

North Texas  **PC NEWS**

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*North Texas PC Users Group*

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# North Texas PC NEWS

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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 10th of the month prior to publication. See copy deadline below.

## Circulation:

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Member distribution is 1274; remaining copies are distributed to PC user groups around the country, and to advertisers, prospective members and others with common interests.

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**DEADLINE**  
**Copy deadline for June**  
**NT PC NEWS:**  
**Wednesday May 10th**

### Meeting Dates:

May Meeting - 3rd Sat (20th)  
June Meeting - 2nd Sat (10th)  
July Meeting - 2nd Sat (8th)

### *A note about the June issue...*

Again we have only three weeks between meetings. The June newsletter will have to be *at the printer before* the May meeting takes place!

## 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 or 830-6361. 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, kermit, 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. 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.

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## May 20 – \_\_\_\_\_ Microsoft day at INFOMART \_\_\_\_\_

10:00 a.m. to 12:00 a.m

- Product presentations in rooms 7001 and 7011.

The products that Microsoft will show include: WORD 5.0, EXCELL, WORKS, Windows, OS/2.

2:00 p.m. to 3:00 p.m.

- Bill Gates, CEO of Microsoft will speak in the Atrium.

### Prez Sez...

by Jim Hoisington - our fearless leader

May is Microsoft Month.

Microsoft will be the featured vendor at our May 20th meeting. And, we will be doing things differently.

There will be no main meeting. In the morning, starting at 10:00, you will be free to circulate between rooms 7001 and 7011 to see product presentations and to ask questions of the Microsoft product managers.

At 2:00 in the afternoon, all the user groups will meet in the atrium to hear a keynote speech from Bill Gates, CEO of Microsoft.

Some of the SIGs will not be meeting so be sure to check the overhead projectors as you enter for last minute schedule changes.

Donations Wanted.

If your employer is about to get rid of those old PC's and PC XT's, please remember our user group. We have been approached by other non-profit groups in the Ft. Worth and Dallas area, seeking computers. And, the NTPCUG is considered a charitable organization by the Internal Revenue Service. So, if the machines are not fully depreciated, your employer could write off the balance as a donation.

DBase IV donated.

One of our members donated his copy of DBase IV for a drawing at the April business meeting. I would like to mention his name here but, unfortunately, I lost the paper on which it was written. Anyway, thank you.

Special Drawings at the June and July business meetings.

Those of you that sit through the June and July business meetings will be rewarded by having a chance at winning a 30 megabyte hard disk drive. These drives come from our old Bulletin Board system. They are

### C-CAD Meeting Announcement

The Center for Computer Assistance to the Disabled, now an affiliate of the Computer Council of Dallas, will be holding its first meeting at Infomart this month. All user group members are invited to attend.

Among the purposes of C-CAD are:

to disseminate information regarding computer applications for the disabled;

to encourage the development of new and creative software and computer modifications for the disabled;

and to provide an opportunity for the disabled to learn marketable computer skills and the use of computers to enhance daily life.

Scheduled for the meeting is a presentation "Rehabilitation Engineering" by Richard L. Roa, D.Sc., Vice President of Baylor Biomedical Services. Dr. Roa will describe the history of rehabilitation from an engineer's perspective and give an overview of this emerging field with a review of current leading-edge technologies being explored in research laboratories with emphasis on the role of computers. Please check the overhead projector in the lobby for time and room assignment.

There will also be a demonstration of computer control of home appliances by voice command running all day in the vendor area.

well broken in, having spent almost 3 years in continuous service.

Both drives carry an "out of sight" warranty. When you're out of sight, they're out of warranty.

Jim

# Introduction To SQL

## Part 2

by Fred Williams

In the first article we covered the simplest level of SQL, single level SELECT statements inquiring single tables. In this article we will cover more complex forms of SELECT statements and demonstrate multi-table inquiries.

As you remember from the end of our last session, we had to use two separate SELECT queries to learn that our employee Allen worked in Chicago. Wouldn't it be nice if we could ask questions that required more than one table to answer in a single SQL statement?

Ah, ingenious those SQL designers! There is a feature of SQL that allows you to query data from more than one table in a single SQL statement. The SQL feature is known as JOIN. JOIN allows you to request data from more than one table in a single SQL statement, and the answer is displayed as if the data were originating from a single table. You could say, I guess, that the data items from more than one source table are "joined" into a single answer table.

So how do we write an SQL statement that will JOIN more than one table? Well, we don't use the word JOIN. But it will be obvious to SQL that is what we want just from examining an SQL statement that requests an answer from more than one table. In our next example we will ask for the same information that required the two previous single table examples to answer, that being where employee "ALLEN" is located:

```
select  ename,loc
from    emp,dept
where   ename = 'ALLEN'
and     emp.deptno = dept.deptno;
```

Notice that the SELECT clause contains a request for the employee name "ENAME" from the "EMP" employee table, and also the department location "LOC" from the "DEPT" department table. We use the FROM clause to tell SQL from which tables, "EMP" and "DEPT" we wish to extract our answer. And notice that the WHERE clause has also changed somewhat.

The WHERE clause serves two functions: the first is to select the employee name we are interested in (which is the employee named "ALLEN"); and the second is to match Allen's employee table depart-

ment number, "EMP.DEPTNO", with the department table's department number, "DEPT.DEPTNO".

And the answer is, from a single query:

<u>ENAME</u>	<u>LOC</u>
ALLEN	CHICAGO

Notice that we "qualified" from where we wanted selected data items to come from by prefacing the data name with the desired table name, with a period in between the table name and data name. For example, "EMP.DEPTNO" means use the "DEPTNO" data item which is in the "EMP" table. The period "." is used to separate the table name from the data name. This "source table qualification" allows SQL to recognize the requested data item when two or more fields in two or more separate tables have the same name. If you do not "qualify" a data item name that resides in more than one table, SQL will return an error. SQL is smart, but it can't read your mind, yet!

Wow, are we having fun yet? That last JOIN worked so well, let's do another with a little more flash thrown in this time. In this example, we will ask for the department name from the department table (you don't have to qualify department name because it exists only in the department table), employee name, job classification and salary, all from the employee table. We will need information from both the "DEPT" and "EMP" tables. We wish to have the data joined when the employee's department number, "EMP.DEPTNO", is equal to the department table department number, "DEPT.DEPTNO". And we want the answer ordered by ascending department name, with descending salary amounts within department.

```
select  dname,  ename,  job,  sal
from    emp,  dept
where   emp.deptno = dept.deptno
order  by
        dname,  sal desc;
```

And SQL whips out the following answer:

<u>DNAME</u>	<u>ENAME</u>	<u>JOB</u>	<u>SAL</u>
ACCOUNTING	KING	PRESIDENT	5000
ACCOUNTING	CLARK	MANAGER	2450
ACCOUNTING	MILLER	CLERK	1300
RESEARCH	SCOTT	ANALYST	3000
RESEARCH	FORD	ANALYST	3000
RESEARCH	JONES	MANAGER	2975
RESEARCH	ADAMS	CLERK	1100
RESEARCH	SMITH	CLERK	800
SALES	BLAKE	MANAGER	2850
SALES	ALLEN	SALESMAN	1800
SALES	TURNER	SALESMAN	1500
SALES	MARTIN	SALESMAN	1250
SALES	WARD	SALESMAN	250
SALES	JAMES	CLERK	950

And believe it or not, SQL's not even breathing hard yet! Like I said earlier, this is just an introduction using the first "layer" of SQL's power. Man, you ain't seen nothing yet! For those of you who are programmers, or know enough about programming to be considered a menace, consider for a moment the

planning, designing, coding, testing, and documenting that would be required just to produce this previous example using a procedural, record at a time, programming language with the data resident in IBM VSAM, or worse, ISAM files.

"Well now, all this as'ken an' look'en is real slick, but them computers is for comput'en", you say. SQL can handle it. In our next example, we will ask SQL to add two data item values for selected employees and show us the answer. Let's ask to see the salesman's name, salary, commission, and the sum of his salary and commission.

```
select  ename,sal,comm,sal+comm
from    emp
where   job='SALESMAN';
```

Notice that the list of data items in the SELECT clause contains an entry, "sal+comm". This tells SQL to sum the salary and commission and display the result in a column in the answer table. And the answer is:

ENAME	SAL	COMM	SAL+COMM
ALLEN	1600	300	1900
WARD	1250	500	1750
MARTIN	1250	1400	2650
TURNER	1500	0	1500

As you can see, the answer table has a data column labeled "sal+comm". This is the column where SQL has placed the resulting sum of salary and commission. SQL has labeled the column heading "SAL+COMM" for the lack of a better name.

Like all modern computer languages, SQL has "built in" math functions which ease the process of gaining some rather sophisticated answers. In the next example, we will use one of the simple SQL math functions, MAX(). We will also explore the use of a new SQL verb clause GROUP BY.

The next SQL example will create a "group" function. What SQL will do is group all of our employees in their respective departments, then determine the maximum salary for that department.

```
select  deptno,max(sal)
from    emp
group by deptno;
```

In our answer we do not see the actual grouping of the employees in their departments. We only see the final result of our query, the department number and the highest (maximum) salary in that department:

DEPTNO	MAX(SAL)
10	5000
20	3000
30	2850

The GROUP BY clause provides you with some real power in summarizing data, and like the ORDER BY clause, the GROUP BY clause may be used to group any number of data columns.

To stretch what we have done a little, let's combine the GROUP BY clause, some group functions, and the JOIN feature to produce our next answer. In the next example, we will GROUP BY department name, "DNAME", and job classification, "JOB". We will use three new functions to: Sum, SUM(), each group's salaries; Count, COUNT(\*), the number of employees with the same job classification in each department; and use the special function, AVG(), to find the average salary paid for each job classification within each department. Study this next SQL statement very carefully, as it is a rather complex combination of SQL power.

```
select  dname,job,sum(sal),
        count(*),
        avg(sal)
from    emp,dept
where   emp.deptno = dept.deptno
group by dname,job;
```

In the resulting table we find a row for each job within each department. The data contained on each row is the department name, job classification, the sum of all the salaries for the job classification, the count of employees which are in the job classification, and the average salary being paid for the job classification in the department shown:

DNAME	JOB	SUM(SAL)	COUNT(*)	AVG(SAL)
ACCOUNTING	CLERK	1300	1	1300
ACCOUNTING	MANAGER	2450	1	2450
ACCOUNTING	PRESIDENT	5000	1	5000
RESEARCH	ANALYST	6000	2	3000
RESEARCH	CLERK	1900	2	950
RESEARCH	MANAGER	2975	1	2975
SALES	CLERK	950	1	950
SALES	MANAGER	2850	1	2850
SALES	SALESMAN	5600	4	1400

I guess you noticed all of the department and job classifications with only one employee counted in this answer. The question we are asking really is only meaningful for those department and job classifications that have two or more employees in the group. By using another special SQL operator, HAVING, in the GROUP BY clause, we may pose our question so as to give answers only for those groups with two or more employees. Notice in the next example we have again posed the same question as in the previous example, but we have added a further qualification to the GROUP BY clause that will limit our answer to only those groups with a count of two or more:

```
select  dname,job,sum(sal),
        count(*),
        avg(sal)
from    emp,dept
where   emp.deptno = dept.deptno
group by dname,job
having count(*) >= 2
```

This query produces a greatly reduced answer table that contains much more meaningful results:

DNAME	JOB	SUM(SAL)	COUNT(*)	AVG(SAL)
RESEARCH	ANALYST	6000	2	3000
RESEARCH	CLERK	1900	2	950
SALES	SALESMAN	5600	4	1400

Now let's start to push on the upper part of the bottom layer of SQL simplicity. What if we wanted to find the name of all the employees who have the same job classification as employee JONES? First we would have to ask for JONES' job classification. Once we know JONES' job classification we can ask for the names of all of the employees with the same job classification as JONES. Kinda' sounds like we're back to asking two questions and getting two answers to find the information we desire.

Wrong again SQL breath! One of the features that afford SQL so much power is the ability to embed an SQL SELECT statement within another SQL SELECT statement's WHERE clause. This feature allows us to build very complex queries from more than one simple query. This query "nesting" feature is known in SQL terminology as "subquery".

In our next example we will answer the question of which employees have the same job classification as employee JONES. We will in effect ask two questions, but how we pose the questions will cause SQL to provide a single answer:

```
select  ename,job
from    emp
where   job =
        (select job
         from emp
         where ename = 'JONES');
```

Notice that the main SELECT statement asks for the employee name and job classification from the employee table, where the employees' job classification is equal to the result returned by the second, or subquery, SELECT statement. The subquery SELECT statement asks for the job classification, from the employee table, for the employee whose name is equal to JONES.

So the answer returned is a list of employee names and job classifications. The list contains all the employees whose job classification is the same as employee JONES:

ENAME	JOB
JONES	MANAGER
BLAKE	MANAGER
CLARK	MANAGER

Study this previous example for a minute to make sure you got it. We are beginning to show a bit of complexity. Make sure that you understand that the only function of the subquery is to provide the main query with information that is required for use in answering the main query's question.

To make sure we got the idea, we will do one last subquery example before wrapping it up.

In our final example we will ask to see a list of all the employees whose salary is greater than the company's average salary. So, the main SELECT statement asks for the employee name and salary from the employee table, where those employees' salaries are greater than the answer returned by the subquery. Therefore, the subquery SELECT statement asks for the average salary computed from the entire employee table:

```
select  ename,sal
from    emp
where   sal
        (select avg(sal)
         from emp);
```

And, the list of employees who are paid above the company average is:

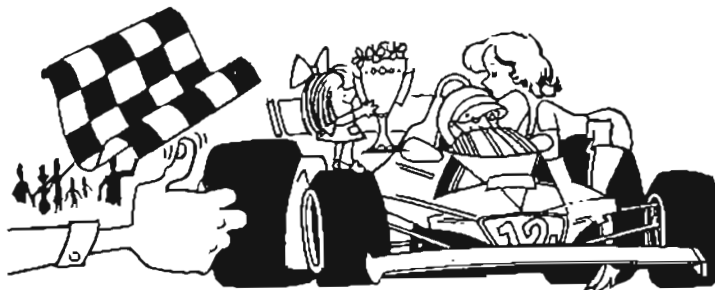
ENAME	SAL
JONES	2975
BLAKE	2850
CLARK	2450
SCOTT	3000
KING	5000
FORD	3000

Well, that's it for the query capabilities of SQL. I'm not going to get any more complex than this. Any further complexity would be created by using more complicated combinations and variations of the basic concepts we have covered to this point. I'll leave you the task of creating a SELECT statement so complex that even you can't figure out.

In the remaining articles of the series, things will not really get more complex than they have to this point. I just don't see SQL as that complex an issue. After all, that is one of the main design criteria for the SQL language, it must be simplistic in concept but powerful in function.

The old scorched flame suit is back from the repair shop! So the next great leap forward is database destruction! 'Scuse me, I meant database update. Warn your Database Administrator. You are all about to become dangerous!

Fred a



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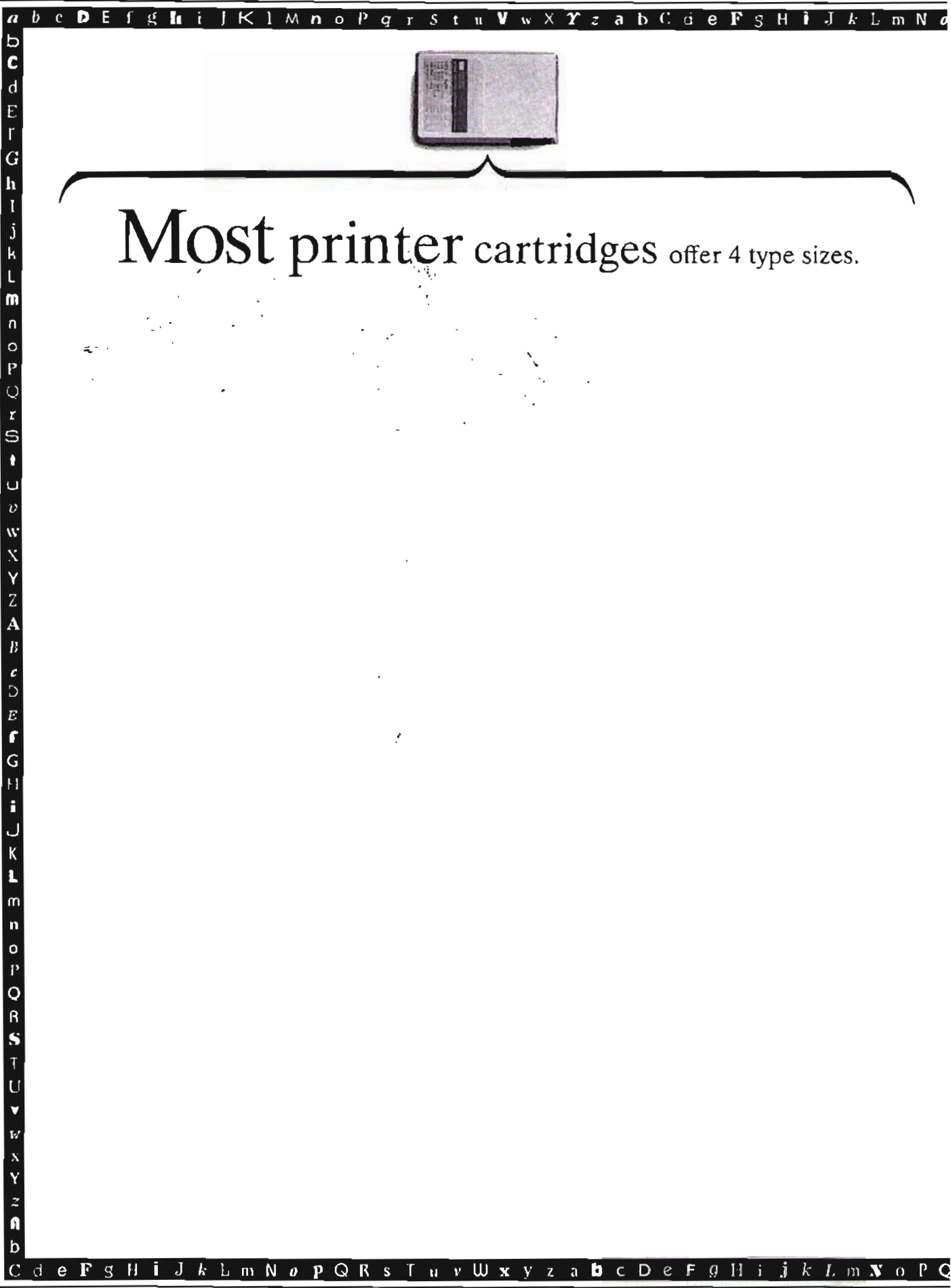
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## Cipher Lore

No. 3 in a Series

### Crypto Law *Continued*

John K. Taber

Why can encryption algorithms and complete source listings of encryption programs be published and exported freely around the world while working programs cannot? The reason is a little complicated and is due to the fact that "technical data" cannot be exported without a license. In addition to obvious military hardware, the Export Act also includes "technical data", among other things.

Just what is technical data? You have to read the definitions in the ITAR several times to understand it, and ponder decisions of several court cases reported in the notes. Briefly, it is information or knowledge itself related to the hardware, or which could have military use.

Now, attempting to license the export of pure information or knowledge is tricky business. First, knowledge is not controllable, and second, there are constitutional problems with licensing the export of knowledge.

The framers of this law and its regulations must have been well aware of the potential constitutional problems. Somebody was concerned, and so the law carefully excludes information in the public domain, defined as any information available to the public such as that you can find in a library, in a newsstand magazine or available by subscription, and so on.

On the one hand, the law attempts to limit the scope of licensed knowledge to things like blueprints, technical documents, and the like. Technical data is all technical information in other words not in the public domain and related to Munitions List items.

For example, if you have a copy of IBM's Data Encoder, the implementation of the DES for the PC, take a look at the front matter of the users manual. On page iv is an IMPORTANT LEGAL NOTICE warning the reader that the manual itself, as well as the program, cannot be exported without a license. The reason is, the manual is not public domain, and is related to cryptographic software, and therefore is technical data within the meaning of the law. The fact that the users manual does not contain any useful technical information concerning cryptography itself -- it only explains how to use the program -- does not matter.

The law has not kept up with technology. There is no essential difference between a published encryption algorithm in the public domain and its embodiment in a computer program. Indeed, the law can't

keep up with the technology in this respect without intruding into areas that the Constitution forbids. The law would have to forbid the export of pure knowledge. That cannot be done, and so, encryption programs published in a magazine or book can be exported without an Arms license, while the same program on a diskette must be licensed. And that is what makes nonsense of the law.

As I said, the writers of this law were careful and tried to avoid constitutional problems. However, in the definition of technical data is this confusing sentence "This also includes information which advances the state of the art of articles on the U. S. Munitions List." There is no obvious antecedent for "this".

Boiling this sentence down, and rewriting in plain English, "this" means information itself which advances the state of the art, of crypto in our case. Taken at face value, it would mean that nothing could be published that is an advance in cryptography, and that is exactly how the National Security Agency tried to interpret it to suppress academic research in cryptography. However, such an interpretation is clearly unconstitutional and would never stand up in court. Matter of fact, there was a Justice Department opinion that has never been made public, which says it would be unconstitutional.

The writers of this law certainly understood English well enough to know when a pronoun lacks an antecedent, and I have to believe that this vagueness is deliberate. The impression I get is that somebody really did want to subject pure knowledge to licensing and so the writers had one eye on what the military wanted and the other on what the Constitution would allow, and tried to satisfy both with limited success. It's cynical -- "we know we can't do this, but let's fudge the words, and get away with as much as we can until a court catches us."

The very next sentence is "This does not include information concerning general scientific, mathematical or engineering principles." The two sentences in context swear at each other. For cryptography, it is pretty hard to imagine information that is an advancement that also would not be generally scientific or mathematical. The wording is juggling that doesn't quite come off. The law is aimed at knowledge, as much as it can get away with, and what it all means, a court will have to decide someday.

So, on the other hand, the law does not attempt to limit the scope of technical data, but leaves it up to a court to decide.

By the way, before going on, I would like to add a fourth popular theory about this law and cryptography just to be complete. This theory imagines that the purpose of the law is to protect critical secrets, and it is imagined that cryptography per se must be a critical secret. This is the Secret theory. However, a

reading of the law does not support it. There is nothing in this law particularly addressing the protection of secrets. There are other laws for that which carry far more severe penalties for violation. To repeat, the law's purpose is primarily foreign policy, not the protection of crypto secrets.

The other reason the Arms Export and Import Control Act becomes absurd when applied to cryptography is that it fails to distinguish civilian cryptography from military.

The fact is that today cryptography is no longer a purely military item, thanks to the computer, which has made cryptography an important civilian technology. This was not always so. When this law was first enacted in original form, apparently in 1954 as the Mutual Security Act, it would have been a fair statement that cryptography was inherently military in nature. I'm not completely certain that the 1954 Act was the original incarnation, nor that it mentions cryptography. This point needs more research.

There has always been civilian cryptography, of course, but its use was limited. The law may have worked a hardship on civilian users, but at the time, the hardship if any was justified. Personally, I can remember that Pacific Far East Lines used cryptography. Also some transatlantic cable companies did, more for economy (the cable codes compacted messages) than for security. And there were a few security companies specializing in communications security.

We have to remember that the Cold War was at its height in 1954. Nuclear war seemed all but inevitable. So that, if for reasons of national security and foreign policy, a few civilians were inconvenienced that would have been just too bad. We were officially in a State of Emergency declared by Congress that granted broad and sweeping powers to the military.

But even if I misidentify the dating of this law, there still wasn't much civilian cryptography in 1969. IBM had just raised the concern of computer security (IBM was the first I believe), and had only just started research in cryptography as a means of providing computer security.

It took a few years for civilian cryptography to mature. Hellman's and Diffie's revolutionary paper on public key cryptography was published in 1976, roughly at the same time that IBM's Data Encryption Standard, a more classic type of cipher, was being accepted by the National Bureau of Standards. The RSA public key cryptosystem, the first, and so far the only lasting embodiment of a public key system, was published in 1977.

There was of course amateur cryptography. Always has been. Gaines's textbook, *Elementary Cryptanalysis* was published before the War in 1939. But

the appeal of amateur cryptography has been limited to say the least. Even today there are only about 1000 members worldwide of the American Cryptogram Association, of which only about 200 demonstrate participation by regularly solving ciphers.

To be quite fair to this law, at the time it was written, most cryptography was indeed military. We should remember that in World War II, several field ciphers saw use in combat that are fit today only for puzzle ciphers (notably, the Bifid used by the French Underground, and the Playfair used by the Australian and New Zealand coast watchers).

It is a commonplace that the law and social institutions have not kept up with the rapid pace of technology. For the most part, I think this commonplace is overdone. But in the case of the computer and cryptography, it is a true statement. Basically, in a few short years, the computer has made cryptography a civilian item that this law has not been updated to recognize. The only update in fact was to change "cryptographic devices" to "cryptographic devices and software" in 1984, a belated and most inadequate recognition.

There are other dual use items on the Munitions List, and a magic phrase is used for them - "specifically designed, modified, or configured for military use". For example depth finders are a Munitions List item, but not for a sailboat's or fishing boat's depth finder, unless they are specifically designed, modified, or configured for military use. Similarly, not any glowing compound, listed in the same Category as cryptography and presumably of equivalent military importance, requires an export license or the registration of the manufacturer. Only "chemiluminescent compounds... specifically designed or modified for military application" do.

The way the regulations are written, if a Munitions List item is not specified as military, it is then "deemed" to be intrinsically military in nature. Similarly, "metal embrittling agents" also in the same category as cryptographic software, are totally unqualified, and are therefore "deemed" as intrinsically military in nature.

Alternatively, some measurable characteristic of a dual use item is used to distinguish the civilian item from the military. Thus chips that are intended for military use are further distinguished by their clock rates. Since there is no agreed upon measurement of cryptographic strength (hmm, 10 Shannons of security?) this alternative is not workable.

If you aren't there when the legal turkey is carved, you don't get a slice. You can call this Taber's Law of laws. Somebody was there from the semiconductor industry, and that is why there is a clock rate escape for civilian export. Somebody was there from con-

sumer electronics and managed to get sailboat depth finders exempted. Nobody was there from crypto or metal embrittling agents, so there are no exemptions.

The regulations should be corrected to exempt civilian and amateur cryptography. One needs to merely add the phrase "specifically designed or modified or configured for military use" to accomplish this.

It is important to correct the regulations. Cryptography is an essential ingredient for computer security, and is becoming a commonplace civilian item freely available to the end consumer. Wordperfect for example provides ordinary users with cryptographic software. The fact that Wordperfect's Lock is inept does not matter. If you export it quite innocently, Customs can seize it, probably your computer too, and you will be in Federal court trying to defend yourself pretty hopelessly against a criminal charge that carries a \$100,000 fine and two years imprisonment. The Miami case proves that the prosecutor will have no trouble convicting you. I expect the Dallas case to end in conviction if it ever comes to trial.

It is doubly important because cryptographic devices are becoming commonplace in home entertainment, as commonplace as video recorders. We are no longer in a situation where the law affected a very small and knowledgeable minority. It was a different story then — most of us involved in, or even just interested in cryptography are aware of the law. Some members of the American Cryptogram Association, for example, are retired NSA cryptanalysts.

Today, you can buy a Janiel video decoder at Sams. The law will have wide impact on the general public because cryptography is now a consumer item, and you cannot expect the general public to be knowledgeable in this area. It is unthinkable that the public will realize that the Janiel from Sams is legally classed with nukes, and has the same criminal liabilities. I doubt very much if Sams knows that before it can sell Janiels, it should have registered with the State Department as an Arms Dealer, whether or not Sams intends to export Janiels.

Uncorrected, the law leaves the public open to abuse, and the Government's willingness to prosecute in the Miami case and its current criminal investigation in the Dallas case does not bode well for the public.

The public can be expected to know that firearms are controlled commodities, though perhaps it won't understand the details. The public cannot be expected to know that TV sets for satellite reception, or word processors that we use like typewriters, are, because of an outdated law, legally weapons.

If the law cannot be corrected for crypto, perhaps because of NSA's opposition, then I'm for striking the cryptography provision entirely from the books. The law would still control export of genuinely military crypto systems — those so secret they are not named in the regulations (Category XVII). Drastic perhaps, but legal abuse of the public in the name of foreign policy cannot be tolerated.

John

■



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(See: Business applications)

**S**

**Science & Engineering**

123 SCIENCE & ENGINEERING TEMPLATES	0112
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**Science & Engineering—Astronomy**

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STARFINDER	0030
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**Shareware**  
(Shareware packages are classed under subject; i.e., Spreadsheet, Data Base, Word Processing.)

**Spreadsheet programs**  
(For Lotus/Symphony Templates, see: Lotus)

As Easy As 3.01B	0333
FREECALC 1.0	0006
InstaCalc 2.0	0249
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**Statistics**  
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**Style checkers**  
(See: Word Processing)

**Symphony templates, utilities, etc.**  
(See: Lotus—Symphony)

**T**

**Taxes**  
(See: Financial applications—Taxes)

**Templates**  
(See under: Lotus, Lotus—Symphony, dBase Utilities)

**Terminal emulators**  
(See: Communications—Terminal emulators)

**Terminate and stay resident**  
(See: Utilities—DOS, Disk, & Drive utilities; see also the type of application.)

**Text editors**  
(See: Word Processing; also: Editors)

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**Typing tutors**

FASTYPE	0055
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**U**

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PiCnix 3.00	0352 2 disks
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**Utilities Disks**

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Baker's Dozen	0218
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Disk Commando 2.0	0254
DISK DRIVE UTILITIES	0071

HDTest 4.41	0312
Master Key Utilities 1.7C	0221
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Powerk! 1.8	0324
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**Utilities—S.25/3.5 Disk Organization**

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DISKCAT 4.3f	0039
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**Utilities—ARcing**

ARCA 1.22 (Buerg Utilities)	0160
ARCE 3.0A (Buerg Utilities)	0160
Archive Programs Disk	0173
ArchMaster 2.1	0248
ARC.V.1.17 (Buerg Utilities)	0160
LU (Buerg Utilities)	0160
PKPAK 3.61	0320
SQUISH 3.3 (Buerg Utilities)	0180
Zoo 2.01	0318

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**Utilities—DOS Shell/Menu**

AutoMenu 3.01	8812
Directory Scanner 3.20	0387
DOSamato 2.0	0161
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JADU 1.0	0290
Magic Menus 1.00A	0258
Overview 2.00	0282
PC Dashboard 1.07	0350
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PowerMenu 2.15	0314
SHORTCUT 1.12	8601
Sul River Shell 2.38	0219

**Utilities—DOS Utilities**  
(See also DOS Information)

AUTODATE 1.0	0160
DOLIST 2.6	0346
Kopy 1.1	0218
Mark/Release 2.6	0359
MEMDUMP	8308
NTPCUG DOS SIG Disk #1	0366
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RECALL, DOS commands	0027
Resident DOS Utilities	0210
SDIR22 (new LD for PC-DOS 2.0)	8311
SORTDEMO, compares diff. sorts	8311
SPEED411, speedup for DOS 2x	0004
SPEEDUP	8200
SYSTAT (Hardware configuration)	8308
UTIL 1.63	8409
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WAIT, DOS time delay	8308
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DL_EXE & DB_EXE 2.01	0358
DOS PATCH UTILITY 1.20	0053
File Friend	0162
LBR utilities	0027
LD [List Directory]	8301
LD [List Directory], documentation	8302
MasDir 3.2e	0288
TOUCH, change file time/date stamp	0059
TRANSFER, display msg for disk swap	0008

**Utilities—Keyboard/Screen Utilities**

CAPSLOCK	8308
CAPSLOCK, turn on	0012
Clear screen	8308
Fansi-Console 2.00M	0278 2 disks
NEWKEY, a keyboard enhancer	8405
SIGNAL, "Beep", then press any key	0030
UPNUM, Caps Lock or Num Lock on	0004

Utilities-Printer Utilities

	Disk Number
BANNER	0030
BPRINT	8308
COVER	8603
Envelope printing	0335
EPSON, set up printer	8307
FPRINT, print spooler	0059
Grab 3.7	0335
LP 1.4 (OM ML82)	0180
LP 1.6 (HP LaserJet)	0180
LD 2.11	0184
MPM-PRINT (Epson printer IBM graphics)	8601
MX, printer setup program	8308
OKI 1.1	0180
OKI-KEY	0027
OKI-SET	0027
OKISET 1.0	0180
ON-SIDE 1.00	0305
Printer Utilities #1	0335

SPOOLER	8311
SWPTR, swap defined printer	0004
TINY, for Epson printer	8603

Word Processing

	Disk Number
EasyWriter, instructions to copy disks	8302
Galaxy 2.4	0334
INDEX, for a document	0059
Multi-Ligal Scribe 2.0	0323
New York Word 2.2	0222
Outlines! 3.16	0167
PC-STYLE	8608
PC-Type+	0146 3 disks
PC-Write 3.01	0321 3 disks
TEXTPROC	8308
WordCruncher DEMO	0272
WordPerfect 5.0 Demo	0355
Word Processing for Kids 2.1	0183
WordStar customizing	8302
WordStar, STRIP	0030
WORDEDIT, remove control char.	0059

V

Virus protection	Disk Number
FluShot+ 1.0	0267

W

Windows	Disk Number
Winframe	0274

DOM Particulars

The North Texas PC Users Group copies these programs 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 system and use. 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. We will gladly and without question exchange an unreadable disk for one of the same program.

EXCHANGE: All members of the club are encouraged to contribute copies of public domain programs to the club library. For each new disk of software contributed, you may select any disk in the club library in exchange. The contributions will be reviewed before credit is issued at the next meeting.



North Texas PC Users Group Disk Order Form

QUANTITY	DISK NUMBER (and Description)	# OF DISKS IN SET	PRICE EACH	AMOUNT

5 1/4 Disks

Total number of disks and total amount		XXXXXXXX	
Shipping and Handling - \$2 for each 5 disks		XXXXXXXX	
TOTAL if ordering 5.25 disks =			

3.5 Disks

Total number of 5.25 disks chosen		
For total number of 3.5 disks in order, divide by 2 =		
Times \$3.00 for each 3.5 disk =	\$	
Shipping and Handling - \$2.00 for each 5 disks =	\$	
TOTAL if ordering 3.5 disks =		\$



## A Review of PC Magazine DOS Power Tools

by Matt Mathews, M.A.

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Why would anyone spend \$44.95 for a bigger book than the DOS manual to learn about DOS? Perhaps because the Executive Editor of PC Magazine can clearly communicate how to use DOS, with all its tricks, pitfalls, and shortcomings in a more straightforward manner than the tersely written DOS manual. Paul Somerson introduces his book by saying that no matter how experienced you are, you are always a beginner. That is, while you may know a few programs well, you become a fumbling beginner again when faced with a new package. Using a computer is difficult—unless someone shows you the ropes that you need to know—and the ropes you can skip.

Even more than PC Magazine, DOS Power Tools is packed with plenty of "how to's" and productivity tips. This mammoth, 1275-page book comes with a 5.25-inch disk containing over 200 short, utility programs to help you use your PC to its fullest. (PC Magazine subscribers may have already received many of these programs with a subscription; many are unique to this disk.) The book is directed to users who have at least some experience with DOS, yet want to wring more power out of their systems. Without question, this book contains more techniques and tricks than similar offerings. It contains information on undocumented DOS commands and variables, as well as step-by-step instructions on how to use them. The book is organized and indexed well enough to let you easily find what you are looking for quickly.

The first section, "Getting Up to Speed," deals with some of the history of the development of DOS and fundamental information on filenames, paths, setting up subdirectories, RAM disks, and using basic AUTOEXEC.BAT and CONFIG.SYS files. Somerson is not at all bashful about coaching his readers to tinker with a working copy of COMMAND.COM in order to produce special effects. At the same time, he is liberal with cautions when the operations he suggests could cause damage to your files or endanger the operation of your system.

The second section covers DOS's "Edsel" line editor, EDLIN, as well as DEBUG, and the DOS device drivers (ANSI.SYS, VDISK.SYS, etc.). Somerson makes a good case for all but the most casual user to learn how to use these often-overlooked tools.

The real meat of the book is in the section called "Power User Secrets." Here, Somerson explores how to soup up your batch files with the powerful, but

little-used (and badly named) ERRORLEVEL test. Rather than just run a standard set of DOS commands in batch files straight through the same way every time, you can have your batch files prompt the user for choices with powerful jumping, looping, skipping, and branching techniques. He can even make hexadecimal arithmetic seem easy and interesting to non-programmers.

Not all of the accompanying utilities can be used with all DOS versions or on all computer systems. Somerson recommends that you use the latest (reliable) version of DOS (Version 3.3 or 3.31); but by all means, use at least version 2.1. Many of the utilities are to support enhanced video graphics (EGA). DOS color support has not been upgraded since the CGA standard was introduced (circa 1982?). Other utilities are specifically for use with the new PS/2 systems. There are no utilities for DOS version 4.0. Clearly, there is a lot of life left in versions 2.1 through 3.31.

Remember how you thought you would never fill up 20 Meg (or 60!) of storage on your first hard disk? And now you struggle to keep space for your current work. Your DOS directory may be an area ripe for pruning. Somerson suggests which DOS files you do not need to have on your hard disk. And he exposes RECOVER.COM as the most dangerous command on your disk!

If you are tired of "just getting by" with the way your machine is configured, DOS Power Tools needs to find a home on your reference shelf. This book can help you review or master the basics of DOS, or become the resident DOS guru if you are so inclined. This is definitely not light reading, but it is written in a way that you can quickly find the trick or technique that you need.

My only criticism of the book is the style tends to be a bit uneven. Most of the time information is explained in enough detail for beginners to follow, but occasionally examples are not realistic (such as using a path name like \LIONS\TIGERS\AND\BEARS). On a few occasions, explanations suddenly jump off into the depths of using DEBUG. Usually, Somerson warns you before the water gets deep, so you can easily bypass the discussion that you don't want. There are very few illustrations in the book, but the depth of explanation and many examples more than make up for this.

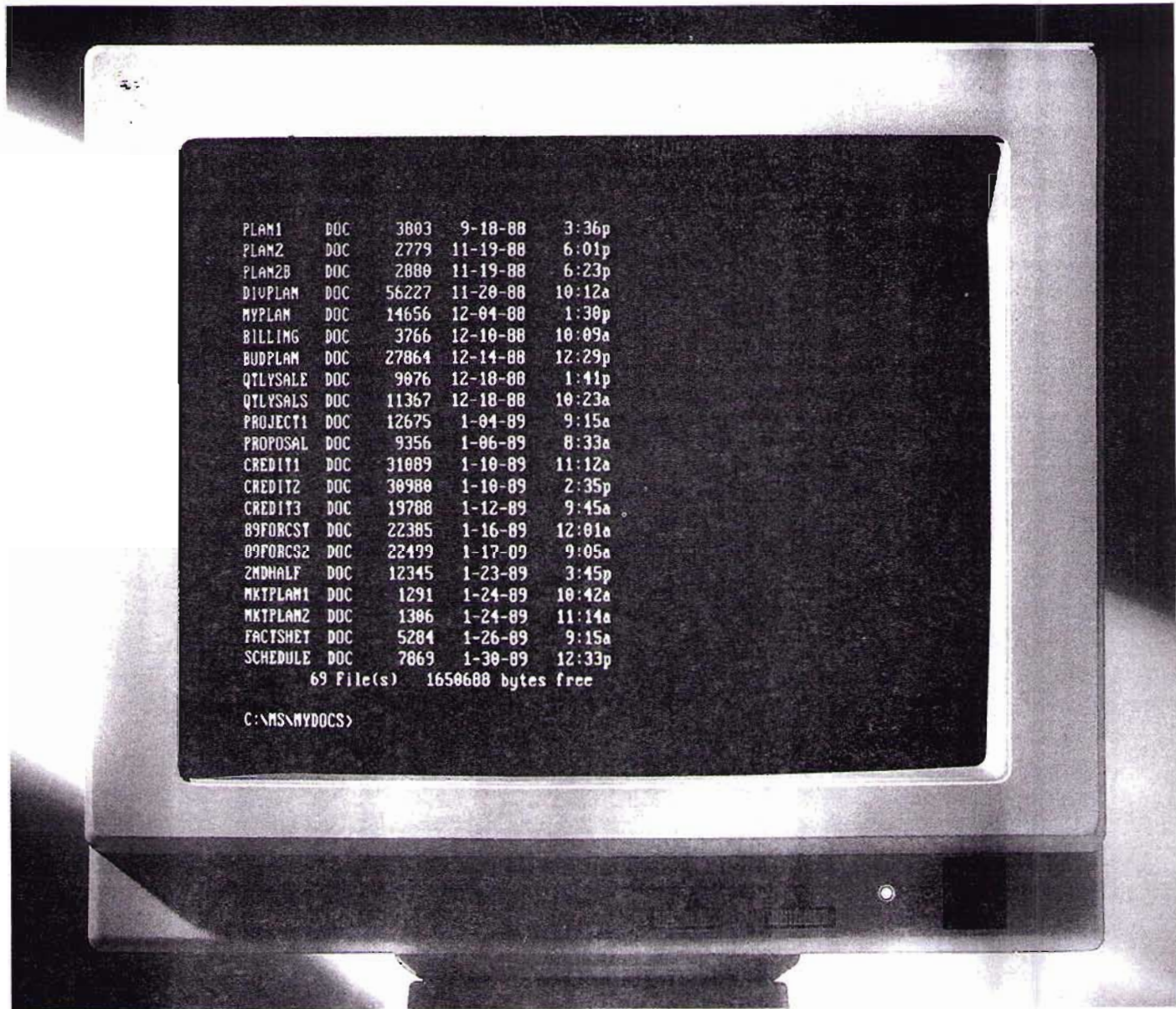
On the whole, the book is well researched and well written. The accompanying programs alone could be worth the price of the book to you. Get DOS Power Tools and leave the DOS manual to those who already know the answers.

PC Magazine DOS Power Tools: techniques, tricks and utilities. Paul Somerson. New York: Bantam Computer Books, 1988. ISBN 0-553-34526-5

Matt

■

# Do they call it a hard drive it's so hard to find what you want



You're looking for a specific piece of information on your PC. But you can't remember which memo, spreadsheet or even which file it's contained in.

And you're certainly not about to

search through each directory, much less load and unload every file to find it.

That's why we created Magellan.<sup>®</sup> The first utility that helps you find your files by letting you instantly see their contents as

# Hard disk because at you're looking for?

they appear in your favorite applications.

Without even having to load the specific applications that created the file.

With Magellan, all you need is a general idea of what you're looking for.

Because unlike other programs, the Magellan Explore function can perform a search on a phrase, a topic, an idea or even an entire file. Not just key words.

Then it lists your "found" files on the left of your screen in order of how relevant the contents

are to the search topic.

As fast as you can scroll down this list, the Magellan SpeedView function instantly displays

the complete contents of each file on the right of your screen, highlighting the relevant text for you.

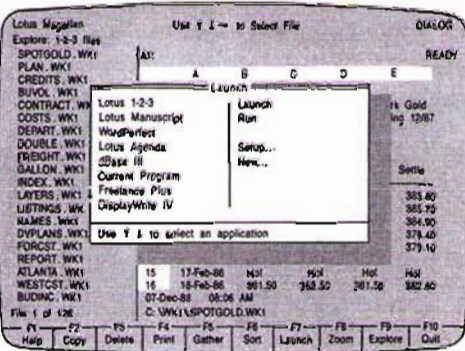
Using the information is easiest of all. Because all it takes is one keystroke to launch into the application that created the file, and it'll be loaded and ready to go.

Or you could use Magellan to gather the

information you choose from several different applications (like a 1-2-3<sup>®</sup> spreadsheet and a WordPerfect<sup>®</sup> memo)<sup>1</sup> and put it into a single file so you can start using it right away.

Best of all, you're productive literally

five minutes after installing Magellan. The menus are intuitive, and everything you need to run the program is on the screen right



With one keystroke, Magellan loads the selected file and application, in this case 1-2-3, so you're ready to go to work.

in front of you. Which means that there is virtually no learning curve.

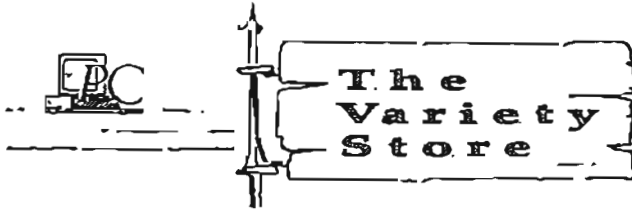
**Call 1-800-345-1043 for your free Magellan demo kit.** Ask for ALG-3593 to learn more on why Magellan is the quickest, easiest way to access all the information on your hard disk.

That way, you can spend time working with information, instead of just looking for it on your PC.



## Introducing Lotus Magellan

International dBase and MultiMate are registered trademarks of Ashton-Tate Corporation. WordStar is a registered trademark of Micropro International Corporation. Microsoft is a registered trademark of Microsoft Corporation.



## Future Looks Mostly Two-Tiered - PC Users Now Segregated By CPU's

Time has finally arrived when the vaunted "backward compatibility" that made IBM's choice of the Intel 8088 so important to PC development is apparently fading. Concept of one software package designed to run on all PC's from original PC's, PC/AT's to 80386 powered PC's is edging toward extinction.

Lotus appears to have given up on one 1-2-3 version 3.0 running across all PC types. Rumors abound (probably product announcements by press time) that there will be two new versions, including a 1-2-3 version 2.2 for original PC's and PC/XT's. This follows Microsoft's lead with *Excel* for 80286 machines (and higher powered 80386 PC's) coupled with a new release of *Multiplan* to continue service on 8088/8086 machines.

Microsoft's new *WORD 5.0* will continue to work across the spectrum, but *Samna's Ami* is restricted to AT's. Rumors are circulating that part of MS's problems getting *WORD 5.0* into release involve programming techniques necessary to force the program into 8088-capable dimensions.

Memory space, CPU power and video speed demands are the culprits. Look for more "two-tiered" product releases in the future.

## We Thought So All Along... Seagate Admits Quality Problems In Disks

David Issac, writing in the March 15, 1989 edition of *PC WEEK*, confirmed what many hard-disk users have suspcioned over the last two years: Seagate Technology has been experiencing unusually high failure rates in its drives. Sources quoted in the article describing Seagate's QC problems gave figures ranging from 5 - 25% failure rates on drives within 90 days of installation.

Sources quoted are quick to add that Seagate is aware of the problems and has begun taking steps to rectify the quality situation. Even so, they state, failure rates are still roughly 10 times the industry norm. A disturbing note was the implication in the article that "favored" distributors (several were named) receive higher quality drives than other distributors.

## Another "Super Font" Cartridge For The LaserJet - Pacific Data Products Releases 25 Cartridges in One!

Boasting all 103 fonts found in Hewlett/Packard's accessory cartridges (25) Pacific Data Products' *25 Cartridges in*

*One!* was announced with a list price of \$399 in March. According to the makers, the new product is accompanied with drivers for 1-2-3, *MS WORD*, *Multimate Advantage II*, *WordPerfect 4.2* and *5.0*.

Drivers are also available for *WordStar 2000*, *Q&A*, *XyWrite* and MS *WINDOWS*-based Aldus *PageMaker*, *Samna's Ami* and Microsoft *Excel*.

Fonts included in *25 Cartridges in One!* include landscape and portrait versions of Courier, Times Roman, Helvetica, Letter Gothic, three Line Draw fonts and others ranging from 4.8 points to 18 points in size. All fonts include bold and italic faces.

## Intel Enters Great RISC Race With I860 - Super PC's, Workstations May Revive UNIX

There's a frantic race for dominance in the desk-top power struggle, and Reduced Instruction Set (RISC) is the newest keyword in CPU designs. Intel jumped into the race with announcement of the I860 CPU chip in March.

The I860 chip comes with specifications that places the huge chip firmly in the competition for the Super PC or work-station market. Containing more than 1,000,000 transistors, the I860 has standard CPU functions, floating-point processing with 3D graphics instructions, cache memory and memory management built in.

Intel's announcement clears some confusion. Rumors said the chip was originally designed as a co-processor for the coming 80486 chip.

## UNIX Sneaks in the Back Door with Super PC's

Software. According to Intel, work to port UNIX to the new chip is proceeding rapidly. Why UNIX? Intel's I860, joined by the 88000 and SPARC RISC processors, are the basis for the coming generation of Super PC's/Workstations expected to bridge the gap between business and technical users.

UNIX in one variant or another is the Lingua Franca of machines at this level. *X-Windows*, the "friendly" interface to UNIX, is seen as key to getting the machines into the business world where UNIX in its common forms is considered "too technical and difficult" for users.

## 80386SX Made "Slow" 80286's Obsolete, Didn't It? Compaq Announces New, Low-End 80286 Machines

Everybody told us the 80286 would be "dead" the day the first 80386SX went out Intel's door. Apparently Compaq and others didn't believe it. Compaq introduced a new, smaller 80286-powered PC, the Deskpro 286e, in April. ▶

## ON COMPLEXITY

No. 27 in a Series

Jim Hoisington

Many years ago, I was hired by Department of Mental Health in another state into a group that was designing a community based mental health care delivery system. My first assignment was to read through an 800 page document that summarized a community based mental health care system that failed. Fortunately for us, someone had gotten a grant to document the whole project, short comings and all, before it was closed down. That document kept all of us from making a lot of mistakes in designing the new care system.

I have now worked with computers for a quarter of a century. During that time, I have seen a lot of systems fail. Unfortunately, we never have the time nor the desire to document the cause of failure. That may account for the large number of computer systems that fail.

Let me throw out some reasons why I think computer systems fail to see if you recognize them:

It gives the answers too late for the information to be useful.

It requires information that the user does not have, so the user makes up information to satisfy the input requirements. (I.e. Garbage In - Garbage Out.)

It gives the answers in a form meaningful to a rocket scientist but completely indecipherable to the rest of the human race.

It requires input from the user but never gives any answers. The answers are given to headquarters.

It gives answers that are valid, but of no use to the user.

It give three different answers to the same question.

It doesn't require input from the user nor does the user get any answers. But it ties us to the computer for 48 hours straight and results in a staggering bill to the user's department for computer time.

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### The Variety Store Continued

Compaq isn't alone. Several makers announced new 80286 models this Spring, many of which are priced several hundred dollars below either Compaq's or IBM's 80286 offerings. A number of these machines are very, very fast with 20 and 25 MHz chips that compete directly with 80386 PC's when running present software.

Meanwhile, IBM delayed announcement of its 80386SX machine...

Intel isn't too happy with that. They are sole source for 80386 and 80386SX CPU chips, but don't make the high-speed 80286 chips featured in most of these low-price screamers.

I'm sure there are more, but we rarely take the time to figure out what went wrong. Usually, we throw everything out and start over. And, we call the new work "system maintenance".

The worst case of system failure that I have seen was a computer system that appeared to be working until it was audited. This system produced a daily inventory of products that were finished and ready for shipment in a manufacturing plant. It was run every weekday morning at 5:00 and distributed throughout the plant by 7:00.

I worked in the division headquarters staff and was responsible for the computer functions at our eight manufacturing plants. As part of my duties, I had to go sit in on the exit report from an auditor that had spent a week auditing the data processing function. Besides me, the people present at the report were the auditor, the MIS manager and his boss, the accounting manager.

After covering several other areas, the auditor focused on the daily inventory report. He asked the MIS manager, "Do you realize that when certain production figures were sent in by the various departments that the report gives random inventory levels?"

The manager answered, "Yes, I remember that the users said something about that. But, they quit complaining after a couple of years so it must have not been significant."

The auditor responded, "I went out into the production departments at 7:00 to see how they used this report. They all throw it away because they don't trust the numbers on it."

Now beginning to get angry, the MIS manager retorted, "Well, that's their problem. We run this report to make their jobs easier. If they choose not to use it, then they only hurt themselves!"

By now I figured that this was heading toward some awful conclusion and I was right. The auditor's next statement significantly shortened the MIS manager's career with the company.

"Because you have not listened to the users and because the users do not look at your report, you have carried an additional five million dollars of products in inventory. We have paid tax every year on that inventory."

"How are you so sure that that is not real inventory?" asked the MIS manager walking into the trap.

"Because your report has it stored in storage areas that were torn down over four years ago!"

Jim

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## Selected SIG Happenings

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### 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

This report on happenings in the Assembler SIG covers several meetings due to the club meeting on the third Saturday in February and the recent decision to move the NTPC News deadline back to the week prior to the fall of Babylon at the hands of Alexander The Great.

At the February meeting we were pleased to have a presentation by Frank Cavallito on the APL language and its integration with assembler. Although most members of the SIG knew little about APL at the start of the meeting, they had a good idea of the strengths and structure of the language by the end. A lively discussion ensued and several people who also program professionally in APL contributed usefully to the examples.

In March Frank tied up some loose ends from the February meeting. On behalf of the SIG, I would like to thank him for a very well prepared presentation.

At the forthcoming May meeting the SIG reverts to the more normal "stream of semi-consciousness" that characterizes assembly language programmers at 9am on Saturday. Tentatively, Lee Meador will make a presentation at the June meeting, at which he will discuss how DOS allocates file handles and discuss a utility that he wrote to dump DOS file to the screen. Such a utility is useful if one wishes to ascertain whether an application is leaving files open.

#### Genealogy SIG

At the March meeting of the Genealogy SIG, the FIRST FAMILY genealogy software program was presented by Brad Lapsley. FIRST FAMILY is produced by Computerology, Inc., of San Antonio, Texas. It could be characterized as follows:

- A lean and mean, menu-driven program of 5 interrelated files—Person, Marriage, Footnote, Textfile, and Source—all of which may be Sorted, Listed, Edited, and Charted.

- Very flexible—a virtually unlimited number of people, marriages, children, wives, generations, etc. Additional data fields may be added to fit anyone's needs and interests.

- Chart production is a SPECIALITY of FIRST FAMILY, which produces charts with up to 35 generations in ancestor or descendant charts.

- Very economical use of data memory—approximately 1,500 personal files, plus 450 marriage files take up only approximately 175,000 bytes of space.

- Relatively inexpensive at only \$89.00, including documentation.

- It is for use on IBM compatibles only.

Partly because of the high flexibility factor, FIRST FAMILY is not now GEDCOM compatible. After the GEDCOM parameters are completely finalized, FIRST FAMILY will probably be made compatible in a future update.

Mr. Lapsley also presented a stand-alone program called ++FOCUS-WARE++, which is designed to produce, store, and print out time-line charts (Gantt Charts) specifically designed for Genealogical usage. These will show the birth, marriage, and

death dates of approximately 25-30 people on a horizontal bar graph. It will graphically display the life spans of, for example, a man, his three wives, and their thirteen children. This is being produced by Dr. Howard McAlla, and will be available @ \$9.95, complete with documentation, in the very near future.

Further information on both of these programs may be obtained

#### Cryptanalysis SIG

By the time you read this, the Cryptanalysis SIG will be tackling the Playfair cipher. Download the Playfair tutorial, TUTOR5, from the Cryptan Sig conference, and work your way through it. Try to do the first problem at the end of the tutorial in time for our May meeting.

I'm pleased that we have gotten this far. The Playfair is pretty sophisticated for a pencil and paper cipher. It is also very simple and quite elegant. It's simplicity makes it a good introduction to a whole class of modern ciphers known as block ciphers, the best known of which is the Data Encryption Standard. Completing this tutorial will get us to intermediate, some might say advanced, cryptanalysis.

Newcomers are still welcome to attend our meetings. However, the Playfair will probably be too advanced for newcomers if they have no prior code breaking practice.

#### Lotus SIG

The subject of the April meeting was macro commands that allow for keyboard interaction. These are also known as interactive macro commands. This presentation got started a little late because the SIG received information concerning Lotus 1-2-3

release 2.2 and release 3. Mark browsed the information in the meeting and mentioning some of the more important features. Mark Hopes to have this information copied for next months meeting. Also presented was a review of The Spreadsheet Toolbox which is an add-in for 1-2-3.

The presentation of the interactive macro commands was well received and many of the members were rather amazed at how simple many of these commands are to use and understand. The manual refers to these commands as "advanced" which is totally inaccurate. These interactive commands can be used by anyone who is not afraid of trying. Hopefully those who attended the meeting will be able go forth and create interactive macros with confidence.

The subject for the May meeting of the Lotus SIG will be on macro commands that control program flow in a macro. These commands include branching, looping, and conditional macro commands. The presentation will illustrate various uses of the commands and even combine them with some of the interactive commands discussed in April.

Any one type of macro command is generally not very helpful. But when combined with other types of macro commands, macros can do some wonderful, even amazing things. To get a start in this direction, come by and see us in May.

The Lotus SIG always takes time to questions about 1-2-3, Symphony, or other Lotus product. If you have a question or a problem, come on by and see us this month.

Mark Gruner  
and Pat Henley

**Personal Users (Beginners) SIG**

This SIG (Special Interest Group) is for you!....if you consider yourself any of the following:

- ...a personal (versus professional PC user)
- ...a beginner with PCs
- ...a soon-to-be PC owner
- ...a novice
- ...a person curious about PCs
- ...a new PC owner
- ...a PC user needing some "fundamentals" review...

We offer 16 individual, stand alone classes covering the fundamentals of PCs. Four classes are offered at each monthly meeting of the North Texas PC Users Group (2nd or 3rd Saturday on the 7th floor at the Infomart). After four monthly meetings (covering four classes each), the entire 16-class curriculum is begun again.

The classes start each month at 9:00 AM, 10:00 AM, 12:00 noon, and 1:00 PM. Since each class is a "stand-alone"...i.e. self-contained and not requiring prerequisite other classes...you can begin attending at any time convenient to your schedule. Each class has a set of handout notes to allow your review later and to allow your undivided attention to the instructor during his or her presentation.

There are no homework requirements, no pressures, no tests, and no dumb questions. You don't even have to be a member of NTPCUG before you attend...ALTHOUGH YOU ARE ENCOURAGED TO JOIN NTPCUG AND VOLUNTEER YOUR TALENTS. This 16-class curriculum of PC fundamentals is designed to be the kind of learning experience you always wished existed...where you would be accepted just as you are, and where you could gain knowledge without hassles...and best of all...the classes are FREE.

Our May classes will be:

- 9:00 AM-Class 5.1-Fixed Disk Directories, Batches, & Paths
- 10:00 AM-Class 6.0-DOS Menu Systems on Fixed Disks
- 12:00 Noon-Class 7.1-Fundamentals of Lotus 123
- 1:00 PM-Class 8.2-Fundamentals of "Basic" Language

Join us and learn and review "THE FUNDAMENTALS."

Bob Presley  
& Vincent Gaines

North Texas PC Users Group		
Personal Users (Beginners) Special Interest Group		
"Fundamentals of Personal Computers" 16-Class Revolving Schedule		
Infomart Saturday	class Number	Class Title/Description
8 Apr 89	1.2	Start Up
& 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 Languages
& Oct 89	10.4	NTPCUG Disk of the Month Library
Classes	11.1	PC Graphics Modes
9 thru 12	12.1	Bulletin Boards & Archive Programs
Jul 89	13.0	Printer Setup
& Nov 89	14.0	Writing Lotus MACROS
Classes	15.0	Major Categories of Software Available Today
13 thru 16	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!



# Inside the North Texas PC Users Group Community

Connie Andrews, Volunteer Coordinator  
 Andy Oliver, Assistant Volunteer Coordinator

There is a former anchor we didn't mention last month. She has been a mainstay at the Information Booth for many, many moons now and belongs in a category all her own. Connie Testa has worked for the Group as an hourly volunteer, as an Anchor at the Information Booth, and in her present capacity as Group Statistician. She is also a member of the Dallas Personal Robotics Users Group.

Her contribution to the NTPCUG is vital. She sees to it that all the new members and renewals who sign up on meeting day are properly accounted for and passed on to our Membership Director. And she is responsible for an accounting to the Treasurer after each meeting. Not an easy task, but one she has performed so efficiently that she makes it look easy. It's not. For doing it, and doing it very well, thank you Connie.

Our meeting date schedules and newsletter deadlines have played havoc with publishing volunteer efforts in a timely manner. Looks like the two-month rule will apply for awhile. That is, names you see in this issue are of volunteers who worked two months previous. In this issue we are acknowledging volunteers for the month of March.

Remember that our officers, directors, SIG coordinators and leaders, newsletter publisher, editor, staff and writers are all volunteers. Their commitments are ongoing through the year and you will find their names listed in other sections of this newsletter.

Don't forget that 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.

**INFOMART Liaison:**

Stuart Yarus  
 Robert Hilliard  
 Bob Russell  
 Sami Mikhail

Juanita Taylor  
 Connie Testa (Statistician)  
 Larry Tucker (Anchor)  
 Raul Vela  
 Paul Williams (Anchor)

Kenneth Loafman  
 Pete Testa, BBS Liason  
 Ben Weatherall

**BBS Steering Committee**

Andrew Chalk  
 Kent Cobb  
 David McGehee  
 Pete Testa  
 Fred Williams  
 BBS Champions  
 Kent Cobb  
 Andrine Stricherz  
 Pete Testa

**Presentation/Equipment Setup and Breakdown:**

Timothy Carmichael  
 John Ogle  
 Tom Fowlston  
 Martha Eickman

**Disk of the Month (DOM) Volunteers:**

DOM Table  
 Dan Allen  
 Preston Brashear  
 Gene Carleton  
 Charles Carter  
 Charles Cashion  
 Jay Chambliss  
 Don Chick  
 Kathryn Crawford  
 Bill Drissel  
 Shawn Dunn  
 Howard Hamilton  
 Pat Herley  
 E. M. Kelley  
 Ken Loafman  
 Duane Martin  
 Bob Post  
 Tom Scurlock  
 J. R. Stallworth  
 John Trotter  
 Oscar Tyler  
 Russel Walker  
 Claude Walston

**DOM Review/Presentation**

Mike Behrensmeyer  
 Kathryn Crawford (2)  
 Dean Duncan  
 Shawn Dunn  
 Vincent Gaines  
 Mark Gruner (2)  
 Steve Lanier (see below)  
 John Mackoy  
 Ken Shores

**Public Relations Committee**

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

**Information/Registration Booth**

Connie Andrews (Anchor)  
 Mike Ashley  
 K. B. Barton  
 Sybil Campbell  
 Lonny Cordell  
 John Dyer  
 Eta E. Eta  
 John Ferguson  
 Paul Fredd (Anchor)  
 Rex Gifford  
 Martin Gluck  
 Rick Griffith (Anchor)  
 Rodney Haas  
 Allan Harbaugh (Anchor)  
 John Hardman  
 Hank Holt  
 Tom Krieg (Anchor)  
 Peh L. Lee  
 John Mackoy (Anchor)  
 Claude McClure  
 Sarah McIntire  
 Andy Oliver (Anchor)  
 Raymond Reyes (Anchor)  
 Douglas Scott

**DOM Central Committee**

Preston Brashear  
 Charles Carter  
 Kathryn Crawford  
 Mark Gruner  
 Howard Hamilton

**Bulletin Board System**

(BBS) Volunteers:

BBS Sysops  
 Tom Prickett  
 Maggie Moomey

**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:**

<b>Auditorium Presentations</b>	
Timothy Carmichael	331-6303 (h)
	661-4626 (w)
<b>DOM Booth Activities</b>	
Bill Drissel	264-9680 (h)
<b>DOM Software Review</b>	
Howard Hamilton	644-5721 (h)
<b>General Information</b>	
Connie Andrews	828-0699 (h)
<b>Information Booth</b>	
Andy Oliver	223-4044 (h)

Steve Lanier has been involved in making review copy disks for the last six months or so. Our apologies, Steve, that your name has not appeared here before and thank you for your hard work.



# How Does the Public See PC Users?

*Is "Hacker" Really A Dirty Word?*

Reagan Andrews, Ph.D.

Something happened at the March Meeting that made me pause to reflect on the state of PC users groups – and the public's image of us. It was at the end of the DOS SIG.

One person came forward, introduced himself, said he was currently living in Spain, and asked if we could direct him to an "expert hacker."

"I'm having problems with a medical database in Germany," he exclaimed, and continued that he was looking for someone who could help him. I suggested that he try the Database SIG or the Advanced Programmers SIG, both of which would meet later in the day.

He continued to describe his problem to us with the following eventually becoming clear: He was working in "Holistic Medicine" with cancer patients and was attempting to expand his involvement into working with Auto-Immune Deficiency Syndrome (AIDS) patients in West Germany. What he wanted was a listing of individuals with AIDS that he knew was in a hospital database in Frankfurt but couldn't access.

Our initial impression was that the "access difficulty" was essentially software related. We were mistaken. He was looking for a "Hacker" in the current newspaper usage of the title, and was really interested in penetrating a security system designed to protect sensitive medical data from disclosure.

Why is this so appalling?

First, such an attempt will violate a significant number of state, federal and international laws and codes dealing with use of communications privacy. Second, medical ethics (and a number of state and federal laws) dictate that personal medical records are very confidential. Access to such records is very highly restricted and only open to medical personnel involved in patients' diagnosis and treatment. Unless the patient gives their permission, such records are usually available only via subpoena, and then with great difficulty.

People identified as HIV positive, or who are active AIDS patients are highly at risk in terms of personal, economic and social consequences should their condition be made public. This social aspect of the disease makes them unusually vulnerable to blackmail should such knowledge come to criminal hands.

Some consequences aren't at all pleasant to contemplate.

Several very unpleasant possibilities arise from the circumstances detailed above. Anyone who assists in penetrating the database in question probably becomes a felon and co-conspirator to subsequent, criminal acts committed, i.e., blackmail of the people with AIDS (PWA's) in the hospital database. Another is that once involved in this effort, the "Hacker" himself/herself is vulnerable to blackmail into other computer-related criminal efforts.

Purpose here isn't to remind us that this would be both unethical and criminal. We know that.

Question is what the general public thinks of PC users, and PC users groups. The above didn't occur in some darkened bar in the sleazy part of town. It happened at INFOMART, in front of 50 - 60 DOS SIG participants in broad daylight.

This man invited us to assist him in a criminal conspiracy as if he were asking for help with his CONFIG.SYS file on a home PC. There was no effort to conceal himself or his goals, no evasion, just a direct request for someone to help him penetrate a database.

Is this the legacy left us by the early days when "pirating" game software was a popular sport at some PCUG's?

I hope not. The North Texas PC Users Group has maintained a firm policy against such practices since our beginning in 1982. We have also been against copy protection that inconvenienced the legitimate user more than the Pirate and have actively discouraged such "protection" whenever possible.

There are "Hackers" in the Club, people who know PC's, DOS and the arcane aspects of programming at an intimate level. Back in the early days (1983) "Hacker" was a term of pride – an earned title that carried respect.

Now, "Hacker" appears to be a pejorative, an implication of mischief, potential vandalism or criminal intent and reserved for disturbed or twisted individuals. Newspapers, TV and magazines are filled with accounts of computer crime, viruses and malicious pranks which are often attributed to PC "Hackers."

Apparently, all PC users appear to have become tainted to some degree by association and suspect in the public view. It's tied somehow to the mystique of computers in general, and PC's in particular. There's a feeling that if we know about PC's, we must be capable of replicating War Games, invading personnel files or ruining credit ratings. It's become an aurora surrounding PC's. Most of it is negative, based on lurid media accounts and fear.

Result is a reputation we haven't earned and certainly don't deserve. One we'll have to fight vigorously to change.

Reagan

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## 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:**

<b>Payment:</b> Cash _____ Check _____ Credit Card _____	<b>Membership Classification:</b> Regular (\$24.00) _____ Student (\$12.00) _____ (full-time with ID)	<b>Application Status:</b> New Member _____ Renewal _____ Address Change _____
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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)      | <input type="checkbox"/> Information/Registration/Membership |
| <input type="checkbox"/> Disk of the Month (DOM)   | <input type="checkbox"/> Newsletter                          |
| <input type="checkbox"/> Equipment Setup/Breakdown | <input type="checkbox"/> Public Relations/Advertising        |
| <input type="checkbox"/> Financial/Bookkeeping     | <input type="checkbox"/> Special Interest Group Coordination |
| <input type="checkbox"/> INFOMART/Vendor Setup     |  |

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

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

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



10:00 AM - 12:00 AM

**Product Presentations – Rooms 7001 & 7011**  
Microsoft will show WORD 5.0, EXCELL, WORKS, Windows, OS/2.

2:00 PM - 3:00 PM

**Bill Gates, CEO of Microsoft**  
will speak in the Atrium.

## Special Interest Group Meetings



Some SIG meetings have been cancelled for May 20th. For others that could be cancelled, or 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> Assembler DOS Hardware Solutions Personal Users</p> <p><b>10:00 - 10:55</b> Astrometry Graphics NO MEETING MAY 20 Local Area Networks Personal Users</p>	<p><b>11:30 - 11:55</b> Orientation</p> <p><b>12:00 - 12:55</b> C Language Communications Personal Users RBase Stock Mkt Investing</p>	<p><b>1:00 - 1:55</b> Business Applications NO MEETING MAY 20 LOTUS Personal Users Turbo Pascal WORD</p> <p><b>2:00 - 2:55</b> Advanced Programmers NO MEETING MAY 20 Cryptanalysis NO MEETING MAY 20 DAC Easy Accounting Databases NO MEETING MAY 20</p>
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## North Texas PC Users Group, Inc.

P.O. Box 780068, Dallas, TX 75378-0068

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 Holsington, Chalman	Phil Chamberlain Sid Nolte, Ph.D.
Reagan Andrews, Ph.D.	Zack Porterfield

### Officers

President	Jim Holsington	(214)416-3101 h
	Volce Mall	(214)931-4428
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.	Ron Kerr	(214)360-0688 w (214)223-6743 h (214)596-2539
Disk of the Month Group Stalistician	Kathryn Crawford 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 Moomsey  
**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

<b>SIG Coordinator</b>	Phil Chamberlain Zack Porterfield	(214)243-5034h (214)434-1844 w
<b>Astrometry</b>	Arin Collins	(214)351-5137 h
<b>Assembler</b>	Andrew Chalk, Ph.D. Stan Milam	(214)226-3461 h (817)548-1573
<b>Business Applic.</b>	Bruce Schubert	(214)348-6700 w
<b>C Language</b>	Sid Nolte, Ph.D.	(214)233-6178 h
<b>Communications</b>	Pete Testa Wm. Bennett	(214)495-7506 (817)348-0862 h (817)762-3059 w
<b>Cryptanalysis</b>	John Taber John Thomas	Metro 430-8173 (214)680-1823
<b>DAC Software</b>	Put Shaw	(214)235-2559
<b>Databases</b>	Rodney Haas	(214)255-4400 h (214)404-4812 w
<b>DOS</b>	Jim Holsington Reagan Andrews, Ph.D.	(214)416-3101 h (214)828-0699 h
<b>Genealogy</b>	Minnie Champ	(214)644-8843 h
<b>Graphics</b>	Richard Tarreo	(214)307-1259 h
<b>Hdw Solutions</b>	David McGehee Gary Johnson	(214)681-0202 h (214)937-9876 w (214)937-5851 h
<b>Local Area Net</b>	Fred Williams Dan Marmion	(214)492-1315 (214)750-6130
<b>LOTUS</b>	Mark Gruner Pat Henley	(214)964-8174 h (214)229-9216 h
<b>Personal Users</b>	Bob Presley	(214)867-1879 h
<b>Programmers</b>	Kent Cobb Jim Holsington	(214)343-3554 (214)416-3101 h
<b>R-Base</b>	Alan Aberts Con Branham	(214)242-1094 w (214)352-0888 h
<b>Stock Market</b>	Cliff Murphy Richard Holerman	(214)279-7973 (214)341-4774 w
<b>Turbo Pascal</b>	Don Chick Stan Milam	(214)278-2524 h (817)548-1573
<b>WORD</b>	Reagan Andrews, Ph.D.	(214)828-0699
<b>Wordstar</b>	Quentin Marshall Cliff Kinard	(214)746-4880 (214)746-4880



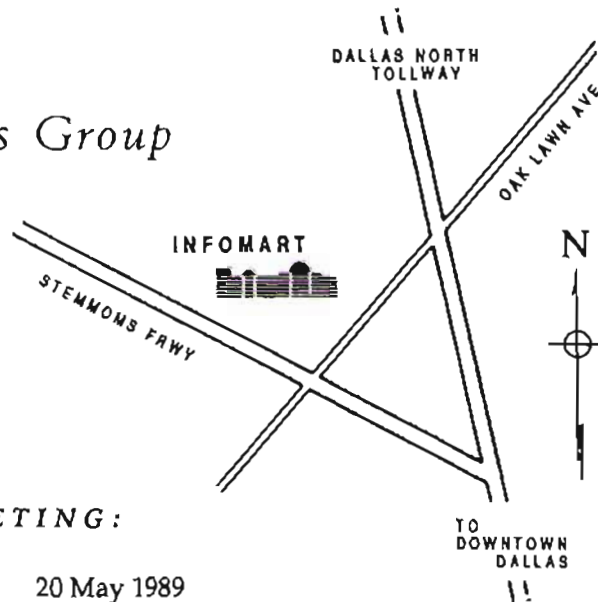
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*North Texas PC Users Group*



**NEXT MEETING:**

20 May 1989