Print Post Approved PP230594/00008

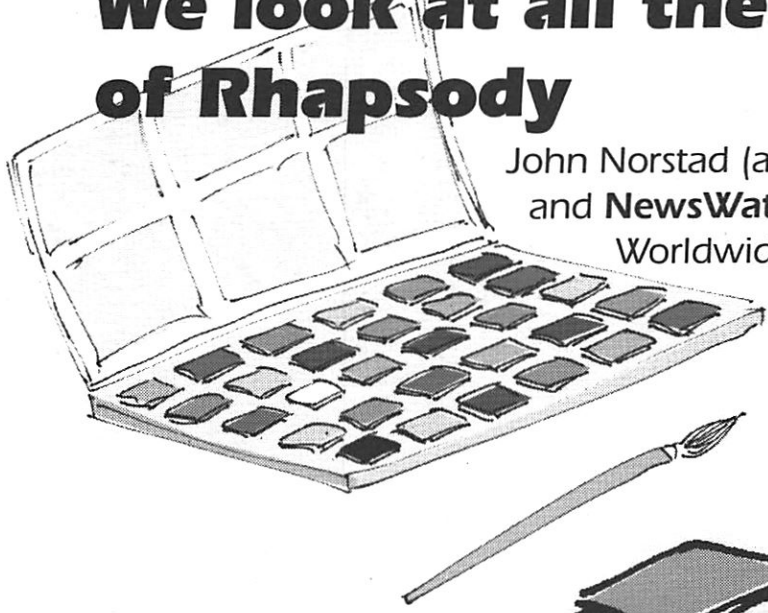
August, 1997

MACinations

Australia's leading Macintosh user group magazine

$3

Blue Box? Yellow Box? We look at all the colours of Rhapsody



John Norstad (author of **Disinfectant** and **NewsWatcher**) reports on Apple's Worldwide Developers' Conference for our readers!



Part 2 of our Networking Series

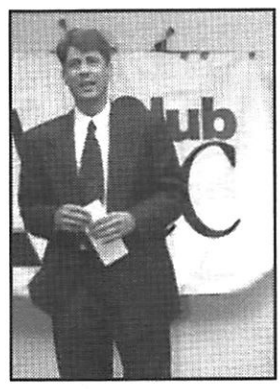
Reviews of Kaleidoscope and Mondo Mail



Tailoring Netscape to your needs

Plus all these usual features:

- **20 Years of Apple**
  (Adam Engst – ACEing around with Macs)
- **July Meeting Report**
  (Visit by Apple Pacific's Steve Vamos)
- **Get Info Column from the Committee**
  (This month by Marshall Ahern)
- **Sean McNamara's 'Net.files**
  (Lost at sea – all those weird filenames)
- **Web Weavers' Corner**
  (Interview with Web Weaver Leigh Dart)
- **MACcess Report**
  (Chatter from the Club Mac BBS)
- **Dunk's Doodles**
  (Oh joy! Oh bliss! Oh rapture! Oh hell!)



Steve Vamos at the July Meeting p.31

Club Mac



ACEing around with Macs

20 Years of Apple

©1997 Adam C. Engst

Macintosh guru, Adam Engst (of TidBITS *and* TISK*), has joined* MACinations *list of* 20 Years of Apple *contributors. Recently he participated in an e-mail interview with Co-editor, Rosalie Marshall. Adam remembers his early Apple years. Too young to recall the inception of Apple, he has nevertheless become a devotee of the Mac, whilst maintaining a healthy level of scepticism for the machines he uses and writes about.*

▪ What was your first Apple experience?

Ironically, it wasn't an Apple experience. I remember seeing a **Franklin ACE 1000** in a video store – in Ithaca, New York.

The **Franklin** was an **Apple][** clone with 64K of RAM. It must have been in 1982 or so...my parents eventually ended up buying that computer and I used it throughout high school and in the first year of college.

▪ Was this first computer experience a conversion for you? If not, when did that occur?

I don't know if the term "conversion" really applies. I've used several different types of computers over the years – after that **Franklin ACE 1000,** I used an **Atari 1040 ST** for a few years. It was quite a bit better than the **Mac Pluses** of the time, since it had a colour monitor.

▪ What was your first experience with the Macintosh? What programs did you use?

The first Mac I used was a **Mac Plus** in Cornell's public rooms, running *MacWrite*. Pretty primitive, in retrospect.

▪ What was the first Apple computer you owned? Can you remember the specs for it? What did you use it for and what programs did you favour?

In 1988, Tonya and I bought a **Macintosh SE** together. It had a 68000 chip, 1MB of RAM and two floppy drives. I'd built a hard drive from various parts for my **Atari** and, since the **Atari** used a variant of SCSI, I only had to build a new cable to use that 30MB hard drive with the Mac. I remember testing the cable with a battery powered squirt gun we had around – anything to complete the circuit for each pinout.

That computer was used almost entirely for word processing (we were students, after all), for connecting to Cornell's mainframes for e-mail, and for running *Storyspace*, a program written by one of my professors, now published by Eastgate Systems at:

`http://www.eastgate.com/`

I used *Storyspace* to write my senior honours thesis. The first three utility programs that I bought were *QuicKeys*, *DiskTop* and *Suitcase*. I still use *DiskTop* on occasion, although not *QuicKeys* or *Suitcase* anymore.

▪ What made the Mac special for you and does that hold true today?

After sophomore year at Cornell, I worked in the public rooms as a supervisor, where I spent a lot of time helping people with different computers. The Mac was simply a lot neater and easier to use than the awful PCs of the time (which I knew how to use just fine). I found that exploring the Mac was a lot more fun, which still holds true today.

▪ The Jobs/Woz story is now legend. What do you recall about the start of Apple, the development of the Lisa and subsequently of the Mac?

To be honest, I wasn't really in on all that – I was too young. Remember, in 1977 I was 10! :)

I didn't start paying any attention to the industry until about 1988 or 1989, which is quite late in Apple's history. It was probably a good thing – I might have gone mad years ago if I'd had to put up with Apple's management confusions in those extra years.

▪ Twenty years down the track, Gil Amelio is trying to turn Apple around, Jobs and Woz are back on the team and System **software development is a priority. Will this be the year Apple makes good?**

No. The reason is simple – *Rhapsody* won't ship until 1998, so 1997 turns into a big holding pattern for most serious Mac shops. Users shouldn't care – what they have now will work fine for the life of the hardware.

I do think companies are sitting on their hands right now, trying to figure out what to do. Apple has got to start talking to them right now and showing them why it's going to work out well. I don't know if Apple will do that. 1998 is the make or break year for Apple.

▪ Your work is Mac-centred. What is the motivation for this?

I sort of happened into it, but now I can barely imagine switching away from the programs I've grown so accustomed to – much less the platform as a whole. It's just too great a shock. I've used *Windows '95* and it's lousy – it's useable, which *Windows 3.1* wasn't – but it's still lousy.

▪ Is there anything you'd like to add about 20 Years of Apple **for Club Mac readers?**

Perhaps just two thoughts that I've noted in *TidBITS* articles recently. First, a tremendous number of people responded to my comment that loyalty to the Macintosh has barely wavered, whereas loyalty to Apple is at an all-time low. That hit home with many people who can't imagine switching computers but are depressed about Apple's recent moves.

Second, I made the comment that perhaps Macintosh is an experience, not a machine; and that too, rang true for many people. I don't know that there are any great truths in those comments, but they're worth mulling over. ■

MACinations

Co-editors

Tom Pardy pardy@ozemail.com.au
& Rosalie Marshall rosmar@ozemail.com.au
macinations@clubmac.org.au

Imagesetting
Everysize Typeart Services

Printing
The Print Connection

Club Mac Admin.
Club Mac Inc.
GPO Box 4523
Sydney 2001
NSW Australia

PD Software
PD Secretary
GPO Box 4523
Sydney 2001
NSW Australia

committee@clubmac.org.au

World Wide Web Pages
Club Mac: http://www.clubmac.org.au
MACinations: http://www.clubmac.org.au/~macinations
(mirror) http://www.ozemail.com.au/~rosmar

Fidonet Node
3:712/406

Internet Domain
@clubmac.org.au

Membership

Basic Subscription	$35.00 p.a.
Bulletin Board access	add $30.00 p.a.
Premium BBS access	add further $30.00 p.a.

BBS Telephone
(02) 9314 1322
Nine lines operating
at up to 28,800 baud

Help Desk
(02) 9960 5717
24hr phone
or FAX

Advertising in MACinations

Full page	$249.95 per issue, $2,061.95 per annum
Half page	$137.45 per issue
Quarter page	$68.70 per issue

Other configurations on application. Pre-printed artwork (bromides) or copy in **Adobe PageMaker** or **EPS** format. Non-standard fonts must be supplied. Contact the Administrator.

Club Mac Inc. Committee
(Elected by the membership of Club Mac Inc. in accordance with the Constitution)

President	Andrew Pavey
Vice-President	Alex Hartman
Secretary	Piers Dunkley
Treasurer	Darryl Chrisp
PD Secretary	Robert Naccarella
Purchasing Officer	John Agapitos
Ordinary Members of Committee	Marshall Ahern
	Jill Riddiford
	Joe Mithiran

Non-Committee Officers
(Appointed by the Committee of Club Mac Inc. in accordance with the Constitution)

BBS Sysop	John Agapitos
MACinations Co-editors	(see top of this page)
PD Librarian	(Under review)
PD Acquisitions	Darryl Chrisp
Meeting Convener	Piers Dunkley
Administrator	Jill Riddiford
Help Desk Supervisor	Joe Mithiran
Marketing Officer	Jill Riddiford

This month's reading in MACinations

Features:

A Rhapsodic Adventure
A *Rhapsody* in Blue and Yellow 5
John Norstad

Personalise Netscape's Buttons 10
Andrew Pavey

Networking with Macs
Bigger Networks – Ethernet 15
Rosalie Marshall

Other stuff:

20 Years of Apple
ACEing around with Macs 2
Adam C. Engst

Claris *Home Page* Winner! 24

Reviews & Previews:

For the overly cautious – *Kaleidoscope* 19
Carl Vine

E-mailing from *FileMaker Pro* – *Mondo Mail* 22
Hilton Brown

Regular Columns:

From the President 14

From the Editors 14

FileMaker Pro Corner
Make it a date 25
John A. Green

Web Weaver's Corner
Interview #4 – Leigh Dart 26
Charles Cave

'Net.files – Lost at sea 29
Sean McNamara

Get Info – from the Club Mac Committee 30
Marshall Ahern

July Meeting Report 31

MACcess Report 32
collected by Colin Lee

Letters to the Co-editors 34

Dunk's Doodles 35
Piers Dunkley

Club Mac Information:

Office Bearers 3

Meetings, SIGs and Help Hotline 4

Annual General Meeting Notice 12

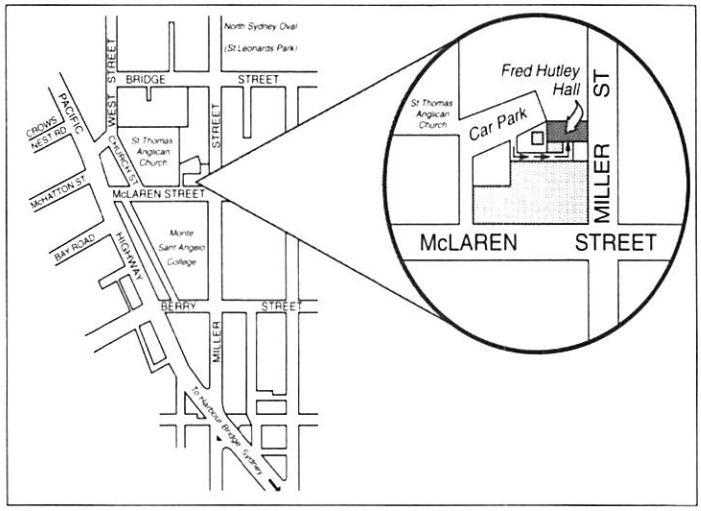
Committee Job Descriptions 13

Membership Application Form 34

September Club Mac Meeting

Club Mac meets on the second Wednesday of each month in the Fred Hutley Room at North Sydney Council Buildings on the corner of McLaren Street and Miller Street, North Sydney, from 6:30pm to about 9:00pm.

The September meeting will be on Wednesday, 10th September, 1997. Every month the meeting starts with a Q&A session when members are able to ask almost any Mac-related question and, the Club being what it is, some other member will probably have the answer. Usually we have a guest speaker for the main part of the program. And there is, of course, the usual tea, coffee and nibblies at "half time".



Never miss a meeting!

Meetings are great opportunities to rub shoulders with fellow Mac-o-philes. And look at what we offer at virtually every meeting!

- ✔ **Demonstrations!**
- ✔ **Hot & cool drinks, nibblies!**
- ✔ **Mac questions answered!**
- ✔ **Club Mac Ware PD disks!**
- ✔ **Mac fellowship & chatter!**

Club Mac Special Interest Groups (SIGs)

- **Beginners SIG**
  Meets in the Geddes Room, North Sydney Municipal Council, 6:30 to 8:30pm, Thursdays, eight days after the regular Club Mac meeting.
- **Database SIG (largely FileMaker)**
  Also meets in the Geddes Room, also 6:30 to 8:30pm, but on the fourth Wednesday of the month.
- **Omnis SIG**
  Meets at 327 Sussex Street, Sydney (nice and central). Contact Reg Paling (telephone 9905 4405) for more information, including the date of the next meeting.

Club Mac has a Help Hotline

02 9960 5717



Fax or phone and leave your name, phone number and a description of your Mac problem. Another Club Mac member will get back to you and do everything possible to advise you! This service is free, but we are all volunteers. So please be patient! Sometimes we have problems too!

MACinations is published eleven times per annum by Club Mac Inc. (Australia's largest Macintosh User Group) with an average print run of 1600 copies. © 1997 Club Mac Inc.

It is the advertiser's responsibility to ensure that material presented to Club Mac Inc. or any of its duly-appointed officers for publication in **MACinations** conforms with the relevant Commonwealth and State consumer legislation and legislation governing advertising material. Club Mac Inc. accepts no legal responsibility for any implicit or explicit claims made in any published advertisement, including any claims regarding suitability, compatibility or price. Advertisers are required to obtain the necessary releases for any material included in their advertisements under the Commonwealth Copyright Act.

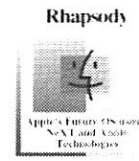
Permission is hereby given for the use by **non-profit** organisations of any non-advertising material published in **MACinations** (other than that specifically covered by the respective authors' copyrights), provided **MACinations** is clearly acknowledged as the source of that material. Material published in **MACinations** which is covered by respective authors' copyrights may **not** be reproduced without the express permission and authorisation of the author of that material. Club Mac Inc. and the respective authors of material reserve the right to take legal action in the event of any breach of copyright.

Although all care is taken, Club Mac Inc. accepts no responsibility for any error or omission in connection with any article, information or illustration contained within this publication, whether of an information-based nature or of an advertising nature. Club Mac Inc. provides neither monetary remuneration nor remuneration in kind for any editorial material contributed for publication.

MACinations is an independent publication for users of Apple Macintosh computers and related equipment. Whilst the editors of **MACinations** are answerable to the Committee of Club Mac Inc., the views expressed within **MACinations** are those of the editors or of the respective authors of published material and not necessarily those of Club Mac Inc. Is anyone reading this at all?

The Apple logo and the words "Apple," "Macintosh" and "Mac" are the registered trademarks of Apple Computer Inc. Club Mac Inc. is licensed to use these trademarks within this publication. Other registered trademarks used in material published in **MACinations** remain the property of those bodies who have registered those trademarks.

A Rhapsodic Adventure



©1997 John Norstad

As if the introduction of System 8 *was not exciting enough, Apple has another important offering planned for this time next year, with the appropriate name of* Rhapsody. *There have been many reports and hints about* Rhapsody, *leaving many of us confused about* Blue *and* Yellow *boxes. John Norstad, programmer of* Disinfectant *and* NewsWatcher, *was one of the many Macintosh software developers who attended Apple's WWDC. With his kind permission,* MACinations *presents excerpts of his* Trip Report *that first appeared on his Web site.*

Part 1. A Rhapsody in blue and yellow

On my trip to the annual Worldwide Developer's Conference (WWDC) in San José, California, I concentrated exclusively on *Rhapsody* – Apple's next-generation *Operating System*, combining Apple and NeXT technologies.

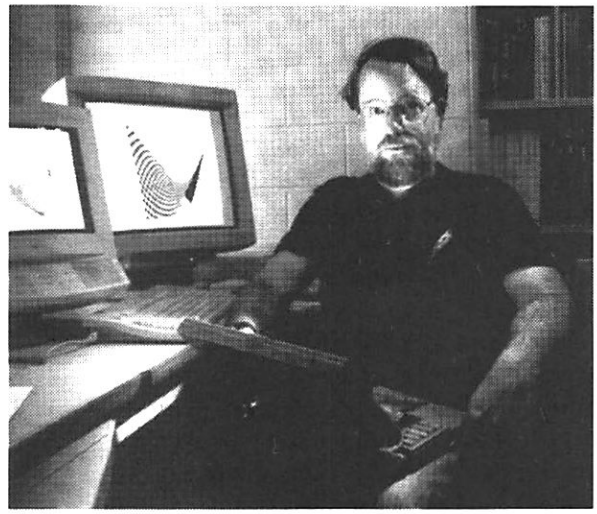


Figure 1. John Norstad and some of his Macintoshes.

In this article, *Mac OS* refers to the classic *OS* that we use now and will continue to use for the foreseeable future, in *System 7* and its successor, *System 8* (code-named *Tempo*) and future versions (*Allegro*, *Sonata* etc.) *Rhapsody* refers to Apple's future completely different *Operating System*.

Dual OS strategy

Apple is committed to parallel development for some time yet, permitting customers to migrate to *Rhapsody* at their own speed.

Apple plans an aggressive schedule of major *Mac OS* enhancements and new releases. The *Mac OS* will continue to improve in stability, performance, and features and it should survive and prosper for another five to ten years. Apple has concrete plans and schedules for at least the next four major *Mac OS* releases:

- *Tempo* – *System 8.0*, July/August, 1997;
- *Allegro* – Mid-1998;
- *Sonata* – Mid-1999; and
- Unnamed – Mid-2000.

Rhapsody represents the future and its schedule is:

- *Developer Release 1* (Summer '97) – planned for developers only, this will be a straight port of NeXT's current *OpenStep System* on *Mach* to the PowerPC, with a few additional features – without the *Blue Box*.
- *Premiere Release* (Early '98): This release is planned for developers and pioneer users. It will include final *APIs*, cross-platform multimedia (*QTML*), *OS* servers, support for *Blue Box* productivity applications and many PowerPC models (as well as PowerBooks with power management) and will have a more polished user interface. It will support the *HFS Plus*, *NFS*, and *AFP* file systems and many device families.
- *Unified Release* (Mid-'98): This will be the first production release for end-users. It will include drivers for most PowerPC devices with tuned I/O performance and the full *Blue Box* implementation, as well as supporting the full range of file systems.

As part of its dual-*OS* strategy, Apple is initially targeting *Rhapsody* at servers and high-end enterprise users. The *Mac OS* will remain the preferred *System* for home users, similar to Microsoft's strategy with *Windows NT* and *Windows '95*.

Apple's problems

Everyone has been concerned about the rough time Apple has had in the last few years.

Good news: The old Apple is dead. In his fireside chat, Steve Jobs said that Apple's problem was bad engineering management. Jobs is well-known for his private reality-distortion field – and I often disagree with him – but on this point I think he's correct.

Apple is now a very different company with an all new engineering management. The Apple and NeXT engineering teams are merging effectively, although there are still many rough edges and some evidence of cognitive dissonance. Despite the acquisition and restructuring, they have made great progress and I am confident that Apple will deliver on its promises, and it will deliver on schedule.

Many developers find the technology exciting and are cautiously optimistic about the future, although few have actually committed to doing any native *Rhapsody* development. Many are taking a wait-and-see attitude while they begin to play with and learn about *OpenStep* and continue to develop and support their *Mac OS* products.

Apple is, however, still in the business of producing best-of-class hardware and *Operating System* software – both significantly better than that offered by their competition.

Bad news: Apple is dying. Apple's business problems are serious.

They must somehow manage to overcome the downward spiral of bad sales and declining market share. Jobs says the press is not to blame for this and that, if Apple can get its engineering and business acts together, the press will take care of itself. I agree.

Apple must return to profitability soon. Gil Amelio predicted a profit in Apple's next fiscal quarter (ending in September). He also mentioned that Apple has $US1.4 billion in cash, so that it can afford to ride out a few more bad quarters, but it's clear that Apple simply cannot continue to lose money.

Apple must find a solution to the problem of clone-makers cannibalising their profits. Jobs recommended that Apple freely license everything – hardware and software – but adjust its fees to make them more "fair". Jobs also pointed out repeatedly that he doesn't make decisions and this is not Apple's current policy. Some solution must be found for both Apple and the clone-makers to prosper.

Finally, Apple must do a much better job of delivering to its customers. There is a demand for Macs, but Apple continues to do a terrible job of delivering them. They must solve their manufacturing and operational problems.

Good news: Signs of a resurrection. Apple has had some very strong new products this year, including fast new price-competitive desktop models and very impressive and popular new PowerBooks. These have received generally favourable press reviews. Apple's advertising, in my opinion, has improved, although Steve Jobs disagrees. Some of the press reports on the Conference were quite positive.

Blue Box

The *Blue Box* is the classic *Mac OS* re-hosted on the new *Rhapsody Core OS*, making it possible to run the vast majority of existing *Mac OS* software on *Rhapsody*. Apple has completely isolated the *Blue Box* from the *Yellow Box*, from the *Core OS* and from the hardware.

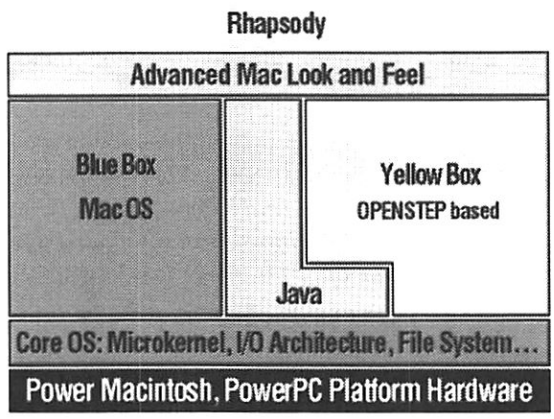


Figure 2. Rhapsody for the Mac.

The *Blue Box* is very impressive, it provides excellent application and Extension compatibility. Over 400 pieces of software were tested at the Conference and only four of them failed! Even Steve Jasik's low-level debugger worked.

I tested my software and I'm happy to report that the *Disinfectant* application, the *Disinfectant* INIT, and the non-networking parts of *NewsWatcher* all work fine. (We didn't have an Internet connection in the lab, so I wasn't able to test *NewsWatcher's* networking parts.)

It would have been inappropriate for me to conduct live virus tests in the lab, but I'm confident that the current crop of Mac viruses which work on *System 7* and *8* will also continue to work just fine and spread quite happily in *Blue*. This is not such good news, perhaps, but it does provide more evidence of the high level of compatibility provided in the *Blue Box*.

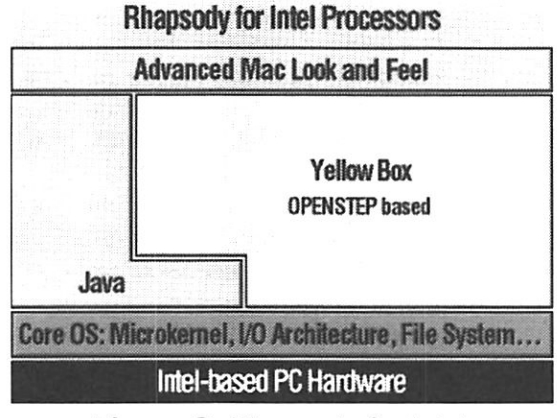


Figure 3. Rhapsody for Intel.

In the demos we saw *Photoshop*, *Marathon*, *QuickTime*, and *CodeWarrior* all working in the *Blue Box* running on *Mach*.

The transition from the *Mac OS* to *Rhapsody* should be very similar to the very successful transition from 68K to PowerPC several years ago. Most software will "just work". There will be a few problems and exceptions, but they should be minor. The only old software which will break under *Blue* are:

- Programs which talk directly to hardware without going through the *Device Manager*;
- Some kinds of Extensions which patch *File Manager* traps and expect to be able to intercept all file *System* I/O; and
- Any other software that modifies or relies on the internals of shared *System* services.

Blue is not an emulator of any kind. It is mostly an exact copy of today's *Mac OS*, bug-for-bug, feature-for-feature, re-hosted on the new *Core OS*. Most programs should run just as fast as they do on *Mac OS*, or perhaps only a little slower. Some operations will even run faster, due to performance improvements in the *Core OS*.

Blue is very similar to *MAE* (the *Macintosh Application Environment*), an Apple product which lets you run Mac software on UNIX systems. *Blue* is simpler than *MAE* because it does not require a PowerPC emulator.

Blue uses a RAM-based ROM image, there's no hardware ROM. Nor is there preemptive multi-tasking or protected memory inside the *Blue Box*. A *Blue* application that crashes can still take down the entire *Blue Box*, just like an errant application on *Mac OS* can take down the entire Mac.

An errant *Blue* application, however, cannot crash the *Core OS* or *Yellow Box*. In *Rhapsody*, if a *Blue* crash occurs, you can easily and quickly reboot just the *Blue*

Box – without having to restart the entire computer.

To the *Mac OS* running inside *Blue*, it appears as if virtual memory is turned off on a Mac with 1GB of memory! The *Core OS* does virtual memory operations behind the scenes, but this is mostly transparent. There are two important benefits of this new scheme:

- No more worries about memory fragmentation; and
- You can set very large memory partition sizes with no ill-effects for most applications.

The *Blue Box* will also provide improved stability via "guard pages". These are special Virtual Memory pages which are marked read-only and are placed at the beginning and end of each program's stack and heap.

In the regular *Mac OS*, programs sometimes "run off the end" of their stack or heap when writing to memory and end up trashing memory belonging to the *System* or other programs. This often causes bad crashes. In *Blue*, such a misbehaving program will crash, but it won't take down other programs or the whole *Blue Box* along with it.

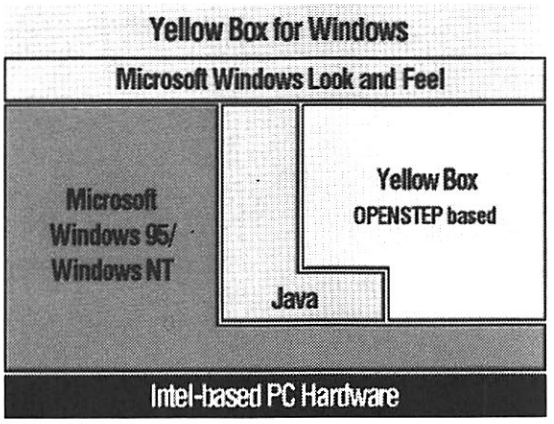


Figure 4. The **Yellow Box** for **Windows.**

In summary, the *Blue Box* provides excellent compatibility for *Mac OS* software, comparable performance to the regular *Mac OS* (even better performance in some cases) and somewhat better stability.

Yellow Box

The *Yellow* Box is a major component of Apple's new *Operating System*. It is based on *OpenStep* technology from NeXT. *OpenStep* is a second generation object-oriented *System*. It's advanced, mature and very rich. It has three components:

- The **Foundation Kit**, a collection of object classes which provides basic collection classes, a semi-automatic garbage-collection memory management system, abstracted interfaces for underlying *Operating System* services like threads, and other low-level services for programmers.
- The **Application Kit**, a collection of object classes which programs use to present their

Continued p.8 overleaf

Discount on Membership Renewals?

If you are a BBS member of **Club Mac**, then you already know the benefits of belonging to it. But did you know that you could get a whole month's extension on your membership renewal FOR FREE the next time it is due! All you have to do is introduce a new member to the Club who also signs up to use the BBS!

How do we know if you introduced them? Easy! Just get the new member to write across the bottom of their **Application Form** "Introduced by..." and then your name! That's it!

There is a **Membership Application Form** on page 34 of this and every issue (except the bumper December/January issue, when it is on a later page).

Tell your friends what a great Club this is and show them the benefits of being online with our rapidly-changing BBS!

Is Your Mac Where You Left it?

$49.00

Could save you thousands.



Security cable kits to lock down any Computer.
Kits also available for TV, Video, Stereo, etc.
All Mac kits lock down C.P.U,Monitor & Keyboard using the security sockets already on the items.
No special tools required, simple installation.



CompuLock
computer security systems

116 Stanmore Road Stanmore NSW 2048
Tel:02 9519 2881 Fax : 02 95194565

user interfaces and which users use to manipulate and control those interfaces.

- A **Display PostScript** graphics engine (*DPS*). True "what you see is what you get". This is important in the publishing and graphics industries.

As an example of *OpenStep's* richness, I'll compare the *Mac OS* styled *TextEdit* package to *OpenStep's* text object. Styled *TextEdit* is used on the Mac to display and manipulate wrapped paragraphs of text. It can handle fonts and styles, but is limited to a maximum of 32K of text. In conjunction with *WorldScript*, it can be coerced into doing non-US English and non-Roman languages.

It was originally designed for simple text entry fields in dialogs, but has been extended by Apple (and abused by programmers) for years for more complicated uses. It is a nightmarish labyrinth of complexity for programmers, with hacks layered on hacks layered on hacks. NeXT's text object is much richer and much, much easier to work with. It supports tabs, rulers, kerning, the Unicode character set – and has no restrictions on size.

One of the most impressive demonstrations at the Conference involved an extension of the text object (a subclass) which does *HTML*. This new *HTML*-aware class will be part of the *Yellow Box* version of *OpenStep*.

The object was used to build a fully functional Web browser in *Interface Builder* in only minutes, without having to write a single line of code! The browser had a text field for URLs, forward and backward arrows for navigation, and the usual large scrolling field to display the Web!W ge.

Steve Jobs has a favourite story about *OpenStep* which I'll paraphrase here: Software development is about managing complexity. We build our software in layers that become increasingly complex as more layers are added. Experience shows that we can only build about four layers high before the complexity becomes overwhelming and our programs collapse under their own weight.

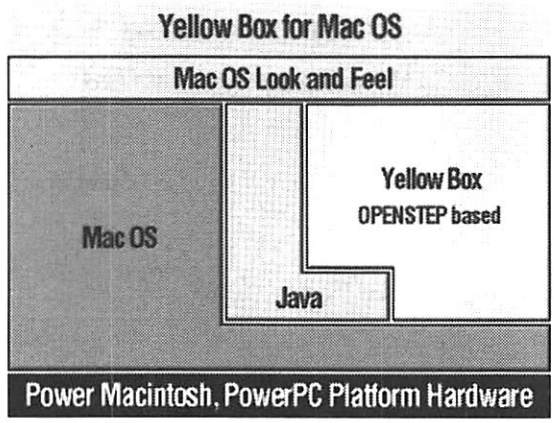


Figure 5. Yellow Box for the Mac OS.

As analysed in the well-known book, *The Mythical Man-Month*, adding more programmers to such a complex project actually hurts more than it helps. The human mind just doesn't seem capable of building higher than about four layers of complexity.

Jobs likes to compare this to constructing a building. With other systems, sufficient foundation is provided by the system so that it is like starting your building at the fourth floor. By adding your own four floors (layers of complexity), you can build up to an eight storey building.

Because *OpenStep*, the Objective-*C* programming language and the NeXT development tools are so rich, with *OpenStep* you start at the 23rd floor, and can thus build a 27 storey skyscraper!

This Jobs' story is typically extreme. In particular, it begs the question of how the NeXT engineers managed to build this *System* foundation with 23 layers of complexity, if the rest of us mortal programmers can manage only four of them! There is, however, a serious element of truth in this story.

OpenStep is indeed superior to the competition, and it does significantly improve productivity and the "height" of the software we can produce. Every programmer I've met who has used *OpenStep* has said they are much more productive when using *OpenStep* than with any other environment. Many of them have used other popular industry object frameworks like Apple's *MacApp*, Metrowerk's *PowerPlant* and Microsoft's *MFC*. The unanimous opinion is that *OpenStep* is much better than any of them. I look forward to finding out for myself!

In addition to its *OpenStep* foundation, the *Yellow Box* includes the following advanced technologies from NeXT:

- Multi-user *System* with security. *Rhapsody* can be used as a single-user *System* much like today's *Mac OS*, or you can have multiple UNIX user names and passwords with UNIX file security. Yes, Virginia, you'll be able to *Telnet* to your *Rhapsody Box*!
- *PDO* (*Portable Distributed Objects*), a state-of-the-art *System* for distributed computing. Objects running in separate processors on separate computers can send each other messages, almost as effortlessly as they do when they are in the same program. I'm quite impressed by *PDO*.
- *EOF* (*Enterprise Object Framework*), provides an object interface to all of the major commercial database products. It's important in the enterprise market.
- *WebObjects*. This is a *System* for rapid development of Web pages, *CGI* gateways and Web server plug-ins.

The *Yellow Box* will also incorporate several major technologies from Apple:

- The *QuickTime* media layer (*QTML*): *QuickTime*, *QuickDraw 3D* and *QuickTime VR*;
- *QuickDraw* GX typography;
- *V-TWIN* search engine;
- *ColorSync*; and
- Scripting.

Apple hadn't decided exactly what the scripting language would look like (*AppleScript* or otherwise), but they promised *Apple Events* and an ubiquitous scripting *System* integrated into the *OpenStep* classes. After the WWDC, Apple

decided to support *AppleScript* in the *Yellow Box*.

Blue/Yellow integration

The user experience in *Rhapsody* is that of using two almost completely separate computers. The *Blue* and *Yellow* environments are quite clearly separated and only share a few well-defined resources.

There will even be two *Finders*, one for *Blue* (the *Tempo* version of the *Mac OS Finder*), and one for *Yellow* (the new *Rhapsody Finder*).

The *Blue Box* can run in full-screen mode or inside a *Yellow* window. You cannot mix *Blue* and *Yellow* windows together on top of each other on the same shared screen, in the same way you do when you are running a single *Operating System*.

Full-screen mode is the fastest and most compatible and will include a **hot key** to switch between *Blue* and *Yellow*. The *Yellow Box* will be invisible in this mode, except for a command in the **Process Menu** to switch from *Blue* to *Yellow*. When you select this command (or use the hot key) all the *Blue* windows will disappear (including the *Blue Finder*) and all the *Yellow* windows will appear (including the *Yellow Finder*). The user experience in this mode is definitely one of switching between two completely separate *Systems*.

Drag and drop works within the *Blue* and *Yellow* Boxes, but not between them. For example, when using *Blue* inside a *Yellow* window, if you try to drag something out of the *Blue* window and into the *Yellow* part of the screen, the dragged object will be pinned to the edge of the *Blue* window. This lack of tight integration between *Blue* and *Yellow* is unfortunate. My impression is that this is the most contentious design issue in the entire *Rhapsody* project.

There is no ideal solution. Apple made a tough call. The decision to keep the two environments clearly separated was made for three reasons – human interface, technical and for time-to-market. While the *Blue* and *Yellow* halves of *Rhapsody* are mostly separate, they do share some significant resources:

- Shared file systems;
- The clipboard – you can copy/paste between *Blue* and *Yellow*;
- *Apple Events*;
- Network connections – a *Blue* and *Yellow* program could communicate using a *TCP* stream;
- Fonts – *Blue* and *Yellow* will probably share a common fonts folder, to save on disk space – especially for Japanese users, whose fonts can be very large;
- The **Process Menu** – while in the *Blue Box*, there will be a single command in the **Process Menu** to switch to the *Yellow Box*, and vice-versa; and
- The *System* clock.

Rhapsody will support dual boot. At Startup time, you can choose between running *Rhapsody* or the classic *Mac OS*. ■

In the September issue of MACinations, look for the second and final part of John Norstad's report, in which he discusses Java and Rhapsody, the Core OS, UNIX and Apple's cross-platform strategy. His conclusion will have you eagerly anticipating Rhapsody's release in 1998.

"Revolutionary New System Helps Laser Printer Users Save Money on Toner Cartridges"



Your toner cartridges are recycled under stringent quality control standards, assuring performance that equals or exceeds that of a new cartridge.

Most companies spend too much money on toner cartridges. Now you can save big money when you use 100% guaranteed recycled toner cartridges from QuickCharge.

QuickCharge recycles your cartridge using a revolutionary system that includes new parts and graphics-quality toner. The old parts are replaced with new parts designed to outperform the regular cartridges in print-quality and durability. **Your letters and graphics will consistently have darker, crisper and bolder print quality Guaranteed!**

Call QuickCharge Now and get **FREE DELIVERY** anywhere in Australia. In addition to all this, every toner cartridge is 100% unconditionally guaranteed. If you are not totally delighted with the quality and the service you will get your money back. No questions asked, no hard feelings.

You have nothing to lose. You save money and time when you get a recycled toner cartridge from QuickCharge. You get better quality and you always get FREE, quick delivery.

Call or fax now and receive your FREE Booklet.
"The Ten Biggest Laser Printer Mistakes People Are Making And How to Avoid Them."

*QUICK*CHARGE
Level 1, 168 Enmore Rd, Enmore NSW 2042
Tel: (02) 9550 6486 Fax: (02) 9519 6230 Contact: Eric Sogutlu (Customer Service)
Toll Free No: 1800 505 015

Personalise Netscape's Buttons

©1997 Andrew Pavey

One of the many attractive features of the Macintosh is the ease with which the owner/user can customise the interface. This facility seems to be increasing as Mac OS 8 *appears on the horizon. But why wait until then? In this article, Club Mac President, Andrew Pavey, guides you through personalising Netscape* Navigator.

Those buttons in Netscape *Navigator*, which take you directly to a particular Web location like Netscape's Home page or **What's Cool**, can easily be personalised to take you to your own favourite sites. All you need is a copy of *ResEdit* (*v2.1.3* is the latest and is available in the Club Mac BBS Library).

Make sure you have a backup copy of Netscape *Navigator* before you make any changes (in case you can't follow these instructions and screw up somehow).

Drag and drop your copy of *Navigator* onto *ResEdit*. You'll get a window full of icons representing various classes of resources. Find the STR# icon towards the bottom and double click on it. You'll now have a window with a series of strings. The IDs you want to change are **301** for the Button Names, and **4000** for the URLs the buttons take you to.

Double click on **ID 4000** first, scroll down until you find the URL you want to change. Type in your new URL. In the example, I have changed the Netscape Home URL to **`http://spelean.com.au`** (my own Web site).

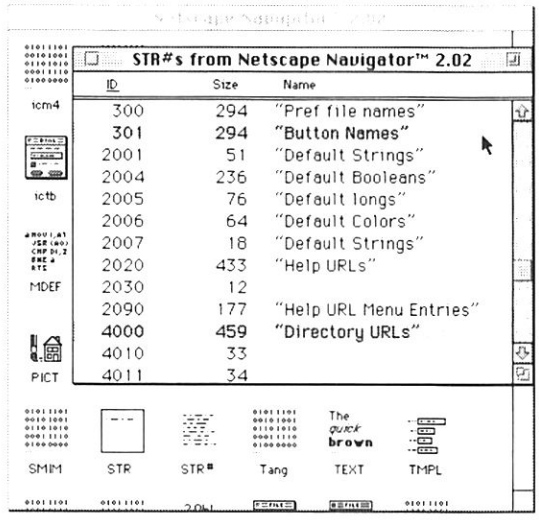


Figure 1. The STR#s window of **Navigator** in **ResEdit**.

Close the window and then double click on **ID 301**. Scroll down and find the equivalent button name – in my case I changed the button name **`Netscape Home`** to **`Spelean Web`**.

Similarly, I changed the Net Search button to point to the Altavista search engine whose URL is **`http://www.altavista.com`**.

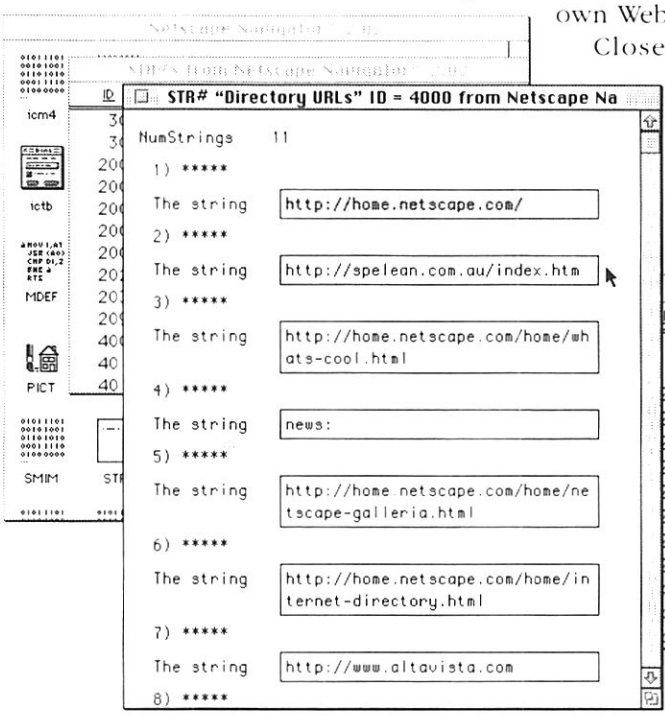


Figure 2. Changing the STR# resources. Note the changes to resources 2) and 7).

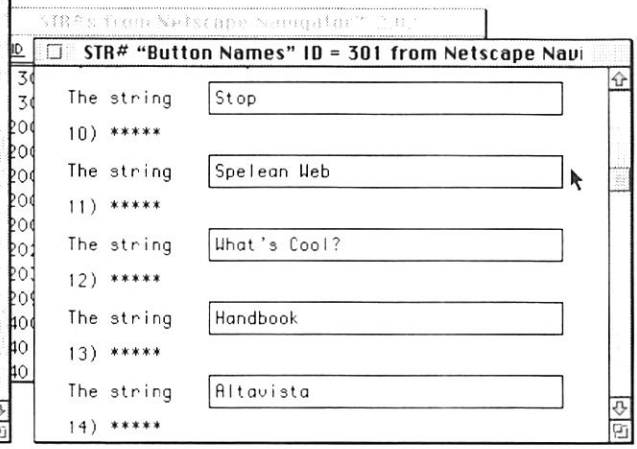


Figure 3. These STR# resources are the names of the buttons. Note 10) and 13).

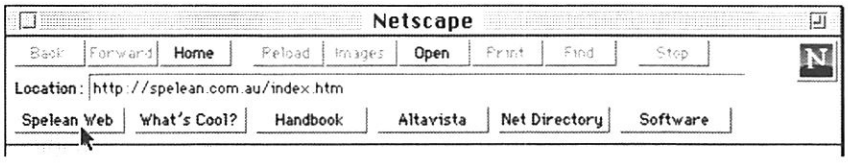


Figure 4. Here's how my copy of **Navigator** looks after the changes. Note the first (indicated) and fourth buttons.

Finally, close each open window and, when *ResEdit* asks you to **Save Changes**, do so. The ID numbers to change are the same in both *v2.0.2* and in *v3.0.1* and are likely to be the same in other versions. Enjoy!

YOURS FREE!



Get a FREE *MacUser* carry case (rrp $49.95) and SAVE up to 25% OFF the cover price by subscribing now.

ACT NOW and get this MacUser carry case
FREE

HURRY! offer closes 30 Aug 97

***MacUser's* product evaluations are second to none. We constantly inform our readers about the strengths and weaknesses of the latest hardware and software developments.**

Plus we help with trouble-shooting and power-user hints and tips.

Written in plain English with easy-to-read layouts, *MacUser* will keep you a step ahead.



YOURS FREE!



☐ **10% OFF** 12 months $59

☐ **25% OFF** 24 months $99

☑ **YES PLEASE, Start my subscription to *MacUser* and send me my FREE carry case.**

Name

Title

Company

Address

Postcode Phone (BH):

☐ MY CHEQUE MADE PAYABLE TO NICHE MEDIA IS ENCLOSED.

☐ PLEASE DEBIT MY CREDIT CARD. ☐ BILL ME LATER.

CREDIT CARD TYPE EXPIRY DATE

CREDIT CARD NUMBER

SIGNED

Niche Media,
Reply Paid No 2,
PO Box 2135,
St Kilda VIC 3182

FREE Fax to
1800 802 326

For credit cards
(03) 9525 5566

Annual cover price is $66.45. Your subscription will start with the next available issue. Your free gift will be shipped after payment has been received and will arrive separately to your magazine. Please allow 30 days.

CLUB MAC

Club Mac

Notice
Annual General Meeting
Club Mac Inc.

In accordance with Paragraph 5.12 of the **Constitution**, notice is hereby given to all members that the **1997 Annual General Meeting** of **Club Mac Inc.**, will be held on Wednesday, 15th October, 1997, in the Fred Hutley Hall of North Sydney Council Chambers, MacLaren Street, North Sydney, commencing at 6:30pm.

The Regulations also require that the meeting agenda shall be included in the notice of meeting. Accordingly, the following shall be the agenda:

Agenda

1. Apologies.
2. Minutes of previous **Annual General Meeting**.
3. President's Report.
4. Treasurer's Report.
5. Secretary's Report.
6. Election of Management Committee in accordance with paragraphs 4.6 to 4.14.
7. Business for which due notice has been given in accordance with paragraphs 5.14 and 5.15.
8. Declaration of polls.
9. Closure of Meeting.

Any matter for inclusion under item 7 must be in the hands of the **Secretary** no later than 13th September, 1997. Under the **Constitution**, the meeting is unable to deal with any matter for which due notice has not been given.

Positions to be filled under item 6 are as follows:

- **President**
- **Vice President**
- **Treasurer**
- **Secretary**
- **Purchasing Officer**
- **Public Domain Secretary**
- **Three ordinary members.**

A **Nomination Form** is provided below. Under paragraph 4.9 of the **Constitution**, to be eligible for election, a person must have been a financial member of **Club Mac** for at least twelve calendar months, be nominated in writing by two other members and accept that nomination in writing.

The nomination must be in the hands of the **Returning Officer** no later than 15th August, 1997. Should insufficient nominations be received by that date, further nominations shall be received from the floor of the meeting. Under paragraph 4.8, no person may be nominated for more than one position on the Management Committee.

Following the meeting, refreshments will be served and members will have an opportunity to meet the newly-elected Committee members.

to avoid damaging your magazine, photocopy this Nomination Form

1997 Nomination Form

Nomination Forms, duly signed as required, must be in the hands of the **Returning Officer, Club Mac Inc, GPO Box 4523, Sydney, 2000**, no later than Friday, 15th August, 1997.

Nominator

I, _____ being a member of Club Mac Inc., nominate:

_____

for election to the position of _____ on the Management Committee of Club Mac Inc.

Signed _____ Date _____

Seconder

I, _____ being a member of Club Mac Inc., second the above nomination.

Signed _____ Date _____

Acceptance of Nomination

I, _____

being a member of Club Mac Inc., for at least twelve calendar months, accept nomination for election by the 1997 Annual General Meeting of Club Mac Inc., to the position of

_____ .

Signed _____ Date _____

Committee Job Descriptions



You are thinking of nominating for a position on the Club Mac Committee of Management but are not sure what is involved? Right! Club Mac Secretary, Piers Dunkley, has created a very concise description of each position's responsibilities. In giving MACinations *these job descriptions, Piers said, "I hope that by publishing these we can persuade more members of the Club to be part of the day to day management and by this means ensure the continued well being and growth of the Club. But please bear in mind that these descriptions are not meant to be exhaustive."*

President

The Chief Executive Officer of Club Mac Inc. Sounds great but, in fact, the responsibilities of the President boil down to presiding at meetings, presenting the Annual Report to members and promoting the Club and its activities by representing it whenever and wherever needed. In addition to this, of course, the President is also an executive member of the Committee of Management.

Purchasing Officer

This officer has responsibility for purchasing all software and hardware required by the Club, whether for administrative purposes or distribution to members.

"Ordinary" Committee Members

There are three "Ordinary" Committee Members. Their responsibilities range from assisting the SYSOP (System Operator of the Club Mac Bulletin Board Service), acting as Public Officer of the association or performing any of the duties of the appointed Committee members.

Secretary

The primary duty of the Secretary is keeping records of meetings and non-financial records that are required by law to be kept. Although the Constitution of Club Mac states that the Secretary must keep a register of members, this task has been delegated to the Club Administrator. Currently, the Secretary acts as Catering Officer for the Club and does any other duties required by the Committee.

The Vice President

The Vice President has two major roles on the Committee: firstly to exercise the powers, functions and duties of the President in his/her absence; and secondly to keep a watchful eye over the whole operation of the Club and suggest actions which will accelerate its progress.

The VP represents the Club as the opportunity arises and liaises with members. The position is excellent for somebody whose potential contribution to the Club is large but whose time is a little limited.

Public Domain Secretary

The PD Secretary's first responsibility is to fill PD orders. This means duplicating disks from a CD, from disk images or from a hard disk. The PD disks are then mailed off to whoever ordered them. Also a file is kept on all orders and mailing dates.

Because of the way Club Mac operated when it was formed, the PD Secretary has a second responsibility as Deputy to the Secretary. Other duties include the creation of disk images and making sure there are enough blank floppy disks to fill orders.

Treasurer

The Treasurer keeps a watchful eye over all income and expenditure and keeps the financial records and accounts in good shape.

The Treasurer provides each Committee Meeting with a report on all financial transactions since the last meeting and provides financial advice on proposals before the Committee.

Finally, the Treasurer presents to the Annual General Meeting an audited statement of income and expenditure and complies with statutory tax and financial statement requirements.

Club Mac

Piers has promised that he will give details of some of the duties of the appointed members of the Committee (as distinct from elected members) prior to the Annual General Meeting.

So come on, let's hear from you! New blood is always welcome on the Committee. It leads to a much more proactive Club and stops long-standing members feeling indispensable!

The Nomination Form for the Club Mac Annual General Meeting is on the opposite page.

From the President



Through spending quite a bit of time lately installing *System 7.6.1* onto my computers, I am beginning to have some familiarity with the vagaries of Apple's new **Installer.**

Why is it that, given the obvious brilliance of Apple's *System* programmers, when you do a Custom Install and carefully select and de-select the parts of the *System* you want, the "new improved" Installer still does what the old Installer did – ignores your selections and installs all the stuff you ***didn't*** want?

Why is it that the Installer is sufficiently unintelligent that, despite knowing which Mac it is being installed on, it still installs stuff which isn't relevant and can't be used on that Mac? I'm thinking of things like *PPC Libraries* being installed on 68K Macs, or *A/ROSE* being installed when the card it drives isn't installed, or vast numbers of printer drivers being installed.

Apple Remote Access is similarly cavalier in installing vast numbers of modem descriptions when most users have just one modem.

Have you noticed that the *Finder* is missing some features? Most beginning programmers are taught to create and maintain a list of open windows for their application, and to display these in a Windows Menu. Most software does – except the *Finder!* Often I've had to shift windows out of the way and burrow down to the one I want. Surely Apple can put a Windows Menu in the *Finder* and, perhaps, even add some options to tile open windows?

Another feature that's missing from the *Finder* is a simple way to switch (from the keyboard) between open applications. At the moment you must use the mouse and travel up to the Applications Menu on the top right of your Menu Bar. This is a drag if all you want to do is swap back and forth between two applications while copying and pasting. There are ways around it, but you need other software to do it.

I regularly set up *QuicKeys* to do this using **Control-Shift-'** and **Control-Shift-Option-'** as the shortcut keys. Those of you who remember pre-*MultiFinder System* software will recall that there was a slick way to do this way back in the mid-'80s, but it's disappeared from our modern *Finder*.

My final request is for a simple way to jump back to the *Finder* and hide all other open applications' windows, preferably as a keyboard shortcut. To accomplish this, you have to use the Applications Menu again to select the *Finder* then use the Applications Menu to select **Hide Others.**

Why do I want to do this? Simple really, I want to eject a CD (or other removable disk) without having the *Mac OS* continually ask me to reinsert it – which is the consequence of using the **Eject** command in a dialog box.

Andrew Pavey



From the Editors



As we went to press, we learned of the sudden resignation of Gil Amelio as Chief Executive Officer of Apple, clearly not anticipated by Apple's Steve Vamos when he addressed Club Mac less than 24 hours earlier. Naturally, the headlines on Friday and Saturday, 10th and 11th July, as the new broke, showed the usual carnivorous delight of computer journalists.

But is this news really bad news for Apple?

Ever since the introduction of the Macintosh, the media has been predicting Apple's downfall. Equally, ever since then, Macintosh users have been questioning the predicted gloom.

When Amelio took over the reins, it is true that Apple was in trouble. In his farewell message to Apple staff, he pointed out just how much trouble:

(a) A shortage of cash and liquidity;
(b) Poor quality products;
(c) Lack of a viable *OS* strategy;
(d) A corporate culture lacking in accountability and discipline; and
(e) Fragmentation – trying to do too much in too many directions.

There are few who could argue.

According to his message, however, Amelio believes that the company has addressed most of these problems and is poised now to take advantage of the improved performance.

Sadly, the market and the shareholders do not seem to agree with him. Has Apple been listening to its customers?

The last meeting of Club Mac was a rare Apple event. Around 100 members were able to ask Steve Vamos (Apple Asia-Pacific) their own questions.

It was lively and many of the questions were direct, uncompromising and, at times, embarrassing to Mr Vamos. Yet not once did he side-step a question and, despite obvious differences with some, he left the Club with the clear impression that this Executive does listen to the customers.

In the meantime, we wait to see what happens. The best reassurance we have is that the Mac – that which binds us together as a Club – is still the best computer around, no matter what task is asked of it.

Tom Pardy and Rose Marshall
Co-Editors

Networking with Macs

©1997 Rosalie Marshall, Lynda Kelly and Andrew Pavey

In the July, 1997, issue of MACinations, *Co-editor Rosalie Marshall introduced our readers to the basics of networking, explaining how Macintoshes are ideally suited to networking with the necessary hardware built-in and the basic networking software provided with the* System *software. She also outlined the essentials of* AppleTalk *but also indicated that it has its limitations. In this article, she introduces us to the advantages and potential problems of an Ethernet network.*

Part 2. Bigger Networks – Ethernet

by Rosalie Marshall

A *LocalTalk* network is satisfactory for low traffic, small networks. It can become inordinately slow, however, when traffic increases and a large number of Macs and printers are connected.

Ethernet is a fairly costly investment, but well worth it where the efficiency of the network is compromised and where geographical distances prevent all potential nodes from being brought online. Similarly, Ethernet can be the solution if you wish to connect PC equipment, create small localised sub-networks as part of the greater whole or introduce an Intranet.

Computers are connected with cable that links from interface card to interface card. Ethernet networking uses a coaxial connector to each interface card on each node in a network and, commonly, each T-shaped connector has a terminator. A hub is the central point for the cables attached to each network interface card.

Hubs may have connectors for coaxial cable, fibre optic cable and twisted pair wire and they may be located throughout the Local Area Network (LAN), servicing each geographical point – or there may be one hub for the whole network. Figure 1 shows a typical Ethernet hub.

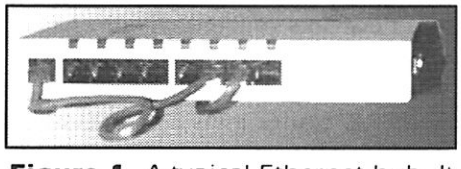


Figure 1. A typical Ethernet hub. It can handle twisted pair, fibre optic or coaxial cables.

Ethernet can provide (theoretically) for up to 1,024 stations at a data rate of 10Mbps. Ethernet is a series of protocols which describe how digital signals are transmitted and how computers access the connecting cable.

Each node's interface card in an Ethernet network has a processor and instructions stored in its memory to move data to and from the computer's memory over the internal parallel data bus, and to send and receive data on the serial network cable.

There are three main types of Ethernet cabling:

- **10BaseT** (twisted pair) which is an unshielded twisted pair wiring similar to telephone wire;
- **10Base2** (thin wire) which uses coaxial cable;
- **10Base5** (thick wire) which uses a twin coaxial cable with a 15 pin connector, permitting 200 devices to be connected.

As described in the previous article in this series, most Macs are Ethernet-ready and – after the installation of the Ethernet network cables and hubs – require only a connection or card to bring them into a functioning Ethernet-based network. Not only do your options for expanding the network increase by using Ethernet, you also derive pay-offs in terms of speed and reliability.

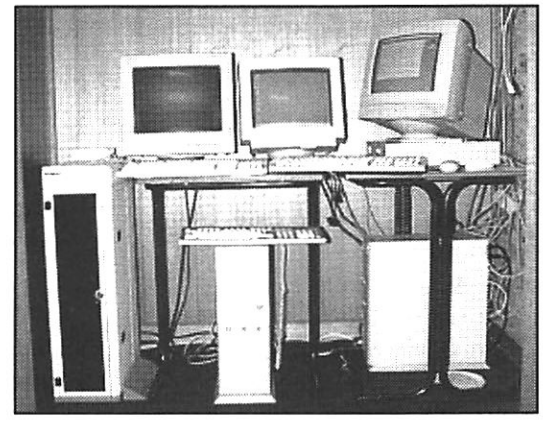


Figure 2. The three machines in this small room are the CD-ROM, **Windows NT** and **AppleShare** servers for the network. The tower at the left contains 12 CD drives.

Plan ahead!

Before installing an Ethernet network, it is imperative that you do some serious planning – not only for the location of network wall plugs and hubs, but also to allow for possible future expansion and to ensure that existing network specifications will be assimilated into the new, expanded network.

The planning stage is the time to consider dedicating (see Figure 2) one or more Macs to:

- **File serving** – a Mac acts as a remote hard drive for multiple users using multiple files and applications;
- **Print serving** – a Mac performs the role normally assigned to a print spooler on a stand-alone Mac. It can organise printing jobs for multiple printers and this is a real time saver;
- **Fax serving** – one Mac on the network acts as the reception point for all faxes sent from individual nodes on the network.

As the fax server receives requests from the network, it queues them to send via a one modem, one phone line connection; and/or

- **Mail serving** – one Mac performs the role of e-mail receiver and storage. There is no need to dedicate a high-end model, we are about to trial an LCII at my school.

The machines currently in use as servers on my school's network can be seen in Figure 2 – though not all of them are Macintoshes.

Managing the network

With an Ethernet network of any reasonable size, it is probably going to be worthwhile investing in software with greater capabilities than Apple's built-in sharing.

It is possible to work with the existing software (just be sure to custom install *Ether-Talk* from your *System* disks) and the network will function. But, if you've chosen to dedicate a Mac on the network to file sharing, it's probably time to start thinking about more specialised sharing facilities.

I've found that both *AppleShare Administration (ASA)* and *At Ease for Workgroups 3.1* are sound applications for all but the largest of local area networks.

There are many administration programs around and it is well worth seeking the advice of a networking specialist to ensure that you get an application to suit your specific needs.

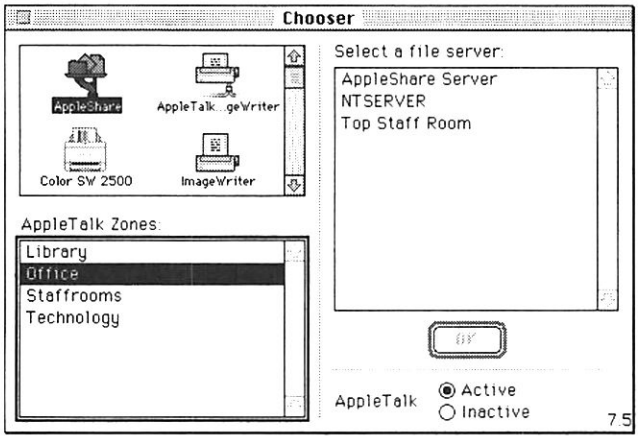


Figure 5. Select zones from within the **Chooser**. Zones permit parallel but separate data flow through the network.

As with the file sharing, user and group creation and assignment of privileges from within Apple's *System* software, *ASA* and *At Ease for Workgroups* offer very similar functions (albeit much easier to organise) and have interfaces that will be familiar to any Mac user.

It is important to remember that the basic privileges of *LocalTalk* must still be applied

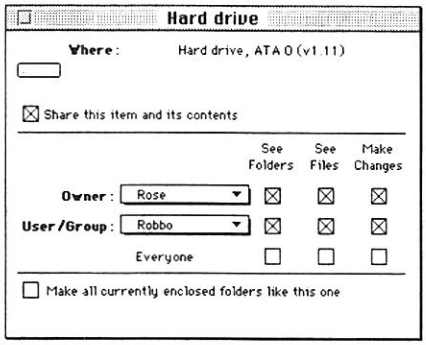


Figure 4. Sharing the contents of a hard disk.

by individual Mac owners if the contents of their hard disks are to be seen across the network (see Figure 4). Communication occurs independently of file sharing.

Programs such as *ASA* and *At Ease* provide for tidier whole network administration with organised access to a File Server/s; and they allow the network administrator to observe user activity across the network and to allocate resources to optimise use and speed.

Zones, which are literally laneways for traffic to travel along, can be assigned across an Ethernet network. Macs communicating within a particular zone do not affect the traffic in other zones.

Nodes can communicate cross-zones (should the network administrator permit this) but, in a well-planned network, zones can keep traffic humming along in parallel, optimising speed and reducing data collisions that can cause the network to hang and users to be frustrated. Again, planning is needed!

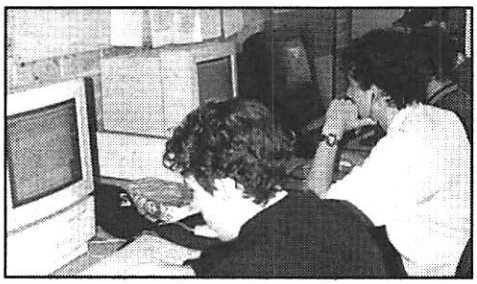


Figure 3. Three different Macs, all networked and used by students.

Logging on

Logging on to an Ethernet network is very similar to logging on in a *LocalTalk* network. First choose the *Network* Control Panel and select Ethernet (see Figure 6), then follow the steps described in the July issue of *MACinations* for a *LocalTalk* network to log on to another Mac on the network.

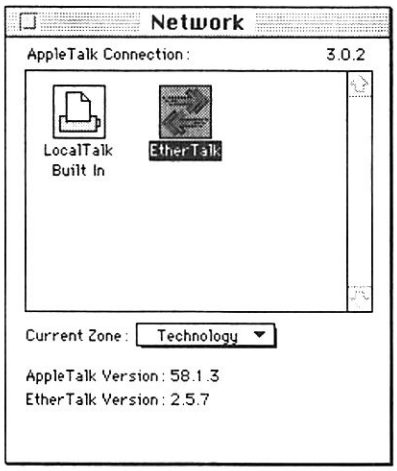


Figure 6. **EtherTalk** is chosen in the **Network Control Panel**.

Mac and PC talk

Adding PC machines to the Ethernet network or joining several subnetworks together requires hardware and software devices known as routers and bridges.

A **router** joins networks of different types – this may be a **Token Ring** and an Ethernet network. Routers route data along the best available pathway, depending on

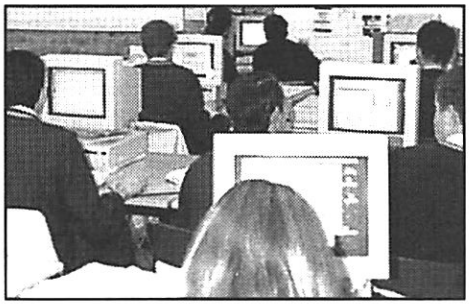


Figure 7. Part of a classroom full of computers – all networked.

the traffic level and the number of current connections to the network.

A **bridge** connects networks of the same type. A software bridge such as the *LaserWriter Bridge* will, for example, allow a *LocalTalk* Mac to send data to a printer that is on the Ethernet network.

For example, in one area of the network you may have an older Mac separate from the Ethernet-based nodes, but want it to be able to print to a nearby laser printer that is on the Ethernet network. The bridge enables that. Network traffic still continues to move along while the *LocalTalk* based Mac sends print data direct to the shared laser printer.

A bridge can also allow network traffic to pass between zones. In this case, the bridge links nodes together but only allows specified traffic to pass between the different zones or systems. A router, which is a more sophisticated device, can read more complex network addressing information and transmit, not only between different segments of the LAN, but also across different platforms.

A **gateway** allows a link between different platforms. It can translate message formats such as those in e-mail messages and direct them from the fast local-based Ethernet network to a slower transportation medium such as a leased line or a modem on a telephone line.

Open Transport

The introduction of *Open Transport* on Power Macs and some older Macs makes multi-protocol networking easy. Let's assume, for example, that a node on the network can run *LocalTalk*, Ethernet and *TCP/IP*, according to the task being done. With *Open Transport*, it is possible for users to switch, say, from using an adjacent printer on *LocalTalk* to the Ethernet network and then switch again – using *TCP/IP* – to the Web site within the network.

It is as simple as accessing the *Open Transport* Control Panel within the Apple Menu and then switching the settings without having to reboot. *Open Transport* also offers some evident speed increases and, in later versions, undoubted improvements in stability.



Figure 9. The information given after choosing the **EtherTalk** network as in Figure 6.

Intranet

An Intranet is a local area network based on Internet technology. In fact, Intranets can use the same software and similar protocols to those used for accessing the Internet. E-mail exchange, file transfer and the ability to access Web pages are all parts of Intranet technology.

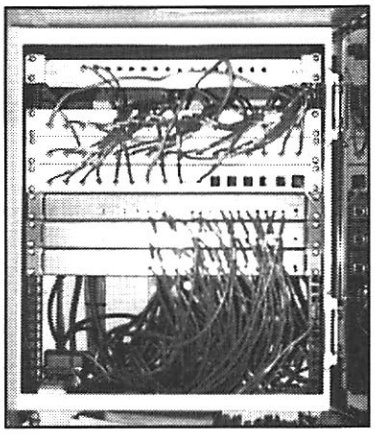


Figure 8. Another type of hub – compare this monster 40 node one with Figure 1!

Originally, Intranets were closed environments, allowing for file exchanges on a local area network. Increasingly, the Intranet is becoming an open ended system, often with a Net modem attached that gives access to the outside world – such as the Internet.

All or part of the Intranet may

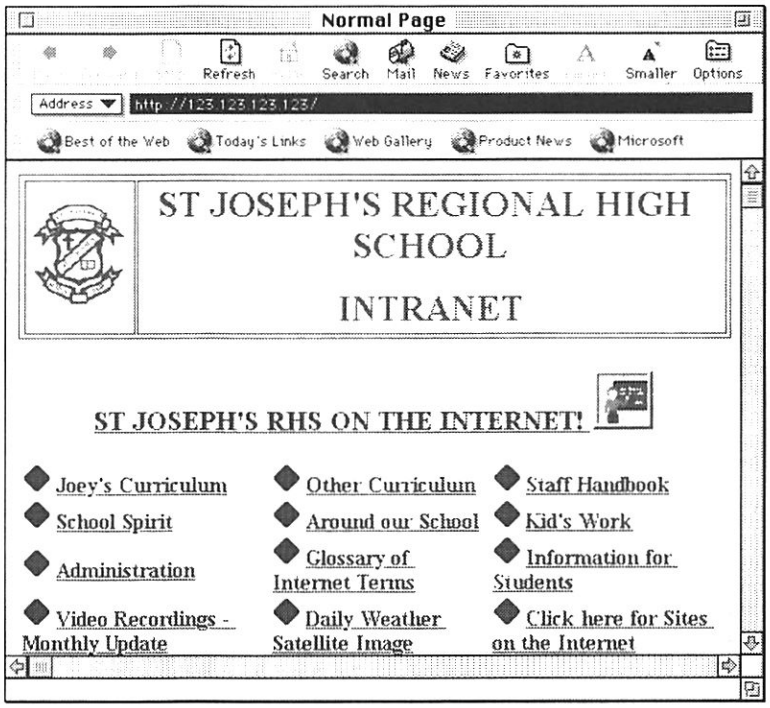


Figure 10. The Home Page of an Intranet that is open-ended and ready for the Internet.

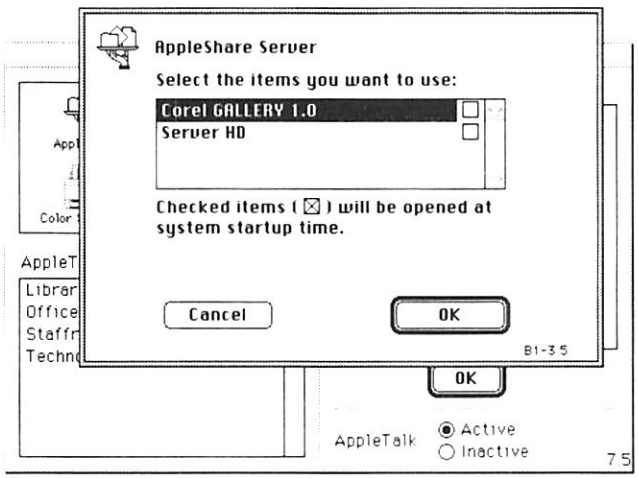


Figure 11. Having logged on to the server through the **Chooser**, select the disks to which you want access.

be made available on the Internet and this development has been responsible for many of the changes in commerce and business practices that we are seeing on the Internet.

A Net modem is a cost effective means of making the Internet and other modem communications available to a large number of users on an Intranet or other local area network. A Net modem requires only one telephone line but it can be shared across the network, just as a laser printer, for example, may be shared.

The Net modem can be assigned to particular users and they access it – as they do other devices – through the *Chooser*. As well as being available for dialling out, the Net modem can permit dialling in from workers (and assigned others) who are outside the network.

Net modems are more expensive than standard modems and, because they are shared, the transfer speed is reduced when more than one person accesses the modem at once. However, technology is developing even as you read this and faster Net modem access is becoming the norm even when multiple users are connected.

Net modem service is offered through many existing Internet Service Providers (ISPs) and they will usually offer a lease or purchase package where the lessee/purchaser gets a leased line connection (which never switches off – theoretically) and often, one's own Domain Name.

The next step is one's own super-fast ISDN direct connection to the Internet, but that is beyond the scope of this article – well, until we convince the boss to upgrade!

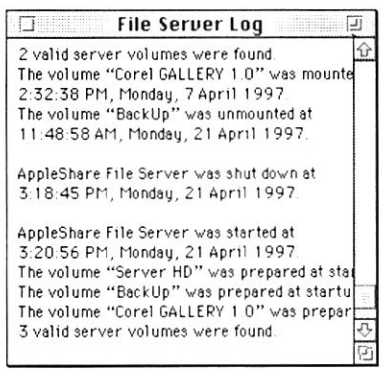


Figure 13. The File Server log provides the administrator with ongoing information about the on-going status of the system.

In summary

The installation of a network is something that can happen by trial and error. This is not recommended where there is going to be high traffic and numerous nodes. Planning is vital to the success and efficiency of any network.

If you are planning to establish a network, take the time to work out exactly what your current needs are and what your future needs are likely to be.

Analyse your existing hardware and work procedures, establish exactly what knowledge your current users have and then, with the help of a consultant (or experienced friend if finances are limited) determine what configuration is going to best meet those needs.

If you are going to install an Ethernet network, always allow for more than the existing nodes and, in either type of network, give serious consideration to dedicating one or more Macs to file or print serving, depending on your specific needs.

The installation of an Intranet, particularly if it is to incorporate a Net modem, places heavy demands on a network and it is unlikely that, for all but the very smallest of networks, *LocalTalk* can support this with any real speed.

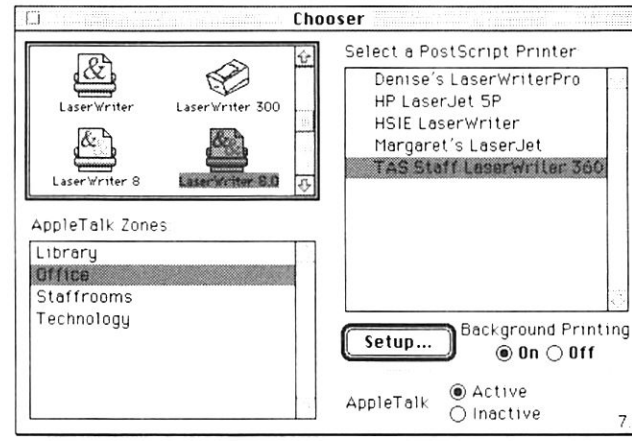


Figure 12. Logging on to a shared printer on a network using the **Chooser**.

A high-end Mac or Apple WorkGroup Server can be a very worthwhile investment. It takes the burden off existing nodes and allows for the optimisation of speed and efficiency. A slow network frustrates users and, in the end, leads to reductions in productivity. A lease arrangement can overcome many of the problems inherent in heavy investment, also providing benefits in terms of repairs and replacements.

Club President, Andrew Pavey, will write the next article in this series. Andrew uses a network in a very different circumstance to Rose and brings another perspective. Then, in the final article of the series, Lynda Kelly will write specifically about Intranets.

Kaleidoscope

a review for the overly cautious or the visually inhibited

Review © 1997 Carl Vine

Product:	*Kaleidoscope v.1.7*
Category:	GUI appearance editor
Publisher:	Amargaso Software Inc., USA
Avail from:	Club Mac BBS
Cost:	$US20 shareware

Many of you have already discovered *Kaleidoscope* and are revelling in its wonders. If you fit into this category, then you already know most of what this article contains, though you may not know that there are now something like 1,000 individual colour schemes available for *Kaleidoscope*.

If you've tried it and decided that it's not worth the effort or possible waste in processor time, then I'd recommend you look again at the latest version (now available on the Club Mac BBS). It is noticeably faster, is accelerated for PowerMac, and imposes no speed degradation – that I can perceive – on a PowerMac 6100/60.

What Is It?

Kaleidoscope is what happened to *Aaron* when he grew up. And if you've been living under a mattress for the last three years, *Aaron* is a neat little *System* Extension that replaces the entire visual interface of good old *System 7.xx* with the "*Copland*" look, which has since become *Mac OS 8*.

Aaron, when placed in your Extensions Folder, automatically forces every window, dialog and menu to emulate the "*Copland*" look, and replaces the ubiquitous Chicago font with the much nicer EspiSans font. *Aaron* has just two drawbacks, (1) it only gives you one possible "look"; and (2) you have to restart to see the new interface.

The makers of *Aaron* – Greg Landweber, Fred Bass, and Edward Voas – discovered a way to make System-wide alterations to the Graphic User Interface (GUI) while the *System* and other applications continue running. And so *Kaleidoscope* (*KS*) was born.

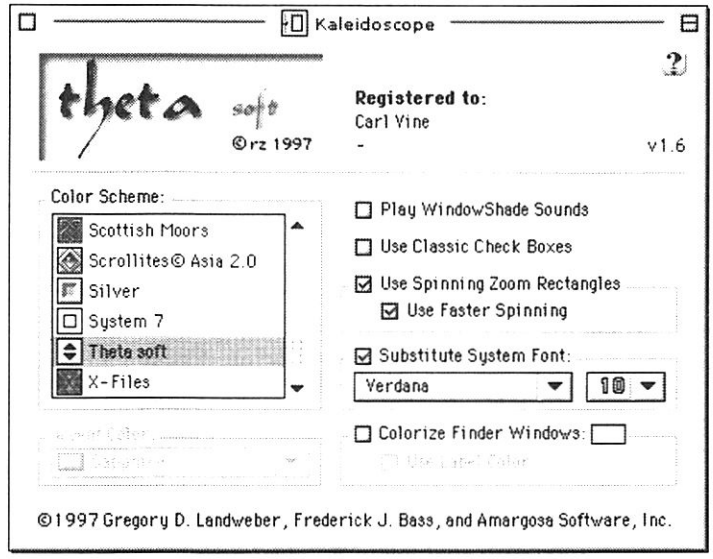


Figure 1. The Control Panel for **Kaleidoscope** is simple to follow.

With this new potential, there is no reason to limit the number of GUI schemes, so you can make your Mac emulate the *Copland*, *NeXT*, *Win '95* or any one of hundreds of GUI interfaces at the click of a few buttons – and all while you're still working!

The details

I should begin by pointing out that, although *KS* should work on monochrome (black and white) systems, the possible variations are severely limited, and there may be little point in using it on anything less than a 256 greyscale monitor. If you're just tired of the Chicago font, then *Aaron* should do what you want in monochrome.

Kaleidoscope (see Figure 1) is a simple Control Panel that lets you choose a replacement for:

(1) Sounds that play when you click the *Window Shade* widget;

(2) The *System* font – from any available font (though only **Tecton**, **EspiSans**, **BeBox** and **Veritas** – all provided with *KS* – are designed to work reliably in menu selections);

(3) The background colour of all windows in the *Finder*;

(4) The overall "scheme", which includes the design, shape and colour of buttons, checkboxes, all window scrolls and controls, menu patterns and colours, and the shape and texture of the speed-stripe along the top of *Finder* windows.

You can see from Figure 1 that available schemes are simply chosen in the scrolling list on the left.

Plenty of variety

When you click on a new scheme ("Theta soft" is shown selected), the Control Panel immediately shows its effect but, at the same time, the menu bar and every other open window also display the new scheme.

You can navigate around the

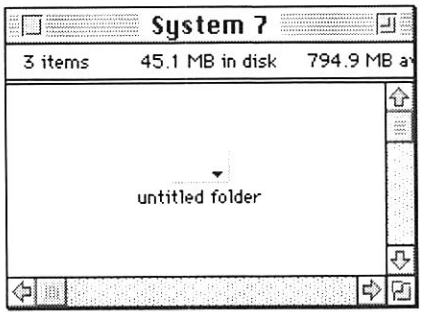


Figure 2. The standard **System 7** appearance we all know and love!

Finder and try various operations, examining the effect of the scheme while *KS* is still active; select a new scheme and do the same; and so on – all of this without restarting, and without having to close *KS*.

Figures 2, 3 and 4 give you some simple examples. The one shown in Figure 4 is one of my personal favourites in the greyscale family, as everything (including menu items) comes with a felt-textured cover that just makes you want to reach out and touch. You will also notice (in the enlargement at the top) that the window title has a drop-shadow, but schemes can also choose plain or embossed window titles as in "Cecil" (see Figure 6).

Kaleidoscope schemes can specify these attributes as well as a texture or other image in the title bar, or you can choose between colour or texture for the menu bar and menu items. If a scheme includes textures with the right identifier, they will automatically replace the *cicn* resources that *KS* usually uses to draw these objects.

Adding newer schemes

If you find a new *KS* scheme on the Web (or on our BBS), simply expand or unstuff the file and move it into the *Kaleidoscope Color Schemes Folder* inside your Extensions Folder. There is no need to restart. Just open the *KS* Control Panel and see how the new scheme looks right away!

Bear in mind that I made these preview pictures while I was writing this article, with the *Kaleidoscope* Control Panel open, switching willy-nilly between colour schemes and taking screen snapshots in the *Finder*.

Potential conflicts

Although there are some remaining conflicts with *KS*, it remains a masterpiece of robust *System*-level programming. There is a substantial conflict with *FrameMaker* – which is supposed to be fixed in more recent versions of that program. *Suitcase 2.1.4* will complain unless it is loaded ***after*** *KS*, so just move *Suitcase* into the Control Panels folder and it will work fine. (The problem is fixed in *Suitcase 3.x*.)

Some other programs can't handle all of the features that *KS* provides, but this is generally because they override or ignore the normal *System* interface in the first place. And, what's more, the latest version of *KS* (*1.7* at time of writing) is already guaranteed to work under *Mac OS 8*!



Figure 4. This is my favourite, "Hannah's Super-Grey", with the title bar enlarged to show detail.

Watch out for...

Most of the available *KS* colour schemes are Public Domain and have been hacked together by eager teenagers excited by the possibilities. Some assault both the eye and the intellect, while others haven't followed all *KS* guidelines and contain resources that do not have both *sys heap* and "purgeable" bits set. This can cause odd *System* behaviour in some circumstances, and, at worst, a *System* crash – but I've never experienced this problem and, if there's a new *KS* scheme

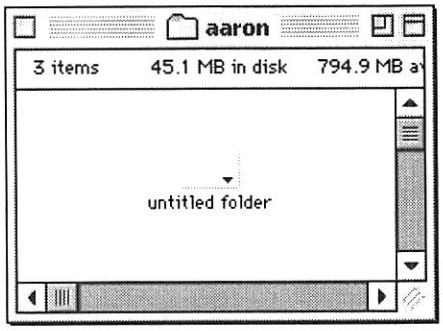


Figure 3. Aaron introduced the "**Copland**" look to us.

out there, I've tried it!

If you find a preferred scheme that appears to give trouble, just get *SchemeChecker*, which is available on the Club Mac BBS. It looks inside *KS* schemes, checking for bad bits and reports them thoroughly. If you want to keep using the scheme, then you must use *ResEdit* to set the resource attributes correctly. Future versions of *SchemeChecker* promise to do this for you automatically.

Also be aware that you must never alter a scheme while it is currently selected in *KS*. This will invariably crash your *System* (though you can always alter a copy of the scheme when the copy isn't selected).

Worst case...

The worst thing I've experienced on *KS* is waiting for some frathouse ISP in Boise, Idaho, to deliver a 70K scheme in 40 minutes, only to discover that it looks nothing like the preview and that even Stevie Wonder couldn't look at it for more than a few seconds!

I've trashed all of the most outrageous schemes from my collection and, although they are best (worst?) viewed in colour, Figures 5, 6 and 7 show a couple of the remaining "wild ones".

Icon sets

What I have not shown you in this article are the different icon sets available in many *KS* colour schemes. Any scheme that contains icon resources that match *System* icon numbers will automatically replace those icons on the ***next Startup***. Although I could have



Figure 5. Do you **really** want your windows to look like this?...



Figure 6. ...Or maybe even like this, perhaps?

shown these, it would have added a couple of hours to the process of taking screen snap-shots.

As always in the public domain, some icons are terrific and some aren't, but if you like a scheme and not the icons, just use the *Lite* version of *KS* (no icons) or delete the icon resources using *ResEdit*.

Conversely, if you have a favourite set of *System* icons, just add them to your preferred scheme so you don't have to hack them directly into your *System* file! (*System* icons are the little pictures used to represent items such as the Trash Can, generic or *System* folders, and any *System* or application files loaded on your Mac.)

Make Your Own

If you acquire the taste for customizing your GUI, you can also make your own colour schemes. Elementary instructions are provided with KS, but there are some Help files around like *Kaleidoscope for Idiots* that make the process a lot easier.

Remember that you can't create or hack a scheme while it's loaded, so you must make your changes and then select *KS* to view the results.

A new utility called *Scheme Preveiwer* lets you view the results of a new scheme without installing it, though the creators warn that it might crash if the resource bits aren't set correctly. (This should be fixed in newer versions). At the moment (*v1.2b2*), it doesn't show all button, menu or progress bar features of a scheme.

The easiest way to create a scheme is to modify an existing one, but be aware that, although a scheme might be Public Domain, it is not free of copyright and, if the changes aren't substantial enough, you may get angry e-mails from the original creator if you distribute your re-creation.

Where do I get it?

All of the files mentioned here (and dozens of others) are available on the Club Mac BBS, as well as the latest version (*1.7*) of *KS* itself. If you install *KS*, it gives you a warning sound and a cute little windoid on each startup until you pay the $US20 registration fee. (Or just $10 if you are a registered user of *Aaron*, *BeView* or *Greg's Buttons*).

These become infuriating enough to lead you to a credit card registration over the Web using the **Kagi Online Order Processing** service. The URL for this is **<http://order.kagi.com/?GL&S>** or **<http://order.kagi.com/?GL>** if your browser can't handle secure transactions.

If you don't like on-line credit transactions, then the *Register* application provided with *KS* gives you the option of e-mail, fax or snail-mail registration.

If you think that the Club Mac BBS is missing out on some schemes, then point your browser to **<http://www.kaleidoscope.net/schemes/new.html>**, which gives you a preview of a couple of hundred schemes in reverse chronological order.

This site has become the most comprehensive list of available schemes. You will also find a complete list of registered scheme creators who have Web sites of their own, and links to other Web sites that have individual selections of *KS* goodies. MacOver (**<http://www.macover.net/>**) used to have the best scheme collection, but they've fallen behind recently while waiting to appoint a new *KS* specialist.

Why?

Because it's possible! As I've written in other articles about the Mac Graphic User Interface, anyone who spends a lot of time on-screen eventually finds the graphic elements invisible (except for that disgusting Chicago font). It's a great diversion if you're feeling a bit gothic one morning to select a dark scheme with brilliant highlights, or to mellow out with *Ice* or *PaleIce*.

Mucking around with the GUI may not improve the quality of your work, but it sure makes the workplace a much more pleasant environment, and it definitely increases the sense of personality and ownership we enjoy in the most customisable GUI on the planet. ■

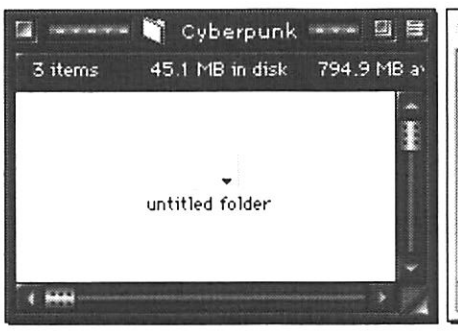


Figure 7. Maybe you could use this one on a bad hair day? But would you want to?

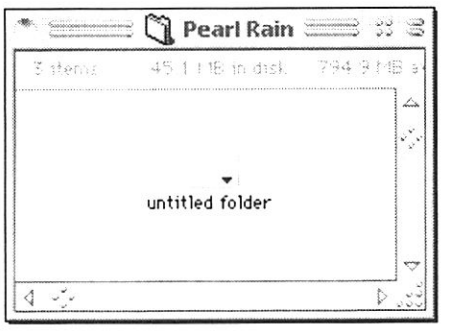


Figure 8. After some of the others, this one is almost a welcome relief!

E-mailing from FileMaker Pro 3.0 – for free!

Review © 1997 Hilton Brown

Product:	*Mondo Mail*
Category:	e-mailer
Publisher:	Acme Technologies
Avail from:	Club Mac BBS
Cost:	Freeware

I try to accomplish as many of my computer tasks as possible using *FileMaker Pro*. This allows me to take advantage of its many facilities, including its user-friendly interface, its relational capabilities, its ability to have *AppleScript* included in its scripts, and its recognition of *Apple Events*. By these means I can link my files in various ways, depending upon their nature.

One of my more recent aims has been to create methods of sending e-mail from, and importing e-mail into, *FileMaker Pro*. If I could do this, then I'd be able to store my e-mails as records in a database file and access them at a later time according to the recipient or sender.

In fact, all the facilities of a database would be available to me, including searches for text strings, dates etc. What's more, instead of saving each e-mail as a separate file (amounting to 13K of space each time on my 800MB hard disk), I could save them as a single record in a *FileMaker* file, reducing the space occupied on the disk by up to seventy per cent!

Some months ago I came across some freeware called *FileMAILER*, available from Faludi Computing at:

http://www.faludi.com/

This software required some other software called *TCP/IP Scripting Addition*. It is available from Mango Tree Software, Inc. at:

http://www. mangotree.com/

However, the latter was only available as a demo version with an expiry date, meaning that I had to download each new demo version before the old one expired or pay US$49 for the commercial one.

One day I was stumped because the period for using the demo version had run out but Mango Tree hadn't yet posted a new one. I explained my problem to Faludi Computing, and they were kind enough to point me in the direction of some freeware called *Mondo Mail*, available from Acme Technologies at:

http://www.acmetech.com/

and also now in the Club Mac BBS Library.

Acme Technologies is a publisher of tools for *AppleScript* and Macintosh Internet Servers. Other software from them includes the award-winning Acme *Script Widgets*, powerful *AppleScript* extensions for text and list manipulation; *WebDetour*, a RAIC-building tool and site management tool for Macintosh Web servers; and *FingerToys*, a Macintosh Finger daemon which offers endless customisation options through

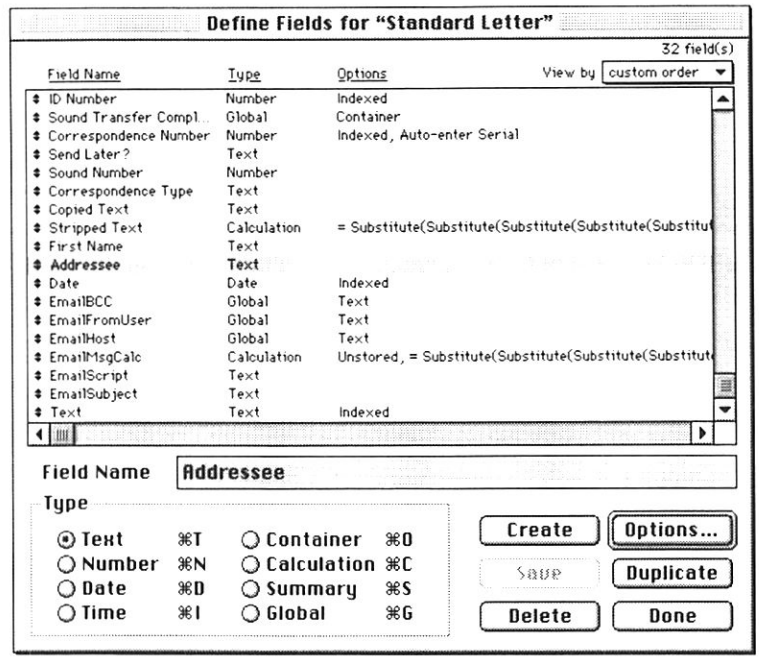


Figure 1. The last nine fields are required for **MondoMail.**

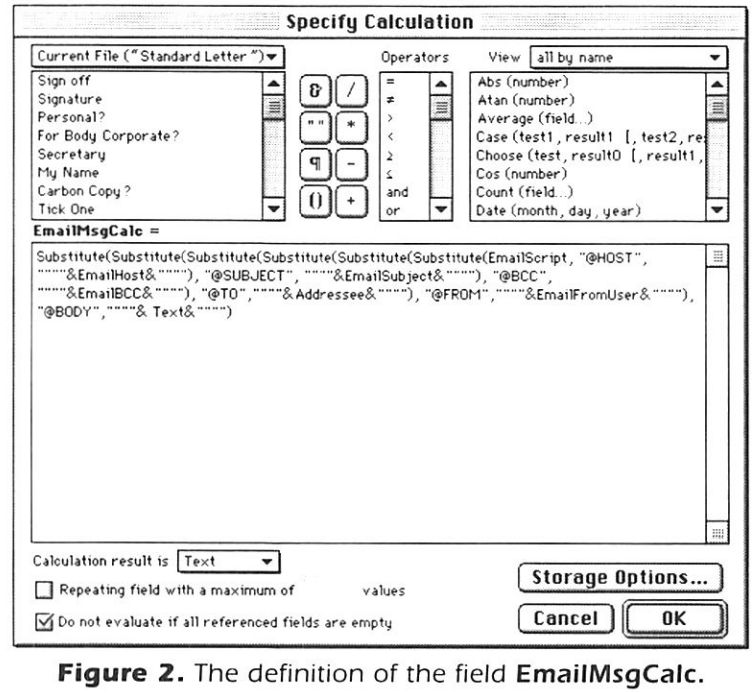


Figure 2. The definition of the field **EmailMsgCalc.**

finger Gateway scripts.

They also offer a number of free utilities from their Web site, including *MessageWindow*, a scriptable application for viewing text strings; *ColorFinder*, a utility for choosing colours for your Web pages by using an eye dropper to snatch the colour from your desktop; and *MIND*, a Macintosh Name Daemon (DNS server).

Mondo Mail is a simple scriptable (through *Apple Events*) mail gateway program which enables you to send e-mail from any application capable of sending *Apple Events*. It is provided free of charge as a public service. It comes as a FAT application (ie., it runs native on both PPC and 68K CPUs), but, of course, 68K testing has been minimal.

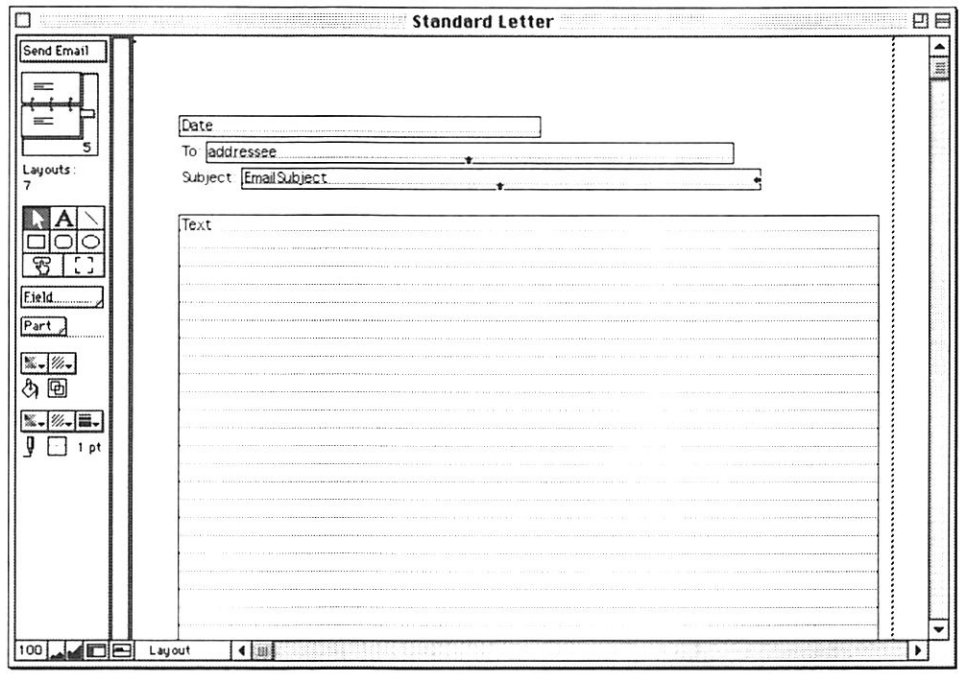


Figure 3. A layout showing fields to be filled in for each e-mail message.

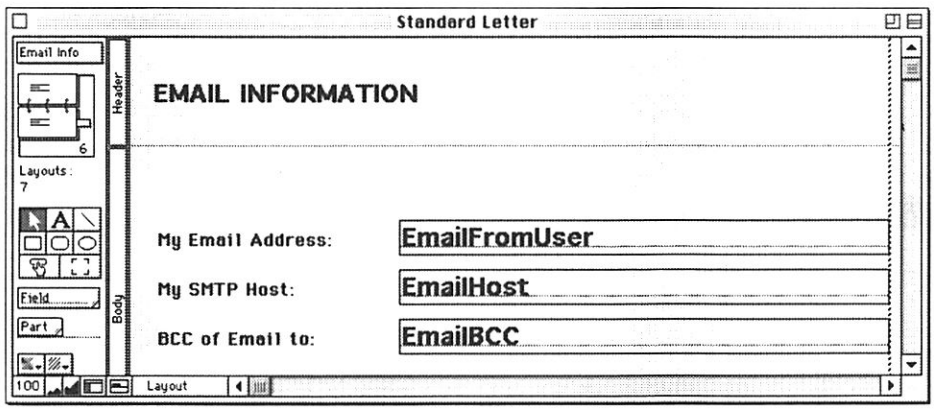


Figure 4. A layout for inserting and changing addresses as necessary.

In the balance of this article, I'll describe how you might set it up to be able to e-mail out of *FileMaker Pro*.

Firstly, you'll need to define some fields in the file in which you'll be writing your e-mail. In my case the file is called **Standard Letter,** and Figure 1 shows the nine fields required, starting at **Addressee.**

Figure 2 shows the calculation for the field **EmailMsgCalc.** I've created an e-mail layout (and have shown it in Figure 3), although there are other hidden fields.

I've also created another layout for entering or changing information related to my personal details. This is shown in Figure 4 in **Layout** Mode, and in Figure 5 in **Browse** Mode to give you an idea of what goes where.

By the way, "BCC" refers to "blind carbon copy"; a copy of the e-mail (of which the original recipient will not be aware) will be sent to the addressee shown in the field **EmailBCC.** For instance, I send a copy to myself at Club Mac to confirm that the transmission has been successful.

Now you'll need a script, like that shown in Figure 6, which lists the steps involved in sending your e-mail. The first **Show Message** says: "Do you have a connection with your Internet Service Provider?" and has the default button "No" and the second button "Yes".

Continued foot of p.24 overleaf

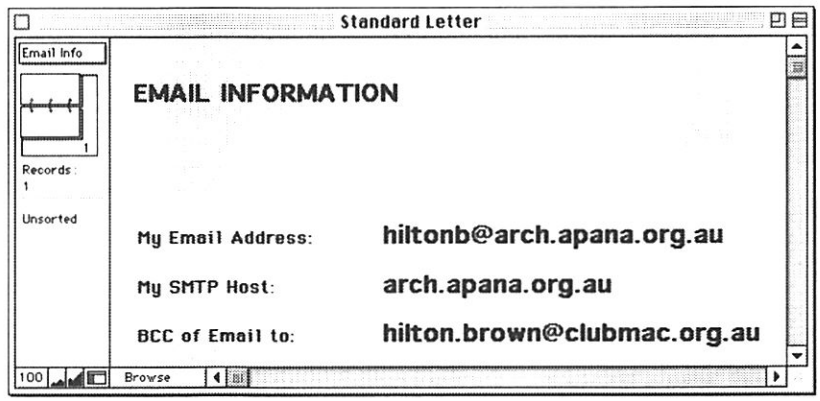
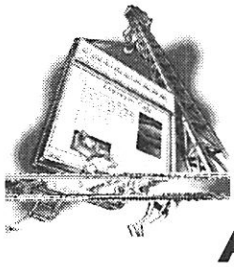


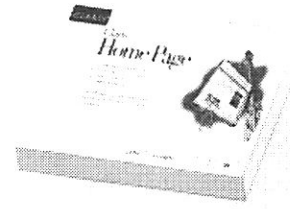
Figure 5. Showing examples of addresses for the defined fields in **Figure 4.**



MACinations Claris Home Page Competition Winner!

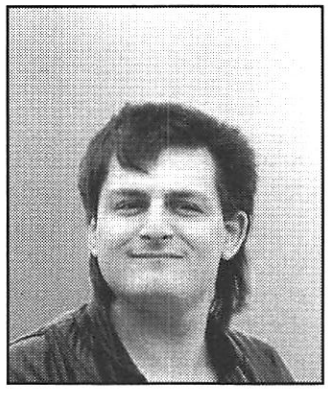
And the winner is...

In the June, 1997, issue of **MACinations**, a new competition was launched as a joint effort between Club Mac Inc., and Claris Australia. The prize was a copy of Claris **Home Page**, the popular **HTML** editing software reviewed in that same issue.



After careful evaluation, the judges have awarded the prize to...

Colin Lee!



Col submitted as, to quote from the Competition requirements, "an actual example of a URL", his own site at:

http://www.amfd.com.au

In commenting on the winning entry, one of the judges, Joe Mithiran, said:

> **This site is well laid out, has good graphics which download quickly and is rich in useful information. How could we go past something that's fast, informative and fun, particularly when Col Lee (along with his business partner) is one of the people who created it?**

Our congratulations to Col! He is a regular contributor to **MACinations** and an active member of Club Mac. He receives a brand new copy of Claris **Home Page**, courtesy of Claris Australia.

Mondo Mail review – cont from p.23

The **Paste Literal** step for **EmailScript** is:

```
try
tell application "Mondo
  Mail.fat"
send mail @BODY to @TO
  from @FROM BCC @BCC
  subject @SUBJECT smtp
  gateway @HOST
end
on error msg number eNum
display dialog "The
  following error was
  returned from MondoMail:
  " & eNum & return & msg
end
```

The remainder of the script steps are straightforward. Now all you need to do is create your e-mail, make your dial-up connection with your ISP, and invoke the **Send Single Email** script!

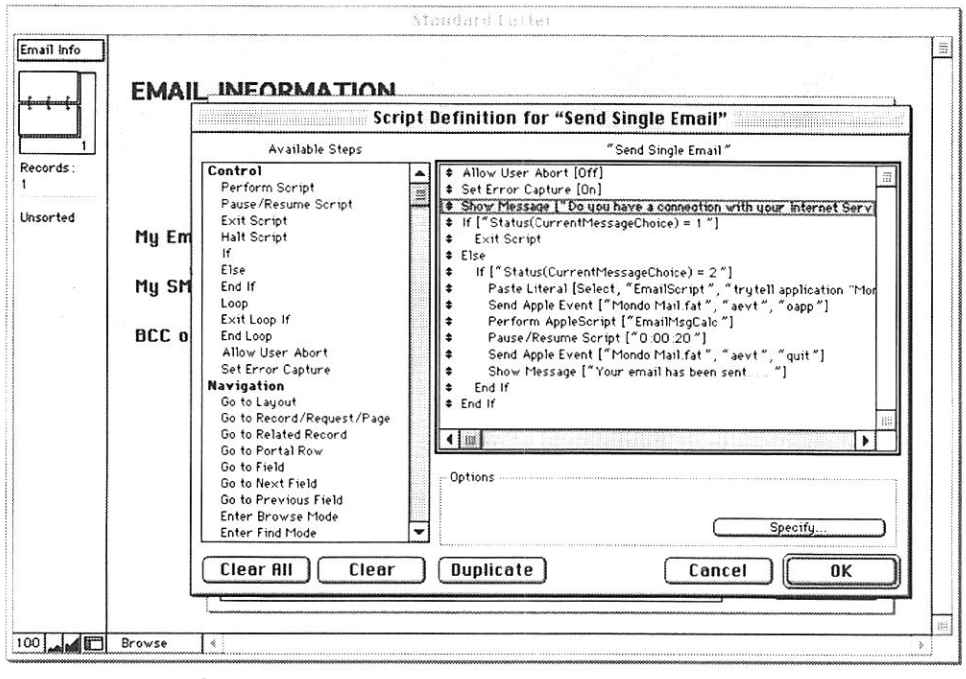


Figure 6. An example of the type of script steps needed to send an e-mail message.

Future articles

In next month's issue of *MACinations*, I'll examine the design of reports in *FileMaker Pro 3.0*, and the benefits (and traps) of using relationships between files.

Other Articles

Late breaking news has caused some last minute changes in this issue of MACinations. We hope to catch up on promised articles in the next issue!

FileMaker Pro Corner



©1997 John A. Green of VMUG

To further illustrate the date manipulation capabilities of FileMaker Pro, *VMUG member, John Green, investigates creating useful formulas to derive the result format required from a variety of input data.*

Make it a date

How long has young Finch been working here, excluding his months of long service leave? Can your database tell us that? The member charged with answering this question from his boss sought advice from the VMUG Help Desk.

I know the date Finch started work and I know how many months leave he took. The basic formula should be:

Tenure = Today – Start Date – Months Leave

But how should this be expressed in FileMaker Pro*? By the way, the answer should be in years and months.*

EndDate	21-4-97	Today
StartDate	14-3-95	
MonthsLeave	0	
TenureDays	769	Today- StartDate - (MonthsLeave * 30.4375)
TenureYears	2.105407255	TenureDays / 365.25
TenureIntegerYears	2	Int(TenureDays / 365.25)
TenureModulo	38.5	Mod(TenureDays, 365.25)
Months	1	Int(TenureModulo / 30.4375)
TenureText	2 Yrs 1 Mths	TenureIntegerYears & " Yrs " & Months & " Mths"
MonsterTenureText	2 Yrs 1 Mths	Int((Today- StartDate - (MonthsLeave * 30.4375))/ 365.25) & " Yrs " & Int(Mod(Today- StartDate - (MonthsLeave * 30.4375), 365.25) / 30.4375) & " Mths"
TenureYearsY2	2	Int(((Today- StartDate) / 30.4375 - MonthsLeave) / 12)
MonthsY2	1	Int(Mod(((Today- StartDate) / 30.4375 - MonthsLeave), 12))

Figure 1. Screen shot evaluating an example. All fields that are calculation fields have their formulas displayed.

Developing a methodology

The member was advised to look first at the variables, which are the **Start Date** and **Months Leave**, not forgetting the **Today** function.

Start Date and **Today** are both dates, which means that *FileMaker Pro* records them both internally as serial numbers, commencing from the date 1-1-0001. This internal date handling system means that, 4th February, '97, the date of the first VMUG *FileMaker Pro* SIG meeting of 1997, is in fact day number 729059. The last day of 1999 will be day number 730119 and the first day of the year 2000 will be 730120. Any calculation based on dates is easy – *FileMaker Pro* just adds or subtracts one serial number from another. The answer will be a number of days.

Months Leave has obviously been defined as a number of months. The significance of this will become clear in a moment.

FileMaker Pro often allows several possible solutions to a problem, so it is no surprise that two methods of calculating the **Tenure in Years and Months** sprang to mind.

The first approach was to ascertain the length of **Tenure** in days, subtract **Months Leave** (expressed as days), then convert the answer back into years and months. The second approach was to ascertain the length of **Tenure** in months, subtract the figure for **Months Leave** – which is already in months – then convert the answer into years and months.

Solution one

The basic formula for the first approach is given correctly by our HelpDesk enquirer:

Tenure = Today – Start Date – Months Leave

The first part, namely **Today – Start Date,** gives an answer in days.

One cannot then just subtract the figure for **Months Leave,** because this is expressed in months instead of days, so the number of months must be converted into days.

One assumes we are talking calendar months, which is to say 365/12 = 30.42 days, or to be really accurate over a four year cycle, 365.25/12 = 30.4375 days. Of course, no month is 30.4 days long, so this may introduce some element of error, depending upon the method of calculation used for **Months Leave.** This gives us our **Tenure** expressed in days:

Days tenure = Today – Start Date – (Months Leave * 30.4375)

Now we must convert the answer in days back into years and months.

Dealing first with the years, this must be the integer (the whole number to the left of the decimal) resulting from the formula **Days tenure/365.** If really long periods of service are possible, it might be worth making the divisor 365.25, to account for leap years. Thus:

Years tenure = Int (Days tenure/365)

Now for the months. This must be the figure to the right of the decimal when days are divided by 365. *FileMaker Pro* calls that figure the **Modulo** or **Mod**, and provides a function to access it quickly – not as a decimal, but as the remainder left over after division. Thus:

Days left over = Mod (Days tenure, 365)

For a **Days tenure** figure of 370, the modulo is 5 days, which is much easier to deal with than 0.0136986 (which is the decimal equivalent). The number of months is simply that modulo divided by our mythical month of 30.4375.

Continued foot of p.26 overleaf



Web Weaver's Corner

©1997 Charles Cave

Club Mac member, Leigh Dart, is one of those using the Premium service of the Club Mac BBS. He uses it to make connections in cyberspace for his Church community. In this month's interview, Leigh describes his experience in learning HTML *and building his Web site.*

Interviews with Web Weavers: #4 Leigh Dart

Webmaster: Leigh Dart
Youth Pastor, Bankstown Baptist Church, Sydney, Australia

Email:
leigh_dart@clubmac.org.au

Web Page:
http://www.clubmac.org.au/~leigh_dart/



▪ What motivated you to produce your Web pages?

I have always been interested in the potential of the Internet since first discovering the world of on-line communications via **Club Mac** and later, *eWorld*. When I heard of Club Mac's decision to offer space to members for hosting a Web site, I was immediately drawn to the idea. It seemed to be a logical progression for my Church, which believes it is important to be connected and and relevant to the community.

Continued top of p.27 opposite

FileMaker Pro – cont from p.25

Of course, this may not give an ***exact*** number of months, for example, 2.57687 months. If fractions of months are discarded rather than rounded up, then the integer function should be used once again, so that the number of months equals the integer of: **(Days left over divided by 30.4375),** or:

Months = Int (Mod (Days tenure, 365) / 30.4375)

A calculation field, defined as having a text result, may be used to combine the figures already calculated for years and months with appropriate text, including spaces. The text for "Yrs" and "Mths" is concatenated (combined with) the numbers using the **&** concatenation symbol.

Expressing the answer as length of **Tenure** as text in years and months gives:

Tenure = Years Tenure & " Yrs " & Months & " Mths"

Or this formula to leave out the intermediate field definitions:

```
Tenure = Int ( (Today -
  StartDate - (MonthsLeave *
  30.4375) ) / 365.25) & "
  Yrs " & Int ( Mod (Today -
  StartDate - (MonthsLeave *
  30.4375), 365.25) /
  30.4375 ) & " Mths"
```

Solution two

Now for the alternative solution, which was to figure out the length of **Tenure** in months, subtract the figure for **Months Leave,** which is already in months, then convert the answer into years and months. Back to the basic formula:

Tenure = Today – Start Date – Months Leave

Remember that **Today – Start Date** gives an answer in days, because both those variables are dates, so we need to convert the days into months. We need to use our old friend, the divisor 30.4375 days (derived from 365.25/12) as follows:

Tenure Months = (Today – Start Date)/30.4375 – Months Leave

FileMaker Pro evaluates this formula, like any other, by first carrying out any multiplication and division, then the addition and subtraction. This means that this formula will be evaluated correctly without an extra set of brackets – that is to say, the last operation performed will be the subtraction of **Months Leave.**

Now that we have **Tenure** in months, we just have to divide by 12 to get tenure in years and decimal years:

Tenure Years = Tenure Months /12

Or, leaving out the intermediate field definition to get **Tenure** in years and decimal years:

Tenure Years = ((Today – Start Date)/30.4375 – Months Leave) /12

Years expressed as decimals, for example 6.11, are not very meaningful to most people, nor is that the requested result. Thus, we need a formula to get just the years and another formula to get the months. The years are obtained by discarding any decimal fraction, which is achieved by taking the integer of that last formula:

Tenure Years = Int (((Today – Start Date)/30.4375 – Months Leave)/12)

The months will be the modulus of the same formula:

Months = Mod (((Today – Start Date)/30.4375 – Months Leave) /12)

The final answer may be derived from this monster formula, leaving out the intermediate field definitions:

```
Tenure = Int ( ( (Today -
  Start Date) / 30.4375 -
  Months Leave ) / 12 ) & "
  Yrs " & Int ( Mod ( (
  (Today - Start Date) /
  30.4375 - Months Leave ) ,
  12 ) ) & " Mths"
```

- **What type of Mac do you use and what software was used to create the HTML?**

I created the Web site on our Church computer – a **Performa 6300**. Initially, I had absolutely no idea about Web editors or *HTML* so I bought a copy of *The Complete Idiot's Guide to Creating an HTML Web Page* by Paul McFedries (published by QUE Corporation/Macmillan Publishing, 1996).

This book turned out to be a good investment! What I discovered was that *HTML* was quite similar to the *BASIC* programming I had learned on my **Dick Smith Wizard** as a child. I started writing the *HTML* code just using *SimpleText* or word-processing software.

It wasn't long before I discovered the joy of a comprehensive *HTML* editor – Netscape *Navigator Gold 3.0*. What a difference that made! It was so easy to use because I was able to create Web pages as I saw them. I have to say, though, it was very helpful to understand *HTML* ***before*** having used *Navigator Gold*. These kinds of editors still have their limitations and it is good to be able to understand the underlying principles behind *HTML*.

- **I noticed you have some photographs on the main page and in the GARY's room. Were these photos scanned or did you use a digital camera?**

I hired a scanner for a day and tried to scan as many photos as possible that I thought I might someday want to use in a digital format.

Hopefully I can buy my own scanner in the future.

- **How did you make the graphics? My guess is in** ClarisWorks **as I recognise the fill patterns.**

You guessed it! *ClarisWorks* is my favourite all-round office software program. I design the graphics in the Draw section of *ClarisWorks* and then save them as PICT files.

Next I use *clip2gif* to convert the file into *GIF* [Graphic Inter-

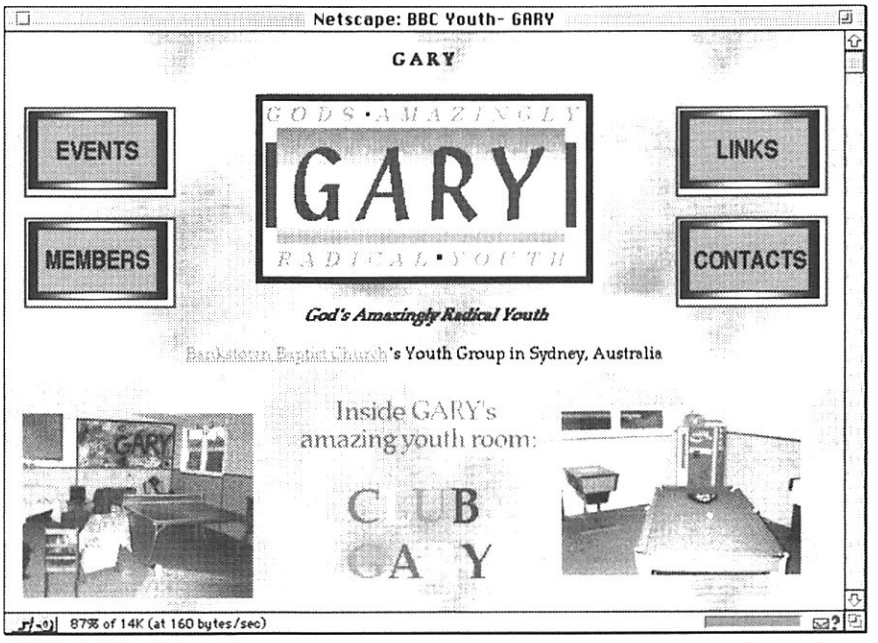


Figure 1. This is the page that Leigh refers to as "Gary's Room".

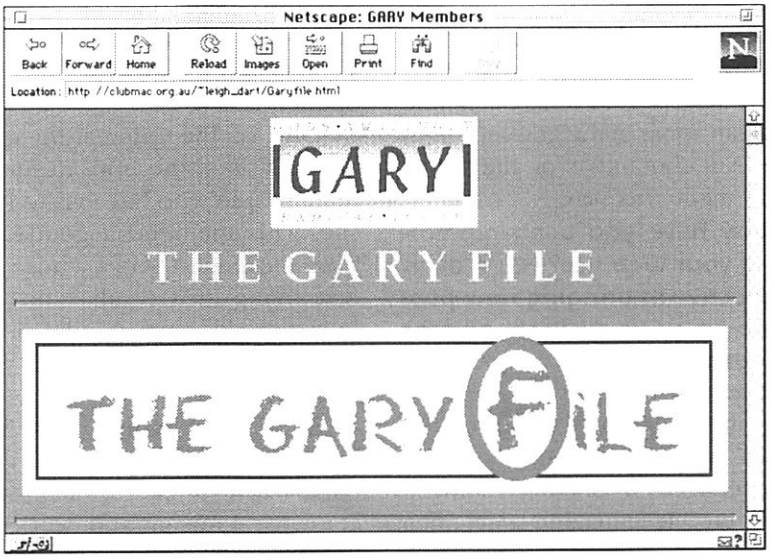


Figure 2. The Gary File page.

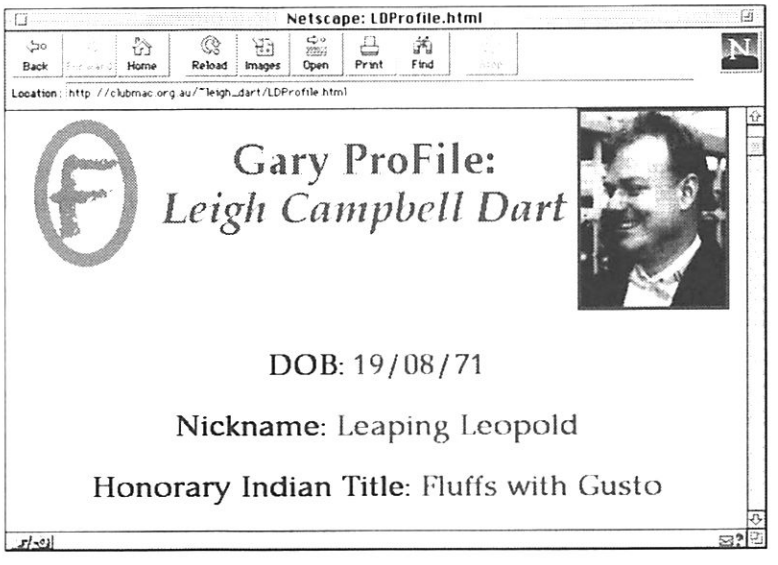


Figure 3. Leigh's own page is one of the "Gary Files".



Figure 4. Leigh's homepage – clearly set out with links, both to other pages on the site and to other sites.

change Format] format. And there you have it – a *GIF* ready to insert in my Web page. I have been able to glean some of the graphics from the 'Net, but most of the logos were made this way.

- **How have you been promoting your Web site? Has it been effective in bringing new people to your Church and/or youth group?**

I have really only promoted the site on the various big search engines (such as Yahoo, Magellan, Infoseek, Web Crawler, Starting Point etc.) It's amazing how, once you are listed on these sites, your Web page is referenced in all sorts of places.

There are links to our pages from other sites, such as the Baptist Youth Ministries and the Baptist Churches of NSW (our state body) and other youth groups and churches. At this stage there hasn't been anybody who has actually come to our Church or youth group as a result of the Web site (at least as far as I'm aware!) but that was not the main purpose.

Our site has a number of objectives, which includes communication with our members, interaction with others (locally and around the world) and availability to those who may need our assistance. We have certainly had a lot of traffic since the site was opened last year.

One of the interesting spin-offs has been the opportunity to help people who have visited our site. This included a gentleman from the United States whose son was living in Australia and was in crisis and needed to be put in quick contact with a pastor who could help.

Another was a man from New Zealand who was moving to Bankstown to take up a position at the local Airport and needed to find somewhere to board until the rest of his family could move to Australia. So I guess the site's effectiveness is being proven, though not necessarily through the addition of people to the Church or the youth group.

- **What involvement have people in your youth group had with the Web site?**

My youth group love the site! They have been instrumental in designing the **Member Profiles** and will continue to be involved in the evolution of the Youth Group site. Most of them can access the site from school or home. Eventually I can see a good opportunity to link up with another youth group on the 'Net and this will be useful in building relationships and helping youth to see the world beyond their doorstep.

- **What is your assessment of young people's attitude to computers, particularly** *Windows* **and/or Macintosh.**

Most young people see computers as integral to life in our society. They see them everywhere from the shopping centre to the bank; from schools to libraries. The mass media is besotted with them, almost to the point of obsession.

I think the young people I work with (high school age) have never known a world without personal computers. I believe that they have gone beyond the "computer nerd" image and embraced computers as the communications medium of the future (and present)!

As to the *Windows*/Macintosh issue, they don't seem to be aware of there being an issue. Mostly they would see *Windows* as the standard, and this is reinforced by schools and advertising/media. My influence has certainly highlighted the case for Macintosh and I know of at least a couple of these young people who are keen to purchase a Mac for their home.

- **Has the World Wide Web been a useful new medium for your Church? Does being in cyberspace add some appeal to the Church community?**

Obviously there is an issue with the different generations. Most of the elderly members of our Church have trouble even understanding that a computer is not something to be feared. However, as a Baptist denomination, there is a desire to really use the Web to its full potential.

Its usefulness will probably not be fully realised until more of our Church members are on-line.

There is definitely a novelty value in being in "cyberspace", but I should emphasise that, as a Church, we are far more concerned with "reality" than "virtual reality". We want to be certain that we never lose sight of the person behind the technology.

'Net.files – Lost at sea



©1997 Sean McNamara

One of the most confusing things for Mac-oriented 'Net.newbies, is the veritable overabundance of filename extensions such as ***.tar, .hqx, .exe*** *and* ***.sit****. In this month's* Net.files, *we look at decoding what some of these filename extensions mean and what to do with them.*

Anyone who's been on the 'Net for more than a few days has come across filename extensions – the (usually) two, three or four letter codes following a period at the end of filenames.

Quite simply, these filename extensions indicate the format of the file in question. Some Mac users find them confusing because they're not exposed to these devices in their day-to-day usage of computers, whereas they are an integral part of *DOS/Windoze* life. For example, a *readme.txt* file on the 'Net is a text file. On the Mac a text file's format code is stored as a "TEXT" filetype attribute, hidden from the user.

In daily use, this filetype (and the creator attribute of the application which created the file) are then used by the Mac to select the appropriate program to access it. If the application is not available, other programs which support the filetype can be used to open the file.

The basics

Most filename extensions have three letters. However, they range from single-character extensions through to five- or six-character behemoths.

Suffix	File Type
.txt	Text
.hqx	BinHex
.bin	Binary file (MacBinary if a Mac file)
.sit	StuffIt
.cpt	Compact Pro
.sea	Self extracting archive
.exe	DOS/Windoze executable
.html, .htm	HTML
.jpeg, .jpg	JPEG image
.gif	GIF image
.tiff, .tif	TIFF image
.zip	PC Zip
.gzip, .gz, .Z	Unix GNU Zip
.tar	Unix tape archive
.uu	UUEncoded file

Table 1. Common filename extensions on the 'Net.

Many have different "versions" – for example, *JPEG* format image files can have the *.jpeg* or *.jpg* suffix. In such cases, the shorter version is usually used on *DOS* machines, which limit the filename to eight characters and the suffix to three. (This is sometimes called the 8.3 filename format). Despite its support for long filenames, even *Windoze '95* is often limited to 8.3 filenames to maintain its compatibility with older programs.

On the 'Net

For various reasons, filename extensions are used on the Internet. Like the Mac, UNIX does not need filename extensions. However, to give 'Net surfers an idea of what they are looking at without downloading it, both Mac and UNIX users are reduced to the lowest common denominator.

Table 1 lists some common filename extensions a Mac user will see both on and off the 'Net.

A relatively frequent occurrence on the 'Net is the nesting of filename extensions, such as "test.sit.hqx" or "test.tar.gz". In these cases, the "outer" or rightmost suffix is the format or encoding applied last, with prior encoding schemes working inwards towards the filename.

One way to think about the "test.sit.hqx" example is that the file is the *BinHex* version of the file "test.sit", which in turn is the *Stuffit* version of the file "test". To decode this file, you must work backwards. Binhex the file, then unstuff the resulting file to see the original files.

Off the 'Net

It's OK to know what a file is ***before*** you download it, but what do you do with the file ***after*** you download it?

By using a program such as *Internet Config* and an *Internet Config*-aware *ftp* client (such as *Anarchie*) or Web browser, you can set up how the Mac will download files according to their suffixes.

Not only that, you can choose an appropriate file to set the filetype and creator codes, so that, for example, all *.jpg* files are downloaded as binary data and saved as *Photoshop JPEG* files (allowing them to be double clicked to open). You can also choose to "post-process" the files after downloading – ie., automatically pass them through a decoding program such as *Stuffit Expander*.

Other programs allow you to set defaults for decoding and storing files according to their filename extensions. Usually, these preferences are in the "Helpers" section, the "Helpers" in question being the programs which will process the files once they're downloaded.

Filename extensions provide important visual and processing clues to a file's format and origins. Although they seem a horrid hangover from the *DOS*/UNIX world, they serve quite well in helping Macs decode the jungle of files waiting to be downloaded.

New Help-line Operator – Joe Mithiran

Joe Mithiran has taken over the **Club Mac Help Line** from Marcelo Pena, who has done a sterling job over the last several months. Joe is known to many of you as a regular contributor to the BBS threads with his informative comments and replies to members' questions.

Please note that the **Help Line** number (as shown on page 4) remains as **(02) 9960 5717** (The numbers on the new Club Mac brochure are Marcelo's own numbers.)



Get Info

The monthly column of the Club Mac Committee

Is a Macintosh User Group different? Universally accepted propositions are rare in the computer world. One such proposition is that *Apple Computer and its principal product, the Macintosh, are different.*

From some commentators, this opinion is vicious criticism, from others, it is a statement of love. Wall Street analysts suggest that a company with massive cash reserves but an idiosyncratic product cannot have any future, yet Mac evangelists accord a regard to their funny little computers that some people reserve for Mozart.

Between these extremes are the ninety percent of the world's computer users, who regard Apple and the Mac as the harmless playthings of Californian adolescents and unproductive academics. But everybody regards the Mac as different.

While the customers of the multi-billionaire from Seattle point and click in their ritzy *Windows Ninety-something* interface, they remain blissfully unaware that the intellectual innovation that took their platform from green screens and back-slash-dot-asterisk nonsense to a pleasant and manageable graphical interface, came from Cupertino, California.

Supported by their millions of brethren pouring funds into the Microsoft and Intel coffers, they have no need to concern themselves with the viability of their fountainhead or with the funding for continued development of their *System*. They're with the strength.

Apple and the Mac are different, the Mac-user community is different. Consequently, the Macintosh user group ***has*** to be different.

If the Mac evangelist's view that *the difference is a beautiful thing* is the correct view, then the research and development done by Apple is a precious thing which must be nurtured and nourished.

Microsoft's development, funded by astronomical unit sales, can be no substitute. The funding for further development of the *Mac OS* has to come out of the revenue of Apple Computer Inc., and the funding for the continued development of great Mac applications has to come from sales of those applications. Currently, this base is about six percent of the total. Everybody who identifies with the viability and success of the Mac platform has a vested interest in the enhancement of the two components of Apple revenue – gross margin and unit sales. They have no choice.

Unit sales is the simpler and less controversial task. A Macintosh user group is a wonderful structure for spreading the gospel. Its three principle components – Club meetings, an electronic bulletin board and a monthly magazine – are communication tools, *par excellence*.

All three media can promote the virtues of the Macintosh platform and spread the infectious enthusiasm of the Mac aficionados. They can make a Mac easier to own, to learn to use and to exploit fully.

A congenial meeting can be the perfect setting for a prospective buyer to peep at the community from the outside. A well run user group will aid the sales of its platform merely by operating successfully – but six percent is a very low springboard.

Helping gross margin is tougher. It smacks of altruism and altruism scares people. It needn't.

Should a Mac cost more than the equivalent PC? Yes, because the Mac is different, it is better. There is no such thing as a head to head comparison, the Mac is always a head in front.

But...in the real world does it do the same job? No, in the real world a Mac does any job better, even routines like accounting and writing – because it lends itself so readily to taking on extra duties. Compare the job spec of the average working PC with its Mac equivalent...and remember the need to fund the vital research and development.

A Macintosh user group has to confront these issues, determine its position and spread its message to the world.

Marshall Ahern



Letters to the Co-editors

Fair go

Dear Editors,

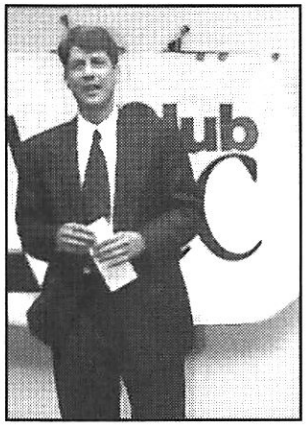
The *Get Info* aticle about the Committee in the February, 1997, *MACinations* prompted me to write this letter, as it gave me confidence.

I joined Club Mac a year or so ago after a friend had talked me into getting a PowerBook 5300. Even though there are some complaints about the 5300, I find it ideal for my purposes.

During a brain operation in 1964, my brain haemorrhaged, which left me without speech and paralysed down the right side. At that stage, the medical people did not know what to do.

In 1986 I bought a Commodore 64 computer and tried to develop a speech program which would let me say at least a few words. As time went on I updated to an IBM-compatible and my friend developed a program – which I still use – that would let me talk a bit. Later still, my friend talked me into getting a Mac and that is what I am trying to use for my talking now.

Continued foot of p.33



July Meeting Report

An Evening with Steve Vamos

Without projecting a pixel on the big screen, Steve Vamos, CEO of Apple Asia-Pacific and Apple Systems Engineer, Andrew Rallings, alternately enthralled, enlightened and astounded 100 Club Mac members.



Figure 1. Yes, that's the **E-Mate**. (In Steve's hand!)



Figure 2. Andrew Rallings enthralled onlookers.

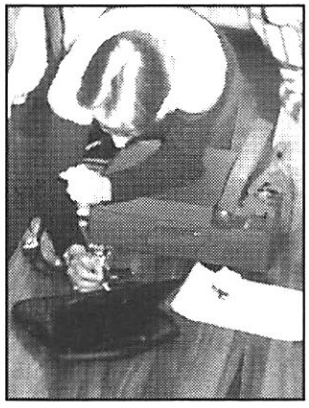


Figure 3. Everyone wanted to have a "go" on the **E-Mate.**



Figure 4. Both Steve and Andrew answered Members' questions.

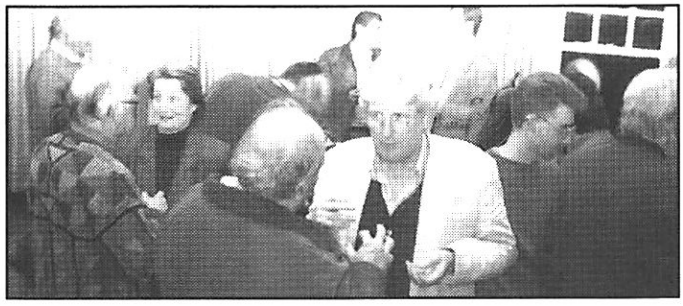


Figure 5. Members still found time to chat in the break – Therese Clancy, John Agapitos, Richard Arnold, Marshall Ahern and William Moppett can be seen here.



Figure 6. A quiet interlude before the meeting for Steve Vamos and Club Mac Vice President, Alex Hartman.

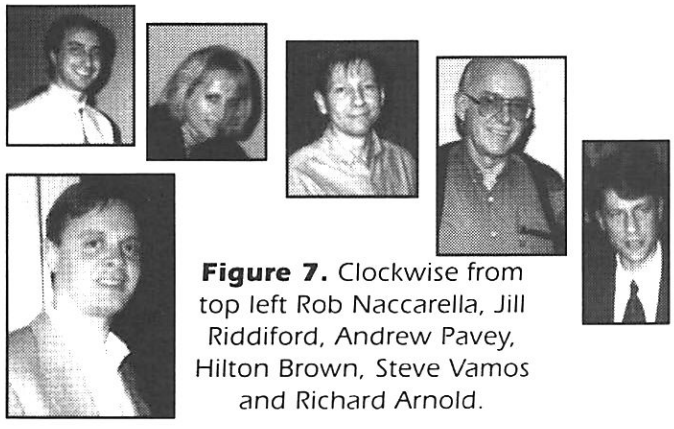


Figure 7. Clockwise from top left Rob Naccarella, Jill Riddiford, Andrew Pavey, Hilton Brown, Steve Vamos and Richard Arnold.

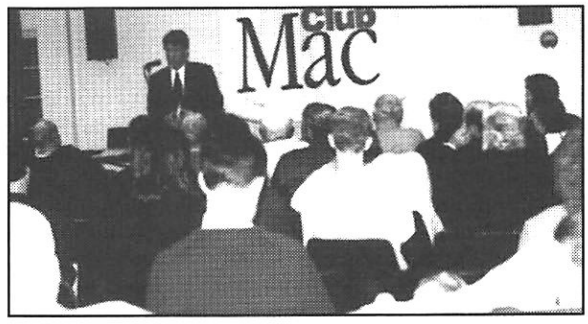


Figure 8. The Club Mac crowd listens to Steve Vamos' final comments for the evening.



MACcess Report

compiled by Colin Lee

With a bit of luck, Mac OS 8 *will soon be released in Australia. (It should already be in the shops in the US.) Pre-release reports seem to be very positive indeed, given that more of the* System *is PowerPC-native. It includes an improved interface, a true multi-tasking* Finder *and a few other goodies that have been covered elsewhere (notably in the July, 1997,* MACinations, *pp.9-14). The other interesting piece of software which should be available soon, if it's not already, is* Virtual PC *from Connectix which, from all accounts, is quite a fast emulation of an entire PC's operations (providing you are running a PowerPC). Apparently* Windows 3.11, Windows '95, Windows NT, OS 2, OpenStep *(on which* Rhapsody *is based) and some other* UNIX *flavoured operating systems can be emulated very successfully. Given Connectix' past record at writing slick, tight software for the Mac, they're probably on a winner. Perhaps Apple should consider bundling it with every Mac sold...then Mac users would not only have access to the best of both worlds, but almost the best of* ***all*** *worlds!*

This month the column covers growing file sizes on large hard disks, printing to plastic and BASIC programming on a Mac. Happy Maccing! Cheers, Col.

To: All
From: Frank Bugeja
Subject: **Minimum file size**
I have purchased a new Power Mac 5500. The minimum file size for any saved file is 60K! Is there any way of reducing this minimum file size to a more realistic figure?

To: Frank Bugeja
From: Carl Vine
Subject: **Minimum File size**
This has been covered many, many times in this thread. To reduce the minimum file size you must partition your hard drive. You could always refer to earlier postings on this thread (if they're still around), or to the various "Hard Drive" and "SCSI" FAQs in the Library and on the Public Domain CDs here.

To: Carl Vine
From: Robert Naccarella
Subject: **Minimum File size**
Either that or wait around for HFS Plus, which should be released with System 8.1 onwards. It allows for a more efficient use of hard disk space. Minimum block size should no longer depend on hard disk size...so Apple have told me!

To: Robert Naccarella
From: Kenny Howchin
Subject: **Minimum File size**
Mmmm! Reminds me of computer use Rule #13b (Section C) – never, ever, sit around waiting for something that has been promised by a computer company. This especially applies to large (like really, really large) American software companies – whoever could I mean? – but it even applies to otherwise-pretty-OK hardware/software companies like Apple. Listen to promises only when they are fulfilled and even then, be sceptical. If you need to do something, choose the best currently available solution. Thanks for listening.

To: All
From: Arthur Galanopoulos
Subject: **Poster Printing**
I'm using QuarkXpress 3.2 to enlarge an A4 size page. I am trying to use the automatic tiling function and set 0.0 as the overlay. I am trying to enlarge the graphic to 400% (poster size).

I'm printing to an EPSON Stylus Colour printer using version 3.1 of the printer software. I have allocated 30MB of RAM to QuarkXpress and 10MB to the printer monitor but, after four pages, the printing process gets interrupted and a window appears saying that the printer is not responding. I believe that this is a printer memory problem but I assume that the allocaton of 10MB to the Print Monitor should help the printer process the information. Does anyone have any suggestions or solutions to my problem? Thank you in advance.

To: Arthur Galanopoulos
From: Kim Kohen
Subject: **Poster Printing**
I assume you're referring to Apple's Print Monitor? All that does is spool the file to free up the Mac earlier. If your printer is running out of memory I don't imagine Print Monitor will help – no matter how much RAM you assign it.

To: Arthur Galanopoulos
From: Tom Pardy
Subject: **Poster Printing**
Kim's comment sparked something in my memory. The problem may be with your Desktop print monitor. Try trashing it and then restarting so your System creates a new one. I don't know whether this will solve the problem, but it is worth a try and will not make things worse.

To: All
From: Marilyn McGreal
Subject: **Printing onto plastic**
My brother wants to print signs onto clear plastic. Does anybody have any ideas how he could go about this? It would appear he would need a printer through which he could feed backed plastic. I phoned a printer company but they could only advise on paper fed printers and had no suggestions. Thanks in advance for any help.

To: Marilyn McGreal
From: Tom Pardy
Subject: **Printing onto plastic**
This is probably not the best answer but it might help. Some photocopiers will happily print onto overhead projector sheets. You would need to get the right ones (ordinary clear plastic tends to do horrible things to the insides of photocopiers). Then, if your brother printed to paper with a laser printer and photocopied the results onto overhead projector slides, that might work. Overhead projector sheets are usually in A4 size. Others may be able to give you more detailed information.

To: Marilyn McGreal
From: Bill Davies
Subject: **Printing onto plastic**
If his major purpose is to use the printouts on an overhead projector etc., he can just go to any major stationery supplier and they should have some transparencies in stock.

There are various types of plastic for different types of printers and copiers, ie., laser, inkjet, colour or black and

white. I think some are even made to specific printer brand specifications.

These items are not necessarily all that cheap and buying in bulk is cheaper – up to and over $100 for 50 A4 sheets – and it is very expensive on a per sheet basis. It's a good idea to shop around and to do some test runs of what is to be printed – in draft – on ordinary paper.

To: Paul Kneipp
From: Sven Knutsen
Subject: **Jaz (blues)**
Check the Iomega Web site for information on a recall of 55,000 Jaz disks manufactured world wide after a date in late March. They have MM/DD/YY (MS) in the serial number, etched onto the back of the Jaz disk. I purchased one this week and it was promptly replaced and presto!...I could initialise and write to it. Marvellous!

To: Matthew Godden
From: Sean McNamara
Subject: **Date 2000**
MG> I heard somewhere that Macs actually record and keep track of time and dates – in seconds – from the Mac's base date.
SMc> Yes, in fact, the Mac OS handles all date operations using the number of seconds since 00:00 Friday, 1st January, 1904.

The Mac uses a four byte hexadecimal number as the counter for this "number of seconds". This allows for 4,294,967,296 seconds in total – about 136 years (hence the 2040 "expiry" of Macs' time handling). I assume they used 1904 since they could then say any year divisible by four in their time span would be a leap year. (1900 was not a leap year, and would have required an additional logic statement in the date algorithms, to prevent it being considered so). Because the handling of dates is central to the OS, most programs use this as the basis on which they keep track of time. Therefore, if the System handles it, a program can, and 2000 is not a problem. If the program only has input for two digits for the year (or the database or script, etc.), 2000 may be a problem. As previously mentioned, however, the new OS will apparently make the time thing a moot point for at least a few generations to come.

To: All
From: Kevin Murray
Subject: **A Basic Question**
My son is eight years old and enjoys doing some programming with HyperCard. He'd like to do some programming in BASIC. Is this the best thing for him to move on to or is there something simpler/more appropriate? Is there a Mac BASIC program? What is it called and where I can get it?

To: Kevin Murray
From: Joe Mithiran
Subject: **A Basic Question**
BASIC stands for Beginners All-purpose Symbolic Instruction Code. It's pretty appropriate to learn on. There are two free BASIC applications in Latest Additions, "chipmunk-basic-352.sea" (interpreter) and "sc-basic-15.sea" (compiler). Another beginners language available on the BBS is "logomation-112.sea" in Library|Archives|Programmers|K–L.

A compiler takes your program and makes the whole thing machine readable before running it, an interpreter translates the program line by line. Interpreters are faster when you are working out your mistakes, but a compiled program will run faster than a program using an interpreter. This is because, once a program is compiled, you keep re-using the compiled code.

Another possibility is "internet-mac-prog-lang-90.sea" in (Library|Archives|Programmers|I–J), which is a list of all the free Mac programming languages and where to get them on the Internet. The only problem with the free stuff is the lack of documentation.

To: Kevin Murray
From: Joe Mithiran
Subject: **A Basic Question**
Further to what I said before, "sc-basic-15.sea" is in the Latest Additions, Week Ending June 22 and it is only 130K.

Your son might also consider taking a look at AppleScript. It's free, comes with System 7.5.x, is more powerful and useful than BASIC but just as simple. It interacts with elements of modern computers (using dialog boxes etc.), has more documentation available and heaps of examples (so much so I created an AppleScript area inside the Library|Programmers folder). I'd say C/C++ is about as far from BASIC as AppleScript is, so there's no advantage in BASIC if he's planning to go on to modern languages.

To: Joe Mithiran
From: Colin Lee
Subject: **A Basic Question**
A few months ago, a company on the Web introduced a programming tool called MacBasic (or something like that). Might be worth a look.
(Since posting this message, MacStandardBasic has reached version 2. Col)

To: Kevin Murray
From: Rosalie Marshall
Subject: **A Basic Question**
As a teacher of Computing, I'd also recommend Logo for an eight year old. I used to use it when I taught younger kids and they adored it. It's been a while since I used it and I'm not sure if there are any shareware versions around. There would certainly be a commercial one. New Horizons and Edsoft are good places to check for software for kids. Both have Web sites.

Letters – cont from p.30

This is where Club Mac might be able to help!

I am hesitant to ask for help as I have experienced many different places that claim to help disabled people and they have abused me.

Last year I spoke with a few different Club Mac people in the BBS Chat Mode, only to be told – more or less – "You are too slow, don't waste my time." That has made me a bit careful and now I don't use Chat Mode. I see where there are different messages in Local Forums, but they all relate to software and I am just looking for people to talk to.

The human brain is a lot more complex that any computer. When it gets damaged – as mine did – there mightn't be much wrong but the messages it sends to my leg, arm and a few other muscles, become confused. I can only just walk about, my speech is hopeless and I am in a bit of a mess...

There is a lot more I could tell you but I must post this to you.

Name supplied but withheld

As regular BBS users ourselves, this letter prompted us to pause and consider our own online responses to others. Club Mac BBS offers us all the opportunity to join in – irrespective of age, gender, appearance

Continued page 34

Letters – cont from p.33

etc. Words on the screen are the medium of exchange and we are members because we love our Macs and want to share that. We are a community. That well known BBS friendliness **must** be extended to all. Eds

Club Mac's survival!

Dear Editors,
I'd like to comment on two issues raised in *Dunk's Doodles*, in June, 1997, *MACinations*.

Firstly, Piers states that the single most surprising result of the **Club Mac Survey** is that there was only one reply from a professional software developer. As I am a professional developer (and no, I am not the one who replied) I would like to provide some input as to why this is the ***least*** surprising result – to me.

I have been a member of Club Mac for three or four years now, and have always browsed the issues of *MACinations* with interest. But it never occurred to me that this publication is intended for professionals – nor should it be. It also never crossed my mind that the periodical may harbour such an ambition.

In my opinion, *MACinations* does a great job of popularising computer culture, especially to "power users". But, irrespective of the skills and the power those users may acquire, they are not professionals – in the same way as a car driver with better-than-average skills and enjoyment of driving is not automatically a professional driver.

The difference has nothing to do with the creation of "original software" as Piers suggests, but with the fact that, in both cases, being professional basically means earning one's bread that way. Of course, this has important consequences but it is, nevertheless, the basic distinction.

There is nothing wrong with *MACinations'* not targeting professional developers. There are not so many of them and they have different worries – and who cares what they think anyway!

Piers' second question relates to changes to come in the Mac/Apple world. It seems that the Mac as we knew it – and many loved beyond reason – will shortly be dead. So, can users of *NeXT Step* – included in *Rhapsody* – still be members of Club Mac? Or, in other words, can **Club Mac** survive the changes pending in the Mac world?

I have no doubt that Club Mac can prosper and flourish, possibly even if Apple ever exits the stage, which still remains a possibility. The main reason for survival, paradoxically, has nothing to do with the Mac itself.

The strength of the organisation is its active members and its usefulness, created from the infrastructure of the BBS, *MACinations* and meetings; also from the realisation that a spontaneous movement like this can achieve something worthwhile, lasting and useful.

With all that in place, I don't see why the Club should not continue to be relevant. Some of the Mac-induced superiority complex will wither away, but that is not a bad thing. Even though emotional proselytising is good for the spirit of the troops, from a technical point of view it is more often than not questionable or groundless and sometimes even plain silly.

After all, Macs were intended to be a revolutionary tool – not another object of veneration. Revolutions are said to eat their own children, but the organisations brought about by them are usually here to stay.

Piotr Palacz

Membership Application Form

Complete this form and send it, together with the appropriate fee, to **The Administrator, Club Mac Inc., GPO Box 4523, Sydney, 2001**. Please allow time for the Application to be processed.

Surname ..... Given Name/s .....

Company/Organisation (if applicable) .....

Postal Address .....

..... Postcode .....

Phone (Home) (.....) ..... (Work) (.....) .....

(Other?) (.....) ..... (mobile etc.)

Method of Payment (we prefer by cheque)

☐ Cheque ☐ Money Order ☐ Credit Card ☐ Bank Cheque ☐ Cash (meetings)

(BankCard, MasterCard & VISA only. The type of your card is indicated by its number)

Card number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Name on card ..... Expiry Date .....

Signature ..... Amount $ .....

New Member (Not a current member)	☐
Renewal (Membership soon to expire)	☐
Basic Membership $35 (includes magazine subscription)	☐
Basic + BBS $65 (90 minutes per day BBS access, incl., own Internet address)	☐
Premium M'ship $95 (120 minutes per day BBS access, plus own WWW page – up to 2MB)	☐

How did you hear about Club Mac? .....

Dunk's Doodles



©1997 Piers Dunkley

Oh joy, oh bliss, oh rapture – oh hell!

Some of you will know that I recently sold my trusty LC575 and then jumped from the eighteenth into the twentieth century – as far as Macintosh hardware is concerned. Yes, I got a Power Mac – not just ***any*** Power Mac, but a 7300, no less.

My kind friends at the local Apple shop gave me a good deal and the computer was available for pick up within a couple of days. It included a RAM upgrade – whoever heard of a computer living with only 16MB of RAM these days, even my LC575 had 36MB! I came home as happy as Larry and started it up.

The first thing I noticed was that the 2GB hard disk was not partitioned. No problem, I could do that in a jiffy, even though I knew that subsequently, I would have to re-install the *System* software. I got out my old partitioning software – the brand doesn't seem to matter as they all appear to operate in the same way. I reformatted the hard disk, created the partitions and re-installed the *System*.

But the *System* Folder seemed to take up far more room than the sum of its individual parts, so I decided that there must be some invisible files somewhere. I found a 35MB file called *VM Storage*. I wondered what ***it*** could be and then realised that *System 7.5.5* – on a Power Mac – automatically turns on Virtual Memory at about 1MB higher than the built-in memory of the computer, using the hard disk to do this.

That solved, I buckled down to the task of re-loading all my software, making sure that I chose the Power Mac version wherever possible. All the applications took up more room than they used to do. I had been warned about the way Power Mac applications hog more space than 68K applications.

But when I couldn't load my 15MB Icon folder into 30MB of hard disk space, the full horror of what I had done was brought home to me.

As you are aware, the larger the disk size, the larger the allocation block size (the minimum size of a file when stored on the hard disk). What I had done was to create the partitions all right, but had done absolutely nothing to reduce the maximum size of the partition and they were all functioning as if they would one day grow up to be a full 2GB in size. My icons were taking up about 14K each instead of the old 2K!

"What I had done was to create the partitions all right, but had done absolutely nothing to reduce the maximum size of the partition..."

Another day or so wasted, I thought, and started to back up the hard disk again. I deleted all the partitions and re-set them – this time with maximum sizes. At last I could get all my stuff onto the hard disk. I was able to test everything and it all seemed okay.

I started to do some housekeeping – all those little chores that I had I promised myself I would do one day, such as reorganising my directory structure and so on. I noticed a remarkable thing. Whenever I tried to copy more than a couple of files at a time the computer froze, I had to restart it, and the files were then impossible to copy – even one at a time. Was it possible that I had a ***dud*** computer? I struggled for a while and then decided to read the instructions...of course they didn't cover anything like the problem I had.

I swallowed my pride and rang the new "13" number that Apple has created for **Installation** problems. I got through to the answering machine reasonably quickly and sat and waited – prepared to wait for an hour if necessary. Within about 15 minutes, I talked to someone who took down my personal details and those of my hardware, and then asked me what the problem was.

As soon as mentioned that I was using a non-Apple partitioner, his advice was that if I had partitioned with the ***Apple*** utility, I wouldn't have had this problem. I countered with the fact that I had not had any problem with this utility in the past and that anyway, I had another hard disk that couldn't use the Apple utility.

The response was that it is no longer a problem having different drivers for different disks and that very few manufacturers have sufficiently powerful drivers for the type of SCSI in my computer.

Groan...I had spent several days creating partitions and installing software, all to no avail. I had to do it all over again. I hoped that the third time would be lucky. So...I re-formatted once again, this time using the Apple-supplied utility, and then I re-partitioned.

I don't particularly like the Apple utility. It doesn't seem as intuitive or Mac-like as my other one, and it creates only eight partitions instead of the multiplicity of partitions of my old utility. Anyway, it all works now and doesn't it ***whiz*** along!

Lastly – when installing from CD-ROMs you may come across a problem that the **Installer** seems corrupted – it keeps throwing up error messages. To overcome this, copy the **Installer** to your hard disk, increase the memory allocation (Minimum and Preferred sizes) by about 1MB and install from the copy. It will now work OK.

AppleCentre™
Sydney
Your Apple Specialist Store

When you're buying an Apple computer, no-one can help you better than an AppleCentre store. Why? Because they have the range, knowledge and support to help you buy the right computer.

Macintosh

Macintosh 6360/160
160MHz 603e PowerPC processor
Up to 64mb RAM
8x CD ROM drive
Optional 256k cache
TV Tuner card, PC card
16/1.2Gb/CD $1895
With 14" Display.....$2495

Macintosh 5500/250
250MHz 603e PowerPC processor
Up to 128mb RAM
12x CD ROM drive
256k level 2 cache
TV tuner card, Video In
33.6kbps fax data modem
15" Display
32/4Gb/CD/TV/33.6.....$3595

Macintosh 6500/300
300MHz 603e PowerPC processor
Up to 128mb RAM
12x CD ROM drive
256k level 2 cache
64/4Gb/CD $4595
With 15" Display.....$5195

Power Macintosh

PowerMac 7300/180
180MHz 604e PowerPC processor
Up to 512mb RAM, 2-4mb VRAM
12x CD ROM drive, 256k level 2 cache
3 PCI slots, built in ethernet
Processor upgradable, CPU.....$3195

PowerMac 7300/200
200MHz 604e PowerPC processor
Up to 512mb RAM, 2-4mb VRAM
12x CD ROM drive, 256k level 2 cache
3 PCI slots, built in ethernet
Processor upgradable, CPU.....$3895

10% OFF
all education and entertainment software

PowerMac 8600/200
200MHz 604e PowerPC processor
Up to 512mb RAM, 2-4mb VRAM
12x CD ROM drive
256k level 2 cache
3 PCI slots, built in ethernet
64 bit S Video in & out
Internal Zip drive
Processor upgradable, CPU.....$5245

PowerBooks

PowerBook 1400cs/117
117MHz 603e PowerPC processor
Up to 64mb RAM
11.3" passive matrix colour display
Two PC card slots.....$2695

PowerBook 1400cs/133
133MHz 603e PowerPC processor
Up to 64mb RAM, 6x CD ROM
11.3" passive matrix colour display
Two PC card slots.....$4245

Scanners

Umax Astra 600s
Flatbed, Single pass scanner
600 x 300 dpi optical
4800 dpi enhanced.....$495
with Photoshop.....$795

Modems

Avtek 33.6kbps fax data modem .$199
Hays Accura 33.6kbps modem $269
Global Village Teleport geoport...$285

Club members come in to receive your free AppleCentre Sydney Mouse Mat.

AppleCentre™
Sydney

Cnr Erskine & Clarence Sts, Sydney NSW 2000 Fax (02) 9367 8556 **Phone (02) 9367 8585**