



North Texas IBM PC Users Group

4.9
September 1985



North Texas PC NEWS
(STARMAIL ADDRESS 51563)

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

North Texas PC NEWS
2025 Rockcreek Drive
Arlington, TX 76010.

Editor
John Pribyl (817)275-4109
Programming Editor
Tom Prickett (214)690-9087
Software Review Editor
Dick Gall (214)234-8888
Advertising Manager
open

Illustrations by Mel. White and Marion Cutler

Copyright (c) by North Texas PC NEWS, 1985.
(Articles may be reproduced by other User Groups if credit is given to the author and the publication.)

Deadlines:

All material for publication in PC NEWS (articles and ads) must be received by the NEWS staff no later than the fourth Friday of the month prior to publication.

Articles:

Column width of articles is not critical, but please do not right-justify the copy. Article submission is preferred by modem (817-275-4109 or Startext 51563), or disk in ASCII format, unjustified. If you send a disk, please include a printed copy of the article to assure accuracy. Double spaced, typewritten copy is acceptable but must be received a week before the deadline.

Circulation:

North Texas PC NEWS circulation is 780. Member distribution is 611; remaining copies are distributed to PC user groups around the country, and to advertisers, prospective members and others with common interests.

September Program

The program for September was not determined at press time.

Mike Bouton, Program Chairman

Next PC NEWS deadline is Friday, September 27.

... from the Editor's desk.

I have occasion to see newsletters from many other PC user groups. An increasing number of them are dropping the letters IBM from their user group name. That is not to say they are no longer aimed at the family of IBM small computers... they are. According to their objectives, their interests include the IBM PC (Series) and compatibles. Some that no longer have "IBM" in their user group name are:

San Francisco Personal Computer Users Group
Tucson Computer Society
Pioneer Valley PC Users Group
The Corvallis PC Users Group
Southwest PC Users Group
Greater South Bay PC Users Group

The principal reason given for dropping the letters IBM from their name is that they do not want to (seemingly) close the door to people who own or have an interest in other PC-DOS/MS-DOS machines, the so-called IBM PC compatibles. It was with this in mind that the Board of Directors recommended we change the name of our group. I think this is a step in the right direction... We should recognize the fact that we have numerous interests in addition to the machine we used when we started the group three years ago. Let's change our name to eliminate the apparent conflict. Vote FOR the amendment!

Putting together the newsletter is a satisfying experience. Sometimes frustrating, but always interesting. During a normal month, when the deadline is one week before PC NEWS is mailed to you, preparation begins in earnest on Friday night. That's when most of the material comes in - by STARTEXT, by telephone, by mail... From that point through Tuesday it's usually nonstop manuscript preparation and repro assembly. Wednesday the reproducible manuscript goes to the printer, and Friday, the printed newsletter is mailed. Every third month there is an extra week between the deadline (fourth Friday) and the meeting. Then it becomes a delicious experience to prepare the newsletter in a relaxed atmosphere, where we can pay attention to detail, and can even quit for a while when we get tired, knowing there is still ample time to publish before the meeting... That's the way it is if everyone meets the deadline. Increasingly though, material is coming in after the deadline. I'll be the first to admit that sometimes this is unavoidable, and I do my best to accommodate the late submissions, but please, do your best too. Make the deadline!

We need a volunteer to spend four or five hours a month contacting advertisers for the newsletter. The Advertising Manager's position is still open. Call me if you are willing to handle it!

John

President's Corner

Our next meeting is September 14 at INFOMART. The scheduled meeting times will be the same as last month. The main meeting will be at 10:15, with SIGS at 9, 12:30 and 1:30. See inside for details. A number of INFOMART showrooms are expected to be open again, NOT including IBM. We are working on trying to get them to open up. The next three meeting dates are October 19, November 9, and December 14. Note that the October meeting is on the third Saturday. The cafeteria in INFOMART is expected to be open for breakfast at the September meeting - a real breakfast, not just doughnuts and coffee.

Volunteers

We still need people to help out at the information kiosk and DOM sales booth. The information kiosks at the front of INFOMART need you to help pass out INFOCARDS and new member applications. Two people should be on hand at all times except during the main meeting. Folks from other User Groups will man our kiosk during that meeting, as we will for them during their main meeting. Also, you can help distribute the Disks of the Month at our DOM table in the Vendor Area. Two people should also be on hand whenever the DOM table is open: 9-10 and 12-3.

Please contribute one hour to the User Group.

Jane Hughson is coordinating both efforts. Call her at home to schedule your hour. Her telephone number is (214) 262-0457.

Bylaws Amendments

Last month several questions were raised concerning the proposed name change for our group and the benefits of being a non-taxable corporation under IRS rules and regs. The answers are not all ready, but I hope to have appropriate responses and a method of voting available by the next meeting.

C Programmer's Notebook

A Look At the DeSmet C Compiler

by
Carrington Dixon

The DeSmet C compiler has been available for several years now and may be looked upon as a mature software product. A couple of years ago it was tested as a part of Byte Magazine's review of all of the then current C compilers. In terms of speed its programs generally came in first or second behind the Lattice C compiler. Its EXE files were among the smallest, if not the smallest. Several important compilers have been introduced since those tests were made, and all of the compilers tested have been revised (some several times); however, I think that it is still safe to say that the DeSmet is one of the fastest and produces some of the smallest EXE files of all the C compilers currently available. Its low price makes it the team that Borland is going to have to beat to make the rumored Turbo C compiler a success.

The DeSmet Compiler supports the C language as defined in Kernighan and Ritchie. It does not accept the UNIX Version 7 extensions such as structure assignment and enumerated data types. Variable names may be up to 31 characters long and an extension to allow in line assembly language code is provided. Despite C's vaunted portability, there do seem to be slight variations in what is acceptable code from compiler to compiler; the DeSmet seems to be no worse an offender in this regard than others.

The basic DeSmet package consists of the compiler, an assembler, linker, source lister and cross reference, standard and 8087 libraries, a library maintenance utility, compare and profile utilities. All for \$109; a source level debugger is available for an additional \$50. The package does not produce OBJ files of the standard (INTEL) form; those wishing to combine DeSmet object with that of some other vendor may purchase an DOS LINK support package which will convert the DeSmet output to standard form. Converted versions of the subroutine libraries are also included in this package. A full screen editor, SEE, was once part of the basic package but is now a separate purchase item (\$50).

The manual is not typeset but appears to have been printed on a letter quality printer with pro- ►

portional spacing. The manual discusses the running of all of the programs supported in the basic package as well as the source level debugger. It provides some guides to programming for the assembler and a discussion of all the 8086 and 8087 instructions. It is not, and is not meant to be, a tutorial for assembly or the C language. The discussion of the supplied library routines is relatively thorough; this is good as the subroutine library is usually the most unique part of any C compiler package. The routines in the standard library all seem to use DOS interfaces rather than BIOS calls. This means that EXE files will generally run even on non-clone MS-DOS machines. I shared EXE files with firends who have a TI Professional, and they have reported no problems. A set of BIOS dependant screen and keyboard handling routines are provided in source form.

The current compiler supports only the small memory model (64K code and 64K data); although, there have been rumors of a large memory model version for over a year. The linker program does support overlays. The implementation requires explicit overlay calls to have been placed in the source code; there is no automatic overlaying as exists on many mini and mainframe machines. The 8087 chip is supported only by library routines -- the compiler cannot generate 8087 instructions, only library calls. As I have already indicated, there are two versions of the standard library, one for systems with an 8087, another for those without one. There is no provision for testing for the 8087 at runtime; the decision must be made when the EXE file is created. Both the compiler and linker will run on the PCjr and PC-AT as well as the vanilla PC and XT.

Support: Updates are available periodically; an occasional newsletter is used to inform registered users of the new update. The current policy prices all updates at \$20. The newsletter lists all of the bugs that have been found (and fixed) and any other changes that may have occurred in the latest version. I have not had a need to use the technical hotline number, but those who have used it have been generally pleased with the response.

I cannot comment on the debugger, as I do not have that option. I have been generally please with everything else about the DeSmet products. I originally purchased it because I had become very

disenchanted with the huge EXE files produced by the IBM/Microsoft Pascal compiler and wanted something that produce reasonable size EXE files without resorting to assembly language; it has never disappointed me in this regard. I have used it for several medium size software projects and a couple of prototyping jobs. Both of the latter were so successful that the prototype became the final product. I would judge that the compiler would be suitable for most large software projects that did not require the large memory model. The DeSmet compiler would seem to offer excellent value for the money and is in many ways the equal of compilers costing several times as much.

The DeSmet compiler is available locally or by mail from the publisher:

C Ware Corp.
P.O.Box C
Sunnyvale, CA 94087

Carrington

■

Adv.

TRACING A COMPILED LANGUAGE

I have developed a method of tracing a compiled language in a similar way to my Professional BASIC - ie a source level trace showing control flow, variables, arrays etc. The method is suitable for languages such as C, FORTRAN, COBOL, Pascal, Modula, Ada, BASIC, Algol etc. I have proven the method on the IBM PC for C programs, but it also applies to the 68000, the NS32032 and most other modern micros.

The source language needs to be in memory while tracing. The trace can be used for a range of speeds from single step through native speed with breakpoints. The compiler for the language has to be modified to generate extra information; I estimate this to be about an extra 5% of work for the compiler.

I am interested in talking to a software house to bring such a system to the marketplace. The method is capable of following all complexities of the language and showing all data types. Please contact Dr. Neil Bennett at (214)-422-5673 or 3420 Garner Lane, Plano TX 75023.

AN OPEN LETTER TO MEMBERS OF DCC AFFILIATE USER GROUPS

John McGinty, Chairman, Dallas Computer Council

Based on the combined membership of the DCC affiliated user groups, we are among the ten largest such organizations in the country. The DCC, however, is quite unique in structure. In other locations, a strong central organization is the parent to a number of subgroups which meet in different locations at different times. The subgroups are equivalent to our user groups, but are not separate organizations. The largest and best known example is the Boston Computer Society, with over 12,000 members. The DCC has been created as a service to its constituent affiliate groups, who remain as independent organizations. From the beginning, it has been an overriding concern of the Council to maintain the organizational integrity of each user group. We are unaware of any similar organization which sponsors coordinated user group meetings in the same location. And no group anywhere has access to a facility like Infomart. It is unique in the world. If ever there was a Mecca for computer users, Infomart is it. And we're there.

The arrangement for meeting space is specified in a formal agreement between Infomart and the Council. The current agreement extends through June 1986. Though direct sales are normally prohibited in Infomart, the agreement grants the Council a waiver to operate the vendor area. Rental of vendor tables to local retailers provides the income which pays a relatively modest monthly rental fee assessed by Infomart.

To obtain the reduced rental fee, the Council agreed to forego several services normally provided to renters. For example, special meeting room set-ups (seating arrangements) are not provided. We get the rooms as they are set-up. User group members may move the furniture around during their meetings but are asked to return it to its original arrangement. Also, special cleanups are not covered. For that reason, we ask special care in keeping the building neat and tidy. Use the wastebaskets for any refuse and help the Council stay on good terms with our landlord.

For safety's sake (and potential liability for injury), it is critical that young children attending user group meetings with their parents remain closely supervised. Failure to comply will lead to a prompt firm eviction.

Infomart will permit user groups to bring in and use club or personally owned computer hardware and audio/visual equipment. It seems strange that a facility devoted to education has no fixed blackboards, but you won't find one in the building. A limited number of blackboards and flip charts are available for rent, but the charge is high considering we've all been taking them for granted in other locations.

There are a number of ways that user group members can contribute to a smoother transition. Infomart, for example, requires ID badges for everyone in the building. None of our groups have previously been required to distribute badges to our members. If each user group member would volunteer to help with the badges for one hour sometime during the next 12 months, the "problem" would be solved. Another simple way to help is to respect the scheduled meeting times for SIG and program sessions. Since different groups can be scheduled into the same rooms, it is important to vacate a room when time is up.

There is another very important area to which user group members can contribute. We need to communicate what we're doing to every computer user in the Metroplex. We have all joined our respective user groups because we perceived the benefits to be of value to us. Now is the time to really spread the word about the value of user group membership. Infomart is an attractive drawing card for prospective members, but a strong organization with useful programs will get them to join.

The Council representatives are firm in their belief that the steps taken thus far will lead to stronger user groups with more valuable offerings for their members. To gain those benefits, some changes and adjustments will be necessary. Fortunately, the changes are small and understandable--like leaving meeting rooms neat and organized, supervising children, volunteering to help with ID badges occasionally, vacating meeting rooms on schedule, and bringing in prospective members.

Dallas area user groups affiliated with the Council have a totally unique opportunity before them. It may take several years for us to become the largest user organization in the world, but with just a small amount of effort from each of our members, we can be the best--right now.

Special Interest Program Reports

Assembler SIG

MAIN TOPIC: Interrupt 21h, function 2ah, get system date; shortcomings of DOS manual documentation of interrupt calls were illustrated; code to convert binary data returned to ASCII characters was also discussed.

GROUP BUY OF MASM: Soft Warehouse (14580 E. Beltwood Pkwy., 387-8264) has Microsoft's version 3.0 assembler for \$99, no group buy required; unless a discount house is located with a much better price, the savings would hardly justify the hassle of carrying out a group buy.

NEXT MEETING: We'll cover simple file I/O.

John Wolley, SIG Chairman
WORK PHONE: (214)238-9443

BASIC Applications SIG

We're delighted to have, as our guest for September, an outstanding speaker to talk about Professional BASIC. You may wonder why BASIC is so slow, and why it is limited to 64K. Well, Professional BASIC operates 5 to 15 times faster, and can utilize a full 640K. Sold nationally (you can see the mail order ads in PC magazines), it is a product of Morgan Computing Co. in Carrollton, Texas.

Our guest speaker for September is Chris Morgan, president and founder of Morgan Computing. He will be speaking on Professional BASIC.

For anyone with an interest in BASIC, for anyone who has experienced frustration with execution speed or string or instruction capacity of BASIC, this is a most important program. We realize that we have been scheduled to meet early, at 9 o'clock. We think this is an important enough program to get you to Infomart early on September 14.

We had an excellent presentation in August by Enika Pearson, editor of Legal Assistant Today,

who spoke on interfacing DataStar, dBASE II and BASIC. Thank you, Enika.

John Keohane, SIG Chairman
WORK PHONE: (214)690-8092

C Language SIG

Mr. Don Killen, the President of Greenleaf Software presented the program for the August meeting of the C Language SIG. Don told us of his product line which includes the Greenleaf library of C functions for the IBM PC. This library contains more than 175 functions. All of the Greenleaf library packages support seven C compilers. Thanks Don, for a first rate program.

Our meeting room for the August meeting was overcrowded as those of you in attendance know. We are asking the program committee for a larger room for next time and hope that we will all be able to have a chair for the next session.

No formal presentation is planned for the September meeting. We will devote the meeting to catching up on our much needed informal discussion sessions. You do not need to be an experienced C programmer to come and profit from the meeting. Most of those who come have claimed to be novices in the C language. We want to make everyone welcome no matter what their level of experience might be. Surely you beginners want some alternative to BASIC... come visit us!

Sid Nolte, SIG Chairman
HOME PHONE: (214)233-6178
WORK PHONE: (214)995-3868

Genealogy SIG

Minnie Champ distributed literature on various genealogy groups which have literature of interest to the group. Maps were also distributed, showing all county names for the states of Texas, Louisiana, Arkansas, Oklahoma and New Mexico.

Special Interest Program Reports

Judge Linebaugh presented a review of FAMILY ROOTS. This is a computer program available for many different computers. It appears to be the friendliest of various programs we have had presented so far.

FAMILY ROOTS contains a set of programs to assist in search for family historical information. It stores a standard set of information for each family member, and rapidly accesses the information for viewing or printing. It is written in BASIC. The manual is well documented; performance is transparent. Programs within FAMILY ROOTS covered were EDIT, CHARTS, and SHEETS, CONFIGURE (to set up hardware) and CREATE (to prepare data diskettes for use by the program) were discussed.

At the September meeting, we will cover LISTS, SEARCH, BLANKS, RENUMBER and ADDRESSES. Anyone interested in using computers in GENEALOGY is invited to attend.

Minnie Champ, Leader
 PHONE: (214)314-6507
 Judge N. L. Linebaugh, Reporter
 PHONE: (214)350-1603

Integrated/Spreadsheet SIG

Yes, Virginia, there still is an Integrated Software SIG! Its loyal followers are braving the glaring Saturday morning sun and the lonely, deserted freeways to gather at 9am and contemplate the wonders of menus and macros and @functions. (And you wonder why my wife thinks I'm nuts!?!)

Last month we threw down the gauntlet and began the War of the Windows -- a battle for supremacy, or at least bragging rights, in the integrated software arena. Actually, we are just trying to give everyone a chance to compare the capabilities and features of the different packages available. Our first entrant was Framework, by Ashton-Tate, a brief overview of which you will find elsewhere in this issue.

This month it's the east coast contender -- Symphony, by some little \$157 million/year company named Lotus up in Massachusetts. I was able to

get three real-live Symphony users to volunteer to give us a quick demonstration, followed by questions and answers.

Next month, who knows? I thought about getting the guy who came and gave the slick Ovation demo last year, but I can never seem to get their number from information. Anybody know where we can reach 'em?

Jim Janeway, SIG Chairman
 WORK PHONE: (214)349-0314

Programmers SIG

"REAL programmers don't arrive at 9:00 AM!" This was just one of the many 'Real Programmer' jokes that were prompted by skimpy attendance at the start of the August meeting. Those of us who were there valiantly attempted to feign consciousness as we began out monthly free for all discussion. As the hour progressed more people straggled in and those in attendance began to wake up. The meeting developed nicely from a slow start.

Among the topics discussed were the new, even more expensive DOS Technical Reference Manual and its update offer, the free DOS patches that IBM is now offering through the dealers, and the COM2ASM program for 'dis-assembling' COM files. One member asked for help in turning the printer 'on-line' from software (if BASICA can do it; so can other programs). It was suggested the the code for 'INT 17' in the technical reference manual should give hints on how to do this. Two books were suggested as possibly being helpful, "The IBM PC Inside-Out" and Peter Norton's new book, "Programmer's Guide to the IBM PC".

Also discussed were the CLOCK\$ device, (more) AT disk problems, add-on cpu boards for the PC, and the \$99 Microsoft BASIC compiler versus the \$350 IBM one.

Join us again this month to exchange technical tips and trade rumors.

Carrington Dixon



Software Report

by Dick Gall

Morgan Productivity Tools

Chris Morgan has had an important influence on the users' group development in many ways, including serving as a founder and past president. His firm, Morgan Computing Company, Inc., is a national leader in providing software that harnesses PC power to bring unique functionality to the user's fingertips. This month's software review is dedicated to a brief look at two Morgan Computing products. Further information is available by calling 245-2763.

DISK TOOLKIT <tm>

Beginners will use DT to recover accidentally erased files, learn about disk storage, and explore memory contents (see F000:FFF5 of a PC for release marker date of BIOS ROM, for example). Startup is easy with the menu-driven screens and logical progression of the action. Programmers will appreciate the powerful variety of functions for displaying, searching, and changing disk files and memory - all in a lightning-fast assembly language program that's just 25k in size.

The main menu includes the following choices.

R -- Read Sector(s)	L -- Load File
W -- Write Sector(s)	S -- Save File
V -- Verify Sector(s)	F -- File Map
E -- Entire Disk Verify	X -- Recover Erased File
I -- Disk Integrity Test	C -- Change Default
T -- Format Single Track	D -- Directory
M -- Memory Dump/Edit	B -- Buffer Dump/Edit
Q -- Quit	O -- Options

A typical investigation of a file or program starts by using D to list the directory, selecting the file by pointing at it in the directory listing with the cursor, and pressing RETURN to display the file in hex and ASCII dump format. The function keys are armed to serve as joysticks for quick navigation within a file, memory, or disk sectors display, including continuous scrolling with selectable speed. Hex and ASCII string searches are available, and DT can handle any file or sector on a diskette (including high capacity) or hard disk (and, we have confirmed, in a ramdisk).

Advanced programmers, and those wishing to grow to the advanced state, have the following set of options and super-features available for studying and manipulating the "innards" of disk file structures. File directories - and even the file allocation table can be displayed and changed.

Disk Toolkit Options and Advanced Features:

D -- Display Options	R -- Read Device
I -- Disk Information	W -- Write Device
B -- Clear Buffer	C -- Cluster Read
M -- Clear Memory	X -- Cluster Write
L -- Load Directory	F -- FAT Display
S -- Save Directory	E -- Edit FAT
P -- Change Disk Parameter Table	G -- Get Back DOS Table

The file operation modes let beginners start using DT immediately without worrying about the extent of code or text to be loaded or saved. The unrestricted access to disk data gives full editing, manipulating, and copying capability to programmers who need it.

DT is priced at \$75, requires a minimum of 64K RAM memory, DOS 2.x to 3.x, and runs on machines from the jr to the AT and compatibles.

Dick



Disk of the Month

The September DOM will be a share-ware contribution from Neil Rubenking of the San Francisco PC Users Group called 'Piano Man'. This is a set of programs to write and play music on your PC or close compatible. All that is required is 128K RAM. Up to five voices may combined at one time, although the results are somewhat, ah, electronic, with more than two simultaneous voices. The balance of the program diskette is filled with transcriptions of well-known compositions, and a second diskette is filled with more music. There is almost 700K of programs and music on these diskettes. When a selection is processed, one result is a .COM file which should be callable from any environment - they do work under STSC's APL*PLUS/PC.

We are in the process of building up stock of back issues of our Disk of the Month. At the September meeting we should have disks back to January of this year. In October we should have all back issues available.

BYLAWS

North Texas IBM PC User Group, Inc.

This listing of the proposed amendments to the bylaws is the same as the version published in PC NEWS last month, except Article XV which was reworded as a result of discussion at the August meeting. If you approve of all changes please check the box adjacent to the space reserved for your signature, otherwise check approval or disapproval in the separate boxes by each proposed amendment. To register, validate your vote by signing in the the space provided, remove the entire sheet from the center of the newsletter and fold so that the club's address is visible, staple and mail. If you prefer, you can bring your signed sheet to the September meeting. For your vote to be counted it must be received by the Club's Secretary no later than September 30.

If you are FOR all recommended changes check here [] instead of marking individual proposals.

Member Signature: _____ Date: _____

ARTICLE I GENERAL MATTERS

Section 1.1 NAME

Current:

The name of the corporation is the North Texas IBM PC Users Group, Inc., hereinafter referred to as the "Users Group", a corporation formed under the provision of the Texas Non-Profit Corporation Act.

Proposed: FOR [] AGAINST []

The name of the corporation is the North Texas PC Users Group, Inc., hereinafter referred to as the "Users Group", a corporation formed under the provision of the Texas Non-Profit Corporation Act.

Rationale

Since there are many "IBM-compatible" machines available, our group will appeal to many non-IBM users. A survey of our members indicates that up to 1/3 of our members use non-IBM machines. Dropping "IBM" from our name will make the name more indicative of our membership.

Section 1.2 PURPOSE

Current:

The Users Group is formed exclusively for the purpose for which a corporation may be formed under the Texas Non-Profit Corporation Act and not for pecuniary profit or financial gain. No part of the assets, income, or profit of the Users Group will be distribut-

able to, ^{OR} ~~in~~ ^{to} inure to the benefit of its members, directors, or officers except to the extent permitted under the said Non-Profit Corporation act. The Users Group will not take steps which will serve to facilitate the transaction of specific business by its members or promote the private interest of any member or engage in any activities which would constitute a regular business of a kind ordinarily carried on for profit.

Section 1.3 OBJECTIVES

The objectives for which this Users Group is formed are to unite into a common organization those individuals who are users of and those who share a common interest in the various versions of the IBM Personal Computer or compatible product lines, peripherals,

operating systems and software; to provide the membership with a forum for the exchange of information of interest and for the benefit of the membership; to render services designed to meet the needs and interests of the membership; and to provide to the membership any form of assistance that will lead to the more efficient and effective utilization of the membership's Personal Computers.

Proposed: FOR [] AGAINST []

Add the paragraph under 1.3 OBJECTIVES to section 1.2 PURPOSE and delete the words "The objectives for which". Capitalize "This".

Add new Section 1.3 OBJECTIVES

The objectives for which this Users Groups is formed are:

- a. To provide an opportunity for both formal and informal education in computer applications, hardware, and software technologies.

b. To provide a medium of communication with user groups in other areas (location and orientation).

c. To provide an opportunity for the formation of special interest groups.

d. To provide a medium for the exchange of public domain and contributed software. The illegal copying, use, or distribution of software will not be condoned.

e. To assist members in acquiring computer hardware and software.

f. To promote the effective interchange of ideas between members and vendors of IBM and compatible PC hardware and software.

ARTICLE II MEMBERSHIP

Section 2.2 MEMBERSHIP CLASSIFICATIONS

Current:

There will be three classifications of membership as follows:

(a) Regular membership shall be that of any individual who is the owner of or has an interest in an IBM Personal Computer and comparable product lines, peripherals, operating systems and software and does not meet the requirements of any other membership classification;

(b) Professional membership shall be that of any individual who engages in business either directly or indirectly related to the personal computer products and wishes at any time during the tenure of his membership to present products for sale to the membership at member's meetings;

(c) Student membership shall be that of any individual who otherwise qualifies as a Users Group member and is also enrolled on a full time basis as a student in any public or private institution of learning.

Proposed: FOR AGAINST
[] []

Change lead-in statement to reflect two classifications of membership, delete section 2.2(b) and reletter (c) to (b).

ARTICLE III DUES

Section 3.3 NOTIFICATION OF DUES

Current:

At least thirty (30) days prior to the Users Group's annual renewal date, the treasurer will notify each member of the membership renewal date and the amount of his annual dues; provided, however, failure to give such notice within thirty (30) days prior to the annual renewal date will not relieve the member from payment of dues.

Proposed: FOR AGAINST
[] []

Members will be notified of their membership renewal date. However, failure to give such notice will not relieve the member from payment of dues.

Rationale

Since we no longer have a specific "annual renewal date", this wording accomplishes the purpose and notification can be on the newsletter label.

ARTICLE IV MEETING OF MEMBERS

Section 4.2 REGULAR MEETING

Current:

The regular membership meeting shall be held on the third Saturday of each month at a time and place disclosed in a monthly announcement. The announcement may be made in the Users Group's Monthly Newsletter, stating the date, time and place of the meeting, and shall be mailed to the general membership no later than five (5) days prior to the meeting in which case the notice of time and place shall be sent to the members not later than ten (10) days and not more than fifty (50) day prior to the meeting.

Proposed: FOR AGAINST
[] []

The regular membership meeting shall be held each month at a time and place disclosed in a monthly announcement. The announcement may be made in the Users Group's Monthly Newsletter, stating the date, time and place of the meeting, and shall be mailed to the general membership no later than five (5) days prior to the meeting in which case the notice of time and place shall be sent to the members not later than five (5) days and not more than fifty (50) day prior to the meeting.

Rationale

We no longer meet on the third Saturday of the month. Changing the time requirement for notice of the meeting from ten to five will allow this notice to appear in the newsletter immediately preceding the annual meeting.

Section 4.3 Special Meetings

Current:

(b) NOTICE. Note less than ten (10) days and not more than fifty (50) days before a Special Meeting, each member will be sent to his last known address a notification of such meeting. This notification will contain the subject or subjects to be considered and the date, time and location of the special meeting. Only matters contained in the notification may be considered at said meeting.

Proposed: FOR AGAINST
[] []

(b) NOTICE. Not less than five (5) days and not more than fifty (50) days before a Special Meeting, each member will be sent to his last known address a notification of such meeting. This notification will contain the subject or subjects to be considered and the date, time and location of the special meeting. Only matters contained in the notification may be considered at said meeting.

Section 4.4 PARLIAMENTARY RULES

Current:

The usual parliamentary rules as prescribed in "Robert's Rules of Order" or its equivalent will govern all deliberations, when not in conflict with these Bylaws.

Proposed: FOR AGAINST
[] []

The usual parliamentary rules as prescribed in "Robert's Rules of Order, Newly Revised" or its equivalent will govern all deliberations, when not in conflict with these Bylaws.

Rationale

"Robert's Rules of Order, Newly Revised" is the newer and generally accepted version. This change brings us up to date.

ARTICLE V BOARD OF DIRECTORS

Section 5.7 QUORUM

Current:

Two-thirds (2/3) of the Directors present in person or by written proxy at any meeting shall continue a quorum at any meeting of the Board.

Proposed: FOR AGAINST
[] []

Three-fifths (3/5) of the Directors present in person or by written proxy at any meeting shall continue a quorum at any meeting of the Board. *CONSTITUTE*

Rationale

We have 5 Directors, 2/3 of 5 is 3.33333 etc. Three fifths is more precise.

Section 5.8 PARLIAMENTARY RULES

Current:

All meetings of the Board of Directors will follow parliamentary proceedings as prescribed in "Robert's Rules of Order" or its equivalent when not in conflict with these Bylaws.

Proposed: FOR AGAINST
[] []

All meetings of the Board of Directors will follow parliamentary proceedings as prescribed in "Robert's Rules of Order, Newly Revised" or its equivalent when not in conflict with these Bylaws.

Rationale

"Robert's Rules of Order, Newly Revised" is the newer and generally accepted version. This change brings us up to date.

ARTICLE VIII SPECIAL INTEREST GROUPS

Section 8.1 CREATION

Current:

The President or Board of Directors may create special interest groups ("SIG"). Creation of a SIG will require the documentation of the area of Special Interest that will be addressed by the SIG. Each SIG will have a Group Leader. Each SIG may adopt rules for its on government not inconsistent with these Bylaws or with rules adopted by the Board of Directors.

Proposed: FOR AGAINST
[] []

The President or Board of Directors may create special interest groups ("SIG"). Creation of a SIG will require the documentation of the area of Special Interest that will be addressed by the SIG. Each SIG will have a Group Leader. Each SIG may adopt rules for its own government not inconsistent with these Bylaws or with rules adopted by the Board of Directors.

Rationale

Editorial change (correction of typo).

Section 8.2 SIG LEADER

Current:

The SIG leader is to be elected annually by the members of the SIG and will serve a one-year term. The SIG Leaders shall be responsible for all SIG activities and affairs. The SIG Leader, or his appointed alternate, will preside at all SIG meetings.

Proposed: FOR AGAINST
[] []

The SIG Leader shall be appointed by and serve at the pleasure of the President. The SIG Leader shall be responsible for all SIG activities and affairs. The SIG Leader, or his appointed alternate, will preside at all SIG meetings.

Rationale

The President is active in establishment and formation of all SIGs. Appointment of SIG leaders is part of that action.

ARTICLE XI FISCAL YEAR

Current:

The fiscal year of the Users Group commences on the first of January and ends on the last day of December. This year may be changed by resolution of the Board of Directors.

Proposed: FOR AGAINST
[] []

The fiscal year of the Users Group commences on the first of August and ends on the last day of July.

Rationale

Our fiscal year has been determined by the state of Texas as August to July.

ARTICLE VI AMENDMENTS TO BYLAWS

Current:

These Bylaws may be amended, repealed, or altered in whole or in part by a two-thirds (2/3) vote of all members in person or by written proxy at any regular or special meeting or by mail ballot adhering to the same voting requirements. Notification of the general membership of an upcoming vote shall be made at least two weeks prior to the scheduled date of the subject vote.

with rationale, to the President for consideration by the Board of Directors. Any member may propose an amendment to the bylaws upon collecting the signatures of ten (10) percent of the membership in favor of the proposed amendment. These Bylaws may be amended, repealed, or altered in whole or in part by a two-thirds (2/3) vote of all members present and voting or by written proxy at any regular or special meeting or by mail ballot adhering to the same voting requirements. Notification of the general membership of an upcoming vote shall be made at least five days prior to the scheduled date of the subject vote.

Proposed:

FOR AGAINST
[] []

Rationale

The procedure for initiating amendments to the bylaws was not specified. Changing the time requirement for notice of amendments to the bylaws from ten to five will allow this notice to appear in the newsletter immediately preceding the meeting at which the vote will be taken.

The Board is responsible for proposing amendments to the bylaws. Members may propose amendments by submitting them in writing,



After signing, detach this centerfold sheet and mail to the Club secretary, or bring to the next meeting.

----- f o l d ----- h e r e -----



OFFICIAL BALLOT
North Texas IBM PC Users Group, Inc.
Amendment to Bylaws

Secretary
North Texas IBM PC Users Group, Inc.
P.O. Box 780066
Dallas, Texas 75378-0066

Mail before September 28th!

A Framework Overview

by Jim Janeway

As a follow-up to last month's presentation of Framework for the Integrated Software SIG, here is a very brief summary of the features we covered. Framework is an integrated software package combining word processing, spreadsheets, data base, graphics, and communications in one product.

The strongest of Framework's five basic functions is its word processing. Not being a heavy-duty user of exotic word processing functions, I find this area more than adequate for my needs. I have been told that it handles more complicated functions and formats well, too, but since I can't speak from experience, I won't.

But because I am just a casual word processor, I appreciate the simplicity and straight-forwardness of this part of the system. I usually can just create a new word frame and start typing. When I'm done, I just pull down the print menu, select "Begin", and off it goes. Framework has it's own print spooler, so I can go back to work immediately.

Framework's spreadsheet works well and has some nice features. If I had never used 123, I would probably be perfectly content with it. I do use it to print my little half-page invoices for clients, and it works quite well. But, if I have any serious spreadsheeting to do, I use another of Framework's powerful features to temporarily jump into Lotus 123. This is Framework's DOS Access facility, which allows you to call in any DOS-based program, execute it, and when finished, return to where you were in Framework as if you had never left.

Maximum spreadsheet size in Framework is more limited than in 123, although you can get around this by linking together several smaller spreadsheet frames. But I find this to be even more awkward than paging around one humongous 123 spreadsheet.

The database function works well, but not like a pint-sized dBase-III as you might hope. You can sort, extract, and even do some entry forms design. But again, the size limitation (file size) imposed by Framework's program size and extra "control" fields prohibits its use as a serious database. You can use it for phone number and



PAWS FOR GREAT DEALS



NEW PRODUCT

Oberon Omni-Scan will read a page of text into your own word processor. The ideal solution to multiple computer systems that need to share the same files. Print them out on one computer and read them into the other. Connects to computer with serial interface.

BOARDS



Grande Byte memory for
 AT-128k installed mem. \$295.00
 STB Graphix Plus II 371.25
 Hercules Graphics 389.00
 Quadcolor I 250.00



BOOKS

Mastering Symphony \$22.95
 Programming in C 18.95
 Think Tank Book 13.95
 Running MS DOS 16.95
 Wordstar Made Easy 11.95

SUPPLIES



Lucite Dust Covers \$15.50
 Roll-top disk box-
 holds 100 diskettes 31.25
 Small Printer Rack 15.00
 3 x 5 cards, on
 continuous feed 8.10
 1000 sheets laser perf
 paper 11.25
 Rolodex cards
 standard forms,
 other disk
 boxes in
 stock.



PRINTERS

CRII Parallel LQ \$375.00
 FX80 349.00
 RX80 235.00
 Prices good as
 long as
 supply
 lasts.

BUSINESS



Latest version of Multimate
 with its own
 Speller \$371.25
 Wordstar 2000 371.25
 Data Base Manager II 221.25
 dBase III 521.25
 Sidekick 45.00
 Sideways 45.00

WILDCAT COMPUTING, INC.

PC MOUSE

With Paint. Use this smooth-
 rolling gadget to draw high quality
 pictures.
 Mouse with Paint \$173.25

Wildcat Computing, Inc.
 1830 Avenue K
 Plano, Texas 75074
 (214) 424-3582
 1168 West Main
 Lewisville, Texas 75067
 Metro 436-7322



PC-2-85

Framework Overview (continued)

address files and such, but if you need more than that, don't burn your dBase-II manual yet.

Graphics covers all the required options, but with a couple of nice extras. By adjusting the size of your frames, you can view your graph on the same screen with the underlying data. You can adjust the frame size to anything from full screen to a single character position. You can even print graphics on the same page with text or numbers, and you can do it without changing diskettes!

Finally, the poor step-child. Alas, Framework's communications module was added as an after-thought (after the thought that Symphony might have something that Framework didn't). It doesn't even execute from the pull-down menus, or even directly via Framework itself. You use the DOS Access facility to execute a third-party, stand-alone program called "MITE" that talks to your modem. I use it, and it works, but no points for user-friendly here. This module was obviously tacked on in last minute desperation for the boys up in marketing.

In addition to the basic five functions, you get a couple of extras - outlining and programming. When you create a frame, you assign it a name. A frame can contain text, a spreadsheet, a graph, a database, or...other frames. In an outline frame, the entries in the outline are actually just the names of the frames that are "inside" the outline frame. These inner frames can be opened and used as any of types mentioned above and in any combination.

So a large, complicated document can be designed, organized, and developed as an outline frame made up of many inner frames of various types. The outline frame can then be printed as the table of contents -- it will even keep track of page numbers automatically.

The feature of Framework that is the least understood (and the most difficult to use) is also the one that gives it the most potential. FRED, short for

Frame Editor, is the macro programming language that can be used to "automate" any Framework function that can be entered manually at the keyboard. Very powerful and useful, but not really meant for the beginner. If you want to learn how to program, start with BASIC or Pascal, not FRED.

Tremendous power and potential, but is it too overwhelming for the average user? In its entirety, yes. But so are 123's macros and functions until you get started using them. However, if a novice can learn two or three simple applications, then he or she will be able to expand on the basic fundamentals when needed.

So, is Framework the ultimate, be-all, do-all software wonder that all the civilized world has been waiting for? Probably not. Is it a well-rounded, well-designed, functional integrated package that might be useful to a manager or professional that seems to spend his or her time doing a little bit of everything? Absolutely! If that's the kind of package you're looking for, it would be a mistake not to give Framework thorough consideration.

Jim

▲

OUR PRICES

- IBM PC, 2 drives, 256K \$1,579
- Or w/Hi-Res. Monitor & Monitor/Printer Adapter \$1,829
- PC/XT, 10 MB HD, 256K w/Monitor \$2,595
- Compaq 286 Portable and Desk Pro call
- 10 MB Internal Hard Drive \$539
- 20 MB Internal Hard Drive \$739
- H-P Laser Jet Printer 350 cps \$2,795
- Multifunction Card w/Ports & Clock \$149
- Epson SX 185 Printer \$489

SEABROOK COMPUTERS

12101 Greenville Ave. Dallas, TX 75243
 214-480-0060
 HOURS: 9-6 M-F 10-5 Sat.

The Portability Problem

by Tom Prickett

The C SIG had the opportunity to listen to the President of Greenleaf Software last month. Mr. Don Killen presented his product line of C support tools, and answered several questions that were nagging the audience. One of the issues that kept coming up, was the issue of portability. This is an appropriate issue for an author of a support tools package to field, he has had to deal with it on at least two fronts.

The first front is his package has to be ported to a variety of C compilers on the IBM PC, and possibly several machines, perhaps not Intel based ones. It is not inconceivable that it be ported to other programming languages.

The second front pops up when a large machine and compiler base builds up, and it becomes a sales point to his users.

Some interesting points came up. Some questioned if C really is as portable as it has been touted; others questioned whether any of the higher level language have achieved true portability, and whether the same fundamental problems keep coming up. I would like to use this space to explore the general portability issue a little further.

First off, what is software portability, and why is it desirable? The portable concept can be applied to quite different things, as in hardware, a handheld calculator and a 65 lb. computer with a handle on it are both called portable. If you have graphics in a program, you might consider it desirable for it to run on a color graphics adapter, the extended graphics adapter, the professional graphics adapter, and perhaps some of the more popular third party graphics controller cards that are readily available. The list seems endless.

How is portability accomplished? If you want to be portable between devices, you need to divide all your code into two categories, labeled device dependent and device independent. The object is to make as much code as you can fall in to the device independent category. Then you generalize the way you talk to the device(s) into what is called a binding or simply a subroutine interface. Now, when you need to port to another device, you just rewrite another device dependent portion, called a driver. Many packages, like

Lotus 123 come with several device drivers, and the user installs the ones appropriate to their situation. However, a problem can arise if you want to port to a device that does not support the features expected by your independent interface. What if, for example, your interface specifies an image as a collection of dots like on a display, and you want to support a pen and ink plotter? This can be tremendously inefficient no matter how you approach the problem. Imperfections in how the binding maps to generalized set of devices can be expensive in overhead.

If you want to be portable between compilers, you usually need to code in a lower level language, because the higher level languages tend to have incompatible subroutine support libraries, and you don't need two of them. To talk between your support library and the applications you support, you create a binding between your independent library and an individual linkage to each language. If you have a large amount of data passing across the linkage, this is probably ok as long as the format of the data is identical. If you need to filter the data to prepare it for your independent library, you could pay again in overhead just for the portability. This is not a significant problem if you are going from one C compiler to another, but if you would like to support C, Pascal, and FORTRAN, you may have a significant problem unless you are willing to settle for the lowest common denominator of the set of languages you support.

If you want to be portable between other computers, you essentially try to do the same thing. Device independent code is often written in higher level languages, device dependent code is often written in assembler. Generalized assemblers have even been developed. There seems to be a fly in this ointment however, when the interface is not consistent. A C compiler on machine A is often not the same as a C compiler on machine B. Imperfections in the binding between your program and the compiler can be expensive in software port cost.

The software developer is faced with classic tradeoffs when deciding whether to expend the effort in creating a portable software development environment. There seem to be pitfalls in every plan. Additional time spent to attain portability will delay getting the product to market, and the added overhead will usually have an adverse

Portability Problem (continued)


effect on pricing. If the resulting products are long lasting and popular, then the portability effort will pay off when it evolves to other environments. But, if the resulting products are short term, and do not develop an active user population, then the portability effort would not be worth the cost. Which do you choose?

Tom

THANKS

Thanks to all who helped at the reception desk at the last meeting, and to those who worked in the Disk of the Month booth. Walt Grayson, DOM Chairman, says we'll soon have a stock of all back issues of the DOM diskettes, some in September and the rest probably by the October meeting. Price remains at \$2.00. Decisions are being made about mail order of DOM diskettes; whether to have them, cost to mail, who will mail, etc. Should have some answers soon.

Write an article for PC NEWS. Deadline for the next issue is September 27th.



IBM PCXT
COMPATABLE
\$999.-
FOR USER GROUP
WITH THIS AD.
BEFORE 9/30/85
LIST \$1154.-

- W/MONITOR • 256K RAM
- 2 DRIVE W/CONTROLLER
- 10 PCS. FREE SOFTWARE
- DTC/SUPER COM BIOS

\$5.-IBM SOFTWARE
PUBLIC DOMAIN 300 SELECTIONS

SOFTWARE RENTAL AVAILABLE
PLEASE CALL: (214) 495 5081. 495 5370
COMPUTER + MORE
3323 Belt Line Road,
(At N.E. Jupiter)
Garland, TX 75042



MEMBERSHIP APPLICATION

NEW OR RENEWAL _____
ADDR. CHANGE _____

Name _____

Address _____

City _____ State _____ ZIP _____

Phone: Home _____ Metro? _____

Work _____ Metro? _____

Send completed application with your \$24 check to:
Membership Chairman, 135 Skyline Dr., Dallas, TX 75074

Toll Free Order Line
 Order Line: 1-800-223-EPIC
 9AM-6PM CST

EPIC SALES, INC.
 ESTABLISHED 1979

132 Walnut-Plano Center
 Garland, Texas 75042

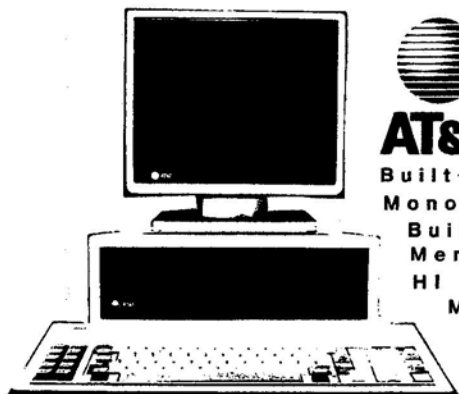
EPIC SALES WINCHESTER SUB SYSTEMS
 Featuring Drives By Seagate



Type of System	Seagate ST-212 1/2 High (Low Power)		Seagate ST-225 1/2 High		Rodime RO-203E Full High		Irwin 110 Tape Backup	
	10 MEG Internal	10 MEG External	20 MEG Internal	20 MEG External	33 MEG Internal	33 MEG External	W/ Ext. System	External
IBM-PC & COMPATIBLES	\$ 599	\$ 799	\$ 699	\$ 899	\$ 1249	\$ 1449	\$ 595	\$ 695
TI-PC (ZOBEX)	\$ 699	\$ 899	\$ 799	\$ 999	\$ 1399	\$ 1599	\$ 595	\$ 695
TI-PC West. Auto.	\$ 999	\$ 1199	\$ 1099	\$ 1299	N/A	\$ 1849	\$ 595	\$ 695
APPLE	N/A	\$ 949	N/A	\$ 1149	N/A	\$ 1599	N/A	N/A
XEROX 820 & KAYPO	N/A	\$ 899	N/A	\$ 999	N/A	N/A	N/A	N/A
Z-100	\$ 899	\$ 1099	\$ 999	\$ 1199	N/A	N/A	N/A	N/A

COMPATABLE PC'S ARE: COMPAQ, AT&T PC, TELEVIDEO 1605, TELEVIDEO PORTABLE, COLUMBIA PC, TANDY 1000, CORONA, LEADING EDGE, SPERRY, ZENETH 150 & OTHERS (CALL FOR OTHERS).

- **SATISFACTION GUARANTEED:**
 Order your EPIC Winchester System now test it for 30days. If not satisfied, return for immediate refund!
 • Call for quote on larger size systems •
- **1-YEAR FULL WARRANTY**
 Every unit is thoroughly tested before shipping and our warranty includes both parts and labor.
- **TECH SERVICE HOTLINE**
 If you have a question or a problem Call our service technicians.



90 Day Warranty

The AT&T Personal Computer Model 6300
 8MHz 8086 CPU
 7 Expansion Slots
 Built-in Serial and Parallel Ports
 Mono & Color Graphics Adapter
 Built-in Calendar/Clock
 Memory Expansion to 640K
 HI Res Green Mono Monitor
 MS-DOS & Basic

\$1995

Two DSDD Floppies
 Mono Monitor
 256K RAM
 MS-DOS & Basic

\$2695

20 MEG Hard Disk
 One DSDD Floppy
 Mono Monitor
 256K RAM
 MS-DOS & Basic

\$2495

10 MEG Hard Disk
 One DSDD Floppy
 Mono Monitor
 256K RAM
 MS-DOS & Basic

Tech. Info. (214)272-5724

TOLL FREE ORDER LINE! 1-800-223-3742

Store Hours:

TERMS: Master Card, Visa, American Express add 3% service charge. Allow 10 days for checks.
 \$4.00 Minimum UPS charge. \$1.90 for COD. Texas Residents 6 1/8% Sales Tax.

9-6 M-F...9-1 Sat.

SWAP  SHOP

Four lines free each month to members, otherwise cost is 15 cents per word. Mail ads to the Editor.

IBM-PC-Jr 2nd Disk Drives
 Disk drive, Controller & Software ... \$329
 Controller & Software alone \$139
 COMPUTER RESET - Voice 276-8072 (Dallas)
 BBS 272-7920 (300bd,8 bits,1sb,no par)

John Keohane, Business/Computer consultant. Superior Computer and Business Expertise. Expert in IBM Mainframes and PCs. MBA(finance) University of Chicago. (214)690-8092

PRESENTATION QUALITY SLIDES & PRINTS
 (from IBM PC compatible graphics)
 Personal service, reasonable rates
 Ricky Burke WIZARD GRAPHICS 276-5003

IBM PC/XT w/256K & 10Mb Fixed Disk \$2500. IBM Mono Display \$180. Mono Adapter \$160. Apstek Multi-Function Board w/256K \$320. DOS 2.1 \$40. Pete (214)245-7415.

WANTED: Advertising Manager for North Texas PC NEWS. Excellent opportunity to meet the business world. No pay in dollars, but great rewards in personal satisfaction! Help support your User Group. Call the Editor. (817)275-4109.

FOR SALE: Epson MX80 printer with GRAF-TRAX PLUS. Excellent condition. \$160. Call John, (817)275-4109



Room Assignments
 Saturday, 14 September 1985



Check room numbers in lobby at INFOMART

MAIN MEETING: 10:15 - 11:45
 (R O O M 7 0 1 1)

9:00 - 9:55	Room	12:30 - 1:25	Room	1:30 - 2:25	Room
Advanced Prog.	_____	Business Applic.	_____	Databases	_____
BASIC Applic.	_____	Turbo Pascal	_____	Assembly	_____
Beginners	_____	C Language	_____	Science/Engr.	_____
Int. Software	_____	Investments	_____		

North Texas IBM Personal Computer Users Group, Inc.
P.O. Box 780066, Dallas, TX 75378-0066

The North Texas IBM PC Users Group is a non-profit, independent group, not associated with IBM Corporation. Membership is open to owners and others interested in exchanging ideas, information, hardware, predictions, and other items related to the 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 address 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.

Officials:

President	Stuart Yarus	(214)867-8012 h
President-Elect	Jim Graham	(214)245-4763 w
Program Chairman	Mike Bouton	(214)495-4534 h
Treasurer	Bill Hood	(214)960-4754 w
Secretary	Jane Hughson	(214)262-0457 h
<u>Membership Director</u>	Bob Russell	(214)422-4269 h
<u>Operations Director</u>	open	
<u>Setup Team</u>	open	

Special Interest Groups:

SIG Coordinator	Becky Rahaim	(214)385-8205 h
Assembler	John Wolley	(214)238-9443 h
BASIC Applic.	John Keohane	(214)690-8092 w
Beginners	John Hall	(214)495-2375 h
Business Applic.	Ricky Burke & Ed Fries	(214)276-5003 h (214)783-8543 w
C Language	Sid Nolte	(214)223-6178 h
Databases	Chris Morgan	(214)245-4763 w
Disk of the Month	Walton Grayson, IV	(214)369-3535 h
Integ. Software	Jim Janeway	(214)349-0314 h
Investments	Doug Perine	(214)478-0815 w
Programmers	Dr. Neil Bennett	(214)422-5673 w
Science/Engr.	Arlin Collins	(214)436-7697 h
Turbo Pascal	Chris Wilde	(214)386-6578 w
<u>Telephone</u>		(214)242-4187
<u>Bulletin Board</u> SYSOP:		open

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

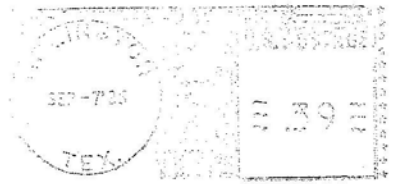
NTPCUG Membership Chairman
135 Skyline Drive
Plano, Texas 75074

Check newsletter mailing label for your membership renewal date. No separate renewal notice will be sent.

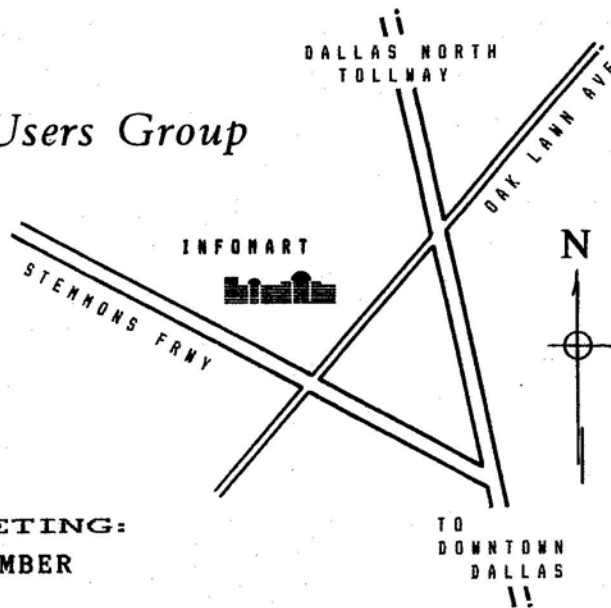


North Texas PC NEWS

2025 Rockcreek Drive, Arlington, Texas 76010



North Texas IBM PC Users Group



**NEXT MEETING:
14 SEPTEMBER**