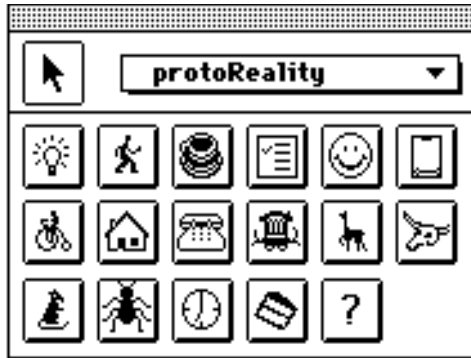


_protoReality

The North Atlanta Newton Users Group Newsletter



Volume 1, Number 3
March 28th, 1994

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NANUG Membership Application Form

Below is a membership application to join NANUG. There is currently no membership fee.

The benefits of joining, as opposed to just reading the newsletter? Well, you get on our exclusive mailing list ;-)) and can take advantage of our user group discounts on hardware and software (soon to be published). Even better is the general idea of belonging, don't you think? ;-))

NANUG Membership Application Form

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Mark Underwood
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Marietta, GA 30066

- NewtMail your personal Names card to "MarkU" with a subject of "NANUG Membership"
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From the Orthogonal Office
Mark Underwood

If you thought we had a lot to talk about **last** month, this month was even worse! Apple introduced two new MessagePad models, the new version of NCK for the Mac, NCK for Windows is now shipping...

Let's jump right in!

New MessagePads

Apple introduced the MessagePad 100 and the MessagePad 110 this month, and already they are selling like hot-cakes! The MP 110 is our old friend the original MessagePad, but with a little more ROM and a whole new RAM. Existing "original" MP owners can upgrade to the new RAM and OS for \$99. Member Scott Leapman has reviewed the "Lindy", A.K.A. the MP 110, for us in the reviews section.

The upgrade can be ordered now by calling 1-800-SOS-APPL and following the directions guiding you to the upgrade hot-line. For \$99+tax, you get two free Newton software titles (from a list of six--including the latest NCK) and a post-paid box that you ship your Newt back to them in for ROM replacement. The "turn around" will be a week or less before the updated Newton is back in your hands, and starts shipping on 4/15/94.

X-Books, Part 2

This month's issue is the first "programmable" newsletter available anywhere! Steve Weyer, author of Newt, the Newton-based, stand-alone NewtonScript development tool, is profiled in this month's interview. NANUG has licensed his "run time" technology so we can start "bundling" stand-alone applets within the newsletter! Be sure to read the interview for more on this exciting tool!

The Real World meets Ask NANUG

Two new columns this month! In "The Real Word", you will hear about the use of Newtons for real-world applications. Al Suding starts us off with a look at his "proof of concept" integration with Newtons in a large, multi-vendor network. You'll also read about our first

group programming project, which is bringing together members from around the world to create a Newton application development “case study”.

“Ask NANUG” is taking the place of our letters column (since we have yet to receive an “official” letter!). This month, the question is asked, “Where does all my memory go?”

The more things change...

Some of you have asked why the make-up of the newsletter changes from month to month. True, indeed. This is only our third issue, and yet we've doubled in size, added three columns, dropped one, and so on.

Almost all of our material comes from our members, and they all have various schedules. For example, some of last month's Code Samples were actually written in 1993--but we didn't have the techno-savvy in January to put them in. There were lots of tips in January--but that's because they'd been accumulating since August!

We also try and gauge reaction of the newsletter's different parts by our member and reader feedback--hence the e-mail addresses.

So if you have a particular section you feel is "under-nourished", please feel free to let us know--or if you have the time, write something for it!

Corrections

In the "we goofed" department:

Last issue, we reviewed MobileSoft's MobileCalc. This month, Erica Sadun takes a crack at the product. We received a few points of clarification from the vendor on the product, courtesy of Wendy McConachie:

- MobileCalc isn't shipped on a PCMCIA card. For customers who do not have a connection kit (or even a computer!) they offer a free service of loading the software onto your card - they even cover return shipping.
- In addition to AppleLink, MobileSoft also provides technical support by fax, America OnLine and CompuServe.
AOL: MOBILESOFT
CIS: 71062,754
Fax# 408/376-0163
- The second keyboard is an alphabetic listing of over 300 words commonly used as labels in spreadsheets.

- Columns **can** be re-sized, unfortunately rows can't.
- If you use the "Untitled" spreadsheet that is open, you can rename it and you won't have an extra Untitled spreadsheet just lying around. MobileCalc will return you to the spreadsheet you were previously working on if you re-launch the program in between resets.

There is a simple way to collect and remove all the Untitled spreadsheets at one time:

- Do a Find on the word “untitled” from within MobileCalc
- tap on the routing icon and select Delete

Make sure you re-name all spreadsheets you are working on so you don't accidentally erase one in this process.

- When a formula is displayed in a cell (and the cell format is something other than text) it means there is a syntax error in the formula.
- The Import/Export feature is scheduled to be released in the April/May time frame. It will enable you to load SYLK formatted files from your Newton to your desktop for use with desktop spreadsheets, and vice-versa. This upgrade will be free to all registered owners of MobileCalc.

It is the policy of _protoReality to make sure both sides of reviews are covered in a fair fashion, and make sure we get the most correct info out to you!

A NANUG Overview
Mark Underwood

Founded in October of 1993, NANUG was created with these ideas in mind:

- To provide timely and correct information about the Newton and all of its accessories, software packages, and other Newton-related products
- To assist new and experienced Newton users in getting the most out of their purchase
- To provide (hopefully) an un-biased forum for the exchange of user tips, hints, and suggestions
- To provide free or low-cost resources for small to medium Newton development projects

There is currently no membership fee to join NANUG. Meetings are normally held the second Tuesday of the month. Future plans include an “on-line” conferencing system to allow our remote members interactive access to the meetings.

protoReality, our newsletter, is published one a month (normally during the third week of the month) in three formats: a Newton Book Reader package, a “binary enhanced” text document, and a “plain” text document. Each format strives to convey as much information as possible within the constraints of the media. The “plain” text version, for example, is posted to InterNet, while the “binary” and “book reader” formats are posted to on-line forums and ftp sites that support binary up/down loads (AppleLink, CompuServe, America On-Line, etc.).

NANUG also distributes a “best of” diskette of free or shareware applications, digital books, and other Newton files that are posted on commercial services for the benefit of those who do not subscribe to them. We also provide a software “kiosk” at the meeting to allow our members who don’t have a Macintosh or PC to download these files to their Newton.

Minutes of the March Meetings

Local Meeting

Meeting was called to order at 7:10 PM on 3/15/94 at the Marietta CompUSA store. Discussion of the new MessagePads and upgrade offer was the first topic.

Chris Dawson, author of PowerNeWS, gave a demonstration of his daily e-mail based news service for the Newton and gave away free copies of the software, complete with a 3-day free trial period.

A status report on current membership (see the membership stats) was followed by a quick report on the status of the group's first programming project (see the Real World section for more information).

As management of the CompUSA store has changed, a move was made to relocate to a larger and more hospitable location. This was seconded and approved unanimously. Our new venue needs to have at least room for thirty "local" members, three phone lines (for our "remote" members), and access to desktop machines. It has been tentatively agreed to meet at member's homes until a more suitable place is found.

Local member Dave Saitta brought the group up to speed on the Newton MessagingCard and all of its features.

Meeting was adjourned at 9 PM.

America On-Line Meeting

Meeting was called to order at 7 PM on 3/18/94 in the PDA Forum's Conference Room on AOL.

In our first ever "on-line" meeting, e-Members were brought up to date on current NANUG "local" activities and plans. Discussion of the new MP's was also a major topic.

Many people cruising through the AOL forums stopped momentarily to chat, and a few new members were enlisted. We even helped one

interested buyer to help make his mind up about buying a PDA.

Future “on-line” conferences will be held “simultaneously” with the local meeting, and special gatherings for our numerous West Coast and overseas members will be held as well.

Meeting was adjourned at 9:30 PM

In both cases, the next scheduled meeting is April 12th.

NANUG Membership Statistics

Total number of members: 166

“Local” 25 “Remote” 141

Members by state (US):

AZ	3	NH	1
CA	23	NJ	4
CO	2	NY	4
DC	1	OH	2
FL	8	OR	1
GA	25	PA	7
IL	3	RI	1
MA	6	SC	1
MD	4	TN	1
ME	1	TX	5
MI	3	UT	1
MN	3	VA	2
MO	1	WA	2
MS	1	WI	1
NC	2	WV	1
NE	2		

Members by country:

Argentina	1	Hong Kong	2
Australia	8	Italy	1
Austria	2	Japan	1
Belgium	2	Macau	1
Canada	11	Netherlands	1
Finland	1	Singapore	1
France		Sweden	1
Germany	5	UK	5
USA			120

An Interview with Steve Weyer
Mark Underwood

Steve Weyer has the distinction of being the first Newton developer to have created a NewtonScript-based development environment that resides totally on the Newt. This is an accomplishment that rivals Microsoft's introduction of Basic for the Macintosh back in late 1984--before MS Basic came out, program development for the Mac was done by connecting a Mac to Apple's older sibling, Lisa (sound familiar, NTK owners?), and doing all the development on the Lisa first before "downloading" the program to the Mac. We caught up with Steve just after he finished releasing version 2.0 of his program.

PR: First, tell our readers a little about yourself, what you do, and where you live.

SW: We're currently living in rural Pennsylvania, in a little town called Washington Crossing where on Christmas Day 1776 you-know-who crossed the Delaware River to turn the tide of the Revolutionary War. There's a farm and woods behind us, but cultural and computer amenities not too far away--we're less than an hour from Philadelphia and a half-hour from Princeton.

We moved from the SF Bay Area (what, you're crazy?) when my wife got a promotion to work at a pharmaceutical company, Janssen Research Foundation, which is part of Johnson & Johnson. She has family nearby, and we decided after some initial skepticism that parts of the East Coast were actually quite nice, and that there were some reasonable job opportunities for me. So, we traded congestion and earthquakes for moving chaos and weather extremes.

I had worked most recently at Apple for six years, most of that time in the Advanced Technology Group (ATG) managing R&D projects in the "Intelligent Applications" group (IA instead of AI), with stints at Stanford, Xerox PARC, Atari and HP Labs. Although it was tough to leave Apple and the Silicon Valley computer culture, I was ready for a change and wanted to get back more to the technical and application side anyway.

I've been consulting, primarily for Janssen, on "enabling technologies". One project I've been working on are CANDAs

(Computer Assisted New Drug Applications) to provide electronic access to hundreds of volumes of documents and data submitted to FDA on drug safety and effectiveness. Another project is investigating the use of pen-based systems for data collection and validation. I've been building a Newton version of a form that the roving Janssen regional monitors can use to track the progress of various studies. We also want investigators to be able to enter patient data in clinical trials on a future Newton or other large-screen PDA. The current paper-based processes and viewpoints at FDA and pharmaceutical companies are so inefficient and archaic that they defy belief. I like to think that pen-based systems, high-end document publishing, hypertext viewing tools, and improved tools for client/server database access would help immensely in moving off the information

backroads and ultimately reducing healthcare costs (are you listening, Al and Hillary?) And, of course, in my copious spare time, I've enjoyed working on Newton software such as PicoFermiBagels and Newt.

PR: How did you get the idea of writing a Newton-based development system to begin with?

SW: I'd seen numerous queries on the nets about Newton development alternatives--queries from a "starving" college student unable to afford NTK, someone unable to run NTK because it's only on the Mac, someone who wanted to do some portable prototyping, someone who wanted a subset of NTK that's simpler-to-use or more customized to a particular application area, others who just wanted to learn about NewtonScript. I also thought it would be nice to have an environment that my kids and I could use. I assumed that Apple might produce some other scaled-down, more affordable and customizable versions, but that this wouldn't likely occur soon, at least until NTK went final.

I actually began after I realized from the InspectorGadget DTS example that I could write and compile NewtonScript on the Newton. Seeing the Dot2Dot example, I started thinking about turtles and Logo--so my initial attempt, Newt 1.0, in October 1993--started out as a turtle graphics environment using NewtonScript instead of Logo. Although some users have been interested in exploring graphics such as fractals via Newt's turtle personality, even more have been interested in learning NewtonScript and in building their own applications. So, Newt has been evolving to meet explicit and implicit user needs, and I've been borrowing ideas from Logo, Lisp and Smalltalk environments that I've known and loved over the years.

PR: When someone asks, how do you describe Newt?

SW: Newt has evolved over time, and somewhat like the famous elephant and blind men, what it is depends on how you perceive it. Newt can be used for exploring object-oriented programming, graphics (turtle), mathematics and recursion, and/or application development. So, initially Newt was "a turtle graphics environment using NewtonScript instead of Logo", then I expanded it to "an object-oriented programming environment for developing applications".

These two primary uses or personalities of Newt are reflected in the Newt 2.0 icon. I don't know yet whether the name "Newt" was a mistake or not--I couldn't resist the pun on turtle, but, of course, it's more than that now, and the name is also generic and ambiguous, since many users refer to their Newtons as Newt. I should probably describe RUNewt also--it's basically a delivery environment for applications. With RUNewt, you can run applications created by Newt, or beam or mail a Newt-created application to another RUNewt user.

PR: I look at the features in the program (there's a lot of them!) and then I look at the RAM size you occupy--how were you able to get it all in less than 70K?

SW: Newt seems pretty lean to me also--though I don't have much to compare it against. No secret compression technology or tricks, though I have grown rather fond, lately, of constants in Project Data and AfterScripts. Although it has grown over time, Newt's not as gargantuan as it might be due to a variety of strategies.

Since Newton provides a rich object-oriented environment, any application can make use of existing protos, methods and slots as well as system functions and data. As I added new features, I attempted to consolidate and reuse my own code as much as possible--this often involved some redesign as I added features. Above this level, other size reduction came from relying on larger objects when possible--for example, other applications like keyboards, Notepad for beaming & printing, RUNewt for saving & running applications--rather than implementing and cramming everything into Newt.

I also had to decide which features to include or exclude. It would have been nice to have custom graphics and sound resources, but these can be quite large. I could have released separate demo and registered versions of Newt--one with demos, one without demos but with more functionality. I could have split Newt's two personalities into two versions--one for graphics, one for applications. Of course, any of these are possible in future versions, but the current configuration has been simpler to maintain, distribute and document.

Finally, there's the ongoing process of refinement and balancing the trade-offs of simplicity vs. efficiency whether in space or time. It helps to understand what goes on at layout, build, install, launch and user times, in templates vs. views, and when you've reached the point of diminishing returns, especially in readability.

As an example of this, in Newt 1.0, I had initially stored the source text for method definitions in my own soup. In Newt 1.1, I decided that it would be better to have the source more visible, plus I could take advantage of the Notepad's built-in support for actions like beaming, mailing, printing, synchronization with NCK, etc. After figuring out how to store method source in the Notepad's Notes soup, I realized that I could save Newt's drawings and the registration form there also. On the downside, we all know how slow it is to access Notes or Names when you have many of them and use the filing categories or folders.

Over several interim versions, I experimented with ways of optimizing how Newt accessed source entries. Although it is possible to index the Notes soup on its folder, this doesn't work for "Unfiled" or "All". I used different queries to access these and named folders, but eventually decided that the complexity and size wasn't worth the slight improvement in speed when changing folders. Instead, it was more important to focus attention on speed of access within a folder. Even more important was to reduce the amount of dynamic memory used--to minimize those "out of frame memory" messages--since there might be several, large representations for a method including its soup entry, its source string, its compiled method, and its evaluation result such as an application object. So, Newt 2.0

currently caches references (but not entire soup entries) to ensure speedy access within a folder, and it provides some support to minimize memory usage for methods that are large, and usually only called once, typically for initialization--by making them "virtual methods". Of course, if users start building many projects with many methods and find the NotePad mechanism too cumbersome, I may spiral back to using a custom soup again.

PR: What was the hardest part to implement, and why?

SW: Although the method source saga sounds complicated, the most challenging and frustrating part was figuring out how to save applications so that they could be run later without Newt and possibly on another Newton. It wasn't too difficult to create an application frame, make a global pointer to it, and reference it from an icon in the Extras drawer.

However, as I discovered, this wasn't the same as an NTK application which is installed in "package memory"--it didn't persist across resets, and interfered with installing and removing other "real" packages.

I recall demonstrating this version of Newt to Larry Tesler (Apple's former head of the PIE Division -Ed.) at the Newton Developer Conference in early December and to several folks in DTS. Although they weren't ready to release the package format, someone did suggest that I save applications in a soup and provide my own launcher application. If you've ever tried saving a complex frame into a soup, you may already know the problems I ran into. I soon discovered that I needed to understand how things are copied, how to save references to proto frames without cloning the ROM, and how to re-link references later, especially when soups remove the _proto slot, so that the frame is properly reconstituted later. Once I had that foundation in place, and thanks to tips from users like you, adding the final things like Beaming and Mailing of apps, was trivial in comparison.

PR: What is the biggest problem you have with the NTK environment?

SW: Well, let me have two biggest problems, one technical and one informational. On the technical side, I'd like to see better support for

user protos and linked layouts--hopefully this will be addressed in NTK 1.0 final. Generally, I'd like to see more shared libraries of objects and code, whether in ROM or provided in a Platform file. RegisterCardSoupFunc is an example of something complex that a lot of applications should not reimplement and that's now included. This will be important in keeping down size of applications, improving reliability, as well as improving portability across the soon-to-be-growing Newton family. A particular example I'd like to see is a :resize method that will work for views, analogous to :Drag. The SizeDoesn'tMatter sample is klunky and doesn't work for some situations. Also, given the close box in the lower right corner of many views, we'll need a different corner or gesture in order to resize views. How about support for custom recognizers?

On the information side, the biggest problem I have is finding answers to a specific question (or one that you didn't know you had). Where should you look--the NTK manual? the Q&A docs? the DTS samples? DoubleTap or PIE Developers magazine? PIE developer postings on AppleLink? PDA discussion on America OnLine? the npc mailing list? comp.sys.newton.programmer? the Newton book version of the NANUG newsletter? The good news (and the bad news) is that these sources are increasing. If you're a full-fledged PIE Partner, you have Apple experts available to distill these sources. For rest of us, the bboards are probably our best sources of up-to-date information. However, it's often difficult to find things and to separate noise from content. The problem is compounded by the subject headers on mail and threads in newsgroups which are often generic and useless, e.g., "got a problem", "me too", or "here's how I fixed it". Over time, I expect that more of this information will get filtered into official Q&A documents, and then into the manual and indexes. Or, perhaps Newtons will tap wirelessly into the WorldWide Web using a faster Find.

PR: In essence, you could be viewed as cutting into the market for NTK itself. How responsive have the people at PIEDTS been to what you're doing?

SW: I think the DTS folks have been great in providing information at the Developer Conference, and in posting messages to the bboards, often beyond the call of duty. I don't know if they are aware of Newt or have time to experiment with it--I'd be glad to send Kent, Mike or Bob a manual if they ask. I have seen other requests in addition to mine, though, for information on package formats, and nothing has been forthcoming. I can imagine several reasons for this: 1) the format is truly messy, complex and/or half-baked and not ready for outside consumption; 2) related to this, NTK itself isn't yet finished, so having to document and support this format for other development tools would slow down NTK development; 3) by limiting use of the format, they can constrain how applications are generated, decreasing the likelihood of viruses and malformed apps; 4) perhaps they plan license the format, but generally want to control the Newton development tools market. I think all of these are true to some extent.

I see Newt's application personality as expanding the potential market

for development tools. This will happen by increasing awareness of Newton development, by providing an "entry level" tool, and by training many would-be developers, who might then upgrade to a more "industrial strength" environment like NTK. Eventually, I may add a non-programmatic interface for constructing applications, find ways to build ever larger and complex applications, and use the package format if it becomes available. Even so, I expect Newt to remain more in the class of tools of HyperCard or FileMaker than of MacApp or C++. Of course, Newt's turtle personality addresses a separate educational development niche that would otherwise be ignored. So, hopefully Apple will not feel threatened, but will in fact encourage development of other development tools.

Here's an excerpt from a recent message from one of my users: "Brilliant app. It is on its way to justifying the purchase of an NTK and Mac by my company (who lock you up even if you mention the word Apple)."

PR: What future features/enhancements would you like to add to Newt?

SW: There are many things that I could add. What I do will depend a lot on the number of users who would find it useful and what looks like fun and doable to implement. Probably the first set of enhancements, once I have a little break, is in the area of applications: some of what I just mentioned, more tested examples for my users, and more of an application editing environment using Newton metaphors. Although I enjoy doing all of this myself, I'm hoping that others will contribute here as well. Books on NewtonScript and NTK could enhance the documentation that I already provide. I would also like to see other graphics and applications examples, as well as other tools that work with Newt, whether implemented in Newt or NTK.

PR: We hear a lot about how the concept of shareware isn't working as well as the authors would like. Why did you decide to make Newt shareware instead of trying to find a commercial distributor, and how successful has it been to date?

SW: I expect that the success of a shareware program depends on a lot of factors. Does the program address real user needs? How many users are there? Is it good quality? How much does it cost? What benefit is there in registering? How available is the program and how do users find out about it? When Newt was first ready, it seemed premature to seek a commercial distributor since there were (and still are) few channels in existence. The potential market in education and programming tools seemed limited, hence I doubted that StarCore (Apple's PIEDTS commercial distribution company -Ed.) with its emphasis on blockbuster business and entertainment titles would be interested. Shareware seemed like an interesting/fun medium in which to test and evolve a product while maintaining creative control.

Success? Shareware is not a likely get-rich scheme. Since this is my first shareware attempt, I really don't know what a reasonable rate of

registration should be, assuming that's my measure of success. I don't know how many Newton owners there are (70,000?), how many have access to on-line services, how many understand what Newt is, and how many have Newt, though America OnLine does provide a download count. Of these, how many are using Newt "for free" without a manual? This is an early stage in the market--we're all "early adopters", right?--and now several months after Newt first appeared, I'm pleased with the registrations and upgrade requests I've received so far--several from on-spot demos at the Developer Conference (including you), several from Europe, and others as people have discovered it on InterNet, CompuServe and America OnLine.

I guess I'm a "the glass is half full" kind of person. Not knowing what to expect, I'm gratified by the checks I've received so far. I suppose over time it will be tempting to adopt more of a "the glass is half empty" attitude like magazine writers of most Newton review articles--"only X copies sold", "it's missing feature Y", etc. So, if shareware authors have been disappointed, it may be due to the initial phase of the market, not providing what users really want, lack of adequate distribution channels or perhaps unrealistic expectations.

My early users provided invaluable feedback and encouragement. As I have added new features, such as support for applications, and done a better job of summarizing Newt when posting it to the networks, additional users have signed up. InterNet, in particular, is amazing for distribution--I submitted Newt 2.0 to the uiowa archive, and a few hours later, a user in Austria downloaded it from a mirror ftp site in Germany and decided to register. I wrote an article about Newt's "turtle personality" for DoubleTap (this should appear soon), and, of course, this interview could help evangelize Newt. As new Newton products come out from Apple and other partners--ones that address early problems and add functionality--the potential user base could grow enormously. Last but not least, I hope that word-of-mouth from contented users will spread the Newt message.

A comment on the development process itself: it has been tough balancing time and priorities: family, consulting job, sleep, shareware development, documentation and support. Sometimes there are overlaps: "hey, kids, let's have some quality time testing Newt" or "I can share this object or method from Newt with a consulting project" or "I can recycle this answer to a user into the next version of the manual". So, although it's a bit early to make any final pronouncements on success of the Newton shareware route, I encourage developers to try it, and users to support Newt and other shareware packages they deem worthwhile, especially if they're not satisfied with more limited and often expensive choices from corporate conglomerates. Otherwise, speaking for myself, it will be tough to find and invest the additional time needed for the continual fixes and improvements that any product needs. (We at NANUG second those sentiments -Ed.)

PR: What do you see as Newt's place in the general scheme of Newton development?

SW: Currently, I see Newt as providing an environment for learning about object-oriented programming and the Newton environment, so it could be useful to students and would-be developers.

It can be used for specific applications like the turtle “microworld” in education, though I don’t know how many schools will be obtaining Newtons in the near future.

It can be used to create native applications--we need to discover the complexity and size limits--either complete solutions or as prototypes to be reimplemented in NTK. RUNewt could be bundled with other applications to enhance functionality.

Over time, I could see Newt providing more and more application development facilities, though as I mentioned earlier, I don't see it as seriously competing with NTK. I think it could be the foundation for classes of other tools, e.g., forms generators. And, I'm sure my users will have lots of other suggestions.

PR: Like most shareware authors, you relied a lot on e-mail to keep in touch with your beta testers and registered users. Do you find it's an effective means of support, or that we use it only because it's the only thing that's practical?

SW: E-mail has been quite effective from my point of view, especially since users are distributed geographically and I can reach many users at once. As better telecommunications proliferates, we'll be able to do some live video teleconferencing. With enough users, I guess we could start planning for a call-in cable TV show (Newt on "Larry King Live" answering your questions) and various user groups and conferences--"Newt on World Tour". On which Caribbean island should we convene?

PR: Have you sent a copy of Newt to (Logo language creator) Seymour Papert?

SW: I haven't had time to find out if he has a Newton, but I'd be glad to send him a manual if he's interested. I acknowledged Seymour in my DoubleTap article for his pioneering work with Logo and children and I enjoyed working and sharing Szechwan food with him in the 70s. I could imagine that the Logo community might embrace Newt, though also expect the usual religious fervor about the relative virtues and vices of programming languages such as NewtonScript vs. Logo. As IR support improves, it would be fun to use Newt as a remote controller for LegoLogo projects.

PR: If there was one thing you could change about the MessagePad, what would it be?

SW: Well, I guess more memory (and frame heap) has been addressed in "Lindy" (Apple's MP 110 - Ed.), larger screens by other models in the Fall, better networking and telecommunications via 3rd party products real soon, and supposed upgradability of current MessagePads. So, if I had to pick one specific thing to be addressed, it would be better mechanisms for organizing information, especially for built-in applications like Notes and Names.

The current limit of 12 categories is arbitrary, and it should be possible to have large numbers of entries and use categories without resorting to keeping everything in "Unfiled" for fast access. Related to this, I'd also like to see better control over how Find does its search. And I guess the another thing (yes, I know,

you only asked for one), and one that Apple I'm sure would share, is that there be many more Newtons in people's hands already, to grow the Newton community.

PR: I'd agree to that! Thanks for your time, Steve, and good luck with Newt!

Views and Reviews
Erica Sadun

The South

Yesterday, I was on the phone with Newt guru Rob Bruce who has been helping me lately with some beta testing of Peekaboo v.2. (Its just finished now and will be at the sites this next week. More info about it at the end of this issue in the Corkboard section.) He mentioned that it was starting to snow heavily and he had to hit the road. I looked out my window. The Georgia sun shone. The Georgia road beckoned. I bid him goodbye, pulled on some shorts and hit the road on my bike. The Atlanta area has sweet rolling hills and I biked on my beautiful, proportional Terry while warm Georgia winds gently caressed me. Figgles, all 0.9 pounds of him, rode in my fanny pack. The Newton has just *got* to be the best bike-based computer around. I can't ever imagine sticking a PowerBook into a fanny pack (although if I owned one, I could easily see packing it in my panniers for a weekend trip. But still five pounds and about a foot square size is pretty big for lugging around on a bike).

The big question these days is should I, will I, might I upgrade. The simplest and cheapest path for a lot of people is to sell their MP and use the proceeds as an upgrade path for the MP110. Others are going for the 100 through 1-800-SOS-APPL (\$99 + s/h and you get two free software packages). One of the biggest disappointments for the software upgrade is that the freebies do *not* include the Mystery Capers--a software package I have been dying to play with. Since I don't actually own Figgles, I'm trying to see if I can get him upgraded through my co-op. Since my original project has been transferred from the Newt to OS/2, this doesn't look promising. I am strongly considering buying a 110 with my own funds if I can swing it--we'll have to see what happens.

I gave Georgia Tech a call the other day. "Do you have the new MP 110?" "Oh yes, one just arrived. Bubba is putting it in the display case." "How much does it cost?" "Oh I can't tell you that." "What? You can't tell me how much it costs?" "Oh no. We haven't gotten the pricing structures for educational discounts from Apple--but I tell you, it probably will be as cheap as \$700 or even \$650." I thanked him. Hung up. Shook my head in wonder and disbelief. Yeah. A great educational deal.

The best 110 deals seem to be from Computer City (NOT Circuit City, mind you--a different chain) in Texas and Florida which is offering them for \$629 less \$100 "instant rebate" at the cash register. Some people who have store credit have been able to get an additional 5% discount as well. Unfortunately, there are no Computer Cities in Georgia. Sigh.

The biggest deal about the 110's seems to be the reflectivity of the screen: however, interviewing happy 110 owners reveals that the screen reflects only slightly more than the original MP. That is, one goes from really irritatingly reflective to really irritatingly reflective plus one. Not a big change.

Contrast is now located on a spin wheel on the side of the unit and the PCMCIA card slot has moved. However, on the up side, with all that extra memory, all the Figgles Utilities work even better than before -- especially KeyboardPRO, that notorious memory hog. I'm almost finished with the next group of Figgles Utilities which will include KeyboardLite which will have all the custom keyboard facilities of PRO but will put the soup straining, garbage collection, etc. into a separate "Newt the Knife" application. (Accolades in next month's issue to anyone who can figure out the three puns that went into that name. Send me e-mail at erica@cc.gatech.edu)

With regard to the NANUG group programming project, things seem to be going beautifully. Expect to see some exciting results in the next month or so. In the mean time, check out my article in PIE developers magazine. I'll be posting Newt Chat, an IR chat program (a variation on the "seed source" for the group project- Ed.) to the sites in a few weeks.

ScrollEx

This month has also produced a good selection of new software. The pick for the month is the **ScrollEx** application from Ludovic Durand-Texte. This brilliant applet extends the functionality of the Extras draw and lets you scroll through it, rename applications, and move applications to and from the card. You can also now use the overview button to get a list of the extras and assign applications to the standard screen buttons. I don't know how I lived without it. ScrollEx gets a lizardly five out of five Newts on my reptilian scale. Get it! Get it! Get it! ScrollEx is shareware at a very modest \$10 (15DM or 50FF). Be aware that some people have had problems with backups and running out of frame heap memory but I have successfully used my connection kit (the original 1.0 version) to backup and restore without any trouble at all.

Magic App

Another sweet little applet is the **Magic App** from some Australian Newt-Pals. Magic App will allow you to Move applications between the Newton's internal and external storage, beam applications to another Newton and remove applications with a single stylus tap. I've not had a chance to fully test this out but my initial try-outs have been very

exciting. One of the cutest things about the app is that you can apparently remove your card with Magic on it, stick it into another Newt, copy the app to their Newt and now you are ready to start beaming apps back and forth. The shareware fee is \$20. More in the next issue after I get a further chance to play with it. I'll give it a Newt rating then.

ViewFrame

I've also been playing with the **ViewFrame** demo and I've been completely, overwhelmingly wowed. This app is **utterly amazing**. It lets you look through

NewtonScript code from any application--including system code. Programmers who have been using this app are complete raving fanatical fans of it. Just the demo version gets a five-Newt rating on the one to five lizard scale. I'll be getting a review copy this month of the real thing so look for a full review next issue. In the mean time, if you are looking for a really great programming tool, this is one to get.

List-It, Revisited

There's a new version of **List-It** out with some especially cool features and some bug fixes which fixed bugs in last month's review. The new version, 2.4, is still a bit slow, but you can now rearrange items in the list by direct manipulation. Deletion ops are far better and list management is overall superior. Macapa is doing a terrific job responding to users -- so register your List-it early and help support its evolution.

PrefsPatcher and Sleep Aid

A couple of gems are **PrefsPatcher** and **Sleep Aid** from Dan Rowley and Tom Collins. PrefsPatcher lets you close your preferences and formulas with a single click (rather than having to back out through the overview). PrefsPatcher also adds a cute little dual function button to your Notes status bar which gives you direct access to "P"refs and "F"ormulas. My status line is already so cluttered that this feature wasn't immediately appreciated--but when you realize that the single button gets you to both apps (depending on where you click), I began to respect it a lot more.

Did you ever wish that you could set two sleep times? One for batteries and one for when you're plugged in? Sleep Aid addresses this very sensible problem in a very sensible way. It sticks in a preferences panel which gives two sleep times: one for low power (battery) and one for high power (AC). Terrific idea, great implementation. I really really really liked this. I was less impressed by the actual "Application" part of the package. Four buttons let you reboot, sleep, open prefs and kill prefs. Gotta say, I hated the reboot sound (ROM_funbeep for you Sound aficionados). The dialog looked a bit like an afterthought, but otherwise this app performed as advertised.

PrefsPatcher gets a solid three Newts. If the two-step exit for Prefs and Formulas bothers you, definitely install it. Sleep Aid receives an additional newt for a total of four Newts on the one to five scale because it addresses a need that has bugged me for ages. Both are solid little packages that didn't seem to upset Figgles at all and both show a lot of promise.

Happy

A cute little three-lizard freeware app **Happy** from S.A. Laing looks through your Names database for upcoming Birthdays. It reminds you once a day and after hard

resets. A clever idea and a nice little applet. If you're in the Richmond, Virginia area, take S.A. out to lunch.

MobileCalc, Revisited

For some strange reason, I had to remove KeyboardPRO in order to review the next piece of software. MobileSoft's **MobileCalc** spreadsheet is a true Newton application. I'm not sure why it has such problems with KbdPRO but the two just don't seem to like each other. I'm hoping that KbdLITE will live more peacefully with it--we'll see in future columns how that goes. To be safe, I removed almost all software from Figgles for this review.

It took a few seconds to start up MobileCalc--at first I really thought that it wasn't working at all. (The times in seconds listed in this column were made using the **SuperClock** freeware stopwatch on the Mac.) But then when it did come up, I was suddenly in a full, professional Newton interface. A spreadsheet showed eleven rows and three columns. Great!, I thought, I'll do my budget. For comparison, I also performed the same budget in ClarisWorks on the Mac and in Excel on the PC.

It took me a while to figure out how to use the program--unfortunately, you're going to have to read the manual first; there is no way to figure out the interface otherwise. I tend to try first and read later. My initial impression was uniformly negative. However, an hour later when I finally gave up and consulted the manual, I began to understand more of the logic behind the program. On the other hand, during that time, the Newton auto rebooted about four times.

One thing to keep in mind is that MobileCalc is geared towards numeric entry and that there is a decided bias towards rows of numbers rather than columns of numbers--a bias I found extremely surprising since almost all my experiences with spreadsheets shows that people generally enter columns of data (similar data types) rather than rows (across data types). Also, the display is three columns by eleven rows. If you want to see a set of data, you don't want to be scrolling across the screen. Every scroll will cost you about six seconds. It took almost a minute to scroll from A to H. Keeping things in columns is imperative in this case. Although, MobileCalc provides movement icons on the bottom of the screen, navigation is

slow, slow, slow. Be prepared to be **patient, patient, patient.**

Columns can be resized by dragging their labels. However, be prepared to wait fifteen seconds between each move. MobileCalc has to do a lot of bookkeeping after a resize and will not accept the next move for a long while.

Double tap a cell and a slip will appear to help you put numbers into the cell. Want words? The “keyboard” icon will bring up a labeling slip that puts pre-built words into cells. Doing my budget, the first thing I wanted to enter was “Electricity”, but this failed to appear on the list. Instead I picked “Fuel” from the E-F list instead. “Close enough,” I thought. Once a label has been entered, the slip advances to the

next column. I wanted all my labels in the first column. After all, when you have a three column by eleven row display, you want to take advantage of the columns.

Since there is a cell button in the Labels slip, I tapped on that. A list of letters from A-Z appeared. I selected A. An A appeared in the input line. That can't be right, I thought. I pressed enter. An A appeared in column B1 and the active cell changed to C1. I double tapped the input line. The standard keyboard appeared. I typed "Electricity". Return. In C1, the label Electricity appeared and the active cell became D1. The spreadsheet did not scroll. When I entered "hello?" in D1, it was placed off screen. I could not see it.

Well now, I mused. There has GOT to be a way to get to A2. I dug through the manuals again and eventually found that you can double tap on a cell--with the labels slip open it will set the active cell. Finally! I double clicked and double clicked and sure enough it worked. Selecting a new active cell takes about five seconds. But beware! You **have** to press return first or your new data will be lost. I could have kicked myself when I figured this out after having laboriously typing in "Electricity" for the fifteenth time. (Yes, I know, if KbdPRO hadn't been taken off Figgles, I could have typed it with a single click. Go figure. (Bad pun-Ed.))

I more or less arbitrarily filled in the rest of my column. Now, I was ready to enter the data. I closed the labels slip and double clicked. (Be careful to get rid of the standard system keyboard before double tapping cells. You will get error 0 otherwise).

I double tapped on B3. The number slip appeared without any trouble (about seven seconds). I typed 74. Then I double tapped B4. My input line now read 74B4. I deleted back to 74, pressed enter and, miraculously, was automatically moved on to B4. Hey, I thought, I am getting the hang of this baby.

Now, onto summing the column. I looked in the back of the manual at the index under Sum. Nothing. I looked under formulas for Sum. Nothing. Finally, I found Arithmetic Functions. It told me how to multiply C2 by 8. Not very helpful. I just want to SUM darn it! Finally, I found the individual function glossary and on page 69 of the manual, I found SUM. It referred me to page 34 where I was told to

write + at the bottom of the column. I did so. In only fifteen seconds, the sum appeared.

Whew. All the basics were now under my belt. I was now ready to do my comparison with Excel and ClarisWorks. I started completely from scratch, ready to use my "training" to create a simple budget spreadsheet for six months and eight budget items. I took a break after my initial two hour training session (I had been working on learning the system from 10:30 to 12:30), and came back to the machines fresh. To cut a long story short, knowing exactly what to do, it took me another hour to set up my spreadsheet, get the column sizes right, do the summing and so forth. I didn't bother trying to get the column formats to \$xxx.xx. On the PC and

Mac, the same spreadsheets took me under ten minutes each including data entry, setting fonts, summing, etc.

To the best of my knowledge, there is no data import facility in MobileCalc to read in from or export to other Spreadsheets. (It will be added in the near future-Ed.)

I'm holding off on giving MobileCalc a Newt rating this month. I found the initial experience so frustrating that I do not believe I would give it a fair judging. (I kept feeling like the lead character in the "Critic" TV show.) So wait 'til next month for a more impartial score.

Until then, I can be reached at erica@cc.gatech.edu. Drop me a line.

Erica

SOFTWARE REVIEWED

ScrollEx (\$10, 15DM, 50FF)

Ludovic Durand-Texte
80, Bd. St. Marcel
75005 PARIS, France

Magic App, \$20, UK£15, Aussie \$25

PO Box 711
Kew VIC 3101, Australia
CompuServe: 100026, 1301
InterNet: syd@suburbia.apana.org.au
AppleLink: AUST0737
FAX it to: +61 3 349 2815
(Visa accepted)

ViewFrame \$70 (\$60 for PIE Developer Subscribers. Site Licenses available)

Creative Digital Systems
293 Corbett Ave
San Francisco, CA 94114
415.621.4252
415.621.4922 (fax)
cds@netcom.com
72722.3225@compuserve.com

cds sem@aol.com
cgs.sem@applelink.apple.com

List-It 2.4, \$10
Macapa Software
440 Upper Edison

#7 St-Lambert
Quebec, CANADA J4R 2V5

Prefs Patcher(free), **Sleep Aid** (\$5)

Innovative Computer Solutions

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CompuServe: 73563,2343

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CompuServe: 75460,2121

Happy (free, voluntary donations)

c/o Brand X Software

3228-L West Cary Street

Richmond, VA 23221

MobileCalc

Mobile Soft

307 Orchard City Dr.

Suite 207

Campbell, CA 95008

408-376-0497

Apple's MessagePad 110

Scott Leapman

First off, for all those people out there following the Newton Newsgroups on the UseNet, this article is not intended to be a critique of Apple Computer, Inc., the original MessagePad (MP), or Apple's upgrade policy from the MP to the MP100. It is an overview and evaluation of the MP110 by an original MP user.

I bought my MP back in September (v1.03) and have loved every minute of use. At times it was frustrating, especially during the "getting to know you" phase of handwriting recognition (HWR) training. Even after almost 6 months of use, we sometimes don't completely get the message across to each other. There are times when I write something that I **know** Newt won't be able to interpret, and it does, and other times I write so clearly that anyone could read it, and Newt gets it wrong. As an overall package, though, the original MP meets my needs and enables me to work more efficiently and effectively than before.

Now there is a new MP on the block; the MessagePad 110 (MP110). Some of the main criticism of the original MP was poor battery life, low internal RAM, and no built-in cover. The MP110 solves all this and more. The MP110 also has the new ROM that supposedly incorporates all the system updates from the MP, as well as adding enhancements to improve the HWR.

The following is an attempt at a detailed comparison of the MP110 to the MP (and the MP100 where applicable). I have only had the MP110 for 3 days, so there may be some omissions, however unintentional.

Hardware

(or What's New on the Outside):

The MP110 case is the same rubbery texture and greenish hue as the MP. The case is narrower, longer, heavier, and thicker. The on-screen contrast control has been changed to a rotary contrast dial on the left side of the case. As I understand, Apple did this because users were accidentally dropping the MPs on-screen contrast control to minimum, and couldn't find the control to raise the contrast back to normal. I

don't know why they just didn't put a minimum setting on the on-screen control?

The power switch is basically the same. It feels a little less sturdy, and doesn't have the same spring to it, but it works the same. The speaker is now on the bottom edge of the MP110 rather than on the front. BTW, all references to locations on the MP cases are relative to the screen being the front, and battery compartment being the back. As a right-hander, I was always covering the speaker grille on the MP when resting my hand on the front of the case. Now the speaker is obscured when the MP110 is placed in its leather case. I guess you can't win 'em all.

The IR window is roughly the same, although I heard that the IR speed is much higher than that of the original MP.

Most noticeably different is the location of the card slot and stylus holder, and the addition of a flip-over cover. If anyone out there has read "Defying Gravity: The Making of Newton" there is a picture of a prototype Newton with a flip-cover. The MP110 is not this design, but is similar. It is more similar to the (Aargh phhbt) Zoomer cover. There is a release button just below the Apple logo on the bottom edge/front of the case. The cover is double-hinged, and springs open a bit when the release button is pressed. When closed, the bottom edge of the cover is completely flush with the case, although the sides are not. The cover can be latched open with a clip on a battery door to keep it out the way. On the back of the cover is a "cheat sheet" similar to the Sharp EP, and little rubber feet to protect your furniture when the cover is latched open.

I'm used to using the leather carrying case on the MP, and will have to get used to the hinged cover. I just hope it doesn't break, but if it does, the MP110 should still work just fine.

The PCMCIA card slot is relocated to the right side rather than the top of the case. The eject button is a little larger than previously. Also, the MP card lock not only prevented the eject button from being pressed, but also lowered a restraining tab to prevent the card from popping out. The MP110 does not have this tab. The card lock switch only prevents the eject button from being pressed. Any industrious user can remove the card while the ejection button is still locked. I don't think this will be a problem, it's just different.

The stylus is really different. Its only similarity to the Zoomer (Aargh! Phhbt!) stylus is that it telescopes. It has already been dubbed the Torpedo (tm) due to its shape, and is definitely heavier and of larger diameter than the Zoomer's. It's also longer and IMHO, nicer. The thing appears to be made mostly of metal, and is spring loaded. The extension part of the stylus pops up automatically when you remove it from its holster. The stylus now is stored near the top of the MP110, accessed from the right side. A neat-o design, if you ask me.

The power and serial connections are roughly the same location and use the same connectors. The only difference appears to be the

rubber flaps that cover them. They're still there, but just different.

The screen is 16 pixels shorter than the MP. I've downloaded the majority of shareware titles to my Mac, and will try them out for compatibility with the MP110. Some have said that the MP110 screen is more reflective than the MPs. I have not found this to be the case, and find them equally annoying, yet still usable. I did notice, however, that the screen seems to require more pressure with the stylus. I guess I'll get used to this over time.

The back of the Newt is essentially the same. There are four rubber feet that are more like skid pads than rubber knobs. The lock for the card ejection switch is on the back as well. The battery compartment door is harder to remove, but this could be so that the flip-cover latch stays in place (it's located on the battery cover itself.) There are also two metal strips near the battery compartment. These are for the drop-in charging station. Word from Apple is that the MP110 rechargeable battery packs will charge in about 2 hours. With the charging station, you don't have to cable the Newt to anything to charge it's internal battery pack and an additional pack. Just place it on the station and you're chargin'!

Things are really different inside the battery compartment. There are now four side-by-side AAs where 4 stacked AAA's used to be. There is no interlock switch for "Replace Main-In Use-Replace Backup." The backup battery is still in there, but is screwed down in the same way that the Sharp Wizards do it. I guess it just wasn't worth the expense or engineering time for something that won't be utilized very often. Let's face it, how often did you have to replace the backup battery in the MP? The reset switch is still in there, and is still accessible with the stylus. The blue thermister has been replaced with what appears to be a metal piece between the two middle batteries. Also, there is a small switch between the same batteries that will most likely detect when the rechargeable battery pack is installed.

Overall, the narrower case is easier to hold, but the added weight, partially due to the larger batteries, makes it a little more tiring to hold.

Software

(or What's New on the Inside):

First off, every original MP can be upgraded to the same software functionality as the MP110. The MP110 has extra RAM, though, that won't be included in the upgrade, but the MP will supposedly reclaim the 30K or so that was taken in the 1.05 upgrade. I have yet to verify this since I don't have an upgraded MP ;-).

I sync'd my MP and restored to the MP110 using the Mac NCK, and everything went flawlessly. All applicable items were transferred, including my handwriting preferences and training, my personal word

list, and all data.

The major differences in the Newt OS are in the HWR options. At the bottom of the screen is an additional icon that looks like two parallel diagonal lines. Tap this and then you can toggle letter-by-letter, or word list recognition depending on which is set up as the default. You also have an additional choice to use number-only recognition. These settings are in effect as long as that icon is selected, and go back to defaults when you close it or tap it again.

When you double-tap a recognized word, there is an additional choice below the word list, and above the keyboard, called "Try letters." This option passes the

written word through the letter-by-letter recognizer, but is only available when the default in the HWR preferences is word recognition.

Deferred recognition is now available too. You can write anything in electronic ink, and transform it to text later. I've found this feature to work well, and it allows me to jot notes a little faster than normal. You can either select a series of words written in ink and double-tap them, or just double-tap a single word to recognize the word as text, without selecting the word first. Apple has just informed me that there is no limit to how deferred the deferred HWR can be. Newt stores a bunch of info on how you wrote what you did, and this info is lost after a certain period of use. Similar to double-tapping on an incorrect word to bring up a possibility list. You can attempt to recognize ink weeks later, but the recognition may not be as good as if you tried to recognize it minutes later. Bottom line, you can write in ink, and recognize it much later if you desire.

The Preferences section is a little different too. I don't have my original MP next to me, but it seems that there are fewer fields in the Personal page. The Date and Time page seems the same as do Locale, Sound and Sleep. The Memory page is the same, with the exception of more installed memory showing up. Pen Alignment is the same, but there are many differences in the Recognizers page.

There were 7 fields in the MP Recognizers section:

- words in word lists
- words not in word lists
- words with punctuation
- numbers
- telephone numbers
- dates
- times of day

Now there are 3 fields, one with two sub-fields:

- words in word lists
- numbers, dates, times
- letter-by-letter recognition
 - in Names file only

- everywhere

The shapes recognizer area is the same as before. A great new addition is the option to use letter-by-letter recognition in the Names file by default. Now you don't have to use the keyboard as much when writing in someone's name.

The Handwriting and Letter Styles pages are the same, as are the rest of the Preferences pages. The OS version of my MP110 is listed at the bottom of the screen as "1.3(344052)".

Another minor modification in the MP110 is that it seems that the font size for all text fields is enlarged when that field is selected for entry. This is convenient as it makes it easier to read what you are entering into a field.

The Names and Dates applications seem unchanged, and I haven't loaded up my Extras drawer yet to see if it scrolls. (It doesn't, but ScrollEx 1.4 (not 1.5x) will work on MP 110-Ed.) The lack of the contrast control seems to be the only difference in that area.

The rest of the system seems unchanged. Except for the addition of deferred HWR and better control over HWR preferences, the Newt OS seems identical to version 1.05 running on my MP. I have noticed that everything seems a little faster, probably due to more RAM space for system overhead. Anyway, that's all for now. I'll be writing a list of shareware app compatibility next. In case anyone is interested, Dell Crossword Puzzles and Other Games, and Columbo's Mystery Capers both appear to work fine on MP110. Those are the only commercial applications that I own.

Now for my personal opinions:

I've been using the MP110 for four days, and will probably return it this weekend. I love the ROM, and am pleased with the battery life and extra RAM, but just can't get used to the flip-cover, heavier case, and stylus. The overall case design just doesn't fit me right. I keep my Newt in its leather case at all times, and use it not only for screen protection, but also for scratch protection of the MP's case, and storage for the PCMCIA cards. I bought the leather case for the MP110 as well. With the inclusion of the flip-cover, a carrying case is no longer necessary for screen protection. It seems to be a bit of a nuisance to keep the cover closed and in the case, but if you leave the cover open with the MP110 in its case, then the screen isn't as protected as the MP was in its metal-backed case.

I guess what it comes down to is that if I've got a flip-cover, I don't need the case for protection, so it is rather redundant. If I don't have a flip-cover, I need the case for protection. Without the case, there is no place to store your PCMCIA cards. I've also noticed that the case muffles the speaker, and makes it difficult to remove the new stylus.

On the subject of the stylus. I find that the seam between the two halves of the telescoping mechanism rubs my hand and is uncomfortable. I've gotten used to the flat MP stylus, and might get used to the MP110's, but I wouldn't use the stylus as reason to upgrade to the MP110 from the MP.

The MP110 is (IMHO) larger and heavier enough to make it less comfortable to hold, and the screen has just enough reflection to make it harder on my eyes than the MP. I'm sure that the vast majority of shareware that was coded for the larger screen will

eventually be modified to automatically resize depending on the size of the screen it's running on, but I think I'd rather have the larger screen just the same.

The docking station will only have recharging contacts. As long I have to plug in the serial cable to the MP or MP110, I might as well plug in the power cable too.

The latest word from Apple is that the MP100 is going to have the 1MB RAM. If that is the case, and they are doing a logic board swap during the MP->MP110 upgrade, then it seems to follow that the upgrade will include the 1MB RAM also. None of this is verified, and a lot can happen in the 3 weeks we have until the upgrades start shipping.

The following is list of **my opinions** in comparison of the two MessagePads:

Original MessagePad (assuming ROM upgrade) and MP100 Likes:

- compact size
- screen size, contrast and reflectivity
- larger speaker on front
- full-size stylus
- the whole PCMCIA slot mechanism
- lighter weight
- battery compartment (seems well engineered)

Dislikes:

- low user RAM
- poor battery life

MessagePad 110 Likes:

- larger user memory
- longer battery life
- charging stand (versus separate charger and power adapter)

Dislikes:

- heavier case
- longer and thicker case
- flip-cover (seems unnecessary and likely to break)
- telescopic, spring-loaded stylus (likely to break)
- smaller, quieter speaker
- battery compartment (too similar to the Zoomer's, which seems like a calculator)
- PCMCIA slot location, lock and eject switch
- contrast knob (on-screen would have worked with a minimum setting.)

The MP110 is just not for me. But please visit your local Newton reseller and try it for yourself before taking my word for it (just make sure you buy it under a 30-day MBG!). You might like it, then again, you might agree with me and prefer the original MP design. Either way, the ROM upgrade is definitely worthwhile. My completely trained MP110 had more accurate HWR than an equally trained MP.

Thanks for your attention, and good luck with your Newt, whichever one you use!

Apple's PCMCIA Fax Modem
Scott Leapman

I bought my Newton MessagePad back in September and received the dreaded cigarette pack modem as part of the "Communications System." Since then, I haven't done a lot of faxing, but the modem did function just fine when the need to connect my Newt to the rest of the world arose.

Recently I've found that this need is occurring more frequently, and it's becoming annoying to carry around this little black box with me. I decided to try out the Newton Fax Modem Card (PCMCIA) as a viable alternative. My main rationalizations for NOT previously getting this modem (aside from already owning a perfectly functional modem that was paid for) was main battery drain and not being able to fax something from a RAM card using the modem card since the Newt only has one card slot.

I was mistaken about not being able to fax an item from the RAM card using the modem card. Whenever you fax something in the Newt, or do anything that requires the Out Box, your document gets stored in the Newt's internal memory. For this reason, you can safely fax or print an item that's located on the card, then remove the card, and still access the item. This is a great feature, except when you have too little space left in the internal RAM to store the Out Box items. As I understand it, these items cannot overflow to an installed memory card. Anyway, my first objection to using the Fax Modem Card was quickly dispelled. On to the second.

The external modem has not only its own power source (2 AA batteries) but can also use a Newton AC adapter. Thus, this modem draws no power from the Newton's meager power supply. The Fax Modem Card does draw its power from the AAA's (or AA's for MP110 users,) not only when in use, but also when idling (installed but not in use.) According to the SOS-APPL line, this modem will drain the Newt's power supply about 10% to 20% faster when installed (even when not in use) than when not installed! Bottom line is; either use the AC adapter for the Newt whenever the modem is installed, or install it only when using it, and promptly remove it when you're done.

I guess the convenience of not having to carry the external pack in a

separate case (the Fax Modem Card fits nicely in the Newton Carrying Case, either leather or otherwise) but there are no cables to connect or appendages to flop around. I've sent several faxes with the card modem, and haven't noticed a significant battery drain. In other words, I left the Extras Drawer open while faxing, and didn't notice the battery life indicator dwindle to nothing over the span of the 2 minute fax. I guess long faxes would drain the batteries faster, but then again, there isn't a ton in the Newt that big! Ok, faxing a novel in Book Reader format would take a while, but use the AC adapter when doing this!

Now the hard part of my decision...finding one! I called 5 mail order houses with no luck; MacWarehouse, MacConnection, MacZone, Apple Catalog, and J&R Music World. None had the item in stock, and a few didn't even have it yet. One actually said it wasn't release yet! Next I called Circuit City and Computer City with no luck again. Finally I found a nice cache of them at the local CompUSA. I hate buying things when I can't price match, but oh well. \$179.99+tax and a short drive later I was happily faxing from my new Fax Modem Card.

On first glance, the card looks like it won't fit in the Newt's standard PCMCIA Type 2 slot... it does. The neatest thing about this card is its X-Jack connector. This modem is actually made by Megahertz for Apple to Apple's specifications. I called Megahertz to find out the differences, and was told that although a lot of their other PCMCIA fax modems would work in a Newton, the Apple-labeled one was suggested due to its decreased power drain. I've even heard of their 14.4 kbaud fax modem working, but also sucking the Newt's lifeblood down in 10 minutes! No problem if you're tethered to an AC adapter, but if we didn't want to be mobile, we'd use our desktop computers to fax.

The card feels very sturdy as does the X-Jack. Slide the card in Newt's slot, and you get a "A Communication card has been inserted." message. The card is completely flush with the Newt's case until you release the X-Jack connector. It is a little slide-out tray that allows you to plug the phone line directly into the card. No messy adapter cables. The connector slides back into the modem when not in use. The modem even has a tiny speaker so you listen in for the Newt to connect. It's not a loud speaker, and may even be inaudible in all but the quietest of working environments, but it does work.

All in all, I guess the Apple Fax Modem Card is a worthwhile investment for any mobile Newton user who needs modem capabilities. It is convenient to carry, install, and use. The battery drain is not appreciable, and is well overcome by the convenience this device provides. Keep in mind, though, that if you don't already own a fax modem for the Newton, you can still pick up the external one for about \$100 or less. That's almost half the price of the PCMCIA modem, but is a pain to carry around. Then again, you need something to justify your purchase of that Communications System Carrying Case! ;-)

GeoAssist
David Tuttleman

Traveling with your a Newton can be like traveling with your office in the palm of your hand. Now with GeoAssist, traveling can be that much easier. Packed with many features, GeoAssist enables you to have a library of reference information in the palm of your hand.

All of the controls are managed from a main screen. A distance tool allows you to obtain the distance between any two points on the map. Simply select a point A and then a point B and the program figures the distance. Zoom in and Zoom out buttons allow you to see greater detail of the maps, but only to the state level in the USA map and country level in Europe. No other details are available at this time for any other area in the world.

A city locator is used to touch a point in the USA and the closest city will be displayed giving the user the telephone are code and the local time. Time zones can be displayed for the entire world--but only approximates with no real definitive lines--just digital clocks lining the top and bottom of the screen. GeoAssist allows you to set your home information, so when you are away from home you just select your location, tap "I'm here", and all of your necessary information changes. When dialing home, GeoAssist inserts the area code and uses the calling card number that was input, in addition to changing the time zone you are in--very handy!

NewtonMail, SprintNet access numbers for all the 50 states are listed by state, area code and city. Simply access the NewtonMail area of the program, select the first letter of the state in the alphabet list, then view the area code and city. Your current NewtonMail access number is displayed and GeoAssist allows you to replace it with the state and city you just selected. You no longer have to carry around a piece of paper or small book of access numbers, a tool that was needed the from the start of NewtonMail. Good Show!

GeoAssist has as part of the package a unique option that tracks real time of a flight that you are on. Enter a departure time and estimated arrival time, and Flight Track puts a small airplane icon on your map--then it travels along the map showing you the current location of the flight. Flight Track also displays the elapsed and remaining time of

your flight. The locations shown are not an exact location of your flight but really a graphical representation of the progress of your flight. This option is only available for cities in the US and Canada.

Telephone area codes are also a part of the GeoAssist program. A convenient alphabetical list allows you to select a city, and the program gives you the area code and local time. Nice!. Telephone reference numbers are loaded into this database. Airline, auto rental, express mail, hotels and even credit card hot lines for stolen and lost cards are in the 800 number directory, all nicely broken out into separate categories. There is even a list of local weather phone numbers--toll calls, but very

convenient. GeoAssist has an option menu that allows you to customize the display for miles vs. kilometers and temperature in °F and °C, good for those of you into the metric system.

Overall I find GeoAssist is a very easy, valuable addition to your Newton for all travelers and non-travelers alike. I won't leave home without it. I give it 4 out of 5 bulbs. GeoAssist needs at least 475K of free space and must be installed on your card using the Newton Connection Kit. It is recommended that you use System 1.05 or later.

Happy Trails!
David Z Tuttleman

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Code Samples

Letters for Newt (Part 1)

Kristina Weyer

(with `_protoGhostWriterDad` Steve)

This is not an article about writing letters or e-mail to your Newton , like “Dear Newt”. It’s about simple programs that tell the Newton how to draw letters like “H”. Newt is a neat program that my dad wrote that allows you to write NewtonScript programs, using a more complex form of Logo and the turtle. (To try out the examples in this article, you can obtain a copy of Newt from various networks. If you use it and like it, please register by sending my dad \$25.)

To get started, my dad showed me how to draw with Newt using simple commands like `go` and `turn` (some of which I already knew from using the Turtle when I was younger). My first letters were pretty simple and had very basic commands.

Here's what my first program for H looked like:

```
H_letter func()
begin
  :go(50);
  :turn(180);
  :go(25);
  :turn( -90);
  :go(25);
  :turn(-90);
  :go(25);
  :turn(180);
  :go(50);
  :turn(-90);
  :move(20);
  :turn(-90);
end
```

After you write the program and save it, and you haven’t forgotten to include semicolons and colons -- you wouldn’t believe how upset the Newton gets if you leave out a semicolon-- you can actually run it with `:H_letter()`.

I wrote programs for “E”, “L”, and “O” so I could write “Hello”. The Hello program is pretty simple:

```
Hello func()
begin
    :H_letter();
```

```

    :E_letter();
    :L_letter();
    :L_letter();
    :O_letter();
end

```

To make this work correctly, I had to make sure that each letter always started in the same place -- I chose the lower left corner, and always ended up in the same place, the lower right. This worked pretty well, and I was getting excited. Some of my letters had bugs, but it was pretty obvious which letters were drawn incorrectly, and how to fix them. I was about ready to do the rest of the 26, when my dad looked at it said, "wouldn't you like to be able to make the letters different sizes?". That sounded like a good idea, so he showed me how to use variables. Here's what my next version of H looked like:

```

H_letter func(hsize,vsize,sep)
begin
    :go(vsize);
    :turn(180);
    :go(vsize/2);
    :turn(-90);
    :go(hsize);
    :turn(-90);
    :go(vsize/2);
    :turn(180);
    :go(vsize);
    :turn(-90);
    :move(sep);
    :turn(-90);
end

```

hsize is the horizontal size or width of the letter. *vsize* is the vertical size or height of the letter. *sep* is the amount of space to put between letters.

My dad wrote a little program that would let me spell different words with Newt using the letters I had already made.

```

spell func(str,left,size)
begin

```

```
local i, sep := size/2;
local hsize := size, vsize := size*2; :movePt(left,0);
for i := 0 to Strlen(str)-1 do
Perform(self,intern(str[i]&"_letter"),
        [hsize,vsize,sep]);
end
```

When we entered `:spell("ellie",-110,30)`, Newt moved over to the left, and then wrote my sister's name. Each letter was 30 wide, 60 high, and 15 apart.

Because Newt starts drawing from wherever it is and in the direction it's heading, you can make letters on an angle or write upside down. When I started doing the other letters, it started getting tricky because some of them needed angled lines (such as A, and N). This can be a major problem since the `hsize` and `vsize` change, therefore changing the angle that Newt needs to turn so I couldn't put in a specific angle. Then, my dad showed me how to use `:goPt`. This allows you to tell Newt to go to a point relative to where it's starting. Here's how I did "A":

```
A_letter func(hsize,vsize,sep)
begin
    :gopt(hsize/2, vsize);
    :gopt(hsize/2, -vsize);
    :movept(-hsize/4, vsize/2);
    :turn(-90);
    :go(hsize/2);
    :turn(90);
    :movept(3*hsize/4, -vsize/2);
    :movept(sep, 0);
end
```

I redid most of my letters using `:goPt` but then we discovered a bug in Newt. When we tried making the letters at any other angle other than straight up, the letters no longer looked like letters. My dad said he'd have to think about this new problem. A few hours later, he had fixed it by writing a long complicated program (at least it seemed that way to me) explaining to the Newt how to do `:goPt` at an angle.

Around this time, he took another look at my letters, and said that the programs were pretty verbose and difficult to read, and maybe there was an even easier way to write the letters.

Next month:

I'll show how we redid the letters one more time to get rid of all of the `gos`, `turns`, and `goPts` and just use number coordinates to represent the letters. Another neat program my dad made was `OutlineChar`

which allows you to make outlined letters. I'll also show you how you can draw letters with fonts using Newt.

The Real World

Newton Integration Proof-of-Concept

Al Suding

The Newton reminds me of my first personal computer which I bought in 1979. "What a great idea," I said, "I wonder what I'll use it for?" Some of my corporate friends at the time said, "Got a personal computer, eh? ... Why?" The Newton reminds me of that experience.

Eventually, word processing, spreadsheets, small business databases, desktop publishing, and graphics made my personal computer indispensable. While I haven't reached that clarity of use yet with my Newton, things are starting to occur to me.

Currently I'm experimenting with digital books for portable, custom versions of reports, company files, and reference material. Here is a preliminary example that has only been done as a proof-of-concept.

We have an application built with Frontier, Tempo, FileMaker Pro, and Word that maintains reference material, internal articles, and technical addendum on a LAN. The material is kept in Word files and organized by topic on a Novell server. Each topic has a distribution list that is open for anyone to join. When new material is added to a topic, an e-mail is sent to everyone on that topic's distribution list by the application. If a person is on multiple distribution lists, he receives just one consolidated e-mail a day.

A HyperCard application lets a user browse the topic categories and open documents with Word. In a prototype version, I've added an option so that if a Newton Digital Book version of a document is available, a person can load it to their Newton. This provides a way to make a copy of a document for later review while traveling, in a meeting, or simply at home, without printing it. I estimate a 1 MB RAM card can store approximately 1000 pages, including graphics. That's a load in anyone's briefcase.

When the documents are in the Newton, it is simple enough to mark a page to fax or mail to someone. For example, "Hey, Joe, check out the new department support structure for Novell." Or keep a to-do with a copy of the relevant paragraph or text. Or just keep all those details

of project plans handy for meetings or hallway conversations. Plus, be able to make notes on those pages for later follow-up.

Right now, I manually format and create the digital books. It doesn't take long; but with the volume of material we have, even 15 to 30 minutes each is too long. So, a future step is to set document publishing guidelines so that through scripting, a document can be turned into a simple digital book on the fly. I've also done some

experimental importing of Lotus NOTES data, as well as corporate data from a mainframe by first capturing it in my Macintosh with ClearAccess.

It is feasible to have much of my personal office files and relevant corporate data on one or two Newton RAM cards.

In combination with scripting, agents, custom views into INFOSHRE, corporate data, and external business news services, it is possible to provide custom creation of digital books under the control of each recipient.

In summary, the goal is to automate interfaces to text and numerical data such that a person accessing a database can say, "That's the information I need on this trip or meeting, put it in my Newton." Or, "I'll put this Lotus Notes information, on-line accounting information, project information, and commercially available business news into a Newton "briefing book" for myself or my manager that can be reviewed when it is convenient." ... Cool!

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NANUG Group Project #1

Project Chat

As the world becomes more and more “wired”, it becomes easier for people to perform their work “remotely” and at their own timetable, rather than the clocks. As a way of proving this, NANUG has initiated a group programming project, hopefully the first of many. Below is the original project plan that was sent to NANUG members last month:

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Group Project Purpose:

To introduce NTK and NewtonScript programming, using a small to medium-sized programming project, as well as generate a “usable” application to release to public domain (with documented source and a project diary).

Background:

Erica Sadun and Mark Underwood got together on 2/21/94 and cobbled together a basic asynchronous, state-less IR “chatting” applet, which became the starting point for the group programming project.

Step 1: The basic applet was distributed to three programming teams, with each being given a different aspect of the final product to implement. Each team had access to a copy of NTK and at least two Newtons. It was expected each team would initially spend a good evening or two’s worth (about 4 man-hours total).

Step 2: Each version, when ready, will be distributed to NANUG members via e-mail for beta testing and user interface feedback.

Step 3: At a future NANUG meeting, the three groups (or representatives thereof) will present their work and then decide on how best to integrate the three versions into the final product.

Step 4: Via e-mail, the final version will be assembled.

Step 5: NANUG members will again be sent the “beta” application to test.

Step 6: A documentation team will prepare both “written” and “Tiny Tim” versions of a user’s manual.

Step 7: The final app, all source(s), documentation, and a diary of the work effort will be uploaded to all major services and ftp sites.

Specifics:

The three programming teams consist of two “local” and one “remote” groups, with each group consisting of at least two people (since this is an app that requires two Newtons to test!).

Team 1: Chat Team

Team One’s task was to turn the basic text-based chat prototype into a very solid platform on which to base the final product. Ideally, the app should consist of a status line, a received text area, an area in which to write/type what you want to send, and a single “connect” button. Because of the nature of the IR protocol, the connection has to be established in the following order:

1. listener starts listening
2. active guy starts activating
3. active guy begins with the first send.

This should be accomplished with a simple dialog that is tied into the viewSetupDone script (perhaps using AddDelayedAction) or by including a START button which disappears after it is hit the first time, and the conversation starts.

Team 2: Draw Team

Team Two’s job was to take the basic app and convert it to where it can send drawings instead of text.

The drawings could be sent:

- as individual strokes
- as completed, recognized objects
- as points and line segments
- something else that works quickly?

In the drawing app, a facility to save/print/route the transmitted drawing would be ideal to add.

Team 3: Game Team

This is the “remote” team, and this is a double-experiment--not only are we trying to create a group-based project, but via e-mail! Team

Three's task is to take the basic app and implement as many IR-based games as time permits. A list of possibilities include: BattleShip, Stratego, Gin Rummy, Go Fish, Checkers, Chess, and Maze Wars. Keep in mind that IR requires line-of-sight, about 5-8 feet (2-3 meters) maximum distance for good, clean contact. Avoid games that would cause each Newt to "compete" for access time--stick with "state-driven" (one person makes a move, the other then makes his/her move in reply) games.

Beta Users: All NANUG Members

During the beta testing, please contribute as much as possible to the user interface design of all three team's efforts. "Remote" members will probably have to enlist a (currently) non-NANUG member in order to test things out--be sure this other person understands that this software is "beta" and may have bugs!

Final Team

Once the three phases of "chat" are complete, at the next scheduled NANUG meeting, we will assemble a team to "merge" the three projects into a final "chat" application. This final version will be sent to all NANUG members for beta testing.

Documentation Team

The Doc Squad will be responsible for assembling the documentation and creating the "Tiny Tim" version (on-line book reader format). Once the first draft is finished, it will be sent to our "overseas" members, so that they can begin translation. The documentation team will also be responsible for coordinating the translation of the app itself into the other languages.

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In real life, of course, we all had "day jobs", which was going to make working on the project a little difficult. As the month went by, Team 2's effort got underway at once, followed by Team 3. Team 1 was delayed, and so one of the authors of the original "seed" code revised the package--making Team 1's assignment change to that of being responsible for the final integration.

Team 2 concentrated on the idea of sending "stroke" information to the other Newton, rather than sending the "full" shape. Doing this allows more "interaction" between the users, but presents the problem of making sure the "handshake" between them is rock solid. The initial app is in beta at this time.

Team 3 began work on an “adventure” style game as the first effort. They started with the idea of a “stand-alone” game (single user) in order to get the movement of characters, players attributes, battle, and navigation debugged. Once the basics were in place, the beta was shown to the project manager as a preliminary before working on the IR-portion. In this mode, two Newts would face off, head-to-head, in the maze. An option to allow the two “teams” of characters to unite against the beasts in the maze itself (a sort of “quest” mode) is being considered.

We’ll keep you up to date on the progress in the months to come!

Tips, Hints, and Secrets
NANUG Members

From Ashley Barnard Armstrong:

I took my leather case (a gift), which I didn't use much because it's heavy and big, to a purse repair place and had them run a strap through it (there's an opening by the zippers and middle part). Now it looks like a purse! I wore it to Apple's PowerMac product announcement. One of the guys there asked if I'd registered to win a Newt, and I pointed and said, yep, but I hope it's a 110, I've already got a classic! He said he thought I just had a purse...It's kind of cool....

From Luc Desaulniers:

For Canadian members who have access to an independent company for long distances (in my case STN), you know, the type that says it's cheaper if you give them your long distances business. By going through this carrier (you dial the local number of the carrier + Access code + account number + the number you want to reach*), and by changing the 800 to 700 in the Apple number (1-700-767-2775 instead of 1-800-767-2775), your call gets directed to the border as a long distance and then, you get on the US 800 network where it is free.

When I got the Apple Customer Rep at the other end of the line, she started asking the required information for the upgrade, and when we got to the address bit and I gave her mine in Montreal, a heard a small "oh, you're calling from Montreal" then a little silence, and she went on with the rest of the info. Looks like I slipped through the cracks!

Now confirmed, I will be getting in April my little gifts (as an appreciated customer, of course) and my shipping box!

(Editor's note: If anyone else outside the US and Canada gets their update processed in this method, please e-mail with the details! We'll pass along the experiences!)

From Kerry McCarthy:

Connection 2.0 errors? If you Sync both at home and work you get 2 Macs in the connection box. On LocalTalk, choose the right Mac--even on a serial connection, choose LocalTalk--and choose the correct Mac. Tap cancel, tap connection, and then serial.

Ask NANUG
NANUG Members

I've had a Newton for a few months now and really love it. I'm really intrigued by the way memory works, particularly with Flash Cards etc. I didn't get my flash card for a while, had filled up the standard memory a few times, and had a pretty large address book (about 180 names). This didn't leave much memory to play with.

When I got the Flash Card (2mb) I thought "yippee"--I'll be able to do what I want! However, I have moved everything to the flash card, but still get many out of memory problems i.e. having to reset (via dialog box). Using the applet "Memory" it seems I have about 87k free but about 77k is permanently used by ??? I've used a couple of diagnostics but can't work out what uses all this memory.

My guess is that you either have one or more programs installed "internally", or you have other soup entries that haven't been moved to the card.

In the Newton, the line between 'memory' and 'storage' disappear. Everything is stored either in the built-in RAM (whose size varies by the model of MessagePad you have) or on the installed RAM card(s). To the Newton, these two, physically separate areas of RAM are access as one larger area.

Within the internal RAM, a portion is set aside for OS patches, global variables, user preferences, and related items. On the old MP's this brought the 640 K of total internal RAM down to about 160 K (using OS 1.05, for example), not leaving much for everything you added: Names, Dates, Packages, etc. Adding a RAM card increases that amount by the size of the card--but the system changes can't be stored on the card, as it could be removed to make way for another one.

You have the option to set where all new items get added--either "internally" or to the "card" (if it's present)--in the Extras drawer, tap the icon for the card, and make sure the "Store new items on card" option is checked.

The memory areas in a Newton are called "stores" by Apple. If you

have a RAM card, you should keep as much as possible on the card, to leave the internal store as large as you can.

During use of the Newt, the internal store is used by the system dynamically (in handwriting recognition, for example). One of these uses is called the “frame heap”, where package data is kept while they’re open and running.

In order to make the best use of your memory, here are some guidelines:

If you don’t have a RAM card:

- Make sure you’re at Newt OS 1.05 or later!

- Turn off anything you don't use often--automatic beam options, handwriting recognition categories, etc. Study your Prefs carefully, and experiment.
- Get an applet that performs garbage collection (gc) on demand. Many free/shareware programs don't clean up after themselves and can leave large chunks of memory in use, even if you're not using it. KeyboardPRO and Memory are two examples.
- Some programs have the option to "turn off" when not in use (MobileMath and MobileCalc are two). Deactivating these programs will free up memory being tied up for things like Intelligent Assistance and global Finds
- Get a soup "strainer" (such as Souper, StewPot, or KeyboardPRO) and review what soups are installed. You may have removed an app, but its data may still be present!

If you have a RAM card:

- All of the above suggestions, as well as:
- Move as many things as you can to your card. Use soup utilities (such as Souper and StewPot) to move soups from the internal store to the external. Use programs like ScrollEx to move your apps from internal to card. The Names and Dates built-in apps have ways to move entries individually, or as a group, from the internal store to the card store.
- If you own the Newton Connection Kit, every once and awhile, back your Newton up to your Mac or PC, then once you have a good backup, reformat the RAM card, then restore the contents of the card. Over time, the card becomes littered with orphaned objects, a process very similar to hard disk fragmentation. The internal store gets "wiped" every time you do a reset.

Using these tips, you should be able to manage your "stores" effectively.

The Sharper Knife
Elaine Barrett

This month's editorial comes from the other side of the blade--specifically from our neighbor to the north of the United States--written by Luc Desaulniers of Quebec, Canada.

So what's with Apple?

Apple is the greatest! Apple is the worst! Apple will go wherever IBM is heading! Deficits (how many billions of times have you read this?). Ok, Ok. Let's think about this a little more closely. Apple is licensing the Newton OS. Smart move on their part, I guess they have learned from the Macintosh experience. Ok, they have a new CEO and a new President, then let's get on with a program to start a marketing renaissance (Apple won't be able to rely on IBM in the next few years the way the latter is going financially). Apple, what signals are you sending out to your loyal consumers?

Did you hear the latest about the release of the 110? It seems that Apple is listening to the users, but which users are they? Apparently not Newton users. They (Apple) in their infinite wisdom decided that, after listening to the "users", they would developed a newer form, pen, and more ROM, with a new name on the outside (besides, mind you, my hands are big enough to withstand the actual width of the original Newton!). What do they care about me, the average non-programming Joe? What, do I think that only developers and programmers are going to buy their products? Who are the people that use all those software products that are developed? Us the plain Joe's that use the Newton as a tool instead of a programming device!

Sounds like the old Mac IIvx syndrome!

An Apple PR representative actually acknowledged the fact that even with the newer version, the recognition is not perfect--so be it. They say Apple will offer a special promo for the poor of us that actually bought the first version--as long as they live in the US! Ok, Ok , I will cool down (it's easy in the middle of the winter while living in Canada). That same spokesperson had the guts to tell me that by the end of the year the flawed 110 will be replaced by a newer version. Hello? Is anyone home there? Apple, when I do Beta version testing

of something, I don't buy the hardware to test--I try the software and then, after trying, make reports to the people concerned, and if the product is even worth buying, I will let them know!

I have not even started with the news the **newer** NTK! Ok (again), you pay 895\$ US for a Beta version, Apple praises the developers for using it, and promises that once you buy it you get a free final version (remember, this newer version is also a beta). Well, this author, who has just the bad luck to live in Canada, has been waiting for

the system upgrade (1.05) from Apple after two telephone calls!!! (mind you, I got it anyhow through the BBS). Good example of corporate policy.

What does the future hold for the Newton? It is great for the Newton even with the repeated attempts by Apple to make getting upgrades on just about anything new that comes out for the Newton difficult, if not close to impossible. Why is it great? Because there are user groups who believe, albeit the manufacturer, that the product is great and has a lot of potential. So, long live Apple! Apple is probably the only corporation outside Microsoft and Quark that snub at their clientele while praising them as a top dollar market who come back for more. You know what's worse, they are right! I believe! And God told me that if by the end of the year, if I don't get a million dollars, I will die--so please send your contributions to me, care of NANUG.

--Luc Desaulniers

Want-Ads, Classified, and Cork Board

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We are planning a “Newton Development Conference and Expo” to be held late May in Sydney, Australia. Although not agreed yet, we hope to have substantial support from Apple Computer Australia.

We are looking for high quality speakers (both developers and clients), delegates, and any vendors who would like to support the product expo.

The conference is intended to stir up interest in Newton development in Australia, and is aimed at three main audiences:

1. Business, Government & Education organizations toying with the idea of PDA's
2. Existing or wanna-be Newton developers, software & hardware vendors
3. Any existing Newton Message Pad or other PDA owner

The 3-day, live-in conference will have separate streams for developers (or potential developers) & those who are new to Newton.

Conference Sessions will take the form of Keynote addresses by leading industry figures (hopefully from organizations with Newton projects underway, & from established developers) followed by extensive hands-on workshops, training and demonstration sessions.

In fine “Puppy-Dog Sale” tradition, it is planned that every delegate will be issued a Newton MP (with 2Mb card) for the duration of the conference, and they will be encouraged to load & try out software and hardware for themselves. Every delegate will be encouraged to develop one Book Maker application and one simple NTK application during the extensive workshops. It is planned that delegates will be able to purchase their Newton MP at very special pricing at the close of the conference.

Naturally, a map of the hotel and surrounds, the conference agenda,

and a list of delegates will be pre-loaded on their Newtons - maybe even the Keynote papers if we get them in time!

The associated mini-expo will feature Newton & Mac products, software and accessories for demonstration & sale. US software manufacturers not currently represented in Australia are being invited to participate.

Registration fees will be kept fairly low (around AUS\$495 twin-share, including airport transfers & all food). Vendors will be charged an additional fee to cover costs

of staging the expo (probably an additional AUS\$500 but depending on space required).

If you are interested in participating at any level (especially as a speaker), or have ideas to contribute, please reply to me via AppleLink SIMMO, or on CompuServe 100237,3253. You can also reach me by fax in Sydney on 011 61 2 954 0037.

Robin Simpson
Conference Convenor
AUStecc - Australian Technology Consultants Consortium Pty. Ltd.
30 Darley Street
North Sydney NSW 2060
Australia

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PEEKABOO:

The Programmer's Friend

Version 2.0

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No longer do you have to compile "**Trace**" statements directly into your program.

Forget about those "**BreakOnThrows**" too. Want to look through your **soups**? Or **download** a lot of software without the hassle of Connect/Download/Open Extras again/Search for Connection/... How about setting your **printing detail**? Or get a **screen shot** of your application? What about instant **garbage collection**? Or peeking through your software (or others' software) while it runs? How about **instant access** to the program you're debugging without always going back to Extras or your Extras access program? Or how about **timestamping**? Or looking at the memory **stats**? Peekaboo not only lets you turn tracing on and off while you debug but you can peek through your software as it runs and peek through global system calls while you experiment. Additional buttons let you set **detail depth** and call up the "**Toolkit**" application.

All you have to do is connect up the Inspector to NTK and you're ready to go. Peekaboo is shareware but, hey, its really cheap. Just \$12.50 (Free to users who registered 1.0 by 4/1/94) Please help support Figglesware by sending your check in soon.

Erica Sadun

112 Hampshire Court

Avondale Estates, GA 30002
attn.: Figgles Peekaboo version 2.0

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SleepAid 1.0

Release Announcement 3/20/94

Innovative Computer Solutions is committed to supporting its Newton applications. This announcement is to let you, our users, know what we are doing. We have had several reports that SleepAid 0.9b is not compatible with the MessagePad 110 or the German MessagePad. We understand why it does not work with the German MP, and we are trying to figure out how to make it compatible with the new MP 110. We would like to release a version that fixes both of these problems but Dan, our head programmer, is in the process of moving. He has been out of town for two weeks, and will not get a chance to work on SleepAid until next week. We hope to have v1.0 ready by March 26th. Please e-mail ics@indirect.com if there are any other bugs to report, or features you would like to see in the next release.

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AMUG (the Arizona Macintosh Users Group) Presents BBS in a Box, Volume XI, April '94! "BBS in a Box" is a Macintosh-format CD-ROM which contains over 600 megabytes of compressed shareware, freeware and public domain files--in categories such as QuickTime, Business, Games, Utilities, Newton, and more! This volume contains 1.6 Mb of compressed Newton files - over 50 files! (Note: the CD is an HFS disk, and can only be run on Macintosh systems.)

AMUG is offering a discount to NANUG members, who can purchase the disk for \$45 US (Retail value - \$119) + \$5 US shipping (\$10 US out of the USA).

For more information, contact AMUG at ashley@amug.org or (602) 553-8966 [voice], 602-553-8771 [Fax], or mail to us at:

Arizona Macintosh Users Group (AMUG)
4131 N. 24th St., Suite A120
Phoenix, AZ; 85016.

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Would you like to post an ad or other Newton-related classified item in _protoReality? If so, please send your ad copy, via e-mail, to:

marku@aix3.ema.com

with a subject of "NANUG Ads". Items will be carried in the current month's issue if received before the 15th of the month, otherwise it will be in the following month's issue. NANUG reserves the right to refuse publication if the content is deemed unsuitable for our audience.

Currently, there is no fee to list an item. Please limit the size of your text to no more than two Newton Book Reader sized "pages" (about a single typed page). If you want to include graphics, they should be no larger than 3"x 4" (8 x 10 cm).

NANUG Member Bios

Erica Sadun

Erica is a doctoral student at Georgia Tech who is going to be finished with her degree Real Soon Now. Although she doesn't actually own a Newton (Figgles is just a good friend), she thinks hand-held PDAs are really neat. Along with being a Trustee of NANUG, Erica is our chief staff reviewer. She is hoping to review a Lindy as soon as one is sent for review to the user group. She promises to love it and hug it and call it George.

Luc Desaulniers

In the past 20 years: formerly Translator in Toronto, Marketing Supervisor for a tool company, Marketing Manager for a Swiss watch company, public relation Agent for a world aluminum company, artist (painter) with exhibits in New York, Toronto, Ottawa and Montreal, Creative Director and Administrator for an advertising firm, VP in a public relations firms, and now President and owner of a corporate communication and design firm for the past 4 years.

Bought my first computer in 1980 (a Commodore 64), owned my first Mac in 1984, and a Newton since last November. A couple of years ago, made a fork between taking the time to learn new software in lieu of writing it, due to lack of time. Amateur of Sci-Fi, collector of video films (over 200 at this time). Avid reader of Asimov, Arthur C. Clarke, and Omni magazine since 1974.

Love to travel, wind sailing, restaurants, Flash Gordon, Star Trek, Grand Prix, and Indy racing, exotic foods and of course computer and technology as a whole.

Hate lazy, scrooge, always-right-syndrome, and me-I-and-myself people.

Simon Coles

I am a Final Year student on the MEng in Information Systems Engineering course at the University of Surrey, UK.

My final year project is to develop a communications aid for severely

disabled people, based on the Newton. Hopefully you will hear more of this later!

During the holidays I work for my sponsoring company, Motorola LMPS in Basingstoke, UK. Generally I manage to work my way into jobs that require working on Macintoshes, last summer this meant developing 4D databases.

Languages include NewtonScript, (favourite :-), Smalltalk (second favourite), Pascal, 4D, Omnis, and C (yuk!).

I am also an RSI survivor (which meant 18 months off University to recover :- (), and hence have an interest in all things ergonomic. BTW, has anyone else found writing on their Newton (plastic stylus on plastic screen) becomes painful after a while?

Kristina Weyer

Kristina is in 7th grade at Newton Junior High School in Bucks County, Pennsylvania. When she's not playing with the Newton, she enjoys playing saxophone in the jazz band. Her competing math team recently finished 6th place in the state MathCounts championship. She just finished reading "Hitchhiker's Guide to the Galaxy" (her Dad thinks that might make an interesting first Newton application for her to build). She can be reached on America Online as "Krisbo".