

**XDS PROGRAM LIBRARY  
PROGRAM DESCRIPTION**

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Catalog No. 870026-11A00

**TITLE:** 940 TIME SHAREING USERS UTILITY PROGRAM

**ACCEPTED:** September 8, 1969

**COMPUTER  
CONFIGURATION:** All 940 Systems

**PURPOSE:** A series of independent user written routines to solve business, math, and scientific problems.

**SOURCE  
LANGUAGE:** BASIC, CAL, FORT II, TAP

**USE:** The programs may be used to solve related problems in business or science or may be used to demonstrate the 940 sub-systems. The sixty-one routines are in the 940 "FILES" tape format and may be retrieved using the "MAGTAPE" Handler. A copy of the handler instructions is enclosed along with an index to the tape.

**METHOD:** HANDLER INSTRUCTIONS

GO "MAGTAPE"

**XDS** 940 MAG TAPE HANDLER.

UNIT NO: 0

+HELP.

## MAG TAPE HANDLER COMMANDS

A - APPEND FILES FROM MTO ONTO FILES ON MT1

D - DUPLICATE MTO ONTO MT1

H - HELP, LIST COMMANDS

I - INPUT FROM MAGNETIC TAPE

N - GENERATE A BLANK FILES TAPE

O - OUTPUT TO MAGNETIC TAPE

METHOD: (CONTINUED)

## MAG TAPE HANDLER COMMANDS

- R - REWIND MAGNETIC TAPE  
 V - VERIFY FILES ON MT1 VERSUS FILES ON MTO

Each command requires a confirming carriage return. A heading which includes the current date and time, and the date and time recorded on the reel will be typed before the command becomes effective. A single escape will restore the program to the command input mode.

INDEX TO TAPE

UTILITY FILE DIRECTORY - TSS 4.0 9/3/69

4,3,37777	'FD-4.0'	UTILITY FILE DIRECTORY
5,3,10157	'LIB-LIST'	LIST OF ALL AVAILABLE PROGRAMS
6,3,7640	'BUS-DEX'	BUSINESS PROGRAMS
7,3,7640	'DEMO-DEX'	DEMONSTRATION PROGRAMS
10,3,7640	'MATH-DEX'	MATH APPLICATIONS
11,3,7640	'SCI-DEX'	SCIENCE, ENGR, & ELEC PROGRAMS
12,3,7640	'A1'	INPUT FILE FOR 'MULREG'
13,3,7640	'ANNUITY'	CALCULATES PAYMENT & WITHDRAWAL
14,3,7640	'ASHELL'	ARTILLERY FIRING
15,3,7640	'ASLOT'	ONE ARM BANDIT
16,3,7640	'ASTICK'	PICK-UP STICKS ADULT STYLE
17,3,7640	'BEMDES'	BEAMS FOR SUPPORT APPLICATIONS
20,3,7640	'BESSEL'	BESSEL FUNCTION FOR CAL
21,3,7640	'BINDIS'	BINOMIAL PROBABILITY DISTRI- BUTION
22,3,7640	'BITEST'	BINOMIAL PROPORTION TEST
23,3,7640	'A21'	BLACKJACK
24,3,7640	'BRIDGE'	COMPUTES VERTICAL CABLING ON BRIDGE

## METHOD: (CONTINUED)

25,3,7640	'CATAN'	ARCSIN & ARCTAN FUNCTIONS FOR CAL
26,3,7640	'CERCLE'	DIVIDES A CIRCLE
27,3,7640	'COLINR'	CONFIDENCE LIMITS ON LINEAR REGRESSIONS
30,3,7640	'CONBIN1'	BINOMIAL CONFIDENCE LIMITS
31,3,7640	'CDICE'	CRAPS
32,3,7640	'FEEDBACK'	COMPUTE & GRAPH FEEDBACK SYSTEM
33,3,7640	'FILTER'	TWIN TEE FILTER DESIGN PROGRAM
34,3,7640	'GPAR'	GOLF AT SDS COURSE
35,1,10756	'GO9X9'	GOMOKU
36,3,7640	'GCVSIZ'	GAS & VAPOR VALVE COEFFICIENTS
37,3,7640	'KRACE'	KENTUCKY DERBY
40,3,7640	'LINPRO'	MAXIMIZE AN OBJECT FUNCTION
41,3,7640	'LPXEP'	LINPRO INSTRUCTIONS
42,3,7640	'LINREG'	LINEAR REGRESSION ANALYSIS
43,3,7640	'LIQVAL'	LIQUID VALVE COEFFICIENTS
44,3,7640	'MANDSD'	COMPUTES MEAN, VARIANCE, & STD. DEVIATION
45,3,7640	'MEANLIM'	COMPUTES LIMITS FOR MEAN
46,3,7640	'MICRO'	MATCHES COMPONENTS AT WAVE FREQUENCIES
47,3,7640	'MINMAX'	COMPUTES MIN AND MAX
50,3,7640	'MORTGAGE'	STANDARD MORTGAGES
51,3,7640	'MPLOT'	UP TO 9 EQU. IN TWO VARIABLES
52,3,10157	'MULREG'	MULTIPLE LINEAR REG. ANALYSIS
53,3,7640	'NUMINT'	NUMERICAL INTERGRATION(GAUSS)
54,3,7640	'PLOT'	PLOTS EQUATION WITH TWO VARI- ABLES
55,3,7640	'POLYCURV'	POLYNOMIAL CURVE FIT
56,3,7640	'Q4X4X4'	TIC-TAC-TOE 3-DIMENTIONAL

## METHOD: (CONTINUED)

57,3,7640	'ROOT'	SOLVES ROOTS OF EQUATIONS
60,3,7640	'SAVINGS'	INTERESTS & SAVINGS ACCUMU- LATED
61,3,7640	'SCVSIZ'	STEAM CONTROL VALVE COEFFI- CIENT
62,3,7640	'SIGNIF'	LIMITS FOR DIFF. BETWEEN MEANS
63,3,7640	'SPHERE'	SOLVES SPHERICAL TRIANGLE PRO- BLEMS
64,3,7640	'STATANAL'	STATISTICAL ANALYSIS FOR SINGLE VALUE
65,3,7640	'STOCK'	PROFIT EARNINGS TO PERCENT OF INCREASE
66,3,7640	'T3X3'	TIC-TAC-TOE
67,3,7640	'TRIANGLE'	SOLVES AREA, ANGLES, & LEGS
70,3,7640	'TRUINT'	TRUE ANNUAL RATE OF INTEREST
71,3,7640	'TWOPL0'	SIMULTANEOUS PLOT TWO FUNCT.
72,3,7640	'VARIANCE'	ONE-WAY ANALYSIS OF VARIANCE
73,3,7640	'WEKDAY'	DAY OF WEEK BORN & ELAPSE TIME
74,1,10756	'WHO'	"GO" FILE THAT TELLS WHO IS ON SYSTEM
75,1,7640	'XRAY'	ALLOWS OPERATOR ACCESS TO ANY USER