



Apple Blossom Computer Club
A registered Apple/Macintosh User Group



Sep '08
still only
\$2.00

The

ROSE BYTER

Next Meeting

September 18

Abby's Legendary
Pizza

1661 NE Stephens

Agenda

6 PM

1. Meeting starts at
2. Intro's of members and guests
3. Old business
4. New business
5. Program: Ian Schram of SoftPress Systems will present



6. Questions & (maybe)Answers

by Jim McClellan
<mcclellan@charter.net>

What's in a name? that
which we call a rose
By any other name
would smell as sweet;

Wm. Shakespeare's

Romeo and Juliet, 1594:

I was just reading Mouse Tracks the Portland Macintosh Users Group (PMUG) monthly newsletter and came across an article by Allen Watson titled "Renaming Files in the Finder" that was interesting and will prove helpful to me. I thought I would share part of the article.

There is an easy way to change the 2 -->

YOUTUBYTER

by Dave Archer <dave@davearcher.com>



Dateline: Youtubyster - September '08

Talk about a Byter! A "Viper Fish," in this photo, looks like it also stabs, with a glowing dagger-like third jaw. Since there is no skin covering the center jaw, I assume this thing can stab up through without damaging itself. Or, the "dagger" could be a glowing lure that it sticks up through the it's middle jaw, for tempting children of the night. This creature lives in nearly complete

darkness. Notice the "headlight" behind the eye, glowing like an LCD screen. Not for seeing, but attracting prey.

So, if you take the garbage out at night, and see glowing spots wiggling your hedge, just toss the rubbish into the hedge and go back inside.

-- Secret Motor Wild Vectors

This is beautiful to watch. Only 2 -->

The **Apple Blossom Computer Club** (ABCC) is an Apple Computer Inc., registered Macintosh and Apple][family user group. The ABCC publishes *The RoseByter* newsletter monthly which is posted to each paid up member and reciprocating user groups. ABCC participates in user group newsletter content exchange. The ABCC also maintains a WWW site at:

<http://www.abccmug.org>

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Do you know what this is?

<-1 YOUTUBYTER

about a minute, but a great light show! Like stage lighting in Vegas. **Wild Vectors From The Secret Motor ...**

Software visualization in real time using a custom designed bus monitor shows **Apple Macintosh** system software during startup. The oscilloscope screen shows overall program flow as the system builds, then vectors or traffic pointing to the audio chip as the computer chimes at 00:09. Then, probably, a hardware check is the bright spot at 00:12-13. Then, boot-up sequence, initial program loader or phantom system. Rising fanlike memory scans from 00:15 to 00:20, hard drive read-write signals are big bows stretching from center to the upper left screen corner at 00:24-26. Hard drive data port firing from about the one o'clock position throughout. System stack wiggles from left to right at around the four o'clock position. This method of seeing software is known as constellation view or constellation mode or chart mode. Reference the HP 1600a logic analyzer, a 1980's software development/debugging tool. This was the looking part of a larger effort by Mike Kan to modify stark naked software while it is running using his ICE PIC -(In Circuit Emulator Program InterCept) that could insert variables when a particular condition was present. After connecting many colorful wires of the bus monitor to the processor's address lines we pointed the video camera fairly straight at the oscilloscope screen and pushed the computer's power button.

<http://www.youtube.com/watch?v=D5PS-zOciF8>

-- Cool Macintosh Tricks

This kid has some great Mac key stroke moves. If you like them, he has more videos up on Youtube. I didn't know any of these tricks, but then, I'm not 12 years old.

<http://www.youtube.com/watch?v=g1KPD1---kA>



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1 <==

What's in a name?

name of a file. It's so simple! Just click the file once, and then tap the Return or Enter key! That's all. In Tiger (10.4) the entire file name will be selected including the extension; in Leopard (10.5), all but the extension is selected, ready for editing. Try it!

Prepending or Appending to the file

name is easy too. After you have selected the file name just tap once on the left or right arrow key. Arrow left moves you to the start of the name; arrow right moves you to the end of the name.

I know this will really help me!

chat: curmudgeon2007@aim.com





Or

Chatting With The Oldies

Undoubtedly you've heard of "Instant Messaging." On the other hand, if many of you use it or have used it, there's not much evidence available to the group. This is really a shame as it's a very simple way to do a number of things that are very useful. Better, they can be done more quickly than with email and more accurately than using voice telephony.

Way back in "the good ol' days," when computing was just beginning to come out of the research laboratory and into somewhat more general use, the time sharing contingency used devices with motors, gears, levers and solenoids to run all manner of typewriters as human/machine interfaces. These marvels of mechanical ingenuity typically whired and clanked along at the breath taking speed of 10 characters per second.

When the Internet came into being, programmers were quick to add a "talk" program. "Talk" might just as well have been "type" because what it really was about was sending whatever you typed over the network to appear on a terminal somewhere "out there." Especially in those days, it made sense, since making long distance telephone calls would have added enormously to cost of dealing with the con-

tinual problems these early developers dealt with. I just checked my FreeBSD box. Sure enough, it still has a "talk" program. For that matter, so does my Panther based PowerMac G5.

By today's standards, that's primitive stuff. Yet the basics survive and remain very useful. In the Mac world, iChat is the default standard. According to a recent bit of statistics at VersionTracker, there's something like 150 programs available for "talk" via Mac OS X.

Part of the reason for some many different programs is that there have been numerous protocols for "talk" invented over the years. For example, iChat of the Panther era, would allow AIM (AOL Instant Messaging), .Mac (Apple's version of IM) and real voice and video. Sadly, the latter two require either direct connection to the Internet with the machine being used at each end or a particular router technology (which I don't happen to have in my hip pocket).

I know a number of you have obtained a "chat handle" but don't use it, at least not very often. This is unfortunate because it's very much like taking your phone off the hook but without any potential for getting your attention with "beep ... beep ... beep ..." It's important to have your chat program running pretty much all the time. I've been using Adium, primarily because it handles a wider range of protocols than iChat. But that's not important. If you want



Adium

to use iChat, we can still "talk" with one another, though Adium doesn't do real voice or video.

AOL, Apple, Google, MSN all provide free chat handles. All you need to do is get one registered with whatever service you choose (AOL or Google recommended). It doesn't matter who your ISP is or who made your computer. What matters is that the client program you use understand the protocol your handle server requires. That's why Adium is nice - it handles a lot of protocols. Others probably do too.

Some people worry that they can't type very well or can't spell. So what? Life's too short to worry about it. Better to get some benefit from using the program(s) than just letting them sit there. The key thing is to get the handle, set up your program with it and then run the program so you're contactable. Generally, they can be configured to bother as much or as little as you want. You don't even have to keep a window open for some of them. They'll beep at you when someone sends something.

These days most chat programs will also allow you to send files from one person to another directly. This means that you don't have to get involved with FTP or a Web browser or even, shudder, email attachments. It's about as safe a means of sharing data there is. You probably know who's sending it, personally. While it's theoretically possible that a third party could jiggle the data, it's very much not the sort of thing that's done yet since it requires literally making changes to the data as it goes zinging on by.

So...

1. Get a handle
2. Configure your chat program
3. Leave it running all the time.
4. Email your handle to those with whom you wish to chat.

Water Blogged Wump

Any trace of organization in these paragraphs is entirely coincidental

4



HELP! It's gone crazy!

I guess it's the way most of us work. It seems **if we have something repeated at us enough, we believe it must be true ... even when the statement is self-contradictory**. I can think of a number of examples but the one that prompted this note is the phenomenon of Billy Mays. I've always found his harangue even more annoying than the sound my own whining. I was rather hoping his schtick would run out when the products he touted either died or became successful. No such luck. It seems he's considered the voice of truth to the minds of a significantly large group of consumers by advertisers. Now, the question I have is this: is this group large enough to elect a president?

Some researchers at JPL, NASA's Jet Propulsion Laboratory in Pasadena, CA, have concocted a recipe to make tubes — **you know, those big old glass things that got too hot to touch from that bright red glow in old radios and TVs** — monolithically and very small. For those of you with a gift for granddaddy gizmos, they're essentially microscopic pentodes. They can be used as logic gates, much as transistors can. There is an advantage to them compared to transistors. They are what is known as majority carrier devices, where as transistors are minority carrier devices. This is not a racial or social thing. It has to do with the way the devices use electrons to perform their work. In minority carrier devices, the crystalline structure of the components has a great deal to do with how well they work. That structure is readily damaged by ionizing radiation — atomic particles that blast into

the material. They're all around us, zipping through us from all directions. We are built to repair damage done by radiation we encounter in our nominal environment. Crystals are not so lucky. The damage done by radiation is cumulative. Thus, as time goes by, solid state electronics will fail. In heavy radiation environments, that time is not particularly long for devices made with modern dimensions. Tubes are not so easily put out of service by radiation. They rely on relative conductivity of their parts and free space electromagnetic fields. Conductivity is modulated by radiation damage but the gap between a bulk insulator and bulk conductor is very wide compared to that between N-type and P-type silicon (I leave it to your personal curiosity to research what N & P typing is about). Free space doesn't seem particularly damaged by the passage of particles. Theoretically, computer chips can be made from these tubes, making long survival in space flight feasible. One thing I attempted to find out about was power dissipation. While the big thermionic tubes (or "valves" if you're British) waste serious amounts of energy, thus accounting for their generally instant skin scalding and desiccating temperature, this needn't be true of microscopic tubes. But, after going to some considerable lengths to become eligible for learning more about this technology, I was able to download what amounted to one more picture of some device and some additional palliative text. Oh, well. I guess I'll have to contend with the loss of the Van Allen Belts some other way.

As I've mentioned here before, I used to study for finals in college by reading an apple box or two of paperback science fiction (I can't say I recommend this procedure in particular if you care to do well on your finals). As a result, I've rather enjoyed some aspects of having the SciFi channel

available during our low cost trial period with Charter cable TV. Little doubt we'll drop our cable TV when they decide it has to be billed at the egregious rate they consider to be normal. In the mean time, we're trying to enjoy it. But its presence has raised a number questions. Here's one: other than fiction, **what has WWE professional wrestling got to do with science fiction?** I guess there's some need for science in professional wrestling. Otherwise more practitioners would be badly hurt or killed than is the case. I've sometimes thought it's used as filler because video science fiction is comparatively rare, especially stuff that's any good. Perhaps it's just a means of getting the addict nerds to turn off the TV once in a while. Frankly, I'd rather watch Buster Crabb mangle his lines while his buzzing "space ship" goes spiraling, sparking and smoking its way to and from Ming's world in black and white.

Here's a quote that scared me: "Robotic forces could comprise as much as 30 percent of the U.S. Army by 2020, according to Washington University scientists." Sounds a lot like we're setting ourselves up for a Terminator series. But I was more encouraged by, 'All of the Army's robotic force is teleoperated, with humans operating the robot from a remote location. Scientists want the robots to be intelligent soldiers rather than make their own decisions. "It's a chain of command thing. You don't want to give autonomy to a weapons delivery system. You want to have a human hit the button," says [Washington University's Bill] Smart. "You don't want the robot to make the wrong decision. You want to have a human make all of the important decisions.'" True enough; we don't want the robot making the wrong decisions — **we want to make sure making the wrong decisions remains a human activity**. But my concerns are not really allayed by these

<--Water Blogged Wump

sorts of assurances. How hard will it be for some enterprising profit monger to give their robots the logic to set off their weapons without a human in the circuit?

Bath tissue? Ever now and then, the words I've heard for longer than I can remember come crashing through the filtering network of my rapidly degenerating synapses. **Bath tissue? What the heck is that?** On rare occasion I've managed to get some wet tissue stuck to me. I've not noticed that it would serve much of what I'd refer to as "use" in baths with which I'm familiar. Quite the opposite, in fact. But perhaps that's just me. I don't use so-called bath tissue for taking baths and, if you do, I'd like to know just what for and how you use it. Euphemisms abound on TV and "bath tissue" seems to be one. What is wrong with us that we can't bring ourselves to say what we mean in public? Things are what they are.

In my continuing efforts to support this publication, I found it necessary to join a group on **Yahoo!** today. This activity started with an invitation in an email message with an embedded link which was clearly tailored to be just for me. However, sometimes it is not a big help to understand how things are supposed to work. In the case of **Yahoo!**'s web site, such seems a gigantic understatement. The URL that got me to **Yahoo!** not only contained my name, but also my email address as parameters. Naturally, for me, at least, I assumed that **Yahoo!** would prepare a web page that made use of that data. So, when **Yahoo!** presented a page with no vestige of personalization, I decided to try the URL again. At least it was consistent because I got right back were things seemed to be wrong. OK. Not a problem. All I needed to do was hit the Continue button (pretty much the only choice other than wandering off on something entirely unrelated). At that point, I was presented with a page demanding an "alternate

email address." Well, they already had my main address, so I put in a different address that I maintain on a server here. This resulted in **Yahoo!** taking my "alternate" address as my main address. Apparently, not only do they pay no attention to the email address they got in the URL, they don't bother to tell you that, as far as they're concerned, your main email address is now a **Yahoo!** address. I suspect I'm not alone in finding **Yahoo!**'s approach to web site design less than stellar. For example, the invitation I got to join this group also mentioned I could find things on the group's activities by using Google.

Once again, I've had my stupidity politely pointed out to me by someone with an Eastern Indian accent on the telephone. You see, my Internet connection decided it was time to die for some unknown reason. I discovered this about an hour after it went down and began procedures for resetting things at my end. After I'd exhausted those measures, the failure persisted. So, I gritted my teeth and called Charter's tech support to see if they had an outage in my area. Wonder of wonders — no interminable audio menu or muzak; straight to a human being. Not that it was going to do me any service, but it was either the best Turing Test I'd sat through or it was, indeed, a real person. After telling this person more personal data than I'd need to learn more about anyone than I care to know, it was still not enough to get my query responded to. I had to provide my account number as well. Now, I don't know about you, but I don't keep that bit of trivia in my head, on the computers that I use or otherwise handy in any way. I'd have had to dig around in a filing cabinet for copies of old bills to ascertain this particular bit of data. Perhaps more to the point is that the human I'd contacted refused to proceed until I coughed up this number. He was adamant that this was, and always had been, Charter's unbreakable policy. I managed to hang up the phone without maniacally

screaming obscenities, opting instead to point out that on the half-dozen or so previous calls to Charter's tech support at that very same phone number, no one had ever asked me for an account number before. Interestingly, my Internet connection began functioning a few minutes later. Probably just dumb luck 'cuz p'd off tech support people are even less helpful than usual.

I'm sitting here with laptop in the lap fiddling with stuff when the voice on the TV says, "... leaving nothing but freshness." Yeah. Yeah. I know. More about crap on TV. Sorry. But like I've mentioned elsewhere, sometimes these things just plunge the blade in and twist it. For some reason (I suspect it was the voice) this particular claim of "freshness" just made my internal voice screech in pain. Marketeers have turned a property of things into a noun. So, I have to ask: of what is freshness made? Sadly, **I suspect a number of companies selling freshness can indeed provide a chemical formula for it.** Well, at least for what they're selling, anyway. Given that we can create chemical freshness to spray about our immediate environment, would it not make sense to simply put the stuff in inhalers. That way, each of us could experience our own personal brand of freshness wherever we are. Should be great in crowds. Frankly, I find many of the household chemicals we now have available somewhat troubling. The problem I have with them is not like the real and obvious danger of bleach or the more demure potential damage of lead. Rather it's that they clearly must be acting on our systems or the materials around us in rather strong ways but they're sold as safe, panaceas meant to be slavered all about. For the most part, no one knows what long term exposure to much of this stuff does to us. After all, we don't eat it or take it as medicine, so why be concerned?

Do you own a flash "drive" or "thumb drive" yet? They are remarkably handy things for most computers these **6 -->**

<--Water Blogged Wump

days. In case you don't know what these things are, they are little memory systems that you attach via USB, retain data with the power off and easily fit in a pocket or purse (roughly thumb sized). I managed to put off obtaining one until they became reasonably priced at the 512 MB level. Of course, technology has marched right on. Sometime later there was a sale on them at the 2 GB level (enough to hold a few CDs). I didn't need it but it was too good to pass up. Not too long ago, I was lucky enough to acquire an 8 GB flash drive. That's enough for a whole DVD and considerably more. **I saw an advertisement today that included a 32 GB thumb drive for under \$100.** I did some hunting at that supplier and found one under \$90. 32 Gb (note the small "b" — bits, not bytes) Nand flash chips are sort of the current top end of "easy" technology these days. Micron makes some 64 Gb chips but they're probably too expensive for consumer products ... yet. But like the rest of solid state technology, there's a hard wall coming up as the feature sizes get smaller. Exactly where the wall is not quite clear yet. Still, consider what it means to have, say, 256 GB of data with you all the time. It could be used for all sorts of things: financial transactions, medical records, calendar data, communication records - lots of stuff. These days it's not even all that hard to make the case recognize your fingerprints, so the fact that it responds to you in certain ways could serve as personal identification. By adding a very low power microprocessor and battery that would recharge when plugged in to a USB port anywhere, it could serve as a watch. But even without all the extra geegaws, they are very handy gizmos for toting data from one place to another. You should have one.

There stands Sumit Gupta, holding nVidia's C1060 Tesla 10 video card.

I've been, mostly quietly, puzzled by the seemingly intense interest in tre-

mendous computing power sitting on video cards. In the Micro\$haphtian world, it's mostly the gamer's interest that seems to drive the market. These video cards should hit the market with a price of about \$1800. The hype is big on putting, oh, say, half a dozen of these into a PC chassis. Ignoring the \$10,800 price tag this adds to the PC, there's the little matter of having a motherboard that will accommodate six video cards, to say nothing of having a power supply that can supply the roughly 1,800 Watts of power they alone require and then a chassis with enough fans blow all that heat into your environment. Does little Johnny really need all that to play Worlds of Warcraft? Heaven forbid we might place a limit on little Johnny's development! Ok. I'm exaggerating a little. But the trend is really clear. If you're buying parts to build your own PC, you'll find decent video cards that do not have a built in fan somewhat difficult to come by. And the fans on these cards are not exactly well known for their reliability. Worse, lots of such cards are designed to burn out the electronics if the fan fails. Did your video card bite the dust? No problem ... buy another one. Hardly an approach that rewards a supplier for designing in reliability and it's really a conspiracy we've suggested to and enable for suppliers by our consumer mentality.

I was just putting my computers to bed for the night, taking a quick look at the gateway's system log to see if anything peculiar was going on. My first impression was that all was normal enough except that the log's size was nearly 200K. It seemed to be the result of a process I was running not finding some URLs that should have been "out there." But that stopped abruptly very early on in the file. The bulk of the file was created in less than 10 minutes, according to the time stamps on the records. This makes sense, since I crafted a program to shut down access to systems that were trying repeatedly to break in and it uses a 10 minute

sampling window by default. Well, that's fine when operating against Samuel Scriptkiddy and his super-turbo Windows PC. But **it fares less well when running against one of AT&T's network servers.** By the time my program's clock ticked over to look at the log for surreptitious activity, the bulk of 200K of system messages complaining about bad passwords and other stuff were cued. A fair number of these messages were stating that my gateway system was throttling back its willingness to respond because requests were coming in at an unreasonable rate. When my program shut the attacking computer out via the firewall, messages were still burbling out of programs which had been queueing the requests for service and now found the requester unavailable. It's worth noting that my program didn't really keep this attack at bay. I wrote it to simply keep the system log from ballooning out of control. But it does have the side effect of limiting the number of attempts an attacker can make, which might have the affect of not letting them stumble on a combination that worked for them.

I've been saying for some time that the continued shrinkage of features used in integrated circuits is running into a wall. In a recent article, '[Jeff] Lewis speculated that there are possibly "one or two more generations left in DRAM scaling..."' What this means is that the number of atoms available to be the devices on the chips is getting too small to make useful devices as the number of devices per unit area is increased. Quite unlike the mantra fed to engineers and "computer scientists," the world is most definitely *not* analog in many ways. Indeed, if you're of a mind to agree with a hypothesis I heard Cornelius Lanzcos put forth that time and space are also quantized, it's possible that everything is digital, not analog.

Speaking of speculations, one often hears about things like the Internet

6

7 -->

That Bane of the Macintosh User

Elsewhere in this issue, there's a piece on some tricks for renaming files and folders



via **Finder**. Oddly enough, perhaps one of the most powerful tools for renaming things on your computer is not **Finder** but rather **Terminal**.

True, **Terminal** is a bit more difficult for the novice to deal with but part of what makes it more difficult is the power to do things. The normal Macintosh human interface is a well crafted compromise, whereas the command line interface is a long proven melange of powerful tools. Each has their place and they can readily compliment one another; a feature I make use of virtually every single day.

The nominal method of renaming a file in **Terminal** is to use the **mv** command. In the Unix parlance, this is the “move” command, invoked by the two letter code to avoid overt numbers of keystrokes. There are things you need to be more careful about using **mv** than renaming files in **Finder**. First, **mv** does not warn you if you change the name of a file to one that already exists—it simply deletes the already existing file. Second, **mv** will indeed move things. So, if you're doing something with complex file paths, not just the name of the file in the folder, you need to be especially careful not bollix things up. If you do, you may get a warning but you also may get files moved to someplace you didn't want them to go. Before you decide that such behavior is clearly too dangerous for you to use, consider that it's also very easy to mess things up in **Finder** with a single mouse click.

7 Let's suppose you have a bunch

of md5 files for a bunch of other files that you've downloaded. An md5 file is a little file that carries a check code for the content of some other file and is commonly downloaded alongside the big file so one can check to see if the big file is likely to be OK. We need to separate the md5 files from the data they're about. One way is to move the md5s to another folder. Perhaps like this:

```
mkdir ../md5s
mv *md5 ../md5s
```

This little two liner will first make a folder one level up from the current directory (folder) named **md5s**. It then

<--Water Blogged Wump

connected toaster. Sounds utterly insane to say nothing of just extremely impractical, mostly useless, expensive and something of a pain in the arse dealing with more wires and plugs to make toast. Hold on. **There's a postage stamp with a complete IPv6, wireless communications “stack.”** Well, it's not a stamp. It's just a circuit board the same size, maybe even a little smaller. It's shown sitting astride one finger of someone's hand. What's a stack? Basically it's the set of programs needed to send and receive data according to a protocol. IPv6 (Internet Protocol, version 6) is the one we're all supposed to be moving to from the IPv4 that is in common use today. The big part of this change is that device addresses will jump from 32-bits to 128-bits, therein enabling a gigantic number of devices to talk to one another. The researchers at UC Berkeley where these postage stamps are being developed are seeking means for creating wireless mesh networks. In such networks, the postage stamps relay packets amongst themselves until they get from sender to intended receiver. The idea is that there's one in just about anything, thus the network is just there — no ISP, telcos, etc. I wonder if humans will retain control.

Whoa! Now, I've had a hard time writing for TRB this month. I've

moves the files from the current directory into the directory you made previously. Note that the files are not physically copied from one place to another is this process, so it's something that happens very quickly. But that is not always the case. For example:

```
mkdir /Volumes/USB1/md5s
mv *md5 /Volumes/USB1/md5s
```

would copy the md5 files to the USB1 volume and then delete them in the current directory, ie. the files would “move.” This is a means one could theoretically use to back up old data and remove it from its roosting place in one swell foop. I do *not* rec- **8 -->**

been busy, lazy and unable to ferret out much that I felt might be of some interest. But this headline in the back of a techno-rag caught my eye: **Patent suits could litigate digital TV off airwaves.** What a juicy irony that would be. By now, every station around has purchased the equipment and been broadcasting in digital for some time. Our genius legislators have dictated that, come Feb. 29, 2009, no more direct analog TV will be broadcast. If you bother to read this column, indeed even TRB articles, you're probably aware of some of the operational concerns I've raised. As the time for transistion has drawn near, I've begun to see other publications displaying all the ills I've raised. But the advertisements about the upcoming panacea of digital TV broadcasting continue unabated. Now, at the eleventh hour, we have a new crack in the dam to contend with: Samsung's claim is that ‘any receiver capable of receiving digital ATSC television signals’ infringes its patents. Of course, the easy way out is simply to declare the patents null and void. Problem solved. But that has the nasty little side effect of making any patents essentially worthless. Frankly, I'm not a fan of patents in their current guise, at least. Still, discretionary political decisions don't seem like a particularly “fair” fix.

<--Dread — mv, pg 7

commend doing that, however. It's way too dangerous. Better to copy them first completely, check that they made the trip and then delete the files where they're clogging up the works.

The **find** command can really amplify one's ability to work with sporadically distributed files compared to mousing around in **Finder**. This partly because **find** works its way through the whole folder tree stemming from where you tell it to start. And, it's partly because **find** is a sort of mini programming language to do all kinds of things, including running other programs. To do the forgoing example, we could have used something like:

```
find . -name "*md5" -exec
mv '{ } ../md5s/{ }'
```

Actually, that probably doesn't work as written—I didn't bother to experiment with it. But the idea is that **find** produces a list of all the files in the current directory tree that end in the characters **md5** and then passes this name to the **-exec** portion where the name is substituted in the brackets before the **mv** is done.

But I actually have come to prefer doing most such things with another approach.

```
ls *md5 | while read x;do
mv "$x" ../md5s/"$x";
done
```

There are some interesting reasons

why I've gravitated toward this form. First, it's not exactly the obvious choice one would come to by reading the documentation on **sh** or **bash**, the shells* I usually work in. That documentation would lead you to try a construct like

```
for x in *md5;
do mv $x ../md5s/$x;done
```

What's more, the above might actually work for you ... unless you're a Mac user who's most likely using every oddball character you've learned to type with the option key, much less spaces, in file names. The way the above works is similar to my preferred method but not quite the same. First, the shell creates a list of "words" by doing what amounts **ls *md5**. The **for** command then sets the variable **x** to each of these words in turn and executes the stuff between **do** and **done**. The trouble with this is that it nominally uses a space as the separator between words. That means that the names being sent to be **mv'd** are actually just pieces of names that contain spaces.

In my preferred method, **ls *md5** is explicit. The difference is that after one file name is generated, it's passed to the **while** loop as a list of words. Part of the magic comes in the behavior of the **read** command. While it would gladly soak up each word in a file name if you let it (by adding more variables to hold them) if you only give it one variable, it takes in the

whole string, spaces included, as the value for **x**. The rest of the magic is in the "**\$x**"s. Without the quotes, the space containing file name would be passed to the **mv** command as a whole bunch of separate words, each representing a file to move.

Now there's copious documentation on shells and their syntax. I like to use **bash** simply because it's got the same man page **sh** and **sh** is the common shell for doing system level stuff in scripts. If **bash** didn't provide enough programming "power," I'd use something else but as long as it's not failing in that respect, I'm of the mind that it's easier for me to learn what amounts to one thing than two.

Softpress Systems Limited's Ian Shray might say



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We still have one more meeting date planned ahead. October 16, we have a video on how well your privacy is protected. This is a subject you should know something about despite the fact that there's precious little you can do about it.

Possibly, in November we may get a chance to see how some of the "under world" computes with some



representative advocates of open source software. You may be a bit surprized how well it's working these days.

What would you like to do today? Sound familiar. If there's something that interests you, especially if it's something you know about (heh, heh), don't keep it to yourself. Inquiring minds want to know.