

Double Click October 2002



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Double Click

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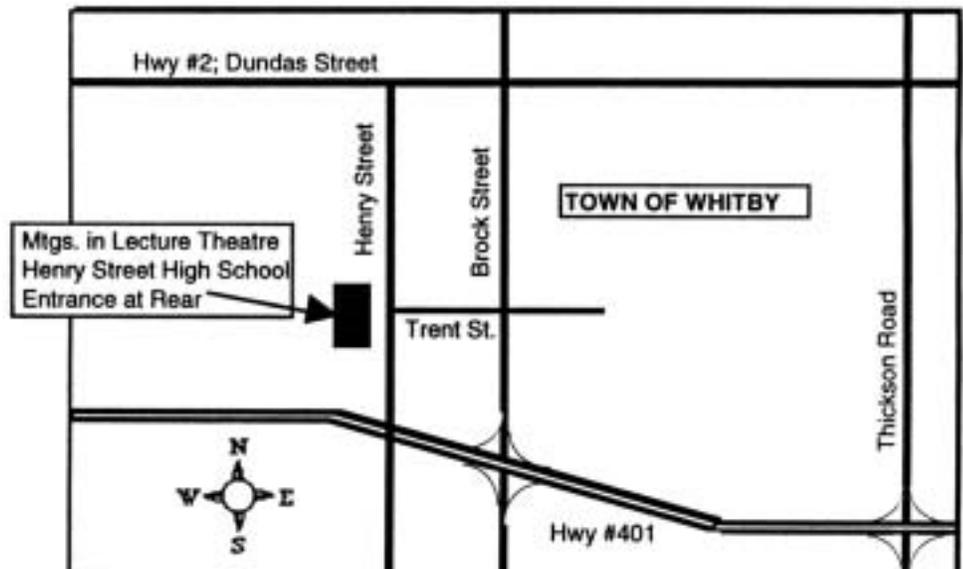
Its October already and that means its time to get ready for Hallowe'en and time to think about the November Executive elections at the MaUsE club. See Jim Fosters message about the October meeting at the end of this issue for more information. Try to get out to this month's meeting and bring a friend if you can. We'll see you there.

Small Print

What you are looking at is the latest edition of the Double Click monthly newsletter from the Macintosh Users East, (MaUsE), a motley collection of old and new Mac users who reside in Southern Ontario with a motley collection of old and new Macintosh computers. What more do you need to know ? Oh, yes. This Newsletter is created by Michael Shaw, Double Click Editor, on a Sonnet-accelerated Macintosh PowerPC 6500/400 and a Daystar Genesis MP 800+. Submissions from MausE Club members, 'though rare, are always welcome. Send them to: michael_shaw@sympatico.ca. I have never refused a submission yet. There's always room for another piece on ANY Mac-related topic and I'll make room if there isn't. I would like your submissions. But I won't beg.

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The next meeting will be held at Henry Street High School in Whitby Ontario on Wednesday Oct. 23rd at about 7:30 P.M. Be there and bring a friend. Jim Foster will tell us about the latest operating system offerings from Apple and field questions about previous systems.





My Sonnet Crescendo PCI 800 Mhz G4

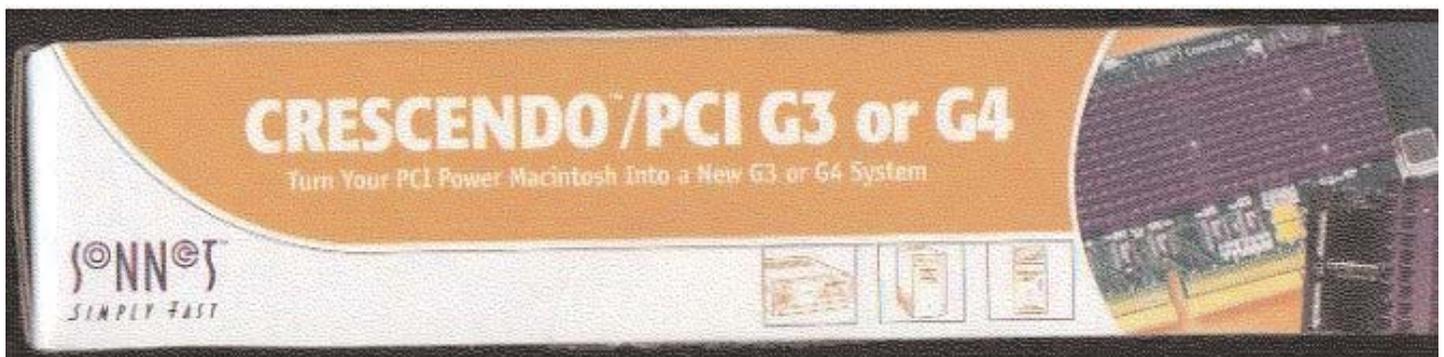
In last months issue I related my intent to upgrade my old PCI Daystar Mac Clone. After just missing a 450 Mhz G3 upgrade card on eBay that the owner wanted too much money for, I resolved to make a serious upgrade with the new Sonnet Crescendo 800 Mhz G4 PCI card.

I have had some experience with Sonnet upgrade cards because the workhorse for the Double Click is a Power Macintosh 6500/250 which has had the 603 processor upgraded with a Sonnet Crescendo L2 G3 processor card running at 400 Mhz.

Sonnet Technologies, Inc. is the worldwide market share leader in processor upgrade cards, ATA disk controller cards, and other enhancement products for Apple Macintosh computers. After Apple Computer, Inc., Sonnet is the largest producer of PowerPC™ processor-based products in the computer industry. Founded in 1986, Sonnet offers processor upgrades for more Macintosh models than any other company.

Back in July , just two months ago,. Sonnet Technologies made the announcement of the Crescendo™/PCI G4 800 MHz processor upgrade for PCI Power Mac® machines. This highly-anticipated product is made possible by Sonnet's superior design, which utilizes a new Apollo 7455 AltiVec™-enabled G4 chip, and 1MB of 200 Mhz L3 backside cache and a L2 256k cache at 800 Mhz.

While previous generations of the G4 were limited to operation at nine times the speed of the bus





solution for the music and video professionals who rely on these systems. "Sonnet is certainly very excited to offer our customers such powerful processing speeds with the versatility that they expect," stated Robert Farnsworth, president and CEO of Sonnet. "We are proud of our engineering group's success in accomplishing something that was never thought possible until now."

in the host system, these new chips allow for a much higher multiple, raising the theoretical maximum on a 50 MHz PCI platform bus from 450 MHz to 800 MHz and beyond. Through arduous testing and development, Sonnet engineers have fully addressed several challenges unique to this new generation of processors, including entirely new voltage requirements, signal compatibility and heat dissipation issues. As a result, the Crescendo/PCI G4 800 not only performs reliably at very high processor speeds, but also fully supports applications that leverage the AltiVec/Velocity Engine™ in both OS 9 and OS X (if the customer chooses to utilize Sonnet's PCI X Installer).

Additional design innovations have resolved G4 compatibility issues with heavily loaded six-slot machines, providing a reliable and powerful

The Crescendo/PCI G4 800 is also the first G4 processor upgrade to be compatible with certain Power Computing Macintosh clone models. Until now, some of these systems could only support G3 processor upgrades. The complete list of compatible Macintosh models is:

- Power Mac 7300, 7500, 7600, 85xx, 8600, 95xx, 9600
- Workgroup Server 7350, 8550, 9650
- Daystar Genesis
- PowerCenter, PowerCenter Pro, PowerCurve, PowerTower,
- PowerTower Pro, PowerWave
- UMAX J700/S900

In June 2001, Sonnet offered owners of Crescendo/PCI G3 and G4 cards the option of downloading a Sonnet installer to run Mac® OS X on the PCI models mentioned above (Sonnet's

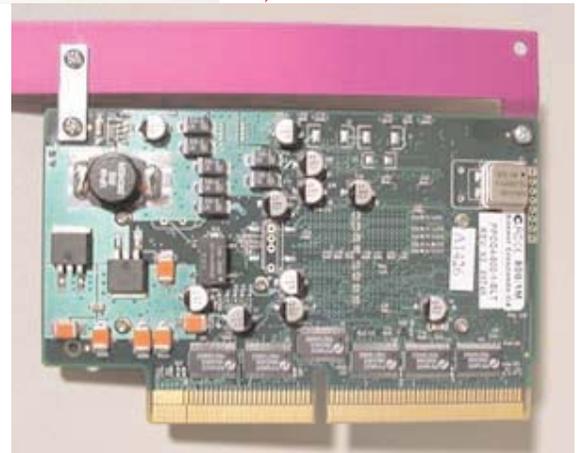
OS X Installer is not compatible with some of the PowerCenter, PowerCenter Pro, PowerCurve, PowerTower). Mac OS X's compatibility in these machines will match that in Power Macintosh G3 computers. This breakthrough solution is accessible from the Sonnet web site for a download fee of only \$29.95. U.S. I would have expected it to be FREE to people who spend \$600.00 for their card. Silly me. An alternative to the Sonnet software is a free program called XPostFacto which can be downloaded from the internet. I guess there's enough in the



Front showing built-in cooling fan



Back of card



title to let you in on the fact that I broke down and bought one. On Friday, September 13th, one of the guys I work with nipped into Accurate-Tech in Toronto and picked us up a pair of OrangeMicro USB Firewire PCI cards and a pair of the new 800 Mhz Sonnet G4 cards. They arrived from the west coast in the morning and we had them by early afternoon, possibly the first two cards sold in Ontario. His was for his 8600 (\$40.00 on eBay) and mine was for my Daystar Genesis MacClone. I checked on the Low End Mac PCI List to see who else has one and I am the first list Member to post news about this particular upgrade. They cost us only relatively plenty. Although the first news flashes about the 800 Mhz Crescendo predicted a MSRP of \$800.00 U.S. (\$1,200.00 Canadian) these cards have in fact been released for almost exactly half that amount. On their website Accurate-Tech has these cards on for \$609.00 each but reduced the price to \$600.00 at time of sale.

The procedure for installation was very easy:

- Install the software from the floppy .
- Shut down the computer.
- Open up the computer and remove the

daughter-card with the 604e processor on it.

- Put the Sonnet daughtercard firmly in its place.
- Close up the computer.
- Restart.
- Check the speed with the Metronome utility.

For Mac users who are technically challenged in English, French or Spanish there is a hugely thick manual in English, French and Spanish that

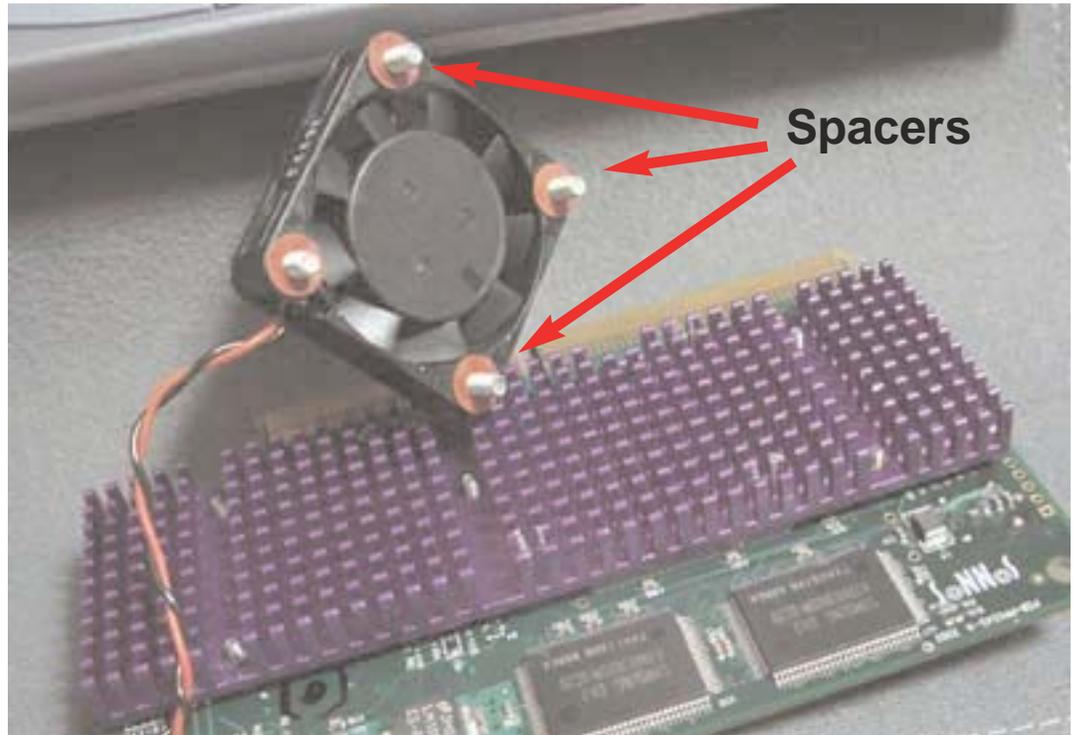
Metronome

Processor:	PowerPC G4 7455
Processor Speed:	800 MHz
CPU Bus Speed:	50.0 MHz
System Bus Speed:	50.0 MHz
L1 Cache:	32K Inst/32K Data
Secondary Cache:	256K/800 MHz
L3 Cache:	1MB/200 MHz

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Simply fast.

describes in minute detail with many photos the step-by-step procedure for putting this card into just about every type of Macintosh and Clone that it can fit into. After you get through the section of the manual that outlines the installation process and the computer restarted to verify that it does indeed work, you will find there is additional information on the procedure to follow to ensure that you re-install some version of



OS9.x that will recognise the new G4 environment and get the added AltiVec libraries that OS9.x installation does not install unless it sees a G4 processor on board. The card and software work on previous systems as well as OS 9 and OS X but the earlier systems do not include the ability to take advantage of the the G4 AltiVec

I must say that the entire installation took something less than five minutes and I have proof that it can be done by a clutz groggy from lack of sleep.

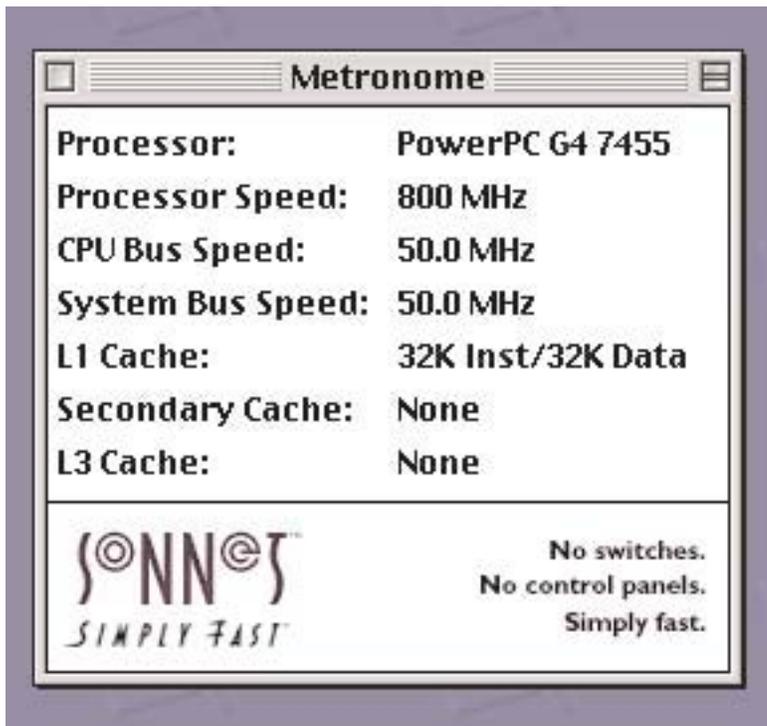
So far the ONLY criticism of the Sonnet Crescendo PCI upgrade cards I have been able to find on the internet was just one report of a noisy fan. The card has a fan mounted on the heat sink with four little spacers underneath. Backing off the screws a turn solved the problem.

The final step of the installation is perhaps the hardest part and Sonnet offers no assistance. Should the little beige and grey "Powered by Sonnet. Simply Fast" sticker go high or low on the front of the CPU? Should it be level and centered or rakishly askew? Why isn't this covered in the manual?

One very minor criticism. The installation manu-

al is exactly that and no more. Half an inch thick and nothing except how to put the card into the computer. I would have loved to get a little booklet from Motorola or Sonnet with a bit of propaganda or technical information about the process involved in getting this product and others from the drawing-board onto my computer. The Motorola site has no end of fascinating information about the evolution of the PowerPC MPC 7455 Apollo 6 SOI processor and Motorola has received at least one prestigious award for the design of this chip. The Sonnet site has plenty of general information that generates more thirst than it quenches. I guess I'll have to wait for product reviews in the MacWorld and MacAddict magazines to find out what this card can do.

I may admit to a couple of tiny problems with this upgrade but must hasten to add that in both instances Sonnet tech support came through almost instantly. After installation I ran Metronome, the Sonnet utility that shows information about the processor upgrade and it said that I had no cache features enabled. Rats, I thought. Big rats, I thought. Great big rats with long furry tails, I thought... I emailed Sonnet and sent along a JPEG of the Metronome window showing NONE as the L2 and L3 cache and was

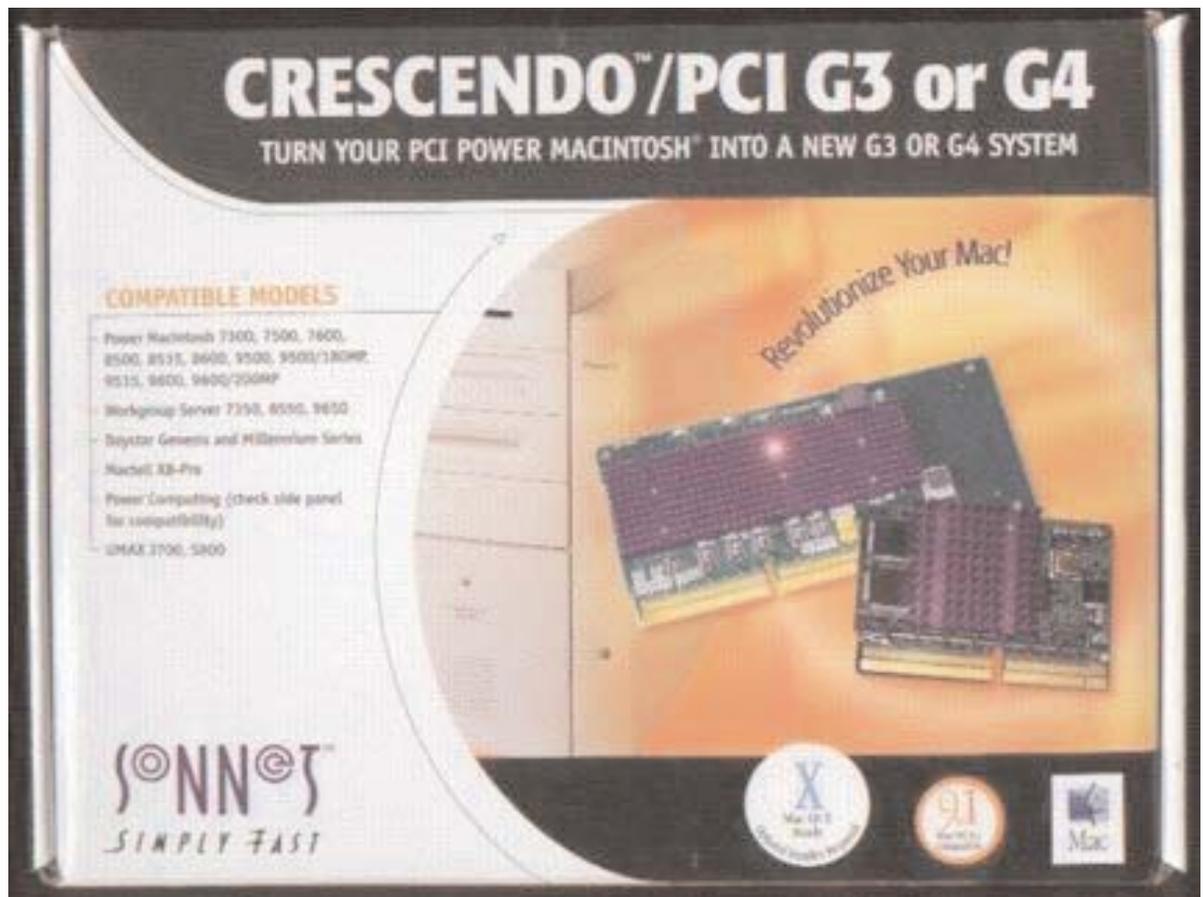


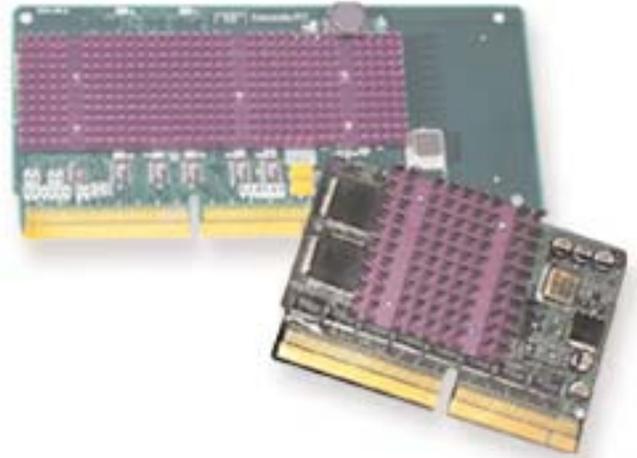
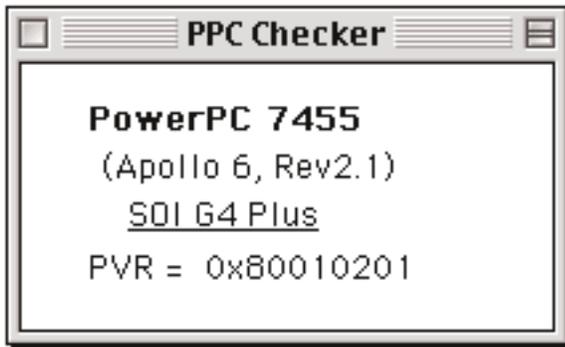
and a warning that the installations had failed in both cases because of an IO Error (Bad Disk). Disk error reading from the CD. Get in touch with Adobe Technical Support. (If any of you have EVER been able to contact Adobe technical support without purchasing that privilege for \$20.00 U.S. or more please let the rest of us know how its done. Possibly one of the best-kept secrets of this century.) Anyway, rats, I thought, et cetera. So I emailed Sonnet Tech again and within a couple of hours got a response from a guy named Neal, like Cosmo Topper's dog, that suggested that the IO Error (Bad Disk) was more than likely the fault of bad sectors on the hard drive I was writing to than the fault of the processor upgrade or the Adobe CDs I was reading from. I installed a System OS 8.6 onto a different SCSI hard drive, re-installed the Sonnet software, and

sent an upgraded software upgrade card enabler extension which fixed the problem. Whether the problem was the processor card or the Metronome software I don't know. And I couldn't tell you if I did know. All communication from Sonnet has a warning attached to it indicating that it is for my benefit only and is NOT to be shared with the general public.

suddenly the Adobe CDs are working like a charm. I emailed Neal a message to thank him for his suggestion about the dodgy hard drive. Of course I included a warning indicating that any communication to him from me is for his benefit only and not to be shared with the general public.

After I did the upgrade I attempted to install a pair of Adobe programs, Adobe Acrobat 5 and Adobe Photoshop Elements. I am a registered user and I have the Installer CDs from Adobe and was surprised to get an aborted installation with both Adobe CDs





After I installed the Sonnet G4 card I went on the internet to do a little research on the G4 chip. A little utility called **PPC Checker** tells me that I have a very unusual new type of Motorola PowerPC 7455 Apollo 6 "Silicon On Insulator" SOI G4 Plus processor.

This some of what I found out:

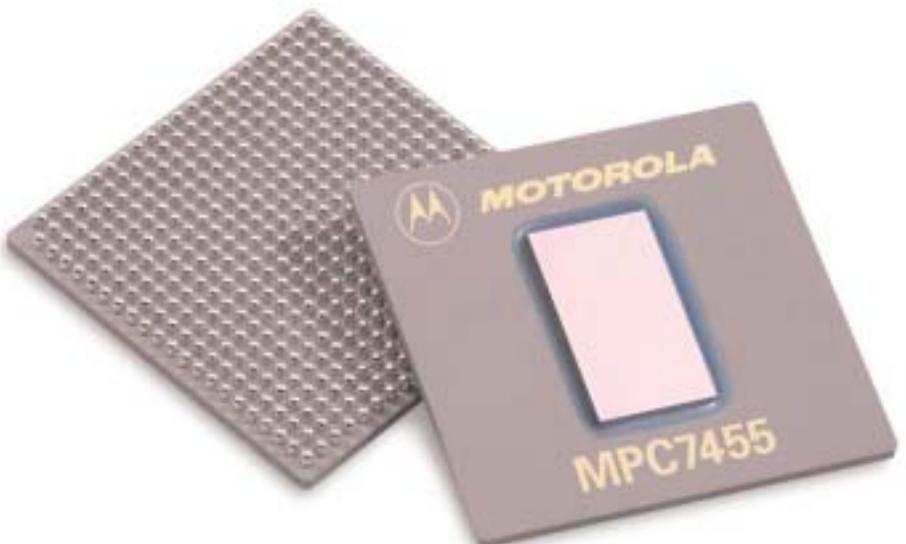
The G4s in the Sonnet G4 upgrade cards and driving Apple's new G4 mini-tower systems are Apollo processors. Labeled MPC 7455 and MPC 7445, the Apollo G4s achieve all of the goals that Motorola outlined at the 2000 Microprocessor Forum -- namely GHz+ performance, fabrication using SOI G4 Plus (Silicon On Insulator) technology, the ability to have a 2MB DDR (Double Data Rate) L3 cache, and a superior power consumption to performance ratio.

It is important to note that this is only the first installment in this processor family. Mac users can reasonably expect incremental performance increases from this processor family in the future, taking Apollo to its promised GHz+ performance levels. The Apollo G4s are available now at speeds between 600MHz and 1GHz.

When examined in detail, the Apollo is similar to the G4s that Apple used previously. This is no surprise, as the new processor was specifically designed to be pin-compatible with the previous generation G4s. This is good for Apple and other vendors who use the part, as no additional design work is necessary to allow the Apollo to work in an existing design.

The Apollo has four integer execution units, one double precision FPU, and four 128-bit AltiVec execution units -- again identical to the G4 Apple used in its previous models. The Apollo also sports a 256KB on-chip L1 cache -- just like the previous G4. The Apollo is also fully symmetric multi-processing capable and compatible with the 133MHz 64-bit MPX bus which previous G4s used.

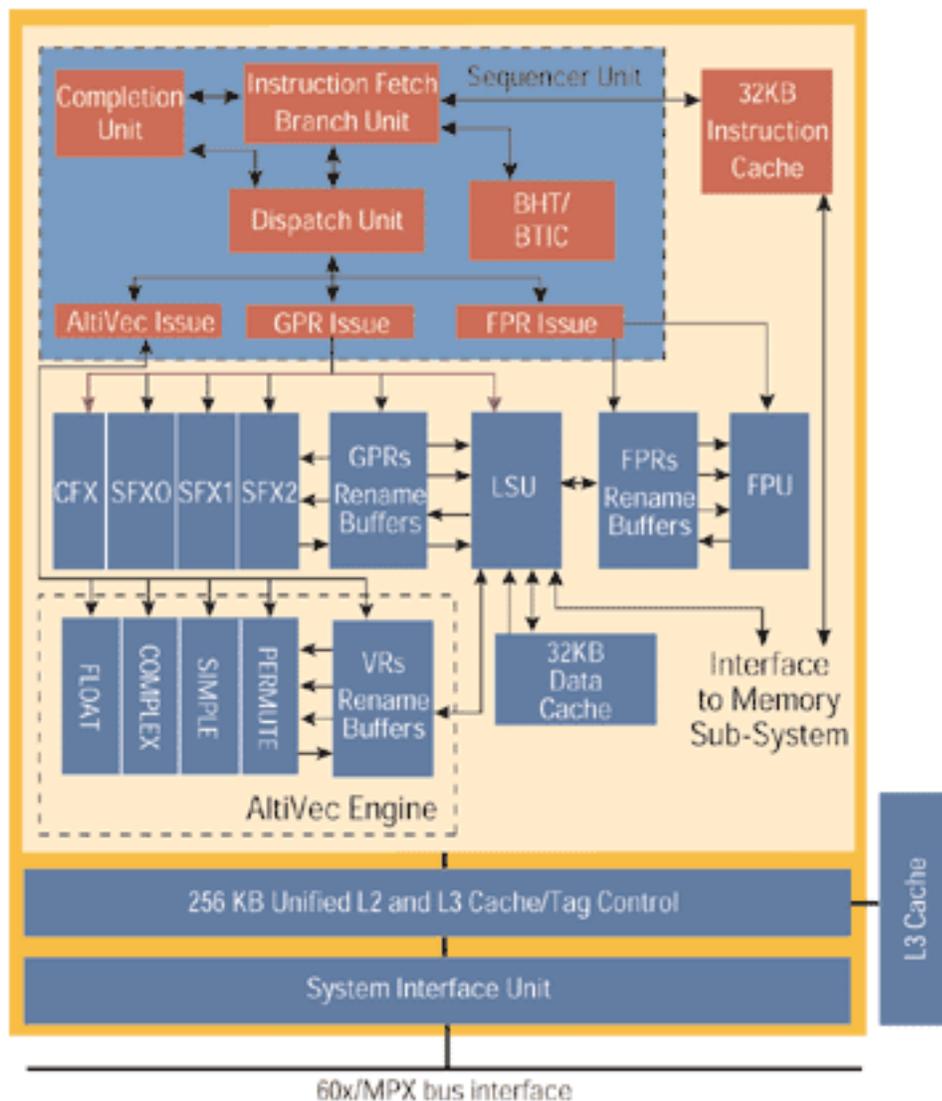
However, things begin to change with the L1 cache. The Apollo adds cache-locking instructions to allow critical instructions or data to be locked into the cache for a performance benefit. With the L2 cache, the Apollo allows up to 2MB of DDR RAM to be used. DDR RAM allows data to be sent or retrieved on both the upswing and



downswing of the clock cycle, essentially doubling the bandwidth over conventional RAM.

The big change with Apollo comes with its manufacturing. The MPC 7455 and 7445 are manufactured using a 0.18-micron copper fabrication process that takes advantage of SOI technology. SOI is the addition of a thin layer of silicon between the transistors on the chip and the non-conductive base or substrate of the chip. This layer reduces the capacitance, or the necessary time and amount of energy, needed to close the gate. The use of SOI on every transistor on a processor allows the processor to run faster, consume less energy and generate less heat.

I must say that this 800 Mhz G4 Sonnet Crescendo PCI upgrade card was one of the easiest upgrades I have ever performed. Unlike some other processor cards that must be set by the user with rows of dipper switches this card was simply plug and play. If you weren't aware of this then you should be. Some upgrade cards come with configuration tables and charts because they must be set up to suit the System bus speed of the host computer. The Sonnet card is engineered to require no user expertise. It works just as it comes right out of the bag. Just install the software, install the card, and restart to a faster Macintosh.



At \$600.00 Canadian (\$375.00 U.S.) the price may seem a bit high but if you consider that its actually exactly half of what the estimated retail price was expected to be a few months ago so and much less than the 450 Mhz Crescendo G4 sold for, its really a classy upgrade for a reasonable price. These cards simply make your Mac or Mac Clone FASTER.

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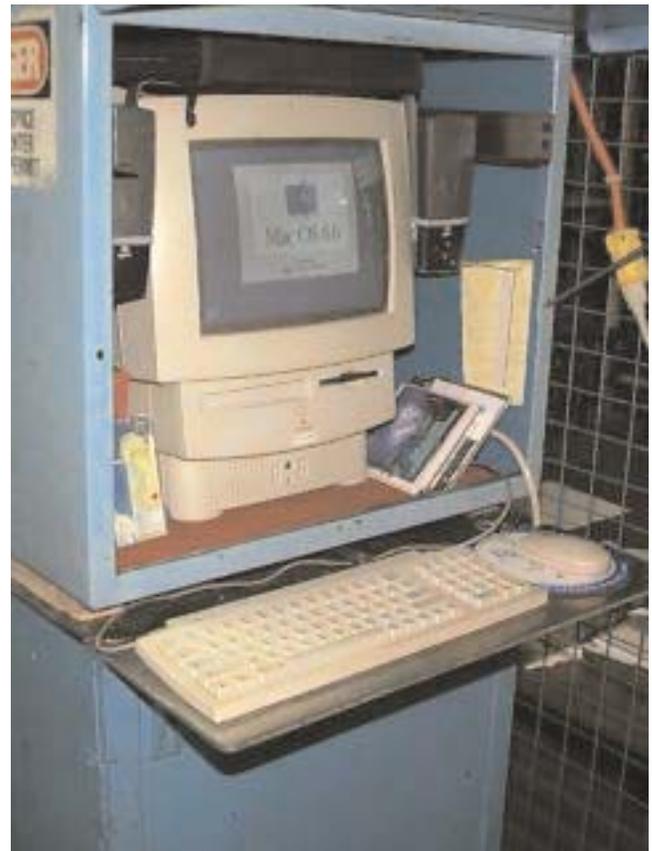
FREE PICK UP & DELIVERY



The Double Click Mobile Office

What you see in these pictures is my office away from the home office. This is where I get PAID to write for the Double Click newsletter. Through the magic of an administration directive known as COE (Consistant Office Environment) ALL of the Macs and Mac-compatible hardware has been ordered removed from where I work. As some of you may recall, much of it was donated by Peregrine and EDS to our own Mac user group a few years ago and was combined with other GM / EDS stuff to form the basis of our Equipment Donation Program.

Because of this COE policy, anyone wishing to use a Mac at work must smuggle it in and hide it well. Some few of the fellows have portable PowerBooks that they bring back and forth but



my solution was to bolt a steel box 24 inches wide, 21 inches high and 29 inches deep on top of my toolbox and install a modified Performa 580CD in it. Cheap and cheerful.

This 580CD is the one that I wrote about a few issues ago for an article about upgrading the early all-in-one Macs. This model is definitely a step up from the SE/30 that I used to have at work. It has Virtual PC with Windows 95 and Macintosh OS 8.6 and QuarkXPress 4.1 installed on it, 64 megs of RAM, Ram-Doubled to 128 megs, a 75 Mhz 603 PowerPC processor and motherboard out of a 5200, an internal 6 gigabyte Seagate ATA hard drive and two external 1 gig SCSI drives. It also has Logitech speakers so I can play music CDs. On the midnight shift I'm often the only one in the crib and can put a little Puccini on the box.

Someday the Mobile Office may come in really handy. A couple of those CDs contain the Double Click as it used to appear when I made it on the Quadra 950 !



really neat stuff in Photoshop 7, Photoshop Elements 2.0, and the new Jaguar operating system from Apple. Of particular interest were demonstrations of a healing tool in Photoshop for cleaning up blemishes and transposing texture without disturbing colours and the improved photo-merge feature in Photoshop Elements 2.0. To demonstrate photo-merge Colin took some pictures of the room with a hand-held digital camera and then turned the half-dozen or so images he captured into one wide image with the overlapping portions blended and smoothed so it looked like it had been taken with a wide angle lens.

Adobe at the MaUsE

The meeting in September was a combined meeting put on by the Mac User group and the local PC Users group but I hope everyone there was aware that it was actually a direct result of the efforts of our own Jim Foster. The eighty or so of us who made it out to the meeting had the enjoyable privilege of watching Colin Smith at work in the beautiful Faith United Church. Located on the north side of Nash Road a couple of kilometers past Townline East, the church is a bright beautiful building with an excellent overhead system for this type of intimate public demonstration.

Running off a pair of portable computers, a PC ThinkPad and a Mac PowerBook, Colin demonstrated some of the wonderful things that he and members of his family have been doing with the latest version of the Adobe Systems video editing software Premier. He also showed us a few really neat and powerful real-time preview tools built into the new versions of Premier, and lots of

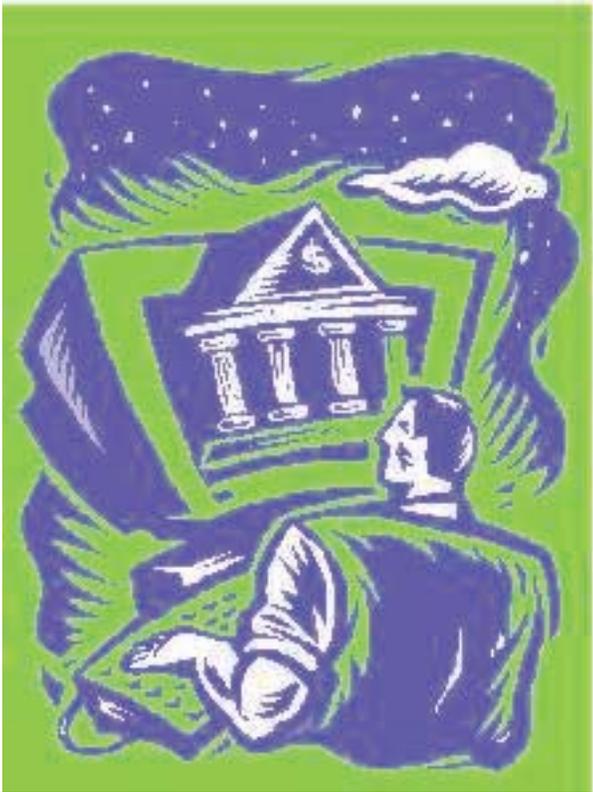
Raffle prizes were all provided by Adobe: some Adobe T-shirts and recent copies of some of their software titles, including Acrobat 5.0, Acrobat 5 Classroom-in-a Book, and Photoshop Elements 2.0.

The PC Users club sells tickets at their meetings to raise funds for their club and they give a percentage cash prize to the holder of the winning ticket. The winner of the cash prize was Dave Morrison, Mac user.

A good time was had by all who attended and there is a chance that we will be booking the same room for some of our own MaUsE events.



October MaUsE Meeting



For October, and probably November, MaUsE will be returning to its historical meeting site, namely the Lecture Theatre at Henry Street High School. I know that many of you may have been led to believe that we had already decided to move our meeting location permanently to Faith United Church in Courtice, but this is putting the cart before the horses just a bit. The fact is that the Henry Street High School Lecture Theatre has already been paid for, and we doubt that we can get a refund at this late date. Also, the Courtice site will cost quite a bit more money than our current site costs and we frankly need a bit of time to assess whether and how we can afford the prices there.

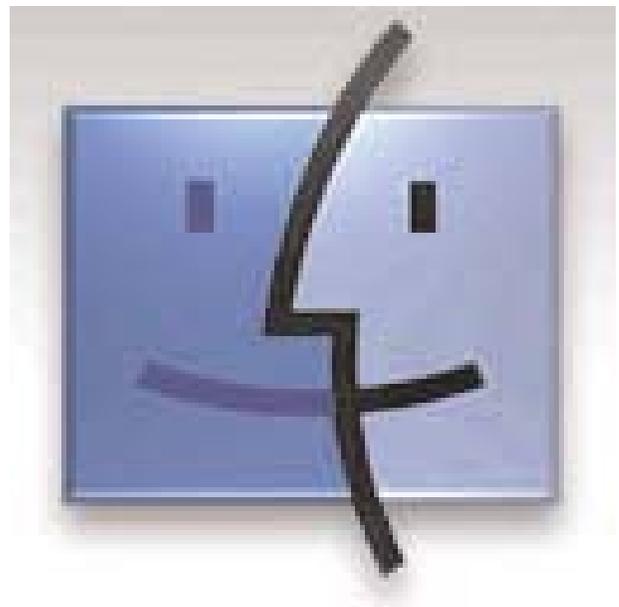
Furthermore, we do have some club members who are not entirely "sold" on the concept of moving, usually because it represents a longer distance for them to travel to the meetings. So we want to provide a little more opportunity for

these issues to be addressed at our regular meetings before anything is finalized.

In terms of the agenda for our October meeting, this is still a little bit in the process of being created. Apple has been quite generous in providing our User Group with a free copy of the latest version of OS X, which is called OS X, version 10.2 Jaguar. I am hoping to have this installed on the club's iBook computer so that I can spend a bit of time talking about some of the great new features of 10.2 and particularly highlighting some of the new things which this OS allows you to do.

But we also know that many of you do not own a Macintosh which can run OS X so we don't want to put you to sleep listening to the high end technical stuff.

We do have some terrific DVD's that have been provided by Apple, and are hoping that we can arrange to have some sort of DVD player at the meeting so that we can run a couple of short segments. These include things such as a segment about the new "dot-Mac" service which replaces the old iTools, a segment about the brand new 17" iMac, and a longer segment which addresses Macintosh Game software. There is also the complete Steve Job's Keynote Speech from last July's MacWorld Expo in New York City. That's too long to play in its entirety, but the opening segments are hilarious so I may be forced to show you those.



MaUSE

Macintosh Users East

We are also still looking for something that would be of specific interest to the Macintosh Basics crowd, but you will just have to trust me on that for now. One thing we WILL be announcing at the meeting is our plans for a new series of Macintosh Basics sessions. I know I largely dropped the ball on this when we cancelled the last three of our original sessions and did not replace them with a new site, but we now just about have all the i's dotted and t's crossed to bring these sessions back to life, and for a much longer period of time than just the initial six meetings we tried to hold at Durham College. So I am hoping lots of members will turn out to hear more about how this will work.

Finally, I will have some things to say about the November elections for Executive positions on the club for 2003. I am thinking about crafting one of my world renowned PowerPoint presentations that will thrill and inspire everyone to take on more of the

workload of running the club! There are literally dozens of great ideas for things our club could be doing better for its membership, but these things cannot all be done by the current very small group of Executives. My challenge will be to try to explain how I think we could address these opportunities by involving more of the club members in the operation of the club.

Oh yes, one more thing to discuss at the October meeting: it has been proposed that we consider moving the regular MaUsE meeting date from our traditional 4th Wednesday of the month to the 2nd Tuesday of each month. Doing so would result in many more situations where our meeting night would fall into line with the meeting nights of several other Mac User Groups in southern Ontario. The reason why this might be desirable is because it would be attractive to certain vendor representatives who could then justify the cost of travelling to Toronto and acting as guest speakers at MUG meetings. They would be

able to make one trip and in many cases hit up to three, possibly four, different MUG's on consecutive weekday evenings. Currently, our 4th Wednesday of the month date never falls immediately before or after any other club's meetings so we either miss out on this opportunity or have to arrange for a "special" meeting event.

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by Jim Foster

Trouble

I have too often said that there are two types of users: those who have lost data and those who will. And you can bet that when it happens to you, if it hasn't already, it will happen at the worst possible time. The October Double Click suffered just such a loss on October 5th, just before the October issue went to press. I fired up my trusty G3 PowerPC 6500/400 to finish off the last of it with a short report about the Executive meeting last Wednesday, and found that clicking on the QuarkXPress alias brought up a dialog that said that Quark could not be opened because Quark could not be found.

I opened my hard-drive with a double click on the icon and found the most amazing thing: all of my files alphabetically listed previous to and including the letter "P" were still in place, but the files beginning with all the letters from "P" to the end of the alphabet were simply gone. I scrolled down to the bottom of the window and the very last item was a recent Pict from a screen shot. My folders and files beginning with "Q" on to the end of the alphabet, including the entire QuarkXPress folder, were simply gone. Unfortunately I compile the Double Click in the QuarkXPress application before distilling it with Acrobat into the .PDF document that you are familiar with, and the October 2002 issue, with all images and written work, is still inside the Documents folder inside the QuarkXPress Folder that has disappeared into limbo.

October 5th, 2002. A day that will live in infamy.

As soon as this happened I stuck in my DiskWarrior CD and restarted the computer holding down the "C" key so it would boot from the CD-ROM drive. The CD and my own internal hard drive both showed up on the Desktop. I told the DiskWarrior utility to repair the Master Directory of the internal hard drive, a task that

usually takes about twenty seconds. DiskWarrior examined the drive, the 6 gigabyte ATA drive that came with my 6500 as original equipment back in 1997, for about 8 or 10 minutes and started to list about a page and a half of serious, horrible, unusual, ugly, catastrophic, crippling problems that it had found. That drive had everything except anthrax. I elected to let the utility attempt to replace the

Master Directory with a compressed repaired one, which is how DiskWarrior works, and the program started churning and churning and churning away. It was still churning about a half-hour later when I had to go to work.

Unfortunately, there is only so much any utility can do and I fear that DiskWarrior met its match with this drive. Also unfortunately, I have not been backing up my files to one of the external SCSI drives attached to the 6500. I save and auto-save religiously in QuarkXPress while working on documents but did not think to save off the drive that I usually boot in. As a result, the entire current Double Click file, with all of the back-issues, articles in progress, pictures, MaUsE clip art, maps, and layouts is now irretrievably gone. I will have to re-create the October issue as quickly as possible from memory and start digging out old copies off the MaUsE website to use as a template.

I hate it when this happens to me. It's frankly amusing when it happens to other people but a royal pain when it happens to me.

Anyway, that's why this month's issue is a bit of a lump. I was forced to compose it in the dark on the Mobile Office. There's an article about the mobile office in this issue.

