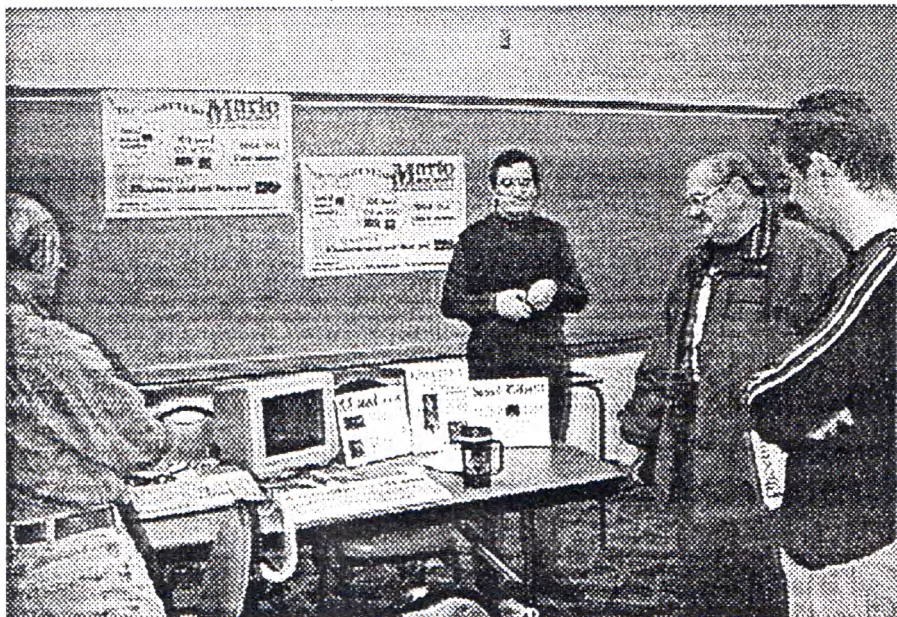
TAF Flea Market/Auctions,
CAUC3 April 1992 (ACE 92 [Atari
Canadian Exposition])

TAF Flea Markets and show at
North York City Centre (ACE '95,
April 1995)

TAF Flea Markets

Commercial Presence

up to 15 local stores selling Atari gear
no local stores selling Atari gear :-)



Ken Macdonald at his stand at a recent TAF event

Membership

1? <grin>

23 paid up members as of Oct 1984

200

600

300

50 (but hardcore :-)

1? (the oh so distant

future) <vbg>

So, prognosis time is upon me. I look into my crystal ball and see...

Genetic engineering (aka 'clones'). The Milan(1 and 2) and Phenix continue where the Hades/Medusa and TT/Falcon left off. If you look at the stats above, it is hard to believe that Atari (and by Atari I mean the Operating System, not the company) will continue. At the time that our BBS and Disk Library were 'downsizing' the InterNet was taking off! In fact the InterNet is the main reason why our BBS and Disk Library are in the doldrums. Atari support has moved from the local scene to the international. comp.sys.atari.st and other newsgroups are the main

source of Atari support now for most Atari users, but not all. There are still TAF members who have not really ventured out into the world of telecommunicating (can we still call it that? why not!) and TAF will continue to be their source of support. Did I say Atari support? I should qualify that by rephrasing to Atari 'software' support!

I think TAF's future will be more bound up with Atari 'hardware' support. As our machines age, hardware upgrades become less expensive and more feasible. Disk drives, hard drives, etc. break down and need replacing and we have a wonderful technician (Art Hill - atari tech from Montreal) in Toronto to help us with the difficult bits, and fellow TAF members to aid in the easier bytes. :-)

Then there are the hardware upgrades that people like Mario Becroft offer us - PC mice and keyboard replacements for our Atari mice and keyboards, IDE drives, S/VGA video adaptor, and soon High Resolution Video cards,

Ethernet adaptors, and the MonSTer upgrade for our humble ST/e's (68030 CPU, more memory, Video cards, acceleration, IDE drives) which will allow us to use our ST software at incredible speeds (really, this is NOT hype, imagine how fast software written for the ST [68000 CPU] will run on what is basically an accelerated TT [68030]! not to mention the NEW software (see my compilation in the last two issues of the Phoenix), and surf the WorldWide Web at cable modem speeds (on a ST by crikey!!) Installing and/or replacing old/new (Milan/Phenix...) hardware is going to be TAF's main role I think. But that is not to say that we are going to stop doing NEW software demos!! (ha ha you'd have to cut my tongue out first!)

TAF rules! Atari fools!

ken

the TAF guy

Oh. Merry Christmas! Happy Hannukah! Spiritual Solstice to all! enjoy Y2K!

I Am The Very Model Of A Luddite On The Internet (One Woman's View)

Sophie Vitkovitsky

I am the very model of a Luddite on the Internet
I've hacked away for ages but I really haven't got it yet
Confounded by advancements in mysterious technology
I settle into vitriol and eloquent scatology

My screen's monochromatic, I've no graphic capability
(Though some would claim that colours on one's screen suggest virility)
My motherboard is ancient, proof of long-gone genealogy
The whole contraption's just a tragic ode to gerontology

The 'puter's like a lions' den, and I am like a Daniel
Don't know how to approach it 'cos I can't decrypt the manual
Confronted by instructions on the screen, I get quite panicky
And spend a long time searching for that most elusive "any" key

The workings seem so delicate, so dreadfully precarious
Requiring careful handling, like a crumbly Stradivarius
Rememb'ring that my 'puter's just a nest of fragile wiring
I stop myself from kicking it to keep it from expiring

To matters computational, I'll gain a great affinity
And prove that thinking technic'ly ain't linked to masculinity
'Til then, my lack of expertise may well seem highly risible
But I've yet to blow up a thing! -- or join the choir invisible

Why Computers are a Musicians Best Friend

by *Brian Becroft*

A club member writes:

"I often read about how computers are indispensable to musicians and I would like to know why."

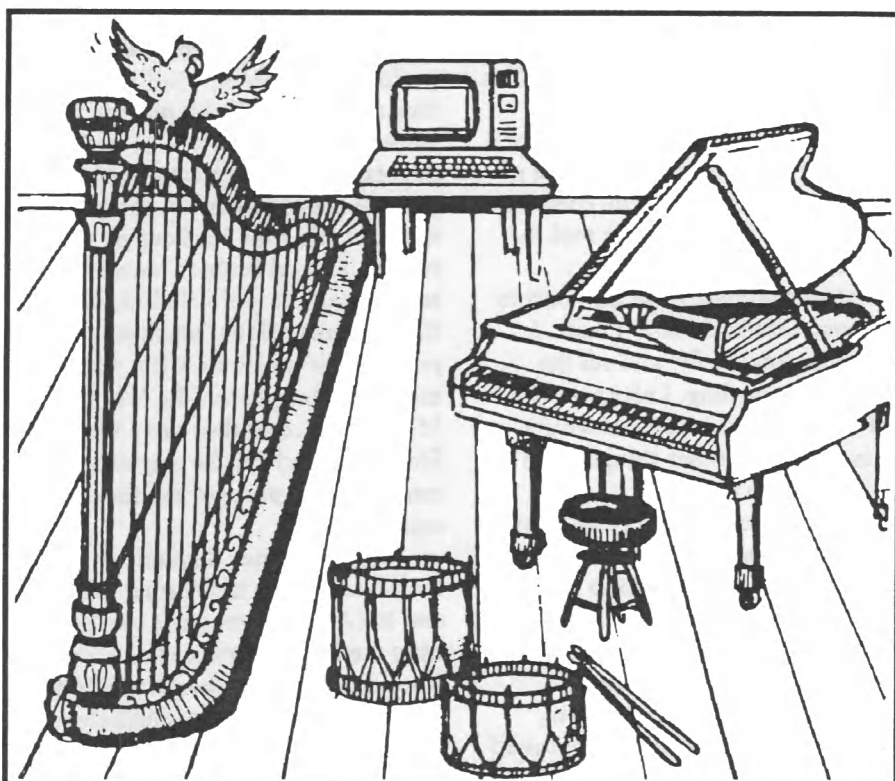
Well, I know some of these answers - it could be a very long story! As a preamble, suffice to say that music is a very skilled and technology-intensive business, whether it is judged by standards of the past or present. Modern tools have widened the window of opportunity for people of greatly varying musical skills to partake in music. It took a lot of time and technology to develop modern musical instruments, computers are the modern players on this historical stage.

Music Printing

I guess it would be fair to say that anything that people do in the world is at some time or other affected by the technology of the day. If you look at the history of music over the centuries you will see similar parallels with technology.

One example which really does span the centuries is the art of printing, things have vastly improved in this 'Digital Age'. Think of the days before the Gutenberg Press - most everything was written out by hand. This applied to text as well as music. As Music Notation became more formal and comprehensive, and printing in quantity became the norm, the pressure on musical progress gained pace.

Today, with a common home computer, music can be printed out to commercial standard. This is one major indispensable reason that Musicians find computers so necessary. The old way of handwriting out the music has for centuries been the norm. Recall the days of school orchestras and all the hand-written orchestral parts! Now we can use the computer to print neat orchestral scores and all the parts for the players, easily make alterations and reprint - practically over a cup of tea. I read recently that the New Zealand Symphony



Orchestra uses Computers for printing scores and parts - that is about as professional as you can get. I know of club members that use this facility in schools. Then there is individual requirements, like another club member who uses the computer to orchestrate tunes for a "Big Band" here in Auckland, he then prints out the parts for all the players. This was done on a Atari 1040 STFM using the Notator Software.

Another very important point with this ease of printing music is that budding composers and musicians can readily develop their talents at little expense - indeed with great personal satisfaction. It is an active encouragement to do so.

The Music Sequencing Revolution

Without doubt, the single largest area of music that computers have influenced is Music Sequencing. Very large chunks of the modern Popular Music scene rest on the creativity unleashed when Music Sequencing became possible on computers. Computers allowed musicians unparalleled scope for composing new music and experimentation.

What is Music Sequencing I hear you ask? Well it confused me for a long time, though it is very simple. However, careful listening to understand the full meaning!

Simply put, Music Sequencing is just Music Recording - pure and simple!

The essential point, however, is that it is quite different to 'live' recording like when one uses a tape-recorder.

Music Sequencing is the recording of Electronic Sounds - many which are made to be very realistic to the sounds of common musical instruments. Even here, clarification is needed in order to understand the difference.

You see, the computer, when used as a Music Sequencer is nothing more than a very elaborate timer. In Music Sequencing, the computer does not actually 'make' the sounds - a separate electronic box called a Synthesizer does that - the computer merely sends out electrical pulses at precisely timed intervals to the Synthesizer. When the Synthesizer receives the electrical pulses it plays the sounds you hear.

When, for example, you have an electronic keyboard connected, the computer is able to accurately sense the instant you press the keys and

then it sends this to the Synthesizer to play the sound.

The reason why this is all so important is that the computer is very capable of manipulating and recording all these timing pulses. You are therefore able to record your performance and also to change, or edit, your performance. The ease of how this is done makes the computer an absolutely indispensable tool for the modern musician!

As an example, I use my Atari to compose Classical Piano music. I improvise 'on the fly' and set the computer recording. Later on I can edit the music and take out wrong notes and many other things, until I am happy with the result.

The computer has recorded the whole performance and can therefore play it back at any time (into a Synthesizer or 'Sound Module'). It can also display the music as standard notation that literate musicians can understand. Many Rock and Pop Musicians cannot read music, this is not a problem as the computer can display music in several other ways, and allow musical fragments to be joined together to make up the final composition.

It is truly mind-boggling what the Computer Sequencer allows one to do, it has opened music up to the masses and allowed musical experimentation to flourish like a spring garden.

A member of our club bought a sequencer package designed mainly just to play back sequences. More

properly, these are called "MIDI Files". In this case Concert Pianists have played Classical Piano music using an electronic keyboard and a computer so as to record the performance. These resulting MIDI files are then sold with player software. The result can be variable depending on which Sound Module you are using - there are many of them. In this case I believe he was using a Roland Sound Canvas. The same idea hold with all kinds of music - professional musicians record their music as MIDI files for marketing purposes. The beauty of MIDI files is that they are a universal file format and can be played back on most any computer or dedicated equipment.

The Computer Sequencer became available in the mid 1980s, and the Atari ST range of computers were the key players in this process. They did what no other manufacturer had done - released the computer with 'MIDI' (Musical Instrument Digital Interface) as a standard feature. This encouraged musicians to get involved as cost was a major factor for a while. Software Developers soon chose the Atari as a computer of choice, to the benefit of us all!

Computer as Sound Recorder

Yet another big reason for computers being indispensable to the musician! This is the latest development, especially as regards

availability to the masses. As computers have become more powerful during the 'nineties, Atari was one, if not the first manufacturer to release a computer which could record 'live' sound from a microphone direct.

Previously this was only possible using tape on a Tape-Recorder.

There are two benefits to this form of sound recording - called Hard-Disc Recording.

One, it eliminates the problems of noise that the old tape has and, Two, it allows superb editing of the recordings. Bear in mind that Hard-Disc Recording is utterly different from Music-Sequencing! Music Sequencing records and plays electronic sounds. Hard-Disc Recording replaces Tape and records the actual live sound with great clarity - CD-Quality it is sometimes called.

Indeed, it is easily possible today to have the equivalent of a expensive Recording Studio of the past in your own home, and what is more - make up your own CDs as well!

So you see, here a few pertinent reasons why the computer is such a wonderful, wonderful invention! It does not take away from conventional music - it enhances it. But it has been directly responsible for the massive amount of music which is made these days, allowing individual talent, creativity and initiative to 'have their day'.

Eye 'ave a Pee Sea
Tim Limbert
limbert@aurelia.k12.ia.us

Eye halve a spelling chequer,
it came with my pee sea
It plainly marques four my revue,
miss steaks eye kin knot sea.
Eye strike a key and type a word
and weight four it two say
Weather eye am wrong oar write
and it shows me strait aweigh.
As soon as a mist ache is maid,
it nose bee fore two long,
And eye can put the error rite;
its rare lea ever wrong.
Eye have run this poem threw it,
and I am shore your pleased two no,
Its letter perfect awl the weigh!
My chequer tolled me sew.



Atari fair 99 in Hannover

by Matthias Jaap

Atari users were quite used travelling to Neuss twice a year so the change of the place for the autumn Atari fair was a bit of a surprise. The main reason was that R.O.M. Logicware (Papyrus) and M.u.C.S. organised the fair instead of Falke Verlag. I visited the show on a Saturday and - like the Stafford fair - the fair pavilion wasn't quite in the centre of Hannover. All Atari supporting German companies were there plus Best Electronics, Mabn (Netherlands) and Centek.

ABBUC

ABBUC is the Atari Bit Byte User Club, the greatest Atari 8-bit user club in Germany. Although their members have released a couple of new games in 1999 they more busy playing the classic Ballblazer. A 3,5" disk drive for the XL was presented.

Application Systems Heidelberg

ASH sold their usual updates and upgrades for their programs. Their stand was quite crowded and so you needed patience to talk to one of the ASH employees. Two updates were available: Resource Master 3.1 and CAB 2.8. The latter was a big surprise because everyone thought CAB was dead. Well, it is actually and there were - according to ASH - only a few bugfixes and the support for PNG images. The update for CAB 2.7 users was available for 39 DM.

ATOS

This e-mag is one of the oldest still active Atari mags. They have just presented their new homepage (www.atosmagazin.de) and a new issue with lots of news snippets.

Axro

The company which almost took over the Milan officially presented themselves for the first time to the Atari public. It was a good feeling to see that a professional company is now responsible for the Milan and they seem to build a machine which pleases a lot of users. The Milan II will be delivered completely with a development kit (Gnu C, Omikron

and GFA-Basic, faceValue), office program (Papyrus) and a new Draconis version. Axro was interested to hear what users expect from the new Milan computer. Some people (including me) had the problems with the Milan I in their mind so Axro had to answer a lot of serious questions. Milan II computers are built in greater numbers than the Milan I and they will be built by Motorola. Atari dealers may sell Milan II computers but most units will be sold by over 2000 department stores in Germany alone! The Milan II was there at the show with its operating system MagiCMilan and Jinnee. A version of Doom (running in a GEM window) was presented and a Milan version of Running and maybe Crown of Creation was announced. The real challenge for the Milan will be next year's CeBiT in Hannover where Axro will celebrate the launch of the Milan II. For those who would like to know what Axro is doing besides the Milan: <http://www.axro.de>.

Berkhan Software

This software company develops Omikron Basic for Atari ST and Macintosh computers. Although they say that Omikron Basic Atari is still support and developed they brought three Power Macs to the fair - and they were not running MagiCMac.

Best Electronics

Presented their usual Atari items for collectors and fans.

Centek

Centek had the latest prototype of the Phenix on their stand. The main board looked almost finished but they didn't show much of the operating system itself. Everyone was free to give Centek his address so they can send further information when the Phenix is finished.

Classic Atari

The Classic Atari crew showed issue 3 of their paper mag. Classic Atari covers all Atari machines and is getting better with each issue. The magazine is only available for subscribers.

Falke Media

Falke sold a lot of Atari CD roms. The "Very best of Atari Inside I" was available for only 1 DM. They announced before the fair that their magazine ST-Computer will be available for subscribers only starting with the next issue. This may change if the Milan II is going to be a success.

FunMedia

The program which was once known as FunPaint has developed into a true multimedia application. FunMedia can edit videos and images. Professional effects like the



The Falke Media (Falke Verlag) stand (a well-known German Atari dealer)

famous blue box effect are no problem for the program.

HP

Hewlett-Packard had a small stand left to the Axro one.

Invers

Atari DTP is still used in Germany and the program which dominates this market is of course Calamus SL. Invers presented a lot of new modules and Calamus SL99.

June Audio

A range of audio products and a CD especially designed for the Jag VLM. They also had a Nuon banner at their stand which is not surprising since the Nuon will feature the VLM 2. According to June Audio the first Nuon powered DVD players will be available in February.

Mabn

This Dutch Atari dealer didn't have any exclusive products so they sold old Atari games, applications and hardware.

M.u.C.S.

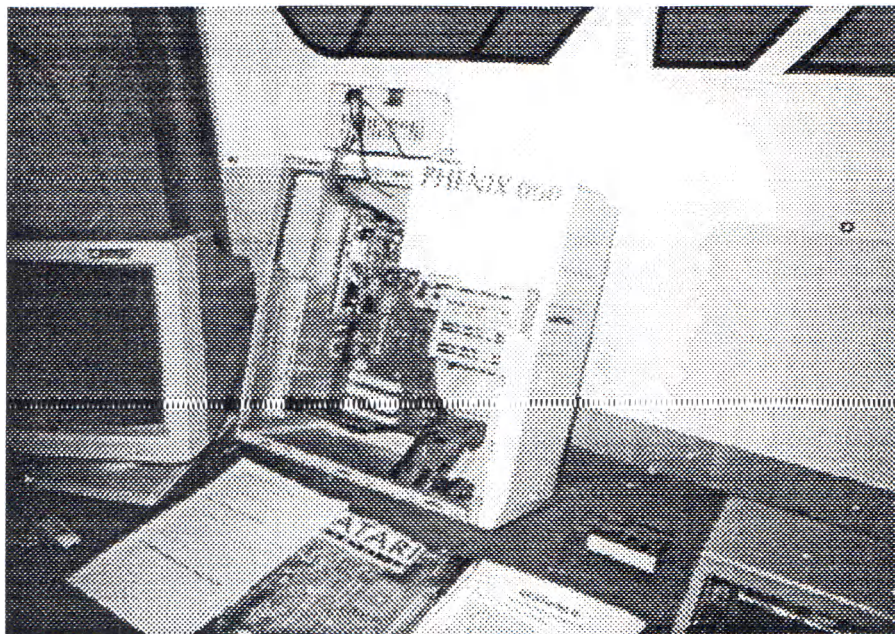
M.u.C.S. had a lot of new products on their stand. Chatter is a new IRC client for Draconis and MagiC. IFusion is a gateway program to use STinG applications with Draconis. The next Draconis version (1.7) was shown as a beta version. The browser is now faster, supports realtime scrolling and has a customisable interface. Jens Heitmann demonstrated the latest beta. HomePage Penguin was updated to v3.03, a fresh-up which features faster program start, an enhanced hypertext and a start-up dialog. A world-wide distribution system for the M.u.C.S. products is currently in preparation.

Pro Atari Computer Club

This club focuses on the 16 bit machines and has its own fanzine.

Richard-Gordon Faika

Qed's most serious competitor, the shareware editor Luna, was available at Richard's stand. He also answered questions on his other programs like Elly and the LicomLib.



A prototype of the Centek Phenix with dual 060 processors was on display

Run Software

This young software company was founded by Holger Herzog and Ulli Gruszka. This is the most important company for GFA users because of Ergo!pro and faceValue. Both programs were updated. The new Ergo! version is almost completely re-written and supports long filenames. FaceValue 3.0 is the latest version of the visual application designer for GFA. Version 3.0 features support for color icons, long resource files (>64 KB) and the extended MagiC objects. There were a few other products as well: Bubbles (screensaver), Bastard (GFA interpreter program starter), OT/OB lib (OOP with GFA) and a nice Tangram game.

Software Service Seidel

This software/hardware dealer from Kiel sold their entire product range. They are the distributor of Geneva in Germany which never gained much popularity. A lot of ST games were sold and for those who didn't have the right ST for the game: Seidel sold a 1040STF together with 20 games for 95 DM!

The Video Game Source

One of the new Jaguar games, Protector, could be played. It's a very nice Defender clone, fast and with good graphics. The only new Lynx game was Sokomania, a Sokoban clone.

Uwe Seimet

Uwe Seimet is author of the indispensable HD-Driver and therefore his stand was popular.

Woller

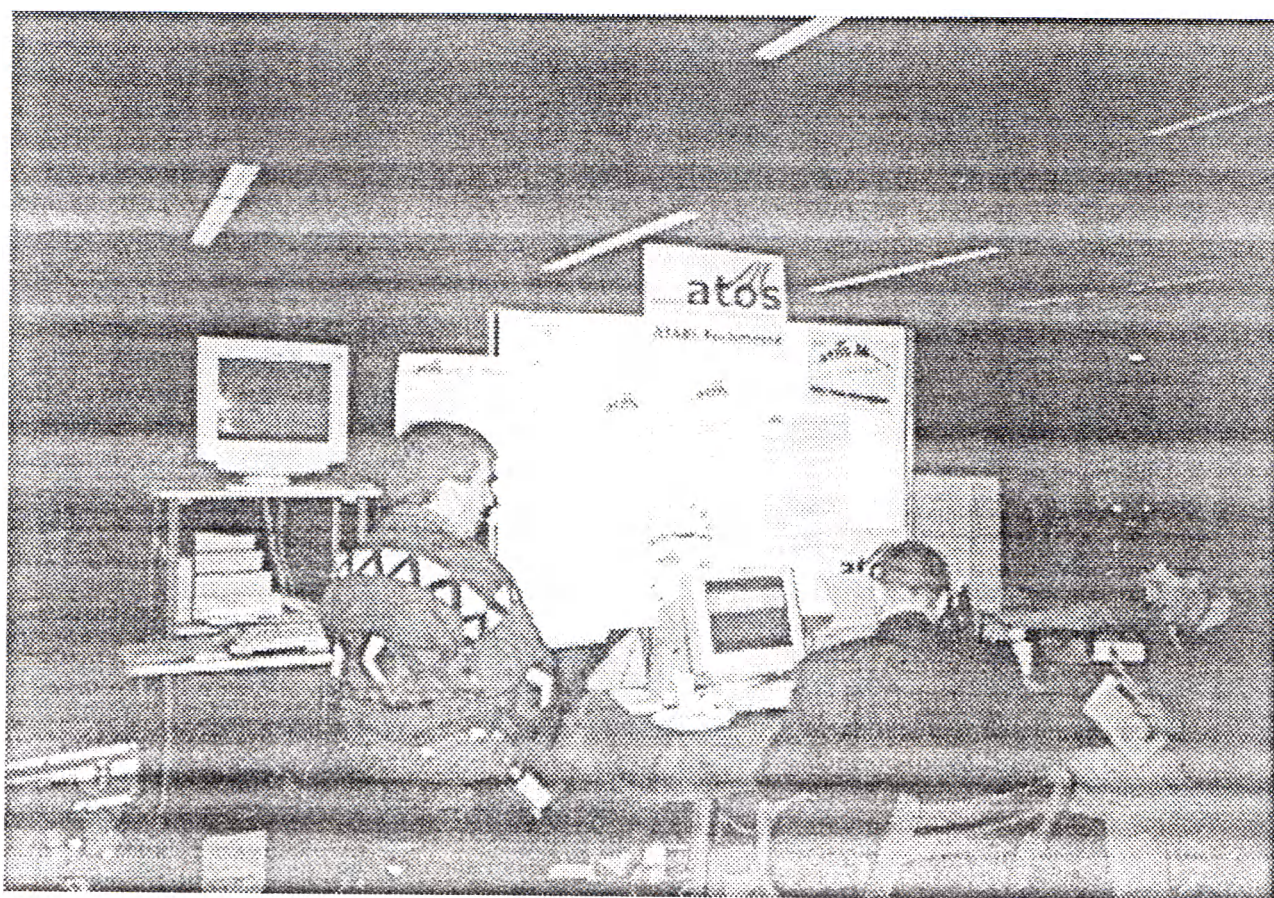
Two products attracted a lot of visitors: Rational Sounds and N.AES 2.0. Rational Sounds can define sounds for various system events û just like S.A.M. or Crazy Sounds but much more powerful. N.AES 2.0 supports long file names using the latest MiNT release. Installing is done using GEM-Setup and the Wdialog functions are now supported by N.AES as well as MagiC's extended objects.

Finally...

This show was better than the April one in Neuss but less people were visiting it. Maybe it was the location (Neuss is in the middle of Germany, Hannover in the North) or the German Atari market is getting weaker. Most dealers were not very satisfied with the fair. It is obvious that the Milan II has to be a success or the Atari market will shrink even more. Unfortunately this will also mean that new developments will be done on the Milan rather than the old STs. Still popular after all these years are Atari CD ROMs: about 8 new CDs were presented.



The M.u.C.S. stand (a dealer) with several customers



The ATOS magazine stand. ATOS is a electronic magazine for Atari computers.

My first Atari was an 8-bit 600XL

bought in 1984.

by *Gaven Miller*

It was a very interesting computer, but, as it didn't come with much bundled software, I either had to buy it, or write my own.

I decided to write my own, using the version of the BASIC computer language built into the computer.

This was something I got fairly good at, and eventually upgraded to a 130XE in 1985.

Tariland

In February 1986, I came along as a visitor to a Tariland club meeting, which, at the time, was held in a school hall in Remuera (sorry, I cannot recall the address), and saw the local NZ Atari representative demoing the brand new 520ST and the GEM environment - both of which were causing big noises popularity-wise overseas.

To put it lightly, I was intrigued. Moving a box on the desk moved an arrow pointer on screen, clicking a mouse button "selects" an on-screen item, and so forth.

I picked up a few leaflets that were available - one was a general sales brochure, a small software list, and a price list (a new 520ST with external floppy drive, TOS-on-disc was available for the small sum of 2490 New Zealand dollars - a just-released 1040ST [I cannot recall whether TOS had been put in ROM at that point in time, but it happened about that point in time] was \$3990). I think I still have most of these leaflets somewhere - I'll see if I can find them, and bring them to the club meeting.

I started to write a GUI (Graphical User Interface, pronounced "Gooy") like GEM for the 8 bit I still owned. Using the built-in BASIC - it was difficult, but the hardware support for player/missile graphics on the 8-bit made things a bit easier, but not a lot.

Using a joystick as the "pseudo-mouse", it was tough going. At the time, I was unaware of a mouse for the 8-bit.

Given that the 8-bit high resolution mode ("Graphics mode

8") was a monochrome 320x192, whilst the ST used sixteen colours an 320x200 as "low resolution", it felt very much like I needed considerably more resources than the 8-bit could give me.

1986 and 1987 were bad years for me - I lost the use of the 8-bit in mid-1986, and was "computerless" during 1987 and most of 1988.

The ST

I was able to drag myself back to normalcy as 1988 wore on, and managed to buy my first ST (a 1040STFM, with a built in 720k floppy, 1 Megabyte of RAM, and all the normal ST ports) albeit connected to a TV, rather than a much clearer monitor. I later learned that it was one of the first 1040STFMs in NZ (all the previous ones were 1040STFs, which couldn't be connected to a TV)

I started to write software using the supplied version of "enhanced" ST Basic. Compared to the 8-bit BASIC, it was much better, and supported many of the very useful features I missed from 8-bit basic.

However, it was still an interpreter, and I had to load it and then load my program before I could run it. I needed a compiler.

I joined the Tariland Computer club in 1989. At the time, it was about a 50:50 split of ST users to 8-bit users.

Megamax C

At the beginning of 1989, I got a good deal on a second-hand copy of Megamax C, a well respected C compiler for the ST.

It was wonderful - for the first time I could create a double-clickable application for the ST. It ran well, and allowed me to create all the apps I needed to, complete with resource files, icons and so forth.

(Like most people who started programming in the late 1980s, I wrote a Lotto program, which would generate the numbers for the next draw, using results from previous draws and random numbers.

Needless to say, it didn't predict the correct numbers for the following week - however it did predict results for "some time in the future", which could be anything from a fortnight up to many years hence.)

However, as 1989 continued, I expanded my hardware base (mainly to beat the increase in GST from 10% to 12.5% at the beginning of July)

I bought a second floppy drive (a Master 3S), dot matrix printer (Panasonic 1180), two monitors (the colour SC1224 and a monochrome SM124), most of which were on "pre-GST-rise" special prices, or, in the case of the printer, a "introduction" discounted price.

Lack of RAM

As 1989 drew to a close, I began to regret my lack of RAM (after all, one meg was rather minimal for serious development, although it was more than enough for running software, which was generally targetted at half-meg STs owned by 70 percent of ST users)

At the start of 1990, I took the plunge, and bought a Mega 4 ST, with a massive four megs of RAM. For once, I wouldn't need to bother with having to ration the use of RAM by various co-resident utilities (desk accessories, AUTO-folder TSRs).

I needed a hard drive, so I put one on lay-by - an "extravagant" sixty meg Megafile 60, most people were happy with 20 and 30 meg hard drives at the time, and 60 megs was more likely to be found in file servers, not for use by one computer by one user. (The average PC or Mac built-in hard drive topped out at about 40 megs at the time)

Megamax C was beginning to show its limitations - I was slowly beginning to learn 68000 assembly language, and found that the code generated by Megamax was limited by a few compiler design decisions.

Thankfully, Megamax had released an upgrade - Laser C. Unfortunately, it was not able to use some of the intermediate files generated by the compiler, but was

source code compatible, so all I needed to do was recompile all my old Megamax C programs. It also had a built in set of file manipulation functions, and I could load in some utilities and run them from within the Laser C shell. In essence, I could do everything from within Laser C, without ever leaving the shell, and without the hassles I had with Megamax C.

Upon reading of its new feature set and speed, I made a decision: once I'd paid off the hard drive, I'd buy a copy of Laser C.

Shortly thereafter, I received a "scurrilous" copy of Laser C. It was wonderful. And it literally screamed on the Mega ST - compiling some programs in under ten seconds from start to finish, compared to about two minutes or more with Megamax C.

So, a month or so after paying off the hard drive, I went to my local dealer and plonked down some cash for my own brand new copy of Laser C. Unfortunately, it wasn't available new in NZ anymore. (I was heartbroken to learn that Megamax Incorporated had folded sometime in early 1990) However, as the dealer was displaying the Laser C manual on its shelves of ST software/literature, they gave me the manual for free.

Lattice C

I waited a while, saved a bit more money and bought a copy of Lattice C 5.06 from Hisoft (it cost about \$550, as opposed to about \$170 for Laser C)

This well-liked compiler (I couldn't find a single magazine review that said anything bad about it) was a monster - it came on seven double-sided discs (Laser only needed three single-sided discs), and had "1300 pages" of documentation, split over three SPIRAL-BOUND manuals.

(As an aside: I like spiral binding for large manuals - they lay flat on the desk, so one can read the info required out of them while typing in the data/info required for the program. And they stay open at the page you leave them at. It's more expensive to produce them that way, but the increased usefulness will repay the increased cost)

Compared to Laser C, it was a monster, ran slower (it took about 40-50 seconds to produce an app, compared to ten seconds with Laser C), and was less usable when compared to Laser C. However, it was a full ANSI C compiler, as opposed to the K&R C of Megamax/Laser.

By this time, I was writing many new programs and utilities for my own use, and for other ST users.

Some people contacted me for some progs, like a joystick-activated screen dimmer for a musician who used to take their ST to locations, and didn't want the glare from the screen distracting from the performance he was accompanying (one used the joystick to trigger the screen dimmer, rather than wait the few minutes for the timer-based dimmers to kick into life, and with my dimmer, you could keep the screen dimmed even while doing things, and by moving the joystick another way, you could return the screen to "normal" colours)

Other custom applications and utilities I wrote are still in use, and I occasionally hear from the users, but I cannot mention them here in this column.

Club mag editor

Later on in 1991, I became the editor of the Tariland club mag. I used Timeworks Desktop Publisher to produce the mag, and printed them on my dot-matrix printer. Some of the graphics were scanned in using the club's hand scanner - very few people rented the scanner, even though it was mentioned a number of times in the mag before/during my editorship.

In 1992, my programming expanded quite a bit.

As I neared the end of my editorship of the Tariland mag (traditionally, editors only last for one year), I received a phone call about a TT for sale, which I eagerly bought for myself. (It only had four megs of RAM, and I was just starting to hit the "four meg wall" RAM limit of the Mega). With a TT, it would be even worse - with the added functionality of the TT, not to mention the speed of it, I'd hit the wall quicker and more often.

After completing my year-and-a-bit of editing the mag, the

committee and those who attended the October 1992 AGM decided to go to a disc-based magazine from the start of 1993, instead of the paper-based one it had been up until then.

I was then asked to write the club magazine file viewer. This was an honour, as most of the software I'd written before then was generally for my own use, or for a single user - this time it would be for a large number of people with varying computer setups. (By this time, the ratio of ST to 8-bit users in the club was nearer to 4:1 or thereabouts)

I wrote a GEM-based file view, which supported Degas image files, and allowed you to view many different articles in different resizable GEM windows, and select articles from the menu.

Unfortunately, just after Christmas, the power supply of my TT "exploded", and I was unable to use the TT for anything more.

And, contrary to good practice, I hadn't kept a backup on a different hard drive or on a different machine. I was snookered.

I had to unpack my Mega 4 and Megafile 60 and set it up again, and rewrite the file viewer again from scratch - complete with all my other libraries of useful code I'd built up over the years. And all this had to be done in three weeks or so - it had to be ready for January 20th. Needless to say, it was quite a big task.

I got the mag ready, and it was 99% complete by the committee meeting when I handed over the file viewer.

This file viewer I had spent all that time and effort to recreate from scratch was not accepted by the editors, who went with a viewer written with STOS, which, if my experiences were anything to go by, was finicky, wouldn't run well on my Mega ST, and crashed at random (I couldn't reproduce the same crash after restarting the app).

Over the next few months, the club had different file viewers on each club mag disc - until it finally settled on using my one. I received many complimentary messages regarding this file viewer.

I got the TT back from the very tardy repairers in late/mid 1993.

I did a major backup of the TT hard drive, and started to reload my newer stuff onto it from the Megafile.

I was able to continue work on my DLL manager (started a year earlier in mid-1992) and other apps and utils I had been writing earlier.

Software upgrades

With the release of MultiTOS/SpeedoGDOS from Atari, and the subsequent upgrades of the programming languages from Hisoft, 1994 was to be a big year for me, software-wise.

I upgraded my software tools (Devpac assembler, Lattice C compiler) and system software (MultiTOS, SpeedoGDOS) over the first half of 1994.

Among the first few progs I wrote were to fill holes in MultiTOS.

First was a program to allow you to double-click an accessory file, and have it launched from the desktop, and added to the menu-bar. (The desktop supplied with MultiTOS will not do this as it was supplied)

Next was a replacement disc formatter/copier. By selecting the "Format disc" from the desktop menu, my program will now spring into life and allow you to specify how to format a disc, and it will allow you to pause a disc format, to skew a disc to allow a faster disc access, and to format a disc in many different ways.

It would also spring into life when one wishes to copy a disc, allowing you to copy a disc in the background, pause a disc copy, and many other advanced features.

Those that saw the launcher utility or the formatter/copier program were very impressed with it. I gave out a few pre-release demo versions of them, and received quite a few positive comments back about them.

The internet

As 1995 started, the Internet began to become more popular with the trade press, and I started to become interested in it.

I bought myself a 28k modem (28800bps for the nitpickers), which was a V.Fast Class "V.FC" device ("V.FC" was the precursor to the formal 28k standard). Had I waited a few weeks more, I could have bought

a 28k standard modem, but it doesn't really matter.

I went along to a computer show a week or so later, and signed up with an ISP - INCA ("InterNet Connectivity Associates"). I'd intended to sign up with ICONZ (the same ISP that Brian & Mario had signed up with a few months earlier), however, as the charges by INCA were the same as ICONZ, (they charged for data, whereas online time was free) and they offered the same services as ICONZ, I took a gamble and signed up with INCA.

This gamble was to pay off later in the cheapness of service, and their general responsiveness. However, I wasn't so thrilled when I saw the first few invoices by INCA - they were, to put it lightly, a bit expensive.

Although I did overdo it a bit the first few months.

I became addicted to the internet newsgroups, spending about 90% of my online time in the newsgroups.

During 1996 and 1997 I was becoming a bit of a name in the humour newsgroups. In particular, I became one of the "big names" in rec.humor, and was often involved in multi-way humorous conversations in that newsgroup.

Junk mail

Unfortunately, that popularity and frequency of posting to the newsgroups also led to me being targeted by a lot of junk mail ("spam"). To get an idea of what I was facing, think of all the "vote for me" leaflets you got in the recent election, pre-Xmas "special offers"

and a weeks worth of "we're selling a house in your neighbourhood" notes you get in your letterbox. I was getting that much junk email every one-to-two days.

And, as I was paying for Internet data to/from me, I was paying for this junk mail.

Something had to be done. I got a different, private email address, and arranged with a third party to have my email forwarded to my new address. My original email address was disabled, although I kept the same username.

This appeared to do the trick - as time went on, the amount of inbound junkmail reduced.

Conclusion

1998 saw a bit of a slowdown in my computer usage, and in my Usenet newsgroup participation.

1999 reversed this trend a bit.

I started participating in the usenet a bit more.

I also started work on a music OCR program suggested to me by Brian, but hadn't really got very far with it.

Instead, I started work on a Stock Control/Invoicing program mentioned in the "Suggestive Remarks" column in issue 12 of Atari Computing magazine.

At present, it is in the middle of a reworking/rewriting after I hit an "8k wall" (in the past, I've found that programs were a bit more difficult to write/extend when they hit 8k lines of C source code).

Double Density Discs for sale

Tariland has obtained a supply of double-density floppy discs which are for sale to members at 80 cents each (\$8 per 10).

These discs are ideal for anyone still using an ST with double density floppy disc drive.

Contact us at the address inside front cover.

My Years With The Wellington Atari Club *by Alan Milne*

I brought my first Atari in 1989, it was the XEGS with a separate keyboard and lightgun from Dick Smith.

I joined WACE (Wellington Atari Computer Enthusiasts), they held their monthly meetings at the Ngaio Anglican church. I used to go down to Wellington with several others, but I was the only one to become a member.

When I started in the early 1990s there were about 60 members at each meeting. They had workshops, with us being divided into two or three groups doing something different, one was on STOS programming. Usually the others were on demonstrating software and the third on a demo usually made up by a club member. A group of us used to congregate in the kitchen where loud discussions took place, ended by the president, Brian Shepherd coming and telling us to shut up.

One member was in business and used to make up presentations on his Atari (what PC'ers would now call Power Point) with maps of his yacht travels around New Zealand, graphical tracks of the routes he took and one or two small digitised windows of the actual yacht and also scenery that he videoed on his travels.

At each meeting was a club produced disk called 'STarlight' for six dollars, with a double in December. The 8-bit library had about 800 disks, as a number of members used to go over to America frequently and they returned with disks from there.

In 1993 a member of the club, Tim Shepherd was ousted from the club, he took with him most of the young (20s) members with him, this resulted in the club's membership being almost halved. (He used to be the loudest in the kitchen debates)

The club was for the ST, the 8-bit was not supported, although 8-biters did attend the meetings, as the ST was supported so well, I decided to concentrate on the 8 bit, being the librarian, I brought all the books back to Masterton between meetings and began learning from them. Most of them were for the 8bit, the ST being very limited.

As the members dropped off, we moved to a furniture shop in Thorndon Key, owned/run? by the WACE founder's son, now we were down to a dozen members, the club finally being wound up in June 1995. With the coming demise of Wace, I started collecting programs from the club and setting up a library.

It was also at this time that TARILAND was becoming known to us, with their large magazines being brought to the meetings.

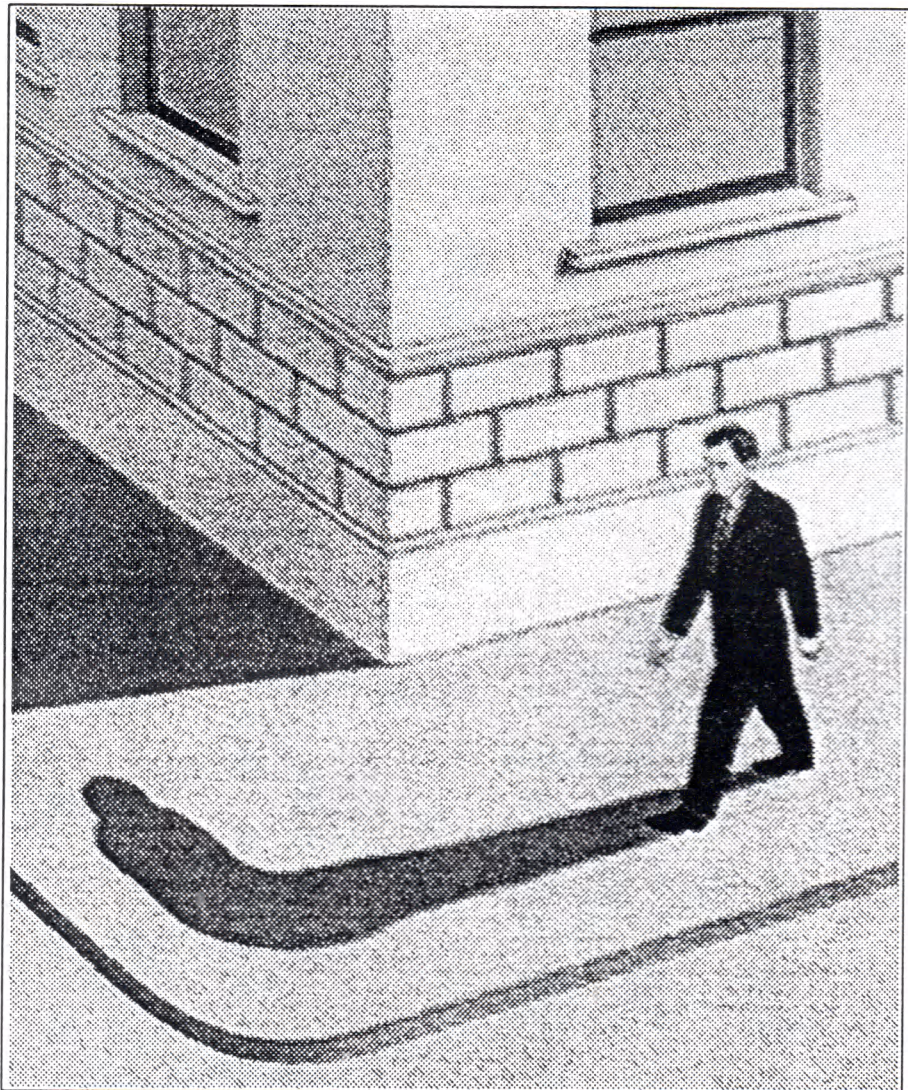
After WACE closed, I advertised my library, but only got three replies, two I already knew so I never made any money (for which I had intended to use to acquire more software from overseas).

An attempt to raise a club here in the Wairarapa, 'WASTE' (Wairarapa Atari ST Enthusiasts) fizzled. I agreed to do an 8-bit monthly disk for it as my contribution. I then

joined Tariland in Auckland.

A lot of the ones that moved to PCs are now turning them back into Ataris with emulators such as 'PacifiST' as they find the games on the PC hopeless.

I now have a selection of 8-bits, 800XLs and XE130s with an increasing assortment of add-ons, other hardware and software which I have either brought or been given by those moving to PCs. I don't believe these computers have ever been fully explored or exploited, a demo disk I have here from Poland bears this out. With the ability to support a mouse, and other things, I am currently collecting information on other uses, they can handle word processing as well as any other computer. (I have had to do this article on the ST as it is for the club. I will continue to use Ataris as long as I can.



Tariland Club Reminiscences 1984-1999 *by Tom Foulkes*

This writer joined the Club early 1984. For why? My employer, a tufted carpet manufacturer, had purchased an Atari 800 computer with 16k RAM (RAM cost a lot in those days!) in order to imitate tufting machinery pattern selection sequences so that carpet design choices and faults could be ascertained before expensive production trials were organised.

The program was developed in-house and by using the Atari's then renowned graphics and colour range the carpet designer was able to sight different patternings and by varying four colour choices to find commercially acceptable carpet designs. It was noticed that certain pattern sequences were attractive in a particular colour choice often displayed bad design faults with other colour choices. Needless to say those patterning sequences were not put into production. Also, by having the Atari 128 colour palette the designer was able to choose colours near to the final colour choice and even view unusual colour combinations. A program was also developed for simple 2 frame woven carpet designs.

My wife and I with our three teenage children thought that a computer at home was good investment. After looking at the alternatives such as Spectrum ZX80, Vic 20, Commodore etc., an Atari 400, 16k RAM with membrane keyboard and tape drive was purchased from Lims Electronics at Mangere East, (now at Manukau City) which although rather expensive came with well equipped instruction manuals. These enabled my youngest daughter to transcribe Beethoven's 'Für Elise' to the computer and also a piano learners' piece called 'The Swan' complete with picture. There was a great deal of sibling rivalry and my son went after games such as 'Caverns of Mars' etc. especially as he was told to practice computer games as it would help to become an aircraft pilot. Our eldest daughter found computer knowledge useful when the knitting industry came to use on-line

computer design controlled knitting machines.

We went along to an all microcomputer users club at Mount Roskill but the Atari enthusiasts formed the Auckland Atari Users Club soon after and met at the Amateur Radio VHF Club rooms near New Lynn. Later on our Club met at the Remuera Primary School Hall which was surprisingly central and now for many years we have had meetings at the Lutheran Church Hall, Mount Eden which is also centrally convenient. About two years later the Club became the Tariland Club Incorporated. Initially the meeting and efforts of club members tended to concentrate on programming and squeezing published programmes into existing RAM or endeavouring to put in extra RAM into the 400. Others were substituting normal keyboards for the Atari 400 membrane board although to my mind that key board is ideal for sticky fingers! It is well to remember that my Atari 400 with tape drive and 2 joysticks cost about \$1450 while the Atari 800 which could take an additional 16k RAM cartridge (\$289) cost about \$2700 (no GST then). Some programmes that I remember were one devised to time indoor bowls speed and another to pick up Morse code transmissions to show the dots and dashes as words on the screen. Another time we were shown how to pick up satellite weather information. On occasions speakers from supply houses came such as Star Printers of which the NX1000 was and still is available for hire to Club members. One of the neatest programs that I copied from a magazine was 'Lie Detector' which by means of adapting the joysticks turned the Atari 8-bit into a glorified scrolling ohmmeter. 'Ski Run' copied from a magazine showed how Atari Basic could provide fine scrolling for a game. A big advance was when Basic line check programs were used which enabled quicker and more accurate typing-in programs. Of course these days it is almost too much trouble to programme a spreadsheet. About 1986 at a meeting at the Lutheran Church Hall

the Sales Manager of the then Atari distributors gave a talk on future plans and was surprised to see how many people had up-graded to Atari STs; a pity they did not capitalise on it. Club voluntary services to members included monthly club disc(s), club magazine, hire of club software, both 8-bit and ST. Club members how modems and null modems worked and introduced us to spreadsheets. Visits arranged with Hamilton Atari Club which were enjoyable and when I was in Christchurch 1988 I was able to contact the Atari 8-bit club there.

For myself, these days I still prefer my Atari 130 XE with two 1050 disk drives coupled with Star NX1000C printer for cheap printing. The trouble here of course is the mechanical wearing-out and lessening spare part availability of what is obsolescent equipment. I still use Atari writer plus and Syncalc spreadsheet and have not often used all the facilities available with these programs. I have not mastered databases and one day I hope to sit down and study Synfile; all these programs have good introductions to them. One of our late Club members while acting as a secretary/treasurer to a friendly society used these programs for many years until he found that his auditor required a transferable disc of data to check the accounts. For this reason I bought a second hand ST1040 STE to try to keep up to date and recently bought a Pentium PC complete with Microsoft 'bells & whistles' since this appears to be the 80% de-facto operating standard. With this recent equipment I find one can spend far too much time getting to work the simplest of programs via the on-screen help that it is possible the whole lot will be out of date by the time I have mastered it! However I am hoping to put the various encyclopedias on hard disc. It will save bookshelf space although one wonders if the magnetic storage and accessibility will be as good as the books in 50 years time. I quite interested to read an Encyclopedia Britannica published in 1910 which gave an insight to living in those days. Of one of the weaknesses of the

Atari 8-bit is its 40 column screen width, otherwise I still enjoy doing simple programming in the original Atari Basic. My grandchildren enjoy the early games such as 'Hangman' (was on tape at \$60.00), 'TT Racer', 'Space Invaders', 'Missile Command' etc.. Perhaps it is the simple clear graphics and colour and the few rules of the games that make them easily enjoyable. One of our members in Masterton still puts out a monthly

disc of Atari 8-bit items which includes part educational games for youngsters. He has also found some very good original East European games for the 8-bit thus an emulator for the PC may be feasible but if the programmer has taken liberties with Atari Basic then the programs may not work correctly when applied to up-graded hardware.

What will happen to computers and the Atari approach to

programming at the end of the next 15 years is anybody's guess. I may be watching from the unknown world but at the rate of exponential progress computers will either be in 'steadystate' maturity in application or they will be like the human brain - not fully used, liable to forget, and have many unforeseen alternate data/action paths likely to cause large scale mishaps.



The 12 Bugs of Christmas



For the first bug of Christmas, my manager said to me
See if they can do it again.

For the second bug of Christmas, my manager said to me
Ask them how they did it and
See if they can do it again.



For the third bug of Christmas, my manager said to me
Try to reproduce it
Ask them how they did it and
See if they can do it again.



For the fourth bug of Christmas, my manager said to me
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again



For the fifth bug of Christmas, my manager said to me
Ask for a dump Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



For the sixth bug of Christmas, my manager said to me
Reinstall the software
Ask for a dump
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



For the seventh bug of Christmas, my manager said to me
Say they need an upgrade
Reinstall the software
Ask for a dump
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



For the eighth bug of Christmas, my manager said to me
Find a way around it
Say they need an upgrade
Reinstall the software
Ask for a dump
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



For the ninth bug of Christmas, my manager said to me
Blame it on the hardware
Find a way around it
Say they need an upgrade
Reinstall the software
Ask for a dump
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



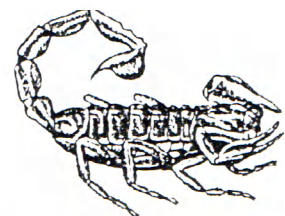
For the tenth bug of Christmas, my manager said to me
Change the documentation
Blame it on the hardware
Find a way around it
Say they need an upgrade
Reinstall the software
Ask for a dump
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



For the eleventh bug of Christmas, my manager said to me
Say it's not supported
Change the documentation
Blame it on the hardware
Find a way around it
Say they need an upgrade
Reinstall the software
Ask for a dump
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



For the twelfth bug of Christmas, my manager said to me
Tell them it's a feature
Say it's not supported
Change the documentation
Blame it on the hardware
Find a way around it
Say they need an upgrade
Reinstall the software
Ask for a dump
Run with the debugger
Try to reproduce it
Ask them how they did it and
See if they can do it again.



We have two computers in our house. One is my faithful Atari, ten years old and with a speed of 8MHz, and the other a Pentium 100 I bought for my wife several months ago, as she is keen on writing. Both are connected to the Internet. I use the Atari for email, as somehow it seems easier and less bother, but the PC, with its superior graphics and speed is, of course, much better for the World Wide Web. (The Atari and I look forward to Mario rectifying the

graphics and speed problems next year). A Deskjet printer is connected to the Atari, so letters written on the PC are saved in RTF format, imported into Marcel (Atari), and printed. I use Marcel for my writing, as I find it easier to get into and use than MSWorks.

I bought the Atari originally for music. I have several sequencer programs, but I don't seem to be very successful with them. I do use 'SharpScore' notation program quite often, my wife being a very fine

singer. Usually I produce lead sheets, which always have to be transposed from the original. If Brian and Mario can fit it in, there should be a sample of a choral piece with this article. I also produce flyers for functions I may be involved in, using Easy Text Pro Vector and SpeedoGDOS. I am also spending some time putting my family history into Family Tree. These are some of the things I do with my Atari, which cohabits quite happily in our house with the Pentium 100.

If Dr. Seuss Were a Technical Writer.....

If a packet hits a pocket on a socket on a port,
And the bus is interrupted as a very last resort,
And the address of the memory makes your floppy disk abort,
Then the socket packet pocket has an error to report!

If your cursor finds a menu item followed by a dash,
And the double-clicking icon puts your window in the trash,
And your data is corrupted 'cause the index doesn't hash,
Then your situation's hopeless, and your system's gonna crash!

If the label on the cable on the table at your house,
Says the network is connected to the button on your mouse,
But your packets want to tunnel on another protocol,
That's repeatedly rejected by the printer down the hall,
And your screen is all distorted by the side effects of gauss,
So your icons in the window are as wavy as a souse,
Then you may as well reboot and go out with a bang,
'Cause as sure as I'm a poet, the sucker's gonna hang!

When the copy of your floppy's getting sloppy on the disk,
And the microcode instructions cause unnecessary risc,
Then you have to flash your memory and you'll want to ram your rom.
Quickly turn off the computer and be sure to tell your mom!



Regina Coeli

(Paschal Time Antiphon)

Gregor Aichinger

(1565 - 1628)

ed. Maxwell Fernie - 1964

(FAST - JUBILANT)

S *ff* Re-gi-na coe- li- lae- ta- re-^p lae- ta- re-^f al- le

A *ff* Re-gi-na coe- li- , lae- ta- re-^p lae- ta- re-^f al- le

T *ff* Re-gi-na coe-li- lae- ta- re, lae- ta- re,^p lae- ta- re, al

B *ff* Re-gi-na coe- li- , lae- ta- re-^p lae- ta- re-^f al- le

S *ff* - le- lu- ia- A- lle- lu- ia- Qui- a- quem me- ru- i- sti

A *ff* - le- lu- ia- A- lle- lu- ia-, Qui- a- quem me- ru- i- *mf*

T *f* al- le- lu- ia- A- lle- lu- ia- Qui

B *ff* - le- lu- ia- A- lle- lu- ia-

S - sti por- ta- re, quem me- ru- i- sti por- ta- re,

A - i- sti, qui- a quem me- ru- i- sti por- ta- re,

T *mf* Qui- a quem me- ru- i- sti-, quem- me- ru- i- sti por- ta- re-

B

(St. Mary of the Angels Choir, Wellington)

- 1 -

Signed (M.F. Wgtn. 24-2-64)

Give credit where credit is due

by Mark Wenski

Hello to all of you fellow Atarians who are still using or should I say keeping your Atari alive in the 90's - not an easy feat in this world of consumerism!, where ever you turn it is promoted to upgrade not utilise anything you already have. Good on you for not bowing too quickly down to the commercial carrot. I myself come from the crazy side of the Entertainment industry - some 25 years as a Musician and Entertainer, and I might tell you that in these times I have had to deal with many people from all works of life, you have to become very sharp to survive in any form of this industry as from every angle you are lied to, ripped off and back stabbed, all within one business deal sometimes. Has it got any better? Well its probably about the same in our industry with one change, that is the rest of the business world has caught on to this cut throat approach and now everyone has to deal with this added factor to every day life. I've driven off the track a little bit here but were coming back on track now, so of course one of the must tools in the Muso's arsenal has to be a computer. This is where the Atari system came into my life as at the time this platform was the only real affordable choice, so it was down the learning curve yet again.

Now at the the time I was getting into this part of the music game,

sequencing - computers etc, any time you needed information you would find it was not freely shared in case the seeker might become too informed and then be a threat somewhere down the line. Such was life in the early days of music computing and performing. And of course then came the problem of getting your ever so important computer serviced, modified, hardware add-ons etc. so you would stumble back down that ever so familiar road of lies, bad service, the hard sell approach of the computer industry, enough to send any level headed person off the wall let a lone a self confessed cynic like myself. So finally coming to the point of this rave eventually I came across a couple of characters and characters they are, Brian and Mario Becroft. A breath of fresh air I might say for myself and no doubt many others who use computers. Over the past few years they have helped me in many a crisis and continue to do so, no matter the time or the problem... this is a very rear thing in deed in this world... I hope on day I can repay their service, Keep up the great work guys, your attitude definitely doesn't go unnoticed!

Now as the clock ticks towards the that Millennium hour here's a little ditty for the thoughtful among us from my Lyrics pile.

The clock just ticks past midnight everyday

Nothing really changes anyway
The suns up every morning,
shines on through the day,
Everyday...

Winter summer Seasons the tide is never still

A gentle breeze just passes by my window sill

Till we learn the secrets of natures own free will

Our future will never be certain and our path will never be still

The clock just ticks past midnight everyday

passing everyone of us on its way it takes a shot of each of us as it moves upon its way, everyday

You know nothing really changes anyway

As we sip upon our champaign, the celebrations in swing

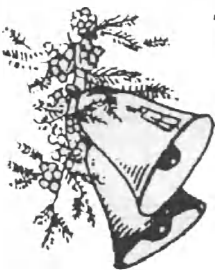
Millions of dollars wasted, so the rich can have their fling

War corruption, starvation runs ripe as we sing

and we know that in the morning we may never, remember a thing

The clock just ticks past midnight everyday... M.Wenski

All the best to all fellow Atarians, see you in the next century!



The Twelve Computerized Days of Christmas

On the twelfth day of Christmas,
my computer gave to me:
Twelve blown-out circuits
Eleven damaged diskettes
Ten disk-drive lockouts
Nine burnt-out fuses
Eight worthless printouts
Seven system resets
Six I/O spasms
Five blank cassettes
Four garbled saves
Three loose plugs
Two key bounces
And a glitch on the video screen



Wouldn't You Love to Lose Control?

A TT030 Story

by Brian Becroft

Introduction

The following article is reprinted from the May 1995 issue of the Tariland News. The article is about how to repair a computer keyboard. In this case it was our TT030 keyboard - the keyboard is separate, unlike the Atari ST computer which has the computer and the keyboard made as one unit. There is a plastic sheet inside the keyboard that has the copper tracks and keypad areas on it. These tracks can get rubbed off and this is what had happened in our situation. The design of the Keyboard case was not well thought out. Some sharp edges of the case rubbed onto the plastic sheet with the circuit tracks on it and severed the wire to the Control Key! In simple language, we fixed it up with a needle and thread - the thread being some very fine wire. The repair required great delicacy and care - otherwise the problem could have become worse. Eventually we got it to work and it is still working today nearly five years later.

We had trouble with the "Control" key on this TT030 keyboard, it would not work at all, and since this was a well used key, it completely interfered with the operation of the computer. In fact it caused my temper to flare somewhat - Hence the title of the article.

How it Happens...

When You Lose Control... It happens slowly, bit by bit over time. At first it is put down to a one-off glitched key. Later on you put it down to a clash with a program or something that you will 'sort out one day'. Later on still, it becomes a minor annoyance and you mumble about it 'playing up this time of the morning'. Eventually you are doing a job in a hurry where, using some control, would save time and money, but you lose control. Isn't that terrible!? I don't know where I would be without it. And finding it is not always very easy. In fact I had to put a good deal of brain power into the

matter of finding out where it had gone!

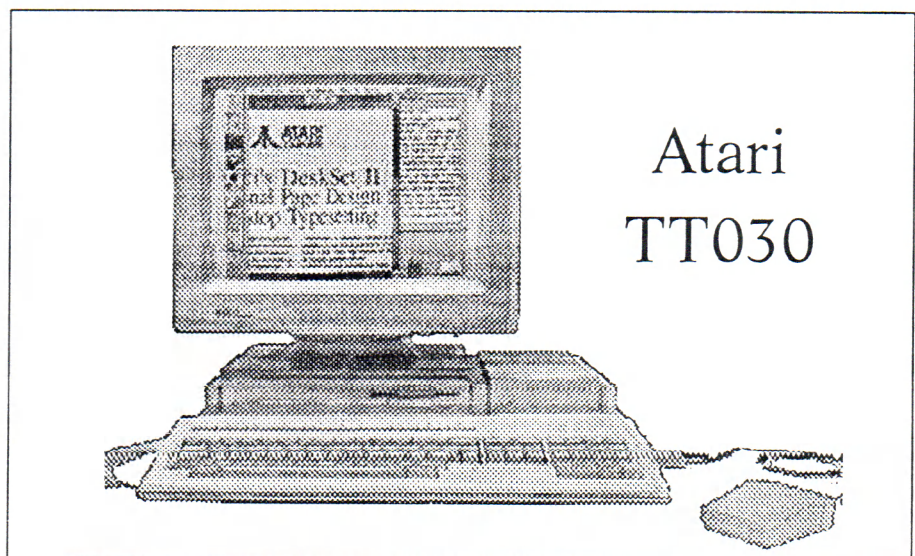
Now you might think I am just joking and rambling on about nothing, but just imagine if you lost control of your computer one day. That's when science and fiction come together and you can start writing a book about it. It is not to say that if you lose the control of your computer, that the computer then gains control and starts a riot. Indeed it is often the other way around; those in control become more silent and that includes the computer.

Methods of...

Losing control is a very sneaky thing as I have already mentioned, it starts slowly... I have a recommendation for those whom control is important to keep a hold of. I must first tell you that I found out the hard way, what should be easy in the first place: to keep your control, don't use sandpaper, that is an altogether too abrasive path to rub off. Also, don't feel tempted to resort to a razor blade - matters might really get out of hand if your computer knows you have one near. A quick fix might appear to simply be using a soldering iron but beware! Before you realise it you will lose much more than just control. It is likely that Shift and Alternate might disappear too, and very quickly I might add. The only way that I found to keep 'Tab' of this 'Control' was to 'Shift' my thinking to 'Alternate' areas.

Answers

Another way of putting this would be, say, to 'Undo' 'Caps-Lock' on the brain - to imagine back to how Great Grand Mother would have tackled the problem. So I did this, and then peered at my control-less computer. The answer came quickly and it was somewhat to the point. "Son, there is nothing in this world that cannot be fixed by a fine eye and a needle and thread, there is no room for the lazy!" Well there you have it, this sort of thinking, - where no computer could ever dare to tread! As doubtful as it may seem, I took this grand advice and proceeded to the sewing cabinet, then to the junk wire box for a fine metal thread. What a magnificent example of ingenuity, resorting to the days of hand-thread in order to put my computer to rights. Sew, like for any broken limb, I delicately made a mettle of the matter and wove a connection between the two severed parts so that life might flow again. This, dear readers, is the simple matter of getting back the Control of my computer, like taking a dog for a daily walk, retaining Control, restores order at the Keyboard. It's all on a lease so to speak. Anyway, enough of this tutorial, so stark it would waken Socrates. I believe that I arrived at an effective home fix. I hope you are now all further enlightened as to one way of dealing with this Control issue if it arises at you place in the future.



Hi there Dad! - I got carried away with all these buttons 'n' knobs on an old fangled sound-box. It's past closing time and I am locked up inside the shop!

JUNO *what I mean?* & SysEx

by Brian Becroft

Reprinted from an earlier edition of Tariland News

An early MIDI synthesizer, the Roland Juno 106 gives a fun look into sound synthesis for Musicians and experimenters...

SysEx - Now that is a word in the English language which, at least, you would be forgiven if you did not associate with computers. It is not a new word for avant-garde sexuality, or a concoction of the new re-structured Health System in New Zealand, but you could easily be forgiven if you thought this may be the case.

Systems Exclusive - this is what SysEx really means, but you would also be forgiven if this term was rather meaningless to you! I think it means messages that are used for controlling all the synthesizer controls from a remote source, usually a computer. There could be hundreds of control codes for changing the myriad of functions in a modern synthesizer. I was wanting to tell you about my little escapade with the Roland Juno 106 Synthesizer. This is an older synthesizer outfitted with the then new MIDI interface standard. Although MIDI is, in general, standardised amongst various musical equipment, SysEx is one part of the MIDI standard that varies between manufacturers/models.

For the Roland Juno 106 I was interested to put that part of the Notator program which can send SysEx to the test and to use the results in writing music. Here is what we found, and for those who have this synthesizer, maybe you would be interested to explore the possibilities! The Juno 106 has

about twenty or so slider controls and a few buttons on it's front panel for easily changing the sound qualities. This is just great for changing your music on the fly and is not available on most modern synthesizers. You could play the Juno at it's own keyboard and record your music that way, but in my studio I have a lot of keyboards and sound modules which I am able to control from one master keyboard. What I am able to do with Notator is to effectively move all the slider controls on the Juno with some on-screen slider controls on the computer. Of course, the physical sliders on the Juno itself do not actually move, but the data changes are shifted because they have built the electronics to respond to the SysEx commands and achieve the same thing that way.

How is it done?

This is where the 'magic' comes in. You must know what the SysEx codes are to allocate them to the individual sliders in Notator. Now Notator has an inbuilt function which can largely automate this process, but I had some spurious results so I went about it the long way - writing the codes in for each slider control on the Juno to each slider control in the Notator software.

Finding the Codes

This was the nifty part. What you do is put

Notator in Dub-record mode - the sequencer is not playing, this is then ready to record any messages and won't put them into bars, which is not really needed. You simply move the chosen slider up and down a little and this immediately sends out the magic SysEx message specific to that slider. A lot of messages are sent as you move the slider and one value keeps changing to represent the new position. This is the change enacted on the data that slider is dedicated to. For instance, if you move the 'attack' slider on the ADSR envelope, you hear the sharp start of the sound as you would associate with a piano sound or similar, as you move the slider, the attack (or beginning) portion will soften and then fade away completely. This then gives a different character to the sound, it does not start suddenly, but fades in gently, or degrees thereof. When you look at the SysEx data in the sequencer, you will notice one number position which is continually changing. You simply copy the string of numbers from one 'packet' into the space

provided in the mixer section in Notator. The trick is to replace the changing value with 'VAL' and select a range for the slider to move between, say, 0 - 127. Now when you move the slider it will send out the data numbers you have typed in and increment the 'VAL' position to anything from 0 - 127. The synthesizer recognizes the data and changes the appropriate part of the sound. You can proceed on to allocate up to 16 sliders and 16 buttons in one window in Notator and there are several windows to control different synths. Every new song could of course have a different setup.

Making the Music

One way is to record a track with the sound you want. Now select another track, enter the the 'RMG' window where all the mixer sliders are and find the part of the sound you would like to change by experimenting with the slider controls. Now start recording. As the music plays, you can move the slider to alter the sound as you want and when that is done, you can play back the

Realtime MIDI Generator: Recording Automation: PROGRAM and CONTROL 7

APRIL_96.SON NOTATOR 3.1 (c) 1991 Lengeling/Adam

374786 -- intern 120.0000 1/16 4/4 00 00.000

Realtime MIDI Generator

STATUS PUSER 8 MINIMUM 24 MAX 29 STYLE ✓ LISTEN TO MIDI

SysEx1 65 50 14 17 VAL

PORT A CHANNELNAME

SquaSavBothOffLF0ManCho Noise DELETE MOVEMENTS Frg1Frg2Frg3 UCFGat

PHM SUB LF0RateDelayKuBdLF0 Env ResFree Vol Frq A D S R

38 87 108 127 127 38 82 56 38 90 127 65 55 84 39

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

STOP RECORD START PAUSE EXIT

Here are the Sliders and Buttons in Notator which control the Juno 106. The currently chosen slider shows the SysEx data (numbers) which are being sent. Every movement is recordable.

music and the slider positions will now also playback in real time exactly as you recorded them. And your music will start sounding quite different even though you played it 'straight' originally. You can record again and move some other slider controls to your hearts content. Visually it is fascinating seeing the slider controls on the computer dance up and down. Using this method you can fully automate your total mixing of tracks for sound control and volume control. Of course if you want, it applies to other MIDI controllers too, like pitch-bend, modulation etc.

Dumping sounds

Another method which is also very handy is to simply dump the SysEx data of the complete sound you are working with to the computer. This avoids having to use programme change messages and to effectively use the sound you like on any one else's Juno, (which may have different sounds in memory.) You put the SysEx sound dump data usually at the beginning

of bar one or wherever you want the new sound to start. To do the dump, you follow the same procedure as dumping the data of a single slider - put the sequencer into Dub-record, press the sound position button on the Juno and the complete data of that sound is immediately sent to the computer. It is a sequence of numbers which detail the actual positions of every button and slider control on the synthesizer which you can look at and change at your leisure. So this is another more direct method of altering the sound data parameters directly from the MIDI editor.

The advantage of changing the sounds this way is that you do not have to worry about the data/slider allocation procedure. Once you know your way around it is easy to change a few numbers in the sound dump and more importantly, you have the actual sound data itself with your song including any changes you have made. The important difference is that when you have everything working off the sliders, the data is not being

Desk File Functions Quantize MIDI Flags Options Edit Copy

11 library original NOTATOR 3.1 (c) 1991 Lengeling/Adam

376430 -- intern 120.0000 1/16 4/4 00 00.000

PROGRAM	1	2	3	4	5	6	EAR	7	8	16	769	STATUS	CHANNEL	-1-	-2-	Length/Info
CONTROL	194	1	1	1	1							SysExcl		65	49	Roland
PSEUDO	.	.	.	.	.	.	.	.	.	.	.	.	.	14	0	23 0 0 0
#SysEx	.	.	.	.	.	.	.	.	.	.	.	.	.	0	47	0 36 0 127
p cPRES	~.	#.	.	.	.	.	.	.	.	.	.	.	.	126	4	35 13 1 65
PITCH W	2.													50	20	
OFF PON	195	1	1	1	1							SysExcl		65	48	Roland
COMMENT	.	19.	.	.	.	.	.	.	.	.	.	.	.	14	124	57 0 0 56
RETRIK	...	<	.	.	.	.	.	.	.	.	.	.	.	0	8	20 60 10 88
SNAP	~.	Bq.	.	.	.	.	.	.	.	.	.	.	.	126	11	66 113 0 9
VELVC	7.													55	24	
1/	196	1	1	1	1							SysExcl		65	48	Roland
SOFT	.	.	.	.	.	.	.	.	.	.	.	.	.	14	124	29 0 0 105
LOSET	...	M.	.	.	.	.	.	.	.	.	.	.	.	0	3	25 78 0 50
	U.	7.	.	.	.	.	.	.	.	.	.	.	.	85	0	55 127 45 0
	2.													50	24	
	197	1	1	1	1							SysExcl		65	48	Roland
	.	.	.	.	.	.	.	.	.	.	.	.	.	14	124	8 32 0 102

RIGHT: CATCH, OK, INSHUTE, MIDIOUT, STEPIHA, MIDI IN, CYCLE, CHORD, QUANTIZE, REQUANT, DELETE

Here are several complete sound dumps from the Juno. Each number represents a slider/button on the keyboard. Direct changes to the data is possible here.

altered permanently.

What the numbers mean

The trick is knowing what slider/buttons are associated with which numbers in the sound dump. Well, we did some experimenting and found out the answers, but there is a catch. Finding the slider/number correlation is straight forward, but all the buttons are mapped to each bit of the number (byte). Since all MIDI data is composed of 7-bit bytes, each byte can hold 7 switch positions. In some cases, multiple bits may be used together to form a number with a greater range than 0-1. If you have a calculator which has built in facilities to convert binary to decimal, or

"Switch Table"	
Bit(s)	Meaning
6	Unused
5	Unused
4,3	HPF Freq. slider. 2 bit number is inverse of slider position.
2	Switch in VCA: 1=GATE; 0=ENV
1	Wavefm. sw. in VCF: 1=Down; 0=Up
0	Switch in DCO: 1=MAN; 0=LFO

if your MIDI software can take input in binary, then it will be easy for you. Otherwise, you will need to convert the binary number to decimal. The table below shows what decimal values belong to each bit:

Bit	Decimal	Bit	Decimal
0	1	4	16
1	2	5	32
2	4	6	64
3	8		

"Sound Table"	
Bit(s)	Action
6,5	01 = no chorus; 10 = chorus I; 00 = chorus II
4	Sawtooth Wave
3	Square Wave
2	Hi Octave
1	Mid Octave
0	Low Octave

Note that impossible combinations (such as chorus I and II on together, multiple octaves on at once or no octaves on) are possible, but have unpredictable results.

Desk File Functions Quantize MIDI Flags Options Edit Copy

J_60_106.SON M O T A T O R 3.1 (c) 1991 Lengeling/Adam

436198 ON intern 120.0000 1/16 4/4 2:40.13 651 1 2 3

BEAT	ARRANGE	a	b	c	d	MUTE	STATUS	Juno Lib 1	CHANNEL	TRACK: 1	1	1	1	1
15	Start me					11		1 Basses	Jun 106 A 16	CHANNEL A 16	LEFT LOCATOR	580	4	3 19
20	Sledge					12		2 Strings	Jun 106 A 16	QUANTIZE 768	RIGHT LOCATOR			
24	Hammer		53			19		3 S.Effect	Jun 106 A 16	BROOVE				
57	Home					20		4 Keyboard	Jun 106 A 16	TRANSPOS				
61	Bridge		17			21		5 Plucks	Jun 106 A 16	VELOCITY				
75	FalseEnd		7			22		6 Flutes	Jun 106 A 16	COMPRESS				
91	Japan		13			23		7 WoodWind	Jun 106 A 16	LOOP				
100	Wonan					24		8 Violins	Jun 106 A 16	DELAY				
125	Limbs					25		9 Percussn	Jun 106 A 16	LOWEST				
132	GetReady		26			26		10 Pads	Jun 106 A 16	HIGHEST				
142	AllHell		74			27		11 Organs	Jun 106 A 16	GHOST OF				
189	Crazy808		23			28		12 Ethereal	Jun 106 A 16					
						29		13 Boink	Jun 106 A 16					
						30		14 Sweeps	Jun 106 A 16					
						31		15 WeirdLFO	Jun 106 A 16					
						32		16 Eltronic	Jun 106 A 16					

CATCH 1 1 1 1 5 0 0 0 15 1 1 1

UP BEAT CLT TRANSFACE

PATTERN LENGTH PATTERN POSITION MIDI THRU OVERFLOW SHUTE

H Q D Q

EDIT AMG

STOP RECORD START PAUSE

Make up a Library of Sounds for your Juno as well as backing up the standard keyboard sounds. Swap them with other Juno friends as a MIDI file on floppy - libraries take up very little space.

By adding together the numbers corresponding to all the bits you want, you can obtain a decimal number to put into your MIDI software – as you can see, the 7-bit value has a range from 0 to 127. If you are entering the number into a calculator as binary, remember that the bit number counts from the right, so you will have to enter the bits in reverse order.

Example: (refer to chart) To set to Chorus I, Square Wave, Mid Octave. The byte would be constructed as follows:

```

chorus I= 10
saw wave off= 0
square wave on= 1
hi octave off= 0
mid octave on= 1
low octave off= 0
or 1001010
  
```

To convert this to decimal, we add up the values for each bit (refer to table above):
 $64+8+2 = 74$.

Make a Sound library

The next step is to go to the keyboard and save the new sound you have made. Then dump that sound to the computer as previously described. Keep doing this and you will soon get a library of sounds you have personally customised. A simple way to experiment is to change the settings of existing sounds, save and dump them.

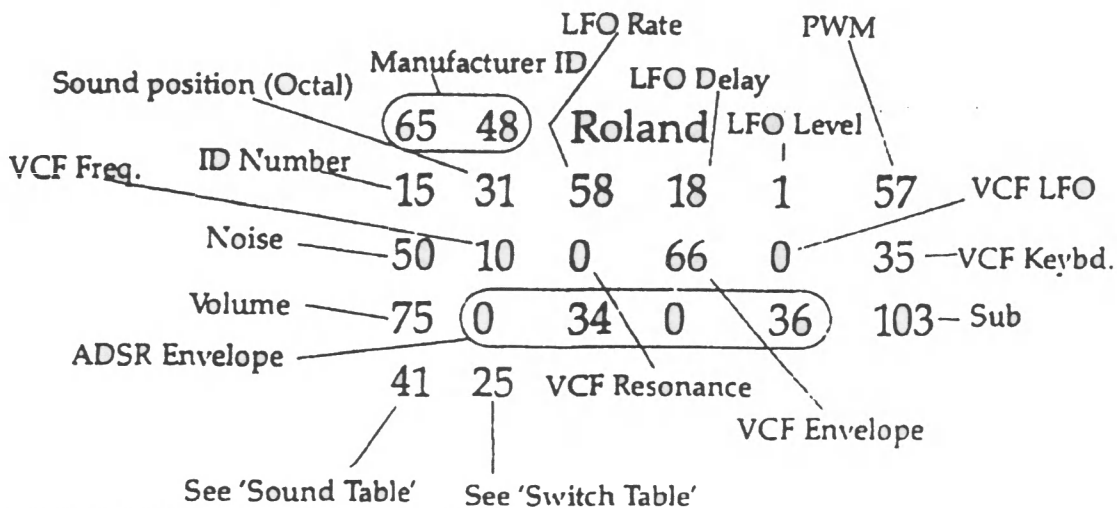
Swap Libraries with friends

Save out your library as a MIDI file and you can then exchange your new libraries or even the current standard keyboard sounds with friends. It is also a way of saving your current keyboard sounds in case of the battery going flat in the future, This has happened to me, and I have had difficulty in dumping down the Official Sound library from Roland via the archaic cassette tape method – thank goodness those days are long gone now!

Discover Sound Synthesis

Even if you think you are not musically inclined, these keyboards are a lot of fun, you can pick up these older MIDI-Juno 106's (the Juno 60 has the inbuilt speakers) for somewhere around NZ\$300–500. All the controls are laid out clearly in front of you. It is not so complex that you are always confused and you will discover sounds you will have heard in some popular Rock and Pop music of the '70's and '80's. The older Juno 6, without the MIDI, was my very first keyboard and I still remember the thrill of finding that sound they use in the introduction to the movie 'Chariots of Fire'! Some people are not into playing music but get satisfaction from experimenting with sound synthesis. These Roland Juno's are a great place to start – JUNO what I mean?

SysEx Sound Dump from Juno 106



(C) & (P) 1995-1999 by Hallvard Tangeraas (About me About this site Contacting the author)
 Last update: 4-December-1999





Hello fellow Atari ST user wherever and whoever you may be!

This page is meant as a **starting point** on the web for users of any Atari ST computer system where you can quickly and easily find whatever you may need.

If you fancy pages filled to the rim with JAVAscripts, tons of useless images, background music etc. you need to go elsewhere. Sorry.

But if your aim is to quickly find something related to this excellent computer platform, please continue...
 Enjoy!

This site is located in **Auckland, New Zealand**. Other locations available are:

1.  Trondheim, Norway
2.  San Francisco, USA

Contents of this site

1. Information/help: Frequently Asked Questions (FAQ) and other informative documents

2. Software: Software authors/companies and their pages (many with downloadable software)

3. Hardware: Do-It-Yourself (DIY) hardware projects/documentation

4. FTP sites: Atari ST related FTP sites worldwide and online file-searchers

5. Essential utility software: A small, but useful collection of useful 'must have' software for any Atari user

6. Internet software/support: Internet/communications software

7. Operating systems/emulation/TOS clones: Alternative operating systems, emulation and Atari compatibles

8. Atari dealers/manufacturers: Dealers selling/supporting/repairing Atari ST systems

9. MIDI/sound: MIDI and sound software, support and information

10. Programming: Atari software-programming information and related links

11. Computer-specific pages: Specific and specialized ST/MegaSTe/Falcon/Transputer/TT pages

12. Newsgroups: Atari ST related newsgroups (accessible for all, regardless of your Internet provider's newsfeed!)

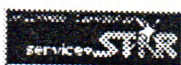
13. Magazines/publications: Atari ST magazines and 'diskzines'

14. User groups: Atari ST usergroups/organizations worldwide

15. Miscellaneous: Personal Atari home pages and others which don't fit into any of the above categories

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The Atari Hyperlink Launchpad is maintained by Hallvard Tangeraas in Norway, but there are several mirrors around the world including one hosted by Tariland in New Zealand. The Launchpad is one of the most comprehensive Atari WWW sites around with links to hundreds of Atari related WWW pages, including personal pages, dealers and hardware and software developers. Hallvard also maintains an Atari FTP site with a number of useful utility programs available for download.

The URL for the Atari Hyperlink Launchpad is <http://launchpad.atari.org/>

To go directly to the Auckland mirror, use <http://gem.win.co.nz/hall/>

When Printers go !@!\$%!"&# ^ \$!!

by Brian Becroft

The following article was printed in the April 1994 Tariland Magazine. It is the short story of the troubles we were having with our Laser Printer. The printer was crucial to the production of the magazine. I bought the printer out of my own money, and absorbed quite a few costs in running it. Printing a good black was a big problem. I experimented with different toner with disastrous results. What happened was, I obtained some Toner from 'Peace Computer' in Symonds Street. Unbeknown to me she gave me the wrong toner and it totally fowled up the printer!. They were very good about it and ended spending about \$800 or more trying to repair it for me. In the process I learnt lots about this printer. I took my Stacy into the workshop into the TISCO workshop in South Auckland and we worked together doing many A4 pages completely covered in black, trying to get it correct. Lucky they were using up their toner and not mine! They did improve it but it was not perfect, we did determine that the problem was the laser unit itself. And a new unit was so expensive it could not be managed. Later on at home I took the laser unit apart and found the mirrors to be very dirty, so I cleaned them and this made a huge difference. It still does not print an acceptable black even today. I once tried some photocopy toner - an absolute 'no-no' I am told. This did get a total black cover, just marvellous, but there was also some other fine particles in the toner which kept ruining the picture. Even today I am sure that the answer is in the right mix of toner, but I can't find a person who really understands what toners are all about at a technical level. *Anyway, here is that 1994 article...*

SLM804 Atari Laser Printer
TEC (LB) 1301 internal mechanism

Oh my printer!, Oh my printer!,
Why do you pack up at the wrong time!!

I am afraid folks that this magazine will have to be printed on some yet to be discovered 3D Holographic Realtime Device, my printer and I have separated and a

divorce is being arranged. The printer is now very shitty with me and argues so much, that I overfed it with printing toner. It is now dry-retching and has an extremely pale printing complexion, it also feels completely unloved and I have already made arrangements with the funeral director for a cremation on the expected death. I can't stand it, I want my lovely printer back, I want it well feed and working, but no, the doctor says no. It has succumbed and I should apply for a government loan to get another one. Life will be happy when a new one comes!

Now after a month the printer has been revived and has been given a new meal of toner powder, (they are very fussy and don't like photo copy toner, never ever!). Also its stomach has been replaced and a new drum installed. This cost \$550. Then it insisted on a bypass and so the toner tray or developer had to be replaced. This cost \$390.

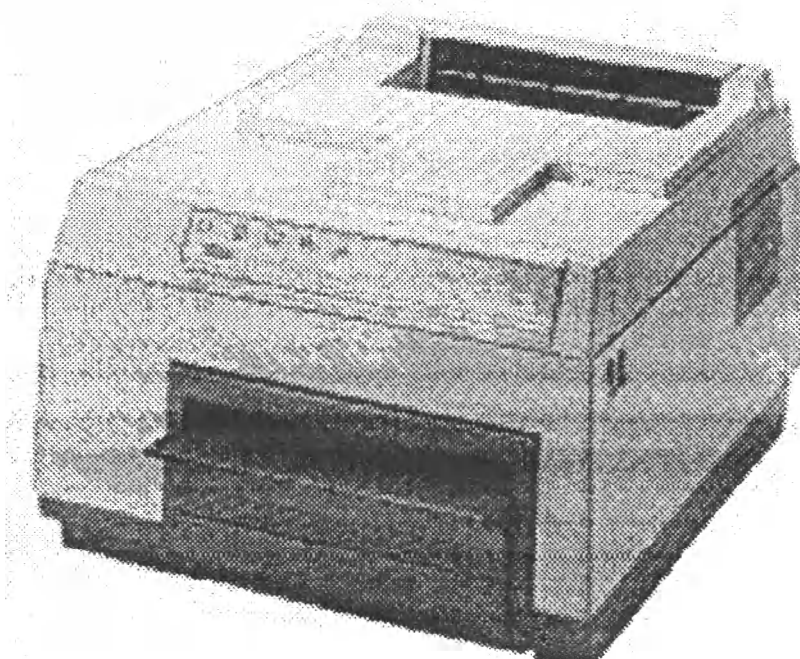
Threats don't work

Now you would think that with such pampered and extravagant care bestowed on an essential thing in ones life, one would expect performance and results, but no, not in this case, I have a mind to give it a good kick up the %~~£"(!& ^ .!!! However, under this sort of threat, it has decided to have a go at printing again, but it still expresses pent up

tension by periodically crinkling up, chewing thoroughly, and finally spitting out paper from it's feed chute. I think it is now complaining about the taste of the paper, preferring only Tasman microwhite, bran enhanced, grade 3 fine 120 gram. Its either that, or premium Japanese Origami Paper.

Yes, well I decided to dismantle the printer after this last communication and so after many screws and shields later, out came the hallowed laser unit itself, the thing of no deception. I peered at the laser and the mirrors, cleaned specks of something off the mirror. Then I checked the very thick and narrow optical lenses and they were decidedly strange, covered in a sort of lace pattern of opaque texture. Too bad for coated optics I theorised and proceeded forthwith to isopropyl alcohol them quite thoroughly. Presto Jesto!! CLEAN LENS!! Not bad I thought, re-assembled everything and told my laser to get printing, which it did well and proper and vastly improved.

It still does not print black properly and I am at present using a crow bar and a lot of leverage in order to prise this last secret out of my dear loved one, which however I do not think I love quite as much as I used to. This is the end of verse one.



Did you hear anyone say "Goodbye"?

by Donald A. Thomas, Jr.
(10/4/96)

It's odd to imagine an institution, which was as big and as powerful as Atari once was, to have been shut down in recent days. The real amazement for me is that it was all accomplished without a measurable flinch from within or outside the gaming industry. I can understand that gamers wanted to push Pong out the door early in the timeline. I can appreciate that the classics such as Missile Command and Asteroids do not push 32-bit and 64-bit systems to any technological limits. I know all these things intellectually, but the heart cannot face the truth that the world and the corporate machine known as Atari could not find an amicable way to coexist.

On Tuesday, July 30, 1996, Atari Corporation took each and every share of its company (ATC), wrapped them all in a tight bundle and presented them to JTS Corporation; a maker and distributor of hard disk drives. On Wednesday, the shares were traded under the symbol of JTS. Within a few weeks, the remaining staff of Atari that were not dismissed or did not resign, moved to JTS' headquarters in San Jose, California. The three people were assigned to different areas of the building and all that really remains of the Atari-namesake is a Santa Clara warehouse full of unsold Jaguar and Lynx products.

It was only as long ago as mid '95 that Atari executives and staff believed things were finally taking a better turn. Wal*Mart had agreed to place Jaguar game systems in 400 of their Superstores across the country. Largely based on this promise of new hope and the opportunities that open when such deals are made, Atari invested heavily in the product and mechanisms required to serve the Wal*Mart chain. But the philosophical beliefs of the Atari decision makers that great products never need advertising or promotions, put the Wal*Mart deal straight into a tailspin. With money tied up in the product on shelves as well as the costs to distribute them to

get there, not much was left to saturate any marketplace with advertising. While parents rushed into stores to get their kids Saturns or PlayStations, the few that picked up the Jaguar were chastised by disappointed children on Christmas day.

In an effort to salvage the pending Wal*Mart situation, desperate attempts to run infomercials across the country were activated. The programs were professionally produced by experts in the infomercial industry and designed to permit Atari to run slightly different offers in different markets. In spite of the relatively low cost of running infomercials, the cost to produce them and support them is very high. The results were disappointing. Of the few thousand people who actually placed orders, many of them returned their purchases after the Holidays. The kids wanted what they saw on TV during the day! They wanted what their friends had! They wanted what the magazines were raving about!

In early 1996, Wal*Mart began returning all remaining inventory of Jaguar products. After reversing an "advertising allowance" Atari was obligated to accept, the net benefit Atari realized was an overflowing warehouse of inventory in semi-crushed boxes and with firmly affixed price and security tags. Unable to find a retailer willing to help distribute the numbers required to stay afloat, Atari virtually discontinued operations and traded any remaining cash to JTS in exchange for a graceful way to exit the industry's back door.

Now that JTS has "absorbed" Atari, it really doesn't know what to do with the bulk of machines Atari hoped to sell. It's difficult to liquidate them. Even at liquidation prices, consumers expect a minimal level of support which JTS has no means to offer. The hundreds of calls they receive from consumers that track them down each week are answered to the best ability of one person. Inquiries with regard to licensing Atari classic favorites for other applications such as handheld games

are handled by Mr. John Skruch who was with Atari for over 15 years.

In spite of Nintendo's claim that their newest game system is the first 64-bit game system on the market, Atari Corporation actually introduced the first 64-bit system just before Christmas in 1993. Since Atari couldn't afford to launch the system nationwide, the system was introduced in the New York and San Francisco markets first. Beating the 32-bit systems to the punch (Saturn/PlayStation), Atari enjoyed moderate success with the Jaguar system and managed to lure shallow promises from third-party companies to support the system. Unfortunately, programmers grossly underestimated the time required to develop 64-bit games. The jump from 8-bit and 16-bit was wider than anticipated. In addition, Atari was already spread thin monetarily, but were required to finance almost every title that was in development.

After the initial launch, it took Atari almost a year before an assortment of games began to hit store shelves. Even then, having missed the '94 Holiday Season, many of the planned titles were de-accelerated to minimize problems caused by rushing things too fast. Consumers were not happy and retailers were equally dismayed. The few ads that Atari was able to place in magazines were often stating incorrect release dates because that information changed almost every day although magazines deadline their issues up to 120 days in advance.

It was in 1983 that Warner Communications handed Jack Tramiel the reins of Atari. By this time, Atari was often categorized as a household name, but few households wanted to spend much money on new software and the systems were lasting forever. No one needed to buy new ones. That, combined with Warner's obscene spending, amounted to a *daily loss* of over \$2 million. Atari was physically spread all over the Silicon Valley with personnel and equipment in literally 80 separate buildings; not considering international offices and

manufacturing facilities. Mr. Tramiel took only the home consumer branch of Atari and forced Warner to deal with the arcade division separately. Within a few years, Jack took the company public, introduced an innovative new line of affordable 16-bit computers and released the 7800 video game system.

To accomplish these miracles for Atari, Jack implemented his "business is war" policies. While people who publicly quoted his statement often felt that policy meant being extremely aggressive in the marketplace, the meaning actually had closer ties to Tramiel's experience as a concentration camp survivor. Of the 80 buildings in Sunnyvale, Santa Clara and Milpitas, almost every one of them were amputated from Atari's body of liabilities. The people, the work, the heritage, the history were fired or liquidated. Those who survived were unsympathetically required to fill in the gaps and while most tried, few actually found a way to be successfully do what a dozen people before them did. Atop the mountain, Jack pressed with an iron thumb. All Fed/Ex mailings were required to be pre-approved by one of a handful of people. "Unsigned" purchase orders went unpaid regardless of the urgencies that inspired their creation. Employees found themselves spending valuable time trying to find ways around the system to accomplish their jobs. Many of them lost their jobs for bending the rules or never finding a way to make things work. As horrible as it all sounds, it actually was the only way to protect Atari as a company and give it a chance to survive as it did and did very well.

Jack's introduction of the 16-bit computer was initially hearty in the United States but it went extremely well in Europe. Europeans were not accustomed to "affordable" technology and although the Atari computers were not IBM compatible, it didn't matter because people could afford them. Jack's private laugh was that the computers were sold at prices much higher in Europe than Americans were willing to pay. As a result, most of the machines made were being shipped to European destinations to capture the higher margin. This enraged the people in

the United States that had been Atari loyalists. While waiting months for stores to take delivery domestically, international magazines were touting ample supplies. Those in the know within the U.S. became dismayed. The remainder never knew Atari was slowly abandoning the value of Atari's name recognition as it became easier and easier to forget some assuming Atari had long filed for bankruptcy.

On a technical level, Atari 16-bit computers were designed beyond their time. For less than \$1,000, consumers could enjoy "multimedia" before the phrase was ever really widely used. The icon-based working environment proceeded Windows popularity although the essential attributes of the two environments were very similar. MIDI was built-in and became an instant hit in the high-end music industry. Tasks were activated and manipulated with a mouse and the system accepted industry standard peripherals such as printers, modems and diskettes.

With all the genius that went into the technology of the machines, very little of equivalent genius went into the promoting and marketing the machines. Mr. Tramiel was the founder of Commodore Business Machines. When he introduced the PET computer in 1977, Jack discovered he didn't have to call a single publication. Instead they all flocked to his door demanding an opportunity to see the product. News magazines. Science Journals. Business newsletters. Newspaper reporters. They were all there with microphone, camera and pen in hand. And they kept coming back. Adding a switch, announcing a new 4K application or signing a new retailer were all big stories the press wanted to handle.

Today, a new video game announcement may generate a request from any of the dozens of gaming magazines for a press release, but a lot of costly work has to be done to assure fair or better coverage. Editorial people are literally swamped with technical news. Samples are mailed regularly to their attention. Faxes fly in through the phone lines and e-mail jams up their hard drives. It takes a lot to grab their attention.

While Atari retained hopes to be successful with the Jaguar, Atari's marketing people were fighting established standards in the industry with severe handicaps. Since cartridges (the Jaguar was/is primarily a cartridge-based system) were so expensive, editorial people were required to return them before new ones would be sent. Editorial people like to assign review projects. So finding cartridges they sent out was not always easy to do. Additionally, reviewers often love their work because they get to keep what they write about. Regardless, the few magazines willing to cover Atari products were more often turned away because of a lack of programmable cartridges or any number of other indecisive barriers. In-store signs and posters were sometimes created, but many retail chains charge premiums to manufacturers that want to display them. Some direct mail campaigns were implemented, but Atari often could not afford to keep those things being advertised on schedule. Therefore, the advertisements were published and distributed, but the product was not available.

Clearly, Jack's experience with the world beating a path to the door of a company making a better mousetrap no longer applied. The world had revolved a few times beneath him and he never noticed. The tactics used to successfully sell Commodore computers were simply antiquated notions from the past. Meanwhile, Sony launches the PlayStation with over \$500 million in marketing funds. Today, the PlayStation is considered the most successful next-generation gaming machine throughout the world. Sony bought the market. Tramiel's Atari never learned how to do that. Actually, they never could afford it anyway.

After the 1990's got underway, Europe as well as the rest of the world, discovered that IBM-compatible computers were becoming more powerful and more affordable. The world always did want computers at home just like in the office and companies like Dell and Gateway exemplified the industry's trend toward home-based office computers. As a result, companies like Commodore, Atari

and Next couldn't compete any longer. While the dedicated user base of each of them felt abandoned by these companies having to leave the computer market, the inevitable prevailed. Commodore jumped ship, Next changed business goals completely and Atari invested what they had left in the Jaguar game system. Even today, Apple is kicking and screaming. As good as Apple was at creating a huge niche for themselves, they focused more heavily on education. When kids grow up and get jobs, they want business machines. IBM was always the business standard.

When one examines the history of Atari, an appreciation can grow for how many businesses and people were a part of the game over the years. Chuck E. Cheese Pizza was started by Atari's founder, Mr. Nolan Bushnell. Apple Computer was born in a garage by ex-Atari employees. Activision was founded by Ace Atari programmers. The list goes on and

on.

But for some pathetic reason Atari's final days came and went with no tribute, no fanfare and no dignified farewells. Why? Where did all the talent go? Where are all the archives? Where are the vaults? Where are the unpublished games and where are the originals of those that were? Why has no company stepped forward to adopt the remaining attributes Atari has to offer? Where are the creditors? What has happened to all the properties and sites? Where are the databases, warranty cards, promotional items, notes on meetings, unanswered mail? Who owns P.O. Box 61657? Who goes to work in Atari's old offices? Where do consumers have their systems fixed? Who is publishing new games? Who still sells Atari products? Why are there still a lot of people talking about Atari on-line?

I'm an ex-Atari employee and proud to have been. I'm still an Atari

devotee and proud to be. To me, these are questions which all deserve an answer, but who will ask them?

The best people to ask these questions are those who have exposure to the public. If you believe Atari left us without saying goodbye, contact Dateline at dateline@nbc.com. If you REALLY believe, then send this article to 10 of your friends in e-mail. AND if YOU REALLY, REALLY believe, mail a few to newspapers or other news programs. A letter in your own words would be great!

I'd spend money for a thorough retrospect on Atari. Wouldn't you?

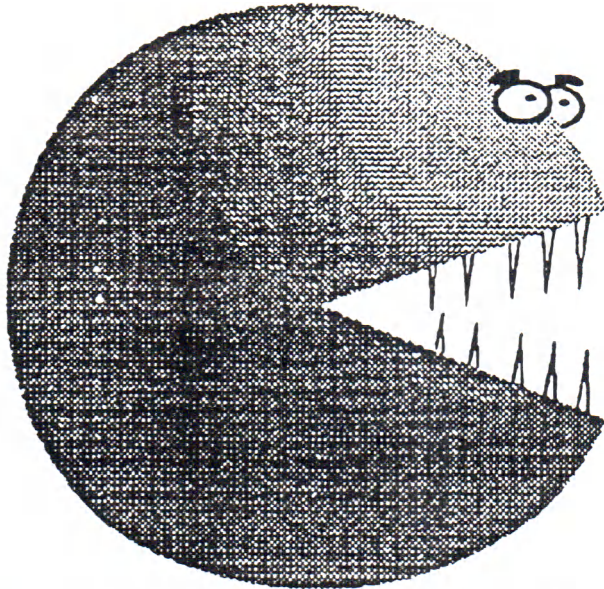
Wouldn't it at least be nice to say "Goodbye"?

--Don Thomas

75300.1267@compuserve.com
209/239-3898

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The Life of Virus



Computer Virus, highly magnified

A Viruth
Never Tireth
Awake and Steady
Zaps those
unsteady
Loves a lark
Sniffs like a shark
Bites to thrill
whose minds
become still

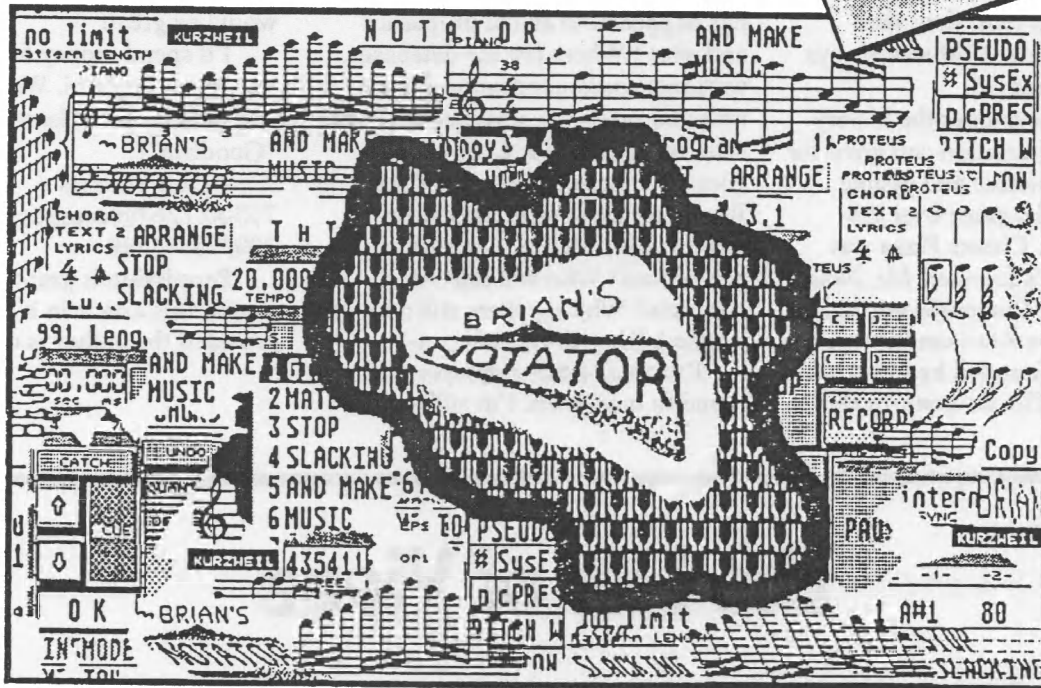
Tariland News

For Atari Computer Enthusiasts.

April 1994

Music Meetings

Next Club Meeting:
Sat. 9
April 1994



My Notator Collage by Brian Becroft

A mixture of a picture, this was done by taking a 'screen shot' of the Notator main screen and cutting and pasting parts of it all over the place. I liked the effect! On the Notator main page, there is a C-LAB Logo. I delved into the resource file and changed this logo with my own version of the great Volcano which dominates Central Auckland - Rangitoto! Another thing I set up on my Notator main screen was having some of the music tracks already pre-named. They read: Giddy Mate - Stop Slacking And Make Music! Well just a little stupid touch!

Music has become a stronger part of the club as the years have passed. Only last night (Sat. December 11th 1999) there was a programme on the Television that showed a recording studio with an Atari ST computer amongst the equipment! In fact, the Atari ST computer (in a minor way) is in demand here in New Zealand. It is used with music sequencing software. The most common software used is Notator and Creator by C-LAB and Cubase by Steinberg. Both these companies developed their product on the Atari in the 1980's to a professional level. It is one of the unusual things in the computer world - the "old" Atari ST of 1985 vintage is still able to do a fine job in 1999!! And it will do so for some years yet I would think. It does not really bear thinking about to contemplate what any other brand of computer of the same era was capable of in the way the Atari ST is - then and today! All musicians using an Atari today continually reap the benefits of some wise decisions in computer design made by the Atari people way back then.

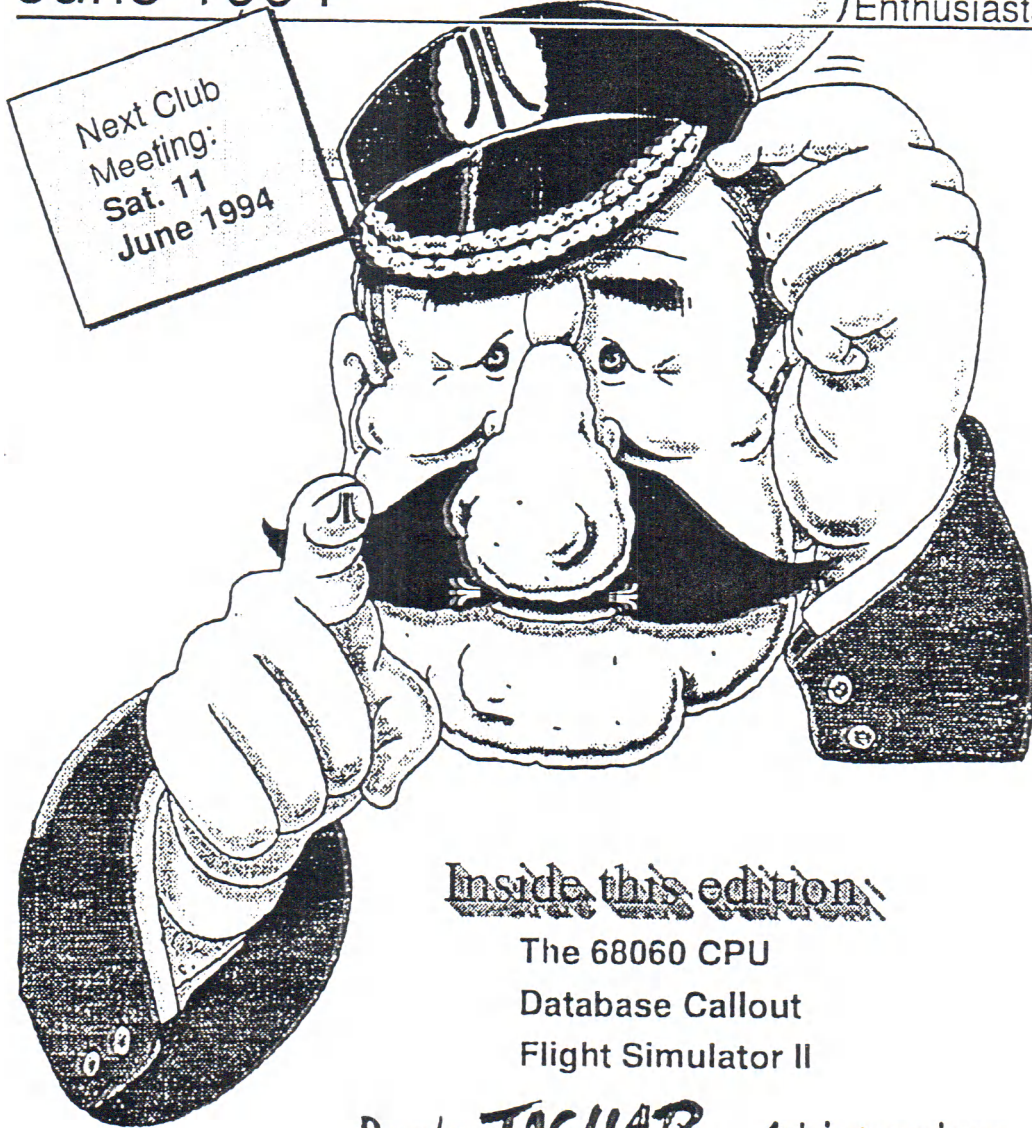
I would say that one of the highlights at the Tariland club as far as music goes was the demonstration by Larry Kilip of his music set-up and talk of what he does for a living - writing Television Jingles. We found out that Larry is one very gifted man, and is behind many of the tunes in the advertisements on the Television.

My software never has bugs. It just develops random features.

Tariland News

June 1994

For Atari Computer
Enthusiasts.



~~Inside this edition~~

The 68060 CPU

Database Callout

Flight Simulator II

Dave's **JAGUAR** -- 1st impressions

Tariland Magazine cover - June 1994

Your Country Needs You!

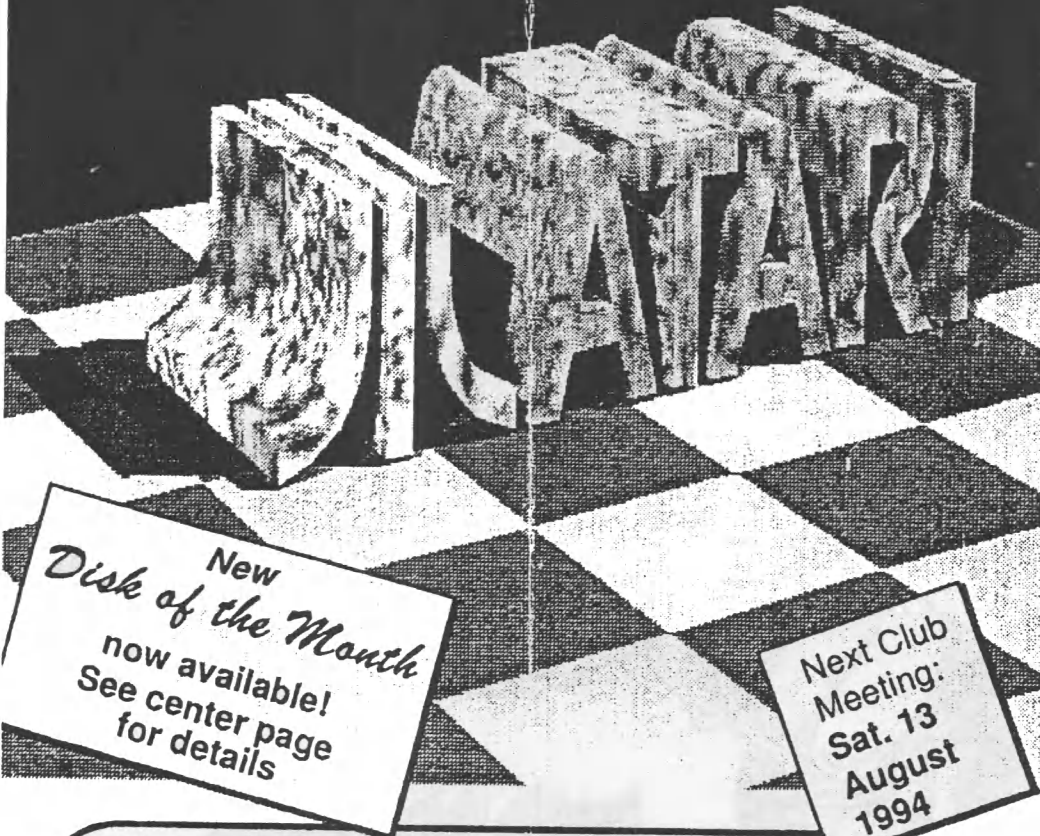
This cover represents a little campaign I had over the preceding months - to get the club members to pay their subs on time. Most people had this terrible habit of not paying for up to six months afterwards, it was like trying to get water out of a stone! We did succeed to some extent and this was one aspect that helped bring better management to the club's finances.

ASCII stupid question, get a stupid ANSI

Tariland News

August 1994

For Atari Computer
Enthusiasts.



New
Disk of the Month
now available!
See center page
for details

Next Club
Meeting:
Sat. 13
August
1994

Inside this edition

\$100's by spending \$1000's
1st Word Printer Drivers
Frontier Elite II

MultiTOS
Monthly Disc
GIP

Tariland Magazine August 1994

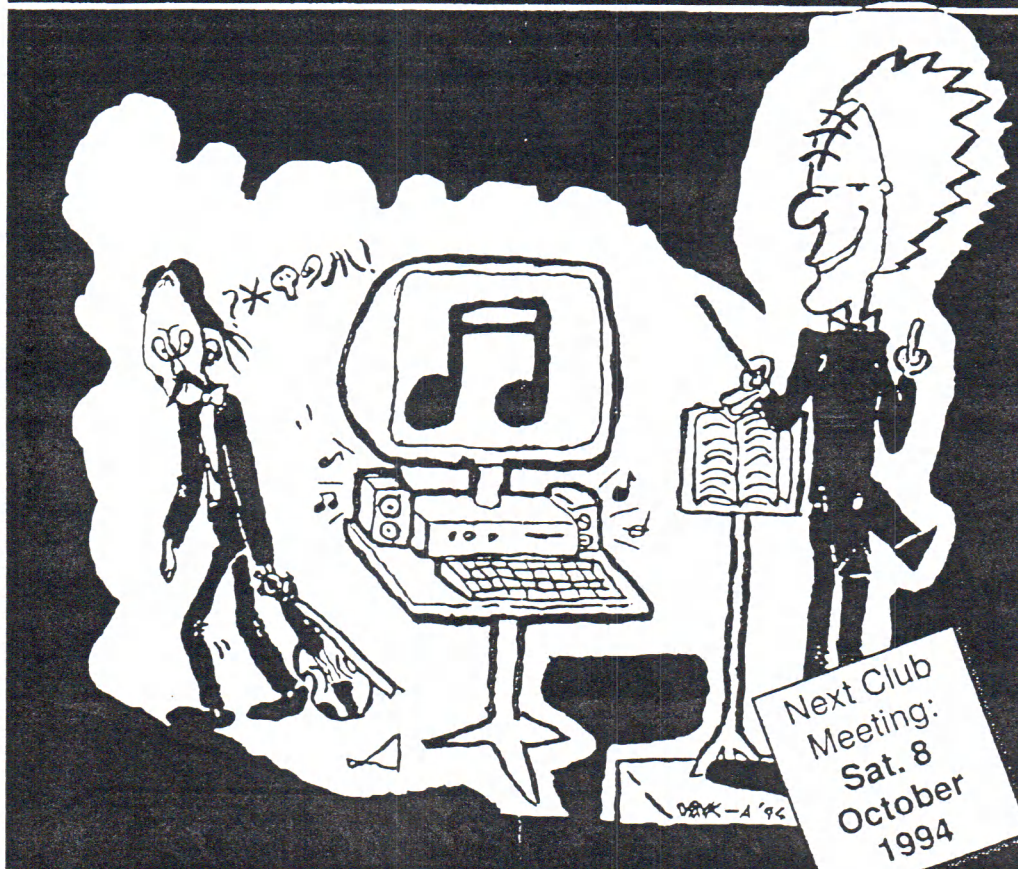
This was one of the first better quality graphics that we obtained. Greyscale pictures had not been used in the mag at all, but this was starting to change as we got to grips with the software and better hardware to produce the magazine with. Having access to the Internet made a huge positive difference to the range of material we could access. In this issue a 'serious user' - Wayne Barnett ran an informative article about his DTP efforts. His article was headed "How to make hundreds by spending thousands" From memory I think Wayne did a local telephone directory in Calamus for Telecom, and many other jobs too. He also installed his Mega ST into a 'Midi Tower' case that PC Computers come in these days. It meant he could get more 'add-ons' into the case.

"640K ought to be enough for anybody." - Bill Gates, 1981

Tariland News

October 1994

For Atari Computer Enthusiasts.



Tariland Magazine October 1994

This (cover and some others) were designed by the Andon Monk - the son of one of our club members. I was always trying to keep a look-out for ideas for the magazine cover, and Andon fitted the bill for a while, The theme here is music once again. The conductor has a computer as the orchestra and a very disgruntled musician is tramping off to the side. Many times people have said to me that all this computer 'stuff' will replace music groups and orchestras. However, this will not ever happen. The computer has simply opened up new areas of music which do not affect orchestras very much. There is a difference with modern Rock and Pop music. Technology has made a big change to the number of musicians necessary in a band for instance (less). In professional modern music, it is a wise combination of live sound and electronics.

Error reading FAT record: Try the SKINNY one? (Y/N)

Tribute to Alan Martin-Bus

Tariland News

November 1994

For Atari Computer
Enthusiasts.



Read my chips: No new upgrades

Tariland Magazine Nov. 1994

“Love me Tender”

Peter Dyer and son Andon contributed the artwork to this month's special cover. It refers to an incident involving a club member, and the Elvis Presley song “Love me Tender” (see end of article).

In a magazine it is often hard to convey the life of all the people on paper. At the Tariland Club meetings there would often be very animated discussions amongst certain members, often very lengthy! Raised voices always in jest, very lively. Well, Alan Martin-Bus was one of these people. A colourful character, he was always at the meetings, he helped run the club for a while.

The Atari computer meant a great deal to him. He loved games, and a few serious pursuits as well. What most of us did not know was that Alan had a rather difficult life at times, he suffered from epileptic fits, he had to be on a sickness benefit, and he never had much money.

It was sad day indeed for the life of the monthly meetings and the whole club when we heard the news that Alan had suffered a tragic accident due to his medical condition. I had to do with his Mother afterwards, helping to sort out his worldly belongings. That is when I found out that Alan was a man “of many parts”. He had been on the Television on the ‘Mastermind’ programme, and was a Stand-up Comic, I believe he ran for Parliament at one stage under the ‘McGillicuddy Serious Party’ banner. He was an authority on Light-Houses in New Zealand. This was a passionate love of his, and he trekked to remote locations to visit them all and write about them as well. Lastly he was a competent Highland Piper. I went to his funeral - what a stir it was! Bagpipes galore were in evidence and it was so moving to have them playing in this context in the full-to-overflowing hall. Honours were piled high for him by his many friends - I have to tell you this was a very moving occasion indeed.

I quote the last paragraph from my eulogy to Alan in the Tariland News, November 1994...

“Now that his bustling energy has finally been laid to rest, I trust you will share with me a final goodbye and a thankyou for his contribution to the Tariland Club.”

Finally, quoting from Peter Dyer's Eulogy:

“One incident that will long be remembered by my son Andon and I, is the time late one night during phone-ins on the Max Music TV channel, Alan rang in to play his unique rendition of “Love me Tender” (Elvis Presley) on his beloved bagpipes. This delightful gesture spoke much about the humour and pathos of the man”

*Alan Logged off
With no time for goodbye
Never one to miss
A chance to reply*

*While the Bulletin Boards here
Will never be quite the same
Somewhere the handle of “Highlander”
Has logged on again*

Will the information superhighway have any rest stops?

New Zealand

Tariland News

March 1995

For Atari Computer
Enthusiasts.

**Digital Village
Hard Disc
Recording
-Interview**

BBS update

Internet Overview

Alien vs Predator

R.A.C.E.

**LeeSoftware
etc.**

**Next Meeting
Saturday
March 11**



Cover picture by Andon Monk

Tariland Magazine March 1995

A little known story exists behind the cover of this magazine. The cover is drawn again by Andon Monk, a suitable theme for the spotlight of the month - the Atari Falcon Computer with built in DSP chip. And a nice looking Falcon he has drawn! I was wanting to obtain more details about the Falcon and Cubase Audio as regards its music recording capabilities.

I had found out that a shop in the United Kingdom specialised in music systems using Atari Falcons, so one day I rang the shop and talked to John Sharp. The shop was called the Digital Village, I recorded the conversation and transcribed it for use in the article in this Mag. I don't need to tell you how tricky it was doing the transcribing. It involved a lot of starting and stopping and starting of the tape as I struggled to type it all out. These days I have professional equipment and software suited for this purpose, but back in 1995 it was a big job. Another more sobering factor was to affect me about a month later when the Telecom phone bill waltzed in my Post Box. It was hard to manage that one while on a government benefit - it came to some figure over one hundred dollars for that one call, and I didn't feel like I could ask the Club to pay for it. Well, you have to be keen as the saying goes - and I felt it was a great addition to the magazine, I just wished we had the money to manage more promotions like this.



Tariland Magazine May 1995

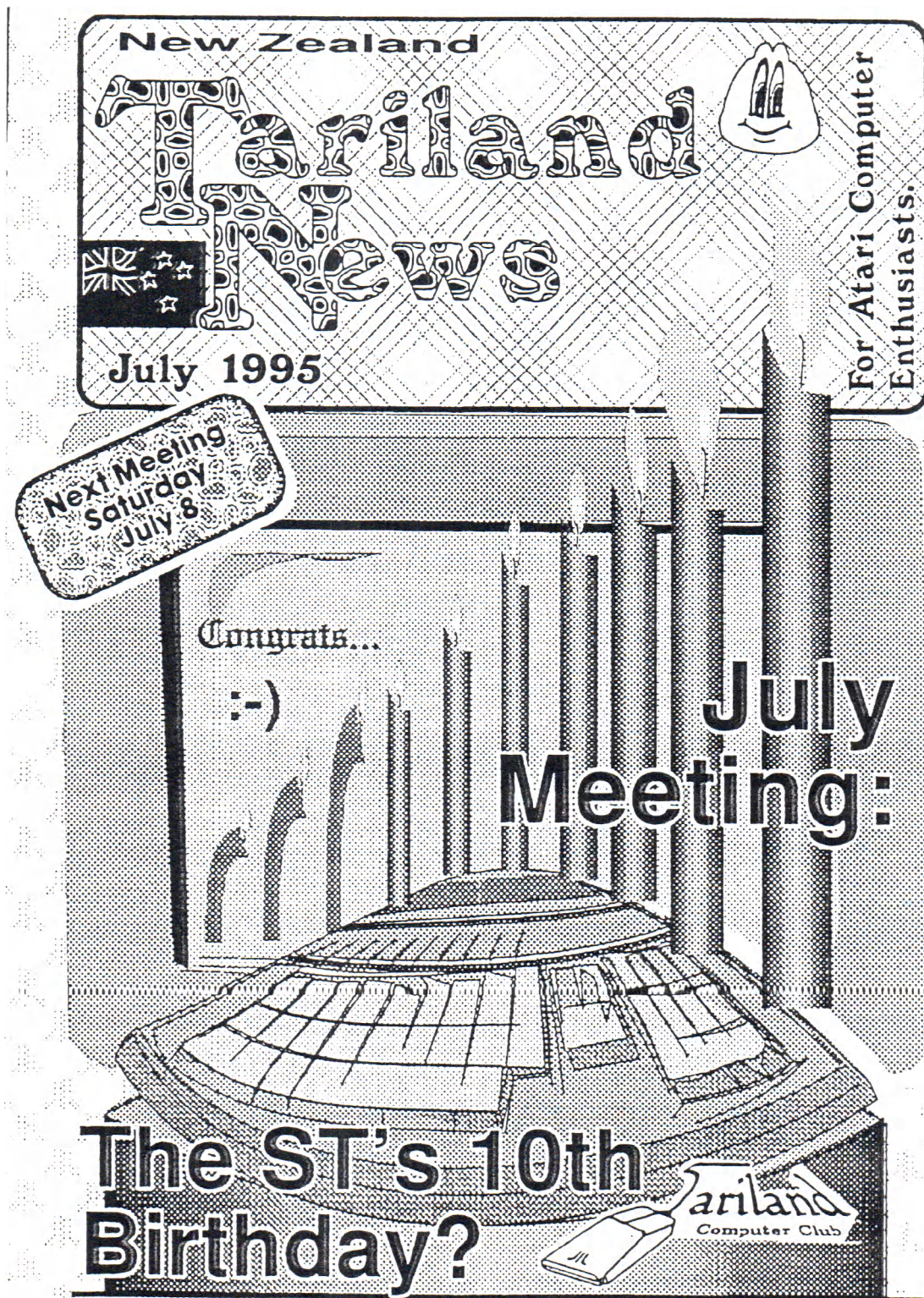
The picture this month was drawn by me. I had scanned a small picture of two music keyboards. These were bitmap images, which I then vectorised and "bent" the picture round to make a form of hair for the persons' face. With a couple of quaver notes as eyes and mouth we had a stylised face. I had received a temporary original copy of Cubase Audio and was able to obtain the screen shots in the picture from that program. Needless to say - I was a little bit more than excited to have a demo Falcon and Cubase Audio to try out. This was the first time I had ever seen Hard Disc recording at work. After what I was used to with my 8-Track Tape Recorder, the sound quality was astounding and the ease of manipulating the music files compared to tape was also a stunner.



Tariland Magazine June 1995

This picture took along time to complete. I had scanned the Auckland Harbour Bridge and some skyscrapers from out of the New Zealand Herald and twisted them round a little to give an interesting perspective, then I made all the bubbles and stars one at a time by hand in Calamus - that is what took all the time. I guess I may have spent a whole day, maybe more, making this picture! I rather liked the effect it created. We had got our BBS up and running and so this was the theme of the graphic.

*Real programmers don't document
If it was hard to write, it should be hard to understand.*



Tariland Magazine July 1995

This month the design was drawn by Mario. Well, I contributed the squeezed up computer. Mario did the computer screen and the candles. When we were considering what to do for this cover, a club member told us he thought it was the tenth birthday of the Atari ST Computer, well this was excuse enough and we set to creating this cover!

Who's General Failure & why's he reading my disk?

New Zealand

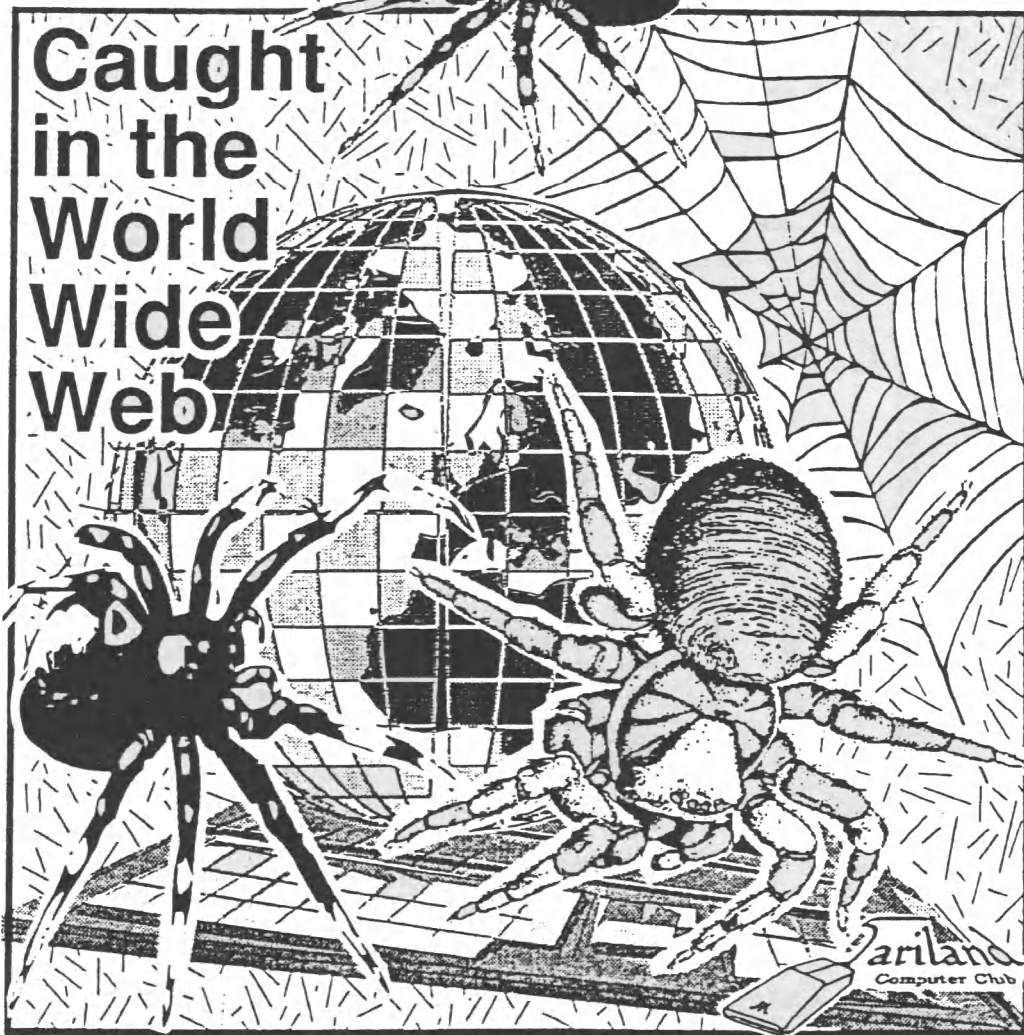
Tariland News




August 1995

Next Meeting
Saturday
August 12

For Atari Computer
Enthusiasts.



Tariland Magazine August 1995

The Internet was the theme this month. I had been fiddling round with the graphics again trying out all sorts of distortions when I chanced upon this particular effect that you see on the globe of the world. At this point the idea for the cover came to my mind, so I searched around and found a spider web in the Tariland Clipart Library, then I found Spiders (you see the theme - the World Wide WEB!!) For the type of graphics that I was conversant with up to this point, I was not needing any "masking" tools. Indeed I did not even know what these concepts were. But I needed them here and my software was not able to do it. That meant I had to do the job by hand - which was tedious. Masking means that you separate out parts of a picture so they do not interfere with one another, and so you can work on certain sections of the image without damaging other parts. In this case I had to use the masking tools in Calamus so that the background of the spiders was not going to block out the globe and other picture elements. It was a "kludgy" way of doing it, but the effect was just OK. You can see the white outline where I drew around the spiders' feet. I must say I was really pleased with how this cover turned out, and a neat idea to match the computer terminology of the "World Wide Web".



Tariland Magazine September 1995

This month I was told that the club had been going for thirteen years, so this was the theme for the cover. I had found some graphics software which generated bubbles which I used for the background. The comical picture of the cat counting out his money, together with a happy Sunflower all combined to portray a happy future for the club, and then there was this picture I had scanned from a German Atari magazine someone had sent us - of a boy with a grin and hands stretched out. That sums up the cover. I was trying my best to find ways of increasing the finances of the club, at least we could say we were wealthy on paper!

New Zealand

Tariland News




October 1995

Next Meeting - AGM - Saturday October 14

For Atari Computer Enthusiasts.


Come to the

AGM


by Patrick McMillan

Fantastic Music Demo

and see the



Date: October 14. Be there at 11 o'clock.



Tariland Magazine October 1995

Another Musician of merit in the club was Patrick Macmillan, he gave a great demonstration at the meeting and this was a cover to help promote that. Patrick showed everyone how he made the backing Music for his Gigs around Auckland, he was a real pro at it too. He would listen to the music on a CD and progressive emulate the instrumentation of the whole band or group. then he used a multi-track tape recorder to add in any backing vocals he might need. I think he added live vocals and drums, but the bank of synthesisers and Atari Computer and Mixing desk and so on made for a complicated looking rig. All power to you Patrick! The graphic was drawn by Andon Monk. again I think he captured the spirit of the event, you might notice the "AGM" lettering, this was done by Mario using some more fancy software than I could understand at the time. He could rotate the lettering to any desired angle and then extrude the lettering to suit. Turned out well.



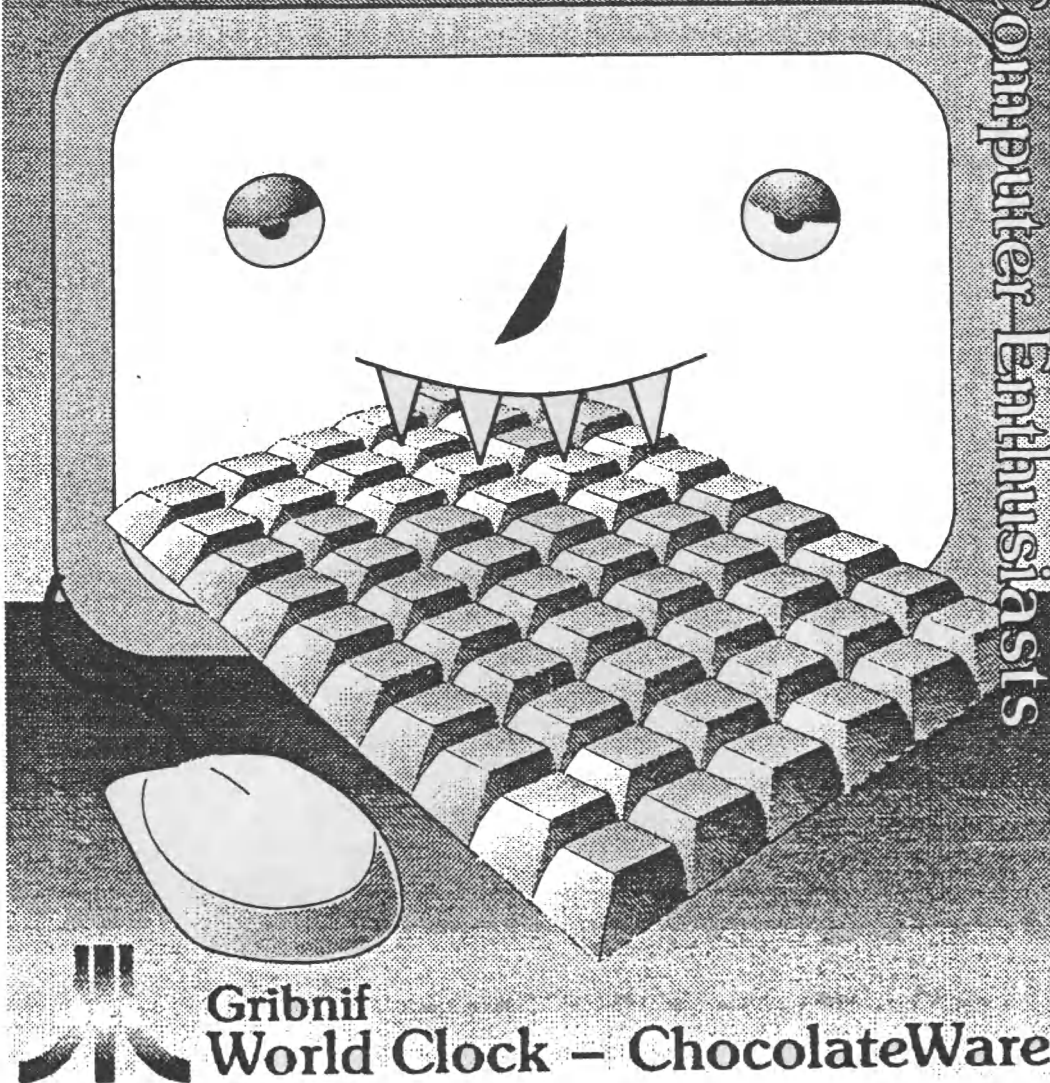
Tariland Magazine December 1995

This style of graphics indicated the "changing of the guard" so to speak, with Mario becoming much more involved in the Magazine production. He designed the whole layout, titling and graphics, which I thought was very professional. The result would have looked far more impressive if it was printed out in colour like we could see it on our computer screen. The idea was that presents were "cruising" out of the sky - a Christmas them of sorts. The presents had been drawn using a different technique of graphic drawing called Raytracing.

Hit any user to continue.

New Zealand
Tariland
News May 1996

For Atari Computer Enthusiasts



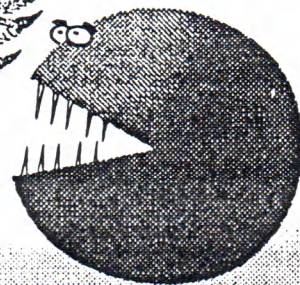
Tariland Magazine May 1996

Well, using Mario's graphic design talents we thought of the idea of the computer eating chocolate! That's mad I hear you say? Well almost. A well known Atari programmer, Dan Wilga had written the World Clock utility. The payment was "Chocolate Ware" This novel form of payment, requiring you to send the author a bar of chocolate if you regularly used the software was duly honoured by us. Dan, in the USA received a good old bar of New Zealand chocolate in the mail. That was a fun idea. I seem to remember that Dan got back to us some time later saying he had enjoyed our bar! I still laugh when I look at this cover picture Mario did, the half closed eyes signify the computer is enjoying the munch!

New Zealand Tariland News

July
1996

For Atari Computer Enthusiasts



Tariland Magazine July 1996

Two pictures on this cover - the fern and the sharp-toothed "bug". That bug was to go with an article on Computer viruses, shown this size after great magnification! I am sure there are many people out there who really believe that computers are alive and get viruses, such is the publicity on these things it is no wonder.

The other picture is not at all what it appears at first sight. Mario had been experimenting with a Fractal program, and that is what this picture is - a fractal. The one basic shape is repeated over to the point of infinity, the effect it creates here is that of a fern leaf. Each branch, each member of that branch, the complete fern are all the same basic shape. It is a lovely example of art - or is it Maths, imitating Nature on the computer.

New Zealand Tariland News

February
1996

For Atari Computer Enthusiasts

**Falcon030
Digital Recording**

ATARI

100 page
Special Edition

• Packet Radio • Internet • Publishing/DTP • Music • Catalogues

A club member has generously donated money to enable a large magazine to be published, this was the result. Over 100 pages, and it kept us very busy indeed. Our main problem was the lack of RAM on our TT030 - we used a 'virtual' RAM program. It was slow and crashed often. This made us very nervous! The Graphic you see here was worked out after much discussion, Mario extruded a map of New Zealand, and a friend just happened to be visiting and drew us the neat punk-rocker with the microphone. Mario also drew the ocean waves using the 'Ray-Tracing' method and a gradual fade in the upper half of the picture completed the project. I'm sure you will agree that this was a successful cover.



This was another idea for advertising and to encourage members to sign up to the club, also a reminder to pay their subs! I saw these hedgehogs in the newspaper and immediately knew they would make a good poster. I still laugh when I look at it!

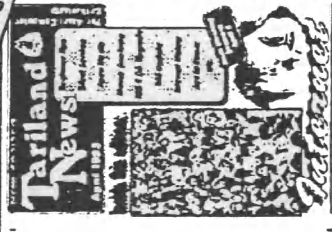
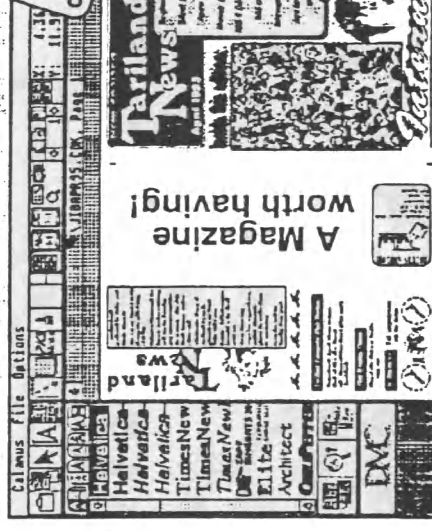
ATARI Join our club & enjoy the benefits. We can help you!

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 - Monthly Magazine
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 - Hardware Hire Scanner/Modem/Printer/Robotics
 - Glossy Mags from USA/UK
 - Games/DTP/Graphics/Programming/Music/MIDI
 - Education/CAD/etc
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 - Internet Contacts
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- Keeping ATARI support alive in New Zealand.*

Te! 412 9700

Subscribe & Save!
FREE! FREE! FREE!
 Receive a Disk full of Atari software of your choice.
 also the Leosoftware PD disklist and the complete file listings of 3 CD ROMs. It's a real deal!!

Actual screenshot of our April Mag. produced with Calamus ST software.



A Magazine worth having!

YES!
 I'll join now for 1996
 That's 13 magazines including the next two months, of 1995 and the FREE deal, including a 55 page catalogue I know where to go the day I need help or have problems.



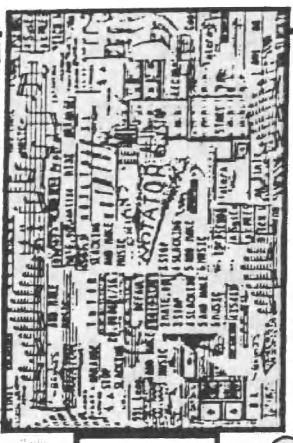
ariland Computer Club
 For Atari Computers
 EPIC USERS

We cater for all your computing needs:

- Software / PD Library
- User Network
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- Hardware Hire
- Contacts in Australia

Don't hesitate to contact us!
 Brian Becroft (09) 412-9700
 P.O. Box 332
 Kumeu 1250
 Auckland
 New Zealand

Meets every second Saturday of the month 11am-3pm (not Jan.)
 at: The Lutheran Church
 end of Ahiraho St.
 off Mt. Eden Rd.
 Auckland



MUSICIANS!

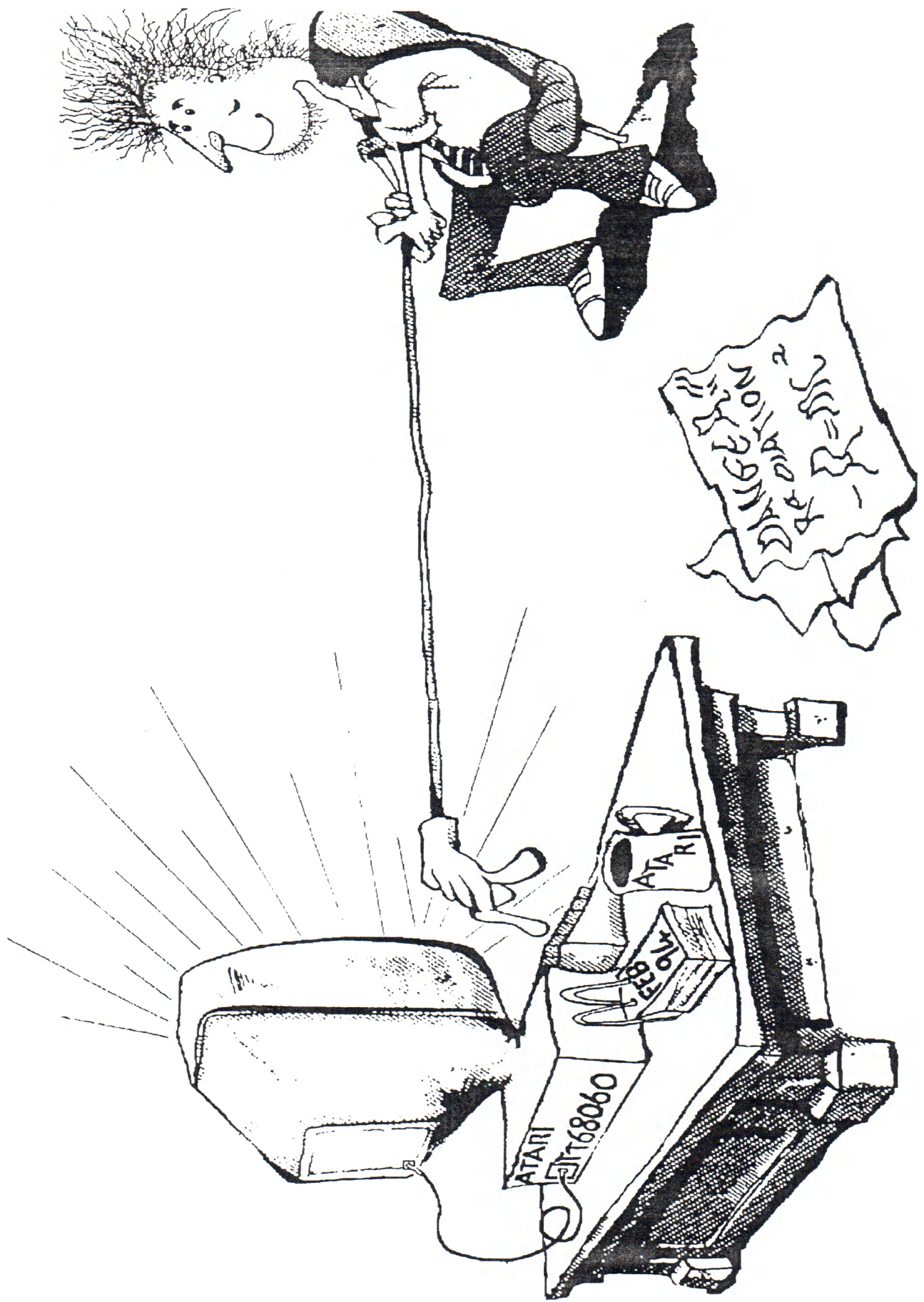
Meet other like minded people in our club. Find out about the Atari Falcon and Digital Audio!

Join the Club
 Join the Club
 Join the Club



Fill in a membership form & post with a cheque for
 Tariland Computer Club
 c/ Brian Becroft
 PO BOX 332
 Kumeu 1250
 AUCKLAND

For further enquiries & information telephone me on:
 (09) 412 9700
 Brian Becroft (President)



I saw this picture in a magazine and thought it would be suitable to illustrate my article on computer monitors radiation. The idea in the picture is that the user has to be a considerable distance from the screen for safety reasons. He resorts to using an extended hand to operate the computer. Well a slight exaggeration you might say! I customised the cup, pad and computer to give them an Atari flavour. Another touch is the crinkled paper in the foreground, with Einstein's famous theorem, although I suspect it doesn't apply to this situation. The man's hair standing on end, the extended hand, the crinkled paper - all contribute to the overall effect.

Centek Phenix specifications

PHENIX 060™ specifications

Version R1 from July 1999

The PHENIX is NOT a TOS clone or a PC compatible !

It is a NEW computer including NEW HARDWARE and a NEW OPERATING SYSTEM.

A system-level software EMULATION allows running TOS-programms.

LINUX 060 will be available for the PHENIX 060™.

CPU MOTOROLA™ 68060™ at 80 MHz expandable to TWO 68060™ at 80 MHz (240 MIPS). NOTE : The three instructions execution units (2 integer + 1 floating) of the 68060 are CLOCKED by the CLK at 80 MHz (see technical file).

BUS CPU 060 32-Bit / 40 MHz (Half-speed mode).

BUS PHENIX PCI 32-Bit / 33 MHz.

RAM 2 SIMM sockets for up to 256 MB of 60ns EDO. BURST accesses (read/write) in 1 cycle at 40 MHz.

FLASH 1 MB & 32-Bit width containing the BIOS (SETUP/AUTOTEST/BOOT). Upgradable to 4 MB for embedded applications.

DSP MOTOROLA 56301™ at 100 MHz (100 MIPS). PCI 32-Bit MASTER at 132 MB/s. On-Chip Memories : - 2048 * 24-Bit de RAM Data X. - 2048 * 24-Bit de RAM Data Y. - 3072 * 24-Bit de RAM Program. - 1024 * 24-Bit de CACHE d'instruction. - 192 * 24-Bit de ROM de boot. Off-Chip Memories : 384 KB 12ns SRAM (=128 kWords (24-Bit)). Two ESSI at 26 Mb/s. External DSP connector (D-SUB HD44). It is possible to add 3 DSP daughter card on the PCI #3 and the pci #2 slots for a total of 7 DSP 56301 at 100MHz (700 MIPS).

USB PCI MASTER at 132 Mo/s. 2 channels at 1.5 and 12 Mb/s. The SERIAL, // and MIDI ports are available by adding USB-SERIAL, USB-// and USB-MIDI(4in/4out). These interfaces are already available on the market.

ULTRA-SCSI (USCSI) PCI MASTER at 132 Mo/s. SCSI bus maximum rate: 20 MB/s (ULTRA mode). External Mini-SUB 50 connector. Internal 50 pins connector. Auto-Terminator on the motherboard.

VIDEO PCI S3 VIRGE DX with 4 MB of 35 nS EDO DRAM. Drivers for others models will be developed. 2D & 3D hardware functions used by the OS ! this card occupies one of the three PCI slots.

AUDIO ON-BOARD Stereo 20-Bit circuit at 44.1 & 48 kHz with the following on-board connectors: 2 CINCH Inputs / 2 CINCH Outputs 1 Mini-Jack for a microphone (adjustable gain). Accepts both asymmetrical & symmetrical models. 1 Mini-Jack for a headphone (adjustable volume). The external DSP connector allows two choices of 19" RACKs: 1- HOME STUDIO (CONSUMER mode) 20-Bit at 33, 44.1 & 48 kHz. 4 In / 12 Out (JACK 6.35). interface S/PDIF™ (Cinch). 2- PROFESSIONAL 24-Bit at 48/96 kHz. 4 INPUTs / 12 OUTPUTs (XLR). S/PDIF™ / AES™ / EBU™ Interface (XLR). These configurations can be multiplied as needed. Plugging two DSP-PCI daughter cards adds 6 new DSP and 2 new DSP external connectors. Thus, a total of 24 IN & 72 OUT is possible.

IDE (ATA-4) PCI MASTER at 132 Mo/s. 2 connectors for up to 4 IDE peripherals (DVD, ZIP, LS120, HDD, etc). Maximum IDE bus transfert rate of 22 MB/s.

MIDI 4 IN / 4 OUT with an adaptor on the USB port.

SERIE With an adaptor on the USB port (for RS232 MODEM).

PARALLEL With an adaptor on the USB port (for CENTRONICS PRINTER).

VOCAL Software based speech synthesis for Alert messages and software ONLINE HELP. (will be added to the OS)

CALENDRIER Timekeeping + 256 bytes module with NVRAM (Non Volatile Ram). Capability to suspend and wake up the PHENIX™.

· **INTERNAL SLOTS** 3 PCI slots (one is used by the Graphic card). 1 direct access to the 060 bus for: diagnostic. debugging link. PowerPC™ card.

KEYBOARD & MOUSE Two PS/2 ports (Mini-Din 6).

CASE Standard Mini ATX 2.1 Tower. CENTEK desktop case is planned.

OPERATING SYSTEMS

DOLMEN™ Multi-tasking 100 % 060 ASM code ! AES & VDI emulation. 2D/3D S3 VIRGE™ functions used by DOLMEN. Easy to update by the FLASH. RESUME function to get back the desktop and the softwares like you kept them at power off ! SCSI-1, 2 and 3 system management (plug the peripheral and run). HTML system management for the documentations and the software online helps. TRUETYPE vectorial fonts management. long name files management. LINUX

NB:MB = Mega Bytes

Mb = Mega bits

PHENIX 060™ : THE ALTERNATIVE COMPUTING !

™ All quoted trademarks belong to their respective owners.

Phenix Workstation

The most powerful Atari clone yet, now in development. Read on...

1 - Presentation

Strong with an experience of 14 years in computing domain, in October 1996, 5 inventors gave birth to PHENIX project.

Work that waited us was huge. It was necessary to learn the new and future technologies and to integrate them to the project.

It was necessary to also learn to master stages of the conception and the electronic circuit manufacture.

During two years, we looked for around the world, close to all big electronics manufacturers the best technological choices to the best cost in term of components.

In the same way, we communicated all over the planet to rally to this project several thousand of users (from the passionate American student of microcomputing, to laboratories of research in vocal recognition in Denmark) and several ten of talented and motivated developers, for a big adventure as was Apple one in 1977 or the Archimedes one from ACORN society, in order to have sufficient effective applications, because as powerful and innovating is hardware{ @ innovating is hardware architecture of a computer, it is nothing without software.

Turned toward the future, our society develops since 1996 electronic products and the software destined to the specific markets of the microcomputing (laser, audio and video). Our main will is to conceive the simplest possible products to use to not to hinder and to disturb the artistic creativeness of users.

The PHENIX 060 is the outcome of our experience of these markets and the knowledge of needs and the computer disappointments of our customers.

2 - Why the PHENIX 060 ?

The PHENIX is an innovative machine, dreamed by aware users of microcomputers. Useless of remind that today's computers are far to be pleasing to all their users (of which we make part). As for the no programmers, the only word 'computer' makes them tremble and

that, because the complexity of use of these machines.

Imagine versatile computers, whose system is so simple and reliable that a child of five years would use it...

Imagine a really multimedia computer, conceived for video, audio, the numeric signal treatment (DSP) and the data treatment and the Internet...

All it without ever having the impression to waste the time to solve problems of working of the operating system or the various electronic boards, as on PC...

It is sufficient to consider one instant what was the microcomputing market of the 80's, with its wealth owed to the diversity of marks and the competition that were synonymous of prosperity and phenomenal technological evolutions noted, to understand that this 'TRUE' microcomputing is dying.

Normalization doesn't have only good sides...

Imagine that when you buy a car, you don't have the choice of the model, nor of the color...

Imagine finally that it is nearly obligatory to install a mechanic in your car. This one missing so much reliability, that it can fall in breakdown at any moment.

Imagine the aberration and the driven costs to have to incur these annoyances!

It is yet what undergoes some big societies spending fortunes to have in their local, third societies or computer departments charged of this service that we call proudly and ingenuously 'computing maintenance'!

But it exists many domains in which a breakdown must NEVER occur...

If you are capable to imagine it, then you understand what is the PHENIX 060:

THE answer for all those that wait for something else from computing.

3 - Features of PHENIX 060

The PHENIX is first of all a motherboard provided with extremely effective processors sustained by a

most recent architecture.

Without entering in technical details (see technical page), here are the strong and innovative points that make the PHENIX a product without equivalent on the market:

- The possibility of 2 main processors instead of one alone (Strength: 240 MIPS).
- A DSP (Digital Signal Processor) for real time numeric treatment (strength: 80 MIPS).
- Possibility to add a daughter board carrying 3 supplementary DSP (Strength: 240 MIPS).
- A complete audio 20-Bit stage of very high quality.
- Two USB ports (Universal Serial Bus) to connect peripherals as camera, telephone, card reader, scanner, serial interface, midi and industrial.
- Two ports (internal and external) ULTRA-SCSI to connect peripherals as hard drive, scanner...
- A DSP port for numerous external extensions.
- Three PCI connectors for internal extensions as video cards, network card, DSP...
- FLASH Memory expandable to 4 Mb for embedded solutions without hard drive (low cost).
- A powerful and compact Operating System.
- The UNIX compatibility.
- The LINUX compatibility.

The mastery of PHENIX technologies and its production on all stages permits us to offer the best quality/price ratio (see tariff), to assure the best services to our customers and to face the technical difficulties that these last could meet. A hotline reinforces these services.

4 - Domains of PHENIX 060

To have a hardware and an operating system owner, permits us to evolve our product on demand, according to needs of customers, and this in a matchless delay.

A multitude of domains is then affordable by the PHENIX 060.

First, to make the PHENIX a complete microcomputer, it is sufficient to "dress" this motherboard with standard peripherals of the PC

market (tower, keyboard, hard drive, monitor, memory, Linux OS,...).

But this PHENIX board gives all its interest in the dedicated and embedded solutions thanks to our ultra-effective multitask Operating System because coded 100% assembler and by this fact, very compact (256 KBytes):

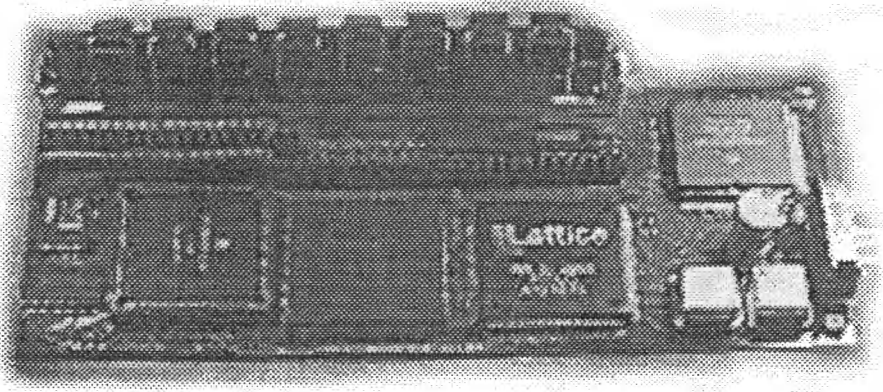
- Multi-tracks audio-numeric station 24-Bit/96 KHz.
- Editing numeric video station.
- Laser head piloting station.
- Real time compression and decompression MPEG2 (DVD-ROM).
- Piloting industrial devices (robots, laser,...).
- Acquirement and analysis of data in research, teaching and industry (pressures, temperatures,...).
- Encryption/decryption and radio messaging.
- Recognition and vocal synthesis (research and applications).
- Aid to blind people (DSP).

- Management of network (Ethernet 100Mbits, Numeris, TCP-IP,...).
- Internet: NETCOMPUTER.
- Interactive multimedia bounds (public places, stores, stations,...).
- Home automation..
- Aeronautic applications.
- Military applications.

PHENIX 060™ : the Alternative computing !

™ All quoted marks belong to their respective owner.

*The Definition
of an Upgrade:
Take old bugs out,
put new ones in.*



Centurbo II

*New version : rev B !
The first Falcon accelerator board at a full 50 MHz!*

This card offers everything the Falcon is lacking!

New CPU 68030 32-Bit at a permanent 50 MHz!

SIMM 32-Bit standard socket offers 32-Bit EDO Fast-RAM (16, 32, 64 ou 128 MB) accessed 7 times faster than on original 16 MHz ST-Ram. Thanks to the 5.2.2.2 BURST accesses of the 030 (32 MB/s) at 50 MHz.

Socket for a 32-Bit COPROCESSOR (68882-33) at 50 MHz.

DSP of the Falcon is clocked at 50 MHz.

BUS of the Falcon is clocked at 50 MHz (the CPU accesses at 50 MHz!).

ATA-4 IDE management (speed rate up to 9.7 MB/s with a Quantum Fireball eclipse !).

On board 64 KB FLASH Eprom containing a new SETUP (NVRAM) and the BOOT of DOLMEN FALCON.

Hardware switch allows you to come back to the 100% Falcon original mode.

Wonderfully designed, the CENTurbo II fits in the original Falcon case. The card is inserted in the bus slot, and only needs 16 wires to solder.

No wires soldered on the CT2. Ribbon cable connection between the CENTurbo II and the motherboard allows easy updates without solders !

No FLOPPY problems.

No SCSI problems !

No AUDIO problem (like clics or crackles !).

TURBO mode usable on VGA, TV, RGB and MONO (SM124) monitors.

The CT2 is supplied with DOLMEN FALCON, CENTscreen 3, CENTvidel 3 and CENTview softwares. Like CENTscreen, CECILE, the new IDE Hard Disk and SCSI Hard Disk/CD-Rom driver, is a part of DOLMEN FALCON.

CENTscreen 3 is both a mouse accelerator, a screen energy manager (ENERGYSTAR compliant) and an enhanced resolution manager plus a virtual mode available in 3 options: 'center', 'proportional' and 'border'. Some examples of possible enhanced resolutions: 896*672* 2/16/256 at 66 Hz, 1024*768*16/16/256 at 99 Hz Interlace, 640*480*TC at 66 Hz or 800*600*TC at 90 Hz Interlace.

Charming Chaos

(for STE/STFM/TT and Falcon)

Charming Chaos is an algorithmic MIDI sequencer, with a built-in DNA Seed Construction tool that allows you to create your own algorithms... Once defined, these algorithms can even be made to evolve over time automatically, or by user-intervention using MIDI controllers! Music composed in Charming Chaos can be recorded in real-time to disk as a type 0 MIDI file, ready to use in your favourite MIDI sequencing package for further editing.. And if that's not enough, Charming Chaos also runs as both a desktop accessory and a standalone GEM program, so you can run it at the same time as another sequencer! Why not try out the demo version for yourself...

Specifications:

Four parts, with up to four-note polyphony per part

Ten user-programmable DNA Seeds

Portamento switching, and program change settings for each track

Pre-program various elements into algorithms, such as scale maps, velocity mapping, groove maps (with modulation parameters for each setting)

External and internally-generated MIDI clock synchronisation, plus MIDI song start, stop, and continue messages recognised and transmitted.

Two User-programmable dials per part for sending MIDI controller information in real-time

Remote control over algorithm selection using program change messages

Record entire performances in real-time to disk as type 0 MIDI files

Real-time input modulation using MIDI controllers and note information, including pitch bend to modify tempo!

Drum Machine

EC-909 is an analogue drum machine emulator for the Atari STE/TT or Falcon. It features all sixteen drum sounds from the

Roland TR-909 including bass, snare, toms, rim, clap, and cymbals, editable using controls such as pitch tuning, volume attenuation, and attack shape. EC-909 can create single bar patterns in real-time, and then either save them to disk as a sample, or transfer them to an external MIDI sampler. You can even save a type 1 MIDI file template of the drum pattern!

Specifications:

AVR/AIFF 8/16 bit sample export, either mono or stereo

16 Roland TR909 drum sounds

Tempo and bar length controls

MIDI triggering for drums and pattern playing (sequencer start/stop messages recognised)

MIDI sample dump for SDS-compatible and Akai S900/950/X7000/S700 samplers

Exports patterns as type 1 MIDI files

Ability to re-program the drum kit with samples of your own using a supplied utility Candi-kit

For the last seven months, Electronic Cow have been working on version 2.0 of EC-909, and it's nearly ready for launch! Watch this space for more information...

MIDI Arpeggiator

(for STE/STFM/TT and Falcon)

MIDI Arpeggiator is a mini-MIDI sequencer for creating arpeggio-style sequences with your MIDI sound module or keyboard... With all its real-time editing features, MIDI Arpeggiator is perfect as a live performance tool, but it's also great as a compositional aid for your MIDI sequencer too! MIDI Arpeggiator can run as a desktop accessory, so it can be used alongside any other music software. It also features type 0 and 1 MIDI file export, so you can share your arpeggios with other programs! MIDI Arpeggiator features many powerful tools, such as independent note/velocity editing, automated patterns, note filtering, and copy and pasting of pattern segments, that make it a truly professional analogue-style sequencer! Why not try out the very latest demo version for yourself...

Specifications:

Two tracks of variable lengths (with left and right locators), up to 16 steps (eight or sixteenth notes)

Up to four patterns can be programmed, with various pattern play modes

Four different single play modes: backwards, forwards, ping-pong, random

Built-in mini arpeggiator with two different styles

Built-in 3-channel MIDI mixer, each channel with two user-programmable auxiliaries

Saves as type 1 MIDI files

Record entire performances in real-time to disk as a MIDI file

Real-time input using MIDI or built-in keyboard controller

Auto-generating harmony part with lots of options

MIDI synchronisation using clock sync (internal/external) and MIDI song messages

Program change, MIDI channel, and portamento switching for each track

New in v3.0: compositional tools, including independent editing of velocity and note values

New in v3.0: Snap-to-scale mode: define a user-scale, and MIDI Arpeggiator will automatically transpose any notes played to fit.

New in v3.1: View note entries as text or MIDI note numbers

Scribble Synth

(for STE/STFM/TT and Falcon)

Scribble Synth is a software-based additive synthesizer, but with a difference; you create sounds by literally 'scribbling' them on the drawing pad!

Specifications: 32-bit, 10 Hz to 10KHz oscillators Up to 20 frequency slices per sound, with controls for fundamental and maximum harmonic band Up to five time slices per sample each of variable lengths

Up to five scribbles can be interpolated, creating some truly expressive, and evolving samples, which can then be saved to disk, or exported to a MIDI sampler... Choice of waveform seeds, including sine, saw, triangle, and square Digital

audio playback of sounds on the Falcon, STE/TT, and even STFM! Cut, copy, and paste facilities, plus re-drawing mode for easy editing of sounds

Another unique feature of Scribble Synth is that you can use waveforms other than sine waves, opening up all sorts of exciting sonic possibilities. Simple, fun-to-use interface, takes the hard work out of additive synthesis! AVR/AIFF/SPL, 8/16-bit sample export at any frequency (up to 50KHz) MIDI sample dump for Akai S900/S950/S700/X7000, and all sample dump standard samplers.

Snippit Synth

(for STE/STFM/TT and Falcon)

Snippit Synth is a software-based sound synthesizer, using a form of synthesis called 'granular'. This allows the programmer to control aspects of a sound (temporal, spectral, and intensity) at a macroscopic level. The program also features a broad range of dispersion patterns, algorithm types, sample import, and chunk mixing functions, that make the synthesis engine even more flexible! In addition, once a sample has been created, you can apply a number of amazing effects to further embellish the sound... before sending it off to your MIDI sampler, or saving it to disk!

Specifications:

Five different grain types (square, triangle, sine, sawtooth and custom)

Load in any AVR/AIFF/SPL sample (or raw data) to use as a custom waveform grain

Automatically optimises and shapes imported data into the user waveform

Up to five hundred grains per chunk, with four chunks per sound, plus chunk copying facilities

Choose to overlay, ring or amplitude modulate, or sequence chunks (using variable-length cross-fading!) in the sound

20Hz to 20KHz frequency response, with pitch sweeping

20Hz to 20KHz frequency settings with various polarity settings and shapes

Five different amplitude envelope shapes, with relative gain setting

On-screen waveform display with four different draw modes

Why not try out the very latest demo version for yourself...

... or download some samples to hear just how great Snippit Synth's sounds are!

12.5, 16, 25, 33, 50KHz, and user-definable sampling rates

8-bit playback on the STE and STFM, and 16-bit playback on the Falcon

Export samples in eight or 16-bit and as AVR, AIFF, or SPL formats

Auto-crop, De-clicker, and Optimise sample tools

Built-in Chorus and Resonant filter effects

Supports MIDI sample dumping, with drivers for Akai S900/950 and all MSDS-compatible samplers

Sound Chip Synth

(for STE/STFM/TT and Falcon)

Sound Chip Synth is a real-time software monophonic analogue-style synthesizer that uses the built-in FM sound chip inside the ST to generate analogue bleeps and squidges. These noises are created from a range of synthesis functions including: oscillator select, tuning (fine and octave shift), a four-pole envelope generator, amplitude modulation, and low frequency oscillation. Once synthesized, these sounds can be played in real-time with the on-screen keyboard, or via a connected MIDI keyboard, or exported as a sample for use in other programs. Ten sounds can be stored in Sound Chip Synth's sound bank (as of v3.3), and these can be swapped between using the on-screen bank buttons, or even program change messages. Why not try out the demo version for yourself...

Specifications:

Square wave oscillator (30Hz to 125KHz) with two sub-oscillators

Noise generator (4KHz - 125KHz) mappable to any oscillator

Oscillator volume, detuning, and octave shift controls

Amplitude modulator with depth, rate, and four waveform settings

LFO with depth, rate, and four waveform settings

Pulse effector

Four-pole envelope shaper mappable to amplitude and/or pitch

Real-time MIDI control, with portamento, and patch select support

Export sounds created as AVR/SPL/AIFF format samples (8 or 16-bit)

Variable sampling rates: 16, 22, 33, 44.1, 48KHz and user-definable

New in v3.3: Up to 10 sounds can be stored in memory

Squash it!

(for STE/STFM/TT and Falcon)

Squash it! is our brand new sample processor; with over forty different algorithms, you can instantly transform a single sample into a whole library of unique sounds... To polish off a sample, Squash it! contains a section of studio effects, such as the dual rack-mount Compressor/Gate, mono and stereo delays, harmoniser, time/pitch compression/expansion, and a rotary speaker simulator.

There's a healthy supply of standard synthesis functions for starters; things like amplitude and pitch LFO, a four-pole amplitude envelope shaper, low and high-pass, and comb filters (FIR/IIR with resonance), and amplitude, phase, and ring modulation. Squash it! supports the most popular Atari sample formats (AIFF, AVR, and Microsoft WAV), but can also load any other data using its raw import. In addition, samples can be dumped to and from an external MIDI sampler, with drivers for the Akai S900/950/S700/X7000, and the MIDI sample dump standard protocol.

But Squash it! has a set of really unique editing tools too, allowing you that creative edge: processors such as Explode, Granularise, Smooth, Expand, Shift, Mosaic, Blur, and Erode, may all sound odd, but the results are amazing! If this isn't enough, Squash it! also features extensive clipboard tools, disk-based Undo, sample-accurate waveform window, and digital audio playback (up to 50KHz!) on all Ataris.

Download some samples to hear what Squash it! can do with your sounds, or try the demo so you can see yourself!

Electronic Cow WWW site:
http://dSPACE.dial.pipex.com/electronic_cow/cownet.shtml

Or contact Tariland.

Homa Systems House

CD-ROM and MultiMedia

ATARI CD MASTER

ATARI CD MASTER is a compilation of series of drivers for popular IBM PC CD-ROMS. Most of the drivers share the following features:

Fully multi-tasking, with an easy user-friendly, window based interface (The Most recent drivers are fully 3D/color with Flying dialogue boxes)

- Motion Video for most CDs

- Pictures are viewable, in a window, in 2, 16, 256, 15/16 bit color modes,

with full support for graphics cards and the Falcon

- Powerful search features, with "narrow down" option.

- Multiple text windows

- Save, print,

· ATARI CD MASTER volume 1

TIME ALMANAC OF 1995

TIME ALMANAC OF THE

1990S (89-94)

TIME ALMANAC 1994

REFERENCE EDITION

UFO I OR UFO II

SPACE MISSIONS

1995 AUTO ALMANAC

MPC WIZARD V2.

AUDIO CD MASTER V4

· ATARI CD MASTER volume 2,

Health Pack

Total Health, body and Mind is a complete anatomy and physiology reference with pictures, animation, glossary, ...

Pharmassist is a complete guide to over 7000 generic and brand drugs. It is a comprehensive, information packed CD-ROM: Give you complete details on how to take a drug, when to take it, what happens when you forget, overdose, alerts, ..., contains sections on First aid, abused drugs, drug classes and much more.

· ATARI CD MASTER, Infopedia v2 encyclopedia driver

which is the latest addition to ATARI CD MASTER. Infopedia v2 is the 1997 edition of the 26 volume NEW Funk & Wagnalls complete encyclopedia with over 26000 articles, 8000 sound and picture clips, Video, hypertext type linking, complete searching tools, ... There is

also support for: Marriam-Webster's Dictionary of Quotations, Webster's biographical dictionary, Hammonds world atlas, Roget's 21st centry thesaurus and World Fact Book.

All trademark names/products mentioned in this text are trademarks of their appropriate owner/company.

Nova True Color Graphics Cards

These cards are available for TT030, Falcon030 and MEGA STE, and offer you 64bit performance in a blazingly fast resolution of upto 1280x1024, in True color (24bit). There are several combinations available such as 32bit & 64bit, and 1,2 or 4 MB of DRAM and VRAM.

Please note that there are no more Nova cards available for TT/Mega STE. The only card we carry is for the ATARI Falcon 030 with the 2MB DRAM mach64 configuration (Nova Plus 64 II)

Homa Systems House is the Canadian/North American distributor of Nova Graphics cards. These cards are available for ATARI Mega STE, TT030, and Falcon 030, as well as the Eagle ATARI clone from GE SOFT.

Nova Graphics Cards are the most compatible and most affordable cards in the market. No other graphics card offers the same speed, efficiency and compatibility for such price. Nova Graphics Cards are compatible with all multitasking operating systems : MultiTOS , Magic and Geneva. If you have installed NVDI , you may also take advantage of NVDI's advanced font scaling. With these cards, you are capable of obtaining 24bit color graphics (16.8 million colors), a resolution of up to 1280 x 1024 and a virtual resolution of 2048 x 2048 in glazingly fast speed.

Nova Graphics Cards come complete with an easy to use installation program to install the drivers, NOVA accessory/cpx which lets you set the colors and virtual resolution, and VMG (VIDEO MODE GENERATOR) which lets you set various resolutions & colors in order to obtain maximum

performance & efficiency from your existing hardware.

ScanX: SCSI Scanner Driver

Microtek ScanMaker

E3/E6/35t+/E3+/E6+/E330/E630 /V300/V310 and the new X6

UMAX ASTRA

600s/610s/1200S/1210S/1220S, VISTA S12/S6, PowerLook II

Homa Systems House, a leading developer in high quality graphics and MultiMedia solutions, once again is pleased to announce the availability of a new graphics related application for the ATARI community. Our latest product, ScanX is a modular scanning utility that would allow access to multiple brand name flatbed scanners.

WACOM ARTPAD II graphics tablet & Driver

This driver can be used with the revolutionary WACOM ARTPAD II with erasing ULTRAPEN graphics tablet, which also offers erasing and pressure sensitivity (within supported applications), amongst the usual features.

With WACOM ART PAD II(TM) graphics tablet and UltraPen(TM), when you need to be artistic, you can. ART PAD II is as eloquent and articulate as any other pen, paintbrush or graphics tool. And if you make a mistake, just turn the pen around and start erasing. Just like a pencil with an eraser head. ART PAD II is an ergonomic wonder. Its thin, contoured design lets your hand glide easily on and off the tablet -- convenient for everyday graphics and natural.

The revolutionary WACOM UltraPen (TM) is the most responsive, natural, pressure-sensitive pen input device. Press hard to get thick lines or dense color; press gently to get thin lines or lighter, softer color. This "pressure-feel" conforms to your touch.

The Portfolio Club (UK)

The Portfolio Club (UK) has been in operation for about three years. There was a club called Portfolio Connection that was run by a Mr. & Mrs. Bennett. This closed in about 1995 when they moved to the U.S.A. This is where Paul Finch came in. He started the Portfolio Club (UK) in 1996. The club has grown in size since then and now offers a variety of services to the Portfolio (and would-be Portfolio) user. So, how do you join the club and what can it offer you? The club has three different membership schemes. **TEMPORARY** This is for the person who wishes to buy hardware/software on an occasional basis. There is no fee. However you don't receive the club's newsletter (The Portfolio Times) or the special offers. If a SAE and disk are sent, you can get the club disk. **FULL** This is for the person who has paid the yearly fee (ú6.00). They will receive the club's newsletter and any special offers during the course of the membership period (1 year). They also have access to the telephone helpline (free).

HONORARY - This is a special membership given out by Paul Finch to those who have helped run the club, either at computer shows or supplying hardware/software and information for the club's newsletter. There is no fee and the membership is the same as the FULL one.

It is the only club of its type in Britain. It gives you the opportunity to purchase Portfolio's, software and hardware that you can not obtain anywhere else. The club even produces items under its own label. It produces the only English newsletter. This newsletter is written and produced by Portfolio enthusiasts for Portfolio enthusiasts. The club has contacts all over the world, so if you have a Portfolio problem/question that you want sorted out, we can help. The club has also got its own engineer. The club offers repairs and upgrades for members. (Check out the club shop link)

Joining is easy. Decide what type of membership you require. (FULL

recommended) Send your details/cheque to the following address:- Portfolio Club (UK) Mr P.H. Finch 16 Cedars Road Morden Surrey SM4 5AB (make cheques payable to P.H. Finch)

WHAT is an ATARI PORTFOLIO?

In this day and age, a Portfolio would be classed as a palm-top. It comes with five built in applications, a Diary, a Text Editor, a Spreadsheet, a Calculator and an Address Book. I don't know if it was done by accident or design, but there is NO Y2000 problems with the Portfolio.

The Portfolio runs on 3 AA batteries, or can be powered by a mains adapter if you are near a power source. The operating system is an early version of Dos. If you do



not like working with Dos or have only used a PC running windows, then I recommend that you install a program called FM. This stands for File Manager. It also means that the Portfolio's commands are now all menu based. The program is available in the Download section of this site.

The built in Address Book is well worth getting a Portfolio for. Although called an Address Book, it is in fact a Database program that can be used for storing data on just about anything. Mine gets used a lot for work, keeping tabs on what I've ordered and along with the Diary, when I ordered it.

The Diary is one of the main reasons that people buy an electronic organizer or palmtop for. The Portfolio comes with a Calendar and

Diary built in for keeping track of all your appointments and schedules. The Diary can be searched for a particular piece of text, such as a name or place. The entries that you make can be set to repeat everyday, week-day, week, month or year. You can even move your appointments around in the Diary as your plans change and you can set an alarm for any appointment to jog your memory.

The Editor is a fully fledged word processor and along with the program Instant Speller (available from the club) is one powerful piece of kit. If you have the Parallel Interface (available from the club) you can print out your documents to any Epson compatible printer. (Unlike some of the latest palmtops that have to be connected to a PC).

The built in Calculator has five memories, operates in general, fixed, scientific and engineering modes and displays an editable tape of all of the calculations made. Other built-in functions include printer output (parallel interface required), a range of percentage tools, factorials, one-key negation, square roots, brackets, powers and a range of numeric formats. Do you need more?

The built in Worksheet is compatible with the PC program Lotus 1-2-3. Although I have not tried it, you should be able to import it into Excell. This spreadsheet program is the most under used program on my Portfolio at the moment, but I hope to alter that in the near future.

So, how does a ten year old machine (10 years old 1999) stand up to today's palmtops? The answer is amazingly well. It has always been better than the PSION's 1 and 2, in my opinion it is better than the PSION 3, I cannot compare it to the new PSION 5 as I have never used one, it is certainly easier to use than the new generation CE palmtops with their styluses. The only thing that I would like on the Portfolio is a larger screen, but other than that, the Atari Portfolio is still a Winner.

Q W E R T Y X
Announcing...

The Ultimate Keyboard and Mouse interface for Atari computers
Connect any PC AT or PS/2* keyboard to your Atari computer

Motorola MCU chip emulates Atari keyboard for maximum compatibility

Use high quality PC keyboards on your Atari

Atari computer port for all ST, STE, TT, Falcon and compatibles

Assign Control, Alt and Shift key macros to one key

Supports PC Serial and PS/2* mice

Keyboard re-mapping feature

PC AT or PS/2* keyboard port

PC Serial mouse port

Atari mouse / joystick port

Qwertyx uncased (internal mounting): \$130
Cased version: \$150

Enhance your Atari with Qwertyx - today!

Also Available:

- PC Serial Mouse Interface - \$60
- VGA Monitor Adapter - \$40
- IDE Hard Disc Interface (for ST(FM) and STE) - from \$150

Other projects now in development:

- SCSI to Ethernet adapter for all Ataris
- VME Graphics card with high resolution true colour graphics (1280x1024 pixels)

* PS/2 keyboards are supported via a low-cost adapter, some PS/2 mice are supported via adapter

UK Distributor: Abingdon Synthesis Projects

Phone: 01235 534152

Email: chrisc@zetnet.co.uk

40 Evelin Road, Abingdon, OXON OX14 1JR

or see advert in this issue



Other Overseas Distributors:

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 Ontario, M6R 1X3
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anarkist@idirect.com

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Daggskimmer fc3
 Zenithgatan 56, SE-21214 Malmö
bleuf@algonet.se

Or: Holmerup Musik & Data
 Fax: 040-611 30 86
holmerup.musik@swipnet.se

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Don't hesitate to contact us - all enquiries welcome!

Power Column

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= Best Prices!



Falcon maximised
A new range of power products under development

Eclipse: PCI adaptor with 2MB ATI RageII graphic card—high-res, high colour, high refresh! **Provisional price, £199!**

Tempest: High performance accelerator with 040 performance. 256MB SDRAM support, AGP slot.



from £579.00
16MB memory, 1.6GB hard disk,
S3 Trio V64+ graphic card.

Super-fast TOS based computer giving high compatibility with TOS. Supplied with PC keyboard and mouse. Various options



DA'S LAYOUT v6.1
Integrated DTP and Vector
Design, from £222.08

Various upgrades and PlugIn modules available - please call for details.



MONITORS - Belinea

- 14" SVGA monitor from £109.00★
- 15" SVGA monitor from £129.00★
- 17" SVGA monitor from £219.00★

HARD DISKS

- EZ-Flyer - 230MB removable £129.00★
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- 3.2GB Ultra-SCSI 9.5ms £179.00★
- 4.3GB Ultra-SCSI 9.5ms £229.00
- 6.5GB Ultra-SCSI 9.5ms £329.00

PRINTERS

- HP Deskjets/Epson Stylus from £99.00★
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CD-ROM & CD-RECORDING

- Pan/Tosh/NEC 24x SCSI £89.95★
- Yamaha 2x2x6 CD-RW £349.00
- External Case for CD-ROM £49.95
- ExtenDOS Pro £39.95

SCANNING SOLUTION

Microtek 330 Scanmaker. 24-bit flatbed, single pass 300x600dpi optical resolution, complete with ScanX software! Suitable for ST/TT/Falcon.

Now supplied with PC SCSI card/software & Mac software!



TITAN Deals!



Recently voted as
"Best Hardware" (Nemesis)
"Best Atari Supporting
Company" in Atari Times.
Thanks for all your support!

Power Hardware

- Milan 040, from £579.00
- C-Lab Falcon MK.X.. £599.00
- 4MB RAM, no HDD
- MK.X case £199.00
- Complete with Mega STE keyboard!

Other Hardware

- Link 97 only £49.95
- ACSI to SCSI adaptor for the ST
- Internal SCSI Bus kit . £49.95
- Falcon only
- 33.6K ext. modem..... £59.95
- ST/TT/Falcon. BABT & CE
- 56.6K ext. modem..... £79.95
- TT or Falcon. BABT & CE
- Manhattan Mouse £9.95
- FalconVGA adaptor .. £12.95
- Falcon RGB adaptor.. £12.95
- Falcon 14MB u/g £79.95

Software

- HD DRIVER v7.55 £14.95
- ★.....How do we do it?!!
- ExtenDOS Pro £39.95
- Thought!..... only £49.95
- Powerful design & development software for ANY project!

MUSIC - Software

- Audio Tracker £169.00
- CD Recorder Pro..... £199.00
- CD Writer £tba
- Cubase Audio £399.00



See back page for details!

- Digital Home Studio . £89.95
- Digital Tracker £34.95
- Midiplay £34.95
- Expand £44.95
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- POWER PACK..... £99.95
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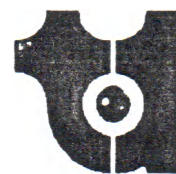
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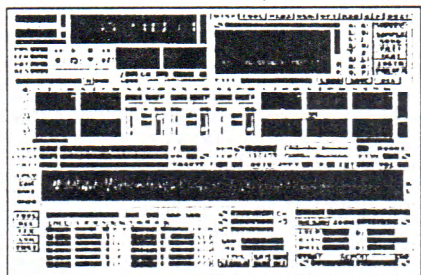
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- ◆ Direct-to-Disk Recording (D2D)
- ◆ Digital Effects Generator

A home studio within your Falcon!



The audio sequencer allows the replay of sample in a range of 9 octaves without any additional hardware. Record large samples with D2D and remix with D.H.S. tools. The MIDI tracker allows simultaneous audio, D2D, and MIDI sounds on a synthesiser in real time! D.H.S can still add digital effects (including D2D!) in real time or in the sequencer.

DIGITAL TRACKER Digital

Tracker can mix 32 tracks with 32 polyphonic voices and more than 60 sounds. No additional hardware required—except for a Falcon! Each sound can be played at any frequency, at any volume, and at any position in the sequence for total flexibility.

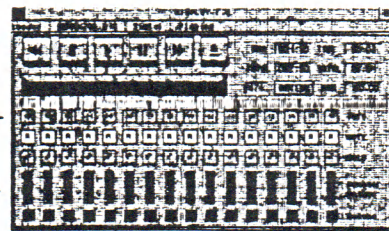
Sounds can be sampled at any frequency from 1KHz to 50KHz in 16-bit precision. Each track has master volume and panoramic graphic display.



Tracker can also play music to a frequency higher than CD quality (50KHz, 16-bit, instead of 44.1KHz, 16-bit) with linear interpolation for best quality!

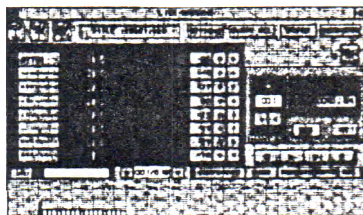
MIDPLAY

A MIDI file player (.MID files) for the Atari Falcon with no need for additional hardware support. With this software you can access the MIDIFILE list—from Beatles to Beethoven—virtually any music known (or unknown!). MIDPLAY even allows playback through synthesisers or GM Expanders—only a Falcon and MIDPLAY is necessary!



LIVE MACHINE

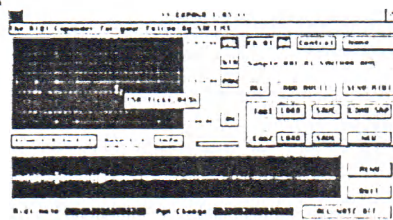
Mainly for live use, LIVE MACHINE can compose up to eight D2D tracks in several parts, and controlled in real time using MIDI commands.



Each part can have other effects included (mix, volume, etc.), and can be played once or looped, with full control to play the next part.

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Expand emulates a MIDI expander/sampler. Can load audio sounds and create MIDI instruments or commands with full control using a sequencer or keyboard. Define the sound and playback in D2D directly from your Hard drive!



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Live Machine	£44.95
CD-ROM.....	£19.95
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All prices inc. VAT, carriage extra.
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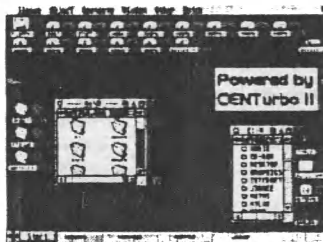
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ATARI

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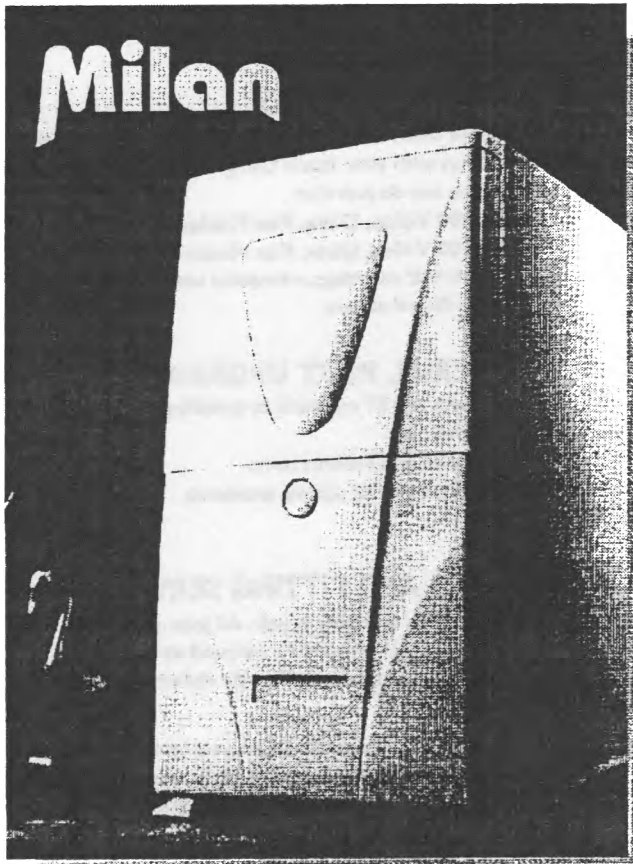
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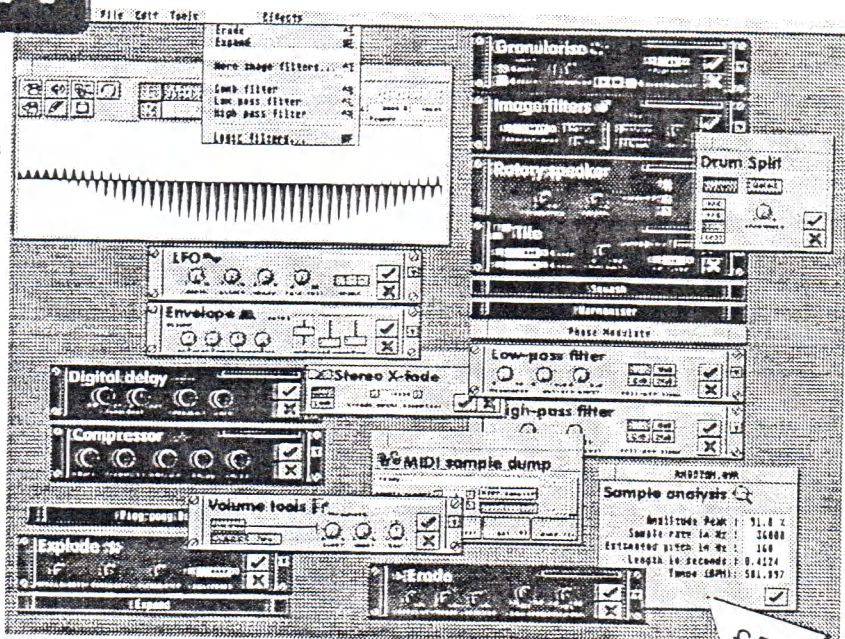
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- Ring (three types), Phase and Squared modulation
- Time/Pitch Squashing and stretching
- Waveform shift, Flip, Rotate, Reverse, and Shuffle
- Blur, Mosaic, Tile, Mirror, and Posterise
- Rotary speaker simulator (with three different shapes)

Other features:

- MIDI sample transfer, with drivers for Akai S900/S950 and Sample Dump Standard compatible devices
- Load and saves in AIFF, AVR, or WAV format, with additional support for raw data import/export
- Basic sample analysis, including tempo and pitch calculator
- Drum split with gated or beat division modes (saves each section as a sample and creates a MIDI file template)
- Undo operation (to memory or hard disk)
- Extensive clipboard facilities, including the ability to mix samples with various modes, such as amplitude modulation!
- Special stereo effects, like Scatter, Interleave, and Cross-fade
- Smart auto-crop to remove dead space before and after (and even in-between) sample data
- Sample playback on all Ataris (16-bit stereo Falcon, 8-bit stereo TT/STE, 8-bit mono STFM), up to 50KHz (or 49KHz Falcon, and 48KHz STFM)



- Multiple window interface with processors in rack-mount style windows
- Supports all resolutions above 640 x 400 (including third-party graphics cards), colour or mono
- On-line quick reference help, using ST-Guide, and an extensive printed user manual

Squash it! will run on any Atari with at least 2Mb of memory, and a 640 x 400 display (colour or mono) or better. A hard drive is also recommended, due to the inordinately large size of samples! As with all Electronic Cow software releases, upgrading to new versions and user support is free of charge. For a limited period, registered users of other Electronic Cow software can purchase Squash it! for a special introductory price of £49 (normally £59) plus £2.50 postage and packing

Squash it! will be released in November in time for ACC'98, so come along to the show and try it out for yourself!

Other news

Electronic Cow have had a busy summer, getting ready for the ACC'98 show, when all our new software will be released. As well as producing new software, we've also added new features to all our existing titles too...

- MIDI Arpeggiator v3.0 - now has even more composition tools
- EC-909 v2.0 - now STFM compatible, much faster, and more exciting!
- Sound Chip Synth v3.1 - even more real-time MIDI control
- Snippet Synth v2.0 - totally revised, and more flexible synthesis system
- Scribble Synth v1.5 - bundles of new editing features added

Both Snippet and Scribble Synth now also have STFM-playback facilities too! Bring along your master disk to the show to upgrade free of charge, or contact Electronic Cow to arrange upgrading by post or e-mail.

Contact us:

If you'd like some more information about Electronic Cow software, or would like to order a product, do get in touch:

WWW:

http://dSPACE.dial.pipex.com/electronic_cow/cownet.shtml

Email:

electronic_cow@dial.pipex.com

Telephone:

0411 544 133 or 01426 281 347

Or write to:

Electronic Cow, 350 Broadwater Crescent, Stevenage, Hertfordshire, SG2 8EZ, UK

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ENCHANT

EnhanCed HiSoft Application Toolkit
Developed by Matthew Bacon and Paul Jones

Features include...

- Over nine thousand lines of source code
- Comprehensive manuals
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- 18 source code modules including...
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 - CD drive control
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 - Y2K bug free routines
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 - Error catchment
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 - MIDI (play/record...)
 - NVDI v4 support
 - Protocol access
 - Sample playback
 - ST Guide support
 - System hacks and traps
- Easy-to-follow examples with source code
- Suitable for novice and advanced users

Requirements

- HiSoft BASIC v2.1 (available from Cadenza Software)
- 1Mb memory

Summer Sale Prices

	UK	ROW
ENCHANT	£15 plus p&p	£3 £5
HiSoft BASIC v2.10	£30 plus p&p	£7 £15
HB v2.10 & ENCHANT	£40 plus p&p	£7 £15

Cheques / P.O. payable to "Matthew Bacon".
Please allow 28 days for delivery.

<http://www.cadenza.cyberstrider.org>

cadENZA@cyberstrider.org

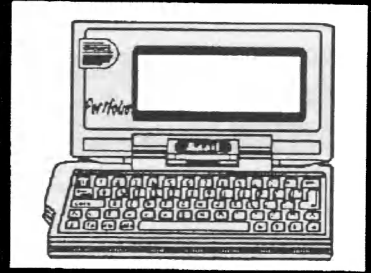
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Cadenza Software

**Want to
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your own
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software?**

**Awarded
92%
Maggie, Issue 27**

The Atari Portfolio the really Portable personal Computer....



Yes, the amazingly compact DOS based Portfolio is small enough to fit in your hand - yet is powerful enough to offer you facilities you'd expect to find only on a full sized desktop or notebook. It will work for up to 6 weeks on three AA batteries (also runs from optional mains adaptor) How's that for portability? The Portfolio works in 3 languages, English, French & German. Comes complete with 6 built in DOS applications installed on ROM.

They are:

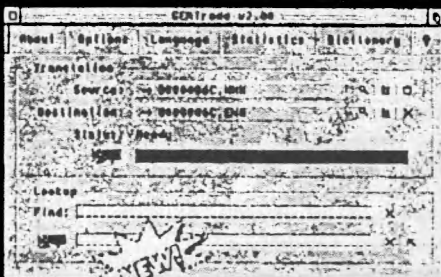
Lotus 1-2-3 compatible spreadsheet-Full text editor-Calculator
Address book-Phone dialler-Appointments Diary.
With additional Interface, cable & software the Portfolio can easily be connected to your ST, P.C. or Apple Mac for file & data transfer. We offer not only Portfolio machines, but also a wide range of accessories & peripherals for you to get even more from the really Portable P.C.



For more details write (enclosing an SAE),
The Portfolio Club U.K.
16, Cedars Rd, Morden, Surrey, SM4 5AB
Tel/Fax: 0181 286 8990 (Home)
E-mail: paulfinch@x-stream.co.uk
Web: <http://www.sumo.clara.net/>

GEMTrade 2

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documentation GEMTrade it!

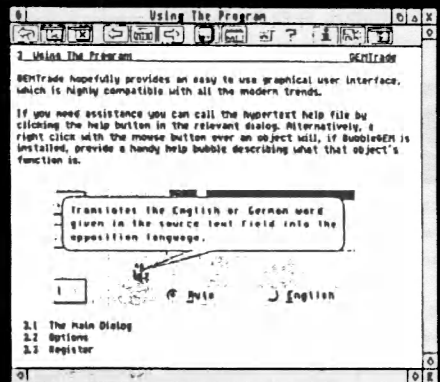


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GEMTrade has been under extensive development culminating in GEMTrade 2 which is available now and offers the following new features:

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MGI Calamus SL®

Calamus SL® is "not only" a frame based layout system for publishing purposes. Due to its high level of integration Calamus offers powerful tools for text, image and vector editing. Correct your vector graphics directly in your document layout! Change your frame types and edit their contents in different levels (e.g. change text to vector graphic, edit the paths of some letters, then filter a shadow to the graphic and paint in that image frame). Mask any frame in your layout.

Use the optional modules to enhance you abilities and possibilites for creative publishing. Create even multicolor blends, barcodes and 3D stereogram pictures in Calamus SL. Use Calipso for editable (!) import of PostScript data from any other application!

Beside this fantastic features Calamus offers very flexible micro and macro typographical functions and powerful layout tools. Increase your productivity with the help of the integrated macro recorder, which records almost every available function and lets you define a single keystroke for the recorded work.

Use the comfortable text editor EDDIE (light) for text input, typing and typesetting. Even edit all control codes for text rulers, style and kerning information and stuff directly in the text editor.

Due to the modular architecture of Calamus SL you are able to increase the functionality with further, optional modules of your choice and needs. It's like Pizza - just take what you want.

Creativity finds its own way!

Due to its modular concept Calamus SL ignores any borders or frontiers. Create masks directly in your document layout? EBV and histogramme? Color corrections with fine data material directly in the document layout? Complex merging, combining and editing of text, image and vector data? No problem! Just as much as you like, never more than you can chew ... Simply modular.

Calamus is save

You always keep control, thanks to the famous Calamus SoftRipping® @ technology. Zoom with the magnifier almost as far as you like in your document (up to 999.999 percent or simply to your typesetter resolution). Calamus is its own RIP. You really find WYSIWYG here, because output on screen and typesetter or printer is done with the same software, the same routines. Mix up different raster types on a single document page, even FM raster. Byebye, postscript problems. Simply SoftRipping®.

Calamus is compatible

Or better say: Each software on any operating system is compatible to Calamus: Write objects, pages or complete documents as postscript data and import them with the Calipso module in Calamus SL - completely with all fine data. All data editable!

Calamus is fast

Calamus offers various tools for creating more effective workflow: a comfortable text style management; a flexible text editor, which lets you edit even control codes like text styles, frame anchors, page formatting codes or kerning informations; or use the macro recorder and define a key stroke for almost every work step in Calamus. Create virtual copies of any kind of Calamus frame type, as much as you like to. If you change an object then (e.g. text in a multicopy area), the change will be made to all virtual copies at a glance. Use the same principle also for image (fine data) graphics and vector pictures. One for all.

Calamus is precise

Calamus SL works on a metric scale of 1/10.000 mm! Due to the famous SoftRipping® technology you can use this precision everywhere - from typesetting to high end production. all objects and frames are where they have to be - on screen as well as in print.

Typographs of all nations ...

Get access to micro typographic parameters in Calamus SL. Define word and letter distances, shadow, color, distance or thickness of underlines and many items more, individually for each text style, for single characters - if you like to. Define your own font size - if you like to. Even set your words in Arabian manner from right to left. Define all basic measure units - as you like it. Use Didot, pica point, Cicero, Quart, millimeter, Inch, Elle, Foot, yard, light year - simply as you like it for your work.

As mentioned before, you are able to define text styles for each single character. If you change a style, all text parts which use this specific style, are changed, too. Every type setter who had to change a ready-to-print document according to his client's wishes ("Please do change the Introduction parts only!"), knows how much work this really can be.

Calamus SL uses dynamic font management. Do you always win your fight against the font jungle? In Calamus you use to simply load the fonts which you really need for a specific document. If you reload the document, the fonts are reloaded as well.

The Text Editor

Calamus SL comes with its own text editor module called EDDIE (light). You can even edit control codes like kerning, text styles, text rulers, frame anchors. So you may finish even more complex text parts and correct the typography of your manuscripts much better. Use the enhanced Search & Replace function as well as the UNDO recorder. You will enjoy working with Eddie as you never did before with text editors in layout software.

Creativity without limits

Calamus is an integrated publishing suite. You keep control about everything, from text input to layout, from creative composition of page elements to output. The great

variety of optional modules enhances your abilities.

All tools for creative layout composing are integrated in the Calamus system in an outstanding way. Change frames and frame groups in various other data formats with the BRIDGE module (e.g. text to vector, vector to image etc.). The FILTER module gives you the creativity of great picture editors. Merge and blend any kind of frames with the MERGE module, even half transparent or faded out. The PAINT module is your graphic palette tool for image creation and correction. You are free to define the flexible graphic tools to your own purposes, even pressure-sensitive ArtPad pens are supported.

Did you ever want to mask any kind of document element dynamically in a hush? Calamus users simply do so! Dynamic masking means you are able to unmask the objects (mask and picture) and have full access to all data again. Any type of black object can be a mask, e.g. text or bitmap graphics. Do all this masquerade directly in your document layout - walk the creative way.

In and Out

With Calipso, and optional Calamus module, you can import PostScript and EPS files from any application (e.g. Quark XPress, VivaPress, Adobe PageMaker, CorelDraw, WinWord, Finale etc.) into Calamus SL. Then edit the data right there and put it out with the famous Calamus SoftRipping® engine. So you see: Here is the Publisher which gives you full control over PostScript data from any other application for direct editing, control and output - with the advantages of Calamus SoftRipping®.

PostScript and SoftRipping®

If you want to use PostScript for output from Calamus - do it. Use the advantages of Calamus SoftRipping® here as well. Stay on the right side, ignore all well-known PS problems and output your pre-separated and rasterized PostScript (Level 2) files. Drop them on any PS level 2 RIP for production. The raster dots are saved in the file for save production workflow.

Transparency is possible with PostScript - thanks to Calamus SoftRipping® - the WYSIWYG PostScript.

Imposition

For those who use to produce books, magazines, booklets and stuff, Invers Software offers the optional IMPOSITION module. It composes up to 16 document pages per print form (that means 32 pages each print sheet). Use various imposition kinds: magazine, book, listing, optimized single page output. You may even use the altair mode for special brochures (on a single mouse click!) and the free page list mode for strange jobs.

Personification

If you want to personify your documents, use the enhanced PERSONIFY module. Even use more than one data set per page or call data fields on various pages of your multipage document.

Cut'n'Plot

You need to cut and plot your graphics for decoration purposes (e.g. PostScript files created in Quark Xpress)? Use the CalPlot module and plot directly to plotter machines. All HPGL compatible plotters are available. Cut your own money.

SoftRipping® - System and Precision

Calamus SL owns a very save technology for output of complex publishing documents: SoftRipping®. This way Calamus prepares each single dot of each single page in your Calamus computer. Output is not controlled by external PostScript RIPs in your laser printer, typesetter or a digital RIP in China. Screen output and print output in Calamus uses the same engine (with different output hardware resolutions, of course). So Calamus offers real WYSIWYG (What you see is what you get) in the physical resolution of your output

machine or even higher resolution. This guarantees a new quality in production.

Zoom, zoom, zoom ... without end

Working with Calamus is fun - but why. One fact is that you may zoom much higher than some 100 percent. Do not even think about fixed zoom steps. Simply zoom to a maximum of 999.999 percent in image graphic areas and still some thousand percents in vector areas. Any pixel that you see is a real output pixel according to the actual zoom resolution.

Output. Dot. Precise.

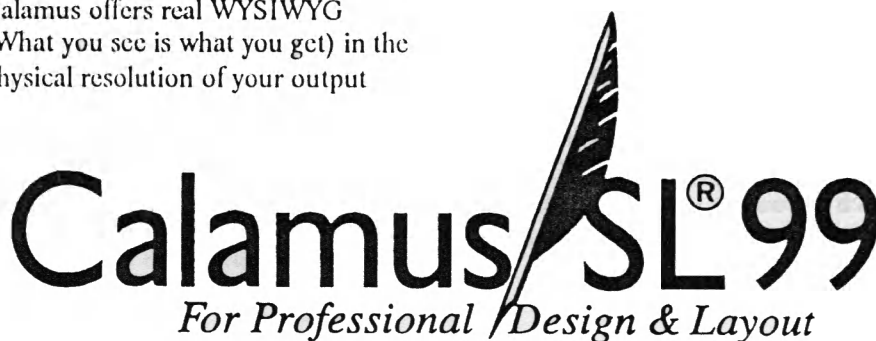
Beside giving access to each single typesetter output dot Calamus SL goes steps further: You normally work with real fine data when editing image frames in Calamus. You may generate and edit raster dots on screen, dynamically mask anything with anything and even use FM raster in any resolution. Mix up autotypical dot raster and FM raster types on a single layout page, each single frame may have its own raster. This is the way for more precise and faster production. The most important item for you: Use the freedom for your own creativity - do not accept technical compromises.

For You!

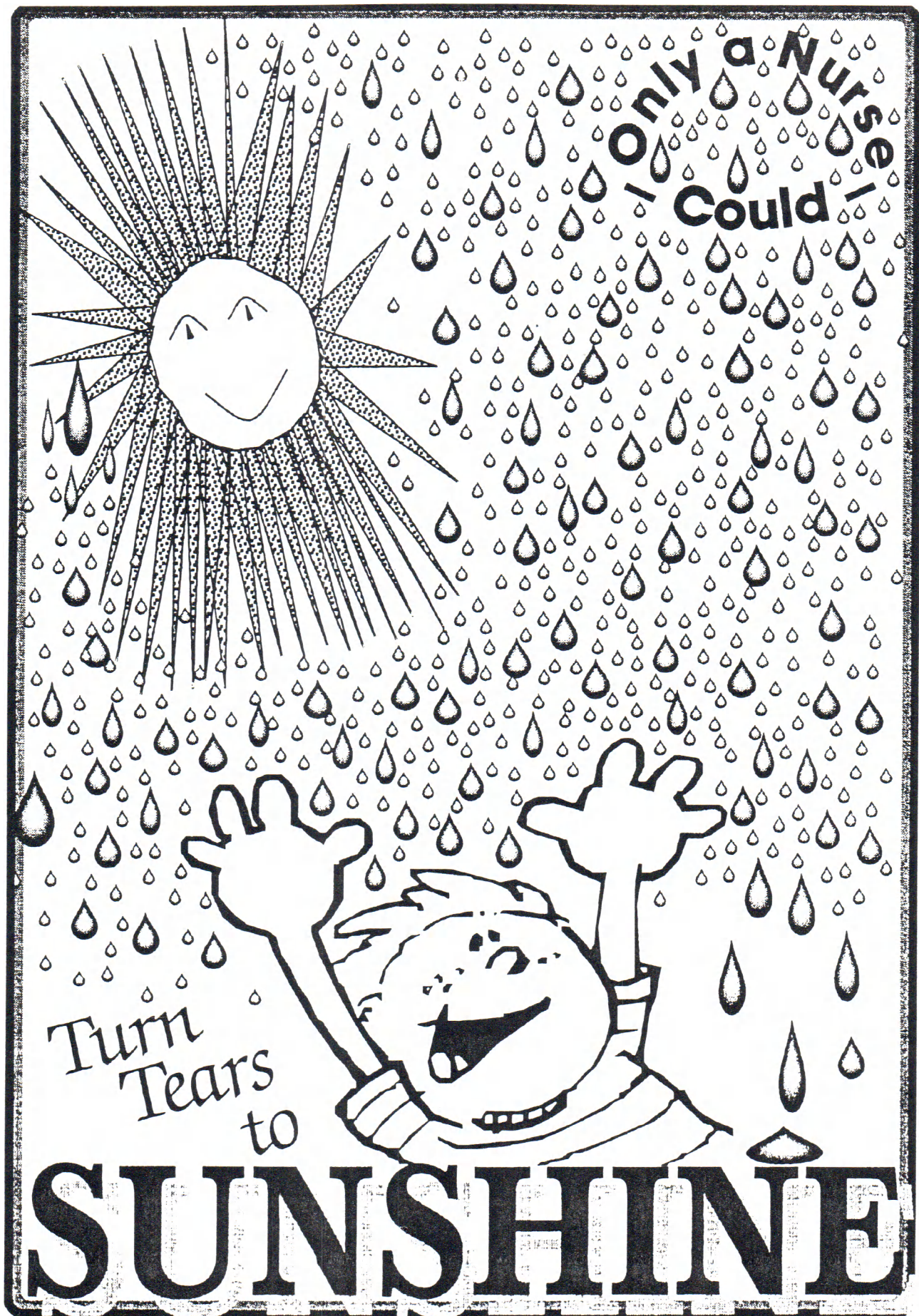
The SoftRipping® technology does fit in existing workflow systems. Take your profit from SL PostScript output and walk the secure way with Calamus SoftRipping®. Walk the creative way. Welcome to reality!

The Calamus WWW site is available via the following URL:

<http://www.calamus.net/>



Calamus SL[®] 99
For Professional Design & Layout



Some might wonder what relevance this poster has to a club magazine. Well, as I mentioned in another article, I ended up doing club business while I was in Auckland Hospital in 1995 (and other years). This poster was drawn on my Atari Computer as a thankyou for the wonderful care I received from the Nurses. They were so taken with the picture, they sent me a letter saying "I have hung a copy on our noticeboard while also giving a copy to individual staff members." Brings back many memories! - Brian Becroft

Some Atari History Highlights

1982

Combined video game advertising expenditures by Atari Inc., Coleco Industries, Mattel and other software companies surpass \$200 million for the year.

Atari, Inc. has over 50 office buildings in the Silicon Valley and employs almost 10,000 people.

Atari, Inc. finalizes deal for coin-operated and home version rights to E.T. The Extra-Terrestrial; the highest grossing movie of all time. Mr. Steven Spielberg promises to work closely with Atari and confesses his fascination with video games and technology. An unnamed source will be quoted in the February 1984 issue of Computer Games to say that Mr. Spielberg was paid \$21 million for the rights to E.T. The deal was made by Mr. Steve Ross, chairman of Warner

Communications with a firm belief a video game by the name of E.T. would be a winner. E.T. (the video game) was pushed out in just five weeks by designer, Mr. Howard Scott Warshaw. Only three million cartridges were sold, but false sales expectations inspired buyers to make more E.T. cartridges than any one other. Several sources agree millions of unsold cartridges found their way to dump sites and bulldozed deep underground.

Atari, Inc. named as "Official Video Game of the 1984 Olympics" in Los Angeles.

Atari, Inc.'s sales for the year exceed \$2 billion; 2/3 of the entire market. Atari International is ranked among the largest advertisers in the U.S. Atari is making back the price it paid to buy out Nolan Bushnell in 1979 at a rate of about every two days.

Mr. Jay Miner, quits his job at Atari, Inc. and forms his own company called Amiga. After heading up the chip design team for the Atari 2600 as well as the Atari 400 and 800 computers, Miner tried to convince Atari to consider building a computer based on the Motorola 68000 microprocessor. Atari declined based on anticipated costs which inspired Miner to go off on his

own. While at Amiga, Miner will develop the Amiga 1000. Custom chips developed by Amiga included names such as Agnus, Portia and Daphne.

Referencing the unexpected success of a secret message hidden in the game ADVENTURE written by Mr. Warren Robinett for the Atari 2600 Video Computer System (VCS), Atari, Inc. promises to include "Easter Eggs" in nearly all new home video games. Warren had hidden his name in the game due to Atari's company policy of not permitting author credits. After a 12-year-old boy discovered the secret room which was accomplished by locating an invisible pixel in one room and carrying it to another, Warren was certain he would be punished for his action. He never was and became known for a phenomenon that continues today of purposely hiding undocumented features and/or messages in a video game.

On Saturday, February 6, Mr. Leo Daniels, 20, scores 40,101,910 points on ASTEROIDS by Atari Inc. after playing the game for 36 hours and four minutes at Ocean View Corporation in Carolina Beach, North Carolina.

On Thursday, March 4, Mr. Kent MacMaster, Mr. Jack Browne and Mr. Paul Allgyer of Motorola Semiconductor Products, Inc. meet with engineers of Atari, Inc. In attendance is Mr. Jerry Jessop who kept notes on page nine of his Atari Engineering Log Book. Motorola presents the 68000 family of microprocessors promising the ability to start shipping in the fourth quarter. Their 12MHz model operates at a speed of 150 nanoseconds. For delivery in 1983, Motorola promises the 68020 as a 32-bit chip. Atari feels the pricing is unreachable and forgoes short term opportunities with the new chips.

Saturday, April 3 is National Pac-Man Day as declared by Atari, Inc. when it introduced the game as a video game cartridge for the Atari 2600 Video Computer System (VCS). Almost as fast as it tops the sales charts, it falls off due to a poor

gameplay and visual quality caused by rushing it to market. Just the same, it became in that short time the best-selling cartridge ever for the 2600. Todd Fry, the designer of the VCS version of PAC-MAN, collected close to \$1 million in royalty payments for his work.

On Thursday, May 6, Mr. Eric Ginner, 20, scores 1,140,070 points on DIG DUG by Atari Inc. after playing the game for 55 minutes at Central Park Center in Mountain View, California.

Astrovision sues Atari, Inc. and Commodore Business Machines for alleged copyright infringements over two "bit-mapping" patents which were licensed by Bally.

A newly formed company called Mystique releases three adult X-rated games for the Atari 2600 Video Computer System (VCS). CUSTER'S REVENGE, BEAT 'EM AND EAT 'EM, and BACHELEOR PARTY, each are put on store shelves with a suggested retail price of \$49.95. Atari, Inc. promptly announces a disassociation with the software and that they plan to seek a lawsuit against future sales.

Atari, Inc. sues Commodore Business Machines for marketing joystick and paddle controllers for the VIC-20 computer. According to Atari, the controllers were visually similar and technologically exact to those made by Atari for the 2600 game system and computers.

1983

As of this year Atari, Inc. estimates over 12 million Atari 2600 Video Computer System (VCS) game systems have been sold. Over 200 software titles for it are available by more than forty different companies. An estimated 120,000,000 have been sold.

Atari, Inc. releases I, ROBOT as an arcade coin-operated machine which is first to feature 3-D polygon graphics. Originally dubbed ICE CASTLES while in development, the game only ships about 1,000 units with half being exported to Japan.

Atari, Inc. loses \$536 million this year (over \$2.06 million every business day) on sales of \$1.1 billion.

Several thousand employees are laid off. Most of the manufacturing is relocated to Mexico.

Atari, Inc. announces that it eliminated six hundred Sunnyvale jobs in order to relocate manufacturing to Hong Kong and Taiwan.

Atari, Inc. announces that a pending development project related to voice syntheses and recognition with Milton Bradley is *ôon holdô*. Soon after, Milton Bradley files a \$45 million breach of contract suit against Atari.

1984

An old school bus is converted into a computer classroom and shared by 21 Napa Valley schools for students in grades fourth through sixth. The bus has 16 mini-work stations each equipped with an Atari 400 computer, cassette tape drive and color television which is used as a monitor. The bus is painted in colors of the flag. Trivia buffs might like to know the California exempt license number. It is 121336. A similar computer bus is operated by a school district in Idaho.

Atari promotes a new line of science applications for their line of 8-bit computers. To help kick off the campaign, Atari contributes 50 science stations for junior high schools in the New York City school system. The ATARILAB, endorsed by Pricilla Laws, Ph.D., Professor of Physics at Dickinson College in Carlisle, Pennsylvania, is featured on news segments broadcast on WCBS and WNBC in New York.

On Thursday, May 17, Atari Corporation is incorporated under the name Tramel Technology, Ltd. (TTL).

June '84. Behind the scenes, Warner Communications is looking for a buyer to take Atari off their hands. For a while, the people at Philips (a la Magnavox and Odyssey) displayed interest to buy into 50% of Atari.

JULY (1984)

In the "wee hours" of Monday, July 2, Tramel Technology, Ltd. (Mr. Jack Tramiel) acquires the assets of Atari from Warner Communications by promising \$240 million in long-term notes and a 32% interest in the home-computer and home-game divisions. Warner

communications retains the arcade game and telecommunications (AtariTel) divisions of Atari. The deal with the Tramiels was initiated by Warner with a phone call to Mr. Garry Tramiel who was working as a broker at Merrill-Lynch in Sunnyvale.

Early Monday morning, July 2, Mr. J.J. Morgan, president of Atari, issues a memo to employees announcing the acquisition of assets by Tramel Technology, Ltd. Prior to the acquisition, Warner had offered a comprehensive severance package to employees who volunteered to leave Atari. By late Monday morning, Atari employees such as Mr. Jerry Jessop pleaded with superiors to let them still take advantage of that severance offer, but, the offer was discontinued when the Tramiels took Atari over.

As of Monday, July 2, Mr. David Navarro joins Atari as vice president of sales for the United States. He had been employed by Commodore in their West Chester, Pennsylvania offices as director of sales and had been with Commodore since 1973. Prior to that, Mr. Navarro had experience at GTE, Philco and Hoover Company. On Tuesday, July 3, Atari employees are informed that all 8-bit projects have been canceled and that projects such as Amiga were on hold.

On Thursday, July 5, many departments outside of engineering at Atari are notified that Friday will be their last day of employment. In a meeting held with customer service, management announced intentions to reduce Atari to a company size of just 200 people. On this same day, Mr. Shiraz Shivja and a few other Tramiel-appointments interviewed engineering personnel at Atari. Those already working on 68000 projects were clearly being "prioritized". By late Thursday, superiors ask employees, such as Mr. Jerry Jessop, if they wish to stay at Atari or take advantage of a severance package that would expire after Friday, July 6.

On Friday, July 6, formal layoff announcements are made by the Tramiel regime at Atari. About 95% of staffs in most departments are eliminated. One observer states, "We were under no pressure at all to exit the building. We were free to take essentially anything we wanted, nobody cared or looked at anything we carried. (We were also free to

return on Monday and essentially take whatever we wanted and people did.)". One ex-Tramiel executive reported years later that after clearing the finance department, they found a great number of unsigned traveler's checks in an unlocked safe. It was not known if any had been taken or why any were remaining.

Dr. Leonard Tramiel is appointed vice president of software development with Atari Corporation. Mr. Joseph W. Spiteri is lured to Atari Corporation as vice president manufacturing from Commodore. He was with Commodore as director of manufacturing in their Santa Clara facility from 1980. He had also worked for Commodore from 1974 to 1977 as director of manufacturing in their Palo Alto location. He had also worked at Fairchild and Amdahl Corporation between 1977 and 1980. His experience traces back to the British Royal Navy in the late 40's. In 1952 through 1955 he worked for Admiral Radio Corp. as a technician.

Mr. Simon Sze joins Atari as General Manager of Atari Taiwan Manufacturing Corp. Atari Corporation announces MINDLINK; a biorhythm input device to control specially designed video games for AtariEs console game systems. The announced packed-in game will be BIONIC BREAKTHROUGH. The game play is similar to BREAKOUT except the player can control their paddle with the muscle movements in their head. Atari Corporation announces a new genre of game cartridge which employs a new chip called Sara. Dr. Lee Salk, a child psychologist, is commissioned by Atari to develop a series of games using the Sara chip for toddlers. The first will be called PEEK-A-BOO.

Commodore stock hit a new 52-week low mid-month at 19 3/4. Trading volume had doubled from the previous week to more than 1.9 million shares. Some blame a confusion with Commodore Corp.; an unrelated mobile-home manufacturer that with reported three-quarter losses of \$8.7 million that prior week. Commodore files a lawsuit against four engineers who follow Mr. Jack Tramiel to Atari from Commodore claiming they stole computer design secrets.

AUGUST (1984)

On Monday, August 13, Atari files a \$100 million suit in Santa Clara County Superior Court against Amiga Corporation charging breach of contract. Atari charges that Amiga fraudulently dealt with other potential buyers after agreeing to negotiate licensing specific microprocessors to Atari Inc. in return for a \$500,000 advance payment. The tentative plans between Amiga and Atari incorporated terms that Atari would purchase one million preferred shares of Amiga, a privately held company, at \$3 each by September 1st. Although Amiga had returned the \$500,000 advance by the end of June, Atari seeks damages as well as an injunction barring Amiga from delivering or selling chips except to Atari. Key players include Ms. Josephine Druehl, Atari attorney; Mr. John Farrand, former Atari Inc. president and Mr. David Morse, president of Amiga.

On Tuesday, August 14, International Business Machines (IBM) announces quite a few new products. DOS 3.0 heads up the list. The PC AT computer features a 6mhz 80286 microprocessor with PC-DOS 3.0. It has a 5.25-inch 1.2MB floppy disk drive, 256KB RAM. Monitor, card and hard drive are optional for \$4000. With a 20MB hard drive, color card and a monitor, the system is priced at \$6700. Other announcements include the PC Network local area network, the PC/IX for the PC AT (based on UNIX System III from AT&T), TOPVIEW (a DOS program featuring multitasking capabilities) and the Enhanced Color Display monitor (featuring 640x350 color resolution and priced at \$850). The Enhanced Graphics Adapter (EGA) supports up to 640x350 resolution in 16 colors and is priced at \$524 which includes 64K RAM. In 16 color mode, a 64K RAM expander priced at \$200 is also required. Another announcement is the Professional Graphics Display Monitor. The 14-inch monitor, priced at \$1300, features a total of 4096 colors (256 at any one time) and a resolution of 640x480. The Professional Graphics Controller Card requires two adjacent expansion slots in a PC. The \$3000 card features an 8mhz 8088 chip and 384KB of RAM.

On Wednesday, August 15, Commodore International Ltd. announces that they will be purchasing Amiga Corporation of Santa Clara, California.

On Monday, August 20, Q.S.I. Inc., dbi Quality Software, files a suit against Atari alleging that Atari Corp. breached a year old agreement to pay \$58,650 for sold and delivered goods. In an agreement dated Friday, August 24, Atari Corp. sells receivables from Lionel Leisure, Arcin-Medo and HRT for \$10.1 million to Warner Communications, Inc.

On page 61 of the Monday, August 27 issue of Electronic News, an article reports on Coleco's reorganization of its sales operations for the Adam home computer system. Among the changes, executive vice president, Mr. Phil Cohen is replaced by Mr. J. Brian Clarke. One of the new marketing schemes implemented to boost sales is an offer to reward purchasers of the \$700 system with a \$500 college scholarship.

In the Monday, August 27 issue of Electronic News, a story written by Mr. Mark Halper, reports on Atari's strategy of reducing the retail prices of 800XL computers from \$230 to \$160 and the Atari 2600 game system from \$60 to \$40. Additionally, the article points out potential benefits from a pending \$100 million law suit Atari has entered against Amiga plus disputes related to receivables left to Tramel Technologies by Warner.

On Monday, August 27, Synapse Software Corporation, a Richmond-based software developer, files a \$15 million suit in Santa Clara County Superior Court against Atari for failing to pay more than \$1 million in delivered software. In an article found in the Business section of the Tuesday, August 28 issue of the San Jose Mercury News, it is revealed that Atari has scrapped plans to launch the 7800 game system which was announced by Warner's Atari's just days before Mr. Tramiel's takeover. No formal decisions were made on Atari/Lucasfilm games or MINDLINK which were also previously announced about the same time. The MINDLINK project was a headband video game controller

developed in association with a psychic consulting firm called Delphi Associates. MINDLINK was fitted with infrared sensors that permitted the wearer to play video games by detecting slight electrical impulses generated by the movement of muscles in the forehead. Apple Computer introduces the LaserWriter printer.

Mr. James L. Copland, Atari Corporation's vice president for marketing is noted in a Wall Street Journal article by Mr. Michael W. Miller as stating, "Atari would continue to sell video games and cartridges 'while profitability still exists'". Several hundred Atari Corporation employees have been laid off since Mr. Tramiel's takeover in a successful effort to bring overhead within manageable limits. During Atari's golden hour, they employed more than 6,000 people within the Silicon Valley. Now between 350 and 400 hard working people remain.

SEPTEMBER (1984)

On Thursday, September 20, Mr. Neil Harris joins Atari Corporation. In the Monday, September 24 issue of Business Week magazine, an article titled: Atari: The Problem Child That Warner Can't Get Rid Of appears on page 110. The article cites Atari needing further assistance from Warner to compete in the marketplace, largely due to \$250 in unpaid receivables promised to Atari by Warner. Steps taken by Mr. Jack Tramiel, president of Atari, include cutting manufacturing costs, reducing the selling price of computers and games (up to 40%), and reducing human resources from 1,100 to less than 200 within just the last couple months.

Mr. Howard Scott Warshaw leaves Atari Corporation. While at Atari, Howard worked on YARÆS REVENGE, RAIDERS OF THE LOST ARK and E.T. THE EXTRATERRESTRIAL; all for the Atari 2600 Video Computer System (VCS). Warshaw also nearly completed a game titled SABOTEUR which was later changed a bit and dubbed A-TEAM, but neither form was ever formally released.

A San Mateo-based psychic consulting firm files suit against Atari for \$30,000 in unpaid consulting

fees. Delphi Associates, established by Mr. Russel Targ, indicates that if Atari does not want to complete a psychic video game project initiated in January of 1983, they will simply go elsewhere.

OCTOBER (1984)

On Monday, October 1, Merchandising Corporation of America, an MCA controlled company, files suit in San Jose Superior Court against Warner Communications, Inc. for unpaid royalties related to Atari's use of E.T., the Extraterrestrial, The Last Starfighter, The A-Team and Dune for an unpaid balance of \$14 million.

On Wednesday, October 17, Atari sells 640,000 warrants to Warner Communications for \$8 million. On page 5 in the Wednesday, October 24 issue of the Wall Street Journal, writer Ms. Laura Landro, reports that Warner Communications announced higher profits for the third quarter than analysts predicted. "Warner's profit in the third quarter was \$24.4 million, or 36 cents a share, compared with earnings from continuing operations of \$4.9 million, or eight cents per share, a year earlier." Warner cites success of the blockbuster films, Gremlins, Purple Rain and Tightrope plus benefits from profits made in the recording and publishing divisions as the key contributors since "discontinuing" Atari which had been turned over to Mr. Jack Tramiel just months prior. The article concludes noting that Warner was carrying warrants from Tramel Technology, Ltd for Atari and that collecting those funds were uncertain due to questions about Atari's future cash flow.

On Friday, October 26, Mr. Sig Hartmann formally resigns from Commodore as their software president. He is one of the last remaining executives that worked under Mr. Jack Tramiel's control at Commodore. Within weeks, it is learned that Mr. Hartmann, known as an excellent negotiator, will move to Atari to once again serve Mr. Tramiel. Apple Computer forms the Apple Corporate Grants Department to oversee the operations of Education Affairs and the Employee Volunteer Action programs.

Internal documents dated in October summarize Atari Corporation's physical holdings. At this time Atari has two "main" manufacturing facilities. One of them is located in Tam-Shui, Taiwan on a 329,912 square foot land site. This facility is 168,167 square feet in which 80% is dedicated to manufacturing. This facility assembles and tests computers for worldwide distribution as well as home video games for North American distribution. The facility is capable of producing 1.5 million computers and two million video game systems annually. A 2,880 square foot "guesting house" on 26,244 square foot land is located in Tien-Mu area of Taipei. The other factory is located in Limerick, Ireland on a 16 acre site. It is about 60,000 square feet and 60% of the space is dedicated to manufacturing. This facility focuses on the making of video game systems for European markets and is the European distribution center for virtually all Atari home consumer products. This factory is capable of producing 1.2 million video game systems annually. There is a 20,000 square foot warehouse in Slough for temporary holding of products for Heathrow, London and other U.K. markets. Atari also occupies and/or otherwise makes use of other buildings. Central headquarters are located at 1265 Borregas Avenue in Sunnyvale, California. It is a 50,000 square foot facility. A 45,000 square foot Engineering and Design Building is located at 1196 Borregas Avenue in Sunnyvale. A 125,000 square foot building is located at 601 Vista Way in Milpitas, California and is used as Atari's primary North American distribution center. A 60,000 square foot facility is located at 390 Caribbean Avenue in Sunnyvale and is used for Customer Service activities. A 70,000 square foot facility is located at 360 Caribbean Avenue and used for processing returned merchandise. Additional 6,000 square foot purchasing and manufacturing offices are located in Toyko, Japan. A 100,000 square foot facility is located in Hong Kong for the manufacture of software cartridges. International sales facilities include a 4,500 square foot location in Milan, Italy; a 20,000

square foot facility in Slough, England; a 2,200 square foot facility plus other offices in Hamburg, Germany and a 2,400 square foot facility in France.

Digital Research its Graphical Environment Manager (GEM). It is a text-based window desktop environment for Intel 8086/DOS-based computers.

NOVEMBER (1984)

On Tuesday, November 13, Mr. Jack Tramiel holds his first press conference since acquiring Atari. He reveals intentions to manufacture and market a new line of 16/32-bit computers. In the Business Monday section of the Monday, November 26 issue of the San Jose Mercury News, technology editor Ms. Evelyn Richards, reports on Mr. Jack Tramiel's success of "making peace with retailers as soon as he arrived at Atari ... That means Atari's computers and video-game systems will be on retailers' shelves in time for the Christmas shopping season." The article also points out the difficult balance that Atari has had to find to optimize cash flow ... pointing to collections on unpaid debts, pushing that cash on through to cover timely debts of their own and fulfilling a promise to the consumer to provide superior products at reduced prices. "Tramiel's challenge was to convince retailers to pay him what they owed, plus buy more goods."

DECEMBER (1984)

Atari Corporation reduces staff from 5,000 to 1,500 and reduces the number of buildings they occupy in the Silicon Valley from forty to seven.

Atari Corporation closes it's Ireland facilities which was heavily subsidized by the Irish government. 250 workers are effected.

Current Notes newsletter has expanded to 32 pages and serves 500 subscribers within five Atari users' groups.

1985

In January Atari introduced the 520ST, with 512Kb RAM, 192Kb ROM, colour and MIDI. It became a favourite with musicians.

A mono Atari 520 ST and Epson LX-80 printer cost ú1,054 (ex VAT).

Atari publishes THE LEARNING PHONE: an 8-bit package that includes software and online time to access the PLATO HOMELINK

network. The features of the package include joystick/keyboard control, 300/1200 baud access and "200,000 hours of courseware". According to the user manual, Atari becomes "the first microcomputer company to develop and market a software cartridge that allows home computer use of PLATO". The system offers a variety of features; mostly geared toward education. Access times are restricted to off-peak hours each day.

Atari loses a net income of \$14,314,000 this year from sales of \$141,987,000.

On Saturday, January 5, Atari unveils the XE and 520ST computers at the Consumer Electronics Show (CES) in Las Vegas. Referred to as the "Jackintosh" by the press, the 520ST was touted to be as powerful as a Macintosh for half the price. It features color, MIDI ports and a GEM Graphics User Interface (GUI).

The Monday, January 21 issue of U.S. News & World Report prints a story headlined: Consumer Electronics: Smaller, Cheaper, Better. The story states that the new Atari ST 16/32-bit based computer will be "a quantum leap in computer value."

FEBRUARY (1985)

In the Tuesday, February 12 issue of the San Francisco Examiner (source: Chicago Tribune), page D10 pictures Atari's Mr. Jack Tramiel sipping champagne beneath a headline: New Atari is lean, mean and has competitors nervous. The article states: "His ruthless price-slashing when (Mr. Tramiel) was head of Commodore International which drove Texas Instruments, Inc., Mattel, Timex and later Coleco out of the low end of the home computer business- and contributed to the losses that put Atari on the block- have his new neighbors more than a little nervous..." Atari's own publication has changed its name from The Atari Connection to Atari Explorer. The cover price is \$3.00. Mr. Neil Harris (later to leave Atari and work for GENIE) is named as the Publisher. The 80-page publication introduces the Tramiel's as the new management team, talks about the new XE product line, and previews the ST product line including the new 130ST. The 130ST described in this

issue is a 128K RAM machine. The 520ST "boasts of a substantial 512K" RAM. Both are 16/32-bit 68000-based machines. Features include expandable ROM, optional BASIC or LOGO languages, a built-in drawing package, a TV modulator and a graphics-based user interface which introduces concepts such as "folders" and "menu bars". The publication has about 50,000 paid saturation.

Up to 30% of the 520ST computers being shipped by Atari Corporation has one of a number of problems. The primary problem revolves around the 8515 plastic quad that loosens itself in its socket. For the short term, a double faced tape is used but the tape swells and pushes the chip back out. Atari eventually orders special clips to keep the chips in place.

On Wednesday, August 21, a United States Federal Judge in New York approves a \$18.6 million settlement of combined shareholder suits that was filed against Warner Communications, Inc. related to problems with its Atari subsidiary before it was divested and relinquished to Mr. Jack Tramiel.

Atari Corporation "officially" releases the 520ST computer (although models had been seen as early as the winter Consumer Electronics Show (CES) held in Las Vegas in January). Jokingly referred to as the "Jackintosh" (Mr. Jack Tramiel's Macintosh), the 520ST combines the best aspects of GEM and MS-DOS attributes to a Motorola 68000-based machine. The development took place between the combine efforts of Atari and Digital Research programmers.

Atari Corporation bundles FIRST WORD 1.4, by GST based in Cambridge, England; DB-ONE from Stoneware based in San Francisco, California; ST BASIC; ST LOGO and NEOCHROME v.5 in a special offer to ST consumers by Christmas 1985. Current Notes newsletter has jumped to a 52-page publication with a circulation of about 2,000 copies.

June '85. Atari exhibits a new CD-ROM player in conjunction with the 520ST computer. The demonstration software, designed by Activenture, Inc., integrates an entire encyclopedia which is announced to retail between \$100 and \$150

1986

Atari Corporation introduces the 1040ST in the spring and breaks the "\$1 per kilobyte" barrier. Atari Corporation releases SOLARIS by Mr. Douglas Neubauer for the Atari 2600 Video Computer System (VCS). A manufacturing glitch on the U.S. Read Only Memory (ROM) versions causes the game to roll without adjusting the horizontal hold on the television set (which cannot be done on later model automatic adjusting televisions).

Mr. Rick Keene, accomplished illustrator, graphic artist and animator, acquires an Atari 16-bit computer for his work.

Mr. John Mathieson, Mr. Martin Brennan and Mr. Ben Cheese found a company called Flare which is to develop video game computers. Although the company found limited short term success with chipsets, the concept of a complete system never evolved. Later, Mr. Cheese would go on to design the Nintendo Super FX chip. Mr. Mathieson and Mr. Brennan would become "the co-fathers" of the Atari Jaguar.

Atari earns a net income of \$44,516,000 this year from sales of \$258,131,000. More personal computers are sold by Atari in the United States than all except the largest four computer makers (Apple, IBM, Tandy and Compaq); around 300,000 units. This was accomplished with very little advertising or significant retailer support... keeping prices highly competitive.

On Thursday, January 9, Atari Corporation announces the 1040ST one megabyte computer that will be priced at \$999.95 with a monochrome monitor and \$1,199.95 with a color monitor.

On Wednesday, February 19, the San Jose Mercury News reports that Tandon Corp. of Chatsworth has filed suit against Atari Inc. alleging being owed \$645,000 for design work performed for Atari's never-released 1450XLD computer. The work was commissioned by Atari prior to Mr. Tramiel's acquisition of Atari Corp. The suit was filed in Santa Clara County Superior Court. Mr. Nolan Bushnell unveils Tech Force; an assortment of radio-controlled dolls that play

computer game programs at the American International Toy Fair in New York.

JUNE (1986)

On Monday, June 30, 1986 Mr. Mark Caesar, 14, and Mr. Robin Hallingstad, 16, file a suit against Atari Games Corp. for \$1 million plus profits alleging that the company stole the idea for a video game that was marketed by the name of PAPERBOY. The boys had submitted to Atari a detailed proposal for a similar game in July 1983. (Author's note: This was particularly interesting to me because of my personal efforts to sell and market a newspaper delivery game in mid 1982. Details of the effort are included in the "Foreword" portion of this book. As an added observation from experience years later, video game companies receive truckloads of video game ideas every year. Although many arrive in colorful detail, most unsolicited game suggestions are never seen by anyone other than one or two Customer Service representatives. At least from my perspective, this incident proves that "great minds can very well think alike".)

The June issue of Electronic Musician magazine features an article written by Mr. Malcolm Cecil entitled, "Meet the computer that already knows how to speak MIDI." The Grammy award winner author, checks under the hood of the Atari 520ST in a review that spans four pages.

Atari finally launches the Atari 7800 game system to the public with an approximate marketing budget of \$300,000. This unique system accepts enhanced game cartridges and accepts the many 2600 compatible cartridges without having to set switches or make adjustments. Only three 7800-enhanced cartridges are initially available; JOUST, MS. PAC-MAN and DELUXE ASTEROIDS.

Atari makes an initial public offering on Friday, November 7 and raises \$50.6 million. Four and a half million shares are initially sold for \$11.25 each. Atari pays its indebtedness to Warner Communications and other loans of \$36.2 million. On Monday, November 10, Atari sports a formidable booth at the entrance of

this year's COMDEX in Las Vegas. The booth is staffed by Atari personnel and 65 third-party developers rotating around 40 demonstration stations. New products shown were the \$59 MONITOR BOX by JNL Industries, a touch screen system by Video Touch and the low priced SX212 1200 baud modem by Atari; only \$99.95. The booth's theme was "Atari Means Business". Other key products introduced were COMPUTEREYES by DigitalVision, Fleet Street Publisher by Mirrorsoft and TYPESETTER ELITE by Xlent Software. Although the open show was highlighting Atari 520ST and 1040ST components, selected "guests" were invited to an off-floor demonstration of the ST1 (later to become known as the MEGA ST). The modular system has a square footprint, a detachable keyboard, 1 or 4 MEG of RAM memory and a standard double sided 3.5" disk drive. A second stackable module would house a 3.5" 20 MEG hard drive. The ST1 was said to have an MSRP of just under \$2,000 and be available during the first quarter of 1987. On Monday, November 10, Mr. Nathan Potechin shows CALAMUS in Atari's booth at COMDEX in Las Vegas. CALAMUS, an advanced desktop publishing software system, originated in Germany and was presented to Mr. Potechin for the first time just two days before the show. There was no documentation and all of the prompts were in German.

DECEMBER (1986)

The Monday, December 15 issue of Business Week (pp 106 & 108) features an article written by Ms. Katherine M. Hafner in the People / Rejuvenators section of the magazine. The headline is Father knows best -- Just ask the Tramiel boys; Jack Tramiel has turned a half-dead Atari into a \$240 million family business. Sigmund Hartmann, a friend of the Tramiels is quoted, "Jack really wants to go down in history as the guy who offered computers at affordable prices to the masses." In the Sunday, December 28 issue of the San Francisco Examiner on page D-3, Mr. John C. Dvorak previews the "snazzy" Atari 1040ST/20 Meg hard drive & 300 dpi laser printer desktop publishing

system. According to Mr. Dvorak, Atari plans to announce first quarter 1987 for \$2,995. PAGEMAKER for the PC is released by Aldus Corporation. American Information Technologies Corporation begins testing Integrated Services Digital Network (ISDN) at McDonald's corporate headquarters in Oak Brook, Illinois. The technology enables the transmission of voice, data and video over standard phone lines. Atari's working capital is \$96.5 million. Current Notes newsletter has jumped to a 68 page publication with a circulation of about 3,000.

1987

Atari earns a net income of \$57.4 million this year from gross revenues of \$493.2 million. Computers represent 51% of this figure, Video Games represent 23% and retail sales represent 26%.

On Thursday, January 8, Atari Corporation introduces an IBM-PC clone line at the Consumer Electronics Show (CES) in Las Vegas. A \$699 model supports EGA, CGA, Hercules and IBM monochrome graphics and includes the monochrome monitor. A \$499 model is similar without EGA capabilities or a monitor. Both systems have 512K RAM (expandable to 640K), a Centronics parallel port, an RS232 serial port and are designed around the Intel 8088 CPU. They operate at 4.77 MHz or 8 MHz in turbo mode. Expansion for either system would be made available with an optional expansion box planned at a later date. Initial deliveries of the product to stores are planned in the spring. Key competitors on the PC level are Franklin, Tandy, Hyundai and Commodore. Meanwhile, analysts predict an enhanced IBM machine based on the "more powerful" 8086 microprocessor and called the ET will be unveiled with days. On Thursday, January 8, Atari Corporation shows the Mega ST desktop publishing system with a laser printer for less than \$3,000 at the Consumer Electronics Show (CES) in Las Vegas.

Atari Corporation introduces the XE game system, a redesign of the 8-bit computer, at the American International Toy Fair. Mr. Jack Beuttell, president of Matchbox Toys,

announces that Matchbox entered a licensing agreement with Atari Games to develop a coin-operated fifty-level game entitled ROADBLASTERS. It is to be based on the Matchbox line of futuristic action/adventure vehicles.

Atari Corporation and Commodore International, Ltd. settle litigation begun by Atari in 1984 against Amiga and Commodore. The pending claims involved the possible violations of Atari patents related to computer chips. Commodore claimed Atari was blocking fair trade and competition. The terms of the settlement remain undisclosed. According to an Atari Corporation Facts-at-a-glance document, Atari now employs about 1,250 worldwide.

On Monday, April 6, Atari Corporation announces canceled plans to sell convertible subordinated debentures in the United States. Instead, \$75 million worth of Eurobonds are issued which become due in 2012 with a coupon of from 5 to 5.25 percent through Paine Webber International, Inc. In the issue dated week of Monday, April 13, the San Jose Business Journal an article by Mr. Stephen Jones is published titled: "Atari targets computer sales: Firm's 'gee whiz' image may make sales tough". Mr., Jerry Brown, vice president and general manager of Atari's U.S. operations states, "You can debate whether people think we're a game company or not, but I think our past is a plus."

Electronic Arts acquires Batteries Included; a firm whose three best selling software titles include DEGAS ELITE (Atari), PAPERCLIP (Commodore 64/Atari) and THUNDER (Macintosh and Atari ST). Mr. Trip Hawkins, president of Electronic Arts, cites annual revenues for Batteries Included to be \$4 million.

On Friday, May 15, the San Francisco Examiner prints a story (page C-1) written by Mr. Paul Freiberger. The headline: Atari getting set to wage war on U.S. PC market

On Saturday, May 30, the Consumer Electronics Show (CES) in Chicago, Illinois opens. Atari Corporation is located at booth number 6540. Atari proclaims that the Atari 520ST and 1040ST are the

best-selling computers in West Germany, both computers are the only personal computers with built-in MIDI ports and that the 1040ST is the first computer in the U.S. selling for less than one dollar per kilobyte.

Mr. Ralph Mariano publishes his first issue of STReport. As one of the innovators in thorough online publishing, Mr. Mariano focuses on the Atari computer with his news coverage. His publications and Mr. Mariano's approach with his editorials will be a part of many controversies within the next seven years. Originally, his masthead is named after the Atari ST. As the ST Computer's popularity fades, STReport begins to focus on the larger arena of all platforms of computers. Consequently, Mr. Mariano changes the acronym of his masthead to mean: Silicon Times Report. His first issue this month is 32,683 bytes.

California Business magazine includes an article on page 24 regarding Atari, the Tramiels and recent layoffs. The article by staff writer, Mr. James Walsh, is titled: The Meanest SOB In Silicon Valley: Sam Tramiel has fired 1,200 people at Atari, and Wall Street loves it. But can he really sell non-IBM compatible computers?.

On Thursday, August 27, Atari Corporation publicly announces an agreement to buy the Federated Group, Inc. for \$67.3 million cash. The Federated Group of Electronics Stores is a chain of 67 home electronics stores in California, Texas, Arizona, New Mexico and Kansas which employs 2,700 people. The impressive supermarket-size stores average between 20,000 to 30,000 per location. Atari feels Federated will offer guaranteed retail shelf space for their products and provide a major stepping stone toward producing other Atari-labeled electronics products.

Effective midnight of Sunday, October 4, Atari Corporation closed its tender offer for outstanding shares of the Federated Group of Electronics Stores and Federated becomes an official subsidiary of Atari. On Monday, October 12, Wilfred Schwartz; 59-year-old Federated Group Chairman, Keith Powell; 42-year-old president and Michael Pastore; 38-year-old senior

vice president tender their resignations from Atari Corporation. The Federated Group of Electronics Stores. Garry Tramiel, the youngest son (27) of Jack Tramiel is named president. On Wednesday, October 14, Mr. Garry Tramiel, issues a memo to all the Federated Group of Electronics Stores employees announcing reorganization. Mr. Sam Crowley is named V.P./General Manager and to be relocated from Texas. Mr. Jim Nelson is named V.P. Operations and will also be relocated from Texas. Mr. Armand Phillippi is named V.P. Merchandising. Mr. Wilfred Schwartz, Mr. Keith Powell, Mr. Michael Pastore and Mr. Sherman Langer are noted to no longer be with the company.

Mr. Nathan Potechin shows CALAMUS, an advanced desktop publishing system for Atari computers, at COMDEX in Las Vegas. Nathan used a 19 inch Moniterm monitor, a German interface card to connect to an Atari Mega ST. The President of Moniterm was so impressed by Nathan's display integrating the monitor with an Atari computer that a deal was made between Atari and Moniterm for a brief time before switching over to Phillips as a monitor source.

1988

Atari Corporation's 520ST and 1040ST computers are named "Best Home Computers of the Year" by an international panel of trade editors.

Mr. Ron Gordon, former Chief Executive Officer of Atari, Inc. eight years prior, assembles a team of researchers, neurophysiologists and hardware and software engineers. Their task is to develop computer and video game controllers that respond to human responses in similar ways to polygraphs and EEGs.

DMC shows CALAMUS for Atari ST systems at Centrum fuer Buero und Informations Technologie (CeBIT) in Hanover, Germany. Mega ST computers that were running CALAMUS will become a very popular desktop publishing solution throughout Europe.

Atari Corporation files a suit against the former owners of the Federated Group of Electronics Stores, their investment firm

(Goldman, Sachs & Co.) and their accountants (Ernst & Whinney) for co-conspiring to artificially inflate the value of Federated when Atari purchased the 67-store chain of electronics stores twelve-months prior.

Mr. Shiraz Shivji, vice president of engineering for Atari Corporation, speaks to Atari users at the Atari Fair in Duesseldorf. He announces the new TT computer and a computer called the Abacus; a Transputer based system. Mr. Nolan Bushnell, by means of his newly formed company called Axlon, will produce upwards to 120 games per year for Atari according to plans revealed by both companies.

Atari Corporation introduces a new line of products at the COMputer Dealer EXpo (COMDEX) show held Monday, November 14 through Friday, November 18. COMDEX is billed as the largest domestic computer conference and trade show and it was attended this year by over 110,000 computer retailers and industry professionals. Atari's booth occupied over 6,600 square-feet. The new products included PC4 and PC5 (MS-DOS orientated machines), the Atari Transputer Workstations (ATW, formerly referred to as Abaq), Megafile 30, DESKSET II (a high-end DTP package) and the Viking 1 large 19-inch screen high-resolution monitor from Moniterm. Mick Fleetwood of Fleetwood Mac performed for 45 minutes at the show. Fleetwood Mac uses Atari computers in the production of their albums.

1989

August saw the advent of one of the first useful palmtops, the DOS-based Dip (sold by Atari as the Portfolio). Apple showed its portable Mac in October.

Artisan Software releases WORD QUEST 2, a crossword puzzle generator for the Atari 16-bit computers. Mr. Nolan Bushnell's company, Axlon, signs with Atari Corporation to develop a number of 2600 and 7800 video games. At the summer Consumer Electronics Show (CES) Atari Corporation reveals the new Lynx color handheld video game. Although actually completed several years prior, Atari Corporation

releases ROAD RUNNER by Mr. Bob Polaro for the Atari 2600 Video Computer System (VCS).

Mr. John Mathieson and Mr. Martin Brennan establish Flare 2, a "sequel" to a company called Flare established in 1986. The company is owned 80% by Atari Corporation. Mr. Mathieson designed the RISC processors and Blitter. Mr. Brennan designed the Jaguar video system (loosely based on an earlier Atari project code-named Panther).

On Thursday, January 5, Nintendo of America Inc. files suit against a property of Atari Games Inc. of Milpitas, California alleging that Tengen Games violated federal and state trademark laws and unfair competition. Months prior, Atari filed an anti-trust suit against Nintendo accusing Nintendo of improperly controlling the supply of game cartridges.

Nintendo of America sues Atari Games, alleging it violated trademark law and breached a contract by making and marketing games that did function on Nintendo/Es encoded systems.

Atari Corporation announces that they have deemed their 1987 acquired Federated Group of Electronics Stores as a discontinued operation. The decision will cost \$100,000,000 for the chain of 67 electronics stores for which they paid \$67,000,000. Atari Corporation shows the Megafile 44, a removeable hard disk cartridge system, and the CDAR504, Atari's own CD-ROM player at CEntrum fuer Buero und Informations Technologie (CeBIT) in Hanover, Germany. Atari also offers private demonstrations of a 68030 UNIX-based system to developers.

Atari Corporation stock trades at almost \$20 a share on the American Stock Exchange.

On Friday, August 18, Orange County Superior Court Judge Jack Mandel rules that Atari Corporation must pay former Federated Group of Electronics Stores-E president Mr. Keith Powell \$260,000 and former vice president Mr. Merrill Lyons \$175,000 in severance pay. Atari says they will decide whether to appeal.

Atari Corporation shows the TT and the 1040Ste for the first time at the Atari Fair in Duesseldorf, Germany.

On Friday, September 29, four former employees of Atari Holdings, Inc. of Sunnyvale, California sue Warner Communications, Inc. as well as several named executives for more than \$120 million in San Jose Superior Court. The class-action suit alleges that Warner, the parent company of Atari from 1976 through 1984, cheated more than 3,000 employees out of more than \$23 million in bonuses earned during the peak selling years of 1981 and 1982.

In an Atari Corporation press release dated Monday, November 13, Atari announces shipping the STACY laptop computer featuring "Full ST compatibility for less than \$1,500.00". The "state-of-the-art", Motorola 68000-based system includes a backlit Liquid Crystal Display (LCD) display, keyboard, trak-ball mouse, built-in 3.5" double-sided drive and a battery pack in a 15-pound unit. The system speed is 8MHz, RAM size is optional at one, two or four megabytes and hard drive options include 20 or 40-MB drives. A press release dated Monday, November 13, Atari Corporation Introduces a True 32-bit Bus System; the TT. This Motorola 68030-based system touts 16MHz processor speed, two serial ports, internal A24/D16 VME card slot, internal real-time clock, resolutions in color up to 640 x 480 or in monochrome to 1280 x 960. The system is intended to surpass the needs of contemporary DTP workstations at a fraction of alternative costs. The system is announced to be available during the first quarter of 1990. On Monday, November 13, Atari Corporation introduces the 1040STe; the newest generation of the 1040ST tradition. "Enhanced Capabilities for Home, MIDI Applications" include an extended palette of up to 4,096 colors, 8-bit digital stereo sound and exceptional hardware-based scrolling technology. The system is expected to ship during the first quarter of 1990.

Mr. Donald A. Thomas, Jr. joins Atari Corporation in the capacity of a direct marketing manager for Atari-Es new Portfolio handheld computer.

The FCC finally passes the STACY laptop computer for Atari Corporation, but only for commercial

use (Class A). Atari Corporation offers its employees KX7110 packouts at no cost. These bundled systems included a 600XL computer, 1027 impact printer and an ATARIWRITER cartridge which Atari needed to clear from the books before January 1990. Employees could take as many as they wished as long as they were "donated" to a school or given away and not sold. A couple hundred flew out the doors within a couple of days.

1990

Namco America, Inc. acquires Atari Operations, Inc. to commence amusement arcade operations. They also begin direct sales of coin-operated arcade games in the United States.

On Saturday, January 6 Atari Corporation demonstrates the handheld Atari Lynx video game system. It was designed by the same engineers behind the development of the Commodore Amiga home computer (Mr. R.J. Mical and Mr. Dave Needle). It is introduced with a retail price of \$149.

Atari Corporation demonstrates UNIX SYSTEM V Rel 3.2 running on a TT system at the CEntrum fuer Buero und Informations Technologie (CeBIT) show in Hanover, Germany. Atari Corporation lays off 15% of their Sunnyvale employees in a cost cutting measure. Most affected are Accounting and warehouse personnel. The final big bulk of Atari Corporation's The Federated Group of Electronics Stores is sold to SILO electronics stores. The deal includes Atari's acquisition of SILO's stock. IBM agrees to license GO's PENPOINT operating system after learning GO's success to impress State Farm to work with them. ISD, based in Canada, begins shipping CALAMUS OUTLINE ART.

APRIL (1990)

Following the layoffs in March, Atari Corporation consolidates Atari Explorer magazine and is compelled to layoff David Ahl and Betsy Staples; the primary editors. The spring issue is recalled before distributed by Atari due to articles the editors placed in the issue expressing their disgruntled disposition.

Michtron releases FLEET STREET PUBLISHER 3.0 for Atari 16-bit computers.

On Thursday, August 9, MIDIFest '90 was held at the Beverly Garland Hotel. At the show, Mr. Mick Fleetwood (Fleetwood Mac), Mr. Jimmy Hotz and Mr. Paul Haslinger (Tangerine Dream) demonstrate the Hotz MIDI Translator; a pro-audio product of Atari.

Mr. George Miller resigns Michtron and joins Abacus Software, Inc.; a book and software publisher based in Grand Rapids, Michigan. Gordon Monnier formally announces Mictron is available for sale. A whopping 42,000 people attend the Atari Messe (Fair) in Dusseldorf, West Germany.

Atari Corporation invests in a \$20,000 budget to help promote the Glendale Atari Fest. It becomes the largest U.S. Users' Group show ever with 2,500 in attendance. Gribnif starts selling NEODESK 3 at the show. Mr. William Rehbock joins Atari Corporation as director of technical services.

Atari Corporation formally announces that the TT030 will be a 32MHz machine instead of a 16MHz machine as earlier promised.

Mr. Jim Fisher resigns Atari Corporation. He had worked on concepts to form a direct-to-consumer computer sales company featuring PC clones and was instrumental with the launch of the Portfolio handheld computer.

Atari Corporation's stock (ATC) dips to \$1.75 on the American Stock Exchange. Atari Corporation unveils the 16MHz MEGA/STE computer at COMDEX. List price for a four megabyte version is \$1,800 and includes keyboard, mouse, 4,096 color palette, stereo sound, SIMM memory, double sided 3.5-inch disk drive, 50 megabyte hard drive, standard serial, parallel and MIDI ports, cartridge port, DMA port and eight-MHz VME bus. Computer Shopper magazine drops regular Atari computer coverage.

1991

The summer issue of Atari Explorer features an article (pages 62-64) written by CompuServe's Ron Luks reviewing TRANSPORT; a Portfolio to Atari ST/MEGA/TT data

transfer software product.

TRANSPORT, published by Artisan Software was written by Donald A. Thomas, Jr. Also in this issue is a profile of Nevin Shalit, president of Step-Ahead Software and author of popular Atari 16-bit computer software.

Impel releases a 140-count collector's trading card set based on Terminator 2: Judgment Day a blockbuster motion picture starring Arnold Schwarzenegger and Linda Hamilton released the same year. In the movie, the Atari Portfolio handheld DOS computer is used by John Connor to break into an Automatic Teller Machine. Card number 78 depicts young Connor using the Portfolio in Cyberdyne's vault.

MAD magazine publishes a Super Special Summer edition with a Computer Virus theme and features a basic programs to display Alfred E. Neuman on the computer screen. The program for an Atari 8-bit computer is on page 45.

On Friday, January 18 through Monday, January 21, the winter National Association of Music Merchants (NAMM) show is held in the Anaheim Convention Center in Anaheim, California. The show is host to 700 exhibitors within 340,000 square feet of show space. Atari was the first computer manufacturer to exhibit at any NAMM show due to its popular access to MIDI-based hardware and software in their 16-bit computers. Mr. Jon Anderson (Yes), Mr. Scott Gershin (award winning sound designer/composer), Mr. Paul Haslinger (Tangerine Dream) and Mr. Jimmy Hotz (Fleetwood Mac record producer) all drew crowds as they played to them in the Atari booth.

Atari Corporation's U.S. division revamps its dealer service network and lays off all corporate field sales representatives.

Atari Corporation previews the ST Book and the ST Pad computers at the international computer show (CEBIT) in Hanover, Germany. The ST Book was said to be near shipping (actually not many ever did) and the ST Pad was only in demonstrable condition pending yet significant work.

WordPerfect Corporation completes what will become the final version of WORDPERFECT for the Atari ST on Thursday, April 18.

On Thursday, June 27, Atari announces that they have closed the sale of their assembly plant in Taiwan for \$60 million. Some proceeds will go to the reduction of \$27 million in bank debts. Manufacturing and assembly is subcontracted throughout Hong Kong and Taiwan.

Mr. Bob Schuricht, National Sales Director for Atari Corporation, teases the industry with word of a 32-bit Jaguar game system expected for release in 1992.

Atari Corporation shows its UNIX SYSTEM V, Rel 4.0 dubbed ASV (Atari System V).

Die Ey opens as a new opera at the Junges Theater in der Altstadt in Dusseldorf, Germany. The opera was entirely composed on an Atari Corporation's ST computer. Atari Corporation sells Atari SYSTEM V UNIX-based development systems on 200 Megabyte and 320 Megabyte hard disks to European developers.

1992

The January issue of Atari Corporation's Atari Explorer magazine features a the cover image of the Atari Portfolio held by a human hand on the right and a endoskeletal hand on the left. The image was created by Mr. Nicholas E. Jainschigg under special arrangement from Carolco. An inside story features a photo of Mr. Edward Furlong using the Portfolio handheld computer in Terminator 2: Judgment Day. This same issue also features an interview of Walter Koenig (who plays the role of Chekov in the Star Trek series and films). The interview, conducted by Mr. Mike Fulton of Atari, focuses on Walter's adoration of his Atari Mega STe computer.

ISD Marketing, known for distributing and supporting VIP PROFESSIONAL, HABA products and CALAMUS for the Atari computers, merged into DMC Publishing. The new partners included Mr. Dietmar Meyfeldt and Mr. Oren Asher. DMC handled CALAMUS, OUTLINE ART, INVISION ELITE as well as a line of other related products including CALAMUS SL.

On Friday, May 1, and in less than a four-day deliberation, a U.S. district court jury clears Nintendo of charges levied by Atari Corporation that it illegally attempted to monopolize the video game market in the United States in the late 1980's. The trial took ten weeks. The jury determined that Nintendo had obtained monopolistic powers, but they deadlocked on the issue as to whether Nintendo obtained those powers illegally.

Atari Corporation finalizes plans to release Atari SYSTEM V (ASV) UNIX-based systems. Mr. Jack Tramiel will cancel the entire project within thirty days.

September. Atari Corporation shows the Falcon multimedia computer.

1993

The January/February issue of Atari Corporation's Atari Explorer magazine features a profile of Mr. Chester Thompson, drummer for the supergroup Genesis since 1976. Chester discusses his use of CUBASE by Steinberg Jones and his STacy computer by Atari. In the same issue, a profile of Jon Anderson, known as the lead vocalist of the supergroup Yes, discusses his love of Atari and the Hotz MIDI Translator.

In the February issue of BYTE magazine, an article titled: Atari's Falcon030 Leads the Pack by Mr. Tom R. Halfhill is found on page 58. The story cites Atari to be the first company to ship a low-cost PC with a Digital Signal Processor (DSP).

Atari Corporation unveils the 64-bit Jaguar to the industry at the Consumer Electronics Show in Chicago. By years end the Jaguar is made publicly available in New York, Los Angeles and San Francisco.

The Atari Compendium; published by Software Development Systems and compiled by Mr. Scott D. Sanders, is released in its first edition. This two inch thick, well overdue publication is a programmer's dream come true. The book is touted as "the most comprehensive collection of information designed for every level of Atari programmer." The book is soon published in a second edition and Scott later joins Atari's Jaguar

in-house development team within one year.

On Wednesday, October 20, Mr. Hans Martin-Kroeber and his wife Conny pick up Mr. Normen B. Kowalewski from San Francisco Airport to conclude his transfer from Atari Germany to work at Atari Headquarters in Sunnyvale, California. Normen is named a manager in charge of worldwide Jaguar developer support. Within six weeks, Normen, Mr. Leonard Tramiel and Mr. Bill Rehbock demonstrated Jaguar technology at the first Jaguar Developer Conference in the Heathrow Penta Hotel in London, England.

1994

Atari Corporation realizes a net income of \$9.4 million on sales of \$38.7 million.

Mr. John Mathieson, dubbed the father of the Atari Corporation's Jaguar, moves to the United States from the U.K. and continues work on Jaguar technology.

The March/April issue of Game Informer magazine gives an award to Atari Corporation's Jaguar as the Best New Hardware System of 1993.

On Monday, April 25, Wavefront Technologies, Inc. boasts in a press release that they have signed a worldwide agreement with Atari Corporation to make GAMEWARE the exclusive graphics and animation development software for the Atari Jaguar.

TEMPEST 2000, written by Mr. Jeff Minter, is released by Atari Corporation and begins shipping for the Jaguar during the first week of April.

Phobyx (third party Atari developer) commences work on the BLL-kit. By July, the first versions of the RISC assembler and debugger will be running. The BLL-kit, intended as a hobbyist game system development system, is a modified Atari Jaguar connected to an Atari Falcon or 1040Ste via the joypad ports. Atari later cancels the project based on an overall lack of saturation of the consumer game system.

Telegames, a formidable Atari Jaguar developer, suffers from a tragic tornado in Texas. Thankfully, no one was hurt, but a priceless warehouse of vintage and

contemporary video game inventory was destroyed by the winds and subsequent rain.

On Monday, May 17, SuperMac Technology, Inc. announces that Atari Corporation has licensed CINEPAK advanced video compression technology to be integrated into Atari's new products.

On Monday, June 20, Mr. Jay Miner, 62, passes away in a Mountain View, CA hospital. Known as the father of the Amiga computer, Miner headed up the chip design for the Atari 2600 video game and the Atari 400/800 computers.

WOLFENSTEIN 3D is released for the Jaguar game system by Atari Corporation and is another instant success for the platform. Notably better in graphic and game play quality when compared to the same title on other game systems, "WOLF 3D" is ranked as the top seller in nationwide retail chains.

On Tuesday, August 2, Donald A. Thomas, Jr., Director of Customer Services for Atari Corporation, completes a report of registered Jaguar owners. Of the 14,099 registered owners, 99% are male, 82% of the respondents are between the ages of 12 to 34 with most (40%) being between the ages of 18-24. 56% of those returning legible warranty cards also own a Sega Genesis and an equal number reported to also own a Super Nintendo Entertainment System. A near equal number (25%) either own an Atari Lynx or Nintendo Game Boy.

Mr. Roine Stenberg (Istari Software) commences work on an unlicensed development kit for the Atari Jaguar 64-bit video game system which works on illegally modified Jaguars and hosted by virtually any Atari 16-bit computer. The first prototype was built around the Atari Mega STÆs "MegaBus". It was handwired and contained 21 Integrated Circuits (IC). Later, the original plan was scrapped for one compatible with the cartridge port found on all Atari 16-bit computers. He calls the kit The Jaguar Server Development Kit. The "Rev A" board will be up and running in February Æ95.

On Wednesday, September 28, Atari Corporation and Sega announces a \$90 million settlement

regarding possible patent infringements. Terms include \$50 million (less attorney fees) in prepaid royalties to Atari in exchange for more than 70 U.S. patents and applications. Sega also receives 4.7 million shares in the arrangement for an additional \$40 million.

Friday, October 21, is announced by Atari Corporation to be the formal release of ALIEN VS. PREDATOR. Having waited over seven months from its original release date, the game earns rave reviews for its unprecedented realism. The game incorporates actual graphics and sound effects from the Twentieth Century Fox films.

On Monday, November 14, Time Warner Cable Full Service Network (FSN) and Atari Corporation cooperatively announce an agreement to offer Atari Jaguar 64-bit interactive video games to FSN customers. Select games will be digitally compressed and stored on magnetic hard drives to be "downloaded" to FSN consumer's on request.

As of Thursday, November 17, Mr. Richard Miller, Atari's vice president of product and production and engineering steps away from Atari on a full-time basis to design microchips from his home. He continues to be a part of Atari's engineering team on a consultant basis. On Thursday, November 17, Mr. Sam Tramiel announces that the settlement terms made public in September with Sega were concluded and that Atari Corporation had received an approximate cash infusion of \$90 million. Sam jokingly warns Atari employees in a company memo that he does not personally carry more than \$20 on his person at any one time.

On Sunday, December 18, Mr. John Hardie of Valley Stream, New York has a tattoo placed on his right shoulder depicting a Jaguar cub holding an Atari Fuji symbol with the red Jaguar trademark logo placed just beneath.

Atari Corporation begins shipping TEMPEST 2000: THE SOUNDTRACK. This audio compact disc features the music soundtrack of the popular TEMPEST 2000 video game for the 64-bit Jaguar. It is believed to be the

first commercially sold soundtrack of a video game.

1995

Nics Electronic Company, Ltd., in Seoul, Korea, releases TV-Boy. Manufactured in China, this device consists of a handheld controller that connects to televisions and can be transmitted to televisions from a short distance. It has a one-chip version knock off of the Atari 2600 Video Computer System (VCS) and 127 built-in games (in four megabytes) exactly as they were copied from popular Atari 2600 cartridges of the 80Æs. The pinball game still has the Atari trademark Fuji on the playfield, portions of logos such as Activision still scroll up during the wait mode of some games. Many of the names of the games were substituted or altered for the purpose of open distribution of this product.

Mr. Roine Stenberg (Istari Software) completes the "Rev A" board of an unlicensed development kit for the Atari Jaguar 64-bit video game system which works on illegally modified Jaguars and hosted by virtually any Atari 16-bit computer. He calls the kit The Jaguar Server Development Kit.

Atari Corporation signs an agreement with Virtuality to develop a Jaguar compatible Virtual Reality system.

Atari Corporation announces hopes to have the CD-ROM peripheral for the 64-bit Jaguar to stores in June for \$149.

ICD "unofficially" releases a metal cabinet version of the CATBox; a snap-on peripheral for the Atari Jaguar that enables easy access to networking, headphones and a variety of monitors.

The cover of NEXT Generation magazine is solid black with the symbolic Atari Jaguar eyes piercing the middle of the publication. The 8-page feature begins on page 34 and includes photographs of Atari's long line of products, Mr. Jeff Minter, Mr. Nolan Bushnell and an interview with Mr. Sam Tramiel. A 6-page interview with Mr. Nolan Bushnell begins on page 6 and 2-page Jaguar featurette are on pages 14 and 15.

On Thursday, May 11, at the Electronic Entertainment Expo (E3)

show in Los Angeles, California, Sony Computer Entertainment America's (SCEA) president, Mr. Steve Race, announced a price drop of the forthcoming PlayStation video game console to \$299. Threatened by Atari's claim that Sony may be dumping product in the United States, SCEA's decision was to alter the U.S. version so that it did not have an S-Video adaptor built-in. The technical change differentiated the machine from the one selling in Japan for \$320.

Based on research initiated in 1988, Mr. Ron Gordon, once chief executive officer of Atari Inc., announces that he will introduce a thought and sensory controller for computers and video games at an upcoming Winter Trade Show; presumably the Winter Consumer Electronics Show (CES). Following the same science for which polygraphs and EEGs are derived, Gordon's new controller reacts to player thoughts. Priced for the mass market, MindDrive is announced to be priced between \$100 and \$200.

Effective Tuesday, August 1, Genie online service cancels a nine year contract with Atari which names their service as the "official" site for online support of Atari products.

On Tuesday, September 12, Toad Computer of Severna Park, Maryland announces plans to mirror the Atari software archive maintained by the University of Michigan. The library consists of over 700MB of compressed public domain software for the Atari 8-bit, ST, STe, TT030 and Falcon computers.

The Monday, October 16 issue of Adweek, a advertising trade magazine, names the most recent Atari Jaguar television commercial as one of Septembers "Best Spots".

On Thursday, November 2, Atari Corporation cuts staffing by twenty people. Among those cut are Mr. Bill Rehbock, Mr. Joe Cain, Mr. Normen B. Kowalewski, Mr. Stan Weaver, Mr. Francois Bertrand, Mr. Richard Ho and Mr. Craig Suko.

On Friday, December 15, Mr. Sam Tramiel, president of Atari Corporation, suffers a mild heart attack. He recovers quickly and is expected to recover 100% within a few months.

In the Monday, December 18 issue of People Weekly Magazine,

Ms. Whitney Houston states on page 110 of the cover story, "He played me like I was Atari." She was admiringly referring to how masterfully her latest romance swept her off her feet.

On Wednesday, December 20, Atari Corporation hosts a luncheon for employees and their guests. The event is catered and about a dozen tongue-in-cheek "Academy" awards are passed out. A random drawing is held at the conclusion for an all expense paid vacation to Mexico, the Caribbean or Hawaii. Mr. Donald A. Thomas Jr.'s name is drawn by Mr. Leonard Tramiel from a basket of all employee names. (Due to changes pending with the structure of Atari, the trip was never taken, however, Atari did provide a modest compensation in lieu of the trip.)

1996

On Monday, January 1, Mr. Dan Dorfman, is fired from his \$450,000 a year job writing for a column for Money magazine. On more than one occasion, Dorfman had targeted Atari Corporation with inexplicable predictions in the value of the stock and seemingly causing the value to drop. Due to Federal investigations into his relationship with his stock promoter, Dorfman was suspended by the magazine in October of 1995.

On Thursday, January 4, Mr. Ted Hoff meets with the press in a suite at the MGM hotel in Las Vegas. Literally hours before the opening of the Winter Consumer Electronics Show (CES), Ted formally announces the inception of Atari Interactive; a new division created to develop, manufacture and market video game software titles for systems other than Atari's proprietary systems. The first game to be released will be TEMPEST 2000 PC.

On Monday, January 15, Dr. Martin Luther King, Jr.'s birthday, Mr. Jack Tramiel initiates deep cutbacks in personnel at Atari Corporation. Those released include Mr. Ron Beltramo, Mr. Greg LaBrec, Mr. Pilgrim Peart and Mr. Tim Dunn.

On Tuesday, January 16, Multimedia Wire publishes a report titled: Atari Corp. Exits Video Game Business, To Liquidate Game Assets. According to the article, MMWIRE

believes the Tramiels intend to merge the resulting company with a computer components manufacturer.

The Monday, January 22 issue of TWICE magazine on pages 1 and 59 features a story by Mr. James K. Willcox with a headline: Atari Pulls Plug On Video Game Business.

The January issue (released to newsstands in December '95) of Next Generation magazine suggests Atari's intentions to abandon the Jaguar platform. Atari denies the reports.

On Tuesday, February 6, Next Generation reports on their web site rumored news that Atari plans to withdraw from the software publishing and hardware manufacturing business in the game market and allude to a relationship with a company known as Jugi Tandon Storage (JTS).

On Thursday, February 8, rumors mount relating to a new direction for Atari Corporation. According to one anonymous report, Atari Corporation plans to invest in a small cash needy disk drive company called Jugi Tandon Storage, Inc. (JTS) run by ex-marine, Mr. Tom Mitchell. The arrangement allows the disk drive company to trade stock under Atari's ATC symbol and amplifies consumer fears of Atari's possible abandonment of the video game industry.

On Friday, February 9, Atari Corporation releases most remaining testers and marketing personnel.

On Tuesday, February 13, Atari Corporation announces intentions to merge with Jugi Tandon Storage (JTS) Corporation by granting JTS an extended bridge loan of \$25,000,000 to build 30 disk drives. Atari stockholders will hold 60% of the outstanding shares of the merged operations. The company will function under the name of JTS and Atari's function to develop, manufacture and sell video games will be maintained as a separate division of JTS. Atari stock (ATC:AMEX) is one of the most active on the American Stock Exchange for the day with a volume of 3,297,300 up 3/16 to 2 1/16.

On Thursday, February 29 (Leap Year Day), Atari Corporation relocates from 1196 Borregas Avenue in Sunnyvale to 455 South Mathilda

Avenue in Sunnyvale (about 2.5 miles away). The new location is about 7,208 square feet and was once a Bank of America building. As desks and office equipment was moved in, the vault door remained intact and had not yet been removed. The ten offices are assigned to Mr. Jack Tramiel, Mr. Sam Tramiel, Mr. Leonard Tramiel, Mr. Garry Tramiel, Mr. Dave Schwartz, Mr. John Skruch, Mr. Donald A. Thomas, Jr., Mr. Scott Sanders, Ms. Max Fagan and Ms. Gayle McKim. There are nine cubicles divided among five persons, two storage areas, a kitchen, conference room, and reception area.

On Tuesday, March 5, WMS Industries, Inc., makers of Williams, Bally and Midway coin-op games, announces an agreement to acquire Atari Games From Time Warner, Inc. Currently doing business as Time Warner Interactive, Atari Games is the coin-op arcade half of Atari which split as an independent operation when the Tramiel family acquired the home systems division in 1986. Although WMS refutes it, the rumored price for the acquisition is \$25 million. In a report published three days prior in the San Jose Mercury News, WMS won the bid to acquire Atari Games over Mr. Nolan Bushnell who was the original founder of Atari.

On Thursday, March 14, Atari Corporation releases their results for year end and the fourth quarter 1995. For the quarter, sales were \$2.8 million with a net loss of \$27.7 million. For the year, sales were \$14.6 million with a net loss of \$49.6 million.

On Friday, March 29, WMS Industries complete the acquisition of Atari Games as announced they would on Tuesday, March 5. The full purchase price of the transaction away from Time Warner, Inc. will be a sum between \$9.8 and \$23.8 million pending the gross profit realized by the division over the subsequent four years.

On Friday, June 14, Atari Corporation release their warehouse foreman and receptionist. Jugi Tandon Storage (JTS) executives visit the South Mathilda facility to meet select Atari employees to review move forward options.

On Friday, July 12, Atari is informed by the Securities Exchange

Commission (SEC) that their intentions to merge with Jugi Tandon Storage, Inc. (JTS) has been approved pending the formality of a shareholder's vote.

On Tuesday, July 30, Atari Corporation hosts a special meeting of stockholders in the offices of Wilson Sonsini Goodrich & Rosati, P.C. in Palo Alto, California. The meeting, said to have taken about four to six minutes formally was to vote on the merger between Atari Corporation and JTS Corporation. With an outcome of approximately 42 million votes in favor and about 11,000 against, the stockholders ratify the decision. Trading of ATC shares are halted at the end of the day. Upon the conclusion of the meeting, Mr. Sam Tramiel arranges to pick up the severance checks for himself and his siblings. Mr. Jack Tramiel, former chief executive officer (CEO) of Atari Corporation, remains to assist with a smooth transition with the handful of Atari personnel that survive.

On Wednesday, July 31, JTS Corporation is a public company trading shares with the symbol of JTS. What was Atari Corporation on the previous day is now a division of a few people employed by JTS.

On Thursday, August 15, Mr. Donald A. Thomas, Jr. reports to work at Atari for the last time.

On Thursday, September 12, Ms. Barbara Castillo, Mr. John Skruch and Mr. David Bajer relocate to the corporate offices of JTS. The three, which are instructed to work together from distant parts of the building from each other, are the last remaining human office remnants of Atari Corporation. Their relocation marks the end of any measurable autonomy. Meanwhile, Mr. Tom Mitchell, President of JTS hits his company with a 10% layoff and hints at more to come. In an internal company-wide memo, Mitchell blames the merger with Atari as the cause of the layoffs.

CyberPuNKS publishes STELLA GETS A NEW BRAIN! Stella refers to the codename of the Atari 2600 video game system while being developed. The CD-based collection of software includes the entire Starpath collection which were originally distributed on cassette; including surprise titles as well. The

Starpath (originally named Arcadia) was a RAM-based cartridge that connected to cassette players to load software. Just over a dozen titles were ever published. The names of the individuals that make up the CyberPuNKS crew reveal the odd capitalization in their group name. "P" is for Mr. Russ Perry. "N" stands for Mr. Jim Nitchals. "K" represents Mr. Glenn Saunders (Krishna is his e-mail handle). "S" is for Mr. Dan Skelton. STELLA GETS A NEW BRAIN! Also includes a large multimedia database of packaging, tape inserts and instruction manual scans. There are tools for writing new Atari 2600 video games and the binary source files of the Vectrex library.

Wired magazine publishes a six-page fold-out timeline of Atari's contribution to the computer and video game industry.

On Tuesday, December 10, Telegames ships two titles for the Atari Jaguar 64-bit video game system. The first is BREAKOUT 2000 written by Mr. Mario Perdue and published by arrangement with JTS Corporation. The other is TOWERS II a DOOM-like game which was turned down by Atari Corporation and other publishers in earlier years. Pending any degree of success to sell even a modest number of these titles, Telegames hopes to release other new the months ahead. Here are some unpublished Easter eggs for BREAKOUT 2000. Each of these must be entered during the game with no active balls. They will work in either one or two player modes.

1+5+3 = Ball Count to 99

3+7+8+9 = Attract Power-Up

1+7+8+9 = Super Ball

Power-Up

4+7+8+9 = Catch Power-Up

2+7+8+9 = Cannon Power-Up

On Monday, December 23, JTS of San Jose, a disk drive company, begins releasing pallets of Atari Jaguars to a liquidator (Tiger Software) for \$20 each piece and software for \$1 each piece.

Expectations mount that the units will be bundled and sold at prices intended for expedient sale. Mr. Bob Gleadow, oversees the transaction from JTS's European office (once known as Atari UK).

1997

Tiger Software publishes and direct mails Volume VII, Issue 1 of their newest catalog called 1997 PC Yearbook. On the front page and on page 5, they offer an Atari Jaguar video game system at an exclusive price of \$59.99 which includes ALIEN VS. PREDATOR, RAIDEN, NBA JAM and CYBERMORPH. Other games and accessories are offered at higher prices. According to some sources, Tiger paid \$20 for the consoles and \$1 to \$5 for software as JTS is very anxious to rid themselves of Atari's bulging warehouse of goods.

On Friday, June 27, the Atari trademark and related corporate entity turn 25 years old.

On Saturday, July 19, the first annual JagFest is held in Rosemont, Illinois from 9:00 a.m. to almost midnight. A few stayed until 2 a.m. playing AIRCARS and DOOM. Atari Jaguar owners played a working demonstration of BATTLESPHERE

by 4Play. Visual Dimensions 3D announced plans to develop new games for Jaguar and the handheld Atari Lynx. Mr. Fard Muhammad debuted an animation to commemorate the 25th anniversary of Atari. About forty people attended the event.

On Thursday, August 7, Dark Knight Games is founded in Nashua, New Hampshire. The company focuses support on those systems otherwise considered abandoned by the original manufacturers with particular dedication to the Atari Jaguar.

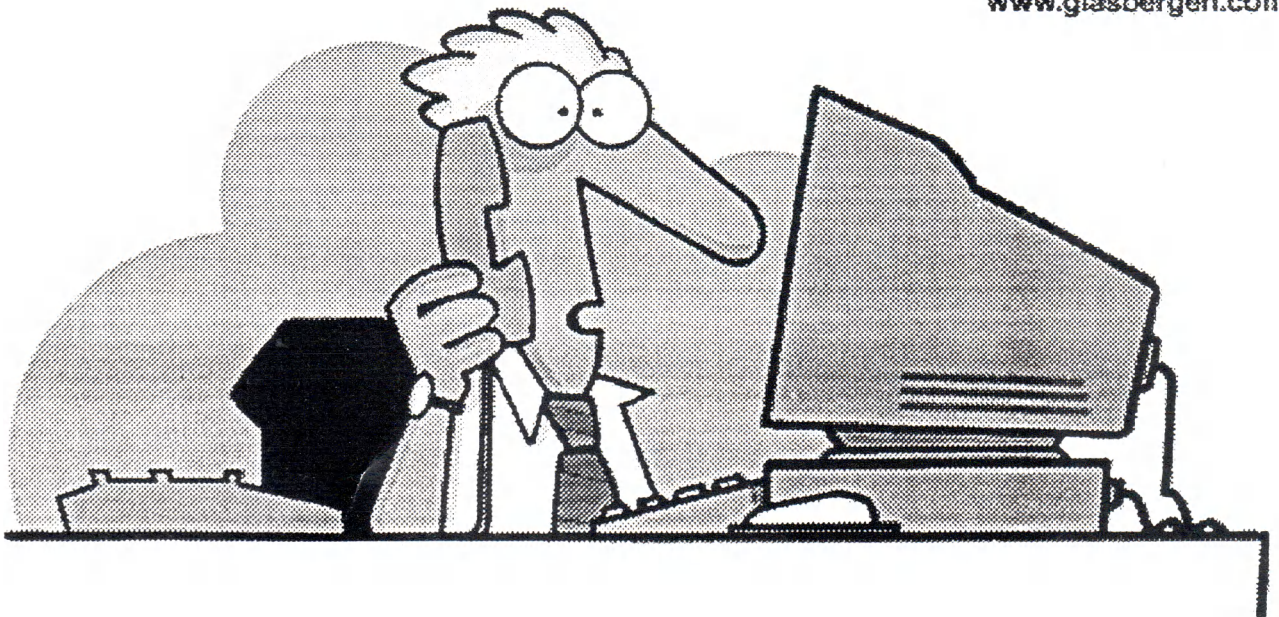
On Saturday, August 23, Mr. Nolan Bushnell hosts in his home a twenty year celebration since the debut of the Atari 2600. In attendance are Mr. Al Alcorn, Mr. Joe Decuir, Mr. Steve Mayer, Mr. Ron Milner, Mr. David Crane, Mr. Alan Miller, Mr. Larry Kaplan, Mr. Larry Wagner and Ms. Carol Shaw. Mr. Glenn Saunders, of the CyberPuNKS/Stella crew, arranged this event which took Alcorn's

assistance to get Nolan involved. The even was insitigated to shoot documentary footage for a follow-up project to STELLA GETS A NEW BRAIN.

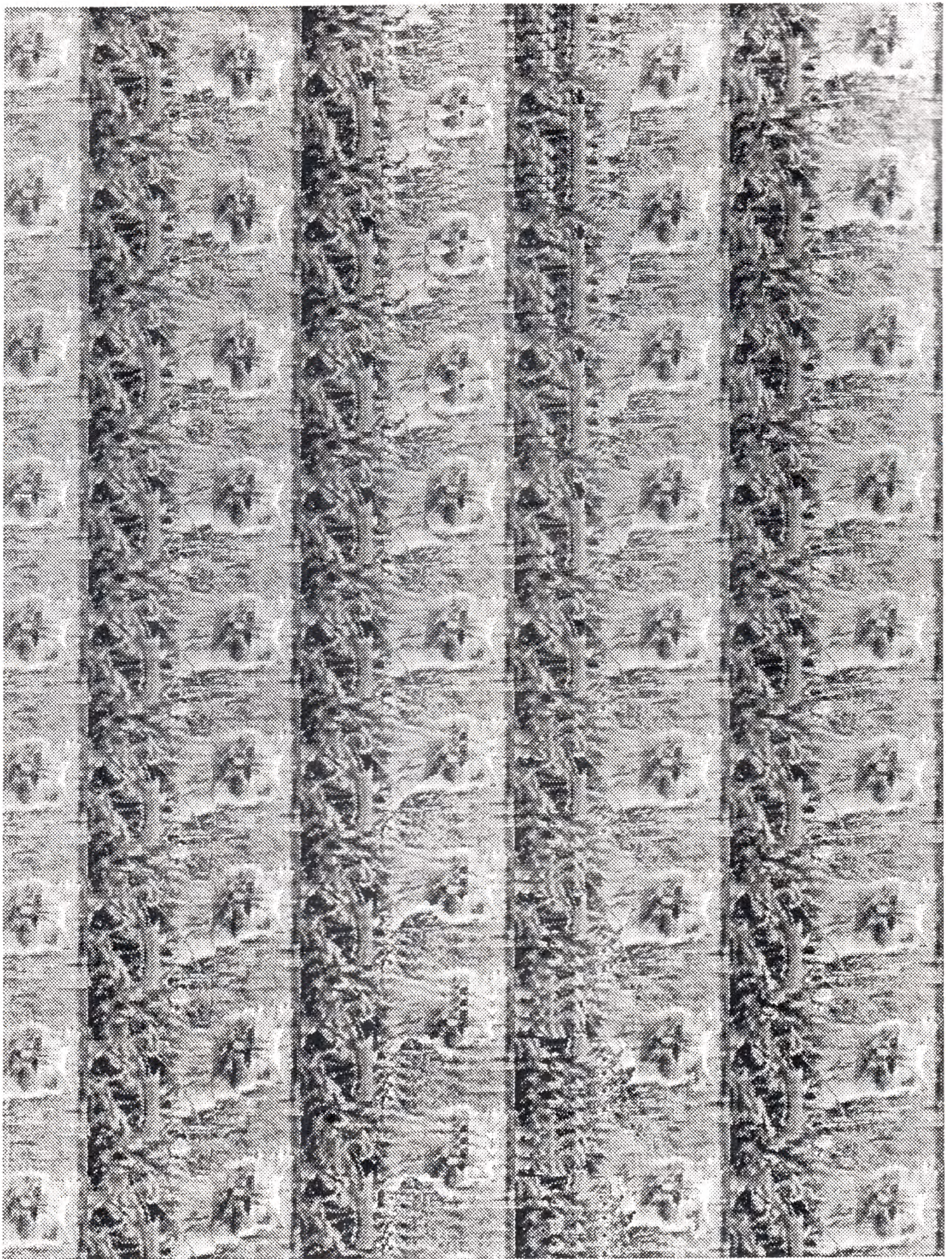
On Thursday, August 28, Mr. Larry Kaplan, Mr. Jerry Jessop, Mr. Larry Anderson, Mr. Brian Wiklem, Mr. Don Thomas and others gathered at Brian's home from about 10:30 P.M through 3:00 A.M. the next morning. A film crew from the Electric Playground, a Candian television venture was filming parts for it's first 13-episode season. Kaplan, of Atari and a co-founder of Activision spoke of his recollections of an industry that once was. Jessop and Thomas recalled their experiences while working at Atari. A segment showing The Glove by Reality Quest was also filmed that night featuring a cofounder of Realtiy Quest; Mr. Noah Ullman.

Donald A. Thomas
<http://www.icwhen.com>

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www.glasbergen.com



**“I hope you’ve got a lot of disk space, Ted.
I think I accidentally just faxed you
the entire Internet.”**



Instructions:

This stereogram has an additional image contained in it, which is visible only when correctly viewed. To view the 3D image, you need to look "through" the image as if into the distance. Often the easiest way is to hold the image against your nose, then, while staring into the distance, slowly move the picture to approximately an arm's length away. You know you are seeing the mystery picture when a startling 3-dimensional shape leaps out at you - beware!