

SHARE PROGRAM LIBRARY AGENCY



PROGRAM NUMBER

086001

University of Miami

1365 MEMORIAL DRIVE - CORAL GABLES, FLORIDA
(305) - 284-6257

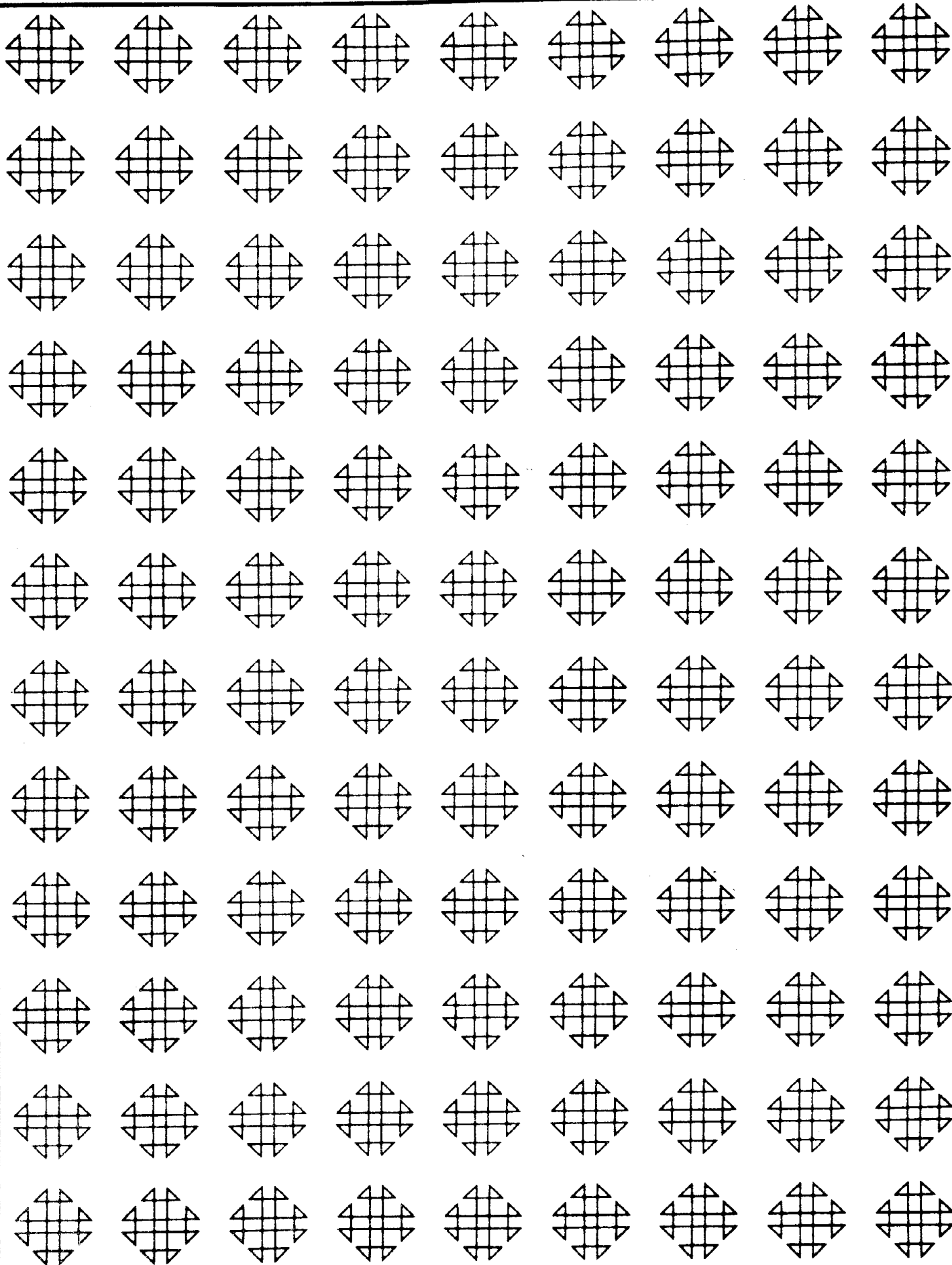
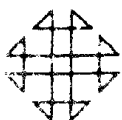
Plots a Subroutine for Time-Series Plotting on a Printer

360D-08.6.001

360D-08.6.001

Plots a Subroutine for Time-Series
Plotting on a Printer

CONTRIBUTED PROGRAM LIBRARY



DISCLAIMER

This program and its documentation have been contributed to the Program Information Department by an IBM customer and are provided by the IBM Corporation as part of its service to customers. The program and its documentation are essentially in the author's original form and have not been subjected to any formal testing. IBM makes no warranty expressed or implied as to the documentation, function, or performance of this program and the user of the program is expected to make the final evaluation as to the usefulness of the program in his own environment. There is no committed maintenance for the program.

Questions concerning the use of the program should be directed to the author or other designated party. Any changes to the program will be announced in the appropriate Catalog of Programs; however, the changes will not be distributed automatically to users. When such an announcement occurs, users should order only the material (documentation, machine readable or both) as indicated in the appropriate Catalog of Programs.

DISCLAIMER

Triangle Universities Computation Center (TUCC) serves solely as the distribution agent for contributed programs and does not test or maintain them. They are distributed essentially in the original form submitted by the author. Neither TUCC nor SHARE, INC., makes any warranty, expressed or implied, as to the documentation, function, or performance of the contributed programs.

Input
Field
Number

SHARE PROGRAM LIBRARY

(SF) PROGRAM PACKAGE SUBMITTAL/ANNOUNCEMENT

(For details on the use of this form, see the SHARE Reference Manual, Section 6)

Card
Columns

1 SDA Number (to be filled in by SDA) S D A 13-21

Date of Submittal 2-9-67 New X or Revision

2 Submitter's Installation Code UCS 1-3

3 Program Number or Designation (and Suffix) PLTS 4-8

4 Submitter's Name R. H. KARPINSKI A22-38

5 Submitter's Department (primarily for internal use) COMPUTER CTR A39-50

6 Author (if different from above) A51-67

7 Year Completed (last 2 digits) or Status Code 66 A68-69

8 Title PLOTS, A SUBROUTINE FOR TIME-SERIES PLOTTING ON A PRINTER. Title Card 012-68

9 Field of Application PLOTTING B12-26

10 Primary Subject Code J5 B27-29

11 Secondary Subject Codes B30-41

12 Principal Source Language FORT4 B42-48

13 Secondary Source Language B49-55

14 Type of Routine SR B56-57

15 Machine 360/40 B58-64

16 Monitor or Operating System Required OS/360 B65-71

17 Special Machine Requirements C12-23

18 Non-Library Routines or Subr. Req. C24-39

19 Documents Available (indicate page counts): Submittal & Attachments... SU (BLANKS) 2 C40-44

Catalog Cards... Write-up... WU 0 Listing... LS 1 C45-54

NOTE: The SU and Catalog Cards are sent to all installations at announcement time. Obtainable by order card from SDA are: 1) The Documentation (DØ) consisting of the SU and WU, 2) the Listing (LS).

20-21 Program Material Avail.

20 a. Primary Form FORT4 SOURCE D12-31

b. Count 57 c. Medium EXH D32-39

21 a. Additional Form D40-59

b. Count c. Medium D60-67

22 Search Key SUBROUTINE FOR *TIME-SERIES * PLOTTING ON A PRINTER Search Card S12-74

Remarks (not to be keypunched)

Abstract (Cards 10-99, Columns 12-72)

To use 'PLOTS' to plot N curves:

Call PLOTS (-N, RANGES)

where N=NUMBER OF CURVES (this argument should be negative for the setup call, causing a new plot to be started), and RANGES = an array of size $3N + 3$;

RANGES (1) = time zero (time at beginning of plot)

RANGES (2) = DELTA time (time increment per plot line)

RANGES (3) = L (time will be printed every L lines, unless $L < 0$)

RANGES (4) = X (1) MIN (minimum value to be plotted for 1st curve)

RANGES (5) = X (1) MAX (maximum value to be plotted for 1st curve)

RANGES (6) = X (1) CHAR (character to be plotted to indicate 1st curve)

⋮

RANGES (3N + 1) = X (N) MIN

RANGES (3N + 2) = X (N) MAX

RANGES (3N + 3) = X (N) CHAR

For each line desired (i.e., Call 'PLOTS' many times, once for each time increment),

CALL PLOTS (N, X)

where N = the number of curves,

and X (I) = the current value of the Ith curve.

'PLOTS' will actually plot a value up to, but not including,

MAX + (MAX-MIN) * 0.01 in the 101st print position.

N should be between 1 and 100.

(Please attach additional pages, if necessary)

Pages Attached: Key punchable Abstract Continuation (AC) _____

Non-Key punchable Supplement (NK) _____

Signature of Submitter

Richard H. Karpurish

Date

Feb. 9, 1967

Signature of Installation Addressee

J. B. Gentry by M. Clark

Plots A Subroutine for Time-Series Plotting on a Printer

Information Systems **K-U** ~~CONFIDENTIAL~~
Author: R. H. Karpinski
University of California
San Francisco, Calif. ~~CONFIDENTIAL~~
Direct Inquiries To: Author **94143**

```

SUBROUTINE PLOTS(N,X)
DIMENSION X(500),XMIN(100),XMAX(100),XCHAR(100),CHAR(101)
EQUIVALENCE (BLANK,IBLANK),(STAR,ISTAR)
IF(N)100,99,200
100 TIME=X(1)-X(2)
TDEL= X(2)
LINES=X(3)
M=-N
DO 110 I=1,M
XMIN(I)=X(3*I+1)
XMAX(I)=X(3*I+2)
XCHAR(I)=X(3*I+3)
110 CONTINUE
LINECT=LINES
IF(LINES)120,120,130
120 LINECT=-30000
130 CONTINUE
ISTAR=23616*65536
IBLANK=16448*65536
WRITE(6,1)M,(I,XCHAR(I),XMIN(I),XMAX(I),I=1,M)
1 FORMAT('1',14,' CURVE-S TO BE PLOTTED.'///
*(' CURVE NO.',I3,' IDENTIFIED BY ',1H',A1,1H',
*' WITH MINIMUM =',E11.3,', MAXIMUM =',E11.3))
WRITE(6,2)
2 FORMAT('1',3X,'TIME',6X,'|',101(1H-))
DO 1040 I=1,M
XMAX(I)=(XMAX(I)-XMIN(I))*0.01
1040 CONTINUE
RETURN
C ERROR SECTION
99 WRITE(6,98)
98 FORMAT('SOME ERROR HAS OCCURRED.')
RETURN
C PLOT A LINE
200 DO 210 I=1,101
CHAR(I)=BLANK
210 CONTINUE
DO 220 I=1,N
J=(X(I)-XMIN(1))/XMAX(1)+1.0
IF(J)220,220,221
221 IF(J-101)222,222,220
222 IF(CHAR(J)-BLANK)223,224,223
223 CHAR(J)=STAR
GO TO 220
224 CHAR(J)=XCHAR(I)
220 CONTINUE
TIME=TIME+TDEL
LINECT=LINECT+1
IF(LINES-LINECT)240,230,230
230 WRITE(6,3)CHAR
3 FORMAT(14X,'|',101A1)
RETURN
240 WRITE(6,4) TIME,CHAR
4 FORMAT(1X,E13.4,'|',101A1)
LINECT=1
RETURN
END

```