



---

*North Texas PC Users Group*

8.7

July 1989



**North Texas PC NEWS**  
(STARMAIL ADDRESS 51563)

Published monthly by members of North Texas Personal Computer Users Group for their use. Members each receive a free subscription; for others, price of the NEWS is \$2 per copy. Members are requested to notify the Membership Director in writing of address changes. Send all editorial correspondence to: North Texas PC NEWS, 5105 Swiss Ave. Dallas, TX 75214

**Publisher**  
John Pribyl (817)275-4109

**Editor**  
James Green (214)827-7532

**Assistant Editors**  
Doug McQuaid (214)255-1732  
Gerry Heine (214)937-7288  
Archie Pinkney (214)943-7710  
Alan Lintel (214)220-8285  
Alan Kirby (214)381-2707

**Newsletter Exchange Editor**  
Tom Prickett (214)690-9087

**Advertising**  
— o p e n —

The opinions expressed herein are those of the authors and do not necessarily reflect those of the Group or its members. Copyright © 1989 by North Texas PC NEWS. (Articles without specific copyright notices may be reproduced unchanged by other User Groups if credit is given to the author and the publication.)

**Deadline:**

All advertising and other material for publication in North Texas PC NEWS must be received by the NEWS staff by the 10th of the month prior to publication. See copy deadline below.

**Circulation:**

North Texas PC NEWS circulation is 1534.

Member distribution is 1268; remaining copies are distributed to PC user groups around the country, and to advertisers, prospective members and others with common interests.

This issue of North Texas PC NEWS was composed using Xerox Ventura Publisher. Corel HEADLINE was used for some headings. Repro was printed on a NEC LC-890 Laser Printer. Typefaces include: Palatino, Helvetica and Zapf Chancery.

**DEADLINE**  
Copy deadline for August  
NT PC NEWS:  
Monday July 10th

**Meeting Dates:**

July Meeting - 2nd Sat (8th)  
August Meeting - 2nd Sat (12th)  
September Meeting - 2nd Sat (9th)  
(tentative)

*Thanks for the articles —  
keep them coming!*

**Submitting Articles for Publication in North Texas PC NEWS**

Submit PC News articles to the newsletter exchange computer, or "Exchange" for short. (Note—This is not the NTPCUG BBS.) To anyone submitting an article, the Exchange looks much like a multi-user DOS machine.

**1. Article Style.** Type all copy flush left without justification. This includes headings, bylines, and the first line of each paragraph. Place a credit byline (author's name) between the title and first paragraph. For ASCII text files, leave one blank line between paragraphs. For WORD .DOC files do not insert this blank line. Don't use tabs in the text; Ventura ignores imbedded tabs in the format we use for the newsletter. The < and > symbols must be doubled (i.e., << & >>) if they appear in your text.

**2. Filenames & Extensions.** When assigning a name to your file, be sure to use the filename extension for your wordprocessor. Use .TXT extension for ASCII files. The newsletter staff has standardized on Microsoft WORD as our word processor. If your article has formatting (i.e. bold, italics, underline, etc.) we prefer that you submit it as a WORD formatted (\*.DOC) file. If it has no formatting, please send straight ASCII text (\*.TXT).

**3. Login Procedure.** Call the Exchange at 214-830-6360. Set your modem hardware and terminal emulator software to N-8-1. When you connect to the computer a Greek-looking prompt will appear. Transmit a break (Alt-B on Procomm Plus or Alt-F7 on Procomm). login: should then appear. Type ntpcug (all lower case). Immediately you will see password: Type news (all lower case). You will get a welcome message. The NTPCUG> prompt will appear. You are logged in and running.

**4. Commands.** Caution - All commands must be lower case only.

Familiar commands: dir, del, rename, copy, and type all work similar to the way they work in DOS. Other commands: mail, umodem, kermil, names, and submit are detailed elsewhere in this article. For help, type hints.

**5. Submitting Articles.** Log in to the Exchange and upload the file into the directory. Then move the file to the Editor's home directory simply by typing submit filename. (DO NOT submit articles to a mail address.) After "submitting" the file, it will no longer appear in NTPCUG> directory.

**UPLOADING AND DOWNLOADING:** Either the XMODEM (called umodem on Unix) or KERMIT protocols are available. For details type xhelp for umodem (XMODEM) help and khelp for KERMIT help. Examples of use are in each help file.

**6. Mail.** To send mail to assistant editors, you must know their login-name. Type names to see login-names of current staff members. To send mail type mail login-name. (Example: mail jgreen.) The cursor will be positioned on the next line. Type your mail message with <Enter> at the end of each line. When finished, type <Ctrl-d> to send the message. The NTPCUG> prompt will reappear.

**7. Logoff.** To log off the computer, type <Ctrl>-d. Do not disconnect from the computer without logging off, you will hang the modem. After typing <Ctrl-d> you will receive a logoff statement on the screen followed by the Greek-looking prompt. This is your signal logoff is complete and for you to hang up your modem. Note: Your telephone line will remain connected to the BBS number until you give the modem a command to hang up.

**Table of Contents**

President's Message . . . . . 1  
Jim Hoisington

Member Computer Use Survey . . . . . 3  
Jim Hoisington

Editorsez . . . . . 5  
Jim Green

PC Request - 22-Year Old Quadriplegic . . . . . 5

Introduction to SQL, Part 4 . . . . . 7  
Fred Williams

Mastering the Norton Utilities . . . . . 10  
A Book Review by Bob Fowler

Bill Gates — Super Saturday at INFOMART . . . . . 13  
Reagon Andrews

On Complexity, No. 29 . . . . . 15  
Jim Hoisington

UNSLUNG HEROES . . . . . 16  
Connie Andrews

*Special Items:*

Agenda . . . . . 1  
The Variety Store . . . . . 11  
SIG Reports . . . . . 17  
Volunteer Guide . . . . . 18  
Membership Application . . . . . 20  
Officers, Meetings & Times . . . . . 21

July 8 — \_\_\_\_\_ Timothy Carmichael \_\_\_\_\_

9:00 a.m. to 10:00 a.m.

**Toshiba Inc.**  
**Portable Computers**

Come see the features of Toshiba's latest portable computers.

10:00 a.m. to 11:00 a.m.

**Genicom Inc.**  
**400 DPI Laser Printers**

The new 6142 "Scorpion" printer boasts "Pages per minute, not minutes per page." A limotronic-based page description language. Speaker will be Jeff Schulte, Application Engineer.

## Prez Sez...

by Jim Hoisington

### Newsletter publishing computer expanded.

Recently Xerox Corporation updated the version of Ventura Publisher that we use to publish our newsletter. The new version needs more than 640K to function (a very common problem these days). So, we have added 2 megabytes of memory to our Acer 1100B computer. John Pribyl, our publisher, will be using it for the first time on this newsletter. John, let us know how it works.

### Newsletter Editor needed.

Jim Green, our editor, will be temporarily leaving Dallas in early August. Jim and his group of volunteers read the articles submitted for publication in the newsletter. They "fix" all the mistakes before they get into print. Thank you Jim. We'll look forward to seeing you back in Dallas next year.

Hopefully, we will find a new editor who can work with Jim on the July newsletter. However, we may still be looking for his replacement by the time you read this. If you have experience at editing, please contact me or one of the board members.

### Publicity Director needed.

Ron Kerr, our publicity director has already left Dallas to take a new position in Indiana. Ron and his group of volunteers have been rewriting our brochure, getting advertising for our newsletter, and attempting to get announcements of our meetings publicized locally. Thank you, Ron.

Again, the position may still be open by the July meeting. Please contact me or one of the board of directors if you are interested.

### March Demographics Survey published.

We have finished the analysis of the demographics survey that was taken during the March meeting. The results are published in this newsletter.

Thank you, Reagan Andrews, for designing the questionnaire. And thank you, Pete and Connie Testa, for doing the data entry.

### Only 95 percent true.

I have run into the same problem three times in as many weeks so I am going to mention it here. IBM has been telling companies that their non micro channel PS/2 computers are completely compatible with their PC's and AT's. That statement is only 95 percent true.

Three times I have been called in to help when software that worked fine on an AT or a Compaq and would not work at all on a PS/2. In all three cases, the solution was to get a new version of the software that was written to deal with the differences in the PS/2.

When IBM designed the PS/2 family they made improvements from the AT design. In making these improvements, many of the hardware controllers' functions and addresses were changed. The code provided in the BIOS ROMs and in MS (PC) DOS makes these changes transparent to most software.

However, certain software has to work closely with the hardware in your computer to achieve speed and function. Programs that communicate, back up your hard disk, or analyze your hard disk all need to bypass DOS and sometimes even the BIOS.

These programs work directly with the hardware controllers and the DMA channels. If they didn't do this, they would either be too slow or they couldn't do the function they were written for.

The solution to this problem has a couple of implications. First, if you are using a "borrowed" copy of the software and don't have the manual, you may not know how to get the telephone number of the software company. If you have "borrowed" software, go buy the latest version, it is probably PS/2 compatible. (If enough people use "borrowed" copies of software, you will run into the second problem.)

Second, if you have the manual and find the phone number, you will not always find the company because it may be out of business. Hopefully, you will be able to find another software package that provides the same function as the old software but has been updated to run on a PS/2.

Software install programs are bad.

I work with a lot of different software packages and I am amazed at how little thought has been given to the installation process. Here are some of the things that bug me:

1) At the beginning of the install, the procedure should tell you approximately how much space the software will need on your hard disk. Better yet, DOS provides a function that returns the amount of available space on a disk, the installation program should use that function and warn you if there may not be enough space left.

2) Most install programs go in and change the CONFIG.SYS and AUTOEXEC.BAT files. Enough people have complained so that they now make a copy of the file before they change it. Yesterday, I installed a program that made a copy of my CONFIG.SYS file and then made NO changes to the original. That's really dumb!

The right way to handle this is to create the file if it doesn't exist. But, if the file exists, the program should create it's own version of the file (with a different name). This file only needs to contain the suggested changes. MS DOS 4.01 has it almost right. It creates AUTOEXEC.400 and CONFIG.400 with the suggested changes but it creates them even if the originals have the changes.

3) The install program should run from either drive A: or B:. I know this sounds too simple but one major software vendor insists that you install their products from Drive A: even if you start the installation from drive B:.

4) The install program should let you install to a hard disk with a drive letter greater than D:. (I have one network version of a popular word processor that does this in reverse. It will not install to drive C: or D:. The lowest letter that it will consider is drive E:.)

5) The install program should give you a warning if it finds that you do not have a piece of hardware that it needs. For example, a program that requires a graphics screen should complete the installation on a system with a non-graphics screen but it should warn the user that a graphics screen will be necessary for the program to function.

#### DOS 4.01 Installation Problem

I have spent a lot of time working with MS DOS 4.01 this last month. Even though the version number has not changed, there are several different versions of the product. The most recent version that I have seen has a COMMAND.COM file dated 4/7/89. This "version" contains the fix to the problem of lost data if you have a disk partition of greater than 32 megabytes.

Microsoft's fix is to have COMMAND.COM automatically load a program called SHARE.EXE into memory if it finds a disk partition greater than 32 megabytes on the hard disk. The only problem is, Microsoft forgot to put the SHARE.EXE file on the INSTALL floppy. COMMAND.COM can't find SHARE.EXE during the installation process and it eventually hangs the computer.

The solution is to go to another computer and to copy SHARE.EXE from the SELECT diskette to the INSTALL diskette before starting the installation process. That will let you install DOS 4.01. But that creates a second problem.

The DOS loader program that loads programs into memory, does not seem to know or care about SHARE.EXE being in memory and it reallocates part of the memory used by the SHARE.EXE program to other programs. I am sure glad that COMPUADD put a Reset button on the front of my computer. It got a lot of use until I repartitioned my hard disk so that I no longer had a partition greater than 32 megabytes.

Happy Computing!

Jim Hoisington

a



# Member Computer Use Survey

By Jim Hoisington

At the March meeting we distributed a demographic survey to be filled out by those present. We received 166 completed surveys. What follows are the results of that survey.

We use these demographic surveys for several purposes. First, it helps the Board of Directors design programs that will be of interest to you, our members. Second, it helps us to attract speakers to our meetings because the survey helps them understand

the composition of the audience that will see their presentation. Finally, the surveys help us attract advertising for our monthly newsletter.

A special thanks to Dr. Reagan Andrews who designed the survey, and to Pete and Connie Testa who did the data entry work. The data resides in a Paradox 3.0 database and the analysis was done with two PAL programs, one for the front side of the survey and one for the back side.

## MEMBERS COMPUTER USE SURVEY - Front Side

1. Does a significant amount of your work involve you in any way in Evaluation, Recommendation, Design, Manufacture or Sales of:

A) Computer Hardware	80
B) Software	108
<b>Total</b>	<b>188</b>

2. If you aren't a COMPUTER PROFESSIONAL are you considered a PC EXPERT in your area (Y/N)

Y) Yes	66
N) No	25
<b>Total</b>	<b>91</b>
Other Code or No response	75

3. As a Professional, the most appropriate description of your job would be (Circle one):

A) Chairman/President CEO	10
B) Computer/MIS Manager	10
C) Engineer/Hardware	11
D) Consultant	25
E) Systems Analyst	11
F) Data Base Supervisor / Administrator	6
G) Programmer / Software Engineer	24
H) Representative	2
I) Educator	7
J) Manager (Non-MIS)	7
K) Scientist	3
Z) Other	33
<b>Total</b>	<b>149</b>
Other Code or No response	17

4. How much in computer hardware and software purchases do you recommend but HAVE NO FINAL AUTHORITY OVER each year

(Circle one)	
A) Below \$1,000.	35
B) \$ 1 - 2K	18
C) \$ 2 - 5K	9
D) \$ 5 - 10K	16
E) \$10 - 20K	18
F) \$20 - 40K	12
G) Over \$40K	35
<b>Total</b>	<b>143</b>
Other Code or No response	23

5. How much in computer-related purchases do you have FINAL AUTHORITY OVER annually (Circle one)

A) Below \$1,000.	61
B) \$ 1 - 2K	19
C) \$ 2 - 5K	26
D) \$ 5 - 10K	16
E) \$10 - 20K	9

F) \$20 - 40K	4
G) Over \$40K	11
<b>Total</b>	<b>148</b>
Other Code or No response	20

6. HARDWARE: Do you approve, recommend, or purchase any of these products? (Check ALL that apply.)

A) Mainframe/s	5
B) Minicomputers	20
C) Microcomputers [PC's]	113
D) LAN's	45
E) Laser Printers	73
F) Impact Printers	79
G) Monitors	100
H) Modems	91
I) Hard Disks	103
J) Tape Backup	78
K) Add-in Cards	58
L) Video Projection Systems	26
Z) Other	9
<b>Total</b>	<b>800</b>

7. SOFTWARE: Do you approve, recommend, or purchase any of these products? (Check ALL that apply.)

A) Accounting	38
B) Order Entry / Inventory	13
C) Payroll	18
D) Time Billing	11
E) Spreadsheets	93
F) Word Processing	109
G) Communications	74
H) CAD / CAM	26
I) Project Managers	27
J) Database	87
K) Programming Tools	64
L) Graphics	67
M) Statistics / Analysis	0
N) Other	0
Z)	23
<b>Total</b>	<b>650</b>

8. At WORK, I regularly use: (Rank in order of use / access)

	1st	2nd	3rd	4th	5th	Total
A) Mainframe	18	20	8	1	3	50
B) Minicomputer	21	15	10	3	0	49
C) Desktop PC	104	30	7	0	0	141
D) Portable PC	5	8	8	2	2	25
E) Laptop PC	5	11	5	5	1	27
<b>Total</b>	<b>153</b>	<b>84</b>	<b>38</b>	<b>11</b>	<b>6</b>	<b>282</b>

9. At HOME, I the computer I PRIMARILY use is:

	Primary	Secondary	Total
A) IBM PC	19	8	27
B) IBM XT	19	9	28
C) IBM AT	13	0	13
D) COMPAQ 8088	7	1	8
E) COMPAQ 80286	2	1	3
F) COMPAQ 80386	5	1	6
G) PC Clone (8088)	32	11	43
H) AT Clone (80286)	43	2	45
I) AT Clone (80386)	11	2	13
J) IBM PS/2 25 / 30	4	0	4
K) IBM PS/2 50 / 60	1	0	1
L) IBM PS/2 70 / 80	2	1	3
Z) Other	9	11	20
Total	167	47	214

9. At HOME, the computer PRIMARILY use is:

	PRIMARY		SECONDARY	
	Portable	Deskpro	Portable	Deskpro
D) COMPAQ 8088	4	0	0	1
E) COMPAQ 80286	1	0	1	0
F) COMPAQ 80386	0	1	1	0
Total	5	1	2	1

10. I personally spend:

	HARDWARE	SOFTWARE	TOTAL
Respondents	134	137	137
Average	\$ 1,780.97	\$ 1,385.77	\$ 3,166.74
Total	\$238,650.00	\$189,850.00	\$428,500.00

11. I am currently planning to upgrade my current system by:  
(Check ALL that apply.)

A) Adding a Hard Disk to a PC	13
B) Adding a Larger Hard Disk	38
C) Adding a (faster) Modem	24
D) Adding an AT or Clone	18
E) Adding Memory	58
F) Adding an Impact Printer	10
G) Adding a Laser Printer	25
H) Adding Accelerator Board	9
I) Adding 386 Machine	40
J) Add high-quality color/graphics VGA+ etc.	53
K) Add multiple scan-rate or high-res monitor	29
Total	317

MEMBERS COMPUTER USE SURVEY - Back Side

1. You are:

A) Female	16
B) Male	145
Total	161
Other Code or No response	5

2. You are:

A) Married (or in a similar relationship)	138
B) Single	25
Total	163
Other Code or No response	3

3. If you are married, etc., does your partner attend NTPCUG meetings also.

A) Yes	24
B) No	110
Total	134
Other Code or No response	32

4. Do you use a PC more at:

A) Home	44
B) Work	90
Total	134
Other Code or No response	32

5. Are you the primary PC user in the home:

A) Yes	137
B) No	17
Total	154
Other Code or No response	12

6. Who uses home PC most: (Please estimate)

	Respondents	Minimum %	Maximum %	Average %
A) Woman	79	1	100	34
B) Man	140	5	100	82
C) Kids	44	2	100	21
No response	18			

7. What is your present educational level? If one or more advanced degrees, check all that apply. If you are currently a student, write 'S': by the degree you are currently working toward.

	DEGREE	STUDENT
A) 0 - 12 Years	5	0
B) High School Graduate	14	0
C) Some College or Tech. School	19	0
D) Associate Degree (2-year)	16	2
E) College Graduate	71	2
F) M.S./M.A./M.B.A.	49	1
G) Law (J.D., etc.)	1	0
H) M.D., D.D.S., etc.	3	0
I) Ph.D., Sc. D.	7	1

8. Do you regularly take CONTINUING EDUCATION classes?

A) Yes	75
B) No	80
Total	155
Other Code or No response	11

9. How would you classify your current computer skills:

A) Beginner	0
B) Novice, some knowledge	21
C) Skilled user	86
D) Expert User	54
Total	161
Other Code or No response	5

10. What are your goals/ interest in participating in the Group?  
(Check all that apply.)

A) Learning about Personal Computers.	52
B) Learning about PC's in business applic.	60
C) Sharing knowledge about PC's & programming.	87
D) Learning more about computers & software.	125
E) Learning specific applications.	88
F) Teaching about PC's, applic., & software.	23
Other Code or No response	6

11. How old are you?  
(Please circle the appropriate age range below.)

A) Below 20 years old.	0
B) 21 - 29.	14
C) 30 - 39.	30
D) 40 - 49.	54
E) 50 - 65.	56
F) Over 65.	5
Total	159
Other Code or No response	7

12. What is your approximate (combined) income range?  
(This is optional but will be helpful when approaching software publishers and hardware manufacturers.)

A) Below \$20,000	4
B) \$20 - 30,000	12
C) \$30 - 50,000	48
D) \$50 - 75,000	55
E) Above \$75,000	28
Total	147
Other Code or No response	19

## Editorsez...

by Jim Green

Novel title, eh? (Actually, its plagiarized from Jim H's Prezsez articles.) Whatever. I don't get an article in many newsletters, not as many as I had intended to. But I thought I should this issue.

First, an apology to the good BBS people. At last month's meeting in response to someone's question, I made the remark that I had never successfully downloaded a file from the BBS. I certainly did not intend to imply that the BBS did not work. I think my problem stems from my former non-Hayes compatible modem which does not work correctly with Procomm. Since I recently acquired a Hayes compatible, many of my problems have gone away; and although I have not tried, it will probably work perfectly with the BBS. You should have no problems downloading. Sorry if I left an incorrect impression.

Many people have asked why the newsletter staff uses a Unix system rather than the club BBS to exchange files. The answer is simple. The club BBS is a bulletin board. It was designed for posting messages and mediating conferences (messages to a conference). For good reason, there is not a public file upload area on our BBS. When someone uploads a file to the file area, it is not possible to list the directory to see if the file is there, rename the file, delete the file, etc. It was designed to be a bulletin board.

To coordinate the efforts of seven people accepting, editing, and passing around newsletter articles, we needed a multi-user DOS computer. Unfortunately there is no such thing. To me, the next best choice was a Unix system with its commands redefined to look like DOS. Unix also has the nice feature of multi-user file protection. This keeps one person from inadvertently altering or deleting a file someone else is working on. For a number of years HP has had a contributed library system running on a HP-50 publicly accessible at no cost. I asked and received permission to use it for the newsletter staff. Except for occasional modem "hangs" and the recent system change-over at HP it has worked well without many problems. The staff seems to like it. We are always open to suggestions.

As you read in Jim's article, I will be relocating back to the east coast somewhere near the end of the summer. We are looking for an editor to take over my coordination job, and a Unix literate person to administer our logins on the HP. Volunteers should call me, Jim H, Reagan, or John Pribyl.

As this will probably be the last article I will have an opportunity to write, I would like to acknowledge and thank the people on the newsletter staff who have worked with me these last six months. John Pribyl, our publisher, is tireless in his devotion to this publication, and without him it would not go out each month. My assistant editors, Gerry Heine, Alan Kirby, Alan Lintel, Doug McQuaid, and Archie Pinkney have been the greatest bunch of people I have ever had the pleasure to work with. Month after month they cheerfully solicit and edit the articles in their respective areas of responsibility. On two occasions when I had to be away from Dallas during the time that the newsletter was being put together, they picked up the slack and did my job too, copied their articles from my directory, edited them, and sent them to John Pribyl so the newsletter could be put together, all without being asked. To this wonderful group I give a big THANKS.

Jim Green

---

## PC Request

From time to time, the North Texas Users Group gets requests from individuals for computers. The most recent is from a young man named Derek Shipman.

He is a twenty-two year old quadriplegic injured in a diving accident in June of 1988. He was an in-patient at Dallas Rehabilitation Institute for six months and is at present completing an out-patient therapy program. Derek is now able to feed himself, hold the telephone and take photographs with an adapted camera. He is currently working on putting on a shirt, brushing his teeth, and pushing his wheelchair.

Derek was attending Brookhaven Junior college at the time of his accident. He would like to finish his studies at Brookhaven and pursue a degree in counseling at the University of North Texas.

A computer with some sort of pointing device like a mouse or track ball is essential to his college studies. If your company would like to donate a used PC that is being replaced by a newer model, please contact me or one of the officers of the NTPCUG. As I have mentioned many times before, we are a charitable organization so that the value of such a donation is tax deductible.

Jim Hoisington



# SYBEX

We Sell a Book Every  
Ten Seconds.

SYBEX has over 30 million-dollar computer book bestsellers, more than any other computer book publisher. SYBEX's interlocking series of books for beginning, intermediate and advanced users are written in both how-to and reference styles, allowing all reader needs to be answered progressively.

SYBEX books have:

**Broad range:** SYBEX has over one hundred and fifty computer books in print.

**Quality:** SYBEX invests more editorial time than do other computer book publishers and packs its books with added value features including "Fast Track Speed Notes" and much more.

**Accuracy:** SYBEX doesn't publish on pre-release software. SYBEX tests its publications for technical accuracy as part of the development process.

**Timeliness:** SYBEX titles are on the latest software versions.

Available from your local bookstore,  
or call 1-800-227-2346/415-523-8233



**The ABC's of 1-2-3**  
(Second Edition)  
Chris Gilbert  
Laurie Williams  
\$18.95  
ISBN: 0-89588-355-4



**The ABC's of dBASE IV**  
Robert Cowart  
\$18.95  
ISBN: 0-89588-531-X



**Understanding dBASE IV**  
Alan Simpson  
\$24.95  
ISBN: 0-89588-509-3



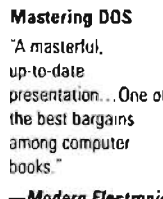
**The ABC's of WordPerfect 5**  
Alan R. Nelbauer  
\$18.95  
ISBN: 0-89588-504-2



**Mastering WordPerfect 5**  
Susan Baske Kelly  
\$24.95  
ISBN: 0-89588-500-X



**Mastering Harvard Graphics**  
Glenn H. Larsen  
\$24.95  
ISBN: 0-89588-585-9



**Mastering DOS**  
"A masterful, up-to-date presentation... One of the best bargains among computer books."  
—Modern Electronics



**The ABC's of DOS 4**  
Alan R. Miller  
\$18.95  
ISBN: 0-89588-583-2



**Mastering DOS**  
(Second Edition)  
Judd Robbins  
\$24.95  
ISBN: 0-89588-555-7



**Mastering Turbo Pascal 5**  
Douglas Hergott  
\$22.95  
ISBN: 0-89588-529-8



**Understanding dBASE IV**  
"Simply the best tutorial on dBASE IV! Simpson is a master communicator"  
—Computer Currents



**The ABC's of AutoCAD**  
(Second Edition)  
Alan R. Miller  
\$22.95  
ISBN: 0-89588-584-0



**Mastering AutoCAD**  
(Third Edition)  
George Omura  
\$29.95  
ISBN: 0-89588-574-3



**Mastering Ventura**  
(Second Edition)  
Matthew Holtz  
\$24.95  
ISBN: 0-89588-581-6

**Mastering WordPerfect 5**  
"Of all the new books out on WordPerfect 5, this is the best introduction."  
—Computer Currents



# Introduction To SQL

## Part 4

by Fred Williams

In our last episode we learned how to update existing database tables by adding and deleting rows of data and modifying data values stored in columns of rows. In this installment we will learn how to create new database tables, and how to alter the structure of existing database tables using simple SQL statements.

One of the strengths of relational databases is the relatively painless way the database tables may be altered to suit the changing needs of the database users. Most database table alterations may be carried out with very little impact to ongoing data processing tasks. It is very easy to add and modify database table columns and perform several other table alterations that can also be made to improve overall database performance. We will cover only the addition of and modification to database columns here, as the other types of table modifications are outside the scope of this introduction to SQL.

In keeping with our ongoing example, our organization has grown to a point where management has decided to implement project management techniques in an attempt to get more done in a more efficient manner. So what we must do first is to establish a new database table. The table will be used to store data related to various projects that are to be started, monitored, and completed in the future. To begin, we will have three data columns (fields) in our project (PROJ) table: project number (PROJNO), project name (PNAME), and project budget (BUDGET).

To create a new table we use a CREATE TABLE statement. The following example creates the new project table (PROJ) we need:

```
create table proj (PROJNO number(3) not null,
                 PNAME char(5),
                 BUDGET number(7,2));
```

The CREATE TABLE statement names the table being created (PROJ), and supplies a list of data columns enclosed in parentheses. Each column specification in the column list is separated by a comma. Each column specification names a column and specifies the data type and a maximum size for the data content. The columns will be created in the order listed in the column specification list.

Our column specification list indicates we wish to have project number (PROJNO) as the first column. Project number will be a number field three positions long, with no decimal places, and must contain a

value (not null) when a row is inserted in the table. The second field in the table will be the project name (PNAME) and this will be a character field five characters long. The last field is to be the budget field (BUDGET), which is a number field. The budget field may contain a number with a maximum of seven (7) digits, of which, two (2) will be to the right of the decimal.

When the table has been created, ORACLE responds with:

Table created.

We will store some data in our new table immediately, as three projects are ready to start. We use the INSERT statement to add the required project data rows:

```
insert into proj values (101,'ALPHA',95000);
insert into proj values(102,'BETA',82000);
insert into proj values(103,'GAMMA',15000);
```

Now to see how our newly created table looks, use the following SELECT statement:

```
select * from proj;
```

The result of our query is:

PROJNO	PNAME	BUDGET
101	ALPHA	95000
102	BETA	82000
103	GAMMA	15000

Now we must be able to assign our employees to the projects, so we will alter the employee table (EMP) by adding a new column (field), project number (PROJNO). By adding this column, we will be able to store the project number to which each employee is assigned.

To add a new data column to an existing table we use the ALTER TABLE ADD statement. We will make the new column format the same as that of the project number column in the project (PROJ) table.

The ALTER TABLE ADD statement we will use to add the project number is:

```
alter table emp add (PROJNO number(3));
```

ORACLE responds with:

Table altered.

To see the results of our addition of the new column we will use the following SELECT statement:

```
select *
from emp;
```

And, as you can see from the query result, the employee (EMP) table now has a new data column named PROJNO: ▶

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	PROJNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20	
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30	
7521	WARD	SALESMAN	7898	22-FEB-81	1250	500	30	
7566	JONES	MANAGER	7839	02-APR-81	2975		20	
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10	
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20	
7839	KING	PRESIDENT		17-NOV-81	5000		10	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30	
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20	
7900	JAMES	CLERK	7898	03-DEC-81	950		30	
7902	FORD	ANALYST	7566	03-DEC-81	3000		20	
7934	MILLER	CLERK	7782	23-JAN-82	1300		10	
7954	CARTER	CLERK	7698	07-APR-84	1000		30	
7955	WILSON			22-APR-84	1500		30	

We need to assign some employees to the projects immediately, so we will use an UPDATE statement to assign all the employees in department 20, as well as all the employees with the job title of SALESMAN to project number 101:

```
update emp
set projno = 101
where deptno = 20
or job = 'SALESMAN';
```

9 records updated.

To view the result of our employee assignment, use the following SELECT statement:

```
select *
from emp;
```

Notice that there are yet some unassigned employees:

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	PROJNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20	101
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30	101
7521	WARD	SALESMAN	7898	22-FEB-81	1250	500	30	101
7566	JONES	MANAGER	7839	02-APR-81	2975		20	101
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	101
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10	
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20	101
7839	KING	PRESIDENT		17-NOV-81	5000		10	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30	101
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20	101
7900	JAMES	CLERK	7898	03-DEC-81	950		30	
7902	FORD	ANALYST	7566	03-DEC-81	3000		20	101
7934	MILLER	CLERK	7782	23-JAN-82	1300		10	
7954	CARTER	CLERK	7698	07-APR-84	1000		30	
7955	WILSON			22-APR-84	1500		30	

We can assign the remaining employees to project number 102 with the following UPDATE statement. To do this we assign project number 102 to any employee whose project number has no current value (is null):

```
update emp
set projno = 102
where projno is null;
```

7 records updated.

And, to view the results:

```
select *
from emp;
```

The result of our query shows that now all of our employees are assigned to one of two projects. And, as in real life, there is not enough employees to man the third project. Management will now be forced to bring in a bunch of blood sucking consultants to get the last project done. ▶

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	PROJNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20	101
7499	ALLEN	SALESMAN	7698	20-FEB-81	1800	300	30	101
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30	101
7568	JONES	MANAGER	7839	02-APR-81	2975		20	101
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	101
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30	102
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10	102
7788	SCOTT	ANALYST	7568	09-DEC-82	3000		20	101
7839	KING	PRESIDENT		17-NOV-81	5000		10	102
7844	TURNER	SALESMAN	7698	08-SEP-81	1500		30	101
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20	101
7900	JAMES	CLERK	7698	03-DEC-81	950		30	102
7902	FORD	ANALYST	7566	03-DEC-81	3000		20	101
7934	MILLER	CLERK	7782	23-JAN-82	1300		10	102
7954	CARTER	CLERK	7898	07-APR-84	1000		30	102
7955	WILSON			22-APR-84	1500		30	102

We can now use a JOIN SELECT statement to list all of our employees and the name of the project to which they are assigned:

```
select  ename,job,deptno,pname
from    emp,proj
where   emp.projno = proj.projno;
```

The JOIN query produces the following:

ENAME	JOB	DEPTNO	PNAME
SMITH	CLERK	20	ALPHA
WARD	SALESMAN	30	ALPHA
MARTIN	SALESMAN	30	ALPHA
JONES	MANAGER	20	ALPHA
SCOTT	ANALYST	20	ALPHA
ADAMS	CLERK	20	ALPHA
FORD	ANALYST	20	ALPHA
TURNER	SALESMAN	30	ALPHA
ALLEN	SALESMAN	30	ALPHA
BLAKE	MANAGER	30	BETA
MILLER	CLERK	10	BETA
CARTER	CLERK	30	BETA
WILSON		30	BETA
JAMES	CLERK	30	BETA
KING	PRESIDENT	10	BETA
CLARK	MANAGER	10	BETA

Remember those contractors that were brought in for project 103? Well, they already blew the budget. We need to increase project 103's budget to \$150,000.00. We can do this with the following UPDATE statement:

```
update  proj
set     budget = 150000
where   projno = 103;
```

ORACLE responds with:

```
set     budget = 150000
```

ERROR at line 2:  
ORA-1438: value larger than specified precision allows for this column

Once again, your database software will not respond with this exact same error message, unless you are also using ORACLE.

We are being told that the value, \$150,000.00, we are trying to assign to project 103's budget column is too large for the project table's budget (BUDGET) column. The total number of digits in \$150,000.00 is eight (8). Remember from our CREATE TABLE state-

ment we declared the maximum digits for the project budget field to be seven (7).

We need to increase the size of our project table's budget field in order to hold larger values. We can do this with the SQL statement ALTER TABLE MODIFY:

```
alter   table proj
modify  BUDGET number(8,2);
```

Table altered.

We have just altered our project (PROJ) table by modifying the project budget column (BUDGET) to hold data values with a maximum of eight (8) digits, replacing the old seven (7) digit maximum. Now we can change the value of project 103's budget to the desired value of \$150,000.00:

```
update  proj
set     budget = 150000
where   projno = 103;
```

1 record updated.

To verify our change has been done:

```
select  *
from    proj;
```

PROJNO	PNAME	BUDGET
101	ALPHA	95000
102	BETA	82000
103	GAMMA	150000

As I said at the beginning of this article, there are other ways to modify existing tables other than those we have covered here. The table modifications we have not covered are used mainly to improve database performance and storage efficiency. Since we are not concerned with how fast we are going right now, I will leave it up to you to learn more about them on your own later.

In this article, we have seen how easy it is to modify our existing database tables dynamically, with little impact on the database operations. We were not required at any time to unload and reload the existing data in the tables we were modifying, as would be

required with nonrelational data storage files. In real life situations, database table modifications will require some additional amounts of planning and related modification. This work will be required to adjust reports, displays, and anything else that would be affected by, for instance, making the project name twenty (20) characters long in lieu of the current five (5) character length. But, the old data file headaches related to modifying data files have been completely eliminated.

In the next (and final?) article, we will explore a very handy feature of the relational database and SQL. This is the concept of VIEW. With SQL you may use VIEWS to allow you an even higher level of data independence. Well anyway, stick around and you'll see what I mean.

Fred

(Fred Williams is the owner of Systems Consultants, a data communications software development, networking design, and consulting firm.)

## Mastering the Norton Utilities

Peter Dyson

A review by Bob Fowler

This is a "how-to" book about *The Norton Utilities*. It covers both the Standard Edition and the Advanced Edition of Norton, versions 4.5. The book provides instructions on the use of all the utilities in *Norton Utilities Advanced Edition, version 4.5*, and describes the differences in The Advanced and The Standard editions. Whereas Norton's Reference Manual discusses each of his utilities in turn, Dyson covers the operations performed by the utilities in *Norton*, beginning with the operations as performed with DOS, and then demonstrating how *The Norton Utilities* expand upon those operations. The book, therefore, not only covers *Norton*, but also provides a refresher course on many DOS operations. Operations described include disaster recovery, finding and printing text, evaluating and improving system performance, safeguarding files, improving directory listings, and programming simple batch files. The appendices include a section on ASCII and binary files.

The value of this type of "how-to" book is related to the quality of the documentation that accompanies the software, the complexity of the software, and the computer literacy of the user. As software becomes more complex, "how-to" books become more useful, sometimes giving helpful illustrations of complex procedures, or detailing operations that are poorly described or difficult to locate in the increasingly voluminous documentation. Some software documentation also assumes a higher level of user knowledge about the computer or the operating system than is justified for many users. Many "how-to" books have beginning chapters on these computer basics that are helpful for the novice and can be skipped by the more knowledgeable user.

*Mastering The Norton Utilities*, in 8 chapters and 5 appendices, does provide helpful examples of the operations provided both by DOS and by *The Norton Utilities*. With much of the software released today, this type of book can be extremely useful. Unlike many software upgrades, however, *The Norton Utilities* have become easier to use as new editions have advanced. Not only have new utilities been added to the package, but also previously useful utilities have been made more powerful, yet still easier to use. Furthermore, Norton's documentation is among the best of any software. In addition, he includes an excellent on-screen tutorial for his *Unerase* utility. Two additional books are included in *Norton Utilities Advanced Edition, version 4.5*, *The Norton Disk Companion: A Guide to Understanding Your Disks*, and *The Norton Trouble Shooter*. These two books are not necessary for understanding and making full use of *The Norton Utilities*, but they are helpful in the basic understanding of disk storage and the problems that can occur with disks.

What, then, can one learn from reading *Mastering The Norton Utilities* that one cannot get from the documentation supplied with *The Norton Utilities*? If you are an expert or advanced PC user, and you have read Norton's reference manual, the answer is: Not much. If you are a beginner or not moderately familiar with DOS, the answer is: Maybe enough to justify the price of the book. If, however, like many PC users, you have not read the documentation that came with the software, by all means buy Dyson's book, if you will read it. Or save some money and read Norton's reference manual instead.

Bob

*Mastering The Norton Utilities*  
Peter Dyson  
Sybex, Inc.  
1989  
San Francisco



(New or unusual hardware/software/applications  
for IBM small computers and compatibles.)

#### Unsolicited Product Endorsements

##### Radio Shack 43-102 Saves A Modem

Lightning is a real PC killer. Radio Shack's telephone line protector can provide a nice safety margin if the PC user "forgets" to unplug their external modem during Texas' Spring weather. Look for the ARCHER Telephone Voltage Spike Protector, Cat. No. 43-102.

The Radio Shack unit is more sophisticated than expected, containing three high-speed MOV's and two 0.5A fuses (soldered in). It worked very well during May and June, saving one modem while another (unprotected) went up in smoke.

##### Hope This Becomes A Standard

PC users who buy a new Microsoft Serial Mouse are treated to one of the better ideas around -- Microsoft's clever cable/connector scheme which accomodates DB-25, DB-9 and IBM's PS/2 Mouse Port connectors. If this were to become a PC "standard", perhaps cabling between PC's and external components would cease to be such a nightmare.

At least we could convert all the "gender changers" and DB-9 to DB-25, etc., converters into paper weights, fishing sinkers or other, more useful items.

#### And, What Will All These Jewels Cost?

##### RAM, SRAM and DRAM Announcements

How fast is "fast?" 3-nanosecond ECL SRAM speed kings announced by Cypress Semiconductor help define the meaning of fast memory. Two models of the new chips are available -- the 3-nanosecond (ns) versions and a "low-power" series of 5 and 7-ns chips.

Intended for scratch-pad, control and buffer storage, Cypress' new chips are organized as 256-word x 4-bit ECL (Emitter-Coupled Logic) SRAMs (Static Random Access Memory) in the CY10E422 and CY100E422 series. Cypress' CY10E474 and CY100E474 chips are 1024-word x 4-bit ECL SRAMs. 100-piece prices start as low as \$21.60.

##### IBM Announces Fast 1M DRAMS in May

Although there's some confusion about actual speed, IBM announced current production of 1M DRAMs claimed to be the "fastest" available 1M DRAMs in May. Speeds quoted by two separate media sources are 65-ns vs 55-ns. Fastest 1M DRAMs locally available at present are rated at 80-ns. According to IBM, the fast new chips will be initially used in the AS/400 Model B70 midrange computer.

A second 1M DRAM was also announced by IBM during May, but this one is still in development (in Japan) and shows twice to three times the speed of the DRAMs cited above, 22-ns. IBM officials speculated the chips should be in production in approximately two years.

#### Who'll Use the Super-Fast Chips?

##### Will 486 PCs Eclipse 33 MHz 80386 PCs

Current crop of 386-powered hot rods are bumping heads with various interleave and caching schemes to get around the DRAM speed limitation. Faster PCs based on the 486 will create even more problems. Availability of the faster (and even faster) DRAMs may help solve some of the problems rising CPU clock speeds present.

Several major PC makers are expected to announce 80486-powered PCs at COMDEX/Fall 89. Compaq, AST, Everex and ALR, although mum on the subject, won't surprize anyone if they bring 486 models to Las Vegas in November. 33 MHz is seen as just the start in the next super CPU speed race that will ensue.

IBM is a dark horse here -- although they did demonstrate a very interesting MCA add-in prototype board this Spring.

#### Gold From Unlikely Sources...


##### VPUG Journal Gives Good Read

I stumbled into a gold mine of information at the May INFOMART Meeting in the Vendor Area downstairs. The Ventura Publishers Users Group was handing out back issues of their journal, *Ventura Publishes...*, Vol. 2, No.3. There is more information about type, fonts, faces and usage than you are likely to find anywhere else in such a palatable format.

It's a valuable resource for type info, even if you don't use *Ventura Publisher*. People looking into using add-on fonts with their printers or high-powered word processors will find a lot of questions answered if they can obtain a copy. Try: VPUG, Inc., 675 Jarvis Drive, Morgan Hill, CA 95037. ▲



# If you want better word processing, don't settle for Perfect.



### REPORT TO THE FIELD

**Sales enough**  
Arbor Footwear coverings and goings: Jim Dearing becomes V.P. Design for Arbor Evening and Dress wear. Greg Vrookas moves from Peoria to marketing in Miami. Joan MacArthur and Lisa Doan become account supervisor and media planner, respectively. *Arbor*

**Sales per region**  
Across the board it looks like the South once again led sales in FY '88. With the continuing pump craze those figures should maintain, if not improve. *Arbor* It's important not to let the other areas such as Northeast and Midwest fall.


**Sales per region**

Northwest	Southwest
Northeast	Southeast
East	West
Midwest	

The following are the most recent sales numbers for the Arbor regional sales offices. All client and distributor inquiries should be directed to these numbers:

- Los Angeles ..... 80745
- Atlanta ..... 87984
- Chicago ..... 79754
- New York ..... 8867
- St. Louis ..... 85024
- Omaha ..... 88474

**Young professionals use Arbor Walker to commute.**  
Soon, young professional women will no longer be using Arbor shoes simply to climb the corporate ladder. They'll be using them to get there.  
This fall we're introducing the Arbor Walker — a shoe that goes quite a few steps further than the now-accepted but unattractive tennis shoes women have been wearing to and from work.  
Made of Italian leather with a rubber sole, the Arbor Walker is the perfect combination of style and durability.  
Look for promotional materials and carrying cases in early September. Our sales point is: "Women don't have to sacrifice looks for comfort."



*Arbor Walker designed by Pat Davis.*

**SALES FORECAST FOR 1989**

	Types of shoes: Summer/Fall/Winter/Spring			
	1st quarter	2nd quarter	3rd quarter	4th quarter
Dress	95,000	87,000	120,000	60,000
Casual	40,000	82,000	60,000	90,000
Sport	126,000	85,000	75,000	80,000
<b>TOTAL:</b>	<b>361,000</b>	<b>354,000</b>	<b>255,000</b>	<b>330,000</b>

*Arbor* 5/27/88, 4:32 PM  
Let's discuss forecasts for media department expansion.  
See p. 77/10/88 1:15 PM  
Figures for Northeast and Midwest should be calculated separately and monthly catch them before they fall with promo.

The trouble with WordPerfect® is, sometimes it isn't.

Not when you compare it to our new Microsoft® Word version 5.0. Not when you consider that with Word 5.0, you'll be able to pump out your day-to-day jobs quicker, easier, even smarter than you ever thought possible.

For example: With Word 5.0 you can choose commands by either using simple speed keys or just selecting from a menu.

You can create documents with about 50% fewer keystrokes than you-know-who. And now enjoy even more true WYSIWYG (What You See Is What You Get) thanks to our Print Preview.



Introducing new Microsoft Word 5.0. When Perfect just isn't good enough.

Does WordPerfect give you the freedom to make annotations? Nobody's perfect. Does WordPerfect feature Outline View? Another imperfection.

New Word 5.0 also lets you list, search and archive files across multiple directories. And even link part, or all, of a Lotus® 1-2-3®, Microsoft Excel or Microsoft Works spreadsheet into a Word document. And then update it. All in a matter of seconds.

For a thoroughly convincing demo, first call (800) 541-1261, Dept. J63. Then call WordPerfect for a demo. Then run both, our Word against theirs, and then ask yourself:

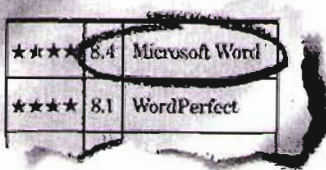
Which one brings your word processing closer to perfection?

**Microsoft**  
Making it all make sense.

Text, graphics, fonts annotations. Faster, simpler, cleaner. Compliments of new Word 5.0.

COMMON WORDPROCESSING TASKS		
Which requires fewer keystrokes?	Microsoft Word 5.0	WordPerfect 5.0
Copy Block	4	7
Delete Line	2	4
Resize Word	2	5
Change Font and Size	6	9
Add Footer	1	7
Block Paragraph	5	12
<b>Total</b>	<b>20</b>	<b>44</b>

With new Word 5.0 you'll do about 50% less hunting and pecking than with WordPerfect.



Software Digest recently chose the best overall advanced word processor on the market. Who won? In a word, Word.

Output printed by the Hewlett-Packard® LaserJet Series II® printer. Customers in Canada, call (416) 673-7638. Outside North America, call (206) 882-8661. © Copyright 1989 Microsoft Corporation. All rights reserved. Microsoft, MS-DOS and the Microsoft logo are registered trademarks, and Making it all make sense is a trademark of Microsoft Corporation. Hewlett-Packard and LaserJet Series II are registered trademarks of Hewlett-Packard Company. Lotus and 1-2-3 are registered trademarks of Lotus Development Corporation. WordPerfect is a registered trademark of WordPerfect Corporation. Software Digest rating from April 1989 issue. This offer valid only in the 50 United States.



## Bill Gates Leads Microsoft Army to Dominate CCD's May 20 "Super Saturday" at INFOMART

by Reagan Andrews

Microsoft descended in force on INFOMART May 20. Spearheaded by Bill Gates, co-founder and CEO, Microsoft people and products dominated CCD's "Super Saturday" with PC and Macintosh demonstrations from 10 a.m. until 3 p.m.

Highlight of the day for approximately 1000 user group members and guests was Gates' afternoon talk in the INFOMART Atrium.

### Gates' Vision of Future Sees GUI's for All

Speaking before the gathering, Microsoft's CEO waxed at length on his visions of the PC's future – a Graphical User Interface (GUI) future featuring super-powerful PCs running *OS/2*, *WINDOWS* or *Xenix*. Gates' May 20 talk had much the same thrust as his March, 1988, presentation in the Atrium, but was not accompanied by visual aids.

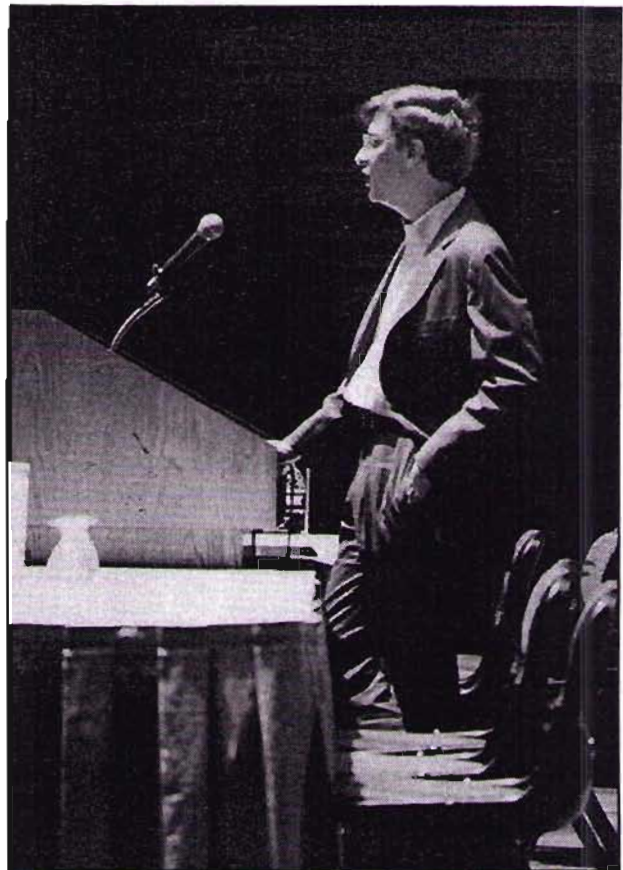
Visuals were featured earlier in the Saturday meeting in the two "caverns" on INFOMART's 7th floor, and in the Main Auditorium where Microsoft product managers displayed and demonstrated current products. Microsoft's *WORD 5.0* and *Excel* were shown to an estimated 600 PC users in the "West Cavern" while language products, including the new *Quick Pascal*, were discussed to a slightly smaller audience in the "East Cavern." (Sometimes, INFOMART is reminiscent of *Adventure*.)

Gates maintained his vision of a PC on every desktop and in every home, but admitted the PC Revolution was taking a little longer than he had anticipated. He did contrast present PC acceptance to that in the "early days" 10 years ago, when PCs were primarily owned by enthusiasts and Microsoft's first 13 customers went out of business.

Much of the PC's success he attributed to early efforts by Apple, Radio Shack and Commodore before IBM's entry in 1981. The PC from IBM forced business to take the new machines seriously and sealed the success of the PC as a concept.

### Macintosh Started GUI Revolution

Gates sees GUI as the future of the PC, and credited the Macintosh interface as a driving force toward acceptance of the graphical user interface throughout



Bill Gates answers questions from the floor, at the end of his presentation.

the microcomputer community. He reminded his audience that such interfaces demanded more CPU power than the 8088 and 8086 CPUs could really deliver and implied that the 80386 and soon to be implemented 80486 machines were the first platforms capable of good performance running applications under GUI systems such as *OS/2-PM* and *WINDOWS/386*.

Why so much power? Gates described the VGA 640 x 480 pixel standard as the first graphical standard with sufficient resolution to make GUI practical in a working environment.

Just manipulating the screen data at a reasonable rate requires a CPU capable of at least a million instructions per second (MIPS), he stated. Current 80386's running at 3 - 5 MIPS are capable of good graphical performance, and the 80486 at 7 - 10 MIPS will be squarely in the performance range that used to be the exclusive domain of expensive work stations and minicomputers.

### Big Monitors Change E-Mail Customs

According to Gates, next step(s) will be economical, large, high-resolution monitors to support graphical



standards available at the CPU level. He feels that this will significantly change usage patterns with PCs in networks and group environments and used Microsoft as an example.

Electronic Mail (E-Mail) customs at Microsoft evolved to a "standard" message that was "one screen long," Gates reported. Longer messages were discouraged. "As more of our people began using the large-screen, high resolution displays, longer messages became much more common as a result." He foresees this trend expanding far beyond the walls of Microsoft as prices for the large monitors drop.

Ordinarily a very direct, speculative speaker, Gates was somewhat less forthcoming when dealing with future product rumors and other "hot" issues than has been his previous style. He refused to speculate on future DOS versions although he did emphasize that there would be DOSs "well into the 1990's." Also, the rumored WINDOWS 3.0 was alluded to in passing, but not directly addressed.

The mixed, PC - Macintosh audience may have been partly responsible for some of the indirection. Gates' talk was sprinkled with references to "clarifications" of GUI standards, primarily in regard to the on-going legal struggle pitting Apple Computers against Microsoft and Hewlett-Packard. Microsoft's CEO

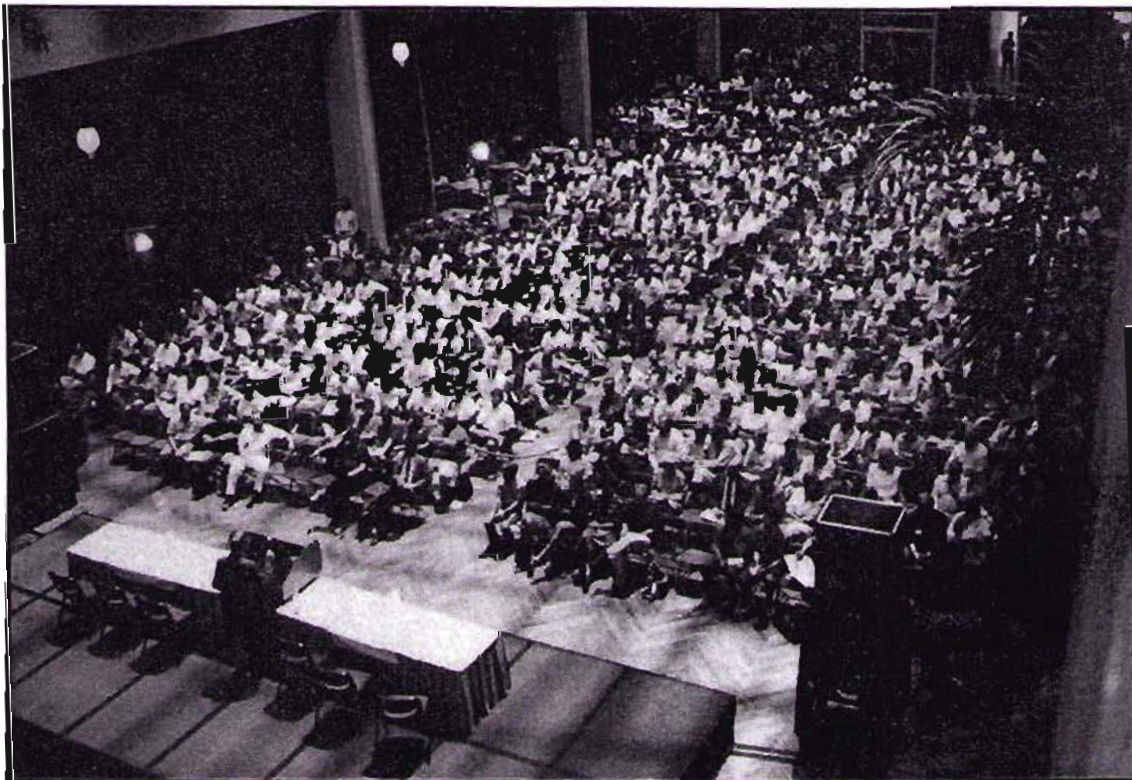
didn't comment directly on the "look and feel" infringements charged by Apple or speculate on the outcome of the suit(s).

### OS/2 Seen as "Solution" for All

In the PC product demonstrations preceding Gates' speech, Microsoft representatives were well-versed in their respective products and able to answer technical questions at a higher-than-usual level. However, they were equally attuned to Microsoft's current OS/2 drive and quick to recommend OS/2 as the "solution" for most users' current memory-limitation problems. This trend was continued later in Gates presentation in the Atrium.

Possible solutions including LIM 4.0 (Lotus-Intel-Microsoft Expanded Memory Standard) were only briefly mentioned in passing although several of the new products demonstrated do make extensive use of expanded memory when present in the user's PC.

Microsoft's focus on OS/2 was understandable. Gates and Microsoft have a tremendous investment in the "new" OS. Whether it is a universal solution remains to be seen. Emphasis on a graphical interface for all applications via Gates' drive for GUI at every level may be less than ultimately satisfactory for LAN users and some business applications that require the memory, but are not driven by graphical considerations. ▶



Bill Gates presentation in the atrium at Infomart, Dallas Texas, May 20 1989.

## O N C O M P L E X I T Y

No. 29 in a Series

Jim Hoisington

Back in January, Bob Francis asked me, "Which is easier to program, Unix or OS/2?" I've worked on an answer to that question for almost six months now. The result is that I have come up with a different question. "Who will program OS/2?"

First let's look at programming under Unix. A program can be started from the shell or a shell script. The program may only process data from files and never interact with the terminal in any way. Writing those kind of programs uses approximately the same skills that thousands of mainframe programmers use every day. You open the files, you process the data, and you write a report or another file.

The majority of Unix programs that need user input from the terminal treat the keyboard and the screen like the old fashioned Teletype. The justification for this is that a Unix system will allow a Teletype to be a terminal. So, the programming is usually done to the lowest common denominator.

If the Unix programmer knows that everybody will have a screen and a certain style keyboard, the programmer can choose from the many screen handling packages. These programming packages allow the programmer to move the cursor on the screen, to display data, and to accept data from predefined fields.

Since there is no one screen package that is common to all Unix systems yet, the programmer usually has

a choice of packages much as the PC DOS programmers have a choice. To write the program, the programmer has only to learn the calls or macros provided by the package that has been chosen for this project. Again this is not terribly different from what mainframe programmers go through when they learn to use the CICS system to accept data from a user at a terminal. There are lots of programmers who can make the transition.

But OS/2 is different. And it is the Presentation Manager that makes the difference.

I am going to assume that all OS/2 programming is going to be done for the Presentation Manager and not for the command line interface. I know of no programming going on today that does not expect to run under Presentation Manager.

The programming interface to Presentation Manager is the same on both Microsoft's and IBM's versions of OS/2. Presentation Manager requires a graphics rather than a text interface. And, most OS/2 users will not be able to run Presentation Manager without a mouse. All of this implies that the programmer can no longer create a program, give the user the name of the program, and when the user types the name of the program at a command line, have it execute.

With Presentation Manager, things are much more complicated, because even programs that don't use the screen for interaction with the user still have to declare a window on the screen. Decisions have to be made about the size of the initial window, the maximum and minimum size of the window, when the window gets refreshed. And that is just for starters.

In the traditional program, the programmer controls the order in which things happen. Under Presentation Manager, the primary program is devoted to fielding "events" that are handed to it by OS/2. It has to have code to handle things like: mouse clicks, keyboard keystrokes, window resizing, and program suspension by the user. The real work of the program, the purpose for which the program was written, gets pushed to the background and the program logic gets real difficult to follow.

But the worst part of OS/2 programming is that it has very little similarity to the kind of work that most people who call themselves programmers do for a living. The only people who find themselves in a similar programming environment are people who program control computers.

As you might guess, control computers are used to control things. Sometimes they are used to operate a milling machine that is cutting and boring and drilling on a piece of steel. Other times they monitor and control a processes like oil flowing through a pipeline. In both cases, the programs in the computer focus on responding to external events which

---

Bill Gates - continued

### Questions - Questions - Questions...

Unlike his March, 1988, presentation, Gates requested written questions prior to his talk in the Atrium. He broke from this request at the end of his presentation, taking users questions from the floor.

A brief, but lively, interchange followed, including comments on the graphical standards set by non-Apple (Macintosh), Non-PC (OS/2 or WINDOWS) machines with an admission that Microsoft would like to support applications development for a number of the "lesser" PC's such as the *Amiga* from Commodore.

Reagon

▲

are passed to it by the operating system. Traditional tasks like formatting data for reports and calculating sums and averages are pushed to the background.

The work is so different, that one of my previous employers had a totally separate job classification for the programmers that worked on the control computers. And, normal programmers were not allowed to transfer into that area. The rules were so strict that when I was asked to help out a control programming group install some new equipment, my supervisor had me sign in at the start of the day at the accounting computer room, walk through the plant to the control computer room where I worked, and then go back to the accounting computer room to sign out at the end of the day.

The point I want to make is that I don't believe that 95 percent of the people who make their living by programming will ever be able to write programs for OS/2. It is just too different a programming environment.

That may sound like bad news but actually I think it is very good news. I believe it is about time that we turned over the work of writing programs to the computer. I know that sounds far fetched to some of you who spend your days, nights and weekends writing code, but it has to happen.

As computers have become more available, the number of programs that need to be written have increased. There just aren't enough programmers to keep up with the demand for programming. We've got to automate the job.

A lot of work has been done over the past few years on something called CASE. CASE is an abbreviation for Computer Aided Software Engineering. CASE takes specifications for the work to be done and the data to do it with, and it generates the programs. I've been working with a code generating system for three years now and it not only produces code, it produces good code!

So maybe OS/2 and Presentation Manager will be good for all of us. The difficulty of programming is going to create a market for good program generating systems. And they will get us out of the coding business and back to the problem solving business which is what the computer industry started out to do in the first place.

Those of you who are filling in Data Divisions, don't worry. There is so much existing code out there that has to be maintained, I don't think you'll suffer unemployment in your lifetime. I still get calls about doing maintenance programming on Autocoder programs and that language went out of use in the early 1960's.

## UNSUNG HEROES

Connie Andrews

The other night I was talking to a volunteer who was struggling to find the time to meet obligations to wife and children, business, and the user group. He was feeling discouraged. I said the first thing that came to mind - thanks for hanging in there; we need and appreciate your efforts. His comeback was very simple: he asked me to thank his wife for her patience and support.

It hit me pretty hard. Sometimes we forget that behind many a volunteer is another who lends support. Be it spouse, family, friend, or employer, many of our members wouldn't be able to devote their time and efforts to the NTPCUG without the help and encouragement of these unsung heroes.

And there are many of them - those who take turns babysitting so another can attend a meeting, who store user group materials in their homes, who share special mailing chores, who bake cookies and brownies for the front line troops, who fill in at a meeting for a friend, who understand when a deadline calls for sitting in front of the computer until 3:00 in the morning.

The list is endless. And I haven't even mentioned employers who donate materials to the group and encourage and allow time for their employees to participate.

Observation: A number of our members over the years have assumed responsibilities for the group which are very time-intensive. Many even plan vacations and business trips around their duties. They are lucky and we are lucky they have the support of our unsung heroes. For where might we be without them?

It's been exciting to watch the NTPCUG community grow and share. We are a community not just of our members but of all those who support and encourage us. What a place to be!

Connie ■

*(Thanks Connie, we needed that! Ed.)*

---

So, after six months of thinking about the problem of programming OS/2, I can answer my own question. Who will program OS/2? The computer will.

Jim ■



## Selected SIG Happenings

### News and Meeting Notes on Special Interest Groups

(Material for this column should be sent to Zack Porterfield, SIG Coordination, before the 10th of each month.)

#### Assembler SIG

The Advanced Programmers SIG will depart from its usual format (or lack thereof) in July for a special presentation by Ken Land of Intel. Ken's emphasis will be on the new 80486 chip, but he'll be glad to answer your questions about any of Intel's processors.

Kent Cobb

#### DacEasy SIG

The July SIG meeting for DacEasy will be the last SIG meeting held unless the group can come up with a permanent SIG leader. Mr. Putt Shaw has graciously filled this capacity despite the fact that he must be out of town during many of the meetings.

#### DOS SIG

July's DOS SIG will continue Jim Hoisington's discussion of the pitfalls awaiting the unwary in DOS 4.01. NTPCUG's President has been exploring the new DOS for the past two months and continues to be surprised by the package.

Portion of the July Meeting will also be devoted to CONFIG.SYS and usage in adding expanded memory drivers with 80286 and 80386 PC's along with tips for trouble-shooting when new versions of Microsoft's device drivers are added to an existing system. July Meeting will wrap

up with the usual open forum and question-and-answer.

Reagon Andrews

#### LOTUS SIG

The subject of the June meeting was the use of Titles and Windows in Lotus 1-2-3 and Symphony. Titles work the same in both 1-2-3 and Symphony whereas Windows are quite different. Mark used an income statement to illustrate the use of both topics including their effect on cursor control keys and some tips on macros concerning setting up Titles and Windows.

The subject for the July meeting will be a real treat we think. The SIG meeting will be devoted on using two graphics packages directly with 1-2-3. Vincent Gaines will spend about half of the meeting with Harvard Graphics and Mark will do the same with GraphWriter II which is from Lotus. Many graphics offer the ability of reading 1-2-3 files directly and these two have it. Come on by and see us in June.

The Lotus SIG always takes time to answer questions that users are having with 1-2-3 and Symphony so if you have one come by and ask.

Mark Gruner and Pat Henley

#### R:BASE SIG

For the June meeting, the entire time was devoted to problem solving and discussion from the floor. Among the topics discussed were database performance enhancements, automatic numbering of fields during data entry, using third party programs for program development and op-

tions for custom code insertion in 'Application Express'.

An excellent demonstration will be given at the NORTH CENTRAL TEXAS R:BASE GROUP on July 13th (the group meets the 2nd Thursday at the Addison Fire Training Center, 7:00-9:30 PM) by Paul Clinkscale. Paul will be showing us an application he has developed that performs financial modeling, including mortgage loan processing.

In the July meeting we will continue the forum for problem solving and open discussion. As a treat, Rick Hauslein, Past President of the "Addison Group", may be available to demonstrate his new use of pop-up windows that appear in the middle of forms entry processing. I've been told he performs this "magic" with the help of the new R:Compiler, so this could be very interesting and educational for all.

#### WORD SIG

Focus on WORD Style Sheets will continue in July. A more general discussion of the differences between WORD versions 4.0 and 5.0 is planned with emphasis on the benefits of each in specific machine configurations and applications.

Time permitting, an entry-level tutorial/round-table discussion of Glossary/MACRO utilization in WORD 4.0 and 5.0 will be conducted during the July WORD SIG Meeting. Some attention will be devoted to general aspects of MACRO's in generic word processing applications. Other WP packages will be covered, briefly, in this discussion.

Reagan....



## Inside the North Texas PC Users Group Community

Connie Andrews, Volunteer Coordinator  
Andy Oliver, Assistant Volunteer Coordinator

Ever wonder where Kathryn Crawford gets all her energy? Some years back she agreed to take on the task of overseeing the Disk of the Month efforts. Under her leadership, the DOM Central Committee was formed and systems have been set up to get the disks to the meeting. The DOM Central Committee receives, reviews, produces, catalogs, inventories and mails DOM disks.

DOM activity most visible to us is the DOM Booth on Super Saturday. There you can watch Kathryn frantically try to find the poles and banner which mark our DOM booth, meanwhile organizing all the volunteers and catalog books, and boxes on boxes of DOM's, all at a very early hour on a Saturday morning. You can also meet Howard Hamilton, Supreme Commander of the Reviewers, Inventory Specialist extraordinaire.

Activities behind the scenes: review and release of multiple DOM disks each month, storing and hauling many cartons of disks, update of the catalog, inventory and mail order. Close to one-third of all our user group volunteers are involved with DOM activities.

### INFOMART Liaison

Stuart Yarus  
Robert Hilliard  
Bob Russell  
Archie Pinkney  
Paul Fredd

### Presentation/Equipment Setup

#### and Breakdown

Timothy Carmichael  
Charles Kroboth  
Tom Fowlston

### Information/Registration Booth

Charles Agee  
Connie Andrews (Anchor)  
Mike Ashley  
K. B. Barton  
David Brass  
Jim Caraway  
George Cason, Jr.  
Joe Daviner (Anchor)  
Martha Eickman  
Ken Elder  
John Ferguson (Anchor)  
Paul Fredd (Anchor)  
Sam Gersh  
Frank Grant  
Rick Griffith (Anchor)  
Chris Gullon  
Allan Harbaugh (Anchor)  
W. L. Harris  
Hank Holt  
Ed Keig  
Pehl Lee  
Tony Noguerras  
Jimmy O'Brien

### Andy Oliver (Anchor)

Stuart Potter, Jr.  
Ken Raich  
Douglas Scott  
Elaine Stephens  
Juanita Taylor (Anchor)  
Connie Testa (Statistician)  
Larry Tucker (Anchor)  
Paul Williams (Anchor)

### Disk of the Month (DOM):

#### DOM Table

Dan Allen  
Joe A. Allen  
Ron Anderson  
Roy Bales  
K. B. Barton  
Richard Baumann  
Stanley Berlin  
Charles Cashlon  
Jay Chambliss  
Kathryn Crawford  
Bill Drissel  
Shawn Dunn (see below)  
Ronald Fairbrother  
Barry Haigh  
Howard Hamilton  
Kent Haven  
Pat Henley  
Jo Johnston  
Bob Karleback  
E. M. Kelley  
Ken Loafman  
Duane Martin  
Bob Mayfield  
Bob Post  
Virginia Salter  
Tom Scurlock

Thank you Kathryn, members of the DOM Central Committee, and all the other DOM volunteers who work so hard each month.

One of the benefits of NTPCUG membership is the drawings for members only at the monthly presentations in the auditorium. Club policy is that volunteers scheduled and on duty at the time of a drawing on meeting day are eligible to win even though not in the Auditorium.

Two DOM volunteers won Microsoft products at the May meeting. Consider volunteering - it improves your odds!

In this issue we are acknowledging volunteers who served for the month of May. Our officers, directors, SIG coordinators and leaders, newsletter publisher, editor, staff and writers, and BBS staff are all volunteers; their names are listed in other sections of this newsletter.

### Jimmy Stalworth

Jerry Stone (see below)  
Oscar Tyler  
Russell Walker  
Owen Ward

### DOM Central Committee

Preston Brashear  
Charles Carter  
Kathryn Crawford  
Mark Grunner  
Howard Hamilton  
Kenneth Loafman  
Pete Testa, BBS Liaison  
Ben Weatherall

### DOM Review/Presentation

Charles Carter  
Steve Lanier  
Michael Persons

### Bulletin Board System (BBS):

BBS Sysops  
Tom Prickett  
Maggie Moomey

### BBS Steering Committee

Andrew Chalk  
Kent Cobb  
David McGehee  
Pete Testa  
Fred Williams

### Public Relations Committee

Francis Bright  
Annette Hyde  
Peh L. Lee  
Elwood Lindell  
Charles Lucas  
Tony Noguerras  
Reagan Andrews

Special thanks to Jerry Stone, who finds keys and brings poles down from the storage room, and to Shawn Dunn, who counts disks and carries boxes to the loading dock!

### VOLUNTEER INFORMATION

- Via BBS:** (817) 461-0425 (metro) or (817) 461-0506 (metro). Look for details on the Volunteer Conference and reply to names listed. This is a fast and easy way for our volunteers to get your name and respond.
- Meeting day:** Sign up at the Information Booth or DOM Booth to work those areas in a coming month.
- By phone:**

#### Auditorium Presentations

Timothy Carmichael 331-6303 (h)  
661-4626 (w)

#### DOM Booth Activities

Bill Drissel 264-9680 (h)

#### DOM Software Review

Howard Hamilton 644-5721 (h)

#### General Information

Connie Andrews 828-0699 (h)

#### Information Booth

Andy Oliver 223-4044 (h)



# AUTOEXEC.BAT

*How and Why You May Wish to Change Your Own*

by John Keohane

1. My computer has two floppy drives, and one hard drive C. My original Autoexec.bat file, when typed on the screen, had only two lines:

```
date
time
```

I soon started using separate directories(see the MKDIR command in your DOS manual), to provide some organization to various software and files.

2. Problems and solution to "1" above:

A. Always got the C prompt, no matter what directory I was in

B. Could use DB3+, only when in the DB3PLUS directory, could only use PCWRITE in the PCWRITE directory etc. Thus my use of directories while allowing file organization, resulted in an unwanted inflexibility of non-use.

Revised Autoexec.bat follows:

```
date
time
prompt $p$g
path c:\pcwrite;c:\dos;c:\db3plus;c:\lotus
```

The "prompt" statement means that when in the root prompt is C:\ but in pcwrite, it shows as C:\PCWRITE, in dos as C:\DOS. the "path" command means one can use pcwrite, dos, root directory, and db3plus commands, no matter which of these or which other directory one might be in.

Now the only files I have in my root directory are:

```
AUTOEXEC.BAT    117  6-21-87    2:18p
COMMAND.COM    22042  8-14-84    8:00a
CONFIG.SYS      22    5-15-86    4:15p
MODE.COM        5194  8-14-84    8:00a
WHEREIS.COM     512   1-01-80   11:48a
```

You are unlikely to need MODE.COM in your root. It's here because I have added 5th and 6th statements to this autoexec.bat to support my HP laser-jet serial printer:

```
mode com1:9600,N,8,1,P
mode lpt1:=com1
```

Take care. Good luck when modifying your own autoexec.bat!

John

## North Texas PC Users Group Personal Users (Beginners) Special Interest Group

"Fundamentals of Personal Computers"  
16-Class Revolving Schedule

Informant Saturday	class Number	Class Title/ Description
8 Apr 89	1.2	Start Up
& 12 Aug 89	2.2	Diskette Sizes & Formatting Each
Classes	3.2	Copying & Backing up Files
1 thru 4	4.1	Personal Computer Hardware
20 May 89	5.1	Fixed Disk Directories, Batches, & Paths
& Sep 89	6.0	DOS Menu Systems on Fixed Disks
Classes	7.1	Fundamentals of Lotus 123
5 thru 8	8.2	Fundamentals of "BASIC" Language
10 Jun 89	9.1	Genesis & Overview of Computer
& Oct 89		Languages
Classes	10.4	NTPCLUG Disk of the Month Library
9 thru 12	11.1	PC Graphics Modes
	12.1	Bulletin Boards & Archive Programs
8 Jul 89	13.0	Printer Setup
& Nov 89	14.0	Writing Lotus MACROS
Classes	15.0	Major Categories of Software
13 thru 16		Available Today
	16.0	PCs to the End of the 20th & Into the 21st Century

Classes are free and open to all beginners, novices, new PC owners, soon-to-be PC owners, and personal (vs. professional) users. COME JOIN US AS WE COVER THE FUNDAMENTALS!

## PC WORLD's special user group offer!

**LOW PRICE PLUS CLUB REBATE!**

Take advantage of PC WORLD's special offer to user group members:

- 1 year (12 issues) for only \$16.95
- A \$100 rebate to your club for every 50 members who subscribe (or renew)
- Same low "members only" price for all follow-up renewals next year — guaranteed!
- You will stay on top of the latest in the PC world.

See your club President for subscription cards and more details! Or, simply clip out the form below and return to:

# PC WORLD

P.O. Box 55015, Boulder, CO 80322-5015

**Yes!** Please enter my PC WORLD subscription for 12 monthly issues at the special User Group Member discount of only \$16.95! I'll save 43% off the regular subscription rate of \$29.90.

Check appropriate box:  New  Renewal

Name \_\_\_\_\_

Address \_\_\_\_\_

Offer available to members of PC User Groups only. Please allow 6-8 weeks for delivery of your first issue.

8ADe3



## MEMBERSHIP APPLICATION

### North Texas PC Users Group

The NTPCUG is a non-profit, independent organization of individuals learning to apply personal computers to practical problems. For additional information, call (214) 746-4699.

Member # \_\_\_\_\_ Circle one:  
 Name: (Last) \_\_\_\_\_ (First) \_\_\_\_\_ (MI) \_\_\_\_\_ Mr./Mrs. Ms.  
 Address: \_\_\_\_\_ (Suite/Apt) \_\_\_\_\_  
 \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone: (Check Preferred No.) Home ( ) \_\_\_\_\_ Metro? Y \_\_\_ N\_\_\_  
 - Work ( ) \_\_\_\_\_ Ext. \_\_\_\_\_ Metro? Y \_\_\_ N\_\_\_  
 Occupation/Profession: \_\_\_\_\_

**Check one from each column below:**

Payment:	Membership Classification:	Application Status:
Cash _____	Regular (\$24.00) _____	New Member _____
Check _____	Student (\$12.00) _____	Renewal _____
Credit Card _____	(full-time with ID)	Address Change _____

Do you want access to the NTPCUG Electronic Bulletin Board? Y \_\_\_ N \_\_\_ Already Have \_\_\_

Please initial here \_\_\_\_\_ if you do not wish to have your address included on member lists sold for the NTPCUG's benefit to advertisers of IBM compatible products.

The NTPCUG expects and encourages volunteer participation by members in assisting with monthly meetings at INFOMART and other activities during the month. This usually consists of a few hours of your time each year. If asked, would you consider working with one or more of the following activities:

1. Working with NTPCUG Volunteer Committees? (Please check all that apply.)

- |   |  |
|---|--|
| <input type="checkbox"/> Bulletin Board (BBS)<br><input type="checkbox"/> Disk of the Month (DOM)<br><input type="checkbox"/> Equipment Setup/Breakdown<br><input type="checkbox"/> Financial/Bookkeeping<br><input type="checkbox"/> INFOMART/Vendor Setup | <input type="checkbox"/> Information/Registration/Membership<br><input type="checkbox"/> Newsletter<br><input type="checkbox"/> Public Relations/Advertising<br><input type="checkbox"/> Special Interest Group Coordination |
|---|--|

2. Working with Special Interest Groups? (Please check all that apply.)

- |   |   |   |  |
|---|---|---|--|
| <input type="checkbox"/> Astrometry<br><input type="checkbox"/> Communications<br><input type="checkbox"/> MS/PC-DOS<br><input type="checkbox"/> Local Area Net<br><input type="checkbox"/> R:Base<br><input type="checkbox"/> Microsoft WORD | <input type="checkbox"/> Assembler<br><input type="checkbox"/> Cryptanalysis<br><input type="checkbox"/> Genealogy<br><input type="checkbox"/> LOTUS<br><input type="checkbox"/> Stock Market | <input type="checkbox"/> Business Applic.<br><input type="checkbox"/> DAC Software<br><input type="checkbox"/> Graphics<br><input type="checkbox"/> Personal Users<br><input type="checkbox"/> Turbo Pascal | <input type="checkbox"/> C Language<br><input type="checkbox"/> DBase<br><input type="checkbox"/> Hardware Solutions<br><input type="checkbox"/> Advanced Programmers<br><input type="checkbox"/> WordStar |
|---|---|---|--|

3. Being a volunteer, informal "consultant" in your area of expertise for NTPCUG members?

If so, list area(s): \_\_\_\_\_

**Detach below for receipt.**

Applications should be mailed to: North Texas PC Users Group, Inc.  
 P.O. Box 780066  
 Dallas, TX 75378-0066

Received: \$ \_\_\_\_\_ Check No. \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ By \_\_\_\_\_

# Meetings & Times



9:00 a.m. to 10:00 a.m.

## Toshiba Inc. Portable Computers

Come see the features of Toshiba's latest portable computers.

10:00 a.m. to 11:00 a.m.

## Genicom Inc. 400 DPI Laser Printers

The new 8142 "Scorpion" printer boasts "Pages per minute, not minutes per page."  
A dotronic-based page description language. Speaker will be Jeff Schulte, Application Engineer.

### Special Interest Group Meetings

For possible time changes, check the Bulletin Board just before the meeting and the overhead display in the lobby at INFOMART.

<p><b>9:00 - 9:55</b></p> <p>Assembler DOS Hardware Solutions Personal Users</p> <p><b>10:00 - 10:55</b></p> <p>Astrometry Graphics Local Area Networks Personal Users</p>	<p><b>11:30 - 11:55</b></p> <p>Orientation</p> <p><b>12:00 - 12:55</b></p> <p>C Language Communications Personal Users RBase Stock Mkt Investing</p>	<p><b>1:00 - 1:55</b></p> <p>Business Applications LOTUS Personal Users Turbo Pascal WORD</p> <p><b>2:00 - 2:55</b></p> <p>Advanced Programmers Cryptanalysis DAC Easy Accounting Databases</p>
--	--	---

### North Texas PC Users Group, Inc.

P.O. Box 780066, Dallas, TX 75378-0066

Phone (214)746-4699 for recorded information about the User Group and meeting dates.

The North Texas PC Users Group, Inc., is a non-profit, independent group, not associated with IBM or any other Corporation. Membership is open to owners and others interested in exchanging ideas, information, hardware, predictions, and other items related to IBM Personal and compatible computers. To join the Group, complete the application blank printed elsewhere in this newsletter, and send it with \$24 membership dues to the Membership Director whose address is shown below. A subscription to the newsletter is included with each membership. The Group meets once each month, usually on the second Saturday. See cover for date, time and place of the next User Group meeting.

#### Board of Directors

Jim Hoisington, Chairman	Phil Chamberlain Sid Nolte, Ph.D.
Reagan Andrews, Ph.D.	Zack Porterfield

#### Officers

President	Jim Hoisington	(214)416-3101 h
	Voice Mail	(214)931-4426
President-Elect	Zack Porterfield	(214)434-1844 w
Program Chair.	Timothy Carmichael	(214)331-6303 w
Treasurer	Ken Conner, CPA	(214)669-3377 w
Secretary	David McGehee	(214)681-0202 h
Membership Dir.	John Mackoy	(214)291-0787 h
Advertising Dir.	- O P E N -	
Disk of the Month	Kathryn Crawford	(214)596-2539
Group Statistician	Connie Testa	
Volunteer Coord.	Connie Andrews	

#### Member Emeritus

Stuart Yanus

NOTE: To access the BBS from outside Area Code 817, use Area Code 817. (This is NOT a toll call from Area Code 214.)

BULLETIN BOARD (817)461-0425 (Metro)  
(817)461-0506 (Metro)

SYSOP: Tom Prickett  
(voice) (214)690-9087

Asst. SYSOP: Maggie Moomey  
Technical Advisors: Fred Williams  
Pete Testa

User Relations: Kent Cobb  
Information Mgt: Dan Marmion  
Technical Services: Dwight Neal

#### Address Changes, etc...

Payment of dues, address changes, and inquiries about membership should be directed to

NTPCUG Membership Director  
P.O. Box 780066  
Dallas, Texas 75378-0066

(Check newsletter mailing label for your renewal date.)

#### Special Interest Groups

SIG Coordinator	Phil Chamberlain Zack Porterfield	(214)243-5034h (214)434-1844 w
Astrometry	Arin Collins	(214)351-5137 h
Assembler	Andrew Chak, Ph.D.	(214)226-3461 h
Business Applic.	Bruce Schubert	(214)348-5700 w
C Language	Sid Nolte, Ph.D. Andrew Chak, Ph.D.	(214)233-6178 h (214)226-3461 h
Communications	Stan Miam Pete Testa Wm. Bennett	(817)548-1573 (214)495-7506 (817)348-0862 h (817)762-3059 w
Cryptanalysis	John Taber John Thomas	Metro 430-8173 (214)680-1823
DAC Software	Pat Shaw	(214)235-2559
Databases	Rodney Haas	(214)255-4400 h (214)404-4612 w
DOS	Jim Hoisington Reagan Andrews, Ph.D.	(214)416-3101 h (214)828-0699 h
Genealogy	Minnie Champ	(214)644-6643 h
Graphics	Richard Terreo	(214)307-1259 h
Hdw Solutions	David McGehee Gary Johnson	(214)681-0202 h (214)937-9676 w (214)937-5851 h
Local Area Net	Fred Williams Dan Marmion	(214)492-1316 (214)750-6130
LOTUS	Mark Gruner Pat Henley	(214)964-8174 h (214)229-9216 h
Personal Users	Bob Presley Kent Cobb	(214)887-1679 h (214)343-3554
Programmers	Jim Hoisington Alan Alberts	(214)416-3101 h (214)242-1094 w
R:Base	Con Branham	(214)352-0888 h
Stock Market	Cliff Murphy	(214)279-7973
Turbo Pascal	Richard Holerman Don Chick	(214)828-0699 (214)276-2524 h
WORD	Dan Marmion Reagan Andrews, Ph.D. David McGehee Dorothy Berine	(214)750-6130 (214)828-0699 (214)681-0202 h (817)387-9993 h

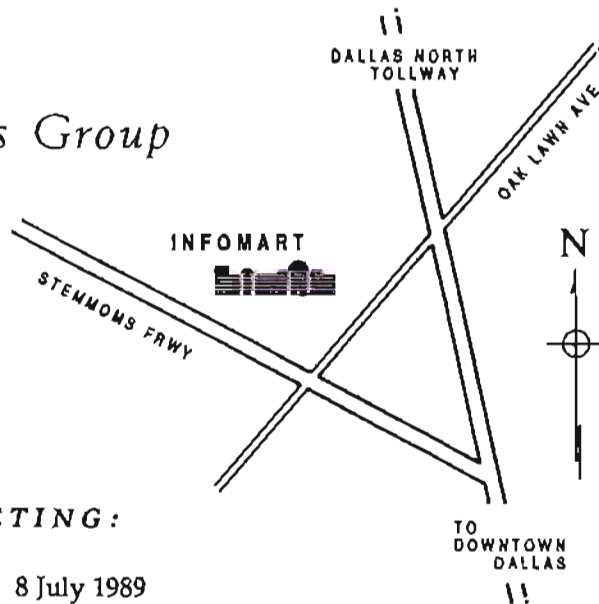


North Texas PC Users Group  
P.O. Box 780066  
Dallas, TX 75378-0066

Non Profit Org.  
U. S. Postage  
Paid  
Arlington, TX  
Permit No. 823

Address Correction Requested.

## North Texas PC Users Group



**NEXT MEETING:**

8 July 1989