# rmNUG Rocky Mountain NeXT Users' Group Newsletter January, 1991



## In This Issue!

1991 Elections1
Internet Access2
December Meeting2
January Meeting2
Future Meetins2
rmNUG Finances2
rmNUG Software3
rmNUG Access3
From The President3
BBS Software4
New Product4
CD-ROM Information .4
NeXTWORLD5
NeXT Phone Device5
UniForum Research5
UniForum Assoc6
NeXT Music6
NeXTstation6
SLIP Support Needed7
GreyBoard8
Framemaker Upgrade8
3rd Party Hard Drives9
Lotus Extension9
Frame Announcement9
NeXT Answers10
NeXT Addresses11
Real World Use11
Nyx Information14
NeXT Tech Alert-116
NeXT Tech Alert-216
Letter To Editor17
User Profiles
Steven M. Boker17 Barbara Dyker17
User's Groups18
Phantom Newsletter18
Late Announcement18
rmNUG Mailing List .19
minited maining List .19



## **1991 rmNUG Officer Elections**

At the January meeting rmNUG will be electing officers to serve on the 1991 rmNUG executive committee. During rmNUG's first year David Hieb served as President, Brad Green as Vice President, Dave Bowdish as Newsletter Editor and Jacob Gore as Treasurer. Thanks to all those who spent their time and energy on making rmNUG a success in 1990.

With all the other changes that are taking place at the beginning of this year, rmNUG felt it would be a good idea to elect new officers for the rmNUG fiscal year 1991. This will give new members (and others) a chance to partake in the management of a group like rmNUG.

Below is the current (partial) list of nominees that were nominated during the December rmNUG meeting. This list is by no means complete and before the final vote we plan on opening up the floor for more nominations. If you would like to involve yourself in the dynamics of what it takes to run rmNUG, please volunteer yourself or have someone else nominate you.

The following list of positions and descriptions will be filled by members and will allow rmNUG to act quickly upon decisions while still maintaining the best interest of the entire group.

#### President

Dave Hieb

Coordinate and preside over all meetings and group functions; chair executive rmNUG committee meeting; maintain the charter that rmNUG was established under: "to success-

fully provide an environment for NeXT enthusiasts to share, learn and profit from the collective expertise of the group".

Vice President **Bob** Dahlen Karl Sierka

Assist President in all aspects of rmNUG business and act in the President's stead. Also co-responsible for rmNUG organization like Internet access, incorporation and monthly meeting planning.

#### Treasurer

Jacob Gore

Fully accountable for all monies, awards and membership dues. Maintain rmNUG checking account and non-profit corporate status.

#### Administrator

Barb Dyker

Record general and executive rmNUG meeting activities and summarize to rmNUG Newsletter; manage membership including mailing lists and contacting.

#### Newsletter

Dave Bowdish

Coordinates production of monthly rmNUG Newsletter; generally nurture rmNUG Newsletter into a reputable Journal that is instructive to the NeXT community at large.

At-large (2) Brad Green Steven Boker **Bob Gregory Glenn Davis** David Cook

Participate and give input to monthly rm-NUG executive committee meetings.

## rmNUG's Internet Access Project

We had previously mentioned that rmNUG was "close" in the final Internet access negotiations with Colorado Supernet. In early December it became apparent that it would be better for rmNUG to begin evaluation of other alternatives that can provide the group with Internet access. rmNUG has since located two possibilities that both look very promising. The first is an existing public Internet access system located at Denver University called Nyx, "The *Spirit Of The Night*". We have been in contact with the administrator of that site and are happy to report that Nyx has been very receptive to rmNUG.

The second alternative would be to utilize a NeXTStation at the Colorado School of Mines, as has been offered to us by a professor there in the Math Department. As we had mentioned at the December rmNUG meeting, any organization and/or person allowing us to use their system will be compensated with hardware, service, etc. rmNUG will keep you up to date as negotiations progress.

## **December rmNUG Meeting**

The December rmNUG meeting (Christmas party) was held the 12th of December at the Business Administration building on the Denver University campus. Thanks go to Bob Dahlen for lining up the arrangements. It was such a good central meeting location, we'll be sure to have more meetings there in the future. The meeting, though quite informal, was well attended by the regulars and by several new members (especially from the Denver and Golden area).

Due to unfortunate communication problems, Avie Tevanian was the not the special feature as had been advertised. We'll keep trying to get someone from Corporate NeXT until they either do it, or get sick of us (or both). Luckily Brad had decided to show himself up by bringing his homemade pecan caramel rolls. (*thanks Brad*!)

## January rmNUG Meeting

The January rmNUG meeting will feature Mark Wood of WordPerfect Corporation. Mark will be demonstrating WordPerfect for the NeXT which is basically a port of their popular 5.x series.

Mark is the Colorado area manager for Word-Perfect and is also directly responsible for WordPerfect sales on NeXT machines. Mark has been with WordPerfect for 2 1/2 years and has experience with a wide variety of platforms including PC's, VAX, MAC's, Sun's and the NeXT.

Please note that rmNUG will be electing officers for the 1991 year during the January meeting. These positions (and the current nominations) are outlined in the section on rmNUG officer elections.

The January meeting will be held at the Colorado School of Mines campus in Golden, Colorado. We will be meeting at 7:00pm in room 268 of the Green Center which is located on the South West corner of Washington and 15th street. Parking is due east of the Green Center.

#### **Future rmNUG Meetings**

rmNUG has already tentatively scheduled the following special features for spring 1991:

Doug Simons, NeXT Developer, Thoughtful Software product, February.

Karl Sierka, Systems programmer, GNU suite and Emacs, March.

Ted McSherry, FrameMaker representative, Frame, April.

If you have ideas on what you would like to see for special features, please feel free to contact either Dave Bowdish or David Hieb.

## rmNUG Membership and Finances

It has finally become apparent to those that manage the expenses of rmNUG that it would be in the best interest of the group to start membership dues in January of 1991. rm-NUG simply needs a more sophisticated

The rmNUG Newsletter is published monthly by the Rocky Mountain NeXT Users Group.

Readers are encouraged to send their comments or contributions to:

David Bowdish 73340.2146@compuserve.com

Any submissions of letters, artwork, articles, etc. will constitute implied permission for rmNUG to publish (in whole or in part) in print or electronically.

Sorry, but with our budget (\$0) we can only afford to offer our sincerest thanks for any contributions you may send.

Special thanks to all who contributed to this newsletter.

Editor: David J. Bowdish

Contributing Editors: David R. Hieb and Brad Green method of fund collection to provide the users with the type of newsletters, meetings and benefits that they would expect.

Starting in January of 1991, everyone who wishes to receive the rmNUG newsletter, attend the meetings, utilize the free software and resources of rmNUG and be eligible for an rmNUG Internet connection will need to pay the \$24/year membership fee. This modest fee is due on January 16th and will be utilized to cover the month to month expenses of rmNUG throughout the year 1991.

Since I'm not a salesman, I can't personally motivate myself to convince you that this is the "deal of the century" or anything along those lines. Although, if you can't justify \$24/year to be a member of rmNUG then I would have to say you probably aren't interested in things like:

- \* Monthly meetings with interesting and motivating special features.
- \* Conversation and feedback from other enthusiasts just like yourself.
- \* Usage and evaluation of the latest and greatest software/hardware.
- \* A newsletter that helps keep you up to date at the local/national level.
- \* The cheapest (legal) Internet connection (and services) you'll find

Dave Hieb

"The rmNUG

name database

has

**100 names** 

of NeXT

enthusiasts

in

Colorado"

#### rmNUG's Software Contribution Program

Here is the list of the software that rmNUG has received as of this date:

TextArt, Stone Design. Compilation Disk, Lighthouse Design. TopDraw, Media Logic. DisplayTalk 1.0, Adobe

Here is the list of the software that rmNUG has been promised:

Diagram!, Lighthouse Design. Adobe Plus Pack, Adobe

Here is the current wish list for the rmNUG software contribution program:

BugByte 1.0 Absoft Fortran 77 FrameMaker 2.0 Wingz 1.1 PaperSight Contact! 1.0 Communicae Click Art

## FTP access for the rmNUG Newsletter

Issues of the rmNUG Newsletter are now available via anonymous ftp from the following sites:

cs.ubc.ca:~ftp/next/rmNUG. alumni.colorado.edu:~ftp/pub/rmNUG. sonata.cc.purdue.edu:~ftp/pub/next/Newsletters/rmNUG.

## From the President

In looking back over the last nine months I'm happy to report that rmNUG has indeed flour-ished.

The rmNUG name database has 100 names of NeXT enthusiasts (some more than others) in Colorado.

rmNUG received a Golden Nugget Award for \$4000.00 to implement Internet access.

rmNUG has a monthly Journal that is hopefully keeping our users, along with others, up to date with NeXT happenings.

rmNUG is becoming a non-profit corporation, has a checking account, a budget from membership dues and a formal organizational structure.

But above all these material things, it has become quite apparent that the rmNUG monthly meetings are providing EXACTELY what they were designed to provide: a forum whereby NeXT enthusiasts can share and learn from the collective body of knowledge and experience. This phenomenon is what keeps people coming back and brings in new users on a regular basis.

As a leader and member I'm excited about rmNUG's potential for growth and maturation in 1991. I expect to see NeXT sales continue to take

off and the rmNUG membership to increase as well. Please feel free to give your input to rmNUG leaders so that this group can continue to serve the best interest of you, the user. With your help rmNUG can stay on the road.

Dave Hieb

#### **BBS Software Announcement**

Wow, I've been getting lots of inquiries about the COCONET(R) BBS software for NeXT. Here's the scoop: we are porting COCONET (R) from SCO UNIX/XENIX/PC-machines to Macs and NeXTs. We've got a NeXT-related BBS set up here in San Diego (the San Diego NeXT Users Group BBS — running on COCONET software on a 386 host machine for now; we'll move it over to NeXT when we're ready to start testing. By the way, you're all welcome to try out the San Diego NeXT Users Group BBS. The number is 619-456-2522, 1200/2400 bps, N-8-1. We'll be adding a 9600 bps line some time soon.)

COCONET, in 25-or-so words: a UNIXbased BBS/conferencing program that supports e-mail, group forums, file exchange, online bitmap and vector graphics, CocoTunes (i.e., music in messages), hyperlinking in messages, and other goodies. With the NeXT version, we plan to support some things other platforms don't have, like LipService, etc.

If you would like some info on COCONET, send me your mailing address. We will indeed be looking for a few beta testers of the NeXT version of our software when the beta becomes available.... Let me know if you'd like to be a beta tester.

Please direct e-mail to: brian@coconut.com

Brian Dear Coconut Computing, Inc. La Jolla, CA

#### **New Product Announcement**

ImageConnect from ImageSetters--a product for producing catalogs, directories etc.

You can contact them at:

ImageSetters, Inc. 6470 NW 5th Way Ft. Lauderdale, FL 33309, Like our optical disk drive, CD-ROM uses Optical Media to read information.

**NeXT CD-ROM Info** 

What is CD-ROM?

They store over 500MB's of information on a single disk. Those of you who have used an Audio CD already are familiar with CD's. CD-ROM's store data - including text, audio, images and even video. They can only read from and cannot be written to.

#### What are the advantages of CD-ROM?

The fact that you can store >500MB's on a very small disk is impressive.

However, what is even more astonishing is that you can now duplicate CD's at about \$2.00 per disk. That is as cheap as a floppy which hold less than 4MB's. CD's are very strong, cheap and easily manufactured. In fact, you can turn around CD-ROMs overnight through companies like 3M and PDO. Unlike our optical disk drive, CD's can be stamped out. Each bit does not need to be recorded on the disk like our optical drive.

#### What are CD-ROM's used for?

Many companies are now shipping large data files on CD-ROM. These include complete books, encyclopedias, Professional Photography in 24-bit Color, sound tracks and combinations of the above. There are children's applications, disk with 150,000 FAX phone numbers listed, Complete Business listings, etc. Access to information is becoming a key strategic advantage. This has become a new business.

We intend to participate -- tools like our Digital Librarian are just the start of some of the things we will be able to do.

#### How do we support CD-ROM?

First, you need a player! We introduced and are planning to ship in Q1, our CD-ROMdrive for the NeXTcube. This is Sony's most advanced CD-ROM drive. It features <350ms average access time (they were 500msec) and combines a data cache to improve the system throughput. The drive provides auto inject and eject (similar to our floppy and optical drive support).

Phone (305) 492-5577 or fax (305) 772-8296.



**"This is** 

Sony's most

advanced

**CD-ROM** 

drive"

In the NeXTcube, the CD-ROM will work

with a floppy and 105/340MB hard disk. The CD-ROM will be in the bottom bay. CD's are inserted and removed through the Optical slot.

The Sony Drive we are using is Model CDU-541. Our 3rd Party that supplies our external floppy for the cube also will be selling the drive, but it will be in an external enclosure. This means for customers that want to use CD-ROM with the NeXTstation or NeXTstation Color can still purchase the drive. Both the internal and external drives are SCSI based.

Integrated in Software Release 2.0 is complete support for CD-ROM. We support both the High Sierra and ISO 9660 standards. This means that you can browse a disk written for IBM. However, many Macintosh specific disk are not recognized in our system because we do not support the Mac file system. This does not mean that **no** Mac CD's will work. Since, 500MB's is a lot of space, many publishers include both Mac and ISO formats on the disk. These are browsable in our system.

We also support other CD-ROM drives. Include are: PLI CD-ROM, Apple CD-SC and the Denon. We also believe many others will work, we just haven't test all of them.

We are planning to explore and utilize this technology to our advantage. We have worked with a company called Young Minds to provide mastering SW. It is available today. Check out the 3rd party guide.

#### **NeXTWORLD Feedback**

If you have any concerns about the NeXT computer that you would like to see appear in the "Letters to the Editor" section of NeXT-WORLD magazine, you may submit them to one of the following addresses:

NeXTWORLD attn.: Letters to the Editor 501 Second Street San Francisco, CA 94107

Or electronically to Dan Lavin at:

nextwrld!dlavin@uunet.uu.net with a subject field of "Letters to the Editor" Page 5

#### NeXT As A Phone Answering Device

FYI, If you call the number (512) 343-2828 you will get a brief demo of a smart answering system using a NeXT Computer.

#### UniForum Research Award Program

In an effort to advance the state of the art in UNIX and open systems in the areas of computer science and management science, Uni-Forum, the International Association of UNIX Systems Users, is offering its second annual UniForum Research Award Program. Awards, up to two years in duration, will include a stipend of up to \$10,000 per year. Two awards will be awarded each year, one to a candidate seeking an advanced degree in the technical study of compute sciences and the other to a candidate seeking an advanced degree in management sciences as they apply to information management. The award is designed to help students research solutions to problems in the UNIX/Open Systems community. Preference will be given to research which concludes with demonstrable results that can be shown at the UniForum show and is of value to UniForum Association sponsors.

Candidacy is open to individuals pursuing a graduate-level, qualifying degree from an accredited University. Candidates will be chosen based upon their specific research proposal along with a demonstrated history of academic excellence. All work performed as a result of the UniForum Research Award shall be in the public domain though, of course, UniForum will be free to publish the work and research results.

Each recipient of the UniForum Research Award will be required to submit a one-page status report to the Executive Director of UniForum each quarter and a four-to-five page progress report at the end of the first year of the award period (in the case of twoyear awards), for review and approval to continue.

At the conclusion of the award period, a formal paper will be required. Formal presenta-



	tion of the work at the UniForum conference is expected.
	Student applications and proposals should be submitted to their Department Chairman for his or her review. Each University can then nominate up to two candidates for the award. Application deadline is May 1, 1991. Win- ners will be notified July 1, 1991.
<b>"There is a</b>	To obtain an application, contact:
new NeXT	UniForum Research Award Committee Attn.: Ed Palmer 2901 Tasman Dr., #201 Santa Clara, CA 95054
music	Phone: (408) 986-8840 or (800) 255-5620 FAX (408) 986-1645
mailing list"	email - uunet!usrgrp!ed

## Background on the UniForum Association

UniForum, the International Association of UNIX Systems Users, is a non-profit,vendorindependent trade association dedicated to promoting environments running UNIX and open systems.

UniForum is a worldwide organization serving as a forum for users, developers and vendors to exchange information about the UNIX operating system and the software and applications running under it.

Since its founding in 1980, UniForum has represented a cross-section of the UNIX/open systems arena, including industry, the university community and government. Today, Uni-Forum is working towards the development and promotion of UNIX systems standards. Through the cooperation of its membership, UniForum is influencing the worldwide growth and direction of the UNIX systems marketplace.

To encourage the open exchange of information about UNIX, UniForum offers a number of publications and services to its more than 6,000 members worldwide. UniForum also sponsors the UniForum Conference. Held annually in various locations throughout the U.S., the UniForum conference is recognized as the largest UNIX-specific trade show in the industry. Submitted by: Ralph Barker: SVNet 640 So Winchester Blvd. San Jose, CA 95128 uucp: ...{pyramid, sun, uund

uucp: ...{pyramid, sun, uunet}!amdahl!aleph!svnet!ralph

uunet!usrgrp!svnet!ralph

attmail!ralmar!ralph

Voice: (408) 248-8649

## **NeXT Music**

For your information, there is a new NeXT Music mailing list on the net. Send questions, announcements of concerts, events, software availability, etc., to:

nextmusic@silvertone.princeton.edu.

It is run by Paul Lansky (Princeton) and Mara Helmuth (Columbia). Please feel free to pass the word to subscribe. To subscribe, send email to:

nextmusic-request@silvertone.Princeton.edu

## NeXTstation Begins Volume Shipments

REDWOOD CITY, Calif. November 26, 1990

NeXT Computer, Inc. announced today that it has begun on-schedule volume shipments of its new NeXTstation 68040-based computer. The 15 MIPS NeXTstation computer has a list price of \$4,995 for a complete system that includes floppy and hard disk drives and NeXTstep, NeXT's revolutionary software environment.

In addition, NeXT announced that it has commenced shipments of its NeXT cube computer, a 68040-based version of its well-known cube-shaped computer, as well as 68040 CPU boards to upgrade its existing installed base of 68030-based computers.

NeXT also announced that its two new color computers, NeXTstation Color and NeXTdimension, will ship on schedule in Q1 1991.

All the new 68040-based products, including the upgraded CPU boards, contain NeXT's

latest release of its software, NeXTstep Release 2.0. NeXTstep 2.0 is also compatible with all NeXT's 68030-based computers in the field, and can be purchased separately.

"When we unveiled a family of four new products, all 68040-based, on September 18 in San Francisco, we made some aggressive shipping commitments that we are now meeting," said Steven P. Jobs, president and CEO of NeXT. "Our volume shipments of NeXTstation should also put to rest any doubts about the Motorola 68040 being a reality."

"At our September introduction, we announced 15,000 first-day orders," said Todd Rulon-Miller, NeXT's vice president, sales. "Now we can start delivering on these orders, as we aggressively pursue even more new sales."

NeXTstation is more powerful and compact than the company's original NeXT Computer, which was based on the 68030 processor. The new computer's retail price of \$4,995 also makes it the most affordable NeXT computer and gives it one of the most impressive price/performance ratios of any computer in any class.

NeXTcube, with a suggested retail price of \$7,995, is based on the one-foot cube of the original NeXT Computer. The new NeXTcube offers users the greatest number of options within the NeXT family in terms of expandability, storage, memory and pathways to high-end color. It can be used as either a network file server or a high-end desktop computer.

Both products run NeXT's Release 2.0 system software and include the NeXTstep graphical user interface and development environment; NeXTmail, NeXT's multimedia electronic mail application; the unified imaging model of Display PostScript, which makes images on the screen appear just as they will look when printed; built-in thin and twisted-pair Ethernet and TCP/IP networking; a 2.88 MB floppy disk drive as standard; digital signal processing (DSP) for CD-quality sound, signal and image processing, and voice recognition; and an improved Mega-Pixel Display that weighs less than its predecessor and which adds a built-in microphone.

NeXT Computer, Inc. designs, manufactures Page 7 and markets "Interpersonal Computing" professional workstations that promise to enhance the way groups work together in the 1990s. NeXT sells its products directly and through selected retail and VAR channels in North America, Asia and Europe. The company is headquartered at 900 Chesapeake Drive, Redwood City, California, 94063.

Editor's Note: As of January 11, 1991, NeXT has not started shipping the Color Computers. There is a reported one month Backorder list for new orders and many people report that they have not yet received upgrades that were ordered several months ago.

## **SLIP Support Needed**

I have been running a pre-release version of SLIP on the NeXT for a long time now, and for political and source-code-restriction reasons (not due to NeXT but due to others) this version of SLIP was never and will probably never be made available to the NeXT community as a whole.

I have been pushing on "all the right people" at NeXT to try to make SLIP happen for everyone, and have offered to build and/or contribute ideas to the new user interface NeXT has been working on for SLIP. I have also been pushing on the company where I'm working to do a version of SLIP, and NeXT has been supportive in that effort, but my company needs to have a more certain feeling for how many people need SLIP.

Here is the basic situation as I know it today:

(1) NeXT will NOT be releasing SLIP for 1.0 or for 2.0. They are focusing mostly on providing advanced solutions (like PPP) for later versions of the system. (Note that this means my efforts of the past year come to nought.)

(2) NeXT knows how many people want SLIP and are actively encouraging me and my company to write SLIP ASAP. I want to, and so does my company, but...

(3) I don't know how many of you would really buy SLIP if it were out there, and my company wants to know more about the \$s and cents of all this.

So if you can take a minute, please reply to me at one of the below addresses and tell me

## "Now we can

- can start
- delivering
  - on these

orders"

what you'd like (hardwired/leased-line SLIP, dial-up SLIP, etc....for 1.0 or for 2.0) and whether you'd pay for it.

Responses now may actually cause SLIP to exist on the scale of weeks, so make your feelings known! Thanks,

Charles L. Perkins (Reg Dev at Large)

clp@marble.com clp@home.HarvardSq.com

## **"The whole**

#### GreyBoard: program... A Conference Draw Program

only took

## 33 man hours"

This is a call for testers for GreyBoard, a multi-user drawing program based on the Draw sources provided by NeXT. GreyBoard is a drawing program that allows users, connect by ethernet links, to conference with a common drawing sheet.

The program supports the features of 2.0 draw, such as Services, color panel, EPS, Tiff and pasteboard. Sources are available on nova or sonata at Purdue in the file is pub/ next/2.0software/greyboard.tar.Z.

The program is provided in source form so that people can see how the thing works. It does not require public window server, but you should still only conference with people you trust.

A user calls a conference by running the program and infringing it to start the conference server. The server is responsible for letting people in the conference, arbitrating who is allowed to draw and recording who leaves. It has no idea what is really going on in the conference or what anyone's screen actually looks like.

Additional users join the conference by running GreyBoard and telling it what machine the conference is being held on. GreyBoard will connect and notify everyone that the new user has joined. Users with faces in /LocalLibrary/Images/People will have them displayed.

Drawing rights are controlled by a "marker" icon. There are instructions on how to pass the marker around. Users without the marker can request it but cannot draw until they have it. All actions taken by the user with the marker will be reflected on remote screens. Dynamic operations, resizing and moving, will not be seen until complete but all user's screens will be synchronized when the operation is done. EPS and TIFF files opened on one machine will appear on all. *You should remember that* when joining a conference with someone.

This is different from some of the demo apps in that any user can manipulate the drawing objects. They are not just a screen shot or postscript stream.

This program is not commercial grade and is meant to spark some interest in interpersonal computing and how easy it is on the NeXT. The whole program including the network code, server and all client code only took 33 man hours on top of the original Draw code. Remember 2.0 is required.

Joe Freeman jfreem@ecsvax.uncecs.edu

## Framemaker Upgrade

This is the insert that comes with the pre-release version of Framemaker 2.0d. This upgrade is meant to make Framemaker fully usable when the user upgrades his/her machine to OS 2.0.

"As promised, here is a copy of the Pre-release version of FrameMaker 2.0d for the NeXT. This version will allow you to run FrameMaker under NeXTStep 2.0.

Let me explain the reasons behind this version of FrameMaker. In NeXTStep 2.0, NeXT changed the way they do character encoding. This caused Frame to release Frame-Maker 2.0c, which was shipped as an update package with NeXTStep 2.0 and documented in NeXT's 2.0 Release Notes. What we didn't realize until after 2.0c was placed on the NeXTStep 2.0 release was that HELP and FrameMath no longer functioned properly (we had users using 2.0c for several months with early versions of NS2.0 who never noticed this).

Therefore, Frame is currently validating our 2.0d product which fixes this, among other, problems. It is due to ship at the end of this month. A mailing will be going out to our customers informing them of 2.0d and giving them instructions on how to get a copy.

Until the product ships, we are offering a prerelease version of FrameMaker 2.0d to those individuals who have already received NeXTStep 2.0 and need the functionality of 2.0d. The final 2.0d product will be available from Frame, for an upgrade charge, from any NeXT Sales office, or from a NeXT campus consultant."

## **3rd Party Hard Drives**

<b>"The NeXT</b>	The compatibility of 3rd party hard drives has been a major topic of conversation in the past				
system	couple of months among NeXTer's. The fol- lowing is an excerpt from NeXT Answers:				
software also	Q: I have a Maxtor XT-8760S for a Mac. Can I use it with my NeXT?				
supports some	A: No. According to Maxtor, they make dif- ferent versions of the same model of drive for different computers. The Mac version of the 8760S, for example, has a different PROM to handle Apple's non-standard SCSI imple- mentation. The Mac PROM is incompatible with our computer.				
third party					
SCSI					
hard drives"	Contact Maxtor for more information.	ren mat			
	Q: What SCSI hard drives are compatible for use with NeXT computers?	ver bun			
	A: NeXT offers a complete line of hard disks for use with NeXT computer systems. They range in size from 105 MB to 1.2 GB. These drives have been carefully qualified by NeXT and include NeXT's one year warranty. You should contact your authorized NeXT reseller for more information on these drives.	ers, 680 tom to b tom soo fran			
	The NeXT system software also supports some third party SCSI hard drives not sold by NeXT. For the NeXT system software to sup- port the drive your system must be running software release 2.0, be connected to the drive with the correct cable, and the drive must support the following SCSI commands and revisions:	"W mat and fiel fina dire ema ican			
	<ol> <li>"Inquiry" and "Read Capacity" commands</li> <li>The drive must conform to the ANSI SCSI Rev. 17B or greater</li> <li>10 (ten) byte read and write command blocks</li> </ol>	and sion des of t "W me			
	If the drive is unformatted, it will be automat- ically formatted only in the following situa- tions:the drive's capacity is less than 6 MB, and — the drive uses removable media. Page 9	sear offi we form			

In order to work with the file system, the drive's sector size must be 512 or 1024 bytes.

Please check with your SCSI drive provider for details on your drive. NeXT does not have additional information on third party drives.

## Lotus Extends Offer!

There is great news. Lotus has decided to extend the offer of free Improv with the purchase of every NeXT system through March 31, 1991. Be sure to send your registration cards for new NeXT systems to receive the free copy.

#### Mathematica 2.0 Official Upgrade Announcement

REDWOOD CITY, Calif., January 8, 1991

In conjunction with Wolfram Research, Inc.'s introduction of Mathematica 2.0, NeXT Computer, Inc. today announced that all current NeXT customers with bundled Mathematica software will be upgraded to the new version, free of charge. Mathematica 1.0 was bundled with all the original NeXT Computers, and has been bundled with NeXT's new, 68040-based computers for education customers in North America.NeXT will continue to bundle Mathematica for its education customers and will switch to Mathematica 2.0 as soon as that version is available from Wolfram Research.

"We continue to believe strongly that Mathematica is an indispensable tool for teachers and researchers in a wide range of technical fields, from physics and computer science to finance and medicine," said Ron Weissman, director of higher education at NeXT. "Mathematica 2.0 is an even better tool, with significant feature and performance enhancements, and NeXT is pleased to bundle this new version for our higher education customers, who deserve the right tools for the vital endeavors of teaching and research."

"Wolfram Research echoes NeXT's commitment to the quality of education a nd research," said Prem Chawla, chief operating officer at Wolfram Research. "For our part, we believe that the graphics, sound and performance capabilities of NeXT computers enable Mathematica to shine in its best light, and we are pleased that NeXT's continued bundling of Mathematica 2.0 will enable more student, faculty and researchers to easily tap into this powerful software." NeXT customers outside education, such as those in commercial and government organizations, can purchase Mathematica 2.0 directly from Wolfram Research. The new version will begin shipping on the NeXT platform within 90 days.

Also in conjunction with Wolfram Research's introduction of Mathematica 2.0 is the publication of a number of new books on Mathematica, including one by Richard Crandall, director of the scientific computation group at NeXT. Crandall's book, *Mathematica for the Sciences*, leads readers through Mathematica examples from physics, biology, chemistry, mathematics and engineering to help them "rediscover" the great relations and theorems from the world of science. The book is being published by Addison-Wesley.

Developed by Wolfram Research, Inc., of Champaign, Illinois, Mathematica is a complete system for doing mathematics by computer. Since its introduction in 1987, it has become the leading software system for numeric, symbolic and graphical computation, used internationally by professionals in almost every area of scientific and technical computing. It has an underlying, high-level programming language that technical professionals and students use to create their own programs.

Mathematica 2.0 adds 283 new functions, increased performance and an enhanced programming language. In addition to NeXT, Mathematica is available on almost 20 other platforms, from personal computers to highly sophisticated scientific/engineering workstations.

#### **NeXT Answers**

The November release of NextAnswers is now available on the Internet archive servers. NextAnswers is a collection of answers to commonly asked technical questions about the NeXT Computer System.

The topics covered include system adminis-Page 10 tration, programming, and NeXT applications. When incorporated into Digital Librarian, NextAnswers will supplement the existing on-line and printed documentation, further helping you to understand and apply the power of the NeXT Computer.

We recommend that you obtain NextAnswers and have it installed on the NeXT computers at your site. (For those of you with access to the NeXT file system, NextAnswers will soon appear under /LocalLibrary/Organization.)

NextAnswers can be obtained two ways: by ftp from an archive server, or on an OD from NeXT if you don't have access to the Internet. We believe you'll find NextAnswers an invaluable source of information! If you have any problems obtaining it or installing it, contact NeXT Technical Support.

If you don't have Internet access, send an optical disk to:

NextAnswers Technical Support NeXT, Inc. 900 Chesapeake Dr. Redwood City, CA 94603

Inside the directory we will send you is a file called INSTALL.wn that contains complete instructions on how to finish the installation.

If you do have Internet access, here are the instructions for obtaining it from an archive server. You can obtain NextAnswers via anonymous ftp (file transfer protocol) from one of the following Internet archive servers: hostname IP address directory:

sonata.cc.purdue.edu 128.210.15.30 pub/ next/docs

cs.orst.edu 128.193.32.1 pub/next/documents/NextAnswers

There is an ftp site in Japan for our Asian customers:

etlport.etl.go.jp 192.31.197.99 pub/NeXT/ documents/NextAnswers

There are two versions of NextAnswers: a complete set, and a monthly supplement for those who already have the previous month's complete set. The former is called NextAnswers\_Nov\_90.tar.Z and occupies 415K of disk space (1.52 Megabytes when installed). The latter is called NA\_Supplement\_-Nov\_90.tar.Z, occupies 119K (733K when

## "You'll find

NeXTAnswers

#### an invaluable

source of

## information"

	installed), and contains files that are new or changed since the October 90 release.			
	To obtain NextAnswers from an archive serv- er, su to root in a shell and type the com- mands. Replace "filename" with "NextAnswers_Nov_90.tar.Z" or "NA_Sup- plement_Nov_90.tar.Z", depending on whether you want the complete set or the sup- plement.			
"What's it	mkdirs /LocalLibrary/NextAnswers cd /Lo- calLibrary/NextAnswers ftp hostname-or-IP-			
like to use	address [see table above] [Login:] anony- mous [enter your own login name as the pass- word] ftp> cd directory [see table above for			
the NeXT	the directory name] ftp> binary ftp> get file name ftp> quit zcat filename   tar -xvf -			
on a	This will create a subdirectory of /LocalL- ibrary/NextAnswers called Nov_90. Inside Nov_90 will be a WriteNow file called IN-			
daily basis?"	STALL.wn that contains complete instruc- tions on how to finish the installation, for both the supplement and the complete set.			
	The November NextAnswers contain entries relating to the 1.0 software release, as well as new ones pertaining to 2.0. The information below is contained in a file called CHANGES in the untarred directory:			
	The following files in the November 1990 re- lease of NextAnswers are additions or revi- sions to the October release. Some of the revisions are trivial.			

#### NEW SINCE OCTOBER:

color.607 hardware.568 hardware.579 hardware.581 hardware.586 hardware.608 misc.558 misc.562 misc.567 misc.575 misc.587 misc.599 misc.603 netinfo.598 netinfo.601 objc.584 objc.591 objc.605 sybase.597 sysadmin.600 tiff.566 video.578

#### **REVISIONS:**

INSTALL.wn README.wn appkit.503 mail.451 misc.227 network.389.wn sound.267 sysadmin.82 sysadmin.296 sysadmin.298 sysadmin.326 sysadmin.400 sysadmin.549 sysadmin.556 workspace.309

## NeXT Addresses and Phone Numbers

This is a list of NeXT related addresses and Page 11 phone numbers.

NeXT Computers, Inc. 900 Chesapeake Drive Redwood City, CA 94063 Phone: 1-800-848-NeXT Telephone: (415)366-0900 (Redwood City #) Fax: (415)780-3714

44-81-565-0005 (U.K. #) 44-81-565-0016 (U.K. fax #) 044-549-5295 (NeXT marketing div. of Canon - Japan) 044-549-5462 (NeXT Japan fax #)

NeXT Connection 9 Mill Street Marlow, NH 03456

1-800-800-NeXT (NeXT Connection-software and peripherals)

1-408-437-0400 (BusinessLand)

## NeXT In Real World Use

by Chuck Stegman

Businessland Advanced Systems Senior Marketing Manager

It's been six months since NeXT shipped version 1.0 of its operating system for the NeXT computer, or "the cube," as it's often called. What's it like to use the NeXT on a daily basis? We asked Chuck Stegman, a Senior Marketing Manager for Businessland Advanced Systems and a heavy NeXT user, to bring us up to date.

The responsibilities of my group at Businessland include several elements. Because of its unique combination of features, NeXT is the fastest way we've found to help us accomplish the kind of work we do.

Essentially, we are information managers for the integration aspects of Businessland's efforts. The NeXT allows us to leverage our time on three key projects: Workstation Publishing, Information Management and Product Rollouts.

#### Workstation Publishing

One segment of our group's work is publishing the Businessland Connectivity Guide, a 650 page document that involves monthly supplements and quarterly re-writes. This type of work, to which NeXT has referred as

"Workstation Publishing," is ideally suited to the NeXT computer.

We use FrameMaker (from Frame Corporation) to perform the majority of work on the Connectivity Guide. FrameMaker (US \$995.00) is a powerful, yet simple program that combines elements of desktop publishing, high-end word processing and a graphical drawing package. (FrameMaker also has math capability, but that isn't used in the Connectivity Guide at this point.)

Two examples of the many ways we save time by using FrameMaker are its integrated graphics and cross-referencing features. The integrated graphics feature has made it easy to include sophisticated, frequently-updated graphics throughout the text. Previously, we maintained the Guide with both a high-end word processing package and a separate draw package. With the integrated graphics feature, our spell checking and search-and- replace passes correct not only the text, but also the graphics, without time-consuming cut and paste efforts. Taking into consideration the frequency with which vendors change Connectivity product names, this capability has proven to be invaluable.

The cross-referencing capability has solved a long time problem created by these inevitable last-minute product name changes. The purpose of the Connectivity Guide is to help Businessland employees integrate products from a variety of vendors. Now we can refer to compatibility (or lack thereof) with another product whenever it's appropriate. Thus, if the name of one of the products changes, we simply make the change once and it is reflected throughout all thirty chapters. And the page numbers are always right! We have also found it very convenient to combine the integrated graphics and cross-referencing features by having cross-references in graphics.

One of the most common questions we received is how we get the source material across from PC and Macintosh platforms. NeXT's support of Microsoft's RTF (Rich Text For- mat, not to be confused with IBM's RTF, or Revisable Form Text format) allows any word processing program that can save in RTF format to write documents that can be imported directly into NeXT's WriteNow (word processing) or FrameMaker. Format-Page 12

ting, such as boldfacing and multiple fonts, are preserved during the conversion process. For documents created using word processors that can't save in RTF format, there are a variety of inexpensive third-party conversion utilities, such as MacLink Plus/PC (US \$150.00) and Word for Word (US \$150.00). We recreate many graphics using FrameMaker's graphics capabilities and ClickArt for the NeXT (US \$295.00), because of the higher resolutions possible on the NeXT. Others are transferred as TIFF or EPS (two common graphics formats), while some are simply scanned in. Since the HSD Microcomputer Scan-X scanner supports resolutions as high as 1600 dpi for line art, the scanned images are crisp and clear.

Making all this possible is a combination of NeXT capabilities: Unified Imaging Model (which means that what we see on the screen is what comes out on paper), the NeXT Printer's 400 dpi resolution, the MegaPixel display (so that we can edit several documents simultaneously and place the FrameMaker tools wherever it is most convenient), Frame-Maker, ClickArt, the HSD Scanner, Multitasking, high speed networking (needed when printing a document containing four scanned graphics of two to four megabytes each to a network connected printer). Overall, we have estimated that by using the NeXT system, we can significantly improve the quality of a document in 35% less time than by using older technology.

#### Information Management

While the Connectivity Guide provides many of the answers that are needed by the Businessland field on integration questions, there's always a need for information on some unique situation. We address this issue through two mechanisms - the Advanced Systems Optical Disk (which we call the ASysOD) and an electronic mail group (called Connectivity:HQ).

The ASysOD allows us to provide information, locally in each of our locations, that previously was available only to those at our corporate headquarters. Since one NeXT Optical Disk can contain 256MB of information, we've put an electronic copy of the Connectivity Guide, along with roughly 100 additional megabytes of information from a

## "And the

## page numbers

## are always

right!"

variety of sources, on an Optical Disk. Using NeXT's Digital Librarian, we can do full text indexing on this huge "text-base". A Businessland employee who needs information on, for example, international modem connections could simply enter "International and Modem" into the Digital Librarian and will find several files containing information on the subject. This text-base is updated, reindexed, and re-distributed on a frequent basis. Since Optical Disks can be erased and reused just like a floppy, but have much faster access times and much higher capacities, they're ideal for this application.

Using an asynchronous communications program for the NeXT called Communicae (US \$395.00), we connect to various vendor bulletin boards and CompuServe forums (such as Novell's NetWire) to obtain additional information. From these, we download product announcements electronically. (We also use Communicae to dial into the asynchronous ports attached to our AS/400s to run applications such as those which locate which Businessland Centers sold certain products.)

If it's not in the Connectivity Guide and it's not on the ASysOD, what's the next layer of escalation? Connectivity:HQ. As mentioned above, Connectivity:HQ is an electronic mail group on our 4000 user PC-based internetwork. The electronic mail that Businessland currently has installed is 3Com's 3+Mail. onto which we've installed an electronic mail gate- way (Promulgate) that translates messages from 3+Mail to NeXT's mail. (There are similar gateways for most other mail systems since NeXT's mail is based on the Unix SMTP protocol.) We receive messages from people sending from DOS, OS/2 and the Macintosh on our NeXT cubes. Finding an answer is often as easy as highlighting the key word or words and using the NeXT's interprocess communications to send the request to Digital Librarian for a text search. We have gigabytes of indexed information at our fingertips, and can cut and paste directly into a mail message and send it back on it's way. It's also convenient (since we've attached our NeXT computers to the internet) to be able to copy any- one (often a vendor or customer) located on the Internet, MCI mail, AppleLink or CompuServe.

Using this combination of several NeXT features (Digital Librarian, Optical Disk, Multitasking, use of standards such as SMTP and networking) has allowed us to increase quality and improve productivity. Without these tools, the growth of Businessland and the rate of change in the industry would require substantial additional head count for these projects.

#### Product Rollouts

The third major area that our group works on is new product introductions. This is a varied task that involves some tools not mentioned above, as well as using the ones above in new ways.

We use the WingZ spreadsheet (US \$699.00) to analyze costs and benefits of various methods of training Businessland's 1150 technical and 950 marketing employees. Since many of the people with whom we communicate are using other platforms, WingZ' ability to save spreadsheets in other common formats is very useful. As you may know, WingZ is very strong in its business graphics capabilities, and graphs we create with it are often used in reports created in FrameMaker.

We also use FrameMaker for creating transparencies used in presentations and training. Again, the capability to cross-reference is often useful, as are the integrated graphics. For fancier graphics, we sometimes use the highend graphics program TopDraw (US \$595.00). The presentations often go through many iterations and it's convenient to simply insert blank transparencies into the NeXT printer and have an updated copy in minutes.

The integration and consistency of NeXT applications, when combined with the system's multitasking capabilities, make it simple to focus on getting the work done rather than learning new applications. If I pick up an EPS file out of the browser, I can drop it into FrameMaker, NeXTMail, or whatever application I'm using and it reacts the same way.

#### Conclusions

It's been six months since version 1.0 of the NeXT operating system started shipping. Now third-party applications, such as Frame-Maker, WingZ, Communicae, Connexions/ 370...3270 software, TextArt, the Adobe fonts, ClickArt, TopDraw, Who's Calling and

## "it's convenient

...to have

## an updated

copy in

## minutes"

Media Station from Imagine Software, are beginning to ship, with many more on the way. Also, third party hardware is arriving. These products include the HSD and Abaton Scanners, floppy drive subsystems from both Dayna Communications and Pacific Micro, Digital Eye and Ear from Metaresearch, Inc., and Ariel's Digital Microphone, with more on the way. The connectivity capabilities of NeXT are here, too. As just one example, a partner with whom we work has set up a simple gateway to allow their NeXT users to get files on their Novell NetWare file server using Wollongong's Win/TCP for DOS.

The NextStep user interface already delivers what most other vendors' products promise multi-threading and multi-tasking, object oriented, graphical, consistent and intuitive. Certainly this is part of IBM's motivation in announcing NextStep for use on its AIX platforms.

The combination of hardware and system software is also already where many vendors' products are headed - with built-in networking, electronic mail, strong development tools, a high-speed intelligent bus, erasable optical disks, 8MB RAM standard, and MegaPixel displays.

All in all, the NeXT allows our group to keep up with the ever-increasing complexity of the industry, without necessitating a geometric growth in people.

## **Nyx Information**

Nyx -- The Spirit of the Night

Sponsored by the Faculty, Students, and Friends of the University of Denver Department of Math and Computer Science

The main purpose of Nyx is to enhance the enjoyment of computing by providing the community with public access to a multi-user system.

Nyx is run on a donated Pyramid 90x running the Unix operating system and maintained by volunteer effort.

Major features include: - 1 Gb disk space -An extensive file download section - The NetNews worldwide bulletin board - Full access to the Unix system itself Your support is appreciated -- as a caller, uploader of files, or donator of time or equipment.

#### Reaching Nyx

Nyx can support 12 users dialed in: 8 direct lines and 4 lines from the University computing center's port selector ("the micom"). These phone numbers are listed as you log in and also in a separate menu entry in the information menu.

#### Fun things to do on Nyx

The best way to see the system is to try out all the various menus. Most people enjoy the Communications area (particularly "Net-News", which can be quite addictive), downloading/uploading files, and using the raw Unix system underneath the menus. Local messages and bulletins are in the "news", contained in newsgroups whose names begin with "nyx.", as in "nyx.misc". First time users should head this way first and regular users should check these groups ... regularly.

NetNews is where the major "action" is on Nyx, with hundreds of worldwide message areas that see considerable traffic (and reasonably sophisticated people, I might add).

Basic & Advanced System Navigation

At each prompt of "Choice:" you should pick one of the letters or words found down the left side of the menu.

At various places you may find yourself at a prompt of "--More--" or similar -- such as at the bottom of the screen right now. At this prompt you may press the space bar to continue, control-B to go back a screen, or the "q" key to quit reading.

To leave the system, type "bye" at the "Choice:" prompt. "x" will exit any menu and return you to the previous menu. "top" or "T" (capital T) will take you to the top (initial) menu.

To set your terminal type, choose "c" from the "s" (System Status) menu. The initial type is vt100, suitable for many micro communication programs.

For extended information about the commands that are run, use the "help" command from any menu; follow it with the option letters of what you're interested in, such as

#### Page 14

## "NetNews is

where the

major

'action' is"

"help f" for help on what choosing option "f" would do. (Note that some options have no help -- just try them!)

If you have any questions or need help, send mail to the sysop ("fb" from the main menu).

#### System Information & Policies

This system is run by the Math and Computer Science Department of the University of Denver purely to provide public access to the Unix environment and all this entails, such as:

- File downloads. We'll put out as much as we have empty disk space for, at least 100Mb. If we get more disk space, we'll put out more. (We have 800Mb worth sitting on tapes that will be transferred as time permits.)

- Usenet news, a bulletin board with messages in nearly 1000 categories, shared by a network of at least 10,000 machines around the world, with over a million readers, and traffic near 10 megabytes a day (that is, about 10 books worth a day).

- Complete access to a multi-tasking operating system. Feel free to engage in text processing, programming, game playing, or other recreational activities.

In keeping with the university convention of naming machines after mythological figures, the name Nyx was chosen for this system because it embodies the nature of BBS usage: Nyx is the Greek "spirit of the night".

The system itself is a Pyramid 90x system run by DU's Math and Computer Science department. It has 10 Mb of primary memory, a gigabyte of disk space, 32 ports (plus "unlimited" network connections), and runs the Berkeley 4.2 Unix operating system as well as AT&T's System V Unix (Pyramid calls it a "dual port", if that makes any sense to you). It is maintained by Andrew Burt, a professor in the department, and anyone else he can find who's willing to help out.

Donations of equipment or time are welcomed and will be acknowledged in this file; please contact 'aburt'.

Backups of files are NOT performed regularly, but only as time permits -- this system is run by volunteers. Users are requested to keep disk space to a minimum, but no quotas will be in effect unless abuse becomes a problem. Please try to keep your space under 100k. Users not logging in for more than 30 days will be removed (including all files).

Currently a time limit of one-hour a day connect time is imposed to provide fair access to all. This limit can be raised by uploading files not currently available. YOU WILL RECEIVE TWO MINUTES MORE CON-NECT TIME FOR EACH MINUTE SPENT UPLOADING. Further, time gained by uploading is usable ANY time, not just the day you upload.

To execute a "pure" Unix command you may enter it at the "Choice:" prompt preceded by an exclamation mark, as in "!who". It is NOT recommended that you do this unless you are familiar with Unix.

You may learn Unix by choosing the "learn" option from the education menu. You may abandon the use of this menu system and use the standard Unix environment (the "shell") by doing "!csh" ("exit" to return to the menu).

#### Acknowledgments...

This system owes thanks to:

Don McCarthy, Math/CS Operations Manager who's always willing to fix what's broken Dinesh Punjabi, for coding the first version of the menu system Staff of Computing and Information Resources, for allowing the use of their phone lines Mark Armbrust, for donating ten much needed modems Ben Scott, for donating a much needed modem Zimmerman Metals, for donating the original hardware.

#### Terms of obtaining an account on Nyx:

- No handles or aliases. Any account found out to be such will be removed immediately.

- Any account not used for more than 30 days is subject to immediate removal.

- Time limit of one hour a day; may "earn" time by uploading files that are new to the system (see system description for more).

- Initially there will be no disk space quota, but there soon will be if this privilege is



abused. Try to keep your space under 100k.

Nyx phone numbers:

(2400 bps) 871-3321, -3324, -3327, -3331, -4824 (1200 bps) 871-7459, -4812 (9600 bps - HST/V.32) 871-3323

## "Upgrade 2.0

doesn't

install the

2.0 boot block"

## NeXT Technical Alert 90-1

#### Summary

Cannot boot after upgrading a 68030-based 2.0 machine to a 68040: Upgrade2.0 doesn't install the 2.0 boot block

#### Description:

The Upgrade2.0 application in Release 2.0 does not write the 2.0 boot block to the disk being upgraded. The boot block is the first piece of code that's loaded from the disk after you turn on the computer; it handles the reading of the Mach kernel from the disk and the initial execution of Mach.

The 2.0 boot block supports 68040-based NeXT computers, as well as 68030-based

NeXT computers; the 1.0 and 1.0a boot blocks support only 68030-based NeXT computers. If after running Upgrade2.0 you then install a 68040 upgrade CPU board, the machine will not boot. The symptoms of this are the following message:

#### Exception 5 (0x14) 0xaddress

You will see this during system start-up (address will be replaced by a PROM address). The message may be preceded by other error messages, including SCSI errors; these other messages may be ignored until after implementing the workaround, described below. After the Exception message is displayed, the system halts.

#### Workaround

After running Upgrade2.0, and before you reboot, run the Terminal application. If you logged in as root, omit the first line of the following; otherwise, type the following (plain text is output, boldface text is what you type; italic text will be replaced by an appropriate value):

hostname> su hostname# disk -b /dev/rsd0a Page 16 disk name: diskname disk type: fixed\_rw\_scsi

We recommend implementing this workaround even if you aren't upgrading to a 68040 now. That way, if upgrade later, your system will boot correctly after you install your new CPU board.

If you have already tried to reboot, and got the error message described above, put the Release 2.0 optical disk in your drive and type:

NeXT> bod at the monitor prompt. This will boot from the optical. Then perform the above steps.

#### For More Information

Contact your organization's support center, or NeXT Technical Support.

## **NeXT Technical Alert 90-2**

#### Summary

Printing from NeXT computers to printers on non-NeXT machines doesn't work with release 2.0. See workaround below.

#### Description

The lpr program puts print jobs into the spooling area, where they are picked up and printed by the UNIX printing server. The lpr program currently creates print command files that are incompatible with the standard protocol, so a non-NeXT machine cannot handle print jobs properly. The symptoms are that no print jobs to non-NeXT machines print.

#### Workaround

Log in to the system using your personal account. Run the Terminal application and type the following:

dwrite System PrinterResolution 1

The above command sets the default printer resolution to a nonstandard value. You can now spool print jobs to non-NeXT machines. *Note:* 

#### Even after applying this workaround, you won't be able to print to non-NeXT printers from the PrintManager application. Also, if you're logged in as root, you won't be able to print to non-NeXT printers from some applications (for example, Digital Librarian).

There is no workaround for these cases.

If after using this workaround you subsequently print to a NeXT printer, the default resolution is reset and you cannot print to non-NeXT hosts until you perform the workaround again.

For More Information

Contact your organization's support center, or NeXT Technical Support.

## Letter To The Editor

them mean?"

"What does

boycotting

From the introduction to the Look-and-Feel section of the November newsletter, it is not clear exactly what all the commotion in the NeXT community is about. There are two problems:

1. Announcement of products by two of the four companies boycotted by the League for Programming Freedom for the NeXT: Ashton-Tate's PowerStep and Lotus's Improv.

2. NeXT's active promotion of those products and of those companies.

What does boycotting them mean? DON'T BUY them, DON'T USE them even if you get them for free, and DON'T BETA TEST them.

For NeXT's part in the affair, LPF also recommends the following way to express displeasure: don't order your upgrade or new workstation until the offer for free Improv expires, and make it clear to NeXT (in writing or through a salesperson) why you are delaying your order. (The reasoning is that NeXT hopes that a limited-time offer of free Improv will speed up early orders, so delaying the order until the Improv offer expires can cancel out that strategy, and maybe even make it backfire.)

Jacob Gore <jacob@gore.com>

#### **User Profiles**

#### Steven M. Boker

At age 38, Steve has already accomplished a significant amount in the software development arena. In 1972, Boker obtained his B.S. degree in mathematics from the University of Denver. After graduation, Steve went on to

become President and founder of Data Transforms, an independent software development and publishing firm in Denver. He has authored several programs including, Fontrix, Printrix, and RAMpath. Data Transforms is currently focusing on programs for data analysis and neural network programs on both NeXT and 386 platforms. Specifically, Steve is developing a set of statistical tools for Path Analysis which will be released under the name of RAMpath.

Outside of programming Steve is working under three different grants to study intelligence and ageing, ultrasound imaging, and chaotic time series analysis. Aside from these weightier topics he enjoys composing and performing music.

Steve uses his two year old cube to handle both office email and usenet news. The NeXT also serves as his primary machine for software development, and his machine of choice for day to day work.

As one of our valued NeXT developers we appreciate Steve's participation in rmNUG and look forward to getting to know Steve and his software products better in upcoming meetings.

#### Barbara Dyker

Barb received her BS degree in Physical Science - Physics from Frostburg State University in Maryland in 1983. Following graduation Barb worked at NASA Goddard Space Flight Center supporting manned and unmanned space launches and at Martin Marrietta on the Space Station program and Transfer Orbit Stage program (a shuttle to geosynchronous booster). In both cases she worked on scientific computing operations and programming. Barb has also taken several graduate courses in Computer Science from Johns Hopkins and CU.

In 1988 she quit Martin and started doing independent consulting in UNIX and heterogeneous network consulting which she enjoyed more than doing "space politics". She has also worked on a variety of projects as a consultant, most notably U S WEST Advanced Technologies (the part that is moving to boulder) helping them get their network on track.

Barb began working for the University of Colorado, Boulder in 1989 as the Manager of Operations for the Computer Science department while continuing to consult on the side. Barb particularly enjoys her University position because it gives her the opportunity to work with every type of machine without the expense of buying them.

Barb has always been interested in advancements in desktop computing hoping to one day get something nifty and affordable at home. Her first machine was an Otrona Attache, which she says "was an excellent portable DOS box that never made it big but should have". This was followed by a Macintosh SE. Even though the NeXT didn't come out with a big bang and wasn't generally available, Barb says she noticed it nonetheless, "My husband, Karl, still had his old 8088 PC so we bought a NeXT. The plan was to connect my Mac and his NeXT via ethernet at home. We've done that. The NeXT is so fun I just had to have one for myself, so now I do".

"NeXT is the

most advanced

**UNIX** system

available on

the market"

She uses her home machine primarily for business related work (billing, accounts, word processing) and as a workstation to dial into UNIX systems. Barb has always wanted a UNIX system at home, and she feels that "the NeXT is the most advanced UNIX system available on the market and probably always will be".

Outside of her professional computing environment Barb has always been interested in music. She sings but does not play any instruments and has always felt that she couldn't take advantage of the traditional musical electronics like keyboards. Currently she uses her Mac as an accompanist in rehearsing my music. Soon she plans to do this with the NeXT and much more since "the music interface is not limited to traditional inputs and the output is spectacular". Barb is especially excited about the Keynote music programming language from AT&T and has already volunteered to present this software package for a rmNUG meeting once she has it down.

We are glad to have Barb as a member and look forward to her contributions to the group as a whole. Happily she is a very excited and willing participant whose computer expertise will greatly benefit rmNUG.

## **User's Groups**

There are now nearly 60 official NeXT user's groups in 8 countries and 26 states. In only two years, NeXT has established twice as many user's groups as Sun. If you are interested in starting a user group in your area, you can send email to:

user\_groups@next.com

## The Phantom Newsletter

Due to unusual circumstances there was no December, 1990 issue of the rmNUG Newsletter. We will continue to be a monthly publication. If you have any suggestions on what you would like to see in the upcoming issues, you can email or call David Bowdish or Dave Hieb.

## Late Breaking Announcement

#### Pencom Software, Austin, TX

There has been a great deal of discussion recently concerning X11R4 on the NeXT and Pencom Software's role in providing it.

Pencom Software has announced and has a working alpha version of "co-Xist", an implementation of X11R4 under NeXTstep 2.0.

This grey-scale version will be in beta in February and will be released in March. A color implementation is planned for a future release.

For the first release, co-Xist *will not* be copy protected and site licenses will be available. We will review that policy for future releases based on our experiences. We will be selling co-Xist at a low price per CPU (\$149 for educational accounts, \$249 for commercial accounts), we will also make site licenses available and will support our product. We chose to design co-Xist to run inside a NeXTstep window as opposed to the McGill approach of taking over the display with a hot-key toggle between the two environments. co-Xist will also optionally include OSF/Motif 1.1 and the standard MIT X documentation in a form compatible with NeXT's Digital Librarian.

Dany Guindi (pensoft!dany@cs.utexas.edu) Pencom Software 9050 Capital of Texas Highway, Suite 300 Austin, TX 78759

## rmNUG Mailing list.

This is the latest list as compiled by David Hieb.

	ompiloa of		
* * * * * * * * * * * * * * * *	*******	* * * * * * * * * * * * * * * *	******
Naim Abdullah	.USWest	.9388685	.naim@uswest.COM
Jim Alexander	.USWest	.8896426	.jima@uswest.COM
Abdullah Algaz	•	.440-7540	•
Phil Anno	.CSM		.panno@dix.mines.colorado.EDU
Craig Artley	.CSM		.cartley@dix.mines.colorado.EDU
Richard Beach	.CSM		.rbeach@mines.Colorado.EDU
Nic Benner		.451-9166	
Dan Beyers		.3373434	
Norm Bleistein			.norm@dix.mines.colorado.EDU
Dane Boat		.660-0146	
Steven Boker			.datran2!smb@uunet.UU.NET
Ed Boring		.4917653	.boring@euclid.math.Colostate.EDU
Dave Bowdish			5.73340.2146@Compuserve.COM
James Bridges		.295-0011	—
Matt Brookover			.mbrookov@du.EDU
Lettie Buena		.9246518/4995764	
Mike Bush	•		•
Jeff Buske	Mnt Med	.973-1200-446	•
Jason Cardamone		.451-7129	•
Tim Carlin		.6946700	.Tim_Carlin@NeXT.COM
	.USWest		.scoffin@uswest.COM
David Cook		.691СООК	.dcook@nyx.cs.du.EDU
Robert Dahlen		.8714385	.bdahlen@du.EDU
Glenn Davis		.4978643	.davis@unidata.ucar.EDU
Don Dazlich		.4918585	.davisediidata.dcai.ED0 .dazlich@erehwon.atmos.Colostate.EDU
S. DeAlwis		.4920511	
			.dealwis@Colophys.BITNET .deininge@magellan.Colorado.EDU
David Deininger John Devlin		.469-9902	.deininge@magellan.colorado.ED0
		.922-9890	·
Joseph Dreitlein		•	.jfd@pprince.Colorado.EDU
John Dunn	.CU	•	.dunn@mimicad.Colorado.EDU
Barbara Dyker		.4435275	.Barb_Dyker@Amaze.UUCP
Kimberly Evans		.440-6765	
Shelly Fields	.USGS	.2365505	•
Greg Friedman	•	•	
Horacio Fuente	•	•	.delafuen@titan
Conrad Geiger		.(206)828-6398	.Conrad_Geiger@NeXT.COM
John Gillett		.427-4472	
Mike Gillett		.466-5571	•
Aaron Gordon		.2733868	.agordon@mines.Colorado.EDU
Jacob Gore		.696-7893	.jacob@blackbox.Gore.COM
Brad Green	.CU/NeXT		.Brad_Green@NeXT.COM
Robert Gregory	.USWest	.7336573	
Frank Hadsell	.CSM	•	.fhadsell@mines.Colorado.EDU
Frank Hagin		.277-0757	.fhagin@slate.mines.Colorado.EDU
David Hale	.CSM	•	.dhale@mines.Colorado.EDU
Darren Hardy	.CU	.442-4493	.hardy@eclipse.Colorado.EDU
Bjorn Haugen	•	•	.haugen@titan
Willy Hereman		.2733881	.whereman@mines.Colorado.EDU
Steve Herndon	.USWest	.850-1337	.hern@uswest.com

David Hieb	.CU	.4924316	.davehieb@boulder.Colorado.EDU		
Al Humphrey	•	•			
Chris Jacobson	•	.719.597.7967			
Kass Johns		.5944100(2477)			
Bob Johnson		.7903641	•		
Demetrius Johnso			.demi@alumni.Colorado.EDU		
	•	.(719)6371479	.73437.3500@Compuserve.COM		
Chris Joslyn	.CU	•	.joslyn@tramp		
Andrew Kessler		.4921290	.kessler@boulder.Colorado.EDU		
Chriss Koch	.AMPEX	.(719)5703233	.agcsun!soul!song!Chriss_Koch.COS_ENG		
Jamie Krutz	•	.493-1909			
Kathleen Lamb	.CSM	.2733436	.klamb@mines.Colorado.EDU		
Ken Larner	.CSM	•	.klarner@green.mines.colorado.EDU		
Joe Lounge	.UNC	.3512807			
Mehran Majidi	.CU	.7861794	.majidi@tigger.Colorado.EDU		
Greg Marsh	.Marsh	.4213383			
Fran Miller	.DU	.841-5128			
Chris Morris	•	.442-8509			
Eric Mueller	.CSM	•			
Joan Nadeau	.USGS	.2365504			
Ed Narvaez	.BLand	.3692726			
Bill Nelms	•	.(719)5703284			
Mark NiemannRoss	.Quark	•	.75140.1136@Compuserve.COM		
Charles Noren		•	.ncar!dinl!noren		
Mavis O'Connor	.CSU	•	.moconnor@salzburg.ir.ColoState.EDU		
Jason Ornstein	.CU	.4495455	.ornstein@tramp.Colorado.EDU		
Douglas Pattie	.CSUNeXI	.4916477	.Douglas_Pattie@NeXT.COM		
John Pierce	.NeXT	.6946700	.John_Pierce@NeXT.COM		
Dave Randall	.CSU	.4918474	.randall@ncar.ucar.EDU		
Dan Riley		.238-0948			
Wayne Rogers	.CU	•	.rogers@spot.Colorado.EDU		
Joel Rosenblum	.DPI	.7338158/7218926	5.		
Ray Rosich	.Hughes	.3413814			
Lisa Saltzman	.USWest	.8969533			
John Shive	.Hughes	.3413207			
Karl Sierka	.NCAR	.4971338	.amaze!karl		
Doug Simons	.Thought	.2214596			
Leif Smith		.778-0880			
Steve Statham	.Mlogic	.7192820807	.hp-col.col.hp.com!mlics!steve		
Al Steele		.494-8670			
John Steele	.CSM	.2733278	.jsteele@mines.Colorado.EDU		
John Stockwell	.CSM		.john@dix.Mines.Colorado.EDU		
JohnPaul Tafoya	.DesEnt	.452-0187	•		
Ken Tanaka	.CU		.tanaka@icarus		
Terry Tautz	.CU/NeXI	.4928258	.ttautz@beagle.Colorado.EDU		
Julia Taylor	.USGS	.2365453			
Coy Toavs	.CU		.toavs@tramp.Colorado.EDU		
Chase Turner	.CU	.4424711	.chase@boulder.Colorado.EDU		
Dick Valent		.4971302	.valent@ncar.ucar.EDU		
Bob Williams	•	.759-1071	•		
Derek Wilson	CSM	.2733986	.dwilson@mines.Colorado.EDU		
Beverly Young	.FRAME	.7709404			
			* * * * * * * * * * * * * * * * * * * *		