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Deadline:

All advertising and other material for publication in North Texas PC NEWS must be received by the NEWS staff by the 15th of the month. See copy deadline below.

Articles:

We would like to get more articles for publication in North Texas PC NEWS; guidelines follow.

Please do not right-justify, indent or otherwise code the copy. If column alignment is critical, send along a hard copy, or written instructions. Article submission is preferred by NTPCUG BBS, Startext MC 51563, or disk in ASCII format, unjustified. If you send a disk, please include a printed copy of the article to assure accuracy. If sending to the User Group Bulletin Board, use "mail" mode, to John Pribyl. Double spaced, typewritten copy is acceptable but must be received a week before the deadline. All material submitted will be considered for inclusion in the newsletter. The Editor reserves the right to edit as necessary to maintain standards of literacy, grammar, and length requirements.

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DEADLINE
Copy deadline for July
NT PC NEWS:
Wednesday, June 15th.

Meeting Dates:

June Meeting - 2nd Sat. (11th)
July Meeting - 2nd Sat. (9th)
August Meeting - 2nd Sat.
(tentative)

Editor's Notes...

Member Renewals

Did you know that you can get an extra month free dues if you renew early? Send your renewal check to the membership chairman more than thirty days before the expiration date shown on your label. Thirteen months for the price of twelve - can't beat that! ... and you will be sure to get all copies of North Texas PC NEWS.

Thanks

I'd like to express my thanks to the writers who have filled the newsletter with informative articles over the past months. Your newsletter would be dry reading indeed if it were not for our "regular" writers. What we need are more "regulars." How about you, Charles, Bill, Brenda, Robert, Frank, Paul, Michael, Louise, John, Nancy, Fred, Suzan, Jerry, Marilyn, David, Renee, Doug, Sid... See what you can do... If you don't know what to write about, call me for suggestions.

Novice (and Not So Novice) Users

You can't tell the actors without a program, and you can't tell the classes without a schedule... That's why we're publishing a program schedule showing topics to be covered in the Personal Users Special Interest Group classes for beginning computer enthusiasts. Where else can you get such a good start with your computer? That's what we're all about - users helping users.

John

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June 11

John Ogle & Timothy Carmichael

9:00 AM to 9:45 AM

AUDITORIUM

*** Z SOFT ***

David Deponete, Regional Manager of Z Soft will give a presentation on the new release of PC Paintbrush.

10:00 AM to 11:00 AM

AUDITORIUM

*** LOTUS ***

The National Sales Manager for LOTUS, Mr. Harris Lancaster will give a presentation on 1-2-3 Release 3.0.

Prez Sez...

... "To speak of many things."

Lots of things are happening this month. By the time you read this message, IBM will have announced several new PS/2 products in Dallas. Hopefully, a new PC-DOS (long overdue) will be among them. The result of all that's going on is a non-thematic message composed of scattered bits 'n pieces that might be interesting/important to club members.

Special Interest Groups (SIG's) head the list.

SIG's are one of the most important functions of the NTPCUG. Since the Club is a dynamic organization with evolving interests and needs, the Special Interest Groups (SIG's) should reflect large-scale shifts and changes dictated by Club membership.

Phil Chamberlain, SIG Coordinator and a member of the Board of Directors (BOD), has been meeting with Sid Nolte, C SIG Leader and BOD, David McGehee, Club Secretary and Hardware SIG Leader, Kent Cobb, Advanced Programmer SIG Leader, Bob Presley, Personal Users SIG Leader, and others to evaluate and redefine NTPCUG's SIG efforts. Mem-

bers who have ideas and suggestions for SIG directions, comments and/or complaints should contact one of the Committee members listed.

Coming NTPCUG events - hardware.

Super Hardware -- It's Coming. NTPCUG is going to focus on Texas-made hardware at the September Meeting. Why Texas? 'Cause Texas is



home to a number of important computer makers and distributors - COMPAQ, Dell Computing (PC's Limited), Tandy (Radio Shack), CompuAdd, Amstrad, Fivestar, and others.

Rumors in the industry say many of these Texas-based outfits will make significant product announcements over the summer and early fall. NTPCUG members will have an opportunity to look at the hardware and talk to the people who made it at the meeting.

PC User Groups getting more maker support.

What do Microsoft, Lotus and IBM have in common? Each of these companies is increasing PC user group support functions. Last year, Microsoft initiated an aggressive, substantial PC user-group support program that recognizes the important role user groups have in providing user support for PC users.

Lotus has recently (Spring COMDEX) upgraded and expanded their own support program, and will be making enhancements and copy-protection removal kits for 1-2-3 (2.xx) available for distribution through PC user groups.

IBM had an apparent change of heart. Recent communications from the NDD National Support Center in Atlanta, GA, may indicate resurrection of several IBM PC user group support programs out of Atlanta.

Closing out old business.

The QUATTRO Affair is closed. Communications with Borland International offices in Dallas resulted in a highly satisfactory resolution to the issue of missing Main Meeting drawing prizes and invitations to QUATTRO seminars. Borland was both helpful and gracious when informed of the problems reported by some NTPCUG members. ▶

If It's dawn, It must be "First Saturday."

Am writing this after an early Saturday morning trip to "First Saturday". Originally started by Dallas amateur radio buffs (HAM's) First Saturday convenes as what has to be the largest electronics/computers/radio outdoor fleamarkets in the area.

Hundreds of people converge on the Ross Ave. - Central Expressway location the first Saturday of each month to buy and sell from tables, car trunks, vans and what have you. This is one place where parts for older computers can be found - from Commodore PET power supplies to out-of-date game machines, clone parts, printer stands and software.

As at any flea market, modus operandi must be Caveat Emptor, and you do need to know what you are doing when you buy there! Of course, the same holds for a number of local discount computer stores as well.

Faces in the early morning crowd.

I did see some familiar faces worth mentioning since they don't fit the above description and run respectable computer sales businesses in addition to tables at First Saturday. Also, both appear frequently as vendors at our meetings. Kevin White, White & Associates Computers, accompanied by Nani, was there. As was Patrick Chang of Lucky Computers. I bought

my first "big" (150 Watt) PC power supply from Pat at a First Saturday before Lucky moved into its Greenville Ave. location in Richardson. (It's still running well.)

Purpose behind this mention is that both Kevin White and Pat Chang are responsive to user questions and stand behind their products with support long after the sale. They tend to remember their customers, answer questions knowledgeably and treat people in a manner that seems to have gone out of style at some other vendors.

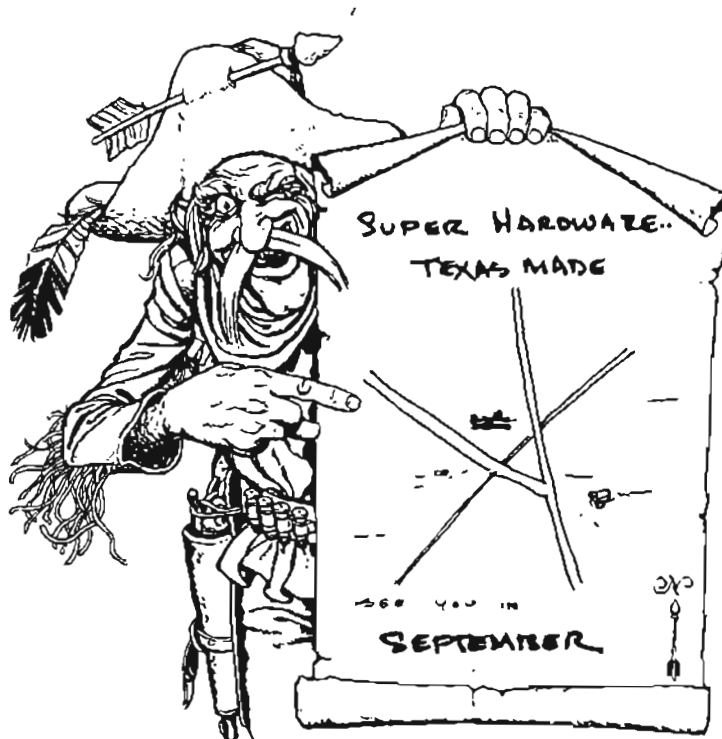
Jim Hoisington, President Elect and Past President, reports similar experiences in his dealings with CompuAdd Warehouse since they opened last year.

All three have one thing in common - they try to provide reasonable customer support beyond the sale.

These aren't the only "good" vendors in the area. Members who have similar experiences with their "favorite" vendors should let their friends and other NTPCUG members know about them. If you don't, you may drive up to an empty store some day.

Reagan

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Is Copyright Protection Adequate?

by Alan Lintel

Protecting a software product should be a major concern of every software developer. The development time of new software releases is steadily increasing along with the size and complexity of the programs. Similarly, the cost of marketing a program is steadily rising. The costs of marketing and research and development must be recouped by long term sales.

Even if you are developing software for a relatively small market, you will want to protect your program from copying by others. There is very little chance that you can keep a small market entirely to yourself, but, to an extent, you can prevent others from using your efforts to develop their own products.

The most common form of protection for software products is copyright protection. As I explained in last month's article, copyright protection extends to expression, not ideas. Section 102 of the Copyright Act states:

Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device... In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained illustrated, or embodied in such work.

The copyright owner has the exclusive right to reproduce the copyrighted work and to prepare derivative works based on the copyrighted work. A "derivative work" is a work based upon one or more preexisting works, such as a translation, dramatization, abridgment, condensation, or any other form in which a work can be recast, transformed, or adapted.

Although copyrights clearly apply to software products, the protection offered is clearly more applicable to literature and art than to software. In literature, someone who copies another's idea is considered a copycat devoid of any intellectual respect. While copyright law does not protect an author's idea, the marketplace does. No one would buy a book which had the same plot as "Gone With The Wind" solely to save a few bucks. In software, however, someone who copies another's idea at a reduced price is often thought of as a hero, a freedom fighter against the high cost of software. Often an

original idea can be greatly improved by a newcomer. For example, Lotus took Visicalc's idea for a spreadsheet and added needed functionality. Ironically, Lotus does not want anyone to copy their ideas.

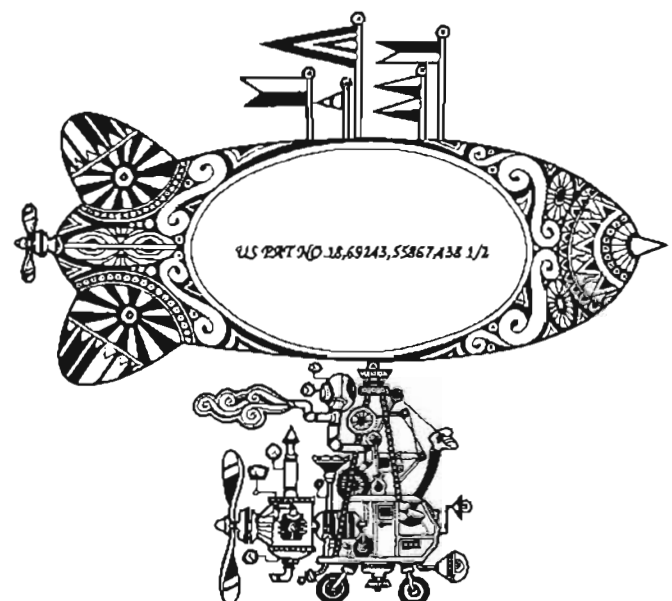
Under the Copyright Act, someone who merely copies an idea for a program, and not the actual code implementing the program or fanciful figures generated thereby, should be clear of a claim of infringement. Enter the "look and feel" doctrine, which is not really a doctrine, but theory promulgated by those who cannot prevail under a traditional copyright analysis. The look and feel doctrine is supported by a few cases which probably could have been decided under a traditional analysis. Typically, these cases involve defendants who stole the code of the plaintiff and wrote the same program in a different language. Obviously, these cases need not be decided on an idea/concept dichotomy, but rather as unlicensed productions of derivative works.

Whether or not the look and feel concept eventually prevails, it is currently of very little use to anyone except extremely large corporations who can afford a long suit. Thus, other means of protection must be employed to protect the ideas behind a program. In this regard, the only available protection is a patent.

Section 101 of the Patent Statute states:

Whoever invents or discovers a new or useful process, machine, manufacture or composition of matter, or any new or useful improvement thereof, may obtain a patent therefor...

For many years, the Patent Office took the position that computer programs were essentially algorithms, and could therefore not be patented. This position was overruled several years ago by the courts.



Software is now a patentable subject matter, so long as it meets the requirements of novelty and non-obviousness.

An invention is not novel if it has already been invented by another, whether or not the other's work was patented. When two people have discovered the same invention, the one with the earliest date of invention is entitled to the patent. There are, however, several other ways that an invention can lose its novelty. If the invention were disclosed in a printed publication or patent anywhere in the world more than one year prior to the date of filing the patent, then it is no longer novel, even if the publication was by the inventor himself. Further, if the invention were in public use or on sale in the United States one year prior to filing, then novelty is lost.

In examining a patent application, the Patent Office looks through its records to see if a similar device has been previously disclosed. The search will concentrate on domestic and foreign patents, but may include some articles from technical journals. Additionally, the Applicant has a duty to disclose all relevant information of which he is aware to the Patent Office. A patent examiner compares the claims of the patent application to the prior art, and decides whether the claimed invention is novel and non-obvious over the prior art. If so, a patent is issued.

A patent is considered valid until proven otherwise. Therefore, in an infringement action, the defendant would have the burden of proving the invalidity of the patent. The plaintiff would only have to show that the defendant's product was covered by the claims of the patent. Thus, the patent owner has a great advantage in a lawsuit.

Many people are under the misconception that only great advancements are worthy of patent protection. The number of patents issued is rapidly approaching five million, and I can guarantee that not all of them are major advancements. Often a minor advancement is not only patentable, but very valuable.



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In comparing patents to copyrights, the following conclusions can be made. Copyrights provide good protection against those who would simply duplicate the code of a program, but provide very little protection against someone copying the idea behind a program. To obtain a copyright, the only requirement is that the copyright notice be affixed to an original work of authorship, so the protection is virtually free. [In some cases, it may be wise to register the work with the Copyright Office within three months of publication; registering in this time period allows a plaintiff an opportunity to recover attorney's fees if he prevails in a lawsuit.] Patents, on the other hand, generally require the assistance of a qualified attorney, and usually cost in the range of \$3000-10,000. The protection offered by a patent, if available, greatly exceeds that of a copyright.

Patents and copyrights are not mutually exclusive. All programs should be copyrighted. In fact, I would put a copyright notice in as many places as possible - on the disk label, on the screens, on the packaging, etc. It's free, so enjoy the privilege. By the way, the copyright notice consists of ("Copyright," "Copr.," or "(c)"), plus the date of first publication, plus the copyright owner's name. It must be included on all published copies, so be diligent. If you have a question, call an attorney.

Whether a patent is worth the cost is basically a business decision. In some cases, a patent will not justify its cost; in other cases, a patent prepared for \$3000 can be worth millions. Sometimes a patent can have secondary benefits as well, such as in lining up investors, or in marketing the product.

For purposes of brevity, I have simplified the procedure of obtaining a patent. If you are seriously considering getting a patent, I would suggest talking to a patent attorney early on in the program development to ensure that your patent rights are not lost. Some attorneys, myself included, do not charge for an initial office visit to discuss an invention; to me, that would be like Macy's charging an admission fee. This will also give you a chance to evaluate the attorney - the more the attorney understands about the subject matter of an invention, the better the application will turn out, probably at a lesser cost.

A final note on the Apple v. Microsoft case. Since last month, I have had a chance to review some of the work done by Xerox on the graphical interface which preceded the development of the Macintosh. In view of Xerox's pioneering work, I believe that Apple will abandon any plans to lay claim to the broad concepts of the graphical interface. Instead, I believe that Apple will be limited to minor details, such as the representations of the clocks or the calendars. I believe this is a mistake for Apple, because they have little to win in the lawsuit and, by fighting Microsoft, they are giving credibility to Windows and OS/2 as substitutes for the Macintosh.

Alan

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DRIVPARM= vs DRIVER.SYS

Clearing CONFIG.SYS Confusion

Reagan Andrews Ph.D.

This is the first installment in a series of brief articles designed to clear some of the confusion surrounding use of the DOS CONFIG.SYS file. It was prompted by NTPCUG Member Dave McKeen's "A Floppy Tale" article in the May, 1988, issue of the North Texas PC NEWS.

According to IBM's PC-DOS 3.3 manual, "A configuration file (CONFIG.SYS) contains a list of commands that set up your system." Actually, using a CONFIG.SYS file has two significant effects. First, it ALTERS existing system defaults established by either IBM or Microsoft as minimums necessary for PC operation.

Second, and most important when trying to attach a "strange" device to the PC, it allows ADDING capabilities to DOS so that the PC can "recognize" and operate the new equipment. This area involves use of "Installable Device Drivers" via the DEVICE= command.

ALTER vs ADD creates unexpected problems

Problems arise when DOS expects the user to ALTER system defaults via a command rather than ADDING new capabilities. Unfortunately, DOS documentation often fails to warn the PC user of such subtleties. It is similar to the dichotomy between "internal" DOS commands such as DIR, COPY and TYPE, and "external" commands such as FORMAT, DISKCOPY and other DOS utility programs.

Dave McKeen's 3.5" floppy drive installation problems pose an excellent example. He began with DOS 3.2 and attempted to ADD the drive via the installable device DRIVER.SYS in the CONFIG.SYS command, "DEVICE=DRIVER.SYS /d:1." That seems logical enough.

What he didn't know, and wasn't documented in the DOS 3.2 manual was that he should have ALTERED existing DOS drive tables via the command "DRIVPARM= /d:1".

Documentation for DRIVPARM arrived with MS-DOS 3.3's manual where Microsoft makes the distinction almost clear. Microsoft prefers that DRIVPARM be used with INTERNAL floppy disk drives, either A: or B:, and restricting DRIVER.SYS to EXTERNAL drives attached to the PC.

IBM never documented the DRIVPARM command although it does work with some PC-DOS 3.2 versions. (There were actually several.) Instead, IBM

suggests using the DRIVER.SYS command for both drive situations. DOS 3.2 and 3.3 actually don't need either to read and write to 720K 3.5" floppies — just to FORMAT them.

How the DOS documentation says to do it

Where to go? If you want to attach or add a 3.5" floppy to DOS 3.2, try the DRIVPARM command first. Proper syntax follows:

```
DRIVPARM= /d:<drive number>[/c] [/f:<form-factor>]
[/h:<drive heads>][/n][/s:<disk sectors>][/t:<tracks>]
```

Information in []'s is optional. DRIVPARM sets new defaults that match 720K 3.5" drives with two (2) heads, 80 tracks (cylinders) and nine (9) sectors per track. You do need to know the drive number here though.

MS-DOS 3.3 documentation provides the following information to fill out the DRIVPARM= command for other devices:

Physical drive number can range from 0 to 255 with Drive 0 = A, 1 = B, 2 = C, etc.

/c Shows that change-line (doorlock) support is required. The PC will be able to know if the drive door is open or closed, and if open, will assume there is no disk in the drive. (IBM's PC-DOS states this is only meaningful for AT-class PC's.)

/f:<form-factor> specifies the device type. If not set, the default is for a 720K, 3.5" disk. Other available types are:

- 0 = 160/180K (SSDD), or 320/360K (DSDD) disks
i.e., the standard 5.25" floppy disk drive.
- 1 = 1.2M, 5.25" HD floppy disk drive
- 2 = (default) 720K, 3.5" disk
- 3 = 8-inch single density disk
- 4 = 8-inch double density disk
- 5 = Hard Disk
- 6 = Tape Drive
- 7 = 1.44M, 3.5" HD floppy disk.

/n Specifies a nonremovable block device, such as a hard disk, and isn't required for floppy-disk installation.

/h:<heads>, /s:<sectors> and /t:<tracks or cylinders> are self explanatory. If the PC user doesn't have this information it will not be pos-

sible to attach non-standard devices via DRIV-
PARM.

The user may have to play with these values in their version of DOS 3.2. Remember, there are several 3.2 versions and all may not behave the same. DRIV-
PARM did work with my version of PC-DOS 3.2, however.

PC-DOS does it differently

IBM does all this a little differently in PC-DOS 3.3, via DEVICE= DRIVER.SYS installable device driver, in the CONFIG.SYS file. In this case the drive is being installed as a LOGICAL DRIVE that is really a physical device.

Is that confusing enough? But, this apparently strange dichotomy does allow use of DISKCOPY with the new drive.

Since you are "adding" a new drive, DOS will assign it a new drive letter even if it is installed as drive B in a two floppy system. You may, or may not, have to change the motherboard system switches to reflect the new, added drive.

Command syntax for DRIVER.SYS is identical to that listed for DRIVPARM= above. IBM's PC-DOS 3.3 documentation doesn't list all the device form-factors

What's this strange file in my root directory?

In the beginning, there was only Cassette Basic. Then, DOS was added. That was the end of it. After the POST "beep", a request on the screen to enter the date and time was followed by IBM's PC-DOS 1.1 logo accompanied by "A:_" (You must imagine/visualize the "_" is blinking.)

But, what if you want more? What if you want to really control what your computer looks like to DOS? Then, you have to take control via CONFIG.SYS.

CONFIG.SYS – file of mystery. It wasn't mentioned much before DOS 2.0, and then, given scant recognition in Chapters 9 and 14 of the PC-DOS 2.0 documentation. Chapter 14? That covered "Installable Device Drivers." Batch files were covered much earlier in the DOS manual!

Users kinda got the feeling that IBM/Microsoft was/were more than just a little bit uncomfortable with the whole idea of users taking control of their PC's initial configuration. Else why hide information on this important aspect at the very end of the manual?

CONFIG.SYS continues to have mysterious overtones. Although moved to the front of the PC-DOS 3.3 manual (IBM), it still resides toward the very back of the MS-DOS 3.3 manual published

Continued on next page

found in the Microsoft manual, but they probably will work the same.

For a 720K, 3.5" disk, the command would be:

```
DEVICE=DRIVER.SYS /d:2
```

Again, the default is to the 720K 3.5" floppy, and in this case it is being installed as drive C in a two-floppy system with no hard disk. If the user wants to copy to the same disk, this can be accomplished by adding a second, identical command, as below:

```
DEVICE=DRIVER.SYS /d:2
```

```
DEVICE=DRIVER.SYS /d:2
```

This same technique can be used to allow any drive to copy to itself. (Single-drive machines do this automatically.) An example given by IBM is the machine equipped with both a 1.2M, HD 5.25" floppy and a 360K, DSDD 5.25" floppy drive where the user wants to copy 1.2M to 1.2M in the A drive.

```
DEVICE=DRIVER.SYS /d:0 /t:80 /s:15 /h:2 /c /f:1
```

Assuming a single-volume hard disk, i.e., "C:", DOS will assign the A drive another drive letter, drive D, and the user can copy from drive A to Drive D using the same physical drive. DOS will issue the appropriate "Insert disk in drive..." prompts in the copy process.

Syntax can be a problem in CONFIG.SYS files and these commands are no exception. Be ready to try these a number of times before they're "right."

There's an easier route for 720K, 3.5" drives

If this all seems a little more than you want to tackle, there's a much easier solution if all you want is to change one of your existing floppy drives for a new, 3.5", 720K drive. First, you'll need DOS 3.2 or 3.3 if you don't already have it. That'll cost approximately \$95.

Second, forget all the DRIVPARM= and DEVICE=DRIVER.SYS commands. DOS 3.2 and 3.3 recognize and can read and write to the 720K disks once they are formatted. To FORMAT, use one of the public domain or shareware formatting utilities available through most BBS's and the Club DOM's.

Two very good formatting utilities are Vernon Bueg's QDR.COM, now seen on BBS's as QDR33.ARC, and Jacques Pierson's SDF.COM, also found as SDF.ARC on BBS's. Both are somewhat more thorough than DOS's FORMAT in checking disk media, and both are significantly faster in re-formatting floppy disks.

Some PC/AT and AT-clone users may also have to change the CMOS set up file to reflect the new drive characteristics as well.

Reagan

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by Microsoft. Depending on the OEM (Original Equipment Manufacturer), attention given to this important file is variable with IBM heading up the "CONFIG.SYS is very, very important," group to glancing discussion of the file and its control over computer operations in other makers' documentation.

To understand CONFIG.SYS, you have to know where it comes in the order of PC "business."

Let's start back at paragraph #1 and what happens after turning on the PC. First, the PC runs a Power-On Self Test (POST) during which the machine checks itself out in terms of hardware, including RAM, and very low-level BIOS functions. This ends with a single "Beep" if everything is in order.

After the POST, the PC searches for a Boot Sector – first on drive A:, then on drive C:. This is controlled by routines in the system ROM's (Read-Only Memory) on the motherboard of the computer. (There is a very short, "initialization routine" just before looking for the Boot ((Boot-strap loader)) routines.)

If it finds a "good" Boot Sector, then it loads a special, hidden files in order, IBMBIOS.COM and IBMDSOS.COM. IBMBIOS.COM supplies information about various input/output modalities DOS may use. IBMBIOS.COM builds or modifies existing device tables located in "low memory", resets the disk system, loads installable device drivers – and here is where CONFIG.SYS comes in – and does a number of other functions before calling in (using the EXEC function) COMMAND.COM.

COMMAND.COM is universal. IBMBIOS.COM and IBMDSOS.COM may have other names, depending on the version of DOS and the manufacturer of the computer. Even early clones still kept the "IBM" in the file names, though.

If no "good" Boot is found, in IBM machines, Cassette BASIC is loaded from the system ROMs and appears on the user's screen.

So, what does CONFIG.SYS do? It gives the user an opportunity to change a number of "default" computer operational characteristics to improve the operation of his or her PC. In fact, a number of PC enhancements depend on use of a CONFIG.SYS file to operate and establish important parameters necessary to successful functioning.

Early DOS users were very restricted in what their CONFIG.SYS files could do. DOS 2.0 allowed manipulation of the BREAK, BUFFERS, DEVICE, FILES and SHELL commands, with very little flexibility in device handling. Most of the possibilities were "undocumented" in this and later versions of DOS.

DOS 3.3, the latest at the time of this writing, allows both more commands and more options under each command for the PC user. Currently, BREAK, BUFFERS, FILES, DEVICE and SHELL have been joined by COUNTRY, FCBS, LASTDRIVE and STACKS commands with expanded/enhanced documentation and/or options under most of these. MS-DOS 3.3 also includes a DRIVPARM command in addition to the DEVICE=DRIVER.SYS command in PC-DOS 3.3.

Some of these added or expanded commands have been included to insure compatibility with previous versions of DOS or programs that used features of older DOS versions. FCBS is an example of this and allows crossing the gulf created by abandonment of the File Control Block's method of file manipulation used by DOS's prior to 2.0.

That means a user holding on to an accounting or database program written for DOS 1.0 or 1.1 may still be able to run it successfully.

What's really important?

Depends. Depends on how the PC is used, and if other software makes demands on the system that DOS's defaults can't handle. Early users quickly discovered that FILES and BUFFERS were really important since DOS's default settings on these were so low as to be absurd in light of typical use.

Most widely used CONFIG.SYS command likely is the installable device driver command, DEVICE=. It's also probably the least understood by the novice PC user.

NTPCUG News readers who winced at the horror story revealed in what should have been a relatively simple drive installation may appreciate the irony involved in Microsoft's documentation of the DRIVEPARM= vs DEVICE=DRIVER.SYS commands compared to IBM's lack of documentation of either in DOS 3.2, and scant attention to DRIVER.SYS in version 3.3.

However, this is only one use of "DEVICE=" as a CONFIG.SYS command. Probably most common are the DEVICE=ANSI.SYS commands demanded by many programs, and the expanded/extended memory board drivers, such as EMS.SYS and EEMS.SYS, and RAM-disk drivers such as VDISK.SYS found in many PC's now.

In these examples, the commands are either suggested by the software installation program, or placed in the CONFIG.SYS file by the program. This often occurs without the permission or knowledge of the user, much to their later dismay.

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Software applications including Excel, Word, PageMaker, MORE, PowerPoint, Filemaker Plus, MultiFinder, HyperCard, and other lesser known but powerful programs will be demonstrated using the latest in LCD technology to project a bright wall size image of the Macintosh monitor on to an overhead screen.

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Business skills you will master include techniques to increase your organizational talent and creative ability. You will learn how to prepare a business plan and hear of businesses you can start and run with your Mac. You will learn how to use desktop publishing software to prepare persuasive business and sales presentations (including slides, overheads and documents), and run more effective meetings. In addition you will learn how to use a personal information management system for tracking customers and clients. Powerful spreadsheet, database, personal financial management, and word processing software will also be covered.

Your Instructor, Michael Cox, is a leading authority on the use of the Mac in business. In teaching Macintosh seminars across the country, Mr. Cox has demonstrated the ability to inform yet also hold participants interest with his enthusiasm and sense of humor. He has practical experience in using the Mac to operate his own successful entertainment and consulting business. Mr. Cox, a CPA and professor of accounting and information systems at Sam Houston State University, holds a Ph.D. in Business Administration from Oklahoma State University. He is the author of numerous articles on more effective uses of the Macintosh in business.

TUITION: \$95 per person. Full tuition as well as government purchase orders must be received in advance. Walk-in registrations are permitted only on a space available basis. This seminar is tax deductible as continuing professional education (Treas. Reg. 1.162-5 Coughlin v. Commissioner, 203F 2D307).

DATE AND LOCATION: Thursday, June 30, 1988 at the INFOMART, 1950 Stemmons Freeway, Dallas, TX.

PROGRAM SCHEDULE: Program hours are 9 a.m. to 4 p.m., with lunch (on your own) from 12:00 - 1:00. Please arrive between 8:00 a.m. and 8:30 a.m. to check in. No tape recording, please.

CANCELLATION: You will receive a refund if we receive your cancellation within five business days of the program. Otherwise you will receive a certificate redeemable for a future program.

REGISTRATION: Please send the form below to:
Michael A. Cox Associates
1950 Stemmons Freeway M.S. #312
Dallas, TX 75207
For additional information call (214) 828-0552
For registration only call (214) 746-INFO

OUR GUARANTEE: If you are not satisfied with the program by the lunch break, notify our representative at the registration table and your tuition will be refunded.

Please enroll the following participants for: "Instant MBA: The Macintosh Business Administration Seminar"
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- Our check (payable to M. A. Cox Associates) is enclosed.
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City _____ State _____ Zip _____

Purchase order attached. # _____
Important: Tuition is due before the start of the program.

Day Phone (____) _____ (Ext.) _____

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Introduction To RS-232 -- The Final Chapter

By Fred Williams

Well, this is it. The final segment. I am beginning to feel like I'm doing a TV mini-series! In this segment I will be covering null modem designs and some of the more common serial printer and plotter connections.

A kind word for test equipment first

I would like to point out before we get into this, the actual application of our new-found knowledge, is that to perform the kind of work contained in this segment a few simple test instruments are highly recommended. You can make do without test equipment in most instances, but be forewarned that things can get extremely frustrating very quickly if you have no way of seeing what is going on.

Most important is the "Breakout Box"

One of the most important and least expensive pieces of test equipment is the RS-232 "Breakout Box". This piece of gear provides you with a very handy combination of jumpers, switches, and signal indicators. With just a breakout box and a few simple hand tools, you can do almost any RS-232 serial device interconnect job.

For more complex jobs involving communication protocol analysis a Data Line Analyzer or "data scope" is indispensable. But you will have a hard time justifying the expense to your spouse, as these start at about \$2000. A data scope provides you with CRT presentation of the actual data moving on the communication link along with some data storage and recall features which are provided for protocol analysis in addition to RS-232 signal monitoring. With enough Gee Whizzes and Oh Wows you can quickly push it over 20k bucks.

Null modems simplify life in RS232-land

Well, on with the null modems. The null modem is used to connect two pieces of serial communications equipment together without the use of modems when modems would normally be required. An example would be hooking two personal computers together in order to transfer data between them. The two serial devices must be physically located reasonably close together, as RS-232 cable length restrictions do apply when a null modem is used.

If the distance between the two devices is too great, either "short haul" modems or regular modems must be used.

The simplest form of a null modem is a standard RS-232 cable with pin 2 (TD) and pin 3 (RD) swapped in

one end of the cable. This causes any data that is transmitted by one device to be received by the other device and vice versa.

As in all things technical, the simplest solution has a nasty habit of not working in all cases. Therefore I will give you the pinout for a "full house" null modem that will almost always work for asynchronous device interconnection.

Before I do though, you need to understand when to use a null modem and when not to use one. The null modem must be used anytime two like device types DTE to DTE or DCE to DCE (remember them?) are to be connected. If one of the devices has the option of switching device types, you should not need a null modem, merely switch one of the devices to the opposite type of the other device and use a standard RS-232 cable to connect them.

A simple null modem diagram

Figure 1 is the null modem wiring diagram. On the left hand side of the diagram are three columns of pin numbers. Each of these columns corresponds to the RS-232 connectors on the IBM PC product listed at the top of the column. The right hand column is the pin numbers as assigned on the "standard" RS-232 cable discussed in the previous article. The standard signal abbreviations used are:

- PG Protective Ground
- TD Transmit Data
- RD Receive Data
- RTS Request To Send
- CTS Clear To Send
- DSR Data Set Ready
- SG Signal Ground
- CD Carrier Detect
- DTR Data Terminal Ready
- RI Ring Indicate

I will use "NC" (No Connection) to indicate those signals which do not have a corresponding pin on one of the IBM product lines. Remember when connecting to the device at the other end it is best to insure the device connector pin assignments conform to accepted RS-232 standards, if possible. For those devices without a standard 25 pin "D-Shell" connector

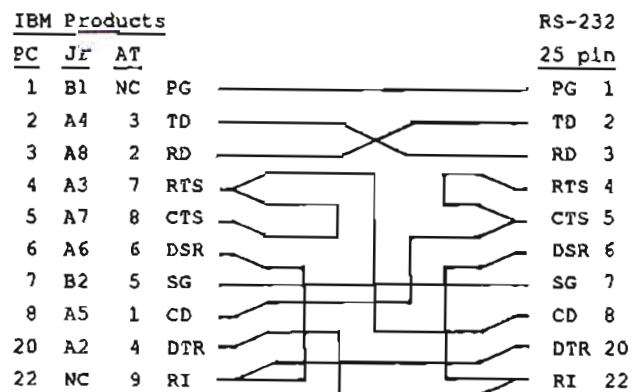


Figure 1. Null Modem Wiring Diagram

tor, you will need a pinout to insure proper connection or extreme patience and a good breakout box.

The null modem wiring diagram shown in Figure 1 should cover all of the standard RS-232 signal requirements. For those instances where some of the signals are not required, no harm should be done if an indicated connection exists but is not required. The "NC's" shown in Figure 1 should not cause any unexpected problems, as those connections are not available when connecting to a standard modem.

More trickery -- how the null modem works

The null modem works by "tricking" both devices into thinking they are connected to a standard modem when in actuality they are directly connected to each other through the null modem. Signal Ground (SG) and Protective Ground (PG) are carried straight through. Transmit Data (TD) of each device is connected to Receive Data (RD) on the other device. Connecting each of the Transmit Data (TD) signals to the other device's Receive Data (RD) causes the devices to send and receive data on the proper pins of their connectors.

The remaining cross-connections are for control lead signals. These are the signals that trick the devices into believing they are connected to a real modem. When a device asserts a Request To Send (RTS), the null modem returns an assertion of Clear To Send (CTS). Since a real modem would now send carrier to the remote modem, a lead is provided to assert Carrier Detect (CD) on one device when Request To Send (RTS) is asserted on the other device.

Finally a cross connection between Data Terminal Ready (DTR) of one device with both Ring Indicate (RI) and Data Set Ready (DSR) on the other device permits the assertion of Data Terminal Ready (DTR) (indicating a willingness to transfer data) to show a call has arrived (assertion of both RI and DSR or DSR only) at the other device.

Null modems work for those devices which are of the same RS-232 type either DTE's or DCE's. Naturally not all serial devices fall neatly into RS-232 device types based on their physical type.

For instance, all known modems are DCE's, I think, but there is where it ends. Some devices, like most computer systems, can be configured to be either a DTE or DCE. The next most common serial device class that is connected to personal computers is printer and plotter devices.

In connecting serial printers, XON/XOFF sets the pace

Printers and plotters can be either DCE's or DTE's and some are switchable. In addition to the DTE/DCE confusion, some printers can return a "buffer full" signal to the connected computer system when the printer's internal buffer is unable to receive

any additional data. This buffer status signal also has no standard pin assignment.

It does appear that many do use either pin 20 (DTR) or pin 4 (RTS) but quite a few use pin 11, RS-232 Supervisory Transmitted Data (STD), or pin 19 (RS-232 unassigned) as the buffer status signal.

Still other printers and plotters either have no buffer control signal and must be "paced" to prevent buffer overflow or they use the widely accepted XON/XOFF protocol.

Serial devices which use XON/XOFF protocol for data flow control require no special control signal conductors in the connecting cable as data flow control is managed by the use of special XON and XOFF control characters imbedded in the actual data streams. The use of XON/XOFF protocol is quite common for devices using the standard ASCII character set.

By convention, [Ctrl-S], ASCII 19, is the XOFF control character and [CTRL-Q], ASCII 17, is the XON control character. It is therefore obvious that a connection that uses either [Ctrl-Q] or [Ctrl-S] as valid data cannot use the XON/XOFF protocol. When a sending device receives a [Ctrl-S], the XOFF character, from the receiving device, it immediately stops sending data.

When the receiving device has cleared its receiving buffer and is ready for more data it sends a [Ctrl-Q], the XON character, to the sending device indicating that it is once again ready for more data. When the sending device receives the XON character, it resumes data transmission. This activity continues until all current data transmission requirements have been completed.

A quick demonstration of XON/XOFF

For a quick demonstration of the semi use of the XON/XOFF protocol try this. Use your MS-DOS TYPE command to list a rather long file on your PC's monitor. As the TYPE command is displaying the file on your PC's screen press the "Ctrl" key and tap the "S" key. Volia! XOFF! Now press any key to continue your TYPE command.

The reason I said semi use of XON/XOFF is because of the any key to restart. True XON/XOFF protocol would not restart the TYPE command until you entered a [Ctrl-Q] key sequence.

Also, if you press any other key prior to the [Ctrl-S] sequence it will not work. Who knows why? I don't. I guess that's why we use [Ctrl-Num Lock].

Grains of salt, grey areas and manuals

Well I've been promising everything you need to know to connect some of the more common printers and plotters to your PC system. I would not take

what I tell you with a grain of salt, but most of it is suspect for reasons you will soon see as this is what they call a "Grey Area". I am drawing it from another source. I have not personally hooked up a lot of printers and plotters, therefore I cannot verify with in depth experience the accuracy of the information. Anyway, that's what breakout boxes and Alka-Seltzer are for.

If all else fails, you might even try reading the manual! After all it was only written in Japanese and translated into English by an Italian.

I was going to use a somewhat questionable source for a specific printer and plotter connection list, but since bad information is worse than no information I will give a brief general discussion of the subject. I don't want to do what so many well meaning people do in this game, pass along a guess as fact.

At last! General connection guidelines

As to how the printer should be connected to your system, I can give you some general guidelines. If the printer/plotter is a DTE device you should setup your serial expansion adaptor as a DCE. And if the printer/plotter is a DCE then you should set your PC adaptor to a DTE.

If you are going to switch between a printer/plotter and a modem you should setup your computer as a DTE and if the printer is a DTE, in this case, swap pins 2 and 3 on one end of the printer's RS-232 cable.

One thing that must be pointed out is a major GOT'CHA! If the printer driver software or application software you are using does not recognize and honor the printer's buffer full signal or XON/XOFF, it will not matter how you hook up the printer's buffer full control signal.

Unless the software honors the printer's signal, the software will continue to push data toward the printer no matter what the status of the printer's buffer. If this proves to be the case, you will have to set the baud rate to a speed that insures the printer will be able to keep up with the incoming data and live with it.

If the software does check for a control signal on one of the RS-232 pins, the printer's buffer full signal must be connected to that pin for proper operation. Some printers also may utilize other RS-232 signals for special purposes and those pins must be connected and the software must recognize them to take advantage of whatever wonderful printer functions they control.

Read, read, read the manuals

I guess the best advice I can give is: READ THE MANUALS. If you got the printer for almost free at Harry's Laundromat, Hi Fi and Computer Store and it doesn't have the manual with it, you get what you pay for. The best approach when no manual is about, is to first try to find one you can borrow.

If no manual is to be found, breakout the "Classic" Coke (I prefer the stiffer stuff that comes in fifths) and the breakout box. You are in for a long night!

For those of you who have stuck with me, I hope this series of articles has provided you with some helpful information. There are many good reference books on the market that cover asynchronous data communication in greater detail than I have.

One of the best books I have found for a very good introduction to the various aspects of data communications is "Technical Aspects of Data Communication", by John E. McNamara, published by Digital Equipment Corp. A great deal of this series was drawn from this one book. It is well written and easy to understand (if you are a technical type). I still refer to it frequently.

The absolute best source for data communication savvy is a lot of good old hardcore "Now what the is wrong?" experience. So, jump in there and give it a shot!

Fred a

Fred Williams is the owner of Systems Consultants, a data communications software development, network design, and consulting firm. We hope to get more articles from him soon. Ed.

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Disk of the Month

by Kathryn A. Crawford

DOM Disk 0267. FLUSHOT+; or, Don't Panic.

Mark Gruner and Ken Loafman ransacked the bulletin boards to find what was out there as an anti-viral. They did not do this because you and your PC are in imminent danger of infection. You aren't. They did this because people are succumbing to an even more virulent disease: Panic.

In the April and May meetings, we had a number of people at the DOM table asking questions about computer viruses. Not that anyone had one, mind you. I haven't talked with any PC user in the Metroplex area who has had direct experience with a virus, nor with anyone who knows anyone who has had such experience. The great concern is how to protect your system and your software from the dreaded plague.

Flushot+ is not offered as a cure. It will not be able to tell if your PC is already infected by the virus, but can protect files from viruses in the future. It is one form of protection from a known form of virus.

Flushot+ is capable of protecting any file or class of file (such as COM, EXE, BAT, SYS, or DOC files) by write and/or read protecting these files. It can also provide protection through checksumming. Flushot+ can detect when programs go TSR, a tactic some viruses use. When Flushot+ is triggered, a pop-up window will appear and explain why it was activated.



Flushot+ was written by Ross Greenberg. The first version was called Flushot, later versions were called Flushot2 and Flushot3. Then someone else put out a program called Flushot4, which actually contained a virus. This is why Mr. Greenberg changed the name of the latest version to Flushot+. This is also an illustration of why discussions of computer viruses start to sound like a badly plotted spy thriller.

Yes, there are computer viruses out there. Somewhere. The Popular Press considers this a really trendy topic, combining Hi Tech with Terrorism, so you will probably be reading more about it. The real problem is not computer viruses. The real problem is ignorance of what viruses are and how they operate. The real cure is not any particular program or set of procedures. The only cure is information. Next month's DOM Column will examine how viruses operate, and some reasonable steps you can take to protect yourself.

Reviewers And Reviewing

If you have taken a disk for review, you should have the review back to Howard Hamilton within 60 days. If it looks like you won't have the review finished in that time you can do one of two things:

- (1) Call Dr. Hamilton to discuss when the review will be ready, or
- (2) Return the disk to Dr. Hamilton to give to another reviewer.

The review is one of the necessary activities to prepare a disk for release. The Review process involves checking the program out: what does it do, does it work, how to get it started; and then writing a draft of the readme file. Instructions on how to write the readme file, what to include, and how to format it are available. The area editor will put the disk into final form for the DOM.

There are a number of really good reasons for returning a review disk.

- (1) You hate it on a deep and meaningful level. Write down the reason why you hate it in twenty-five words or less, and return the reason with the disk to Dr. Hamilton.
- (2) Your system can't run the software. Write the reason down (needs EGA graphics, etc.) and return the disk. This is not a failure on your part, you have succeeded in discovering something about the software. The requirement will be noted, and another reviewer found for the software.
- (3) You feel like you are in over your head. This is, again, useful information. The program may be hard

to understand because it is aimed at the power user. Or it just might be hard to understand, period.

The point is that we need all types of reviewers at all skill levels. Power users are not very good at understanding what a beginning user would be comfortable using. Hot shot programmers and hardware experts don't understand the business environment in which the specialized application operates.

We always have a need for novice level reviewers. We have programs that can only be properly tested by people who are at the beginning level of skill.

Templates Wanted

If you use a spreadsheet or database and have written an application, there are a number of people who would be interested in what you have created. We are going to be putting together disks to share these applications with other users. Please contact Kathryn Crawford on the club BB.

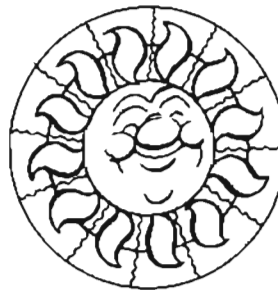
The Catalog Disk(s)

Before the April disk production, we knew that the catalog disk was getting crowded. Unfortunately, given the logistics of disk production, we could only find out how crowded it was at the last minute.

In April, Dr. Hamilton discovered while assembling the catalog disk that the disk was going to be to full and something had to go. What went was the PKXARC utility. There was much confusion and grumbling.

By May, the situation was totally out of control, and we had to go back to two disks for the Catalog. We are working on solutions to get back to one disk for the Catalog. Stay tuned.

The Fire Sale



The Fire Sale has become a regular feature of the monthly meeting. Dr. Hamilton, Keeper of the Inventory, puts the slow movers and the old versions into the Fire Sale box, which we then sell for \$1.00 a disk.

The following titles were in the May Fire Sale:

8611	PC-TYPE	Word processing by Jim Button
0037	PC-CALC 3.0	Spreadsheet by Jim Button
0063	PC-FILE III 4.0	Data Management System
0075	PROCOMM 2.4.2	Communications Program
0077	CHASM 4.07	Cheap Assembler for IBM PC
0090	PD PROLOG 1.7	Public domain ver. of ADA PROLOG
0107	ESTIMATED FEDERAL TAX 1986	Lotus 1-2-3 1/A and templates
0114	123 TEMPLATES FOR 1986 INCOME TAX	Two Lotus templates
0150	Tax-Planner 1.87	(1987)
0158A	PC-FILE+ 1.0	Program disk
0170	IBM Announcement	(2 disk set)
0180	ZAPCIS 4.01 & MsgVu 1.21	CompuServe aids
0197	Directory Scanner(tm) 3.00	DOS shell and disk manager
0208	FINANCE MANAGER II - GL Module 1.1a	
0226	PC-File+ 1.26	Edition with arced manual
0228	1987 Federal Tax Template	Lotus 1-2-3 2.x worksheet

New titles will be added each month.

Fire Sale disks are on sale ONLY AT THE MEETINGS. Disks sold through the mail order are sold at mail order prices.

Kathryn

□

DOM Particulars

The North Texas PC Users Group makes these programs available as a service to the club and its members. We try to test all the programs, but we do not warrant the programs in any way. You must decide if a program is suitable for your use and will run on your system. If you ask, we will tell you what we know about any program, but the final decision to buy and/or use these programs is yours.

DEFECTIVE DISKS: We will gladly and without question exchange an unreadable disk for one of the same program. When returning a disk please give us a written description of the problem so we can correct it.

DONATION OF SOFTWARE TO THE CLUB: All members of the club are encouraged to contribute copies of public domain software, shareware, and demos to the DOM. For each new disk of software contributed, you may select any disk in the DOM in exchange. The contributions will be reviewed before credit is issued at the next meeting.

PRICE: Members: \$2.00 per disk (if the program is on two disks, the price is \$4.00). Non-members: \$3.00 per disk. 3.5" disks: \$3.00 per disk.

MAIL ORDERS: At prevailing prices for the disks, plus \$2.00 mailing fee. Mail your orders to: NORTH TEXAS PC USERS GROUP, DOM Mail Order, P.O. Box 780066, Dallas, TX 75378-0066.

CATALOG DISK: The Catalog contains the readme files for the disks with a subject index. Currently the catalog is on two disks and costs \$4.00.

MEDIA: DSDD 5.25" formatted 9 sector. 750K 3.5" disks available mail order only.

AVAILABILITY: Disks sold out or not available at the monthly meeting can be obtained through the DOM Mail Order.

DOM VOLUNTEERS: If you would like to work the DOM Table for an hour during the monthly meeting, contact Dwight Neal (214) 885-7929.

Selected SIG Happenings

News and Meeting Notes on Special Interest Groups

(Material for this column should be sent to Phil Chamberlain, SIG Coordinator before the 15th of the month.)

GENERAL

Potential WORD PERFECT SIG.

It has been a long time since we have had a Word Processing SIG. There seems to be a fair amount of interest in starting a group on WORD PERFECT, perhaps one of the two most popular word processing packages.

J. T. Walker has offered to help get this SIG organized and started provided there is sufficient interest. We would plan on starting it at the July meeting. Give J.T. a call if you are interested. He may be reached at:

1510 Brittainway Lane
Dallas, TX 75228
Phone 321-5595 (h)
341-8394 (w)

ENABLE SIG discontinued.

As has been our practice when interest wanes in any given SIG, ENABLE had its final meeting in May.

Artificial Intelligence SIG Suspended.

After being such a hot topic a year ago, has Artificial Intelligence fallen on hard times, or just resting? Since this SIG had good attendance but lacks a qualified leader, we'll simply suspend it for a month or two and see if some interest is regenerated.

Assembler SIG

In May we broke from our usual "content free" format and had a formal presentation from Kent

Cobb. He described a "System Profiler" that he had written to monitor program interrupt use. He applied this to a program and showed how execution time was reduced 70% by using the information obtained from the profiler.

On behalf of those present, many thanks to Kent for an interesting, well-prepared presentation.

Andrew Chalk

C SIG

Kent Cobb will present the program for the June meeting. He will talk about a keyboard enhancer that he wrote for Codeview. It is a TSR mostly written in C. The presentation will also include general remarks about TSR's in C. He will also discuss some puzzling events that he has discovered using Codeview.

Sid Nolte

Communications SIG

May's Comm Sig group discussed several ways of dialing into a host PC. More and more users are finding that they need to access information stored on their home or office system from another PC over regular dial-up telephone lines. User need for Host Operation of personal computers sparked an interesting group discussion of such programs as Mirror, Carbon Copy, Mini-Host and Procomm. Tapping the resource of knowledge from the Comm Sig members pointed out many benefits of using these programs.

The Comm Sig would like to hear from members regarding potential topics for future Comm Sig meetings. Please leave E-Mail on this club's RBBS, or call me with Communications topics you would like to find out more about.

Pete Testa

Cryptanalysis SIG

The May meeting was the first, and quite successful meeting of this group. John Tabor is mailing out a special tutorial to all the people who attended the meeting.

Although the accent of the SIG initially will be on "fun and games", the disciplines of cryptanalysis are nearly 200 years old, and contain the largest known collection of "tricks" or methods of pattern recognition, which can have many applications in computer programming.

The June meeting will be devoted to transposition ciphers – how to recognize them and how to break them.

LOTUS SIG

In the May meeting, a brief presentation of @Liberty was given. @Liberty creates a runtime version of a 1-2-3 spreadsheet so that anyone can use the spreadsheet without having 1-2-3. One benefit is that formulas cannot be altered by users of the spreadsheet. Basic macro capabilities are also supported in @Liberty.

The primary focus of the May meeting was a discussion of logical @ functions. There are 7 logical @ functions which include @FALSE, @IF, @ISERR, @ISNA, @ISNUMBER, @ISSTRING, and @TRUE. Also presented was the @CHOOSE statement. The @CHOOSE statement is listed as a "special" function but is an extension of logical functions in many ways.

In the June meeting we will continue our discussion of @ functions, concentrating on the financial functions in 1-2-3 and Symphony. Financial functions are very useful in many situations such as investments, retirement plans, and many kinds of finan-

cial analysis. If these functions are an area that you would like to know more about, drop by and see us in June.

The Lotus SIG always takes time to discuss issues and answer questions that users have about 1-2-3 and Symphony. If you have questions, we will try to answer them.

Peyton Weaver
and Mark Gruner

Personal Users (beginners) SIG

Personal (versus professional) users, novices, beginners, new PC owners, soon-to-be PC owners... this SIG is for you!

We continue to press towards having you graduated from this SIG within a few short months (i.e. personally knowledgeable and productive with your PC software...and able to join other SIG's of your choice. At each monthly meeting, we conduct

four different classes (at 9, 10, 12, and 2) on four different subjects out of our 16-subject fundamental curriculum.

In our June meeting, we will offer these classes: 9 - Writing your own BASIC programs, 10 - Printer Set-Up, 11 -PC Graphics Modes, and 12 - Bulletin boards and archiving programs.

Come join us as we learn and review the fundamentals!

Bob Presley
and Richard Terreo

North Texas PC Users Group

Personal Users (Beginners) 16-class Revolving Schedule

Schedule	Class	Class Title/Description
Aug 88	1.0	Start Up
	2.0	Diskette Sizes & Formatting Each
	3.0	Copying & Backing Up Files
	4.0	Hardware
Sep 88	5.0	Fixed Disk Directories, Batch Files & Paths
	6.0	DOS Menu Systems on Fixed Disk
	7.0	Installation & Setup of LOTUS 1-2-3
	8.0	Running BASIC Programs
Jun 88 & Oct 88	9.0	Writing Your Own BASIC Programs
	10.0	NTPCUG Disk of the Month Library
	11.0	PC Graphic Modes
	12.0	Bulletin Boards & Archive Programs
Jul 88 & Nov 88	13.0	Printer Setup
	14.0	Writing LOTUS Macros
	15.0	Major Categories of Software Applications Available Today
	16.0	PCs to the end of the 20th and into the 21st Century

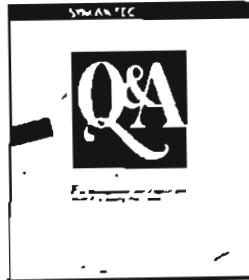
Four Classes are offered each month (at 9:00, 10:00, 12:00 noon, and 1:00 pm). Across four months all 16 of the classes are completed, and the cycle starts all over again. Each class is independent of the others, thereby allowing people to begin attending classes any time their schedule allows. The classes are free and are open to all beginners, novices, new PC owners, soon-to-be owners and personal (vs. professional) users. Come join us as we cover the fundamentals!

Bob Presley and Richard Terreo, Instructors



Software Report

by Dick Gall



Q&A Update

Symantec president Gordon Eubanks demonstrated the features of the new Version 3.0 of Q&A at the May 14th meeting. In his words, Q&A is an integrated word processor/file manager program with a unique natural language facility for database query. It is designed to be a "fully function" program yet easy to learn.

Examples of Q&A users cited by Gordon ranged from the Johnny Carson Show to a security firm. Q&A's macro facility provided the on-screen demonstration to accompany running commentary on the basic operation of Q&A and the advanced features introduced with Version 3.0.

PC NEWS covered Version 2.0 in the April issue, with just a brief listing of the benefits of 3.0. Our coverage resulted from a call by a member-user who was so impressed by the Intelligent Assistant feature that he thought others members should be informed of the program. SOFTWARE DIGEST ranked it #1 among either other file managers based on performance, versatility, ease of learning, ease of use, and error handling.

Among the major features new with Version 3.0 are:

- MULTI-FILE DATABASE OPERATIONS: customize forms to merge data from multiple databases.
- IMPROVED FILE SEARCHING: using "or" and "not" criteria.
- ADVANCED MENUING SYSTEM: overlapping, pop-up windows, selectable action mode, run others programs or Q&A macros from main menu
- SPEED: operates up to 30% faster than Version 2.0.

- ENHANCED MULTI-USER NETWORK SUPPORT: Network Pack program and record locking capabilities support simultaneous multiple users and database access.
- PASSWORD PROTECTION: for databases, form and report designs.
- EXPANDED MEMORY SYSTEM SUPPORT: Larger documents, use with additional memory resident utilities.
- PRINTING: Postscript Support, Multiple Printers per port.
- HOME USE LICENSE: \$69.95 for use at home as well as the office.
- ENHANCED PROGRAMMING FUNCTIONS: finance, statistics, new text/string functions.

As we said in April, the intelligence of Q&A is distributed throughout the program. Its logical operation seems to anticipate your commands. There is something inherently reasonable about a word processor that shows the edges of the paper on the screen, complete with margins and top and bottom headers on every page - and page numbers that actually increment on screen. As soon as you switch to network operation and a multi-user situation, Q&A switches to multi-user support to provide record locking and real-time automatic update of shared databases.

Symantec even goes out of their way to treat new users with respect, with a tutorial program written in plain language. The entire tutorial takes about an hour, or you can choose any section of interest:

Q&A Tutor Table of Contents

File & Report Lessons

- C - Creating a Database
- U - Updating a Database
- R - Producing Reports

Write Lessons

- D - Document Basics
- E - Editing a Document
- M - Mailing Labels

- I - Intelligent Assistant
- P - Printing

Still leading the industry, Symantec continues to offer the 30-day money back guarantee. Q&A list price is \$349. Upgrades from 2.0 are \$69.95. Symantec's phone number in Cupertino, California is 408-253-9600.

Dick

■



Inside the North Texas PC Users Group Community

Connie Andrews, Volunteer Coordinator

Volunteers are the lifeblood of the Club. This is the first in a regular series recognizing those Club members who have contributed their time and efforts as volunteers to assist in presenting the monthly meetings.

NTPCUG Volunteers are listed by area(s) served at the May 14, 1988 Club meeting. Some volunteers worked in more than one role, hence some names appear more than once.

Equipment Setup:

Martha Eickman
John Myers
Revis Smith

Disk of the Month (DOM) volunteers for May 14th meeting; DOM Table

C.D. Agee
Gene Carleton
Jay Chambers
Don Chick
David Eastman
Robert Hilliard
Jo Johnston
Bob Karebach
Cliff Liles
Dan Marmion
Richard Miles
Michael Norris
Bob Reynolds
Tom Scurlock
John Sheppard
Jerry Stone and son
Russell Walker

DOM Central Committee volunteers who set up, did inventory, and kibitzed all around the table:

Preston Brashear
Kathryn Crawford
Mark Grunner
Howard Hamilton*
Hal Horton
Ken Loafman
Dwight Neal

Information/Registration Booth

C.D. Agee
Connie Andrews
Bob Ashby
Marcia Barbour
Robert Bibb
Marvin Brooke
John Ferguson
Rick Griffith
Allan Harbaugh
Don and Linda Hay
Robert Hilliard
Nathanael Jackson
Tom Krieg
John Moore
John W. Morgan
Zack Porterfield**
Raymond Reyes
Carolyn Stevens*
Connie Testa
O. G. Tyler
Larry Tucker
Ken Weaver

PSSSSST!

We still have room for a few good volunteers!



* The Club's policy that volunteers on duty are eligible to win drawings even though not in the Auditorium came into play when Carolyn Stevens won a copy of Q&A 3.0 at the May Meeting while she was working at the Information Booth. DOM's Howard Hamilton was on duty (in the Auditorium) and also won a copy of Symantec's Q&A 3.0.

** Zack Porterfield is one of the "core" volunteers at the Information/Registration Booth during the 9:00 - 10:00 a.m. time slot. Unfortunately, a medical emergency prevented Zack from making the May 14 meeting as planned.



MEMBERSHIP APPLICATION
North Texas PC Users Group, Inc.

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

NAME: (Last) _____ (First) _____ (MI) _____

ADDRESS: _____ (Suite/Apt) _____

OCCUPATION/PROFESSION: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: Home (_____) _____ Work (_____) _____
_____(Ext) _____ (Check Preferred. #)

Do you want access to the Club Electronic Bulletin Board? YES [] NO [] Already Have []

Please INITIAL HERE _____ if you wish to have your address included on member lists sold for the club's benefit to advertisers of IBM compatible products.

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

[A] Working with NTPCUG Volunteer Committees?

Volunteer Areas from [A] above (Please check all that apply.)

- [IB] Information/Registration [NL] Newsletter [FB] Financial/Bookkeeping
- [NL] Equipment Setup [DM] Disk of the month (DOM) [PR] [Publicity/Public Relations

[B] Giving a talk or demonstration to a small group?

[C] Giving a talk or demonstration to a large group?

[D] Being a volunteer, informal "consultant" in your area of expertise for NTPCUG members?

Would you be interested if the Group arranges instructional courses (at various levels) in any of the following areas at a cost per student of approximately \$5/classroom hour?

(Please circle or specify, indicating level preferred, i.e., beginning, intermediate, advanced)

[A] Spreadsheet software – Lotus 1-2-3, Supercalc4, etc. (Please specify) _____		
[B] Data _____		
Payment Received:	Membership Classification:	Application Status:
Cash _____	Regular (\$24.00) _____	New Member _____

Detach below for record of payment.

Applications should be mailed to:
(Make checks payable to NTPCUG.)

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

Payment: \$ _____ Check No. _____ Date: ___/___/___ by: _____



North Texas Personal Computer 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.

Board of Directors

Reagan Andrews, Ph.D., Chairman
Phil Chamberlain
Kathryn Crawford

Jim Hoisington
Sid Nolte, Ph.D.

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 issue, and send it with \$24 membership dues to the Membership Director whose address is shown at the bottom of this page. A subscription to the newsletter is included with each membership.

Officials

President -

Reagan Andrews, Ph.D. (214)828-0699 h

President-Elect - Jim Hoisington (214)416-3101 h

Program Chair. - John Ogle (214)470-9267 w

- Timothy Carmichael (214) 376-5451 x5916 w

Treasurer - Joe Brophy (214)891-8187 w

Secretary - David McGehee (214)681-0202 h

Membership Dir. - Robert Kolodner (214)821-6015

Disk of the Month - Kathryn Crawford (214)596-2539

Group Statistician - Connie Testa

Special Interest Groups

SIG Coordinator

- Phil Chamberlain (214)243-5034 h

Artificial Intel. Arnie Strand (214)824-7894 h

Astrometry - Arlin Collins (214)351-5137 h

Assembler - Andrew Chalk, Ph.D. (214)226-3461 h

- Stan Milam

Business Applic. Bruce Schubert (214)991-5967 w

C Language - Sid Nolte, Ph.D. (214)233-6178 h

CAD/CAM - Don Crockett (214)255-6704 h

Communications - Pete Testa (214)495-7506

Cryptanalysis - John Taber Metro 430-8173

- John Thomas (214)660-1823

DAC Software - Mike Macaulay (214)960-6656

DBase - David Hayden (214)380-8172 h

DOS - Jim Hoisington (214)416-3101 h

- Reagan Andrews, Ph.D. (214)828-0699 h

Genealogy - Minnie Champ (214)341-6507 h

Hdw Solutions - David McGehee (214)681-0202 h

- Gart Johnson (214)937-9676 w

LOTUS - Peyton Weaver (214)462-0552 h

- Mark Gruner (214)373-3147 h

Personal Users - Bob Presley (214)867-1679 h

-Richard Terreo (214)307-1259

Programmers - Kent Cobb (214)343-3554

- Jim Hoisington (214)416-3101 h

Stock Market - Cliff Murphy (214)279-7973

Turbo Pascal - Don Chick (214)276-2524 h

Windows - David Hayden (214)380-8172

*NOTE: To access the BBS by long distance,
use area code 817*

BULLETIN BOARD SYSTEM -461-0425 (Metro)

461-0506 (Metro)

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

Asst. SYSOP. - Maggie Moomey

Technical Advisors: Fred Williams

Pete Testa

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..)

ON COMPLEXITY

No. 16 in a Series.

by Jim Hoisington

It's getting harder and harder to rely on those software product reviews that are published in the trade journals. The problem is not that the reviewers are less skilled, it is that the software on personal computers is more complex.

My UPS delivery person, Bob, complains that I get the heaviest packages on the block. And he's probably right. Just the fact that I know Bob personally tells you something about the state of PC software. Most vendors don't feel that they are really supporting their software if they don't come out with a new update every six months or at least once a year.

Initially, we were told that PC software would be a stripped down version of mainframe or minicomputer software. But that really never happened. What we got initially in the PC marketplace were software packages that didn't exist on the mainframe. Just look at the number of copies of Visicalc and Wordstar that sold in the first two years of the IBM Personal Computer's existence.

Visicalc makes a good example of what has happened. The manual for Visicalc for version 1.20 has 270 pages and the entire product, including the hidden file, took up 70,965 bytes on one single sided, eight sectored diskette. There were 26 / commands and 31 @ functions.

Compare that to Borland's Quattro which comes with three manuals that weigh 5 pounds. The software is contained on four double sided, double density, nine sectored diskettes for a total of 1,306,688 bytes of code. And it is one of the smallest packages that I have gotten lately.

A piece of trivia being tossed about this last month is that the documentation for Microsoft's Presentation

Manager for OS/2 takes 8 feet of shelf space! That's just one part of OS/2. I have seen entire computer systems documented with less space.

The problem that the software reviewers have is that software packages have grown so big and have so many features, that if they take the time to really learn the package, their review will be published after the next release has started shipping.

What is happening is that most reviews today are more like a "first look". And, that can be harmful to the really powerful packages which take effort to learn. These packages often get poor or at best weak reviews because the reviewer is under pressure to get something in writing.

I wish I could offer hope for the future, but I only see things getting worse. As the hardware expands its processing power and memory addressing capabilities, the software developers will add even more features and power to their packages. No matter how much "context sensitive" help is provided and no matter how much use is made of icon's, it still takes a human longer to learn 1024 commands than 26 commands.

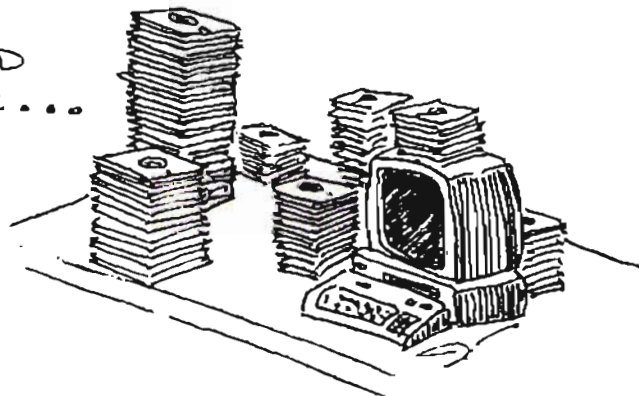
So the next time you read a review of a software package, keep in mind that the reviewer probably had less than a month to learn the package and write the review. When the review says a package does something, it is probably true. But when it says that the package doesn't do something or lacks some feature, be careful! The reviewer may have overlooked the writeup on that feature in volume VIII, page 514 of the reference manuals.

In the movie "Back to the Future", the professor asks the question, "Why are things so heavy in the future?" Now we know the answer. It's because of all the documentation.

Jim

□

NOW IF I CAN JUST FIND
AN AUTDMATIC LOADER...




MEMBERSHIP CARD

This is your membership card in North Texas PC Users Group. You will need it for identification at Disk of the Month sales, group purchases and other activities. This card is valid only for you, the person named on the label on reverse side. It is valid through expiration date shown on the label.

When trimmed, the card will fit transparent badge holders available at your stationers.

Wear your membership card while attending meetings and other functions of the Users Group.

	Membership Card North Texas PC Users Group, Inc.
This card valid only for individual named on label affixed to reverse side, only through year/month printed on the label, and only with proper identification.	
Print Name: _____	
Signature: _____	

Trim card to wallet size.

Meetings & Times

9:00 AM to 9:45 AM

AUDITORIUM

* Z SOFT *

David Deponte, Regional Manager of Z Soft will give a presentation on the new release of PC Paintbrush.

10:00 AM to 11:00 AM

AUDITORIUM

* LOTUS *

The National Sales Manager for LOTUS, Mr. Harris Lancaster will give a presentation on 1-2-3 Release 3.0.

Special Interest Group Meetings...

*Scheduled SIG times could change. Check the Bulletin Board just before the meeting.
Check room numbers on the overhead display in the lobby at INFOMART.*

9:00 - 9:55

Assembler
DOS
CAD/CAM
Hardware Solutions
Personal Users

11:30 - 11:55

Orientation
12:00 - 12:55
C Language
Communications
Personal Users
Stock Mkt Investing

1:00 - 1:55

Business Applications
LOTUS
Personal Users
Turbo Pascal
Windows

10:00 - 10:55

Astrometry
Personal Users

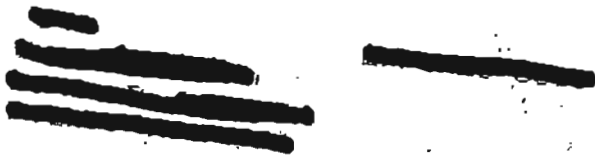
2:00 - 2:55

Advanced Programmers
Cryptanalysis
DAC Easy Accounting
dBase Programmers

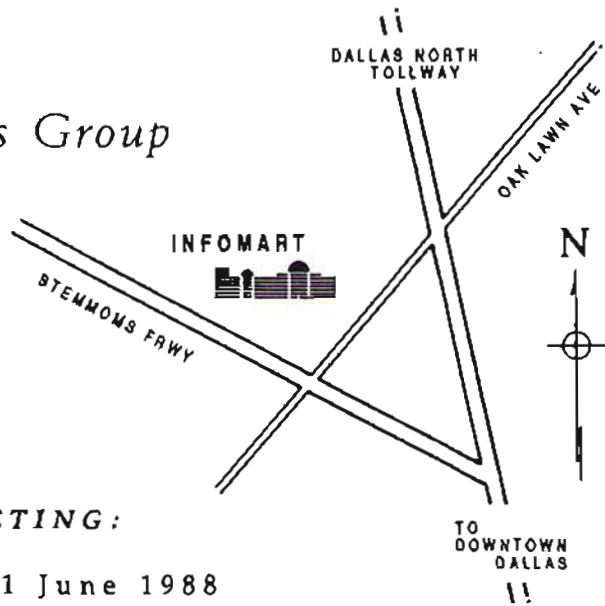
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NEXT MEETING:

11 June 1988