

# Scribbles OzNUG

The Official Magazine of the Australian Newton Users Group

June 1995



## PC Connection

Making your own connection cable



## NS BASIC 2.0

Programming the Newton in BASIC



## PD for PDA

Newton Shareware and Freeware Reviews



## Newton Upgrades

Latest on Apple's Newton Trade-in Programme



## Developer Conference

Second Annual Australian Newton Developers Conference



## Editorial

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Contributors **Chris Curnow, Craig Dunn, Grant Gillespie, Frank Haley, Robin Simpson, Mark Underwood and Stephen Wong**

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### About OzNUG

OzNUG (the Australian Newton Users Group) is an Australian non-profit organisation of people who have an interest in Newton technology in all forms. Initially based in Sydney, local branches have been established in most capital cities. We have no allegiance with any particular vendor of Newton based products although we encourage all vendors to support thegroup.

The purpose of the group is to:

1. Help members to get the most out of their Newton technology and keep them informed of new developments in the Newton world
2. Provide an opportunity for members to review new applications, hardware platforms and accessories that use or enhance Newton technology
3. Provide case studies of successful implementations of Newton technology
4. Provide a channel through which members can share ideas, opinions & knowledg and give feedback to appropriate vendors and software developers

### Contributions

We welcome comments, opinions or stories on Newton or PDA-related subjects. Please write or e-mail your contributions to us and include your full name, address and telephone number. We reserve the right to edit submissions.

Send all contributions to:

The Editor  
OzNUG Scribbles  
PO Box A250  
Sydney South NSW 2000  
AUSTRALIA

Contributions can be submitted via the Internet to: swong@mpx.com.au



# Editorial

## Support OzNUG and Scribbles

WELCOME to the first issue of the new-look OzNUG Scribbles magazine.

Scribbles is an important part of OzNUG. With our magazine, we hope to be able to stay in touch with those club members who may get left out, particularly those who do not have the opportunity to attend the club meetings and meet with other Newton users. Through the pages of Scribbles, we can bring OzNUG and news from the world of Newton to you.

Scribbles is an open forum where we can all share ideas, stories and experiences. New products, interesting news and upcoming events will also be covered.

This magazine is written by its members for its members. All effort in the production of this magazine is completely voluntary.

We are not affiliated with any organisation, though we are very fortunate to benefit from

the generous support of many people and organisations, including Apple Computer Australia and Trio Technology who have both supported OzNUG from the start.

Recently, Harcourt Brace Australia and NewtonWare have also pledged their support to OzNUG.

As the members of OzNUG, please support your own club. I invite you to support OzNUG by contributing to your magazine.

We want to hear from you. Let us know what you think of the magazine. Tell us what's good and tell us what's bad. Do you have ideas on how to improve Scribbles? Do you have personal stories to share? Are you about to release the next great Newton-based application? Tell the Australian Newton community about it. Tell us about it!

Until next time, happy scribbling. 

*Stephen Wong*  
Editor

## Coming Events

### MAY

- The Sydney branch of OzNUG will be held on Wednesday 24 May at the offices of Andersen Consulting, Level 23, 141 Walker Street, North Sydney at 6:00 pm.
- The Melbourne branch of OzNUG will be held on Wednesday 24 May at Apple, 55 Southbank Boulevard, Southbank at 6:00 pm.

### JUNE

- The Sydney branch of OzNUG will be held on Wednesday 21 June at the offices of Andersen Consulting, Level 23, 141 Walker Street, North Sydney at 6:00 pm.
- The Melbourne branch of OzNUG will be held on Wednesday 21 June at Apple, 55 Southbank Boulevard, Southbank at 6:00 pm.

### JULY

- The Second Annual Newton Developers Conference will be held as part of the 1995 Apple Technology Symposium at the Royal Pines Resort, Gold Coast Queensland from Saturday, 8 July 1995, 12:00pm to Monday 10 July 1995, 12:00 pm.
- The Sydney branch of OzNUG meeting for July is not finalised. Members will be notified of the meeting details as soon as they are available.
- The Melbourne branch of OzNUG will be held on Wednesday 26 July at Apple, 55 Southbank Boulevard, Southbank at 6:00 pm.



### OzNUG Sydney Meeting

OzNUG Meeting, 29 March 1995  
Level 23, Andersen Consulting, 141 Walker Street, North Sydney

The March meeting was held at the offices of Andersen Consulting in North Sydney, thanks to their generosity.

Robin Simpson sent a fax from his Newton to an Andersen's fax machine to show how easy it is to use a MessagePad 120 as a mobile office using an installed Nokia PCMCIA card and a Nokia 2110 digital phone. He also demonstrated how to use EnRoute to send and receive e-mail via a QuickMail server.

Robin mentioned a new Internet client for Newton called eNotes with e-mail and newsgroup connections. Setting up is simple and straight-forward, unlike lunarMail. All you have to supply is the telephone number, name and password.

eNotes is marketed by Sydney Low of Instant Information, based in Melbourne. Sydney has generously pledged to make the eNotes Newton client available to OzNUG members. He is also willing to make the eNotes server software available to any Internet provider who is interested in offering the service.

Robin also described a product from SBI, a New Zealand-based developer, which allows you to send and receive data and faxes with Newton via a Nokia digital phone and a Nokia data card.

The software works with NewtonMail, QuickMail, CIS Retriever and other communications software. It can also send and receive messages using the GSM short messaging service. Robin used his Newton to demonstrate this by paging him with his MessagePad and digital phone. Since his phone is already connected directly to his Newton, you have to wonder whether the message was actually sent via exchange or did it just travel straight from his MessagePad to his mobile phone!

Sandy and Adrian Browne, from Canada, attended the meeting. Adrian was in Australia to conduct the first NewtonScript course held in Adelaide. Sandy demonstrated FieldWorker,

a field data collection application for Newton which will be commercially available soon. It comes installed on a PCMCIA card with two cables, one to connect to a global positioning system (GPS) device and the other to download data to a PC.

FieldWorker can:

- define up to 20 project categories
- create up to 7 different screens types, including alphanumeric, numeric, notes
- provide dynamic popup lists
- allow up to 7 pages of notes, each can be individually labelled for easy identification
- download data as comma or tab delimited text.

A beta tester has been using the software successfully to perform environmental protection field studies in India and China.

While in Australia, Sandy and Adrian will be looking for feedback on how FieldWorker can be used.

Steve Hall gave a brief overview on new features of the Newton 120. He also gave a short personal summary of his personal experiences at the CeBIT '95 Expo in Hanover.

When asked about plans for the upgrade program for Newton users, he indicated that the details of the plans were underway. The details would be made available sometime in April. In previous meetings he had indicated that the trade-up program might take the form of extras bundled with a new Newton or there might be a credit given towards the price of a new Newton.

Stay tuned for more information.

*Stephen Wong*

*Editor: The details of the Newton upgrade program is described on page 7 in this issue.*

### OzNUG Brisbane Meeting

Last Meeting

Well, no time and a lot of space to fill - here's what happened briefly.

Good coffee and biscuits aided the extraction of email addresses from all attendees (you'd think Newton owners would be able to communicate electronically, instead of by phone and fax.)

Looked at two wireless technologies one connecting via a GSM (digital mobile) phone and another using a PCMCIA "modem" linking to the Telecom Digital Network.

With the mobile phone we looked at the mail in-box and downloaded some messages. Cool, but cumbersome (wiring the Newton to the phone). Still, the GSM network coverage is acceptable and getting better all the time.

With the PCMCIA card with a tiny aerial, we looked at a BHA application for sending and receiving messages via the Telecom Digital Network. This is neat (just put the card in the slot, no dialling phone numbers, just press connect and you're in!). The Digital Network is another digital radio network (separate to GSM) with capital city coverage (currently) and potential to expand into other areas if there's a reasonable need (talk to Telstra). It was pointed out by one of the BHA system users that it worked deep inside buildings when mobile phones wouldn't. It seems to have better error correction and, being a packet network, it's more secure.

Lastly, we were suitably impressed by the Graffiti demo by Andrew Scott. He also spoke about the Enhancement Pack, which looks like the best money you can spend on your Newton.

Next meeting will be in 4 to 6 weeks, you'll be notified when we know what's happening.

## About bOzNUG

bOzNUG does not officially exist. I just thought I'd say that up-front, in case it starts to look like it does, as you read on... This is probably because the centre for excellence is based in Brisbane, and there's probably enough activity to keep the reaction going without too much intervention.

Yes we do have meetings on an Irregular basis, at the Centre of Excellence in Mobile Information Systems (ceMis).

ceMis has been established to promote Newton development throughout the whole southern Pacific region. A number of very exciting projects are under way right now and we have been fortunate that ceMis have volunteered their premises for our meeting. You can hear more about these projects at the meetings.

Meetings are usually held on the first Wednesday of the month at ceMis, Level 1, South Tower, 339 Coronation Drive, Brisbane at 5:30 pm - 7:30 pm. Parking is available around the side in Hale St.

Building security makes entry difficult if you arrive after 6pm, so be early. If you arrive late call Michael Easton's mobile 0412 789 091

to gain admission.

To find out more contact Grant Gillespie.

Grant Gillespie  
ggillesp@qnpbnes2.telecom.com.au  
07 865 3113 (answering machine)

## OzNUG Melbourne Meeting

At the February meeting we had Chris White from Motorola showing us the Eagle (Motorola Personal Messenger 100D PCMCIA wireless packet switched modem) and a mock-up of the Marco (Motorola's Newton). Very interesting stuff but we couldn't do much because nothing worked on the Eagle at that stage.

The April meeting featured Sydney Low and Pete Yandell demonstrating eNotes - internet access with Newton. Both Syd and Pete gave very good presentations and eNotes certainly works well. Even more interesting was Syd's overview of the potential uses for a product like eNotes.


Each meeting we have an informal chat about Newton news and next meeting we intend to take this a bit further by going on-line to the geko mirror site and some web sites.

The feature item for the May meeting is a demonstration of MapPad for Newton - a GPS client developed here in Melbourne. The demonstration will be given by Elvin Slavik, the product's developer - recently returned from the international launch in Malaysia and a stand at CeBIT.

We have about 30 regular attenders (I hate the word 'attendees') with about 10 signed up as official members. Next meeting will also feature a membership drive.

## About mOzNUG

mOzNUG has been operating since February this year and has so far held two meetings. (We had a small gathering of the faithful in March). As a general rule, we meet on the 3rd Wednesday of each month at Apple, 55 Southbank Boulevard, Southbank at 6:00 pm. Doors are locked at 6:30 pm so if you are going to be late, ring 9686 6868 and leave a message.

Chris Curnow  
river@ozonline.com.au  
James Gambit  
snowwolf@eworld.com 

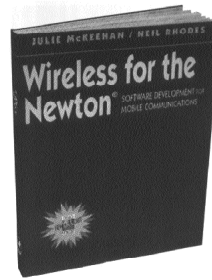


# News

News from the World of Newton

## NEW! McKeehan & Rhodes Book

*Wireless for the Newton* by Julie McKeehan and Neil Rhodes picks up where *Programming for the Newton* left off, teaching the reader how to develop Newton software on the Macintosh. The enclosed floppy disk provides a sample application, as well as a fully functional demonstration version of Newton Toolkit (NTK), Apple Computer's complete development environment for the Newton.



Contents: *Introduction. Filing: Supporting Folders in Your Application. Routing: Supporting the Routing Action Button. Delete, Duplicate and Card. Beaming. Printing/Faxing/Mailing. Communications, Mail Based Communications. Low Level Comms. Find: Supporting Find and Find All in Your Application. New Connection: Supporting Editing Your Newton Data on a Desktop Machine. Intelligent Assistance: Adding Support for the Assist Button to Your Application. Advanced Debugging Techniques: Tips and Hints to Improve Debugging. Advanced NewtonScript.*

*Advanced Soup Design. Performance Tuning. Imaging: Drawing on the Newton.*

According to Lewis McLaughlin from AP Professional (USA), *Wireless for the Newton* is expected to be published early May 1995.

Belinda Jovanovic from Harcourt and Brace Australia, the local distributor says that we can expect to see the book around three months after the publication date as the books are shipped by sea. However, if there is sufficient interest, a special air

freight shipment can be arranged.

To place your order, call Harcourt Brace on 008 26 3951. For more information, contact:

AP Professional  
Locked Bag 16  
Marrickville, NSW 2204  
Attn: Belinda Jovanovic & Con Vais  
Phone (02) 517-8999  
Fax (02) 517-2249

*Editor: We will review Wireless for Newton in the next issue.*

## APP Special Offer

Belinda Jovanovic, Marketing Manager at Harcourt Brace Australia has kindly donated two books from their AP Professional catalogue.

Belinda writes: "I would like to offer your members the opportunity to become APP Members whereby they will be issued with a membership card that entitles them to a 25% discount off all books ordered directly from Harcourt Brace Australia and New Zealand. As this will be the launch of your newsletter we would like to support you by offering a couple of books as prizes in a competition. Entries can be forwarded directly to myself and all participants will be winners by receiving the APP Membership Card.

All entries can be sent to:

**OzNUG Competition**  
**APP**  
**Locked Bag 16**  
**MARRICKVILLE NSW 2204**

Please ask your members to provide their name and address and you can publish the winner in the next edition of your newsletter."

## Newton Upgrade Programme

Thursday, May 4, 1995

Well FINALLY today we have received the official announcement from Apple regarding the Australian Newton MP120 trade-up program.

It's been well worth the wait - it's much more generous than anyone expected! This offer only applies to Australian Newton owners! Please read these details carefully (and the good bit is at the end).

The Trade-up is **only** available direct from the Apple fulfillment house, Direct Effect, so don't bug your reseller.

Everyone who has registered their Newton purchase by sending in a warranty card to Apple Computer Australia will automatically receive a letter in the mail in the next week with full details and a return addressed shipping bag.

If you haven't registered your Newton then it's a bit more difficult (another reason why its worth sending in those cards, folks!). You will need to write a letter enclosing proof of purchase details (e.g. a store receipt) to:

Attn: Howard  
Newton Trade-Up  
P.O. Box 2128  
Silverwater NSW 2128

Howard will then send you one of the standard letters with the bag, an authorisation number, the details & the form etc.

If you have any queries then you can call the Newton Trade-up Hot-Line during Sydney Business Hours on 1-800 811 717 and they will give you details. **Please note this is an Australian 1-800 number, not a USA one.**

The Trade-in allowance is much better than expected, and varies depending on the model you now have.

There is an additional charge of A\$20 to cover packing and insurance, and the package must be lodged at an Australia Post office in the bag that Direct Effect supply.

There are tax-exempt prices for those that

have exemption numbers or certificates - basically you can deduct roughly another \$100, depending on which model (you will be given full details in the letter).

Apple claim that they will have your new MP120 despatched to you within 10 days.

Please Note: Lots of people refer to their original or "Classic" MP's as MP100's. This is incorrect - the MP100 was NEVER sold in Australia. The ONLY way you could have an MP100 in Australia is if you sent your MP back to Apple and paid to have it upgraded by swapping the ROM. So if you bought a MessagePad from Harvey Norman for \$299, don't get too excited because its an original MessagePad, NOT an MP100!

Finally, one **very** important point: You **must** back up your own data (and preferably then erase it!). Apple will not transfer your data to the new Newton, and will not be responsible for any data that you leave on your old Newton.

What are Apple going to do with all the old Newtons? Hmmmm - interesting - but I suspect it has something to do with a bottomless pit...

Happy Trading!

Robin Simpson

*P.S. I've been using an MP120 for about three months now (my old 110 is sitting very quietly in a corner, but not for long, heh, heh) and it is a really nice machine, well worth the tradeup. The recognition is definitely better (although still far from perfect) but the real reasons I like it are:*

1. Enough spare RAM to store my favourite apps, 700 names, and a year's appointments & ToDos - while leaving the PC-Card slot free for all sorts of interesting wireless comms cards such as the Nokia GSM, the Motorola RD-LAP, the Dayna 2.4GHz spread spectrum etc. etc.
2. Really nice screen - as good as the original "Classic" screen.
3. Socketed ROM so I can quickly & easily get upgraded to a new OS if & when it comes out (don't hold your breath...)  
Go for it!

### The Good Bit

The Trade-in allowance is much better than expected, and varies depending on the model you now have. Your new MP120 is valued at the normal price of A\$1195.

Newton Model	Trade-up Value	Nett Change-Over
MessagePad (Original)	A\$350	A\$845
MessagePad 100 (Upgraded ROM)	A\$450	A\$745
MessagePad 110	A\$500	A\$695

## CD-ROM for Newton! Vol 2

The *Totally Incomplete PDA CD-ROM for Newton! Volume 2*, released last month, is a superb collection of freeware, shareware, commercial demos and more for Newton MessagePads and other Newton compatible devices. It is an excellent resource for Newton users who have a Mac or PC computer equipped with a CD-ROM. This is an ISO 9660 format hybrid CD-ROM which means the same CD-ROM can be read on Mac and DOS/Windows computers.

### What's on it?

The CD-ROM is essentially a complete collection of Newton software from the Arizona Macintosh Users Group FTP site at [amug.org](http://amug.org). It is packed with 270 megabytes of software, amounting to over 5500 files, including 1600 packages. Some items have been added as late as March 1995.

The CD-ROM is organised as follows:

*For Mac* - Books, Calculators & Scientific, Calendars & Clocks, Commercial Demo, Communications, Finance & Accounting, Games & Educ, HealthCare, Lists & ToDo's, Mac, News, Programming, Resources, Shortcuts & Keyboards, Software Sampler and Utilities.

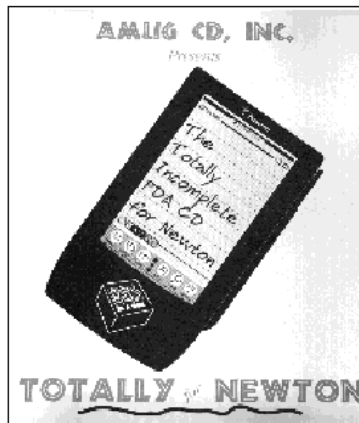
*For PC* - Books, Calc-sci, Commercl, Communic, Edutain, Finance, Health, Lists, News, Prog, Resource, Shortcut, SSamplerTime and Util.

### Downloading Packages

You can download packages directly from the CD-ROM to your MessagePad using the Newton Connection Kit, the Newton Package Installer utility or another way of downloading packages.

Windows users can download packages with NEWTINST.EXE.

Mac users can download packages with the PDA Package Downloader shareware program (PDA2:Mac:Mac: PDA Package downloader 1.5) or the Newton package Installer utility which is included in the Software Sampler 1.3 self-extracting archive. There's just one small problem — 35 megabytes of free disk space is required to install the archive. Both package installers also need the Apple Modem Tool and



AppleTalk ADSP Tool. If they are not already installed on the hard disk, the Software Sampler will copy them into the Extensions folder inside the System Folder.

### Ordering Information

The *Totally Incomplete PDA CD-ROM for Newton Volume 2* normally retails for US\$42.00. For a short time, it is available at the special introductory price of US\$29.00. To order, send US\$29.00 plus US\$10 for international shipping per order to:

AMUG CD, Inc.  
PDA Intro Offer

4131 N. 24th Street Suite A-120  
Phoenix AZ 85016, USA

Visa/MasterCard orders may be made by calling 0011-1-602 553-0066 or fax at 0011-1-602-553-0144 or Internet: [info@amug.org](mailto:info@amug.org). Include your name, address and phone and email for shipping.

*Editor: I faxed my order on 5 April 1995 and my copy arrived on 13 April 1995.*

## Newton Software & Accessories



NewtonWare is a Sydney-based mail order company dedicated to distributing application software and accessories for the Newton MessagePad.

"Our primary aim is to bring Newton software and accessories to the much neglected Australian marketplace," said Stephen Rushcroft-Smith, director of NewtonWare.

"We operate on a mail order basis and in this way are able to sell our products at very competitive prices. Our policy is to sell at our suppliers' list prices plus an allowance for freight and handling. Thus by purchasing in quantity, Australian customers are not disadvantaged by buying locally."

As a special offer to OzNUG members, NewtonWare is offering the following discounts, available until the end of June 1995:

Equate \$130 (rrp \$139)

DietLog \$115 (rrp \$125)

TireTrax Professional \$130 (rrp \$140)

Message Manager 2.0 \$55 (rrp \$59)



More Info 2.0 \$66 (rrp \$71)  
 15% off all Iverson Newton books  
 Leather Holster \$72 (rrp \$80)  
 Newt Boot \$71 (rrp \$79)

All shipments incur a postage and handling charge of \$8.50 per order.

"It is impractical for us to give an across the board discount due to differing discounts from our suppliers," said Stephen. "As our volumes increase and hence our buying power, we will pass on greater discounts to OzNUG members."

NewtonWare's range of products also include screen protectors, desk stands and replacement pen styli.

For a full catalogue and price list contact NewtonWare on (02) 719 1983, fax: (02) 719 2012, eWorld:NewtonWare.

## OzNUG Discussion Mail List

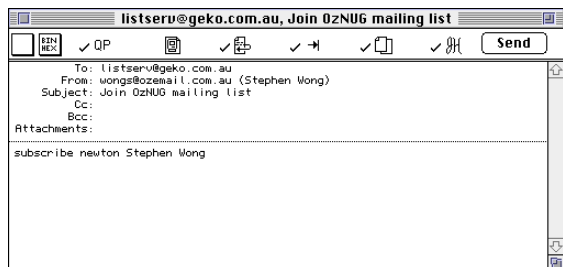
Join the official Australian Newton users group (OzNUG) discussion mail list. Dez Blanchfield (geko@geko.com.au) would like to invite you to join the official newton users group (OzNUG) discussion mail list. As part of the on going support GEKO, the Internet service provider, are made available an automatic mail list server to OzNUG to handle the subscription of users to the newton discussion list.

To join the newton mailing list, send an e-mail to the GEKO list server (listserv@geko.com.au). The subject field can be anything you want, but the body of the message should contain:

*subscribe newton FirstName LastName*

To leave the newton mailing list at any time, send an e-mail to listserv@geko.com.au with the following in the message area:

*unsubscribe newton FirstName LastName*



Please contribute to the list:

If you have a question about Newton technology or software, ask it! You can bet that there's 100 other people out there who want to ask the same question, but are too shy.

If someone asks a question and you know

the answer, please give it! The more people that contribute ideas, answers, and opinions, the more benefit to everyone who subscribes.

If you know some hot news, rumour or scuttlebutt, tell it! If you have a neat idea for Newton or for the list, suggest it! If want to make a suggestion to Apple or Sharp or Motorola or Matsushita etc, please do.

The list is currently not moderated, so be sensible and use your netiquette. Please keep your postings short, as some people will be reading this on Newtons or via radio modems in the very near future!

## NewtonScript Training Courses

Robin Simpson is planning an "Introduction to Newton Programming" course in Sydney starting in mid June 1995.

The three-day hands-on course costs \$695 covers the following topics:

- Overview of Newton hardware & software architecture
- Introduction to the Newton Toolkit, Apple's Newton development environment
- Object Oriented Programming in NTK - Views, Protos, Inheritance, NewtonScript
- The View System, ROM, pseudo-ROM, RAM and run-time instantiation on Newton
- Programming strategies, prototyping, debugging and debugging tools

The course will be conducted using the latest Apple MessagePads, the latest NTK, and Macintoshcomputers, but applies equally to those considering other Newton devices such as the Motorola Marco or the Sharp ExpertPad, or the announced Windows-based NTK which will ship later this year. Macintoshes, MessagePads & extensive course materials will be provided, and the MessagePads used will be available at attractive prices at the conclusion of the course.

A five day "Advanced NewtonScript" course covering Soups, Filing, Find, Intelligent Assistance and Communications topics will be conducted in each location about one month after the introductory course.

A special five day course, including communications topics, is scheduled to start on 29 May 1995 in Auckland, New Zealand.

Other Australian Cities (including a Sydney repeat) are planned for June, July and August.

If you would like to attend any of the scheduled courses or you would like more information on other courses, contact Robin by fax or email. In-house courses are also available

by arrangement. All courses are run by The Simpson Group Pty. Ltd. with the support of Apple Computer Australia.

Robin Simpson  
The Simpson Group Pty. Ltd.  
Tel: (02) 955 9183  
Fax: (02) 954 0037  
Internet: simmo@geko.com.au

## Newton Developers Conference

I am pleased to announce that the 2nd Australian Newton Development Conference (NewtCon '95) will be held from Saturday July 8 to Monday July 10 1995 at the Royal Pines Golf Resort, on Queensland's Gold Coast.

I am also delighted to say that once again I am the convenor and I welcome enquiries from any developer, vendor or Newton guru who would like to present a paper or otherwise contribute to this year's conference program. Perhaps I should add that July is a PARTICULARLY nice time to visit Australia's Gold Coast for a quiet game of golf in the sun, in between speaking engagements of course....

We are currently developing the agenda, but the conference will have a heavy emphasis on Mobile Communications and deliverable field data collection applications for the Newton. We have already received indications that all three Digital Cellular (GSM) network providers in Australia will actively participate, along with Telecom Mobile Data (Ardis/DataTac) and Bell South Mobile Data (Mobitex).

As with last year's conference, there will also be considerable opportunity for hands-on, including an introductory Newton Programming Class and more technical breakouts for experienced developers wanting to implement Communications applications.

The conference will be run in conjunction with a major four-day Apple Technology Symposium designed for the IT people from large Corporate and Government organisations. Over 500 people are expected to attend that conference, with up to another 150 specifically attending the Newton stream. At least one keynote will combine both conferences. Last years very successful inaugural Australian Newton Development Conference attracted 90 delegates, so we are looking forward to an even more interesting event this year.

Enquiries regarding opportunities to present or display product at the conference should be directed to me at simmo@geko.com.au or OzNUG@eWorld.com,

or you can fax details to +61 2 954 0037.

Robin Simpson  
Conference Convenor  
NewtCon '95

## FTP Mirror Sites

If you are not thinking "what the heck is an FTP Mirror?", skip to the next paragraph. For the rest of us though, here's a non-technical explanation...

There are places (computers) on the internet that you can log-in to and download files (software, documents etc). This is done using File Transfer

Protocol by various means (Telnet, many other specific FTP programmes - no time to discuss here, ask your internet guru). To reduce traffic to the sites with the goodies, a "mirror" can be established (often in your own country) with all the goodies on a "local" machine. You can therefore get at the best info, without going overseas or overloading the source computer.

Grant Gillespie

You might be interested to know that there are now two Australian-based mirror sites containing Newton software, news and utilities. Between the two sites we cover every known Newton resource on the Internet.

Geko.com.au now has a nightly-updated mirror of the entire AMUG newton site - over 126 Mb of VERY well organised and up-to-date newton software, Mac & DOS utilities and news.

AMUG's Ashley Barnard Armstrong (the woman who produces the AMUG BBS-in-a-Box CD and the AMUG Newton CD ROM) keeps it very tidy and its updated on average every three days. Ashley actively searches the net for Newton stuff, and so it it exists then its probably on Ashley's site. The Australian URL is: <ftp://ftp.geko.com.au/pub/newton/amug>

There is also an OzNUG directory there too, and an Australian submissions directory: <ftp://ftp.geko.com.au/pub/newton/OzNUG>  
<ftp://ftp.geko.com.au/pub/newton/submissions>

There is a good collection of Mac & DOS stuffing / Binhexing utilities etc: <ftp://ftp.geko.com.au/pub/newton/amug/dos-only>  
<ftp://ftp.geko.com.au/pub/newton/amug/mac-only>

The geko site is maintained by myself.

Ken Taylor (ken@highway1.com.au) of wOzNUG, the Western Australian Newton Users Group maintains a mirror of the University of Iowa Newton ftp site, and the



# Review

Programming the Newton  
with NS BASIC

## BASICALLY NEWTON

by Stephen Wong



With NS BASIC, programming your Newton is not as intimidating as you might imagine. Especially if you already know BASIC.

You might even have long-forgotten BASIC programs buried away somewhere. Breathe new life into them. Convert them to run on your Newton with little effort. I managed to port programs written in GW-BASIC to my Newton and I didn't even have to modify a single line of code.

NS BASIC is a Newton specific BASIC (Beginner's All-purpose Symbolic Instruction Code) programming environment that lets you build small applications directly on your Newton.

sample code in the technical notes, provided on disk for more detail.

Your Newton can be programmed directly from the screen-based keyboard or by tapping a command from the popup lists. Connect a Mac or DOS computer to your Newton with a serial cable and you can input program through the computer's full-sized keyboard. You'll need communication software, such as ZTerm or Terminal. Better still, use standard cut and paste techniques to input existing programs quickly and easily.

NS BASIC runs on any member of the Newton family, including Apple's MessagePad, Motorola's Marco and Sharp's Expert Pad.

NS BASIC is supplied on DOS and Mac formatted floppy disks with Apple's Package Installer program, it can be installed even if you don't have the Newton Connection Kit. However, you will need a connection cable. Mac owners can use a standard Mac serial cable. Windows users who are handy with a soldering iron can make their own cable for around \$12. (See my make your own Newton-to-PC connection cable article on page 13 of this magazine for details.)

NS BASIC 2.01 includes a runtime version, but it's not yet intended for general distribution. So for the time being at least, you can only share your programs with fellow NS BASIC owners.

### Documentation

NS BASIC also comes with a Newton-sized handbook that's packed with useful examples. It's designed as a quick reference guide. The introductory chapters show you how to start programming quickly. The Advanced Topics chapter focuses on how you can add Newton specific features to your programs and how to interact with the Newton's built-in data soups.

Don't ignore the rich source of supplementary information on the NS BASIC program disk. It contains additional examples



It's based on traditional BASIC which was originally developed as a teaching tool at Dartmouth College in the 1960s. BASIC has evolved over the years, but remains popular because it's easy to learn. Modern versions of BASIC, such as Visual Basic, have become much more sophisticated.

### Features

NS BASIC takes you beyond traditional BASIC. Its library of built-in objects and functions supports many Newton-specific features.

Object templates, such as text boxes, slider bars, checkboxes, and popup lists, make the creation of forms-based programs very easy. You can write programs to accept handwritten input and access built-in data. There's also a set of graphic functions for drawing and interpreting lines and shapes.

NS BASIC also supports the infrared and serial ports so you can exchange data with a wide range of devices. With the correct codes, you can write your own remote control program to operate your TV or VCR. Read the

Text boxes, slider bars, checkboxes, and popup lists, make forms-based programs are very easy to create.

not found in the handbook.

## NS BASIC vs NTK

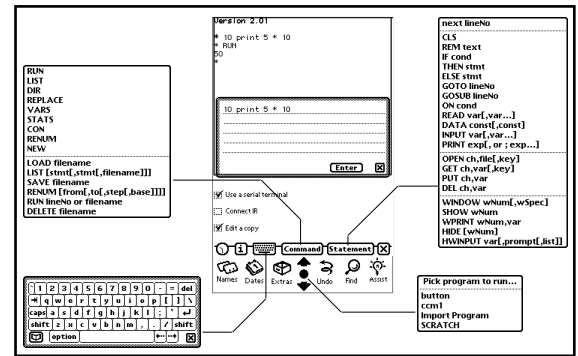
Should you consider NS BASIC over the Newton Toolkit or other development environments? That depends.

For serious development, the Newton Toolkit remains indispensable. NS-BASIC suits the casual programmer who wants to write small applications or data collection forms but does not want the burden of learning NewtonScript. When I was starting out, NS BASIC helped to introduce me to important NewtonScript concepts.

Currently, the Newton Toolkit is only available for the Mac. The Windows version is expected to be available later in the year. Until then, you'll need a Mac to develop Newton applications with the Newton Toolkit.

There are also other excellent Newton development environments. Newt, is a complete NewtonScript programming environment developed by Steve Weyer. It's a shareware product available for US\$35. PowerForms and TabulaRasa are two soon-to-be-released products for creating data collection forms.

Because NS BASIC is an implementation of BASIC, this can be seen as both a strength and a weakness. On the one hand, it's easy to learn. Its popularity also means that there are many existing programs around that can be converted to the Newton. On the other hand, the use of line numbers, GOTO and GOSUB statements to control the sequence of program execution makes NS BASIC less than ideal for developing complex applications. Programmers who consider traditional BASIC to be unwieldy and restrictive may prefer other alternatives such as Newt.



Program directly from the screen-based keyboard or by tapping a command from the popup lists.

## Conclusion

Overall, NS BASIC is an excellent personal programming tool. Just don't be too ambitious. Keep your applications small and simple, and remember the Newton motto as you program: "Do one thing and do it very well."

If you have internet access visit NS BASIC's WWW Home Page at <http://www.io.com/user/~nsbasic/> for more information or get a copy of their informative Newton Book.

*Stephen Wong is a consultant and technical writer/trainer. Currently, his programming interest is focused on Newton development. He can be reached at [swong@mpx.com.au](mailto:swong@mpx.com.au).*

## NS BASIC at a Glance

Type	Programming
Version	Version 2.01 reviewed. Version 2.03 now shipping.
Rating	
Price	\$159.00 (US\$99.00)
Publisher	NS BASIC Corporation, 77 Hill Crescent, Toronto, Canada M1M 1J3, Tel 416 264 5999 Fax 0011 1 416 264 5888, Internet: <a href="mailto:info@nsbasic.com">info@nsbasic.com</a> , CompuServe: 74431,412
Distributor	Trio Technology, Suite 3, 247 Bayview St, Runaway Bay QLD 4216, Tel 075 774411, Fax 075 77445
Pros	Easy and fun way to programme. Object templates allow Newton interface features to be added easily. Gentle way to learn NewtonScript concepts. Can input program using an attached Mac or DOS/Windows computer.
Cons	Limited by the inherent weakness of traditional BASIC. Code execution is noticeably sluggish.



# Feature

Connect a Newton to your PC with this do-it-yourself connection cable.

## PC CONNECTION

by Stephen Wong

Connecting a Newton MessagePad to your desktop computer can be tricky without the Newton Connection Kit. The kit includes a serial cable and software.

For me, the Newton Connection Kit is indispensable for installing packages and synchronising data between my Newton and Mac. It's possible to get by without the Newton Connection software, but you really can't do without a serial cable.

Some commercial software, distributed on floppy disks, come bundled with Apple's Newton Package Installer software. Packages, such as Figgles' Typomatica or NS BASIC, allow you to type information directly into your Newton via a terminal emulator. All you need is a serial cable.

If you are a Mac user, connecting your Newton MessagePad to a Mac is simple. Buy yourself a standard Mac serial cable. It's readily available at most Macintosh resellers or electronics stores.




If you are a PC user, getting a suitable serial cable is not so easy. I wanted a Newton-to-PC cable for my laptop computer, but I didn't really want to buy the Windows version of the Newton Connection Kit. So I made my own cable.

You can do the same. Or ask a friend who's handy with a soldering iron to help you.

### Materials

You will need the following materials:

- A male (with pins) mini DIN-8 connector

 mini DIN-8M	 DB-9F	 DB-25F
1 HSKo	1 + 6	6 + 8 DSR + DCD
2 + 7 HSKi + GPI	4	20 DTR
3 TxD-	2	3 RxD
4 + 8 Gnd + RxD+	5	7 Gnd
5 RxD-	3	2 TxD
6 TxD+	-	- (not connected)

Newton-to-PC wiring details.  
See next page for pin assignments.

- A female (no pins) DB-9 or DB-25 connector, depending on the serial port on your computer
- A hood or casing for the connector
- A length of eight-core shielded audio cable
- A 2 cm length of insulated wire

Wiring a male mini DIN-8 connector may be difficult, so you might consider getting a standard mac serial cable and cutting off the connector at one end. If you know someone else who needs a cable, cut the cable in half. That way you can make two cables.

You will also need soldering equipment and a circuit testing device, such as a multimeter. If you don't have one, a battery, a light bulb and two short lengths of wire will work.

### Making the Cable


1. Remove about 2 cm of the outer protective jacket and peel away the shielding foil to expose the individual insulated wires. The insulation around each wire is colour-coded for easy identification.
2. Carefully remove the insulation from the end of each wire. A few millimetres is sufficient. Do the same for both ends of the short length of wire.
3. Match the wires to the connector pins using the multimeter. If you intend to use both halves of the cable, you will need to identify the pins at both ends as they are wired in a slightly different way.
4. Solder the wires to the connector pins according to the information in the table. The pin assignments, illustrated in the diagram, are numbered as viewed with you looking head-on at the connectors. For example, if you're making a DB-9F cable, solder the wire connected to pin 1 of the mini DIN-8M and one end of the short piece of insulated wire to pin 1 of the DB-9F connector. Solder the other end of the short wire to pin 6 of the DB-9F connector.
5. Cut off any remaining unused wires.
6. Test the wiring connections before you fit

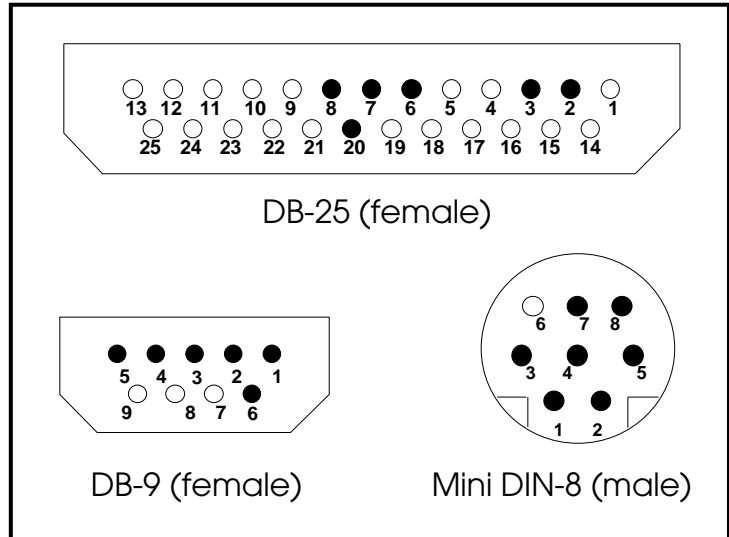
# Review

the connector into the casing.

## Conclusion

That's all there is to making your own Newton-to-PC connection cable.

The Newton Connection Kit is a must for any serious Newton owner. I certainly won't want to do without it. But for me, having an extra cable allows me more flexibility since I can connect my MessagePad to my Mac or my DOS computer. 



Pin assignments as viewed looking head-on at a connector

## Continued from page 10

uiowa /submissions directory is often where new Newton stuff appears first. It's at: <ftp://newton.highway1.com.au/pub/newton/uiowa/> and the submissions directory is at:

<ftp://newton.highway1.com.au/pub/newton/uiowa-submissions/>

or at a WWW level:

<http://www.highway1.com.au/computing/newton>

Robin Simpson

Pelicanware, Ex Machina, Inc., Atomic Software, iambic Software, Black Labs, Inc.

Other related forums, not dedicated to Newton include:

*Palmtop Computing A, GO PALMTOPA*

*Palmtop Computing B, GO PALMTOPB* (Palm Computing, the developers of Graffiti are here.)

*Wireless Communications, GO WIRELESS*

Stephen Wong

## CompuServe Forums

For those of you with access to CompuServe services, there are numerous places for keeping abreast of news in the world of Newton. Here's are some of the ones that I've found interesting:

*Newton/PIE Forum, GO NEWTON*

Includes: Forum Business/Help, Hardware Reviews, software Reviews, PR/New Products, Newton/PIE<->Mac, Newton/PIE<->PC, Newton/PIE<->Other, Newton Packages, Newton Developers, Miscellaneous, SPOTLITE/PocketCall, Sharp Newton Info, SPOTLITE/GoFigure

*Newton Developers Forum, GO NEWTDEV*

Includes: Forum Business, Mac Toolkit, Windows Toolkit, Other Languages, Book Maker, NewtonScript, General Programming, Graphics, Human Interface, Hardware, Communications/Nets, Concepts & Ideas, Marketing, Other <-> Newton, PIEoneers Contest, Community Square

*Newton Vendors Forum, GO NEWTVEN*

Includes: General Library, Creative Digital, Avalon Engineering, Nomadic Tech.,

## Newton Mentions

In his latest novel "Storming Heaven," technothriller writer Dale Brown has one of his characters, Harold Lake, receive a wireless message on an Apple Newton PDA.

The April 1995 issue of Computer Living carries an article on the Newton MessagePad. Those of you who attended the February OzNUG meeting will remember that Nina Turner sat in on the meeting. There's also a profile on OzNUG member Glyn Szasz. Good to see OzNUG and its members getting some media coverage. We want to see more!

Stephen Wong

Editor Jeremy Templer has started a regular Newton page called "Newton Assist" in this months Australian MacUser (April, p 54), and is very interested in receiving news, reviews, gossip, rumour and scuttlebut about anything going on in the Newton community!

You can contact Jeremy on [AustPR2@eworld.com](mailto:AustPR2@eworld.com) or [AppleLinkAUST0459](mailto:AppleLinkAUST0459) or [Jeremy\\_Templer@niche.com.au](mailto:Jeremy_Templer@niche.com.au).

Three Cheers for Jeremy!

Robin Simpson



# PD for PDA

Newton Shareware Reviews

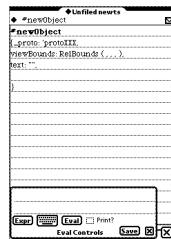
*Editor: Part of this issue's shareware reviews are reprinted with permission from the Feb/Mar 1995 issue of \_protoReality, the newsletter of the North Atlantic Newton Users Group (NANUG). Thanks to Mark Underwood and Frank Haley.*

## Newt 2.5

Newt version 2.5 is the newest version of Steve Weyer's Newton-based application development platform.

Newt allows you to write new programs for the Newton on the Newton. It's as simple as that. For US\$35, you can register this shareware marvel and receive over 160 sample programs that will help you to use this powerful tool to do real application development.

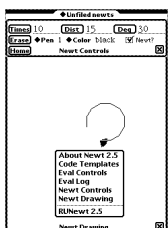
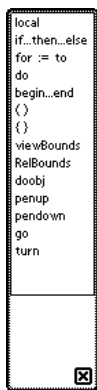
When you open Newt, this is what it looks like:



Steve provides you with a template for a new prototype. You can test your NewtonScript commands in the Eval box, or you can select from one of the built-in or user-defined statement templates by tapping the overview button and then selecting Code Templates.

"Newts" as Steve calls the set of protos you're defining, can be saved under categories, etc, like any other soup entry—which is what they are saved as. A separate applet, RuNewt, provides run-time execution of saved "newts".

Newt also has, as part of its original heritage, a Logo-esque mode where you can either learn the basics of NS programming, or have fun with graphics. Tap the



overview again, and select Newt Drawing. RuNewt, the run-time applet that lets you execute the saved "newts" independent of Newt, has the ability to beam "newts" to other folks using RuNewt or Newt—something NTK doesn't provide.

If you're interested in learning how to program the Newton, but don't want to spend the money for NTK (and possibly a Mac, as the windows version of NTK isn't out yet), Newt is the best way to begin!

For more information on Newt, read the March, 1994 issue (1.3) of the \_protoReality newsletter.

Newt is available on every service, most Newton-related ftp sites (including AMUG and UIowa), and on the AMUG "Incomplete" PDA CD-ROM.

Newt and RuNewt 2.5  
US\$30 shareware  
Steve Weyer  
17 Timber Knoll Drive  
Washington Crossing  
PA 18977-1052, USA

Mark Underwood

*Editor: Steve has just released Newt 3.0 (US\$45 shareware), which now allows you to create stand-alone packages.*

## Time Accountant 2.1

A new version of Time Accountant has just been released by hIghQ.

Time Accountant 2.1 is a shareware Newton utility that lets you record and organise your work time through an

easy to use user interface.

With Time Accountant 2.1, you can make reports to give you valuable information on your time spent. It integrates seamlessly with the Newton OS (printing, finding, filing, Mail, Fax, Carding) and basic Newton applications (NotePad & Dates).

Some of the new features are:

- Improved User Interface, including task overview per category
- Cleaner print format
- Integration with Notepad and Dates
- See your total time spent for a Project in percentages
- More flexible task deletion.
- On-line help - How Do I
- Filter tasks in outline report

The shareware fee for Time Accountant 2.1 is US\$25. You can register your copy by going to SWREG on CompuServe (ID: 3077) or by sending cash to hIghQ bvba  
Barbarastraat 57  
B-3120 Tremelo  
Belgium.  
CompuServe: 72154,202  
Internet:  
highq@popost.eunet.be  
AppleLink: GRIETENS.D

## OzTel8 Version 1.2

This is version 1.2 of the first OzNUG group programming project - a program to convert current Australian telephone numbers to Austel's new 8 digit numbering scheme.

All Australian telephone numbers are changing to eight digits over the next three or four years, with many areas in

the major cities of Sydney & Melbourne changing by July 1995! At the same time, many area codes are changing to a much simplified two-digit code. For example, all NSW phone numbers will have the 02 prefix, all Victoria will have 03 and so on.

Version 1.2 works for ALL numbers (i.e. it will convert any valid Australian number, as long as it is entered with the both area code and number).

It now works for numbers with embedded punctuation e.g (02) 954 0037# and also mobiles, freecall, 13 numbers and 1902 (i.e. numbers which aren't changing with the new scheme).

Please use, test, criticise, enjoy - but most of all, give us feedback!

OzNUG makes no claims about the completeness, accuracy, efficiency or general neatness of the code: initially it was an attempt to see how quickly we could get it to work (2.5hrs+5hrs). In particular, we are just learning how to write Newton code, and the style, design & methods we have used may not be the best or correct way to do things. If you have a better way, please let us know!

Future versions will allow "Find"-ing a number from the Names Card File & optionally modifying the number in place. There will also be a settable default area code prefix and a popup for choosing other major prefixes. Anyone with an idea of how to make this app "float" over the top of the Names app to update entries in place - please contact us!

Any other ideas, suggestions, user interface criticisms, more efficient algorithms for choosing the 8-digit equivalents, etc are most welcome. Please email Craig Dunn (cdunn@macqbl.com.au) or Robin Simpson (simmo@geko.com.au). The complete NTK Project folder including the source code is available at:

<ftp://ftp.geko.com.au/pub/newton/OzNUG/OzTel>

If you write some new code, please email Robin & ftp the new code to:

<ftp://ftp.geko.com.au/pub/newton/submissions>

Craig Dunn & Robin Simpson

## NewtCase 2.1 Demo

For those of us who love to install and test every new application that is released for the Newton, NewtCase by Dan Rowley of ICS has been an invaluable tool for solving the problem of limited heap space that has plagued every Newton model to date.

From the start, NewtCase has been a strong,

stable utility that increases the usable heap space in the Newton by "archiving" packages that aren't being used. Heap space is an area of memory that the Newton uses to run the program, and user memory is where the programs are stored, be it internal, or on a card.

The latest version of NewtCase is 2.1, and should be available by the time you read this review. The overall speed of the program seems to be better, and error handling is improved. It adds many new features that alot of users have been asking for, including the ability to process multiple packages at once, a "Quick Access" feature, and filing of packages and archives in user configurable folders, not limited to the folder names set up in the notepad.

One downfall to using NewtCase, however, has been that packages that have been "NewtCased" would not be backed up when synchronizing to your desktop computer.

NewtCase 2.1 now has two different methods for archiving packages. The first method, Quick Archive, is the most efficient means of increasing heap space. The second, NCK Archive, isn't as quick or efficient, but files will back up when synchronizing.

Version 2.1 is the first commercial version, and is available from PelicanWare, Inc.

Older versions of NewtCase can be downloaded from most of the online services, as well as from various Newton FTP sites, including the internet site of Innovative Computer Solutions. You can find them at <<http://www.indirect.com/ics/newton/>> and at <<ftp://ftp.indirect.com/pub/ics/>>.

NewtCase could very well be the best utility you ever install on your Newton!

NewtCase 2.1 is available from PelicanWare, Inc. for US\$49.95 plus shipping and handling US\$7.00. Visa, MasterCard, American Express, and Discover accepted.

Registered users who purchased previous versions of NewtCase before March 15th, 1995 may upgrade for US\$20, plus US\$5.00 shipping and handling by calling Innovative Computer Solutions at 0011-1-602-970 1032 or e-mailing [ics@indirect.com](mailto:ics@indirect.com).

For more information, contact:

PelicanWare, Inc., 550 S.W. Park Avenue, Suite 270, Portland, OR 97205.

Voice: (503) 221-1148, Fax: (503) 221-8709.

E-Mail: [bettes@teleport.com](mailto:bettes@teleport.com)

Fred J. Haley

[74416.1545@compuserve.com](mailto:74416.1545@compuserve.com) or

[fjhaley@ix.netcom.com](mailto:fjhaley@ix.netcom.com)

Editor: The latest shareware version, NewtCase 1.2, is included with NewtCase 2.1 Demo. 