

# An Electronic Bulletin Board System (BBS) at The National Society of Professional Engineers

by J. Pepper

AT THE 1986 WINTER MEETING IN FORT WORTH, TEXAS, THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS, PROFESSIONAL ENGINEERS IN CONSTRUCTION, DECIDED TO STUDY THE POSSIBILITY OF AN ELECTRONIC BULLETIN BOARD SYSTEM (BBS) BEING INSTALLED AT OUR HEADQUARTERS IN ALEXANDRIA, VIRGINIA.

THE PROPOSED PURPOSE OF THE BOARD WAS TO PROVIDE A NATIONAL COMMUNICATION LINK FOR THE ENGINEERS IN THE SOCIETY, WHO NUMBER AROUND 75,000. THE PROJECT MANAGER OF CONSTRUCTION COMPUTER APPLICATIONS WAS GIVEN THE TASK OF FURTHER DEFINING THE GOALS OF THE SYSTEM, EVALUATING ALTERNATIVE SYSTEMS, MAKING THE SELECTION, AND FOLLOWING THE PROJECT THROUGH INSTALLATION, AND COMPLETE IMPLEMENTATION.

IN ORDER TO LEARN MORE ABOUT HOW BULLETIN BOARDS FUNCTIONED, A COMMODORE 64 WAS TAKEN FROM THE OFFICE, AND FITTED WITH A MODEM (AN ACRONYM FOR MODULATOR/DEMODULATOR, A MODEM IS A DEVICE WHICH CONVERTS DIGITAL DATA INTO AUDIO TONES SUITABLE FOR TRANSMISSION OVER REGULAR TELEPHONE LINES) AND BULLETIN BOARDS IN THE SOUTH FLORIDA AREA WERE CALLED.

WHAT WAS FOUND OUT THERE WAS QUITE INTERESTING. FOR THE MOST PART, IT'S LIKE THE WORLD OF THE CBER'S WITH A LOT OF CHATTER, EXOTIC NAMES (HANDLES), JOKES, MEANINGLESS MESSAGES, AND JUST GENERAL FUN, BUT UPON FURTHER EXPLANATION A MORE SERIOUS ELEMENT WAS FOUND.

A FEW OF THE BOARDS CONTACTED WERE DOING REAL WORK, SOME DEDICATED TO A PARTICULAR COMPUTER SYSTEM, SUCH AS HEATHKIT, IBM, COMMODORE, ETC, AND OTHERS DEDICATED TO SUCH SUBJECTS AS COMPUTER COMMUNICATIONS, RADIO AND TELEVISION, GRAPHICS, MUSIC, RELIGION, AND SERIOUS DISCUSSION OF JUST ABOUT EVERYTHING IMAGINABLE. THESE BOARDS HAD USERS AND SYSOPS (SYSTEM OPERATORS) THAT WERE HELPING EACH OTHER IN A WAY WE HAD NEVER ENVISIONED BEFORE.

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JOHN PEPPER, P.E. IS AN ACI MEMBER. MR. PEPPER GRADUATED FROM THE UNIVERSITY OF MIAMI AT CORAL GABLES, FL IN 1970 WITH A DEGREE IN ARCHITECTURAL ENGINEERING. HE IS VICE PRESIDENT OF GOPMAN PEPPER ASSOCIATES INC. IN NORTH MIAMI BEACH, FLORIDA, AND A STRUCTURAL ENGINEER. HIS NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS DUTIES INCLUDE CHAIRMANSHIP OF THE IN-HOUSE DATA PROCESSING COMMITTEE (1987-1988), PROJECT MANAGER OF THE CONSTRUCTION COMPUTER APPLICATIONS PROJECT FOR THE PROFESSIONAL ENGINEERS IN CONSTRUCTION (PEC) (1986-88), AND HE IS A REMOTE SYSOP OF THE NSPE/PEC BBS

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Keywords: computer programs; engineering; information systems; telecommunication

WHEN A USER HAD A PROBLEM WITH A NEW MODEM, FOR INSTANCE, THEY WOULD CALL UP, AND LEAVE A MESSAGE TO THE OTHER USERS ABOUT WHAT THEIR PROBLEM WAS, AND THEN CALL BACK LATER. THEY WOULD FIND A REPLY TO THEIR MESSAGE FROM THE SYSOP AND OTHER USERS, GIVING GUIDANCE AS BEST THEY COULD TO SOLVE THE PROBLEM. (MAYBE SOMETHING LIKE, "CHECK YOUR MOTHER BOARD DIP SWITCHES DUMMY! SW1 SHOULD BE OFF!", OR SOME OTHER CHOICE BIT OF COMPUTER JARGON).

IT WORKED, IT EDUCATED ALL WHO READ ABOUT THE PROBLEM AND ITS SOLUTION, AND IT COST NOTHING! NO TRIP ACROSS TOWN TO THE MODEM SELLER, NO LONG DISTANCE TELEPHONE CALLS TO THE FACTORY, NO PAID CONSULTANT. WHAT WAS FOUND HERE WAS A PLACE A PERSON COULD CALL, AND ASK FOR HELP, AND AT NO COST, RECEIVE IT IF IT WAS AVAILABLE.

THE NSPE/PEC BULLETIN BOARD COULD BE THIS SOURCE OF KNOWLEDGE AND CONTACTS WITH OTHERS HAVING THE REQUIRED ANSWERS OR SUGGESTIONS, BUT HOW WOULD IT WORK, AND HOW WOULD IT START UP? AFTER STUDYING, VIA THE MODEM AND PHONE LINE, SYSTEMS IN DIFFERENT PARTS OF THE COUNTRY, AND DETERMINING THE FEATURES WE REQUIRED, WE SELECTED A MODIFIED PCBOARD BY CHARON INFORMATION.

THE VENDOR INSTALLED THE SYSTEM IN OUR NATIONAL HEADQUARTERS BY THE PLANNED OPERATIONAL DATE OF OCTOBER 1, 1986, TRAINED FOUR PEOPLE IN ITS FUNCTIONS OVER A 3 DAY PERIOD AND THE BBS SYSTEM WAS STARTED TO RUN.

WE STARTED OFF SLOW, AND JUST ANNOUNCED THE SYSTEM TO OFFICERS OF THE PROFESSIONAL ENGINEERS IN THE CONSTRUCTION DIVISION, SO IT WOULD BE RUNNING WELL BY THE TIME OF THE GENERAL ANNOUNCEMENT TO THE MEMBERSHIP. RESPONSE WAS GOOD, AND ABOUT 40 PEOPLE WERE QUICKLY SIGNED ON. THE SYSTEM WORKED FINE.

THEN, IN THE NOVEMBER ISSUE OF PE NEWS, A NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS PUBLICATION, WE ANNOUNCED THE BOARD TO THE GENERAL MEMBERSHIP, AND THE FLOOD OF CALLS BEGAN. IN THE FIRST 30 DAYS THERE WERE OVER 160 REGISTERED MEMBERS.

THE BOARD HAS SINCE RECEIVED OVER 3000 CALLS, DOWNLOADED OVER 300 PROGRAMS TO THE USERS, AND HANDLED APPROXIMATELY 2000 ELECTRONIC MAIL COMMUNICATIONS. WE NOW HAVE ALMOST 400 USERS.

### BENEFITS DERIVED FROM THE BOARD

IT HAS BEEN NOTICED A FEW IMMEDIATE ADVANTAGES OF THIS FORM OF COMMUNICATION ARE:

1. COMMUNICATIONS FROM OFFICERS TO STAFF AT HEADQUARTERS, AND BETWEEN VARIOUS MEMBERS HAVE BEEN GREATLY ENHANCED. THERE IS NO MORE NEED TO RETURN CALLS. MESSAGES ARE JUST LEFT AND ANSWERED ON THE BOARD. FOR INSTANCE, ON THE LAST TRIP TO WASHINGTON, FLIGHT AND TIMES, WERE WAITING IN A MESSAGE ON THE BOARD WHEN IT WAS CALLED UP.
2. SEVERAL PEOPLE IN DIFFERENT PARTS OF THE COUNTRY REVIEWED AN RFP FOR COMPUTER EQUIPMENT, MADE THEIR COMMENTS, AND HAD IT BACK IN THE HANDS OF THE ORIGINATOR THE SAME DAY.

3. ANNOUNCEMENTS OF INTEREST TO ENGINEERS HAVE BEEN PUT IN TO THE NEWS IN A TIMELY FASHION, NEWS THEY WOULD NOT HAVE NORMALLY RECEIVED FOR A PERIOD OF WEEKS, VIA TRADITIONAL MAGAZINES, AND SUCH.
4. THE BOARD HAS FUNCTIONED WITH OUT FAIL FOR 24 HOURS A DAY SINCE THE 1ST OF OCTOBER, 1986, WITH THE ONLY EXCEPTION BEING A PRINTER THAT HAD BEEN LEFT ON RUNNING OUT OF PAPER, AND STOPPING THE SYSTEM. (IT THEREFORE SUGGEST RUNNING THE UNATTENDED SYSTEM WITHOUT THE PRINTER HOOKED UP, AS THAT'S JUST ONE MORE MECHANICAL PART TO GO WRONG.)
5. THE BOARD HAS APPROXIMATELY 16 MB OF PROGRAMS AND FILES AVAILABLE FOR DOWN LOADING BY THE MEMBERS.
6. SINCE THE START UP, APPROXIMATELY 50 PROGRAMS HAVE BEEN ADDED TO THE SYSTEM, BOTH ENGINEERING AND GENERAL INTEREST.
7. BULLETINS OF INTEREST TO ENGINEERS HAVE BEEN SHIPPED VIA ELECTRONIC MAIL FROM CALIFORNIA, AND SPLICED INTO THE BOARD.

### A LOOK AT THE NSPE/PEC BOARD

TO GIVE AN IDEA OF WHAT A BBS LOOKS LIKE, AND HOW IT FUNCTIONS, THE FOLLOWING ARE SOME EXAMPLES OF RECENT SESSIONS ON THE NSPE/PEC BOARD, CAPTURED TO DISK, ON CALLS FROM MIAMI, FLORIDA, TO ALEXANDRIA, VIRGINIA. THESE SCREENS ARE EDITED FOR CLARITY, AND ARE ENCLOSED IN [].

### NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS/PEC BOARD

PCBoard V11.5 BY CHARON INFORMATION  
SYSTEM UP AT 13:50 ON 12-26-86 AT 2400 BAUD.

WELCOME TO THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS BOARD.

THIS ON-LINE INFORMATION SYSTEM IS OPERATED BY THE PROFESSIONAL ENGINEERS IN CONSTRUCTION (PEC), AS A SERVICE TO ALL MEMBERS OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS. USE OF THE NSPE BOARD REQUIRES REGISTRATION. IF YOU ARE NOT A REGISTERED USER, WISH TO BECOME ONE, DO SO BY ENTERING YOUR FIRST NAME, LAST NAME, AND, WHEN ASKED: "[R]E-ENTER NAME OR [C]ONTINUE?", TYPE C, THEN [C/R]. THEN ANSWER EACH QUESTION AS IT APPEARS.

THE NSPE BOARD OPERATES 24 HOURS PER DAY AT 1200 AND 2400 BAUD AND FROM 8:00 PM TO 6:00 AM (EST) AT 300 BAUD (EXCEPT WHILE UPDATING) AS A SERVICE OF:

THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS  
PROFESSIONAL ENGINEERS IN CONSTRUCTION  
1420 KING STREET, ALEXANDRIA, VA 22314-2715  
VOICE TELEPHONE: 703-684-2800  
DATA TELEPHONES: 703-684-6761

WHAT IS YOUR FIRST NAME? JOHN  
WHAT IS YOUR LAST NAME? PEPPER  
CHECKING USER'S FILE - PLEASE WAIT ...  
PASSWORD (DOTS WILL ECHO)? .....

==== NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS/PEC =====  
 =====BOARD NEWS =====

THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS PROVIDES THIS COMPUTER BULLETIN BOARD AS A SERVICE TO ITS MEMBERS IN AN EFFORT TO PROVIDE A COMMUNICATIONS LINK AMONG MEMBERS OF THE ENGINEERING PROFESSION. THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS DOES NOT REPRESENT IN ANY WAY THAT IT HAS REVIEWED, APPROVED, ENDORSED OR OTHERWISE SPONSORED ANY OF THE MATERIAL WHICH HAS BEEN PROGRAMMED INTO, OR WHICH APPEARS, OR WHICH IN ANY WAY BECOMES A PART OF THE COMPUTER BULLETIN BOARD. THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY LOSSES, CLAIMS, DAMAGES AND EXPENSES, DIRECT, INDIRECT OR CONSEQUENTIAL (INCLUDING BUT NOT LIMITED TO ATTORNEYS AND OTHER PROFESSIONAL AND COURT AND ARBITRATION COSTS) ARISING OUT OF OR RESULTING FROM USE OF THIS COMPUTER BULLETIN BOARD.

\*\*\*\*\*WARNING!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

ALL MAIL LEFT ON THIS SYSTEM MAY BE READ BY THE SYSOPS EVEN IF IT IS LEFT AS PRIVATE FOR ANOTHER USER. DO NOT LEAVE ANY MESSAGES, FILES, OR OTHER COMMUNICATIONS ON THIS SYSTEM THAT YOU DO NOT WISH THE SYSOPS TO SEE, AND DO NOT POST ANY NON PUBLIC DOMAIN SOFTWARE, CREDIT CARD NUMBERS, OR ANY CLASSIFIED DATA OF ANY SORT. ALL VIOLATIONS OF POLICY WILL BE REPORTED TO THE AUTHORITIES, AND YOUR ACCESS TO THIS SYSTEM WILL BE REVOKED.

REGISTRATION FOR FULL UP AND DOWNLOAD PRIVILEGES ON THIS SYSTEM IS AVAILABLE FOR A REGISTRATION FEE OF \$25.00 FOR THE 1st YEAR UNTIL JANUARY 1, 1987. AFTER THAT DATE, THE FEE IS \$50.00 A YEAR. THESE FEES ARE USED TO IMPROVE AND MAINTAIN THE SYSTEM. IF YOU HAVE REGISTERED, AND WISH TO WITHDRAW YOUR REGISTRATION, PLEASE STATE THAT FACT ON THE INVOICE THAT WAS SENT TO YOU, AND YOUR ACCESS WILL BE CANCELLED.

WE HOPE OUR USERS WILL SEE THE CURRENT, AND FUTURE VALUE OF A SYSTEM SUCH AS THIS DEVOTED TO COMMUNICATIONS AMONG OUR MEMBERS, AND SHARING OF INFORMATION, AND WILL SUPPORT THE SYSTEM, BUT THIS IS NOT REQUIRED, AS ONLY THOSE WHO REGISTER, AND PAY THE FEE WILL RECEIVE THE BENEFITS OF THE SYSTEM.

!!!!!!!!!!!!!!WELCOME NEW BULLETIN BOARD MEMBERS!!!!!!!!!!!!!!

OVER 100 NEW MEMBERS HAVE REGISTERED IN THE LAST WEEK! FILES HAVE BEEN UPLOADED, MAIL SENT, AND THE BOARD IS ROLLING!

#### NOTICE ON DOWN LOADING OF FILES

ANALYSIS OF THE CALLERS LOG SHOWS THAT MOST NEW CALLERS, AND MANY OLD ONES, ARE HAVING TROUBLE WITH DOWN LOADING FILES, SINCE OUR SYSTEM WILL CUT THEM OFF IF THEY DO NOT START RECEIVING THE FILES THEY REQUESTED WITHIN 60 SECONDS. AVOID THIS BY LEARNING YOUR COMMUNICATION PROGRAM, AND WHAT IT REQUIRES AS INPUT FROM YOU BEFORE YOU ATTEMPT DOWN LOADS. IT WILL WORK A LOT BETTER THAT WAY.

IF YOU HAVE NEWS OF INTEREST TO THE ENGINEERING COMMUNITY, SEND IT IN A MESSAGE TO ALL, AND IT WILL BE SEEN ON THE BOARD. THESE FILES WILL BE REVIEWED BY THE SYSOP FOR POSSIBLE INCLUSION IN THE BOARD NEWS. MAKE THE SUBJECT: NEWS SO WE'LL KNOW IT'S IS WORTHY OF REVIEW. GET INVOLVED IN THE BOARD!!!!

HELP? HELP FILES FOR OUR NEW BOARD CAN BE DOWNLOADED AS NSPEHELP.ARC, OR MAY BE DOWNLOADED IN ASCII TEXT AS NSPEHELP.DOC. ONLY THE MEMBERS CAN MAKE THIS SYSTEM A SUCCESS. THIS SYSTEM CAN BECOME THE PRIME SOURCE OF UP TO DATE INFORMATION ON ENGINEERING AND CONSTRUCTION RELATED SOFTWARE, AND OTHER IMPORTANT DEVELOPMENTS IMPORTANT TO ENGINEERS.

TWO GOOD SHAREWARE PROGRAMS HAVE JUST COME OUT WITH NEW RELEASES: QMODEM, THE COMMUNICATIONS PROGRAM, AND LIST, THE PROGRAM THAT IS EVERYTHING THAT DOS'S TYPE COMMAND SHOULD HAVE BEEN.

QMODEM22.ARC IS IN MAIN BOARD DIRECTORY 2, WHILE LIST60G.ARC IS IN DIRECTORY 1.

MANY THANKS TO CHARON FOR ALLOWING US TO USE THEIR BULLETINS TO GET US STARTED OFF, AND FOR ALL THE HELP HE, AND HIS CREW HAVE GIVEN US.  
(12DEC86)

[AFTER THIS POINT, YOU WILL ENTER THE COMMAND SCREENS, AND TELL THE SYSTEM WHAT YOU WANT TO DO. THE SYSOP SCREEN IS SHOWN FOR PURPOSES OF THIS PAPER TO PROVIDE MORE INFORMATION. A REGULAR USER, WITHOUT SYSOP RESPONSIBILITY WOULD SEE ONLY THE LOWER MENU, AND THE CHOICES THAT START WITH A LETTER.]

===== [ SYSOP'S MENU ] =====

1)VIEW/PRINT CALLER'S LOG	8)PACK THE USER'S FILE
2)VIEW/PRINT USER'S LOG	9)EXIT TO DOS FR.REMOTE
3)PACK/RENUMBER MESSAGES	10)PERFORM DOS FUNCTION
4)RECOVER A KILLED MESSAGE	11)VIEW OTHER NODE USERS
5)LIST MESSAGE HEADERS	12)LOGOFF ALTERNATE NODE
6)VIEW ANY SYSTEM FILE	13)VIEW ALTERNATE NODE
7)USER MAINTENANCE	CALLER LOG
A)BANDON	G)OODBY (HANG UP)
B)ULLETIN LISTINGS	H)ELP
C)HAT BETWEEN NODES	I)NITIAL WELCOME
C)OMMENT TO SYSOP	J)OIN A CONFERENCE
D)OWNLOAD A FILE	K)ILL A MESSAGE
E)NTER A MESSAGE	L)OCATE FILES(NAME)
F)ILE DIRECTORIES	M)ODE (GRAPHICS)
N)EW FILES (DATE)	T)RANS. PROTOCOL
O)PERATOR PAGE	U)P LOAD A FILE
OPEN A DOOR	V)IEW SETTINGS
P)AGE LENGTH	W)RITE USER INFO
Q)UICK MSG SCAN	X)PERT ON/OFF
R)EAD MESSAGES	Y)OUR PER.MAIL
S)CRIPT QUESTION	Z)IPPY DIR SCAN

(131 MIN. LEFT) MAIN BOARD COMMAND? F

[NOTE THE TIME ABOVE, THIS IS DISPLAYED AT EACH COMMAND PROMPT, AND TELLS THE USER HOW MUCH TIME THEY HAVE LEFT ON THE SYSTEM. THIS TIME IS CONTROLLED BY SECURITY CLEARANCE LEVEL, AND IS GENERALLY FROM 30 MINUTES TO AN HOUR, WITH ADDITIONAL TIME ALLOCATED FOR PARTICIPATION IN CONFERENCES (SPECIAL INTEREST BOARDS WITHIN THE MAIN BOARD)]

[SHOULD THE USER CHOOSE THE F)ILES COMMAND, BY PRESSING F AND RETURN, THEY WOULD SEE THE FOLLOWING SCREENS:]

==== NSPE/PEC BOARD===== ==FILE DOWNLOAD DIRECTORIES=====

\*\*\*\*\* DISCLAIMER \*\*\*\*\*

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\*\*\*\*\* "FREWARE" \*\*\*\*\*

MANY OF THE PROGRAMS AND DATA OFFERED FOR DOWNLOAD BY THE NSPE/PEC BOARD ARE COPYRIGHTED BY THEIR AUTHORS AND ARE OFFERED UNDER THE "FREWARE" OR "SHAREWARE" CONCEPT. THAT IS, THE AUTHORS OFFER THE PROGRAMS TO THE PUBLIC, AND REQUEST THAT IF THE USER FINDS THE PROGRAMS USEFUL, ONE SUPPORTS BOTH THE AUTHOR AND THE "SHAREWARE" CONCEPT THROUGH REGISTERING AND SENDING MONEY TO THE AUTHOR, AND THROUGH RESPECTING THE CONDITIONS SPECIFIED BY THE AUTHORS. OTHER PROGRAMS ARE OF A COMMERCIAL NATURE AND ARE OFFERED FOR SALE OR LICENSE BY TERMS AND CONDITIONS NOTED BY THE VENDOR.

FILE DIRECTORIES ----- !!!!!!!!!NOTE!!!!!!!!!!!!!!

DIRECTORIES WITH "\*" IN FRONT HAVE PROGRAMS AND FILES IN THEM!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

- \*DIRECTORY 1 - UTILITY PROGRAMS (ARC, LU, ALUSQ, DESK ORGANIZERS, ETC.)
- \*DIRECTORY 2 - COMMUNICATIONS PROGRAMS AND ENHANCEMENTS (QMODEM, PIBTERM)
- \*DIRECTORY 3 - FILE MANAGEMENT SOFTWARE (DIRECTORIES SEARCH, PATHS, ETC.)
- \*DIRECTORY 4 - SPREADSHEET PROGRAMS VARIOUS TOPICS

- \*DIRECTORY 5 - PRINTER AND WORD PROCESSING UTILITIES (PC-WRITE, ETC.)
- \*DIRECTORY 6 - DATA BASE PROGRAMS AND UTILITIES (PC-FILE3, PC-DBMS, ETC.)
- \*DIRECTORY 7 - HARDWARE PROGRAMS (PC SWITCH SETTINGS, MEMORY DATA, ETC.)
- \*DIRECTORY 8 - NSPE/PEC FILES (THIS IS WHERE TO FIND HELP WITH THE BOARD)
- DIRECTORY 9 - CP/M OPERATING SYSTEM PROGRAMS
- DIRECTORY 10 - NOT CURRENTLY USED
- \*DIRECTORY 11 - STRUCTURAL ENGINEERING
- \*DIRECTORY 12 - CIVIL ENGINEERING
- \*DIRECTORY 13 - ELECTRICAL ENGINEERING
- \*DIRECTORY 14 - MECHANICAL ENGINEERING
- DIRECTORY 15 - INDUSTRIAL ENGINEERING
- DIRECTORY 16 - MINING ENGINEERING
- DIRECTORY 17 - METALLURGY ENGINEERING
- DIRECTORY 18 - GEOTECHNICAL ENGINEERING
- DIRECTORY 19 - BIOMEDICAL ENGINEERING
- DIRECTORY 20 - ENGINEERING MANAGEMENT
- \*DIRECTORY 21 - SCHEDULING
- \*DIRECTORY 22 - ESTIMATING
- \*DIRECTORY 23 - ACCOUNTING
- DIRECTORY 24 - JOB COSTING
- DIRECTORY 25 - PROJECT MANAGEMENT
- DIRECTORY 26 - GENERAL CONTRACTING
- DIRECTORY 27 - CONTRACT DOCUMENTS
- \*DIRECTORY 28 - COMMERCIALS (ADV.& ANNOUNCEMENTS  
HARDWARE/SOFTWARE) FROM SUPPORT-  
ERS OF THE NSPE/PEC BULLETIN BOARD
- \*DIRECTORY 29 - MISC. PROGRAMS AND FILES (SOME  
IMPORTANT THINGS, SOME JUST FUN)

IF YOU HAVE PROGRAMS TO DONATE, AND THEY DO NOT FIT IN AN EXISTING DIRECTORY, UPLOAD THEM, AND LEAVE A MESSAGE TO THE SYSOP ABOUT WHERE THEY SHOULD GO. IF YOU WANT TO KEEP YOUR FIELD'S DIRECTORY ALIVE, THE DONATION OF ONE PROGRAM IS ALL IT WILL TAKE TO KEEP ITS SLOT OPEN, SO OTHERS IN YOUR SPECIALTY WILL HAVE A PLACE TO SHARE THEIR PROGRAMS WITH YOU!

[AFTER THIS, THE USER COULD LIST A DIRECTORY, AND SEE WHAT FILES ARE AVAILABLE FOR DOWNLOADING, IN THIS CASE, DIRECTORY 11, THE STRUCTURAL ENGINEERING DIRECTORY IS CHOSEN:]

===== NSPE/PEC BOARD === DIRECTORY 11 STRUCTURAL=====

#### NOTES:

1. FILES THAT SAY (ASCII) AFTER THEM ARE STORED IN ASCII FORMAT. THE PURPOSE OF THIS IS THAT THEY MAY BE EASILY CONVERTED TO NON IBM PC'S, OR RUN AS THEY ARE ON IBM PC'S OR COMPATIBLE.
2. FILES THAT START WITH A "D" ARE DEMO VERSIONS OF COMMERCIALLY AVAILABLE PACKAGES. THE PRICES AND INFORMATION ARE INCLUDED IN THE DOCUMENTATION WHICH IS PART OF THE FILE.

3. FILES WITH AN EXTENT OF .BAS ARE IN IBM BASIC UNLESS OTHERWISE NOTED.

FILENAME.EXT	SIZE	FILEDATE	DESCRIPTION
WODCOL.BAS	1906	10-25-86	WOOD COLUMN DESIGN (ASCII)
WDBEAM.BAS	3027	10-25-86	WOOD BEAM DESIGN (ASCII)
MDULDS.BAS	7183	10-25-86	MOMENT DISTRIBUTION (ASCII)
STLCOL.BAS	1845	10-25-86	STEEL COLUMN DESIGN (ASCII)
SHRWAL.BAS	2437	10-25-86	SHEAR WALL WIND ANALYSIS (ASCII)
CONDEF.BAS	4472	10-25-86	CONCRETE BEAM DEFLECTION (ASCII)
SHRTOR.BAS	2933	10-25-86	R/C SHEAR AND TORSION (ASCII)
DOUBLE.BAS	XXXX	10-25-86	BEAM WITH DOUBLE CANTILEVERS (ASCII)

[THEN, VIA XMODEM PROTOCOL, WE COULD DOWNLOAD A PROGRAM, SAY SHRWAL.BAS TO OUR SYSTEM, AND THE RESULT WOULD BE THIS:]

[NOTE, THIS PROGRAM HAS BEEN MODIFIED FOR APPEARANCE IN THIS PAPER, AND IS NOT AN EXACT DUPLICATE OF THE ONE ON THE NSPE/PEC BULLETIN BOARD.]

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15 REM SHEARWALL WIND ANALYSIS
20 CLS
30 DIM L(50),H(50),F(50),P(50),N(50),A$(80)
40 PRINT "SHEAR WALL ANALYSIS"
50 LPRINT "SHEAR WALL ANALYSIS"
55 LPRINT
60 PRINT "SOUTH FLORIDA BUILDING CONE"; PRINT
70 LPRINT "SOUTH FLORIDA BUILDING CONE"; LPRINT
75 LPRINT
76 INPUT "JOB NAME:";A$: LPRINT "JOB NAME:";A$
77 LPRINT
80 INPUT "WIND VELOCITY (MPH)=";V
90 LPRINT "WIND VELOCITY=";V;"MPH"
100 PRINT
110 LPRINT
120 INPUT "SHAPE FACTOR=";SF
130 LPRINT "SHAPE FACTOR=";SF
140 INPUT "ULTIMATE FACTOR=";UF
150 LPRINT "ULTIMATE FACTOR=";UF
155 IF UF = 1 THEN LPRINT : LPRINT "ELASTIC MOMENTS,
NOT FOR STEEL DESIGN"
156 LPRINT
160 LPRINT

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[THE TOTAL DOWN LOAD WOULD HAVE TAKEN LESS THAN A MINUTE AT 1200 BAUD]

[THEY MIGHT THEN GO TO THE MAIN BOARD, AND REVIEW CURRENT BULLETINS:]

===NSPE/PEC BULLETIN LISTINGS=== MAIN BOARD AREA===

DATE	NUMBER	SUBJECT
18oct86	1	SIC CODES FOR THE CONSTRUCTION INDUSTRY
18oct86	2	THE SCRIPT QUESTIONNAIRE AND IT'S USES
18oct86	3	TAX REFORM AND THE CONSTRUCTION INDUSTRY
18oct86	4	CA WORKMEN COMPENSATION RATES (85-86)
18oct86	5	CONSTRUCTION INDUSTRY ELECTRONIC BOARD
18oct86	6	USE OF THE MAIN BOARD AREA
18oct85	7	DATA BASED ESTIMATING
18oct86	8	PROJECT MANAGEMENT SOFTWARE UNDER \$200.00
25oct86	9	EFFICIENT USE OF CROSSTALK XVI

View: [1 - 60], [L]ist, [C/R]=none?

[AT THIS POINT, THEY MIGHT SELECT BULLETIN NUMBER 12, AND THEN THEY WOULD SEE:]

===== THE MAIN BOARD AREA===== BULLETIN # 12==

THE FOLLOWING IS A LIST OF FILES FROM THE NATIONAL SCIENCE FOUNDATION BBS CONCERNING ENGINEERS.

THESE FILES CONSIST OF 132 COLUMN STATISTICAL REPORTS, AND MAY BE DOWNLOADED TO YOUR SYSTEM FOR PRINTING OUT BY THE NORMAL DOWNLOAD PROCEDURES.

FILE: NB2A.UTL TABLE C2a.	SCIENTISTS, ENGINEERS, AND TECHNICIANS IN NON MANUFACTURING BY DETAILED OCCUPATION AND BROAD INDUSTRY GROUP: 1984
FILE: NB2B.UTL TABLE C2b.	SCIENTISTS, ENGINEERS, AND TECHNICIANS IN NONMANUFACTURING BY DETAILED OCCUPATION AND BROAD INDUSTRY GROUP: 1984 (CONT.)
FILE: NB2C.UTL TABLE C2c.	SCIENTISTS, ENGINEERS, AND TECHNICIANS IN NONMANUFACTURING BY DETAILED OCCUPATION AND BROAD INDUSTRY GROUP: 1984 (CONT.)
FILE: B6A.DEM TABLE B-6A.	EMPLOYED SCIENTISTS AND ENGINEERS BY FIELD, SEX, AND PRIMARY WORK ACTIVITY: 1984

FILE: ACSE76.UNV  
TABLE B-76. SCIENTISTS AND ENGINEERS EMPLOYED AT  
HISTORICALLY BLACK COLLEGES: JANUARY 1984 AND  
1985 FILE: PAY.DEM  
TABLE B-16. AVERAGE ANNUAL SALARIES OF SCIENTISTS AND  
ENGINEERS BY FIELD AND SEX/RACIAL/ETHNIC  
GROUP: 1984  
FILE: UNIVRANK  
TABLE B-55. SCIENTISTS AND ENGINEERS EMPLOYED AT  
UNIVERSITIES AND COLLEGES: JANUARY 1984 AND  
1985

MANY OTHER FILES OF INTEREST TO ENGINEERS AND SCIENTISTS ARE  
ON-LINE AT THE NATIONAL SCIENCE FOUNDATION BBS, WHICH IS OPEN  
TO THE PUBLIC.  
DATA PHONE NUMBER: (202) 634-1764

[AT WHICH POINT THE USER MIGHT ACCESS THE MESSAGE SYSTEM,  
READ PRIVATE MAIL TO THEM, PUBLIC MESSAGES, LEAVE MESSAGES TO  
PUBLIC, OR OTHER USERS, ETC. OR JOIN A CONFERENCE, OR DO  
ANY OTHER FUNCTION ALLOWED BY THEIR MENU.]

[BELOW IS A TYPICAL REMOTE SYSOP CALL, AND THIS IS AN EXAMPLE  
OF THE CALLERS LOG THAT IS SAVED BY THE SYSTEM. NOTE THAT IN  
28 MINUTES, 6 MESSAGES WERE LEFT, 3 MESSAGES READ AND REMOVED  
FROM THE SYSTEM, THE CALLERS LOG WAS LOOKED AT TO SEE WHAT  
HAD BEEN HAPPENING ON THE SYSTEM, AND REMOTE SYSTEM  
MAINTENANCE (DONE IN EXIT TO DOS) WAS PERFORMED FOR 18 OF THE  
28 MINUTES.]

[COMPARE THAT WITH THE TIME TO READ MAIL, TYPE LETTERS, AND  
SEND THEM THROUGH THE MAIL, AND YOU CAN SEE SOME OF THE  
IMMEDIATE ADVANTAGES OF AN ELECTRONIC MAIL SYSTEM.]

\*\*\*\*\* 19:26 [12-05-86] CARL MEGLAN OFF NORMALLY  
TIME USED: 28 MINUTES  
MAIN BOARD MSG # 115 LEFT.  
MSG # 109 KILLED.  
MAIN BOARD MSG # 114 LEFT.  
MSG # 108 KILLED.  
COMPUTER CONFERENCE ABANDONED.  
COMPUTER CONFERENCE MSG # 24 LEFT.  
COMPUTER CONFERENCE MSG # 23 LEFT.  
COMPUTER CONFERENCE JOINED  
BACK FROM DOS AT 19:18  
EXITED TO DOS AT 19:17  
BACK FROM DOS AT 19:17  
EXITED TO DOS AT 19:10  
C/L VIEWED  
COMPUTER CONFERENCE ABANDONED.  
COMPUTER CONFERENCE JOINED  
MAIN BOARD MSG # 113 LEFT.  
MAIN BOARD MSG # 112 LEFT.  
MSG # 107 KILLED.

18:58 [12-05-86] CARL MEGLAN [1200] [N/G]