

# INDEX

## TO HP 2000 SERIES

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709 ACCOUNTS PAYABLE  
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711 ACCOUNTS RECEIVABLE  
712 FINANCIAL ANALYSIS  
713 INVESTMENT ANALYSIS  
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820 ENGINEERING (EDUCATION)  
830 ECONOMICS (EDUCATION)  
833 SCIENCE (EDUCATION)  
850 FINE ARTS (EDUCATION)  
860 SOCIAL SCIENCE (EDUCATION)  
863 HISTORY (EDUCATION)  
870 ENGLISH (EDUCATION)  
871 FOREIGN LANGUAGES (EDUCATION)  
872 READING (EDUCATION)  
880 BUSINESS (EDUCATION)  
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890 VOCATIONAL (EDUCATION)

## 900 UNCLASSIFIED

901 DEMONSTRATIONS  
903 GAMES  
904 PLOTTING ROUTINES (non-BASIC Library)  
905 MICROCODE (non-BASIC Library)

# About the HP 2000 CONTRIBUTED LIBRARY

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## GENERAL

Hewlett Packard makes available a great many user written programs through the HP 2000 Contributed Library. These programs are collected from all over the world and range from complex data communications packages to educational games.

Before writing a program for your particular application we suggest you scan this INDEX to the library. You may find a program you can use without modification, or as a starting point for developing your own special-purpose software.

This INDEX is divided into two separate sections:

- Time-shared BASIC/2000
- 2000 Non-BASIC (FORTRAN, ALGOL, HP Assembly Language)

Refer to the appropriate section for a complete list of available programs and ordering information. (Prices listed in this INDEX are subject to change.)

## ERRORS IN CONTRIBUTED SOFTWARE

Contributed software is checked by HP personnel; however, it is impractical to test programs under all circumstances. If you do encounter errors, please report them to the HP Contributed Library on the Error Report forms supplied with library Handbooks and Catalogs.

*The Hewlett Packard Company makes no warranty, expressed or implied and assumes no responsibility in connection with the program material listed hereon.*

## NEW CONTRIBUTIONS

New contributed programs are welcome for consideration as entries to the library. In screening programs, particular emphasis is placed on submittals of widespread usefulness. A documentation form for BASIC contributed programs is included in this INDEX; documentation forms for non-BASIC programs are included in the Contributor's Guide (HP 5952-4372) available from your local HP sales office. If you have a program to share with other HP users, please fill out the appropriate documentation form and submit it, along with software and listing, to Hewlett-Packard Company, HP 2000 Contributed Library, 11000 Wolfe Road, Cupertino, California 95014.

# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAM LIBRARY

## ORDERING INFORMATION

Contact your local HP sales office for ordering information of contributed software. Programs are available individually on paper tape, or collectively, on magnetic tape. Documentation is provided in 5 volumes of BASIC Handbooks, and in some cases additional user manuals and classroom supplementary materials are available. (See list of Supplementary Documentation).

### Documentation

- Volume I** HP 36000-91001  
Time-shared BASIC/2000 Program  
Documentation . . . . . Price \$10  
Contains documentation for programs in  
categories:  
100 DATA HANDLING  
200 TESTING, DEBUGGING AND PROGRAM-  
MING AIDS
- Volume II** HP 36000-91002  
Time-shared BASIC/2000 Program  
Documentation . . . . . Price \$10  
300 MATH AND NUMERICAL ANALYSIS  
400 PROBABILITY AND STATISTICS  
500 SCIENTIFIC AND ENGINEERING  
APPLICATIONS
- Volume III** HP 36000-91003  
Time-shared BASIC/2000 Program  
Documentation . . . . . Price \$10  
600 MANAGEMENT SCIENCES AND  
OPERATIONS RESEARCH  
700 BUSINESS AND MANUFACTURING  
APPLICATIONS
- Volume IV** HP 36000-91004  
Time-shared BASIC/2000 Program  
Documentation . . . . . Price \$15  
800 EDUCATION
- Volume V** HP 36000-91005  
Time-shared BASIC/2000 Program  
Documentation . Price to be determined  
900 GAMES (available Fall, 1974)

### Supplementary Documentation

These manuals should be ordered for proper operation of the software.

BOLA	Bombardment of Light Atoms	5951-7177	****
CASE1	Cases in Computer and Model Assisted Marketing: Planning	5951-5661	\$5
CASE2	Cases in Computer and Model Assisted Marketing: Data Analysis	5951-5662	\$5
COBOL	COBOL/2000: A Primer	5951-5664	\$8.98
CTC1	Complete Documentation for CTC1	36210, Option D00	\$5
CTC2	Complete Documentation for CTC2	36211, Option D00	\$5

CTC3	Complete Documentation for CTC3	36212, Option D00	\$5
CTC4	Complete Documentation for CTC4	36213, Option D00	\$5
CTC5	Complete Documentation for CTC5	36214, Option D00	\$5
CTC6	Complete Documentation for CTC6	36638, Option D00	\$5
FINDIT	FINDIT Users Manual	36250, Option D00	\$5
GRAZE	GRAZE Ecology Simulation Student Text	5951-5653	\$3.50
	GRAZE Ecology Simulation Teachers Notes	5951-5654	\$4
HPPLOT	Users Manual (from HP/San Diego Div.)	72050-90002	\$5
IDA	IDA: Conversational Statistics	5951-5606	***
PILOT	PILOT Reference Manual	5951-5660	\$6.50

\*\*\*IDA Manual will be available Fall, 1974.

Price to be determined.

\*\*\*Price to be determined.

### Software

#### Mag Tape (2000F DUMP tape) 1 for each volume

- \*HP 36000-10001 Software for Volume I . . . Price \$25
- \*HP 36000-10002 Software for Volume II . . . Price \$25
- \*HP 36000-10003 Software for Volume III . . . Price \$50
- \*HP 36000-10004 Software for Volume IV . . . Price \$50
- \*HP 36000-10005 Software for Volume V . . . Price \$25 (available Fall, 1974)

\*Note: 800 BPI.

1600 BPI tapes are also available.

### Paper Tape

Paper tapes are priced at \$10 per box, and are ordered by the individual program number, Option K01. The following programs have more than one box, and are priced as shown:

**CASE1	HP 36790, K01	\$30
**CASE2	HP 36841, K01	\$30
CLIMAT	HP 36760, K01	\$50
**COBOL	HP 36845, K01	\$40
**CTC1	HP 36210, K01	\$80
**CTC2	HP 36211, K01	\$120
**CTC3	HP 36212, K01	\$30
**CTC4	HP 36213, K01	\$110
**CTC5	HP 36214, K01	\$40
**CTC6	HP 36638, K01	\$80
GPAC	HP 36636, K01	\$40
HPASMB	HP 36806, K01	\$20
**HPPLOT	HP 36805, K01	\$20
PI2	HP 36737, K01	\$20
**PILOTE	HP 36637, K01	\$20
**PILOTF	HP 36756, K01	\$20
SETUPC	HP 36209, K01	\$20
SGFMS	HP 36832, K01	\$20
SNOBOL	HP 36849, K01	\$20
TUTOR	HP 36139, K01	\$60

\*\*Note: See list of Supplementary Documentation.

Available on Mag Tape Only

The programs listed below are not available on paper tape. Order the appropriate mag tape corresponding to the Volume containing the documentation. For example, the INDEX shows that FINDIT is found in Volume I. Therefore, software is ordered by ordering the mag tape for Volume I (HP 36000-10001).

CARLOS HP 36175 GCHLIN HP 36503  
 CHARS HP 36220 GDAPI HP 36507  
 COLREG HP 36282 GVPDQT HP 36554  
 EDIT2K HP 36838 IDA HP 36755\*  
 FINDAD HP 36867 PLOTS HP 36840  
 FINDIT HP 36250\*

\*Note: See also list of Supplementary Documentation.

CHARSE, HP 36757 is available on 2000E library disc cartridge.

HP TSB/2000E SYSTEM USERS

The library programs compatible with TSB/2000E system operation are available on a disc cartridge, HP 02000-90059, price \$150, dated October, 1973, as well as individually on paper tape. This disc will be updated with the next library update and will include a number of programs written for TSB/2000F systems and modified by TSB/2000E system users. New software is also being written to simplify the loading of the library onto the TSB/2000E systems so that command tapes will no longer be needed.

SYSTEMS SPECIFICATIONS

Library programs have been collected over a period of years, and some of the earlier programs were written for a single terminal BASIC system, or an early version of the HP 2000 series Time-share systems.

The chart below lists varying system features. In many cases slight modifications in coding will allow a program to RUN on systems other than the one for which it was originally written. The list of available programs in this INDEX indicates current system compatibility for individual programs.

Program Features	2000A	2000B	2000C	2000E	2000C High-Speed 2000F
Maximum Program Size	5100 Words	5100 Words	10000 Words	4180 Words	10000 Words
Maximum Number of Files	8	8	16	4	16
Maximum Number of Records/File	128	128	32767	48	32767
Maximum Number of Words/Record	64	64	256	128	256
Programmable Functions:					
TIME		X	X	X	X
ENTER		X	X		X
COMMON		X	X	X	X
CHAIN		Chain: "Name"	Chain: "SName" Statement No.	Chain: "SName"	Chain: "SName" Statement No.
		X	X	X	X
PRINT USING (IMAGE)			X		X
BRK					X
ASSIGN			X		X
RESTARTABLE					
RND			X	X	X
SPACE			X		X
LINE			X		X

# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS

(See also Cross Reference Index)

## 100 DATA HANDLING (VOLUME I)

NAME	TITLE	ORDER NO.	SYSTEM
-ASCII	: ASCII CODE GENERATOR	36257A	F
?AIRE	: QUESTIONNAIRE ANALYSIS	36807A	* F
ADDRESS	: ADDRESS LABELS	36231A	E
ALFTOV	: ALPHA TO VARIABLE CONVERSION	36296B	E
ASCII*	: CREATES AN ASCII FILE CONTAINING ALL 256 ASCII CHARACTERS	36256B	F
CALNDR	: PRINTS A CALENDAR	36288A	F
CHARS	: ASCII CHARACTER SET	36220A	F
CHARGE	: ASCII CHARACTER SET FOR HP 2000E	36757A	E
DATER	: DATE AND DAY OF THE WEEK	36298B	E
EDIT2K	: TEXT EDITOR FOR THE HP 2000C/2000C*/F	36838A	* F
EDITOR	: FILE MANIPULATION - CREATES, EDITS, LISTS, SORTS, EMULATES G.E. MK II.	36749A	* F
FGRAPH	: SIMULTANEOUS FUNCTION GRAPHER	36165A	E
FILDUM	: PAPER TAPE FILE DUMP	36008C	E
FILES	: FILE MANIPULATION - CREATES, SORTS, UPDATES, COPIES, CHANGES FORMAT	36645B	* F
FILIN	: KEYBOARD FILE LOADING PROGRAM	36007A	E
FILIS	: FILE LISTING PROGRAM	36272A	F
FILIST	: LISTS FILE CONTENTS BY RECORD NUMBER	36009D	* E
FILMAN	: FILE MANAGER	36006A	F
FILOAD	: LOADS A FILE FROM THE TELETYPE	36010C	E
FILREA	: REENTERS THE DATA TAPE DUMPED BY FILDUM	36011A	E
FILRPT	: REPORTS FILE CONTENTS AND STRUCTURE	36247A	F
FINDAD	: CONVERTS A FILE TO A FINDIT FILE	36867A	* F
FINDIT	: INFORMATION RETRIEVAL SYSTEM	36250C	* F
FLCOPY	: COPIES ONE FILE INTO ANOTHER	36012B	E
FMS	: FILE MANAGEMENT SYSTEM	36448A	E
FORMAT	: ALLOWS SPECIAL FORMATTING OF DATA PRINTOUT	36005B	E
FORMIF	: F AND I FORMAT	36612A	E
FPLT	: FUNCTION PLOT	36112A	E
GRAPHS	: DEMO PLOT PROGRAM FOR HP 7200 PLOTTER	36115A	E
GTAPID	: PAPER TAPE TITLER	36548A	F
HAZEL	: HAZELTINE 2000 USER SUBROUTINES	36786B	* E
HELLO	: TYPES DATE, TIME, AND PORT NUMBER ON TERMINAL	36125B	F
HISS	: SAMPLE STATISTICS AND HISTOGRAM FORMED FROM A SET OF NUMBERS	36235A	F
HPMLIT	: LIST/DUMP HP ASSEMBLER FILES	36218A	F
HPPLT	: AUTOMATIC PLOTTING PROGRAM	36895A	F
INDEXR	: INDEXING PROGRAM	36770A	E
IRV	: FILE SORT ROUTINE	36232A	F
JULIAN	: JULIAN CALENDAR FOR THE CURRENT YEAR	36197A	F
LODUMP	: FILE LOAD/DUMP	36644A	E
MACRO	: A TEXT AND FILE PROCESSING SYSTEM	36003B	F
MESSAG	: INTERTERMINAL COMMUNICATOR	36284A	F
P12	: INFORMATION SYSTEM	36737A	F
PLOT	: PLOTS A GIVEN FUNCTION ON THE TELETYPE	36104B	E
PLOT33	: KEYBOARD ENTRY MULTIPLE FUNCTION PLOTTER	36659A	F
PLOTS	: ASCII CHARACTER PLOTTER FOR 7200 PLOTTER	36840A	* F
PLOTVD	: WORD PLOTTER	36228B	E
PRINT	: GENERATES LARGE LETTERS	36299A	F
PSQUAR	: PATTERN SQUARES FOR HP 7200A PLOTTER	36249A	* F
SLAB	: SYSTEM LIBRARY ABSTRACTS	36647A	E
SORT	: FILE SERIAL STRING SORT	36122A	F
SPSORT	: SPEED SORT - GENERAL PURPOSE FILE SORT	36736A	* F
STGINT	: STRING-INTEGGER CONVERSIONS	36176A	E
STGSR	: SORTS STRINGS FROM FILES	36145A	F
SYSDAT	: SYSTEM DATE UTILITY	36634A	F
TALK	: TIME SHARING SYSTEM COMMUNICATION	36222A	F
TIDEX	: SYMBOLIC FILE EDITOR	36204B	F
TIMER	: TIME OF THE DAY	36297B	E
TITLE	: CHARACTER GENERATION	36114B	* F
UCHARS	: CREATES FILE 'VCHAR'	36560A	* F
VCHART	: INVESTMENT DECISIONS USING TEKTRONIX 4010	36555A	F
VREGPL	: PLOTTING X AND Y VARIABLES USING TEKTRONIX 4010	36556A	F
VSUB	: DISPLAY ROUTINE USING TEKTRONIX 4010	36558B	* F
VTTT	: TIC-TAC-TOE ON THE TEKTRONIX 4010	36559A	F
XTRACT	: MANUAL/TAPE FILE LOADER AND DUMP PROGRAMS	36221A	F

## 200 TESTING, DEBUGGING, AND PROGRAMMING AIDS (VOLUME I)

DATA	: DUMPS FILE TO DATA STATEMENTS	36287A	F
XREF	: BASIC LANGUAGE PROGRAM CROSS-REFERENCE GENERATOR	36143C	F

## 300 MATH AND NUMERICAL ANALYSIS (VOLUME II)

NAME	TITLE	ORDER NO.	SYSTEM
BASCAL	: BASE CALCULATOR	36847A	* E
BESSEL	: CALCULATES BESSEL FUNCTION OF FIRST KIND	36019A	E
CALCOM	: CALCULATOR PROGRAM WITH OPTIONAL PLOTTER OUTPUT	36131A	F
CDETER	: COMPUTES VALUE OF COMPLEX DETERMINANT	36025A	E
CROUT1	: SOLVES SIMULTANEOUS LINEAR EQUATIONS	36027A	E
CRVFT	: LEAST-SQUARES CURVEFITTING	36633A	E
CTRFTH	: COMPLEX TO REAL FAST FOURIER TRANSFORM	36028A	F
CXARTH	: VECTOR ARITHMETIC	36118B	* E
CXEXP	: VECTOR EXPONENTIATION	36119A	E
DBLFIT	: LEAST SQUARES FIT TO POINTS WITH UNCERTAINTIES IN BOTH VARIABLES	36252A	E
DC-0C	: DECIMAL-TO-OCTAL CONVERTER	36747A	E
DE-10R	: 1ST ORDER DIFFERENTIAL EQUATION	36032A	E
DE-20R	: 2ND ORDER DIFFERENTIAL EQUATION	36033A	E
DETER4	: DETERMINANTS, CHARACTERISTIC POLYNOMIALS AND INVERSES OF MATRICES	36263A	F
EXTPRE	: 40-DIGIT PRECISION MATHEMATICS	36144A	E
FACTOR	: FINDS PRIME FACTORS OF POSITIVE INTEGERS	36037A	E
FNCTS	: COMPUTES TRIG FUNCTIONS FOR COMPLEX ARGUMENTS	36017A	E
GFFT	: GENERAL FAST FOURIER TRANSFORM	36030A	F
GSIMEQ	: SIMULTANEOUS LINEAR EQUATIONS	36547A	F
INTGR	: DEFINITE INTEGRAL BY MEANS OF 3-POINT GAUSSIAN INTEGRATION FORMULA	36698A	E
INTGRS	: COMPUTES THE AREA UNDER A CURVE	36699A	E
NEWTON	: INTERPOLATION OF NON-LINEAR FUNCTIONS BY NEWTON'S FORMULA	36652A	* E
OC-DC	: OCTAL-TO-DECIMAL CONVERTER	36712A	E
PARABO	: EQUATION OF PARABOLA PASSING THROUGH 3 GIVEN POINTS	36702A	E
POLFTE	: FITS LEAST-SQUARES POLYNOMIALS	36246A	E
POLY	: POLYNOMIAL APPROXIMATION	36188A	E
POLYGN	: COMPUTES THE AREA ENCLOSED IN ANY POLYGON	36703A	E
QUADRA	: ANALYZES A QUADRATIC EQUATION	36704A	E
ROMINT	: INTEGRATES A FUNCTION (ROMBERG METHOD)	36022B	E
ROOTER	: FINDS THE ROOTS OF POLYNOMIALS	36024A	E
ROOTNL	: FINDS ROOTS OR FIXED POINTS OF A NON-LINEAR FUNCTION	36697A	E
ROOTNR	: LOCATES ROOT OF A FUNCTION WHOSE DERIVATIVE IS KNOWN	36696A	E
RTCFIT	: REAL TO COMPLEX FAST FOURIER TRANSFORM	36029A	F
SOLVIT	: SIMULTANEOUS LINEAR EQUATIONS USING GAUSSIAN REDUCTION	36196A	E
SPHERE	: SOLVES SPHERICAL TRIANGLES	36034A	E

## 400 PROBABILITY AND STATISTICS (VOLUME II)

ANCOV	: ANALYSIS OF COVARIANCE	36294A	E
ANOVA	: FACTORIAL ANALYSIS OF VARIANCE (FIVE-WAY, FOR ANY BALANCED DESIGN)	36870A	* F
ANOVA3	: THREE FACTORIAL ANALYSIS OF VARIANCE	36271A	F
ANVA1	: ONE-WAY ANALYSIS OF VARIANCE USING SAMPLE MEANS AND STD. DEVIATIONS	36871A	* E
ANVARI	: ANALYSIS OF VARIANCE FOR A RANDOMIZED ONE-WAY DESIGN	36039B	E
ANVAR2	: ANALYSIS OF VARIANCE (LATIN SQUARE DESIGN)	36040B	E
ANVAR3	: ANALYSIS OF VARIANCE FOR A TWO VARIABLES OF CLASSIFICATION DESIGN	36172A	E
ANVAR4	: TWO-WAY ANALYSIS OF VARIANCE FOR A TWO-WAY EXPERIMENT	36173A	E
BICONF	: CONFIDENCE LIMITS	36691A	E
BINOPO	: PROBABILITY DISTRIBUTION COMPARISONS	36041A	E
BITEST	: BINOMIAL PROPORTION	36692A	E
CHISQ	: COMPUTES PROBABILITY OF CHI-SQUARE VALUES	36042A	E
CHISQ5	: CHI-SQUARE STATISTICS FOR M*N CONTINGENCY TABLES	36043B	E
CONLM1	: COMPUTES CONFIDENCE LIMITS FOR AN UNKNOWN POPULATION MEAN	36694A	E
CONLM2	: COMPUTES CONFIDENCE LIMITS FOR DIFFERENCE BETWEEN TWO POPULATION MEANS	36693A	E
CORREL	: CORRELATION COEFFICIENT	36689A	E
CROSS2	: CROSS TABULATION AND CHI-SQUARE	36860A	* F
CURFIT	: PERFORMS LEAST SQUARES FIT	36038D	* E
EVPI	: COMPUTES THE EXPECTED VALUE OF PERFECT INFORMATION	36588A	E
FC	: ANALYSIS OF LOG TAPE	36120A	E
FISHER	: FISHER'S EXACT PROBABILITY TEST	36006A	F
FREQ1	: FAST FREQUENCY DISTRIBUTIONS	36864A	* F
FRQ	: FREQUENCY BETWEEN BOUNDRIES	36191B	F
FVALUE	: EXACT PROBABILITY OF AN F-RATIO WITH DEGREES OF FREEDOM (M,N)	36720A	E
GANOVA	: ANALYSIS OF VARIANCE (2-WAY)	36501A	F
GEOMEN	: STATISTICS OF GEOMETRIC DISTRIBUTION	36045A	E
GRANK	: RANKING STATISTICS	36541A	F
GRGPLT	: SIMPLE REGRESSION AND PLOT	36542A	F
GTASPD	: SUBJECTIVE PROBABILITY DISTRIBUTION	36549A	F
GWBLG	: SUBJECTIVE PROBABILITY - RANDOM VALUES	36551A	F
HISTOG	: A HISTOGRAM FORMED FROM A SET OF NUMBERS	36055B	E
IDA	: INTERACTIVE DATA ANALYSIS	36755B	* F
KR20	: ITEM ANALYSIS AND KUDER-RICHARDSON FORMULA 20 RELIABILITY	36137A	E

# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS (Cont'd)

(See also Cross Reference Index)

## 400 PROBABILITY AND STATISTICS, Continued (VOLUME II)

NAME	TITLE	ORDER NO.	SYSTEM
LOGRAM	LOG-ON TAPE ANALYZER	36001A	F
MANDSD	CALCULATES BASIC STATISTICS FOR GROUPED AND/OR UNGROUPED DATA	36748A	E
MARKOV	COMPUTES FOR AN ERGODIC MARKOV CHAIN	36701A	F
MLREG	MULTIPLE REGRESSION PROGRAM	36661A	* E
MULREG	MULTIPLE REGRESSION/CORRELATION	36178A	F
MULTX	LEAST-SQUARES FIT, MULTIPLE Y'S PER X	36186A	E
PMSD	POOLED MEANS AND STANDARD DEVIATIONS	36863A	* E
POLFIT	FITS LEAST-SQUARES POLYNOMIALS	36023B	F
PROB	COMPUTES BINOMIAL, POISSON AND HYPERGEOMETRIC PROBABILITIES	36718A	E
PSRC	POWER SERIES REGRESSION CURVE WITH X-AXIS OFFSET	36793A	* F
REGCOR	REGRESSION/CORRELATION	36054B	E
REGRES	STEP-WISE REGRESSION	36738A	F
RNDORD	PLACING INTEGERS IN RANDOM ORDER	36264A	E
SCORES	COMPUTES MEAN, STANDARD DEVIATION AND STANDARD SCORES FOR TEST SCORES	36136A	E
SEVPRO	CHI-SQUARE TEST	36719A	E
STAT06	CALCULATES SIGN TEST CONFIDENCE INTERVAL	36724A	E
STAT07	CALCULATES THE CONFIDENCE LIMITS FOR A SET OF DATA	36725A	E
STAT08	COMPARES TWO GROUPS OF DATA USING THE MEDIAN TEST	36732A	E
STAT14	ANALYSIS OF VARIANCE AND F-RATIOS (RANDOMIZED COMPLETE BLOCK DESIGN)	36730A	E
STAT16	COMPUTES AN ANALYSIS OF VARIANCE TABLE AND F-RATIOS	36729A	E
STAT17	ANALYSIS OF VARIANCE FOR A BALANCED INCOMPLETE BLOCK DESIGN	36728A	E
STAT18	COMPUTES ANALYSIS OF VARIANCE TABLE	36727A	F
STAT19	KRUSKAL-WALLIS ONE WAY ANALYSIS OF VARIANCE	36607A	E
STAT2	MANN-WHITNEY 2 SAMPLE RANK TEST	36052A	E
STAT00	FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE	36608A	E
STAT3	SPEARMAN RANK CORRELATION COEFFICIENTS	36053A	E
T-TEST	TEST OF HYPOTHESES USING STUDENTS T DISTRIBUTION	36170A	E
TESTUD	TEST UNKNOWN POPULATION MEAN	36722A	E
TVALUE	COMPUTES THE EXACT PROBABILITY OF A T-VALUE WITH A TWO-TAILED TEST	36721A	E

## 500 SCIENTIFIC AND ENGINEERING APPLICATIONS (VOLUME II)

ACNODE	AC CIRCUIT ANALYSIS PROGRAM	36057A	F
ACTFIL	ACTIVE FILTER DESIGN	36293A	F
ANALAD	CIRCUIT ANALYSIS	36056A	E
BEMDES	RECOMMENDS CORRECT STEEL BEAM USE	36109A	F
DEBYE	COMPUTES DEBYE OR EINSTEIN FUNCTION	36059A	E
FORCST	WEATHER FORECASTING PROGRAM	36750A	* E
GENFIL	DESIGNS PASSIVE FILTERS	36784A	F
HDXFR	TWO DIMENSIONAL HEAT TRANSFER	36058A	F
KSWEEP	FREQUENCY PLOT OF POLES AND ZEROS IN A COMPLEX PLANE	36771A	F
LPFLTR	DESIGNS LOW-PASS FILTERS	36060A	E
METRIC	CONVERTS ENGLISH TO METRIC	36635A	F
MICRO	MICROWAVE PARAMETERS CONVERSION	36062A	E
MIXSPR	MIXER SPURIOUS RESPONSE PROGRAM	36064A	E
SUNSET	SUNRISE-SUNSET PREDICTOR	36100A	E
T-CPL	THERMOCOUPLE TABLE PACKAGE	36654A	* E
WAVFN	COMPUTES AND PLOTS THE RADIAL PART OF HYDROGEN-LIKE WAVE FUNCTIONS	36733A	E

## 600 MANAGEMENT SCIENCES AND OPERATIONS RESEARCH (VOLUME III)

CPATH	CRITICAL PATH EVALUATION	36171B	F
DECSN	TOP MANAGEMENT DECISION GAME	36065C	E
DYNPRO	DYNAMIC PROGRAMMING MODEL	36067A	F
GCPATH	CRITICAL PATH ANALYSIS	36500A	F
GCPM1	CRITICAL PATH ANALYSIS	36505A	F
GINTLP	LINEAR PROGRAMMING-VARIABLES RESTRICTED TO VALUES OF ONE OR ZERO	36512A	F
GLP	LINEAR PROGRAMMING	36516A	F
GLPSA1	LINEAR PROGRAMMING TWO-PHASE SIMPLEX METHOD	36517A	F
GNETFL	NETWORK FLOW	36529A	F
GSSS	SMALL SYSTEMS SIMULATOR	36552A	F
GVOTE	COMMITTEE CHOICE ANALYSIS	36550A	F
LINPRO	LINEAR PROGRAMMING MODEL	36068C	* F
LINQUP	SOLVES EITHER A LINEAR OR QUADRATIC PROGRAMMING PROBLEM	36710A	E
LNRND	LINEAR TREND FORECASTING	36069A	E
M/M/1	QUEUEING SYSTEM	36655A	E
M/M/S	QUEUEING SYSTEM	36656A	E

## 600 MANAGEMENT SCIENCES AND OPERATIONS RESEARCH, Continued (VOLUME III)

NAME	TITLE	ORDER NO.	SYSTEM
MAXFLO	MAXIMUM FLOW IN A CAPACITATED NETWORK	36609A	F
SHORTR	SHORTEST ROUTE PROBLEM	36610A	F
TIMDIF	FIRST DIFFERENCES, PERCENT CHANGES, PERCENT DIFFERENCE	36801A	* F
TRANSP	TRANSPORTATION PROBLEM	36230A	F

## 700 BUSINESS AND MANUFACTURING APPLICATIONS (VOLUME III)

ANNUIT	ANNUITY ANALYSIS	36074A	E
BALSHT	PROFORMA INCOME STATEMENT AND BALANCE SHEET	36075A	F
BNDPRC	BOND PRICE ANALYSIS	36076B	E
BNDSWH	BOND SWITCH ANALYSIS	36077A	F
BNDYLD	BOND YIELD ANALYSIS	36078B	E
BNKRSV	BANK RESERVE CALCULATIONS	36079A	F
BUDGET	DEPARTMENTAL MANAGER'S BUDGETING PROGRAM	36073A	E
CAPDCF	CAPITAL INVESTMENT ANALYSIS (DISCOUNTED CASH FLOW METHOD)	36825A	* F
CAPINV	CAPITAL INVESTMENT ANALYSIS	36080A	E
CSHFL	CASH FLOW ANALYSIS	36142B	E
CTC1	CTC MANUFACTURING PARTS CONTROL	36210B	F
CTC2	CTC INVENTORY CONTROL FOR FINISHED PRODUCTS	36211B	F
CTC3	CTC PROJECTION PROGRAMS	36212B	F
CTC4	CTC PAYROLL PROGRAMS	36213B	F
CTC5	CTC ACCOUNTS RECEIVABLE	36214B	F
CTC6	CTC ACCOUNTS PAYABLE	36638A	F
DEPCOM	DEPRECIATION METHOD COMPARISON	36082A	E
DROIPIB	DISCOUNTED RETURN ON INVESTMENT AND PAYBACK	36179A	E
EQUITY	COST OF EQUITY CAPITAL	36083A	E
EXDRSK	EXTENDED RISK ANALYSIS	36084A	E
EXPEND	BUDGET EXPENDITURES VS. TARGETS MONITOR	36111B	F
EXSM00	EXPONENTIAL SMOOTHING ON PRICE DATA	36085B	E
FINFLO	CALCULATES PRESENT VALUE - STREAM OF CASH FLOWS	36711A	E
GCHLIN	RATING INVESTMENT FUNDS	36503A	F
GDAP1	ABNORMAL PERFORMANCE INDEX	36507A	F
GDPA	EFFICIENT 'CORNER' PORTFOLIOS	36508A	F
GFRAT	FINANCIAL RATIOS	36510A	F
GIRRPV	INVESTMENT RETURN (CASH FLOW)	36513A	F
KASSF	WARRANT PRICE CALCULATION	36514A	F
KGCOST	PRICE/EARNINGS RATIO CALCULATION	36515A	F
GNMRVB	SECURITIES PORTFOLIO ANALYSIS AND DETERMINATION	36530A	F
GNPSUM	GROSS NATIONAL PRODUCT SUMMARY	36086A	E
GRI SKA	RISK ANALYSIS IN CAPITAL INVESTMENT	36543A	F
GSTKVL	STOCK VALUATION	36545A	F
GTHOR	SECURITIES EPS GROWTH	36553A	F
GVPDQT	PLOTTING DATA	36554A	F
IATA.1	CALCULATE AIR FREIGHT RATES	36164B	F
IATA.C	CALCULATES BREAKPOINT OF IATA CONTAINERS	36241B	* F
IATATA	ANALYSIS OF IATA AND ATA UNITIZATION PROGRAM	36876A	* F
IN/OUT	INPUT/OUTPUT ANALYSIS ON ECONOMIC FLOWS	36088A	E
INAGNT	NATIONAL INCOME & PRODUCT ACCOUNTS	36087A	E
INSTMT	INCOME STATEMENT	36089B	E
LEASIN	LEASE INCOME	36194A	E
LENDER	SIMPLE LOAN ANALYSIS	36090A	E
LESSEE	LEASE ANALYSIS AS DETERMINED BY THE LESSEE	36091B	* E
LOAN	LOAN AMORTIZATION	36226A	F
MARKOV	SECURITIES PORTFOLIO USING MARKOWITZ MODEL	36092B	E
MCOST	COMPARE AND EVALUATE UP TO 1000 MORTGAGE PAYMENT PLANS SIMULTANEOUSLY	36709A	E
MKBUY	MAKE-BUY DECISION ANALYSIS	36093A	E
MORGAG	MORTGAGE ANALYSIS	36094B	E
REP	DATA CENTER INVENTORY REPORT GENERATOR	36177A	F
SALES	SALES COMMISSION REPORT	36095A	E
SAVING	COMPOUND INTEREST	36708A	E
STKINC	STOCK MERGER INCENTIVE PROGRAM	36096A	E
STKRTN	STOCK RETURNS REPORT	36098A	E
STKSMO	EXPONENTIAL SMOOTHING AS A STOCK GUIDE	36099A	E
STKVAL	STOCK VALUE & EVALUATION REPORT	36100A	E
TRCK.1	CALCULATE TRUCK FREIGHT RATES	36174A	F
TRUINT	TRUE ANNUAL INTEREST RATE ANALYSIS	36101A	E
VRRC	INVESTMENT STRATEGY ANALYSIS	36557A	F

\*\*SEE LIST OF SUPPLEMENTARY DOCUMENTATION  
\*NEW OR REVISED SINCE FEBRUARY 1974

# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS (Cont'd)

(See also Cross Reference Index)

## 801 MATHEMATICS (EDUCATION) (VOLUME IV)

NAME	TITLE	ORDER NO.	SYSTEM
ALGIE	: BASIC ALGEBRA DRILL	36851A	* F
AREA	: COMPUTER-AUGMENTED CALCULUS TOPICS	36668A	E
BASE	: BASE CONVERTER	35796A	* E
BSQAR	: SQUARING BINOMIALS	36240A	E
CADAIL	: COMPUTER ASSISTED ARITHMETIC DRILL	36205A	E
CRVLEN	: COMPUTES LENGTH OF ANY CURVE	36333A	E
CVAREA	: AREA UNDER CURVE	36520A	E
CXSYSS	: SOLVING SYSTEMS OF COMPLEX LINEAR EQUATIONS	36262A	E
DERVIN	: COMPUTER-AUGMENTED CALCULUS TOPICS	36663A	E
DERTIV	: COMPUTER-AUGMENTED CALCULUS TOPICS	36662A	E
DESCAL	: DESK CALCULATOR SUBROUTINE	36674A	E
DIFFEQ	: CAI IN SOLUTION OF LINEAR FIRST-ORDER DIFFERENTIAL EQUATIONS	36159A	E
DIMIS	: X-Y AXIS SEGMENT PROGRAM	36277A	F
DRILL	: BASIC ARITHMETIC DRILL	36129A	F
EXTEND	: INFINITE PRECISION MATH UTILITY PROGRAM	36253A	F
FUNDTH	: COMPUTER-AUGMENTED CALCULUS TOPICS	36664A	E
GAME	: CLASSIC MATRIX OF GAME THEORY	36265A	F
GRAPH1	: COMPUTER-AUGMENTED CALCULUS TOPICS	36665A	E
GRAPH2	: COMPUTER-AUGMENTED PHYSICS TOPICS	36666A	E
INTEGR	: COMPUTER-AUGMENTED CALCULUS TOPICS	36667A	E
LIMSIN	: LIMIT OF (SIN X)/X	36522A	E
LINES	: CONVERSATIONAL COMPUTER GENERATED CALCULUS QUIZ	36700A	E
LOGIC	: LOGIC EXAMINATION PROGRAMS	36251B	E
PI	: CALCULATES PI	36523A	E
POLSUB	: POLYNOMIAL SUBTRACTION	36239A	E
QUADT	: NATURE OF GRAPH OF A 2ND ORDER EQUATION IN TWO VARIABLES	36335A	E
RATIO	: SOLVES PROPORTIONS	36336A	E
ROOTS2	: QUADRATIC EQUATION SOLVER	36625A	E
SAT	: TRIGONOMETRIC SOLUTIONS OF TRIANGLES	36182A	E
SETS	: UNION AND INTERSECTION OF SETS	36337A	F
SIPRAC	: PRACTICE WITH SIGNED NUMBERS	36238A	F
SLOPE	: FINDS DERIVATIVES	36525A	E
SQRT	: FINDS SQUARE ROOT	36527A	E
STATAL	: ARITHMETIC MEAN	36528A	E
SURFAC	: AREA OF SURFACE OF REVOLUTION	36338A	E
SYSSOL	: SOLVING SYSTEMS OF LINEAR EQUATIONS	36278A	F
TENS	: DRILL IN MULTIPLICATION OF NUMBERS WITH TRAILING ZEROS	36128A	F
TRIFAC	: FACTORING QUADRATIC TRINOMIALS	36237A	E
TRUTH	: TRUTH TABLES FOR BOOLEAN EXPRESSIONS	36502B	E
TWQUES	: MATHEMATICAL GAME OF TWENTY QUESTIONS	36130A	E
VOLSOL	: VOLUME OF SOLID OF REVOLUTION	36339A	E
WKSHT	: GENERATES MATH WORKSHEETS	36133A	E

## 810 PROGRAMMING AND COMPUTER SCIENCE (EDUCATION) (VOLUME IV)

BRAIN	: BRAIN SIMULATOR PROGRAM	36219A	E
COBOL	: HP COBOL SIMULATOR	36845B	* F
HPASMB	: HP ASSEMBLER PACKAGE	36806A	F
P-TUA	: PILOT TUTORIAL	36758B	E
P-TUB	: PILOT TUTORIAL	36775A	E
P-TUC	: PILOT TUTORIAL	36877A	* F
PILOTE	: PILOT 73 AUTHOR LANGUAGE FOR HP 2000E	36537B	* E
PILOTF	: PILOT 73 AUTHOR LANGUAGE FOR THE HP 2000F	36756B	* F
SNOBOL	: SNOBOL3 COMPILER FOR HP 2000C SYSTEM	36849A	* F
STOP	: COMPUTER LITERACY - PSEUDO-MACHINE LANGUAGE	36208B	E
STPAL	: STOP MACHINE AND ASSEMBLY LANGUAGE SIMULATOR	36765A	F
TM	: TURING MACHINE SIMULATOR	36743A	E
TUTOR	: TUTOR SERIES BASIC LANGUAGE PROGRAMMING COURSE, TUT01 - TUT25	36139A	E

## 820 ENGINEERING (EDUCATION) (VOLUME IV)

AC-1	: COMPUTER AIDED PRACTICE IN EE AC ANALYSIS	36152A	E
COMPLX	: CAI IN ALGEBRA OF COMPLEX NUMBERS	36153A	E
DVDRS	: CAI IN VOLTAGE AND CURRENT DIVIDERS	36156A	E
EXPNTL	: CAI IN SIMPLE EXPONENTIAL FUNCTIONS OF TIME	36148A	E
INDMTR	: ANALYSIS OF A BALANCED POLYPHASE INDUCTION MOTOR	36154A	E
JACOBI	: EIGENVALUES AND EIGENVECTORS OF A REAL SYMMETRIC MATRIX	36167A	E
POLAR	: PLOTS SINGLE VARIABLE IN POLAR FORM	36155A	E
SOLVER	: SOLVES COMPLEX SIMULTANEOUS EQUATIONS	36149A	F
UNITS	: CAI IN INTERPRETATION OF EE UNITS	36157A	E

## 830 ECONOMICS (EDUCATION) (VOLUME IV)

NAME	TITLE	ORDER NO.	SYSTEM
CIRFLW	: CIRCULAR FLOW MODEL	36632A	E
GMCR01	: FISCAL POLICY GAME	36519A	F
GMCR05	: ECONOMIC POLICY GAME	36521A	F

## 833 SCIENCE (EDUCATION) Continued, (VOLUME IV)

ALERA	: PROPAGATION OF ERROR	36603B	E
ATOM	: DERIVES THE ELECTRONIC CONFIGURATION OF ANY ELEMENT	36705A	E
ATWT	: CALCULATES ATOMIC WEIGHT	36613A	E
AVOGA	: AVOGADRA'S NUMBER	36614A	E
BFIELD	: MAGNETIC FIELD PICTURE	36312A	E
BOHR	: ENERGY LEVEL DIAGRAM	36313A	E
BOLA	: NUCLEAR PHYSICS GAME	36879A	* F
CALORI	: CALORIMETRY EXPERIMENT	36314A	E
CHARG	: MILLIKAN'S OIL-DROP EXPERIMENT	36621A	E
CHEM	: SELF-CORRECTING CHEMISTRY TEST	36295B	E
CHEM1	: CAI IN CHEMISTRY	36878A	* F
CLIMAT	: CLIMATE TEACHING PROGRAM	36760A	* F
CLOUDS	: CLOUD FORMATION	36325A	E
CONVRT	: TEMPERATURE SCALE CONVERSION	36685A	E
DECAY1	: RADIOACTIVE DECAY GAME	36306A	E
DECAY2	: NUCLEAR DECAY	36307A	E
DRAGON	: SOLAR ECLIPSE SIMULATION	36785A	E
DROS	: GENETIC CHARACTERISTICS	36309A	E
EFIELD	: ELECTRIC FIELD STRENGTH	36629A	E
EINDIS	: EINSTEIN DISTORTIONS	36716A	* E
ELMENT	: DRILL ON SYMBOLS FOR CHEMICAL ELEMENTS	36267A	F
EMPIR	: CALCULATES EMPIRICAL FORMULAS	36615A	E
EQUILL	: EQUILIBRIUM SYSTEMS	36308A	E
EVOLU	: NATURAL SELECTION EXPERIMENT	36301A	E
GANGN	: PROCESS OF GAMETOGENESIS	36302A	E
GENE1	: GENETICS SIMULATION	36642B	E
GRAZE	: GRASSLANDS ECOLOGY SIMULATION	36746A	F
H-LIFE	: HALF LIFE SIMULATION	36134A	E
IONIC	: DRILL ON FORMULAS AND CHARGES OF IONS	36269A	F
IONIC1	: DRILL ON FORMULAS OF IONIC COMPOUNDS	36266A	F
ISOMER	: DRILL ON NAMING ALKANES	36261A	F
KINERV	: REVIEW OF KINEMATICS	36315A	E
KINET	: KINETIC REACTION	36309A	E
LANDIN	: COMPUTER-AUGMENTED PHYSICS TOPICS	36678A	E
LENSES	: SOLVES LENS PROBLEMS	36639A	E
LOCKEY	: LOCK & KEY MODEL OF ENZYME ACTION	36624A	E
MALAR	: MALARIA ERADICATION PROGRAM	36797A	E
MASSD	: MASS DEFECT	36310A	E
MEMBR	: DIFFUSION EXPERIMENT	36611A	E
MKS1	: COMPUTER-AUGMENTED PHYSICS TOPICS	36671A	E
MKS2	: COMPUTER-AUGMENTED PHYSICS TOPICS	36673A	E
MOLAR	: ACID-BASE TITRATION	36616A	E
NEWTN2	: NEWTON'S 2ND LAW	36316A	E
NZYM2	: ENZYME REACTION RATE	36304A	E
NZYM	: ENZYME REACTION RATES	36303A	E
ORBIT	: INTEGRATES EQUATIONS OF MOTION	36121A	E
ORGI	: TEACHES STRAIGHT ALKANE NOMENCLATURE AND NAMING OF BRANCHED ALKANES	36826A	* E
ORGCHE	: DRILL ON ORGANIC COMPOUND NOMENCLATURE	36646A	F
P-HYP	: SCIENTIFIC METHOD AND HYPOTHESIS	36759A	E
P-KEPL	: KEPLER'S 3RD LAW	36779A	E
PHOSYN	: PHOTOSYNTHESIS EXPERIMENT	36305A	E
PHOTEL	: PHOTOELECTRIC EFFECT	36317A	E
PHOTON	: ENERGY LEVEL PROBLEM	36318A	E
PHOPH	: PH, POH, PCT, DISSOCIATION	36617A	E
PLANK	: A PHOTOELECTRIC SIMULATION	36350A	E
POLUT	: WATER POLLUTION SIMULATION	36639B	E
POP	: POPULATION GROWTH	36844A	E
PRCNT	: PERCENT COMPOSITION	36311A	E
PRUTL	: PROJECTILE MOTION	36631A	E
REFLCT	: LEAST TIME PRINCIPLE AND LIGHT	36319A	E
REFLEC	: COMPUTER-AUGMENTED PHYSICS TOPICS	36672A	E
REFRAC	: COMPUTER-AUGMENTED PHYSICS TOPICS	36669A	E
SLITS	: YOUNG'S DOUBLE SLIT EXPERIMENT	36351B	E
SNELL	: SNELL'S LAW	36320A	E
SPACE	: SPACECRAFT ORBITS	36321A	E
SPECTRA	: OPTICAL ABSORPTION SPECTRA SIMULATION, 2-SPECIES EQUILIBRIUM MIXTURES	36184A	E
STERL	: FLY POPULATION CONTROL	36641B	E
STOICH	: MASS VOLUME	36618A	E
USPOP	: HUMAN POPULATION PROJECTION	36802A	* E
VFIELD	: POTENTIAL FIELD PICTURE	36322A	E
VLOCY	: INSTANTANEOUS VELOCITY	36323A	E
WATER1	: WATER BUDGET PROBLEM CHECK	36326A	E
WATER2	: WATER BUDGET	36327A	E
WAVES	: SUM OF TWO WAVES	36324B	E

## 850 FINE ARTS (EDUCATION) (VOLUME IV)

KEYSIG	: GIVES MAJOR SCALES	36258A	E
MUSIC2	: TRIAD SOLVING PROGRAM	36276A	E
MUSIC5	: FINDS DOMINANT SEVENTHS	36259A	E

\*\*SEE LIST OF SUPPLEMENTARY DOCUMENTATION  
\*NEW OR REVISED SINCE FEBRUARY 1974



# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS (Cont'd)

(See also Cross Reference Index)

## 860 SOCIAL SCIENCE (EDUCATION) (VOLUME IV)

NAME	TITLE	ORDER NO.	SYSTEM
BALANC	: TRADE AND PAYMENT BALANCES	36328A	E
BANK	: SOLVES FINANCIAL PROBLEMS	36329B	E
CHARGE	: CHARGE ACCOUNT SIMULATION	36604A	F
CONSP	: DEPRESSION/EQUILIBRIUM	36330A	E
ELECT	: CAMPAIGN STRATEGY AND ELECTIONS	36798A	* E
POLICY	: STUDENTS FORMULATE NATIONAL POLICY	36649A	E
POLSYS	: SIMULATION OF CITY COUNCIL	36640B	E
SAP	: SURVEY ANALYSIS PROGRAM	36843A	E
STOCK	: STOCK MARKET SIMULATION	36331A	E
WHEELS	: AUTO PURCHASE AND MAINTENANCE SIMULATION	36187B	F

## 870 ENGLISH (EDUCATION) (VOLUME IV)

VOBAB	: CAI IN WORD USAGE	36880A	* E
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## 871 FOREIGN LANGUAGES (EDUCATION) (VOLUME IV)

CARLOS	: COMPUTER-ASSISTED REVIEW LESSONS ON SYNTAX FOR SPANISH II	36175A	F
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## 880 BUSINESS (EDUCATION) (VOLUME IV)

BNKSIM	: SIMULATES ONE YEAR'S DEPOSIT AND WITHDRAWAL ACTIVITIES OF SMALL BANK	36713A	E
CASE1	: CASES IN COMPUTER AND MODEL ASSISTED MARKETING: PLANNING	36790A	F
CASE2	: CASES IN COMPUTER AND MODEL ASSISTED MARKETING: DATA ANALYSIS	36841A	F
GSPMG	: STANFORD PORTFOLIO MANAGEMENT GAME	36502A	F
LABOR	: LABOR/MANAGEMENT BARGAINING	36233A	F
MARKET	: TWO COMPANIES IN ONE-PRODUCT COMPETITION	36619A	E
MRKSIM	: MARKETING SIMULATION	36199A	F
SETUPC	: MANAGEMENT SIMULATION GAME FOR THE 2000C	36209B	F

## 885 EDUCATIONAL ADMINISTRATION (VOLUME IV)

ATTEND	: ABSENTEE LISTING	36202A	F
AVERG1	: AVERAGES AND CURVES GRADES	36340B	* E
BASKET	: BASKETBALL STATISTICS	36605A	F
COLREG	: COLLEGE REGISTRATION DEMO	36282A	F
FREQ	: BAR GRAPHS OF GRADES	36341A	E
GMARKS	: GSB GRADING PROGRAM	36518A	F
GPAC	: COLLEGE GRADE PACKAGE	36636A	E
GRADE	: TEST GRADE FOR NUMBER OF QUESTIONS MISSED	36342A	E
ITEM1	: NUMBER FREQUENCIES	36343A	E
SALSIM	: SALARY SCHEDULE COST SIMULATOR	36072A	F
SGFMS	: STUDENT GRADE FILE MANAGEMENT SYSTEM	36832A	* F
STAT	: STATISTICAL ANALYSIS OF LAB DATA	36344A	E

## 903 GAMES (VOLUME V)

NAME	TITLE	ORDER NO.	SYSTEM
AF LIFE	: JOHN CONWAY'S GAME OF LIFE	36353A	F
BAGELS	: THREE-DIGIT NUMBER GUESSING	36360A	F
BATNUM	: PLAYS THE BATTLE OF NUMBERS GAME	36105A	E
BATTLE	: BATTLESHIP GAME	36236A	E
BIRDAY	: BIRTHDAY PROBABILITY	36653A	F
BLJACK	: GAME OF TWENTY-ONE	36103A	E
CANNON	: HP 7200A GAME DEMO FOR TIME-SHARED BASIC	36110A	F
CHASE	: PURSUIT OF A TARGET	36683A	E
CLOCKS	: GUESSING TIME GIVEN METRIC CLUE WORDS	36657A	E
DRAG	: SIMULATES A DRAG RACE	36601B	E
FTBL	: FOOTBALL	36181A	E
GOLF	: A GOLF GAME	36102A	E
GOMOKU	: 9 BY 9 BOARD GAME	36735A	F
GRNPRX	: GRAN PRIX RACING GAME	36686A	E
KENO	: \$25,000.00 KENO GAME	36244A	F
LANDER	: ROCKET LANDING VEHICLE	36684A	E
LIFE	: A GAME OF CELLULAR GENERATION GROWTH	36138A	F
QUADGT	: FOUR-DIGIT NUMBER GUESSING GAME	36768A	F
QUBIC	: PLAYS 3-DIMENSIONAL TIC-TAC-TOE	36106A	E
ROULET	: ROULETTE	36650A	F
SLOT	: SIMULATES A SLOT MACHINE (USE IN NEVADA ONLY)	36107A	E
STTRI	: STAR TREK	36243B	F
TEASER	: BRAIN TEASER PUZZLE	36764A	E
WORD	: A WORD GAME	36660A	F

This is only a partial list. See HP's Games Book, HP 36000-91005 (available September 1974) for a complete list of games.

# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS CROSS REFERENCE INDEX

	ORDER NO.	VOLUME	SYSTEM		ORDER NO.	VOLUME	SYSTEM
ACCOUNTS PAYABLE				GRANK : RANKING STATISTICS	36541A	2	F
CTC6 : CTC ACCOUNTS PAYABLE	36638A	3	F	GRISKA : RISK ANALYSIS IN CAPITAL INVESTMENT	36543A	3	F
ACCOUNTS RECEIVABLE				GSPMG : STANFORD PORTFOLIO MANAGEMENT GAME	36502A	4	F
CTC5 : CTC ACCOUNTS RECEIVABLE	36214B	3	F	GSSS : SMALL SYSTEMS SIMULATOR	36552A	3	F
ALGEBRA				GSTKVL : STOCK VALUATION	36545A	3	F
ALGIE : BASIC ALGEBRA DRILL	36851A	4	* F	GTASPD : SUBJECTIVE PROBABILITY DISTRIBUTION	36549A	2	F
COMPLX : CAI IN ALGEBRA OF COMPLEX NUMBERS	36153A	4	E	GTGOR : SECURITIES EPS GROWTH	36553A	3	F
ANALYSIS OF VARIANCE AND COVARIANCE				GVOTE : COMMITTEE CHOICE ANALYSIS	36550A	3	F
ANCOV : ANALYSIS OF COVARIANCE	36294A	2	E	GWULL : SUBJECTIVE PROBABILITY - RANDOM VALUES	36551A	2	F
ANOVA : FACTORIAL ANALYSIS OF VARIANCE (FIVE-WAY, FOR ANY BALANCED DESIGN)	36870A	2	* F	LABOR : LABOR/MANAGEMENT BARGAINING	36233A	4	F
ANOVA3 : THREE FACTORIAL ANALYSIS OF VARIANCE	36271A	2	F	LEASIN : LEASE INCOME	36194A	3	E
ANVA1 : ONE-WAY ANALYSIS OF VARIANCE USING SAMPLE MEANS AND STD. DEVIATIONS	36871A	2	* E	MARKET : TWO COMPANIES IN ONE-PRODUCT COMPETITION	36619A	4	E
ANVAR1 : ANALYSIS OF VARIANCE FOR A RANDOMIZED ONE-WAY DESIGN	36039B	2	E	MRKSIM : MARKETING SIMULATION	36199A	4	F
ANVAR2 : ANALYSIS OF VARIANCE (LATIN SQUARE DESIGN)	36040B	2	E	SAVING : COMPOUND INTEREST	36708A	3	E
ANVAR3 : ANALYSIS OF VARIANCE FOR A TWO VARIABLES OF CLASSIFICATION DESIGN	36172A	2	E	SETUPC : MANAGEMENT SIMULATION GAME FOR THE 2000C	36209B	4	F
ANVAR4 : TWO-WAY ANALYSIS OF VARIANCE FOR A TWO-WAY EXPERIMENT	36173A	2	E	TRANSP : TRANSPORTATION PROBLEM	36230A	3	F
GANOVA : ANALYSIS OF VARIANCE (2-WAY)	36501A	2	F	VRRC : INVESTMENT STRATEGY ANALYSIS	36557A	3	F
STAT14 : ANALYSIS OF VARIANCE AND F-RATIOS (RANDOMIZED COMPLETE BLOCK DESIGN)	36730A	2	E	WHEELS : AUTO PURCHASE AND MAINTENANCE SIMULATION	36187B	4	F
STAT16 : COMPUTES AN ANALYSIS OF VARIANCE TABLE AND F-RATIOS	36729A	2	E	BUSINESS INFORMATION SYSTEMS			
STAT17 : ANALYSIS OF VARIANCE FOR A BALANCED INCOMPLETE BLOCK DESIGN	36728A	2	E	CTC3 : CTC PROJECTION PROGRAMS	36212B	3	F
STAT18 : COMPUTES ANALYSIS OF VARIANCE TABLE	36727A	2	E	CINFLO : CALCULATES PRESENT VALUE - STREAM OF CASH FLOWS	36711A	3	E
STAT19 : KRUSKAL-WALLIS ONE WAY ANALYSIS OF VARIANCE	36607A	2	F	MCOST : COMPARE AND EVALUATE UP TO 1000 MORTGAGE PAYMENT PLANS SIMULTANEOUSLY	36709A	3	E
STAT20 : FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE	36608A	2	E	SETUPC : MANAGEMENT SIMULATION GAME FOR THE 2000C	36209B	4	F
ASCII				BUSINESS SERVICES			
-ASCII : ASCII CODE GENERATOR	36257A	1	F	IATA*1 : CALCULATE AIR FREIGHT RATES	36164B	3	F
ASCII* : CREATES AN ASCII FILE CONTAINING ALL 256 ASCII CHARACTERS	36256B	1	F	IATA-C : CALCULATES BREAKPOINT OF IATA CONTAINERS	36241B	3	* F
CHARGE : ASCII CHARACTER SET FOR HP 2000E	36757A	1	E	IATATA : ANALYSIS OF IATA AND ATA UNITIZATION PROGRAM	36876A	3	* F
PLOTS : ASCII CHARACTER PLOTTER FOR 7200 PLOTTER	36840A	1	* F	LOGRAM : LOG-ON TAPE ANALYZER	36001A	2	F
SORT : FILE SERIAL STRING SORT	36122A	1	F	TRCK*1 : CALCULATE TRUCK FREIGHT RATES	36174A	3	F
UCHARS : CREATES FILE 'VCHAR'	36560A	1	* F	CAI			
ASTRONOMY AND CELESTIAL NAVIGATION				ATOM : DERIVES THE ELECTRONIC CONFIGURATION OF ANY ELEMENT	36705A	4	E
DRAGON : SOLAR ECLIPSE SIMULATION	36785A	4	E	BISQAR : SQUARING BINOMIALS	36240A	4	E
P-KEPL : KEPLER'S 3RD LAW	36779A	4	E	CADAIL : COMPUTER ASSISTED ARITHMETIC DRILL	36205A	4	E
SUNSET : SUNRISE-SUNSET PREDICTOR	36180A	2	E	CARLOS : COMPUTER-ASSISTED REVIEW LESSONS ON SYNTAX FOR SPANISH II	36175A	4	F
BESSEL FUNCTION				CHEM : SELF-CORRECTING CHEMISTRY TEST	36295B	4	E
BESSEL : CALCULATES BESSEL FUNCTION OF FIRST KIND	36019A	2	E	CHEM1 : CAI IN CHEMISTRY	36878A	4	* F
BIOLOGY				CONVRT : TEMPERATURE SCALE CONVERSION	36685A	4	E
AFLIFE : JOHN CONWAY'S GAME OF LIFE	36353A	5	F	DRILL : BASIC ARITHMETIC DRILL	36129A	4	F
DECAY1 : RADIOACTIVE DECAY GAME	36306A	4	E	ELEMENT : DRILL ON SYMBOLS FOR CHEMICAL ELEMENTS	36267A	4	F
DECAY2 : NUCLEAR DECAY	36307A	4	E	H-LIFE : HALF LIFE SIMULATION	36134A	4	F
DROS : GENETIC CHARACTERISTICS	36300A	4	E	IONIC : DRILL ON FORMULAS AND CHARGES OF IONS	36260A	4	F
GAMGN : PROCESS OF GAMETOGENESIS	36302A	4	E	IONIC1 : DRILL ON FORMULAS OF IONIC COMPOUNDS	36266A	4	F
LIFE : A GAME OF CELLULAR GENERATION GROWTH	36138A	5	F	ISOMER : DRILL ON NAMING ALKANES	36261A	4	F
LOCKEY : LOCK & KEY MODEL OF ENZYME ACTION	36262A	4	E	ORGCHE : DRILL ON ORGANIC COMPOUND NOMENCLATURE	36646A	4	F
MALAR : MALARIA ERADICATION PROGRAM	36797A	4	E	P-HYP : SCIENTIFIC METHOD AND HYPOTHESIS	36759A	4	E
MEMBR : DIFFUSION EXPERIMENT	36611A	4	E	P-KEPL : KEPLER'S 3RD LAW	36779A	4	E
NZYM2 : ENZYME REACTION RATE	36394A	4	E	P-TUA : PILOT TUTORIAL	36758B	4	E
NZYM : ENZYMATIC REACTION RATES	36393A	4	E	P-TUB : PILOT TUTORIAL	36775A	4	E
PHOSYN : PHOTOSYNTHESIS EXPERIMENT	36395A	4	E	P-TUC : PILOT TUTORIAL	36877A	4	* F
USPOP : HUMAN POPULATION PROJECTION	36802A	4	* E	PILOTE : PILOT 73 AUTHOR LANGUAGE FOR HP 2000E	36637B	4	E
BOOLEAN ALGEBRA				PILOTF : PILOT 73 AUTHOR LANGUAGE FOR THE HP 2000F	36756B	4	F
TRUTH : TRUTH TABLES FOR BOOLEAN EXPRESSIONS	36602B	4	E	POLSUB : POLYNOMIAL SUBTRACTION	36239A	4	E
BUDGETING PROGRAMS				SAT : TRIGONOMETRIC SOLUTIONS OF TRIANGLES	36182A	4	E
BALSHT : PROFORMA INCOME STATEMENT AND BALANCE SHEET	36075A	3	F	SIPRAC : PRACTICE WITH SIGNED NUMBERS	36238A	4	F
BUDGET : DEPARTMENTAL MANAGER'S BUDGETING PROGRAM	36073A	3	F	STAT : STATISTICAL ANALYSIS OF LAB DATA	36344A	4	E
CAPINV : CAPITAL INVESTMENT ANALYSIS	36080A	3	E	TENS : DRILL IN MULTIPLICATION OF NUMBERS WITH TRAILING ZEROS	36128A	4	F
CTC3 : CTC PROJECTION PROGRAMS	36212B	3	F	TRIFAC : FACTORING QUADRATIC TRINOMIALS	36237A	4	E
EXPEND : BUDGET EXPENDITURES VS. TARGETS MONITOR	36111B	3	F	TUTOR : TUTOR SERIES BASIC LANGUAGE PROGRAMMING COURSE - TUT01 - TUT25	36139A	4	E
BUSINESS (EDUCATION)				WKSHT : GENERATES MATH WORKSHEETS	36133A	4	E
BNKSIM : SIMULATES ONE YEAR'S DEPOSIT AND WITHDRAWAL ACTIVITIES OF SMALL BANK	36713A	4	E	CALCULATOR			
CAPDCF : CAPITAL INVESTMENT ANALYSIS (DISCOUNTED CASH FLOW METHOD)	36825A	3	* F	CALCOM : CALCULATOR PROGRAM WITH OPTIONAL PLOTTER OUTPUT	36131A	2	F
CASE1 : CASES IN COMPUTER AND MODEL ASSISTED MARKETING PLANNING	36790A	4	F	DESCAL : DESK CALCULATOR SUBROUTINE	36674A	4	E
CASE2 : CASES IN COMPUTER AND MODEL ASSISTED MARKETING DATA ANALYSIS	36841A	4	F	GRAPH1 : COMPUTER-AUGMENTED CALCULUS TOPICS	36665A	4	E
CHARGE : CHARGE ACCOUNT SIMULATION	36604A	4	F	MKS1 : COMPUTER-AUGMENTED PHYSICS TOPICS	36671A	4	E
CIRFLW : CIRCULAR FLOW MODEL	36632A	4	E	MKS2 : COMPUTER-AUGMENTED PHYSICS TOPICS	36673A	4	E
CSHFL : CASH FLOW ANALYSIS	36142B	3	E	REFLEC : COMPUTER-AUGMENTED PHYSICS TOPICS	36672A	4	E
DECNS : TOP MANAGEMENT DECISION GAME	36065C	3	E	REFRAC : COMPUTER-AUGMENTED PHYSICS TOPICS	36669A	4	E
GANOVA : ANALYSIS OF VARIANCE (2-WAY)	36501A	2	F	CHARACTER/SYMBOL MANIPULATION			
GCHLIN : RATING INVESTMENT FUNDS	36503A	3	F	-ASCII : ASCII CODE GENERATOR	36257A	1	F
GDAPI : ABNORMAL PERFORMANCE INDEX	36507A	3	F	ALFTOV : ALPHA TO VARIABLE CONVERSION	36296B	1	E
GDPA : EFFICIENT 'CORNER' PORTFOLIOS	36508A	3	F	ASCII* : CREATES AN ASCII FILE CONTAINING ALL 256 ASCII CHARACTERS	36256B	1	F
GPNRAT : FINANCIAL RATIOS	36510A	3	F	CALNDR : PRINTS A CALENDAR	36288A	1	F
GIRRPV : INVESTMENT RETURN (CASH FLOW)	36513A	3	F	CHARS : ASCII CHARACTER SET	36229A	1	F
GKSSF : WARRANT PRICE CALCULATION	36514A	3	F	CHARGE : ASCII CHARACTER SET FOR HP 2000E	36757A	1	E
GKCOST : PRICE/EARNINGS RATIO CALCULATION	36515A	3	F	DATER : DATE AND DAY OF THE WEEK	36298B	1	E
GMCRO1 : FISCAL POLICY GAME	36519A	4	F	FORMAT : ALLOWS SPECIAL FORMATTING OF DATA PRINTOUT	36005B	1	E
GMCRO5 : ECONOMIC POLICY GAME	36521A	4	F	FORMIF : F AND I FORMAT	36612A	1	E
GNETFL : NETWORK FLOW	36529A	3	F	GTAPID : PAPER TAPE TITLER	36548A	1	F
GNMRVB : SECURITIES PORTFOLIO ANALYSIS AND DETERMINATION	36530A	3	F	HELLO : TYPES DATE, TIME, AND PORT NUMBER ON TERMINAL	36125B	1	F
				PRINT : GENERATES LARGE LETTERS	36299A	1	F
				STGINT : STRING-INTEGER CONVERSIONS	36176A	1	E
				SYSDAT : SYSTEM DATE UTILITY	36634A	1	F
				TIMER : TIME OF THE DAY	36297B	1	E
				TITLE : CHARACTER GENERATION	36114B	1	* F
				UCHARS : CREATES FILE 'VCHAR'	36569A	1	* F
				CHEMICAL ENGINEERING			
				DEBYE : COMPUTES DEBYE OR EINSTEIN FUNCTION	36859A	2	E

\*New or revised since February 1974

# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS CROSS REFERENCE INDEX

	ORDER NO.	VOLUME	SYSTEM		ORDER NO.	VOLUME	SYSTEM
<b>CHEMISTRY</b>				<b>CURVE FITTING</b>			
ATOM : DERIVES THE ELECTRONIC CONFIGURATION OF ANY ELEMENT	36705A	4	E	CRVFT : LEAST-SQUARES CURVEFITTING	36633A	2	E
ATWT : CALCULATES ATOMIC WEIGHT	36613A	4	E	CURFIT : PERFORMS LEAST SQUARES FIT	36038D	2	* E
AVOGA : AVOGADRA'S NUMBER	36614A	4	E	DBLFIT : LEAST SQUARES FIT TO POINTS WITH UNCERTAINTIES IN BOTH VARIABLES	36252A	2	E
CALORI : CALORIMETRY EXPERIMENT	36314A	4	E	POLFTE : FITS LEAST-SQUARES POLYNOMIALS	36246A	2	E
CHEM1 : CAI IN CHEMISTRY	36878A	4	* F	POLY : POLYNOMIAL APPROXIMATION	36188A	2	E
DECAY1 : RADIOACTIVE DECAY GAME	36306A	4	E	PSRC : POWER SERIES REGRESSION CURVE WITH X-AXIS OFFSET	36793A	2	* F
DECAY2 : NUCLEAR DECAY	36307A	4	E				
EMPIR : CALCULATES EMPIRICAL FORMULAS	36615A	4	E	<b>DATA COMMUNICATIONS</b>			
EQUIL1 : EQUILIBRIUM SYSTEMS	36308A	4	E	MESSAG : INTERTERMINAL COMMUNICATOR	36284A	1	F
H-LIFE : HALF LIFE SIMULATION	36134A	4	E	<b>DATA HANDLING UTILITIES</b>			
KINET : KINETIC REACTION	36309A	4	E	CALNDR : PRINTS A CALENDAR	36288A	1	F
MASSD : MASS DEFECT	36310A	4	E	DATA : DUMPS FILE TO DATA STATEMENTS	36287A	1	F
MOLAR : ACID-BASE TITRATION	36616A	4	E	DATER : DATE AND DAY OF THE WEEK	36298B	1	E
ORGI : TEACHES STRAIGHT ALKANE NOMENCLATURE AND NAMING OF BRANCHED ALKANES	36826A	4	* E	EDITOR : FILE MANIPULATION - CREATES, EDITS, LISTS, SORTS, EMULATES G.E. MK II.	36749A	1	* F
ORGCHE : DRILL ON ORGANIC COMPOUND NOMENCLATURE	36646A	4	F	FILDUM : PAPER TAPE FILE DUMP	36088C	1	E
PHOSYN : PHOTOSYNTHESIS EXPERIMENT	36305A	4	E	FILES : FILE MANIPULATION - CREATES, SORTS, UPDATES, COPIES, CHANGES FORMAT	36645B	1	* F
PNPOH : PH, POH, PCT, DISSOCIATION	36617A	4	E	FILIN : KEYBOARD FILE LOADING PROGRAM	36087A	1	E
PRCNT : PERCENT COMPOSITION	36311A	4	E	FILIS : FILE LISTING PROGRAM	36272A	1	F
SPCTRA : OPTICAL ABSORPTION SPECTRA SIMULATION, 2-SPECIES EQUILIBRIUM MIXTURES	36184A	4	E	FILIST : LISTS FILE CONTENTS BY RECORD NUMBER	36089D	1	* E
STOICH : MASS VOLUME	36618A	4	E	FILMAN : FILE MANAGER	36086A	1	F
T-CPL : THERMOCOUPLE TABLE PACKAGE	36654A	2	* E	FILOAD : LOADS A FILE FROM THE TELETYPE	36010C	1	E
<b>CIVIL ENGINEERING</b>				FILREA : REENTERS THE DATA TAPE DUMPED BY FILDUM	36011A	1	E
BEMDES : RECOMMENDS CORRECT STEEL BEAM USE	36109A	2	E	FILRPT : REPORTS FILE CONTENTS AND STRUCTURE	36247A	1	F
<b>CODE/RADIX CONVERSION</b>				FINDAD : CONVERTS A FILE TO A FINDIT FILE	36867A	1	* F
ALFTOV : ALPHA TO VARIABLE CONVERSION	36296B	1	E	FMS : FILE MANAGEMENT SYSTEM	36648A	1	E
STGINT : STRING-INTEGGER CONVERSIONS	36176A	1	E	HELLO : TYPES DATE, TIME, AND PORT NUMBER ON TERMINAL	36125B	1	F
<b>COMPLEX</b>				HPMLIT : LIST/DUMP HP ASSEMBLER FILES	36218A	1	F
CDTER : COMPUTES VALUE OF COMPLEX DETERMINANT	36025A	2	E	JULIAN : JULIAN CALENDAR FOR THE CURRENT YEAR	36197A	1	E
CRFTFT : COMPLEX TO REAL FAST FOURIER TRANSFORM	36028A	2	F	LODUMP : FILE LOAD/DUMP	36644A	1	F
CXSYSS : SOLVING SYSTEMS OF COMPLEX LINEAR EQUATIONS	36262A	4	E	P12 : INFORMATION SYSTEM	36737A	1	F
FNCTS : COMPUTES TRIG FUNCTIONS FOR COMPLEX ARGUMENTS	36017A	2	E	SLAB : SYSTEM LIBRARY ABSTRACTS	36647A	1	E
GFPT : GENERAL FAST FOURIER TRANSFORM	36030A	2	F	SYSDAT : SYSTEM DATE UTILITY	36634A	1	F
ROOTS2 : QUADRATIC EQUATION SOLVER	36625A	4	E	TALK : TIME SHARING SYSTEM COMMUNICATION	36222A	1	F
RTCFTT : REAL TO COMPLEX FAST FOURIER TRANSFORM	36029A	2	F	TIMER : TIME OF THE DAY	36297B	1	E
<b>COMPLEX ARITHMETIC</b>				<b>DEBUGGING AIDS</b>			
COMPLX : CAI IN ALGEBRA OF COMPLEX NUMBERS	36153A	4	E	XREF : BASIC LANGUAGE PROGRAM CROSS-REFERENCE GENERATOR	36143C	1	F
CXARTH : VECTOR ARITHMETIC	36118B	2	* E	<b>DECIMAL</b>			
CXEXP : VECTOR EXPONENTIATION	36119A	2	E	DC-OC : DECIMAL-TO-OCTAL CONVERTER	36747A	2	E
FNCTS : COMPUTES TRIG FUNCTIONS FOR COMPLEX ARGUMENTS	36017A	2	E	OC-DC : OCTAL-TO-DECIMAL CONVERTER	36712A	2	E
SOLVER : SOLVES COMPLEX SIMULTANEOUS EQUATIONS	36149A	4	F	<b>DETERMINANT</b>			
<b>COMPUTER SCIENCE</b>				CDTER : COMPUTES VALUE OF COMPLEX DETERMINANT	36025A	2	E
ALERA : PROPAGATION OF ERROR	36603B	4	E	<b>DIFFERENTIAL</b>			
BRAIN : BRAIN SIMULATOR PROGRAM	36219A	4	E	DE-10R : 1ST ORDER DIFFERENTIAL EQUATION	36032A	2	E
HPASMB : HP ASSEMBLER PACKAGE	36806A	4	F	DE-20R : 2ND ORDER DIFFERENTIAL EQUATION	36033A	2	E
P-TUA : PILOT TUTORIAL	36758B	4	E	SLOPE : FINDS DERIVATIVES	36626A	4	E
P-TUB : PILOT TUTORIAL	36775A	4	E	<b>DISCRETE SYSTEMS SIMULATION</b>			
P-TUC : PILOT TUTORIAL	36877A	4	* F	DECSN : TOP MANAGEMENT DECISION GAME	36065C	3	E
PILOTE : PILOT 73 AUTHOR LANGUAGE FOR HP 2000E	36637B	4	E	GSSS : SMALL SYSTEMS SIMULATOR	36552A	3	F
PILOTF : PILOT 73 AUTHOR LANGUAGE FOR THE HP 2000F	36756B	4	F	GVOTE : COMMITTEE CHOICE ANALYSIS	36550A	3	F
SNOBOL : SNOBOL3 COMPILER FOR HP 2000C SYSTEM	36849A	4	* F	M/M/I : QUEUEING SYSTEM	36655A	3	E
STOP : COMPUTER LITERACY - PSEUDO-MACHINE LANGUAGE	36208B	4	E	M/M/S : QUEUEING SYSTEM	36656A	3	E
STPAL : STOP MACHINE AND ASSEMBLY LANGUAGE SIMULATOR	36765A	4	F	<b>DUMPING</b>			
TM : TURING MACHINE SIMULATOR	36743A	4	E	DATA : DUMPS FILE TO DATA STATEMENTS	36287A	1	F
TUTOR : TUTOR SERIES BASIC LANGUAGE PROGRAMMING COURSE, TUT01 - TUT25	36139A	4	E	FILDUM : PAPER TAPE FILE DUMP	36088C	1	E
<b>CONTINUOUS SYSTEMS SIMULATION</b>				FILMAN : FILE MANAGER	36086A	1	F
GSSS : SMALL SYSTEMS SIMULATOR	36552A	3	F	FMS : FILE MANAGEMENT SYSTEM	36648A	1	E
<b>CONVERSION</b>				HPMLIT : LIST/DUMP HP ASSEMBLER FILES	36218A	1	F
DC-OC : DECIMAL-TO-OCTAL CONVERTER	36747A	2	E	LODUMP : FILE LOAD/DUMP	36644A	1	F
OC-DC : OCTAL-TO-DECIMAL CONVERTER	36712A	2	E	XTRACT : MANUAL/TAPE FILE LOADER AND DUMP PROGRAMS	36221A	1	F
STGINT : STRING-INTEGGER CONVERSIONS	36176A	1	E	<b>DYNAMIC PROGRAMMING</b>			
<b>COOLEY-TUKEY</b>				DYNPRO : DYNAMIC PROGRAMMING MODEL	36067A	3	F
CTRFFT : COMPLEX TO REAL FAST FOURIER TRANSFORM	36028A	2	F	SHORTR : SHORTEST ROUTE PROBLEM	36610A	3	F
GFPT : GENERAL FAST FOURIER TRANSFORM	36839A	2	F	<b>ECONOMIC ANALYSIS</b>			
RTCFTT : REAL TO COMPLEX FAST FOURIER TRANSFORM	36029A	2	F	DECSN : TOP MANAGEMENT DECISION GAME	36065C	3	E
<b>CORRELATION ANALYSIS</b>				GMCR01 : FISCAL POLICY GAME	36519A	4	F
ANVAR4 : TWO-WAY ANALYSIS OF VARIANCE FOR A TWO-WAY EXPERIMENT	36173A	2	E	GMCR05 : ECONOMIC POLICY GAME	36521A	4	F
CORREL : CORRELATION COEFFICIENT	36689A	2	E	GNPSUM : GROSS NATIONAL PRODUCT SUMMARY	36086A	3	E
IDA : INTERACTIVE DATA ANALYSIS	36755B	2	* F	IN/OUT : INPUT/OUTPUT ANALYSIS ON ECONOMIC FLOWS	36088A	3	E
MULREG : MULTIPLE REGRESSION/CORRELATION	36178A	2	F	INACNT : NATIONAL INCOME & PRODUCT ACCOUNTS	36087A	3	E
PSRC : POWER SERIES REGRESSION CURVE WITH X-AXIS OFFSET	36793A	2	* F	<b>ECONOMICS (EDUCATION)</b>			
<b>CRITICAL PATH ANALYSIS</b>				BALANC : TRADE AND PAYMENT BALANCES	36328A	4	E
CPATH : CRITICAL PATH EVALUATION	36171B	3	F	BANK : SOLVES FINANCIAL PROBLEMS	36329B	4	E
GCPATH : CRITICAL PATH ANALYSIS	36504A	3	F	CHARGE : CHARGE ACCOUNT SIMULATION	36604A	4	F
GCPM1 : CRITICAL PATH ANALYSIS	36505A	3	F	CIRFLW : CIRCULAR FLOW MODEL	36632A	4	E
<b>CROSS REFERENCE</b>				CONSPM : DEPRESSION/EQUILIBRIUM	36330A	4	E
XREF : BASIC LANGUAGE PROGRAM CROSS-REFERENCE GENERATOR	36143C	1	F	GMCR01 : FISCAL POLICY GAME	36519A	4	F
				GMCR05 : ECONOMIC POLICY GAME	36521A	4	F

\*New or revised since February 1974

# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS

## CROSS REFERENCE INDEX

	ORDER NO.	VOLUME	SYSTEM		ORDER NO.	VOLUME	SYSTEM		
GNPSUM : GROSS NATIONAL PRODUCT SUMMARY	36886A	3	E	FILE MANAGEMENT	DATA : DUMPS FILE TO DATA STATEMENTS	36287A	1	F	
LABOR : LABOR/MANAGEMENT BARGAINING	36233A	4	F		EDITOR : FILE MANIPULATION - CREATES, EDITS, LISTS, SORTS, EMULATES G.E. MK II.	36749A	1	*	F
MARKET : TWO COMPANIES IN ONE-PRODUCT COMPETITION	36619A	4	E		FILDUM : PAPER TAPE FILE DUMP	36808C	1	E	E
STOCK : STOCK MARKET SIMULATION	36331A	4	E		FILES : FILE MANIPULATION - CREATES, SORTS, UPDATES, COPIES, CHANGES FORMAT	36645B	1	*	F
WHEELS : AUTO PURCHASE AND MAINTENANCE SIMULATION	36187B	4	F		FILIN : KEYBOARD FILE LOADING PROGRAM	36807A	1	E	E
EDITING					FILIST : LISTS FILE CONTENTS BY RECORD NUMBER	36809D	1	*	F
EDIT2K : TEXT EDITOR FOR THE HP 2000C/2000C/F	36838A	1	*		F	FILMAN : FILE MANAGER	36806A	1	F
EDITOR : FILE MANIPULATION - CREATES, EDITS, LISTS, SORTS, EMULATES G.E. MK II.	36749A	1	*		F	FILOAD : LOADS A FILE FROM THE TELETYPE	36810C	1	E
FILMAN : FILE MANAGER	36806A	1	F		F	FILREA : REENTERS THE DATA TAPE DUMPED BY FILDUM	36811A	1	E
FINDIT : INFORMATION RETRIEVAL SYSTEM	36250C	1	*		F	FILRPT : REPORTS FILE CONTENTS AND STRUCTURE	36247A	1	F
MACRO : A TEXT AND FILE PROCESSING SYSTEM	36803B	1	F	F	FINDAD : CONVERTS A FILE TO A FINDIT FILE	36867A	1	*	F
PI2 : INFORMATION SYSTEM	36737A	1	F	F	FINDIT : INFORMATION RETRIEVAL SYSTEM	36250C	1	*	F
TIDEX : SYMBOLIC FILE EDITOR	36204B	1	F	F	FLCOPY : COPIES ONE FILE INTO ANOTHER	36812B	1	E	E
EDUCATIONAL ADMINISTRATION				F	FMS : FILE MANAGEMENT SYSTEM	36648A	1	E	E
ATTEND : ABSENTEE LISTING	36202A	4	F	F	LODUMP : FILE LOAD/DUMP	36644A	1	F	E
AVERG1 : AVERAGES AND CURVES GRADES	36340B	4	*	E	MACRO : A TEXT AND FILE PROCESSING SYSTEM	36803B	1	F	E
BASKET : BASKETBALL STATISTICS	36605A	4	F	E	PI2 : INFORMATION SYSTEM	36737A	1	F	E
COLREG : COLLEGE REGISTRATION DEMO	36282A	4	F	E	SPSORT : SPEED SORT - GENERAL PURPOSE FILE SORT	36736A	1	*	F
FREQ : BAR GRAPHS OF GRADES	36341A	4	E	F	TIDEX : SYMBOLIC FILE EDITOR	36204B	1	F	E
GMARKS : GSB GRADING PROGRAM	36518A	4	E	F	XTRACT : MANUAL/TAPE FILE LOADER AND DUMP PROGRAMS	36221B	1	*	F
GPAC : COLLEGE GRADE PACKAGE	36636A	4	E	F	FINANCIAL ANALYSIS				
GRADE : TEST GRADE FOR NUMBER OF QUESTIONS MISSED	36342A	4	E	E	ANNUIT : ANNUITY ANALYSIS	36874A	3	E	E
ITEM1 : NUMBER FREQUENCIES	36343A	4	E	F	BALSHT : PROFORMA INCOME STATEMENT AND BALANCE SHEET	36875A	3	F	E
SALSIM : SALARY SCHEDULE COST SIMULATOR	36872A	4	E	F	BNKSIM : SIMULATES ONE YEAR'S DEPOSIT AND WITHDRAWAL ACTIVITIES OF SMALL BANK	36713A	4	E	E
SGFMS : STUDENT GRADE FILE MANAGEMENT SYSTEM	36832A	4	*	F	CAPDCF : CAPITAL INVESTMENT ANALYSIS (DISCOUNTED CASH FLOW METHOD)	36825A	3	*	F
STAT : STATISTICAL ANALYSIS OF LAB DATA	36344A	4	E	F	CAPINV : CAPITAL INVESTMENT ANALYSIS	36809A	3	E	E
EIGENVALUES AND EIGENVECTORS				E	CSHFL : CASH FLOW ANALYSIS	36142B	3	E	E
JACOBI : EIGENVALUES AND EIGENVECTORS OF A REAL SYMMETRIC MATRIX	36167A	4	E	E	CTC3 : CTC PROJECTION PROGRAMS	36212B	3	F	E
ELECTRICAL ENGINEERING				E	DEPCOM : DEPRECIATION METHOD COMPARISON	36882A	3	E	E
AC-1 : COMPUTER AIDED PRACTICE IN EE AC ANALYSIS	36152A	2	E	F	EQUITY : COST OF EQUITY CAPITAL	36883A	3	E	E
ACNODE : AC CIRCUIT ANALYSIS PROGRAM	36857A	2	F	E	EXDRSK : EXTENDED RISK ANALYSIS	36884A	3	E	E
ACTFIL : ACTIVE FILTER DESIGN	36293A	2	F	E	FINFLO : CALCULATES PRESENT VALUE - STREAM OF CASH FLOWS	36711A	3	E	E
ANALAD : CIRCUIT ANALYSIS	36856A	2	F	E	GNFRAT : FINANCIAL RATIOS	36510A	3	F	E
DEBYE : COMPUTES DEBYE OR EINSTEIN FUNCTION	36859A	2	E	E	GIRRPV : INVESTMENT RETURN (CASH FLOW)	36513A	3	F	E
DVDRS : CAI IN VOLTAGE AND CURRENT DIVIDERS	36156A	4	E	E	GRISKA : RISK ANALYSIS IN CAPITAL INVESTMENT	36543A	3	F	E
EFIELD : ELECTRIC FIELD STRENGTH	36629A	4	E	E	INSTMT : INCOME STATEMENT	36889B	3	E	E
GENFIL : DESIGNS PASSIVE FILTERS	36784A	2	F	E	LEASIN : LEASE INCOME	36194A	3	E	E
INDMTR : ANALYSIS OF A BALANCED POLYPHASE INDUCTION MOTOR	36154A	4	E	E	LENDER : SIMPLE LOAN ANALYSIS	36890A	3	E	E
KSWEPT : FREQUENCY PLOT OF POLES AND ZEROS IN A COMPLEX PLANE	36771A	2	F	E	LESSEE : LEASE ANALYSIS AS DETERMINED BY THE LESSEE	36891B	3	*	F
LPFLTR : DESIGNS LOW-PASS FILTERS	36868A	2	E	E	LOAN : LOAN AMORTIZATION	36226A	3	F	E
MICRO : MICROWAVE PARAMETERS CONVERSION	36862A	2	E	E	MARKET : TWO COMPANIES IN ONE-PRODUCT COMPETITION	36619A	4	E	E
MIXSPR : MIXER SPURIOUS RESPONSE PROGRAM	36864A	2	E	E	MCOST : COMPARE AND EVALUATE UP TO 1000 MORTGAGE PAYMENT PLANS SIMULTANEOUSLY	36789A	3	E	E
SOLVER : SOLVES COMPLEX SIMULTANEOUS EQUATIONS	36149A	4	F	E	MKBUY : MAKE-BUY DECISION ANALYSIS	36893A	3	E	E
T-CPL : THERMOCOUPLE TABLE PACKAGE	36654A	2	*	E	MORGAG : MORTGAGE ANALYSIS	36889B	3	E	E
UNITS : CAI IN INTERPRETATION OF EE UNITS	36157A	4	E	E	SALSIM : SALARY SCHEDULE COST SIMULATOR	36872A	4	F	E
ENGINEERING (EDUCATION)				E	TRUINT : TRUE ANNUAL INTEREST RATE ANALYSIS	36181A	3	E	E
AC-1 : COMPUTER AIDED PRACTICE IN EE AC ANALYSIS	36152A	4	E	E	FINE ARTS (EDUCATION)				
ACNODE : AC CIRCUIT ANALYSIS PROGRAM	36857A	2	F	E	KEYSIG : GIVES MAJOR SCALES	36258A	4	E	E
ANALAD : CIRCUIT ANALYSIS	36856A	2	F	E	MUSIC2 : TRIAD SOLVING PROGRAM	36276A	4	E	E
BEMDES : RECOMMENDS CORRECT STEEL BEAM USE	36109A	2	E	E	MUSIC5 : FINDS DOMINANT SEVENTHS	36259A	4	E	E
COMPLX : CAI IN ALGEBRA OF COMPLEX NUMBERS	36153A	4	E	E	FLOATING POINT				
DEBYE : COMPUTES DEBYE OR EINSTEIN FUNCTION	36859A	2	E	E	FORMIF : F AND I FORMAT	36612A	1	E	E
DVDRS : CAI IN VOLTAGE AND CURRENT DIVIDERS	36156A	4	E	E	FORECASTING TECHNIQUES				
EXPNTL : CAI IN SIMPLE EXPONENTIAL FUNCTIONS OF TIME	36148A	4	E	E	EKSMO0 : EXPONENTIAL SMOOTHING ON PRICE DATA	36885B	3	E	E
GENFIL : DESIGNS PASSIVE FILTERS	36784A	2	F	E	LNTRND : LINEAR TREND FORECASTING	36869A	3	E	E
GNETFL : NETWORK FLOW	36529A	3	F	E	PSRC : POWER SERIES REGRESSION CURVE WITH X-AXIS OFFSET	36793A	2	*	F
GTHOR : SECURITIES EPS GROWTH	36553A	3	F	E	TIMDIF : FIRST DIFFERENCES, PERCENT CHANGES, PERCENT DIFFERENCE	36801A	3	*	F
HTRFR : TWO DIMENSIONAL HEAT TRANSFER	36858A	2	F	E	FOREIGN LANGUAGES (EDUCATION)				
INDMTR : ANALYSIS OF A BALANCED POLYPHASE INDUCTION MOTOR	36154A	4	E	E	CARLOS : COMPUTER-ASSISTED REVIEW LESSONS ON SYNTAX FOR SPANISH II	36175A	4	F	E
JACOBI : EIGENVALUES AND EIGENVECTORS OF A REAL SYMMETRIC MATRIX	36167A	4	E	E	FORMAT				
LPFLTR : DESIGNS LOW-PASS FILTERS	36868A	2	E	E	FORMAT : ALLOWS SPECIAL FORMATTING OF DATA PRINTOUT	36805B	1	E	E
MICRO : MICROWAVE PARAMETERS CONVERSION	36862A	2	E	E	FORMIF : F AND I FORMAT	36612A	1	E	E
MIXSPR : MIXER SPURIOUS RESPONSE PROGRAM	36864A	2	E	E	FOURIER				
POLAR : PLOTS SINGLE VARIABLE IN POLAR FORM	36155A	4	E	E	CTRFFT : COMPLEX TO REAL FAST FOURIER TRANSFORM	36828A	2	F	E
SOLVER : SOLVES COMPLEX SIMULTANEOUS EQUATIONS	36149A	4	F	E	GFFT : GENERAL FAST FOURIER TRANSFORM	36838A	2	F	E
SOLVIT : SIMULTANEOUS LINEAR EQUATIONS USING GAUSSIAN REDUCTION	36196A	2	E	E	RTCFIT : REAL TO COMPLEX FAST FOURIER TRANSFORM	36829A	2	F	E
UNITS : CAI IN INTERPRETATION OF EE UNITS	36157A	4	E	E	FUNCTIONS, COMPUTATION OF				
ENGLISH (EDUCATION)				E	BESSEL : CALCULATES BESSEL FUNCTION OF FIRST KIND	36819A	2	E	E
VOCAB : CAI IN WORD USAGE	36880A	4	*	E	DERTV : COMPUTER-AUGMENTED CALCULUS TOPICS	36662A	4	E	E
EXPERIMENTAL DESIGN				E	DESCAL : DESK CALCULATOR SUBROUTINE	36674A	4	E	E
ANOVA : FACTORIAL ANALYSIS OF VARIANCE (FIVE-WAY, FOR ANY BALANCED DESIGN)	36878A	2	*	F	FGRAF1 : SIMULTANEOUS FUNCTION GRAPHER	36165A	1	E	E
ANVA1 : ONE-WAY ANALYSIS OF VARIANCE USING SAMPLE MEANS AND STD. DEVIATIONS	36871A	2	*	E	FUNDTH : COMPUTER-AUGMENTED CALCULUS TOPICS	36664A	4	E	E
ANVAR1 : ANALYSIS OF VARIANCE FOR A RANDOMIZED ONE-WAY DESIGN	36839B	2	E	E	GRAPH1 : COMPUTER-AUGMENTED CALCULUS TOPICS	36665A	4	E	E
ANVAR2 : ANALYSIS OF VARIANCE (LATIN SQUARE DESIGN)	36840B	2	E	E	GRAPH2 : COMPUTER-AUGMENTED PHYSICS TOPICS	36666A	4	E	E
ANVAR3 : ANALYSIS OF VARIANCE FOR A TWO VARIABLES OF CLASSIFICATION DESIGN	36172A	2	E	E	INTEGR : COMPUTER-AUGMENTED CALCULUS TOPICS	36667A	4	E	E
EXTENDED-PRECISION ARITHMETIC				E	PARABO : EQUATION OF PARABOLA PASSING THROUGH 3 GIVEN POINTS	36782A	2	E	E
EXTND : INFINITE PRECISION MATH UTILITY PROGRAM	36253A	4	F	E	PLOT33 : KEYBOARD ENTRY MULTIPLE FUNCTION PLOTTER	36659A	1	F	E
EXTPRE : 48-DIGIT PRECISION MATHEMATICS	36144A	2	E	E	POLY : POLYNOMIAL APPROXIMATION	36188A	2	E	E
				E	ROOTNL : FINDS ROOTS OR FIXED POINTS OF A NON-LINEAR FUNCTION	36697A	2	E	E
				E	ROOTNR : LOCATES ROOT OF A FUNCTION WHOSE DERIVATIVE IS KNOWN	36696A	2	E	E

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## GAMES

This is only a partial list. See HP's Games Book, HP 36000-91005 (available September 1974) for a complete list of games.

	ORDER NO.	VOLUME	SYSTEM
AF LIFE	36353A	5	F
BAGELS	36360A	5	F
BATNUM	36105A	5	F
BATTLE	36236A	5	E
BIRDAY	36653A	5	F
BLJACK	36103A	5	F
BOLA	36879A	4	F
CANNON	36110A	5	F
CHARGE	36604A	4	F
CHASE	36683A	5	E
CLOCKS	36657A	5	E
DRAG	36601B	5	E
FTBL	36181A	5	E
GOLF	36102A	5	E
GOMOKU	36735A	5	F
GRNPRX	36686A	5	E
KENO	36244A	5	F
LANDER	36684A	5	E
LIFE	36138A	5	F
MRKSIM	36199A	4	F
QUADGT	36768A	5	F
QUBIC	36106A	5	F
ROULET	36650A	5	F
SETUPC	36209B	4	F
SLOT	36107A	5	E
STR1	36243B	5	F
TEASER	36734A	5	E
TWQUES	36130A	4	E
WORD	36660A	5	F
GAUSSIAN			
BINOPO	36041A	2	E
GENERAL PROBABILITY			
CLIMAT	36760A	4	F
FORCST	36750A	2	E
GEOLOGY			
EVOLU	36301A	4	E
GRAPHIC DISPLAY			
CANNON	36110A	5	F
DRAGON	36785A	4	E
FPL0T	36112A	1	E
GRAPHS	36115A	1	E
HAZEL	36786B	1	E
HPPL0T	36805A	1	F
TITLE	36114B	1	F
HISTOGRAM			
HISS	36235A	1	F
LOGRAM	36001A	2	F
HISTORY (EDUCATION)			
ELECT	36798A	4	E
HUNTINGTON I			
ATWT	36613A	4	E
AVERGI	36340B	4	E
AVOGA	36614A	4	E
BALANC	36328A	4	E
BANK	36329B	4	E
BFIELD	36312A	4	E
BOHR	36313A	4	E
CALORI	36314A	4	E
CHARG	36621A	4	E
CIRFLW	36632A	4	E
CLOUDS	36325A	4	E
CONSMF	36330A	4	E
CRVLEN	36333A	4	E
CVAREA	36620A	4	E
DECAY1	36306A	4	E
DECAY2	36307A	4	E
DROS	36300A	4	E
EFIELD	36629A	4	E
EMPIR	36615A	4	E
EQUIL1	36308A	4	E
EVOLU	36301A	4	E
FREG	36341A	4	E
GAMGN	36302A	4	E
GRADE	36342A	4	E
ITEM1	36343A	4	E
KINERV	36315A	4	E
KINET	36309A	4	E
LENSES	36630A	4	E
LIMSIN	36622A	4	E
MASSD	36310A	4	E
MEMBR	36611A	4	E
MOLAR	36616A	4	E
NEWTN2	36316A	4	E
NZYM2	36304A	4	E
NZYM3	36303A	4	E
PHOSYN	36305A	4	E
PHOTEL	36317A	4	E
PHOTON	36318A	4	E
PHPHO	36617A	4	E
PI	36623A	4	E
PLANK	36350A	4	E

	ORDER NO.	VOLUME	SYSTEM
PRCNT	36311A	4	E
PRJTL	36631A	4	E
QUADT	36335A	4	E
RATIO	36336A	4	E
REFLCT	36319A	4	E
ROOTS2	36625A	4	E
SLITS	36351B	4	E
SLOPE	36626A	4	E
SNELL	36320A	4	E
SPACE	36321A	4	E
SQR2	36627A	4	E
STAT	36344A	4	E
STATAL	36628A	4	E
STOCK	36331A	4	E
STOICH	36618A	4	E
SURFAC	36338A	4	E
VFIELD	36322A	4	E
VLOCY2	36323A	4	E
VOLSOL	36339A	4	E
WATER1	36326A	4	E
WATER2	36327A	4	E
WAVES	36324B	4	E
HUNTINGTON II			
ELECT	36798A	4	E
GENE1	36642B	4	E
LOCKEY	36624A	4	E
MALAR	36797A	4	E
MARKET	36619A	4	E
POLICY	36649A	4	E
POLSYS	36648B	4	E
POLUT	36639B	4	E
POP	36844A	4	E
SAP	36843A	4	E
STERL	36641B	4	E
USPOP	36892A	4	E
INFORMATION STORAGE AND RETRIEVAL			
TAIRE	36807A	1	F
ADDRS	36231A	1	E
EDIT2K	36838A	1	F
EDITOR	36749A	1	F
FILES	36645B	1	F
FINDAD	36874A	1	F
FINDIT	36250D	1	F
FMS	36648A	1	E
INDEXR	36770A	1	E
LODUMP	36644A	1	F
MACRO	36803B	1	F
MESSAG	36284A	1	F
PI2	36737A	1	F
SLAB	36647A	1	E
INTEGER			
FACTOR	36037A	2	E
FORMIF	36612A	1	E
STGINT	36176A	1	E
INTEGRAL TRANSFORMS			
CTRFFT	36028A	2	F
GFPT	36830A	2	F
RTCFFT	36029A	2	F
INTEGRATION			
BESSEL	36019A	2	E
INTGR	36698A	2	E
INTGRS	36699A	2	E
ROMINT	36022B	2	E
INTERPOLATION/EXTRAPOLATION			
NEWTON	36652A	2	E
INTERPRETER			
PILOTE	36637B	4	E
PILOTF	36756B	4	F
TH	36743A	4	E
INVENTORY ANALYSIS			
CTC1	36210B	3	F
CTC2	36211B	3	F
REP	36177A	3	F
INVERSE			
CTRFFT	36028A	2	F
GFPT	36830A	2	F
RTCFFT	36029B	2	F
INVESTMENT ANALYSIS			
ANNUIT	36074A	3	E
BNDPRC	36076B	3	E
BNDSWH	36077A	3	F
BNDYLD	36078B	3	E
BNKRSV	36079A	3	E
CAPDCF	36825A	3	F
CAPINV	36080A	3	E
DROIPB	36179A	3	E

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	ORDER NO.	VOLUME	SYSTEM		ORDER NO.	VOLUME	SYSTEM
EQUITY : COST OF EQUITY CAPITAL	36083A	3	E	SETS : UNION AND INTERSECTION OF SETS	36337A	4	E
EXDRSK : EXTENDED RISK ANALYSIS	36084A	3	E	SIPRAC : PRACTICE WITH SIGNED NUMBERS	36238A	4	F
EXSMOO : EXPONENTIAL SMOOTHING ON PRICE DATA	36085B	3	E	SLOPE : FINDS DERIVATIVES	36262A	4	E
GCHLIN : RATING INVESTMENT FUNDS	36503A	3	F	SPHERE : SOLVES SPHERICAL TRIANGLES	36034A	2	E
GDPAI : ABNORMAL PERFORMANCE INDEX	36507A	3	F	SQRT : FINDS SQUARE ROOT	36227A	4	E
GDPA : EFFICIENT "CORNER" PORTFOLIOS	36508A	3	F	STATAL : ARITHMETIC MEAN	36228A	4	E
GKASSF : WARRANT PRICE CALCULATION	36514A	3	F	STOCK : STOCK MARKET SIMULATION	36331A	4	E
GKCOST : PRICE/EARNINGS RATIO CALCULATION	36515A	3	F	SURFAC : AREA OF SURFACE OF REVOLUTION	36338A	4	E
GNMRVB : SECURITIES PORTFOLIO ANALYSIS AND DETERMINATION	36530A	3	F	SYSSOL : SOLVING SYSTEMS OF LINEAR EQUATIONS	36278A	4	F
GSPMG : STANFORD PORTFOLIO MANAGEMENT GAME	36502A	4	F	TENS : DRILL IN MULTIPLICATION OF NUMBERS WITH TRAILING ZEROS	36128A	4	F
GSTKVL : STOCK VALUATION	36545A	3	F	TRIFAC : FACTORING QUADRATIC TRINOMIALS	36237A	4	E
GTHOR : SECURITIES EPS GROWTH	36553A	3	F	TRUTH : TRUTH TABLES FOR BOOLEAN EXPRESSIONS	36802B	4	E
GVPDQT : PLOTTING DATA	36554A	3	F	TWQUES : MATHEMATICAL GAME OF TWENTY QUESTIONS	36130A	4	E
MARKOW : SECURITIES PORTFOLIO USING MARKOWITZ MODEL	36092B	3	E	VOLSOL : VOLUME OF SOLID OF REVOLUTION	36339A	4	E
SAVING : COMPOUND INTEREST	36708A	3	E	WAVES : SUM OF TWO WAVES	36248B	4	E
STKINC : STOCK MERGER INCENTIVE PROGRAM	36096A	3	E	WKSHT : GENERATES MATH WORKSHEETS	36133A	4	E
STKRTN : STOCK RETURNS REPORT	36098A	3	E				
STKSMO : EXPONENTIAL SMOOTHING AS A STOCK GUIDE	36099A	3	E	MATHEMATICS, GENERAL			
STKVAL : STOCK VALUE & EVALUATION REPORT	36100A	3	E	BASCAL : BASE CALCULATOR	36847A	2	* E
TRUINI : TRUE ANNUAL INTEREST RATE ANALYSIS	36101A	3	E	CALCOM : CALCULATOR PROGRAM WITH OPTIONAL PLOTTER OUTPUT	36131A	2	F
VCHART : INVESTMENT DECISIONS USING TEKTRONIX 4010	36555A	1	F	CRVLEN : COMPUTES LENGTH OF ANY CURVE	36333A	4	E
VRRC : INVESTMENT STRATEGY ANALYSIS	36557A	3	F	DC-OC : DECIMAL-TO-OCTAL CONVERTER	36747A	2	E
				DIMIS : X-Y AXIS SEGMENT PROGRAM	36277A	4	F
JULIAN				DRILL : BASIC ARITHMETIC DRILL	36129A	4	F
JULIAN : JULIAN CALENDAR FOR THE CURRENT YEAR	36197A	1	E	EXPNTL : GAI IN SIMPLE EXPONENTIAL FUNCTIONS OF TIME	36148A	4	E
				EXTEND : INFINITE PRECISION MATH UTILITY PROGRAM	36253A	4	F
LABEL				FACTOR : FINDS PRIME FACTORS OF POSITIVE INTEGERS	36837A	2	E
ADDRES : ADDRESS LABELS	36231A	1	E	FNCTS : COMPUTES TRIG FUNCTIONS FOR COMPLEX ARGUMENTS	36017A	2	E
LANGUAGE TRANSLATORS (SEE TRANSLATORS, LANGUAGE)				FORCST : WEATHER FORECASTING PROGRAM	36750A	2	* E
				LINES : CONVERSATIONAL COMPUTER GENERATED CALCULUS QUIZ	36780A	4	E
LEAST SQUARES				LOGIC : LOGIC EXAMINATION PROGRAMS	36251B	4	E
CRVFT : LEAST-SQUARES CURVEFITTING	36633A	2	E	OC-DC : OCTAL-TO-DECIMAL CONVERTER	36712A	2	E
CRUIT : PERFORMS LEAST SQUARES FIT	36038D	2	* E	PLOT33 : KEYBOARD ENTRY MULTIPLE FUNCTION PLOTTER	36659A	1	F
MULTX : LEAST-SQUARES FIT, MULTIPLE Y'S PER X	36186A	2	E	POLYGN : COMPUTES THE AREA ENCLOSED IN ANY POLYGON	36703A	2	E
POLFIT : FITS LEAST-SQUARES POLYNOMIALS	36823B	2	F	QUADT : NATURE OF GRAPH OF A 2ND ORDER EQUATION IN TWO VARIABLES	36335A	4	E
POLPTE : FITS LEAST-SQUARES POLYNOMIALS	36246A	2	E	ROOTNL : FINDS ROOTS OR FIXED POINTS OF A NON-LINEAR FUNCTION	36697A	2	E
				ROOTNR : LOCATES ROOT OF A FUNCTION WHOSE DERIVATIVE IS KNOWN	36696A	2	E
LINEAR				SAT : TRIGONOMETRIC SOLUTIONS OF TRIANGLES	36182A	4	E
CROUTI : SOLVES SIMULTANEOUS LINEAR EQUATIONS	36027A	2	E	SPHERE : SOLVES SPHERICAL TRIANGLES	36034A	4	E
CXSYS : SOLVING SYSTEMS OF COMPLEX LINEAR EQUATIONS	36262A	4	E	SQRT : FINDS SQUARE ROOT	36277A	4	E
GSIMEQ : SIMULTANEOUS LINEAR EQUATIONS	36547A	2	F	SURFAC : AREA OF SURFACE OF REVOLUTION	36338A	4	E
REGCOR : REGRESSION/CORRELATION	36054B	2	E	VOLSOL : VOLUME OF SOLID OF REVOLUTION	36339A	4	E
REGRES : STEP-WISE REGRESSION	36738A	2	F				
SOLVIT : SIMULTANEOUS LINEAR EQUATIONS USING GAUSSIAN REDUCTION	36196A	2	E	MATRIX OPERATIONS			
SYSSOL : SOLVING SYSTEMS OF LINEAR EQUATIONS	36278A	4	F	CDETER : COMPUTES VALUE OF COMPLEX DETERMINANT	36025A	2	E
				DETER4 : DETERMINANTS, CHARACTERISTIC POLYNOMIALS AND INVERSES OF MATRICES	36263A	2	F
LINEAR PROGRAMMING				JACOBI : EIGENVALUES AND EIGENVECTORS OF A REAL SYMMETRIC MATRIX	36167A	4	E
GINTLP : LINEAR PROGRAMMING-VARIABLES RESTRICTED TO VALUES OF ONE OR ZERO	36512A	3	F	MARKOV : COMPUTES FOR AN ERGODIC MARKOV CHAIN	36701A	2	F
GLP : LINEAR PROGRAMMING	36516A	3	F				
GLPSA1 : LINEAR PROGRAMMING TWO-PHASE SIMPLEX METHOD	36517A	3	F	MECHANICAL ENGINEERING			
LINPRO : LINEAR PROGRAMMING MODEL	36068C	3	* F	HIXFR : TWO DIMENSIONAL HEAT TRANSFER	36058A	2	F
LINQUP : SOLVES EITHER A LINEAR OR QUADRATIC PROGRAMMING PROBLEM	36710A	3	E	METRIC : CONVERTS ENGLISH TO METRIC	36635A	2	F
LNTRND : LINEAR TREND FORECASTING	36069A	3	E	ORBIT : INTEGRATES EQUATIONS OF MOTION	36121A	4	E
TRANSP : TRANSPORTATION PROBLEM	36230A	3	F				
				MUSIC			
MATHEMATICS (EDUCATION)				KEYSIG : GIVES MAJOR SCALES	36258A	4	E
ALGIE : BASIC ALGEBRA DRILL	36851A	4	* F	MUSIC2 : TRIAD SOLVING PROGRAM	36276A	4	E
AREA : COMPUTER-AUGMENTED CALCULUS TOPICS	36648A	4	E	MUSIC5 : FINDS DOMINANT SEVENTHS	36259A	4	E
BAGELS : THREE-DIGIT NUMBER GUESSING	36360A	5	F				
BANK : SOLVES FINANCIAL PROBLEMS	36329B	4	E	NEWTON			
BASE : BASE CONVERTER	36796A	4	* E	LANDIN : COMPUTER-AUGMENTED PHYSICS TOPICS	36670A	4	E
BATTLE : BATTLESHIP GAME	36236A	5	E	NEWTON : INTERPOLATION OF NON-LINEAR FUNCTIONS BY NEWTON'S FORMULA	36652A	2	* E
BISQAR : SQUARING BINOMIALS	36240A	4	E				
CADA11 : COMPUTER ASSISTED ARITHMETIC DRILL	36205A	4	E	NON-LINEAR			
CHASE : PURSUIT OF A TARGET	36683A	5	E	NEWTON : INTERPOLATION OF NON-LINEAR FUNCTIONS BY NEWTON'S FORMULA	36652A	2	* E
CRVLEN : COMPUTES LENGTH OF ANY CURVE	36333A	4	E				
CVAREA : AREA UNDER CURVE	36620A	4	E	NON-PARAMETRIC STATISTICS			
CXSYS : SOLVING SYSTEMS OF COMPLEX LINEAR EQUATIONS	36262A	4	E	CHISQ : COMPUTES PROBABILITY OF CHI-SQUARE VALUES	36042A	2	E
DETSIN : COMPUTER-AUGMENTED CALCULUS TOPICS	36663A	4	E	CHISQ5 : CHI-SQUARE STATISTICS FOR M*N CONTINGENCY TABLES	36043B	2	E
DETRIV : COMPUTER-AUGMENTED CALCULUS TOPICS	36662A	4	E	CROSS2 : CROSS TABULATION AND CHI-SQUARE	36860A	2	* F
DESCAL : DESK CALCULATOR SUBROUTINE	36674A	4	E	FISHER : FISHER'S EXACT PROBABILITY TEST	36806A	2	F
DETER4 : DETERMINANTS, CHARACTERISTIC POLYNOMIALS AND INVERSES OF MATRICES	36263A	2	F	SEVPRO : CHI-SQUARE TEST	36719A	2	E
DIFFEQ : GAI IN SOLUTION OF LINEAR FIRST-ORDER DIFFERENTIAL EQUATIONS	36159A	4	E	STAT06 : CALCULATES SIGN TEST CONFIDENCE INTERVAL	36724A	2	E
DIMIS : X-Y AXIS SEGMENT PROGRAM	36277A	4	F	STAT07 : CALCULATES THE CONFIDENCE LIMITS FOR A SET OF DATA	36725A	2	E
DRILL : BASIC ARITHMETIC DRILL	36129A	4	F	STAT08 : COMPARES TWO GROUPS OF DATA USING THE MEDIAN TEST	36732A	2	E
EINDIS : EINSTEIN DISTORTIONS	36716A	4	* E	STAT14 : ANALYSIS OF VARIANCE AND F-RATIOS (RANDOMIZED COMPLETE BLOCK DESIGN)	36730A	2	E
EXTEND : INFINITE PRECISION MATH UTILITY PROGRAM	36253A	4	F	STAT2 : MANN-WHITNEY 2 SAMPLE RANK TEST	36052A	2	E
FACTOR : FINDS PRIME FACTORS OF POSITIVE INTEGERS	36037A	2	E	STAT3 : SPEARMAN RANK CORRELATION COEFFICIENTS	36053A	2	E
FUNDTH : COMPUTER-AUGMENTED CALCULUS TOPICS	36664A	4	E				
GAME : CLASSIC MATRIX OF GAME THEORY	36265A	4	F	NUMERICAL INTEGRATION			
GRAPH1 : COMPUTER-AUGMENTED CALCULUS TOPICS	36665A	4	E	INTGR : DEFINITE INTEGRAL BY MEANS OF 3-POINT GAUSSIAN INTEGRATION FORMULA	36698A	2	E
GRAPH2 : COMPUTER-AUGMENTED PHYSICS TOPICS	36666A	4	E	INTGR5 : COMPUTES THE AREA UNDER A CURVE	36699A	2	E
INTEGR : COMPUTER-AUGMENTED CALCULUS TOPICS	36667A	4	E	ROMINT : INTEGRATES A FUNCTION (ROMBERG METHOD)	36022B	2	E
LIMSIN : LIMIT OF (SIN X)/X	36622A	4	E				
LINES : CONVERSATIONAL COMPUTER GENERATED CALCULUS QUIZ	36700A	4	E				
LOGIC : LOGIC EXAMINATION PROGRAMS	36251B	4	E				
PI : CALCULATES PI	36623A	4	E				
POLSUB : POLYNOMIAL SUBTRACTION	36239A	4	E				
QUADT : NATURE OF GRAPH OF A 2ND ORDER EQUATION IN TWO VARIABLES	36335A	4	E				
RATIO : SOLVES PROPORTIONS	36336A	4	E				
RNDORD : PLACING INTEGERS IN RANDOM ORDER	36244A	2	E				
ROOTS2 : QUADRATIC EQUATION SOLVER	36625A	4	E				
SAT : TRIGONOMETRIC SOLUTIONS OF TRIANGLES	36182A	4	E				

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	ORDER NO.	VOLUME	SYSTEM		ORDER NO.	VOLUME	SYSTEM
<b>OCTAL</b>							
BASCAL : BASE CALCULATOR	36847A	2	*	E			
DC-OC : DECIMAL-TO-OCTAL CONVERTER	36747A	2		E			
OC-DC : OCTAL-TO-DECIMAL CONVERTER	36712A	2		E			
<b>OPTIMIZATION PROGRAMS</b>							
GNETFL : NETWORK FLOW	36529A	3		F			
MAXFLO : MAXIMUM FLOW IN A CAPACITATED NETWORK	36689A	3		F			
SHORTR : SHORTEST ROUTE PROBLEM	36610A	3		F			
<b>ORDINARY DIFFERENTIAL EQUATIONS</b>							
DE-1OR : 1ST ORDER DIFFERENTIAL EQUATION	36032A	2		E			
DE-2OR : 2ND ORDER DIFFERENTIAL EQUATION	36033A	2		E			
DIFFE0 : CAI IN SOLUTION OF LINEAR FIRST-ORDER DIFFERENTIAL EQUATIONS	36159A	4		E			
<b>PAYROLL ACCOUNTING</b>							
CTC4 : CTC PAYROLL PROGRAMS	36213B	3		F			
SALES : SALES COMMISSION REPORT	36095A	3		E			
SALSIM : SALARY SCHEDULE COST SIMULATOR	36072A	4		F			
<b>PERT</b>							
CPATH : CRITICAL PATH EVALUATION	36171B	3		F			
<b>PHYSICS</b>							
ALERA : PROPAGATION OF ERROR	36603B	4		E			
ATOM : DERIVES THE ELECTRONIC CONFIGURATION OF ANY ELEMENT	36705A	4		E			
RFIELD : MAGNETIC FIELD PICTURE	36312A	4		E			
BOHR : ENERGY LEVEL DIAGRAM	36313A	4		E			
BOLA : NUCLEAR PHYSICS GAME	36879A	4	*	F			
CLIMAT : CLIMATE TEACHING PROGRAM	36760A	4	*	F			
CONVRT : TEMPERATURE SCALE CONVERSION	36685A	4		E			
EINDIS : EINSTEIN DISTORTIONS	36716A	4	*	E			
FORCST : WEATHER FORECASTING PROGRAM	36750A	2	*	E			
GRNPRX : GRAND PRIX RACING GAME	36686A	5		E			
H-LIFE : HALF LIFE SIMULATION	36134A	4		E			
KINERV : REVIEW OF KINEMATICS	36315A	4		E			
NEWTN2 : NEWTON'S 2ND LAW	36316A	4		E			
PHOTEL : PHOTOELECTRIC EFFECT	36317A	4		E			
PHOTON : ENERGY LEVEL PROBLEM	36318A	4		E			
REFLECT : LEAST TIME PRINCIPLE AND LIGHT	36319A	4		E			
SNELL : SNELL'S LAW	36320A	4		E			
SPACE : SPACECRAFT ORBITS	36321A	4		E			
T-CPL : THERMOCOUPLE TABLE PACKAGE	36654A	2	*	E			
VFIELD : POTENTIAL FIELD PICTURE	36322A	4		E			
VLOCTY : INSTANTANEOUS VELOCITY	36323A	4		E			
WAVFN : COMPUTES AND PLOTS THE RADIAL PART OF HYDROGEN-LIKE WAVE FUNCTIONS	36733A	2		E			
<b>PILOT</b>							
P-HYP : SCIENTIFIC METHOD AND HYPOTHESIS	36759A	4		E			
P-TUA : PILOT TUTORIAL	36758B	4		E			
P-TUB : PILOT TUTORIAL	36775A	4		E			
P-TUC : PILOT TUTORIAL	36877A	4	*	F			
<b>PLOT ROUTINES IN HP BASIC</b>							
BFIELD : MAGNETIC FIELD PICTURE	36312A	4		E			
BOHR : ENERGY LEVEL DIAGRAM	36313A	4		E			
CANNON : HP 7200A GAME DEMO FOR TIME-SHARED BASIC	36110A	5		F			
FGRAPH : SIMULTANEOUS FUNCTION GRAPHER	36165A	1		E			
FPLOT : FUNCTION PLOT	36112A	1		E			
GRAPHS : DEMO PLOT PROGRAM FOR HP 7200 PLOTTER	36115A	1		F			
GRGPLT : SIMPLE REGRESSION AND PLOT	36542A	2		E			
GVDPGT : PLOTTING DATA	36554A	3		F			
HAZEL : HAZELTINE 2000 USER SUBROUTINES	36786B	1	*	E			
HISS : SAMPLE STATISTICS AND HISTOGRAM FORMED FROM A SET OF NUMBERS	36235A	1		F			
HISTOG : A HISTOGRAM FORMED FROM A SET OF NUMBERS	36855B	2		E			
HPFLOT : AUTOMATIC PLOTTING PROGRAM	36805A	1		F			
KSWEEP : FREQUENCY PLOT OF POLES AND ZEROS IN A COMPLEX PLANE	36771A	2		F			
PLOT : PLOTS A GIVEN FUNCTION ON THE TELETYPE PLOTTER	36104B	1		E			
PLOT33 : KEYBOARD ENTRY MULTIPLE FUNCTION PLOTTER	36659A	1		F			
PLOTS : ASCII CHARACTER PLOTTER FOR 7200 PLOTTER	36840A	1	*	F			
PLOTWD : WORD PLOTTER	36228B	1		E			
POLAR : PLOTS SINGLE VARIABLE IN POLAR FORM	36155A	4		E			
PRINT : GENERATES LARGE LETTERS	36299A	1		F			
PSQUAR : PATTERN SQUARES FOR HP 7200A PLOTTER	36249A	1	*	F			
SLITS : YOUNG'S DOUBLE SLIT EXPERIMENT	36351B	4		E			
TITLE : CHARACTER GENERATION	36114B	1	*	F			
VCHART : INVESTMENT DECISIONS USING TEKTRONIX 4B10	36555B	1		F			
VREGPL : PLOTTING X AND Y VARIABLES USING TEKTRONIX 4B10	36556B	1		F			
VSUB : DISPLAY ROUTINE USING TEKTRONIX 4B10	36558B	1	*	F			
VTTT : TIC-TAC-TOE ON THE TEKTRONIX 4B10	36559B	1		F			
WAVFN : COMPUTES AND PLOTS THE RADIAL PART OF HYDROGEN-LIKE WAVE FUNCTIONS	36733A	2		E			
<b>POLYNOMIAL</b>							
AREA : COMPUTER-AUGMENTED CALCULUS TOPICS	36668A	4		E			
POLY : POLYNOMIAL APPROXIMATION	36188A	2		E			
ROOTER : FINDS THE ROOTS OF POLYNOMIALS	36024A	2		E			
<b>POLYNOMIALS AND POLYNOMIAL EQUATIONS</b>							
DETER4 : DETERMINANTS, CHARACTERISTIC POLYNOMIALS AND INVERSES OF MATRICES	36263A	2		F			
PARABO : EQUATION OF PARABOLA PASSING THROUGH 3 GIVEN POINTS	36702A	2		E			
POLY : POLYNOMIAL APPROXIMATION	36188A	2		E			
QUADRA : ANALYZES A QUADRATIC EQUATION	36704A	2		E			
ROOTER : FINDS THE ROOTS OF POLYNOMIALS	36024A	2		E			
<b>ROOTNL : FINDS ROOTS OR FIXED POINTS OF A NON-LINEAR FUNCTION</b>	36697A	2		E			
<b>ROOTNR : LOCATES ROOT OF A FUNCTION WHOSE DERIVATIVE IS KNOWN</b>	36696A	2		E			
<b>PROBABILITY DISTRIBUTION SAMPLING</b>							
BICONF : CONFIDENCE LIMITS	36691A	2		E			
BINOPD : PROBABILITY DISTRIBUTION COMPARISONS	36041A	2		E			
BIRDAY : BIRTHDAY PROBABILITY	36653A	5		F			
CHISQ : COMPUTES PROBABILITY OF CHI-SQUARE VALUES	36042A	2		E			
CHISQ0 : CHI-SQUARE STATISTICS FOR M*N CONTINGENCY TABLES	36043B	2		E			
GTASPD : SUBJECTIVE PROBABILITY DISTRIBUTION	36549A	2		F			
GBULL : SUBJECTIVE PROBABILITY - RANDOM VALUES	36551A	2		F			
PROB : COMPUTES BINOMIAL, POISSON AND HYPERGEOMETRIC PROBABILITIES	36718A	2		E			
SEVPRO : CHI-SQUARE TEST	36719A	2		E			
STAT08 : COMPARES TWO GROUPS OF DATA USING THE MEDIAN TEST	36732A	2		E			
<b>PROBLEM SOLVING</b>							
AC-1 : COMPUTER AIDED PRACTICE IN EE AC ANALYSIS	36152A	4		E			
AREA : COMPUTER-AUGMENTED CALCULUS TOPICS	36668A	4		E			
COMPLX : CAI IN ALGEBRA OF COMPLEX NUMBERS	36153A	4		E			
CRVLEN : COMPUTES LENGTH OF ANY CURVE	36333A	4		E			
CVAREA : AREA UNDER CURVE	36620A	4		E			
DE-1OR : 1ST ORDER DIFFERENTIAL EQUATION	36032A	2		E			
DE-2OR : 2ND ORDER DIFFERENTIAL EQUATION	36033A	2		E			
DERSIN : COMPUTER-AUGMENTED CALCULUS TOPICS	36663A	4		E			
DERTIV : COMPUTER-AUGMENTED CALCULUS TOPICS	36662A	4		E			
DIFFE0 : CAI IN SOLUTION OF LINEAR FIRST-ORDER DIFFERENTIAL EQUATIONS	36159A	4		E			
DIMIS : X-Y AXIS SEGMENT PROGRAM	36277A	4		F			
DVDRS : CAI IN VOLTAGE AND CURRENT DIVIDERS	36156A	4		E			
EXPNTL : CAI IN SIMPLE EXPONENTIAL FUNCTIONS OF TIME	36148A	4		E			
FACTOR : FINDS PRIME FACTORS OF POSITIVE INTEGERS	36037A	2		E			
FUNDTH : COMPUTER-AUGMENTED CALCULUS TOPICS	36664A	4		E			
GRAPH1 : COMPUTER-AUGMENTED CALCULUS TOPICS	36665A	4		E			
GRAPH2 : COMPUTER-AUGMENTED PHYSICS TOPICS	36666A	4		E			
INDMTR : ANALYSIS OF A BALANCED POLYPHASE INDUCTION MOTOR	36154A	4		E			
JACOBI : EIGENVALUES AND EIGENVECTORS OF A REAL SYMMETRIC MATRIX	36167A	4		E			
LIMINS : LIMIT OF (SIN X)/X	36622A	4		E			
LINES : CONVERSATIONAL COMPUTER GENERATED CALCULUS QUIZ	36700A	4		E			
LOGIC : LOGIC EXAMINATION PROGRAMS	36251B	4		E			
ORBIT : INTEGRATES EQUATIONS OF MOTION	36121A	4		E			
PI : CALCULATES PI	36623A	4		E			
QUADT : NATURE OF GRAPH OF A 2ND ORDER EQUATION IN TWO VARIABLES	36335A	4		E			
RATIO : SOLVES PROPORTIONS	36336A	4		E			
ROOTS2 : QUADRATIC EQUATION SOLVER	36625A	4		E			
SETS : UNION AND INTERSECTION OF SETS	36337A	4		E			
SLOPE : FINDS DERIVATIVES	36626A	4		E			
SOLVER : SOLVES COMPLEX SIMULTANEOUS EQUATIONS	36149A	4		F			
SPCTRA : OPTICAL ABSORPTION SPECTRA SIMULATION, 2-SPECIES EQUILIBRIUM MIXTURES	36184A	4		E			
SQRT : FINDS SQUARE ROOT	36627A	4		E			
SURFAC : AREA OF SURFACE OF REVOLUTION	36338A	4		E			
SYSSOL : SOLVING SYSTEMS OF LINEAR EQUATIONS	36278A	4		F			
TRUTH : TRUTH TABLES FOR BOOLEAN EXPRESSIONS	36602B	4		E			
UNITS : CAI IN INTERPRETATION OF EE UNITS	36157A	4		E			
VOLSOL : VOLUME OF SOLID OF REVOLUTION	36339A	4		E			
<b>PROGRAMMING AIDS</b>							
DATA : DUMPS FILE TO DATA STATEMENTS	36287A	1		F			
FILES : FILE MANIPULATION - CREATES, SORTS, UPDATES, COPIES, CHANGES FORMAT	36645B	1	*	F			
FINDIT : INFORMATION RETRIEVAL SYSTEM	36250C	1	*	F			
TUTOR : TUTOR SERIES BASIC LANGUAGE PROGRAMMING COURSE, TUT01 - TUT25	36139A	4		E			
<b>PROGRAMMING AND COMPUTER SCIENCE (EDUCATION)</b>							
BRAIN : BRAIN SIMULATOR PROGRAM	36219A	4		E			
COBOL : HP COBOL SIMULATOR	36845B	4		F			
HPASMB : HP ASSEMBLER PACKAGE	36806A	4		F			
P-TUA : PILOT TUTORIAL	36758B	4		E			
P-TUB : PILOT TUTORIAL	36775A	4		E			
P-TUC : PILOT TUTORIAL	36877A	4	*	F			
PILOTE : PILOT 73 AUTHOR LANGUAGE FOR HP 2000E	36637B	4		E			
PILOTF : PILOT 73 AUTHOR LANGUAGE FOR THE HP 2000F	36756B	4		F			
SNOBOL : SNOBOL3 COMPILER FOR HP 2000C SYSTEM	36849A	4	*	F			
STOP : COMPUTER LITERACY - PSEUDO-MACHINE LANGUAGE	36208B	4		E			
STPAL : STOP MACHINE AND ASSEMBLY LANGUAGE SIMULATOR	36765A	4		F			
TM : TURING MACHINE SIMULATOR	36743A	4		E			
TUTOR : TUTOR SERIES BASIC LANGUAGE PROGRAMMING COURSE, TUT01 - TUT25	36139A	4		E			
<b>RANDOM NUMBER GENERATORS</b>							
IDA : INTERACTIVE DATA ANALYSIS	36755B	2	*	F			
RNDORD : PLACING INTEGERS IN RANDOM ORDER	36264A	2		E			
<b>RANK</b>							
GRANK : RANKING STATISTICS	36541A	2		F			
STAT2 : MANN-WHITNEY 2 SAMPLE RANK TEST	36052A	2		E			
STAT20 : FRIDMAN TWO-WAY ANALYSIS OF VARIANCE	36608A	2		E			
STAT3 : SPEARMAN RANK CORRELATION COEFFICIENTS	36053A	2		E			

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	ORDER NO.	VOLUME	SYSTEM		ORDER NO.	VOLUME	SYSTEM	
READING (EDUCATION)					ORG1 : TEACHES STRAIGHT ALKANE NOMENCLATURE AND NAMING OF BRANCHED ALKANES			
VOCAB : CAI IN WORD USAGE	36880A	4	* E	36826A	4	*	E	
RECURSIVE				ORGCHE : DRILL ON ORGANIC COMPOUND NOMENCLATURE	36646A	4	F	
ROMINT : INTEGRATES A FUNCTION (ROMBERG METHOD)	36022B	2	E	P-HYP : SCIENTIFIC METHOD AND HYPOTHESIS	36759A	4	E	
REGRESSION ANALYSIS				P-KEPL : KEPLER'S 3RD LAW	36779A	4	E	
CURFIT : PERFORMS LEAST SQUARES FIT	36038D	2	* E	PHOSYN : PHOTOSYNTHESIS EXPERIMENT	36305A	4	E	
GCGLIN : RATING INVESTMENT FUNDS	36503A	3	F	PHOTEL : PHOTOELECTRIC EFFECT	36317A	4	E	
GRGLPL : SIMPLE REGRESSION AND PLOT	36542A	2	F	PHOTON : ENERGY LEVEL PROBLEM	36318A	4	E	
IDA : INTERACTIVE DATA ANALYSIS	36755B	2	* F	PHPOH : PH, POH, PCT, DISSOCIATION	36617A	4	E	
MLREG : MULTIPLE REGRESSION PROGRAM	36661A	2	* E	PLANK : A PHOTOELECTRIC SIMULATION	36658A	4	E	
MULREG : MULTIPLE REGRESSION/CORRELATION	36178A	2	E	POLUT : WATER POLLUTION SIMULATION	36639B	4	E	
MULTX : LEAST-SQUARES FIT, MULTIPLE Y'S PER X	36186A	2	F	POP : POPULATION GROWTH	36844A	4	E	
POLFIT : FITS LEAST-SQUARES POLYNOMIALS	36023B	2	F	PRCNT : PERCENT COMPOSITION	36311A	4	E	
PSRC : POWER SERIES REGRESSION CURVE WITH X-AXIS OFFSET	36793A	2	* F	PRJTL : PROJECTILE MOTION	36631A	4	E	
REGCOR : REGRESSION/CORRELATION	36054B	2	E	REFLECT : LEAST TIME PRINCIPLE AND LIGHT	36319A	4	E	
REGRES : STEP-WISE REGRESSION	36738A	2	F	REFLEC : COMPUTER-AUGMENTED PHYSICS TOPICS	36672A	4	E	
VREGPL : PLOTTING X AND Y VARIABLES USING TEKTRONIX 4010	36556A	1	F	REFRAC : COMPUTER-AUGMENTED PHYSICS TOPICS	36669A	4	E	
VRRC : INVESTMENT STRATEGY ANALYSIS	36557A	3	F	SLITS : YOUNG'S DOUBLE SLIT EXPERIMENT	36351B	4	E	
REPORT GENERATORS				SNELL : SNELL'S LAW	36320A	4	E	
LOGRAM : LOG-ON TAPE ANALYZER	36001A	2	F	SPACE : SPACECRAFT ORBITS	36321A	4	E	
RETURN				SPCTRA : OPTICAL ABSORPTION SPECTRA SIMULATION, 2-SPECIES EQUILIBRIUM MIXTURES	36184A	4	E	
GCGLIN : RATING INVESTMENT FUNDS	36503A	3	F	STERL : FLY POPULATION CONTROL	36641B	4	E	
GIRRPV : INVESTMENT RETURN (CASH FLOW)	36513A	3	F	STOICH : MASS VOLUME	36618A	4	E	
RISK				SUNSET : SUNRISE-SUNSET PREDICTOR	36180A	2	E	
GNMVB : SECURITIES PORTFOLIO ANALYSIS AND DETERMINATION	36530A	3	F	USPOP : HUMAN POPULATION PROJECTION	36802A	4	*	
GRISKA : RISK ANALYSIS IN CAPITAL INVESTMENT	36543A	3	F	VFIELD : POTENTIAL FIELD PICTURE	36322A	4	E	
VRRC : INVESTMENT STRATEGY ANALYSIS	36557A	3	F	VLOCTY : INSTANTANEOUS VELOCITY	36323A	4	E	
ROOTS				WATER1 : WATER BUDGET PROBLEM CHECK	36326A	4	E	
ROOTER : FINDS THE ROOTS OF POLYNOMIALS	36024A	2	E	WATER2 : WATER BUDGET	36327A	4	E	
ROOTNL : FINDS ROOTS OR FIXED POINTS OF A NON-LINEAR FUNCTION	36697A	2	E	WAVES : SUM OF TWO WAVES	36324B	4	E	
ROOTNR : LOCATES ROOT OF A FUNCTION WHOSE DERIVATIVE IS KNOWN	36696A	2	E	WAVFN : COMPUTES AND PLOTS THE RADIAL PART OF HYDROGEN-LIKE WAVE FUNCTIONS	36733A	2	E	
ROOTS2 : QUADRATIC EQUATION SOLVER	36625A	4	E	SECURITIES				
RUNGE-KUTTA				GDAPI : ABNORMAL PERFORMANCE INDEX	36507A	3	F	
DE-10R : 1ST ORDER DIFFERENTIAL EQUATION	36032A	2	E	GDPA : EFFICIENT 'CORNER' PORTFOLIOS	36508A	3	F	
DE-20R : 2ND ORDER DIFFERENTIAL EQUATION	36033A	2	E	GKASSF : WARRANT PRICE CALCULATION	36514A	3	F	
SALES FORECASTING				GKCOST : PRICE/EARNINGS RATIO CALCULATION	36515A	3	F	
SALES : SALES COMMISSION REPORT	36095A	3	E	GNMVB : SECURITIES PORTFOLIO ANALYSIS AND DETERMINATION	36530A	3	F	
SCIENCE (EDUCATION)				GSPMG : STANFORD PORTFOLIO MANAGEMENT GAME	36502A	4	F	
AFLIFE : JOHN CONWAY'S GAME OF LIFE	36353A	5	F	GSTKVL : STOCK VALUATION	36545A	3	F	
ALERA : PROPAGATION OF ERROR	36603B	4	E	SIMPSON				
ATOM : DERIVES THE ELECTRONIC CONFIGURATION OF ANY ELEMENT	36705A	4	E	BESSEL : CALCULATES BESSEL FUNCTION OF FIRST KIND	36019A	2	E	
ATWT : CALCULATES ATOMIC WEIGHT	36613A	4	E	SIMULATION				
AVOGA : AVOGADRA'S NUMBER	36614A	4	E	ATWT : CALCULATES ATOMIC WEIGHT	36613A	4	E	
BFIELD : MAGNETIC FIELD PICTURE	36312A	4	E	AVOGA : AVOGADRA'S NUMBER	36614A	4	E	
BOHR : ENERGY LEVEL DIAGRAM	36313A	4	E	BALANC : TRADE AND PAYMENT BALANCES	36328A	4	E	
BOLA : NUCLEAR PHYSICS GAME	36879A	4	* F	BANK : SOLVES FINANCIAL PROBLEMS	36329B	4	E	
CALORI : CALORIMETRY EXPERIMENT	36314A	4	E	BFIELD : MAGNETIC FIELD PICTURE	36312A	4	E	
CHARG : MILLIKAN'S OIL-DROP EXPERIMENT	36621A	4	E	BNKSIM : SIMULATES ONE YEAR'S DEPOSIT AND WITHDRAWAL ACTIVITIES OF SMALL BANK	36713A	4	E	
CHEM : SELF-CORRECTING CHEMISTRY TEST	36295B	4	E	BOHR : ENERGY LEVEL DIAGRAM	36313A	4	E	
CHEM1 : CAI IN CHEMISTRY	36878A	4	* F	BRAIN : BRAIN SIMULATOR PROGRAM	36219A	4	E	
CLIMAT : CLIMATE TEACHING PROGRAM	36760A	4	* F	CALORI : CALORIMETRY EXPERIMENT	36314A	4	E	
CLOUDS : CLOUD FORMATION	36325A	4	E	CHARG : MILLIKAN'S OIL-DROP EXPERIMENT	36621A	4	E	
CONVRT : TEMPERATURE SCALE CONVERSION	36685A	4	E	CHARGE : CHARGE ACCOUNT SIMULATION	36604A	4	F	
CRVPT : LEAST-SQUARES CURVEFITTING	36633A	2	E	CIRFLW : CIRCULAR FLOW MODEL	36632A	4	E	
DECAY1 : RADIOACTIVE DECAY GAME	36306A	4	E	CLOUDS : CLOUD FORMATION	36325A	4	E	
DECAY2 : NUCLEAR DECAY	36307A	4	E	CONSPM : DEPRESSION/EQUILIBRIUM	36330A	4	E	
DRAGON : SOLAR ECLIPSE SIMULATION	36785A	4	E	DECAY1 : RADIOACTIVE DECAY GAME	36306A	4	E	
DROS : GENETIC CHARACTERISTICS	36308A	4	E	DECAY2 : NUCLEAR DECAY	36307A	4	E	
EFIELD : ELECTRIC FIELD STRENGTH	36629A	4	E	DECSN : TOP MANAGEMENT DECISION GAME	36065C	3	E	
EINDIS : EINSTEIN DISTORTIONS	36716A	4	* E	DROS : GENETIC CHARACTERISTICS	36308A	4	E	
ELEMENT : DRILL ON SYMBOLS FOR CHEMICAL ELEMENTS	36287A	4	F	EFIELD : ELECTRIC FIELD STRENGTH	36629A	4	E	
EMPIR : CALCULATES EMPIRICAL FORMULAS	36615A	4	E	EMPIR : CALCULATES EMPIRICAL FORMULAS	36615A	4	E	
EQUIL1 : EQUILIBRIUM SYSTEMS	36308A	4	E	EQUIL1 : EQUILIBRIUM SYSTEMS	36308A	4	E	
EVOLU : NATURAL SELECTION EXPERIMENT	36301A	4	E	EVOLU : NATURAL SELECTION EXPERIMENT	36301A	4	E	
GAMGN : PROCESS OF GAMETOGENESIS	36302A	4	E	FORCST : WEATHER FORECASTING PROGRAM	36750A	2	*	
GENE1 : GENETICS SIMULATION	36642B	4	E	GAMGN : PROCESS OF GAMETOGENESIS	36302A	4	E	
GRAZE : GRASSLANDS ECOLOGY SIMULATION	36746A	4	F	GENE1 : GENETICS SIMULATION	36642B	4	E	
GRNPRX : GRAN PRIX RACING GAME	36686A	5	E	GMCRO1 : FISCAL POLICY GAME	36519A	4	F	
H-LIFE : HALF LIFE SIMULATION	36134A	4	F	GMCRO5 : ECONOMIC POLICY GAME	36521A	4	F	
IONIC : DRILL ON FORMULAS AND CHARGES OF IONS	36260A	4	F	GRAZE : GRASSLANDS ECOLOGY SIMULATION	36746A	4	F	
IONIC1 : DRILL ON FORMULAS OF IONIC COMPOUNDS	36266A	4	F	GRISKA : RISK ANALYSIS IN CAPITAL INVESTMENT	36543A	3	F	
ISOMER : DRILL ON NAMING ALKANES	36261A	4	F	GSSS : SMALL SYSTEMS SIMULATOR	36552A	3	F	
KINERV : REVIEW OF KINEMATICS	36315A	4	E	GVOTE : COMMITTEE CHOICE ANALYSIS	36558A	3	F	
KINET : KINETIC REACTION	36309A	4	E	HPASMB : HP ASSEMBLER PACKAGE	36806A	4	F	
LANDER : ROCKET LANDING VEHICLE	36684A	5	E	KINERV : REVIEW OF KINEMATICS	36315A	4	E	
LANDIN : COMPUTER-AUGMENTED PHYSICS TOPICS	36670A	4	E	KINET : KINETIC REACTION	36309A	4	E	
LENSES : SOLVES LENS PROBLEMS	36630A	4	E	LABOR : LABOR/MANAGEMENT BARGAINING	36233A	4	F	
LOCKEY : LOCK & KEY MODEL OF ENZYME ACTION	36624A	4	E	LANDER : ROCKET LANDING VEHICLE	36684A	5	E	
MALAR : MALARIA ERADICATION PROGRAM	36797A	4	E	LANDIN : COMPUTER-AUGMENTED PHYSICS TOPICS	36670A	4	E	
MASSD : MASS DEFECT	36318A	4	E	LENSES : SOLVES LENS PROBLEMS	36630A	4	E	
MEMBR : DIFFUSION EXPERIMENT	36611A	4	E	LOCKEY : LOCK & KEY MODEL OF ENZYME ACTION	36624A	4	E	
MKS1 : COMPUTER-AUGMENTED PHYSICS TOPICS	36671A	4	E	MALAR : MALARIA ERADICATION PROGRAM	36797A	4	E	
MKS2 : COMPUTER-AUGMENTED PHYSICS TOPICS	36673A	4	E	MASSD : MASS DEFECT	36318A	4	E	
MOLAR : ACID-BASE TITRATION	36616A	4	E	MEMBR : DIFFUSION EXPERIMENT	36611A	4	E	
NEWTN2 : NEWTON'S 2ND LAW	36316A	4	E	MKS1 : COMPUTER-AUGMENTED PHYSICS TOPICS	36671A	4	E	
NZYM2 : ENZYME REACTION RATE	36304A	4	E	MKS2 : COMPUTER-AUGMENTED PHYSICS TOPICS	36673A	4	E	
NZYM : ENZYME REACTION RATES	36303A	4	E	MOLAR : ACID-BASE TITRATION	36616A	4	E	
ORBIT : INTEGRATES EQUATIONS OF MOTION	36121A	4	E	MRKSIM : MARKETING SIMULATION	36199A	4	F	
				NEWTN2 : NEWTON'S 2ND LAW	36316A	4	E	
				NZYM2 : ENZYME REACTION RATE	36304A	4	E	
				NZYM : ENZYME REACTION RATES	36303A	4	E	
				PHOSYN : PHOTOSYNTHESIS EXPERIMENT	36305A	4	E	
				PHOTEL : PHOTOELECTRIC EFFECT	36317A	4	E	
				PHOTON : ENERGY LEVEL PROBLEM	36318A	4	E	
				PHPOH : PH, PCT, DISSOCIATION	36617A	4	E	
				PLANK : A PHOTOELECTRIC SIMULATION	36658A	4	E	
				POLICY : STUDENTS FORMULATE NATIONAL POLICY	36649A	4	E	
				POLYSY : SIMULATION OF CITY COUNCIL	36640B	4	E	
				POP : POPULATION GROWTH	36844A	4	E	
				PRCNT : PERCENT COMPOSITION	36311A	4	E	
				PRJTL : PROJECTILE MOTION	36631A	4	E	



# TIME-SHARED BASIC/2000 CONTRIBUTED PROGRAMS CROSS REFERENCE INDEX

	ORDER NO.	VOLUME	SYSTEM
<b>TRANSLATORS, LANGUAGE</b>			
COBOL : HP COBOL SIMULATOR	36845B	4	F
HPASMB : HP ASSEMBLER PACKAGE	36806A	4	F
PILOTE : PILOT 73 AUTHOR LANGUAGE FOR HP 2000E	36637B	4	E
PILOTF : PILOT 73 AUTHOR LANGUAGE FOR THE HP 2000F	36756B	4	F
SNOBOL : SNOBOL3 COMPILER FOR HP 2000C SYSTEM	36849A	4 *	F
STPAL : STOP MACHINE AND ASSEMBLY LANGUAGE SIMULATOR	36765A	4	F
TM : TURING MACHINE SIMULATOR	36743A	4	E
<b>TRANSPORTATION</b>			
IATA.I : CALCULATE AIR FREIGHT RATES	36164B	3	F
IATA.C : CALCULATES BREAKPOINT OF IATA CONTAINERS	36241B	3 *	F
IATATA : ANALYSIS OF IATA AND ATA UNITIZATION PROGRAM	36876A	3 *	F
<b>TRAPEZOIDAL</b>			
FUNDTH : COMPUTER-AUGMENTED CALCULUS TOPICS	36664A	4	E
INTEGR : COMPUTER-AUGMENTED CALCULUS TOPICS	36667A	4	E
<b>TRIGONOMETRY</b>			
FNCTS : COMPUTES TRIG FUNCTIONS FOR COMPLEX ARGUMENTS	36017A	2	E
SAT : TRIGONOMETRIC SOLUTIONS OF TRIANGLES	36182A	4	E
SPHERE : SOLVES SPHERICAL TRIANGLES	36034A	2	E
<b>UNIVARIATE AND MULTIVARIATE PARAMETRIC STATISTICS</b>			
BINOPO : PROBABILITY DISTRIBUTION COMPARISONS	36041A	2	E
CHISQS : CHI-SQUARE STATISTICS FOR M*N CONTINGENCY TABLES	36043B	2	E
CONLM1 : COMPUTES CONFIDENCE LIMITS FOR AN UNKNOWN POPULATION MEAN	36694A	2	E
CONLM2 : COMPUTES CONFIDENCE LIMITS FOR DIFFERENCE BETWEEN TWO POPULATION MEANS	36693A	2	E
FVALUE : EXACT PROBABILITY OF AN F-RATIO WITH DEGREES OF FREEDOM (M,N)	36720A	2	E
T-TEST : TEST OF HYPOTHESES USING STUDENTS T DISTRIBUTION	36170A	2	E
TESTUD : TEST UNKNOWN POPULATION MEAN	36722A	2	E
TVALUE : COMPUTES THE EXACT PROBABILITY OF A T- VALUE WITH A TWO-TAILED TEST	36721A	2	E
<b>VECTOR ARITHMETIC (SEE COMPLEX ARITHMETIC)</b>			
<b>VOCATIONAL (EDUCATION)</b>			
WHEELS : AUTO PURCHASE AND MAINTENANCE SIMULATION	36187B	4	F

# HP 2000 NON-BASIC CONTRIBUTED PROGRAM LIBRARY

## ORDERING INFORMATION

Contact your local HP sales office to order 2000 non-BASIC contributed software. Programs are available individually in source language on either paper tape or magnetic tape. In addition, binary tapes and listings can be ordered where indicated on the price list in this INDEX.

To order a particular program it is necessary to specify the program number, together with an option number which indicates the type of product required. The different option numbers are:

- K01 — which indicates source language on paper tape and all documentation.
- K21 — which indicates source language on magnetic tape and all documentation.
- B01 — which indicates binary paper tape and all documentation.

D00 — which indicates all documentation.

L00 — which indicates a program listing.

Not all options are available for all programs. Check the following price list and the documentation list below before ordering.

## EXTRA DOCUMENTATION

Documentation is included with every order for the source tapes of a program. Extra copies of the documentation — option D00 — can be ordered for the following programs:

22199A, Option D00	\$10
22221B, Option D00	5
22255D, Option D00	5
22327E, Option D00	5
22460A, Option D00	5
22483B, Option D00	5
22487A, Option D00	5
22498A, Option D00	5

## 2000 NON-BASIC CONTRIBUTED PROGRAMS PRICE LIST

### 000 OPERATING AND PROGRAMMING SYSTEMS

ORDER NO.	TITLE	PRICE
22002A	TIME-OF-DAY CLOCK	10
22004A	COUNTER DATA SOURCE INTERFACE DRIVER - FORTRAN CALLABLE	10
22005B	HP 2401C DIGITAL VOLTMETER DRIVER - FORTRAN CALLABLE	10
22006A	HP 2401C DATA SOURCE INTERFACE DRIVER - FORTRAN CALLABLE	10
22008A	HP 3400A DIGITAL VOLTMETER DRIVER - FORTRAN CALLABLE	10
22009B	BOOTSTRAP LOADER GENERATOR	10
22013B	INVERSE ASSEMBLER	10
22042C	AN HP 2116-FAMILY SIMULATOR FOR THE IBM 360	* 75
22044B	RUN-TIME DATA INPUT FOR BASIC	10
22055A	HP 3400A/B DATA SOURCE INTERFACE DRIVER - FORTRAN CALLABLE	10
22061A	HP 2320 LOW SPEED A-TO-D SUBSYSTEM DRIVER - FORTRAN CALLABLE	10
22062A	HP 2322A LOW SPEED A-TO-D SUBSYSTEM DRIVER - FORTRAN CALLABLE	10
22063A	HP 2770A/2771A DISC DRIVER - FORTRAN CALLABLE	10
22069A	HP 2323A LOW SPEED A-TO-D SUBSYSTEM DRIVER - FORTRAN CALLABLE	10
22071A	HP 12539A TIME BASE GENERATOR DRIVER - FORTRAN CALLABLE	10
22075A	HP 5100B FREQUENCY SYNTHESIZER DRIVER - FORTRAN CALLABLE	10
22077B	CALCOMP PLOTTER DRIVER - BASIC CALLABLE	10
22078B	HIGH SPEED PUNCH DRIVER - BASIC CALLABLE	10
22080B	HP 2331A X-Y DISPLAY SUBSYSTEM DRIVER - FORTRAN CALLABLE	10
22082B	BASIC PHOTOREADER DATA INPUT	10
22095A	BASIC HP 2778A LINE PRINTER DRIVER	10
22100A	FILE THREE INPUT FOR MTS ALGOL	10
22101B	HP 2911A/B CROSSBAR SCANNER DRIVER - BASIC CALLABLE	10
22102B	HP 3400A/B DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	10
22104B	HP 2402A DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	10
22106B	COUNTER DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	10
22107B	HP 2912A REED SCANNER DRIVER - BASIC CALLABLE	10
22108C	HP 3400A DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	10

### 000 OPERATING AND PROGRAMMING SYSTEMS, Contd

ORDER NO.	TITLE	PRICE
22111C	HP 2770A/2771A DISC DRIVER - BASIC CALLABLE	10
22112A	HP 12539A TIME BASE GENERATOR DRIVER - BASIC CALLABLE	10
22170A	SYNCHRONOUS HIGH SPEED DATA ACQUISITION PROGRAM	10
22176A	HP 2754A PUNCH/LIST IN KT MODE	10
22181A	RTE HP 2020 MAGNETIC TAPE DRIVER	10
22190B	PROGRAM EXECUTION TIMER	10
22199A	BASIC LANGUAGE DATA ACQUISITION SYSTEM	30
22200A	WAVETEK BASIC DRIVER	10
22201D	PACIFIC UNION COLLEGE MULTI-TERMINAL HP BASIC SYSTEM	[**] 20
22208A	HP 3030G MAGNETIC TAPE DRIVER - FORTRAN CALLABLE	10
22211A	HP 5100B FREQUENCY SYNTHESIZER DRIVER - BASIC CALLABLE	10
22215A	HP 3400A/B DIGITAL VOLTMETER DRIVER - BASIC CALLABLE	10
22216B	HP 2070A CARTRIDGE DISC DRIVER - BASIC CALLABLE	10
22217B	HP 2331A X-Y DISPLAY SUBSYSTEM DRIVER - BASIC CALLABLE	10
22219A	HIGH SPEED CONTINUOUS LINE PLOTTER FOR HP 7004B	10
22223C	LOADER BOOTSTRAP	10
22225B	HP 2070A CARTRIDGE DISC DRIVER - FORTRAN CALLABLE	10
22226B	HP 3400A/B DIGITAL VOLTMETER DRIVER - FORTRAN CALLABLE	10
22227A	HP 6131B DIGITAL VOLTAGE SOURCE DRIVER - FORTRAN CALLABLE	10
22229B	HP 12551A/B RELAY REGISTER INTERFACE DRIVER - FORTRAN CALLABLE	10
22233C	DOS-M PRIVILEGED DISC I/O ROUTINES	10
22235A	FORTRAN POWER FAIL LINK	10
22236A	FORTRAN I/O STATUS FUNCTION	10
22237C	TELEPRINTER/LINEPRINTER OUTPUT SELECTOR FOR HP BASIC	10
22239A	HP 2970 MAGNETIC TAPE DRIVER - BASIC CALLABLE	10
22242A	X-Y PLOTTING ROUTINE	10
22244B	16K BINARY SYNCHRONOUS CONTROLLED DATA COMMUNICATIONS PROGRAM	[**] 60
22245A	USER INTERFACE TO BCS TELECOMMUNICATIONS DRIVER	[**] 15
	D,50	[**] 10
22246B	DOS-M REMOTE TAPE READER DRIVER	20
22247B	FAST DOS/DOS-M PHOTOREADER DRIVER	10
22253C	OSCILLOSCOPE PLOTTING SUBROUTINE	10

PRICE LEGEND  
 No asterisk - Option K01  
 \* - Option K21  
 \*\* - Option B01  
 \*\*\* - Option L00

# 2000 NON-BASIC CONTRIBUTED PROGRAMS PRICE LIST

## 000 OPERATING AND PROGRAMMING SYSTEMS, Cont'd

ORDER NO.	TITLE	PRICE
22255D	MSU MULTI-TERMINAL BASIC SYSTEM WITH CARD READER CAPABILITY	<ul style="list-style-type: none"> <li>** 20</li> <li>170</li> <li>*** 15</li> </ul>
22258A	HP 2767 LINE PRINTER BASIC DRIVER	10
22261A	MINI-BASIC	10
22263A	PLOT, RELAY, WAIT	10
22264B	TELEX TO ASCII PHOTOREADER DRIVER	10
22270D	ALGOL OPERATING SYSTEM FOR MTS	10
22273A	CLEAR JOB BINARY AREA IN DOS/DOS-M	10
22276A	RTE CROSSBAR SCANNER DRIVER & CHANNEL CODE CONVERSION	10
22279A	BASIC PLOT SUBROUTINES	10
22281A	MINIVERTER DRIVER	10
22291C	DOS/DOS-M HP 2331 X-Y SCOPE DISPLAY	20
22292B	ABSOLUTE OBJECT DECODER	20
22294A	DOS/DOS-M/RTE 3400 DVM DRIVER AND BCD CONVERSION	20
22295A	BCS INTERPRETER FOR FLOATING POINT OPERATIONS	20
22297A	OFFLINE RELOCATING LOADER	50
22301A	HP 2878A CARTRIDGE DISC MEMORY DRIVER - FORTRAN CALLABLE	10
22304A	HP 5618A ANALOG TO DIGITAL DRIVER - FORTRAN CALLABLE	10
22305A	HP 2402A DIGITAL VOLTMETER DRIVER - BASIC CALLABLE	10
22311A	BCS POWER FAIL TELEPRINTER DRIVER WITH AUTORESTART OPTION	10
22313A	HP 12551B RELAY REGISTER INTERFACE DRIVER - BASIC CALLABLE	10
22315A	CONTINUOUS DISPLAY OF ARRAY DATA ON ANALOG X-Y SCOPE	10
22316A	VARIABLE DISPLAY OF ARRAY DATA ON ANALOG X-Y SCOPE	10
22317A	RTE HP 2310 ANALOG-TO-DIGITAL CONVERTER DISC STORAGE ROUTINE	10
22318A	HP 1331C STORAGE SCOPE DRIVER - BASIC CALLABLE	10
22319A	DOS/DOS-M HP 2020 MAGNETIC TAPE DRIVER	10
22326A	DOS-M RELOCATABLE BASIC	<ul style="list-style-type: none"> <li>110</li> <li>** 10</li> <li>* 25</li> <li>*** 15</li> </ul>
22327E	SNOBOL COMPILER FOR DOS/DOS-M	<ul style="list-style-type: none"> <li>** 15</li> <li>* 25</li> <li>*** 15</li> </ul>
22328C	BCS TELECOMMUNICATIONS DRIVER FOR SYNCHRONOUS AND ASYNCHRONOUS DEVICES	<ul style="list-style-type: none"> <li>** 70</li> <li>** 15</li> <li>*** 15</li> </ul>
22329A	SCIENTIFIC SUBROUTINE PACKAGE	<ul style="list-style-type: none"> <li>** 30</li> <li>* 30</li> <li>20</li> <li>10</li> </ul>
22330B	PSEUDO REPORT GENERATOR	20
22331A	DOS HP 2322A LOW SPEED ANALOG TO DIGITAL SUBSYSTEM DRIVER	10
22336A	HP 1900 PROGRAMMABLE PULSE GENERATOR - FORTRAN CALLABLE	20
22337A	HP 1900 PROGRAMMABLE PULSE GENERATOR DRIVER - BASIC CALLABLE	20
22338A	DISC BASIC EXECUTIVE	<ul style="list-style-type: none"> <li>60</li> <li>** 20</li> <li>*** 15</li> </ul>
22339A	DOS HP 2320A LOW SPEED ANALOG-TO-DIGITAL SUBSYSTEM DRIVER	10
22342A	DOS-M HARDWARE BOOT	10
22344A	ON-LINE SYSTEM LOAD FOR MOVING-HEAD RTE	10
22345A	ON-LINE MOVING-HEAD RTE BOOTSTRAP FROM DOS-M OR DOS	10
22349A	DOS-M BOOTSTRAP PROGRAM FOR DOS-M OR DOS	10
22350A	DOS-M BOOTSTRAP PROGRAM FROM RTE	10
22353A	DOS/DOS-M PHOTOREADER DRIVER TO READ ABSOLUTE BINARY TAPES	10
22357A	MTS BOOT FROM DOS-M	10
22361A	DOS-M BINARY FILE DATA ACQUISITION	20
22362A	STACK ROUTINES	10
22367A	8K BINARY SYNCHRONOUS CONTROLLED DATA COMMUNICATIONS PROGRAM	<ul style="list-style-type: none"> <li>** 20</li> <li>50</li> <li>** 15</li> <li>40</li> <li>*** 15</li> </ul>
22372A	HP 2100 REMOTE BATCH TERMINAL TO A UNIVAC 1108	<ul style="list-style-type: none"> <li>** 15</li> <li>40</li> <li>*** 15</li> </ul>
22374A	A BCS ASYNCHRONOUS DATA SET INTERFACE DRIVER	10
22375A	REMOTE HP 2100 ACCESS TO A 32K DOS	30
22377A	DOS-M DISC INITIALIZE/PROTECT UTILITY	10
22379A	SIO LIST OUTPUT TO A STORAGE SCOPE	10
22380D	HP BASIC DRIVER SYSTEM WITH BINARY DATA I/O	30
22385A	SYMBOLIC MACRO ASSEMBLER FOR THE HP 2100	<ul style="list-style-type: none"> <li>** 10</li> <li>70</li> <li>*** 15</li> <li>40</li> <li>*** 15</li> </ul>
22387A	0.70 REVERSE CHANNEL TELECOMMUNICATIONS DRIVER	<ul style="list-style-type: none"> <li>** 15</li> <li>40</li> <li>*** 15</li> </ul>
22388A	HP BASIC TO FORTRAN TRANSLATOR FOR DOS/DOS-M	10
22389A	DOS-M EAU RELOCATABLE BASIC	<ul style="list-style-type: none"> <li>00</li> <li>** 10</li> <li>*** 15</li> </ul>
22390A	HP 7004 X-Y RECORDER LIBRARY	10
22391A	HP 1331C SIO SCOPE DISPLAY DRIVER	20
22394A	CORE-SAVING TELEPRINTER I/O DRIVER AND CODE CONVERSION ROUTINE	20
22398B	AN HP ASSEMBLER FOR THE IBM 360	<ul style="list-style-type: none"> <li>* 25</li> <li>*** 15</li> </ul>
22398B	RTE JOB CONTROL LANGUAGE FOR BATCH PROCESSING	10
22399A	HP 2778/2767 LINE PRINTER PATCH FOR EDUCATIONAL BASIC	10
22401A	RTE SELF SUSPEND ROUTINE	10

PRICE LEGEND  
No asterisk - Option K01  
\* - Option K21  
\*\* - Option B01  
\*\*\* - Option L00

## 000 OPERATING AND PROGRAMMING SYSTEMS, Cont'd

ORDER NO.	TITLE	PRICE
22407B	HP 3360A GAS CHROMATOGRAPH SYSTEM DRIVER - BASIC CALLABLE	10
22408A	BASIC CALLABLE LINE PRINTER DRIVER	10
22409A	EDUCATIONAL BASIC HP 2767 LINE PRINTER DRIVER	10
22410A	RTE MULTIPROGRAMMER DRIVER (DVR61)	10
22411A	A.B. DICK VIDEOJET SIO LINE PRINTER DRIVER	10
22414A	NON-DMA BCS HP 3030 DRIVER	20
22415B	DOS-M ABSOLUTE OBJECT DECODER	10
22416A	CREATE DOS-M DIRECTORY ENTRY UNDER PROGRAM CONTROL	10
22417C	SUPER BASIC FOR DOS-M	<ul style="list-style-type: none"> <li>** 10</li> <li>100</li> <li>*** 15</li> </ul>
22438A	DOS-M RELOCATABLE REVERSE ASSEMBLER	20
22439A	8K SIO RELOCATABLE REVERSE ASSEMBLER	20
22440A	8K SIO ABSOLUTE REVERSE ASSEMBLER	10
22441A	PSEUDO MULTIPROGRAMMING EXECUTIVE FOR BCS	<ul style="list-style-type: none"> <li>** 10</li> <li>90</li> <li>*** 15</li> </ul>
22442A	BD.1 BASIC DRIVER FOR HP 8054A REAL TIME ANALYZER	10
22443A	DOS/RTE ALGOL COMPILER	<ul style="list-style-type: none"> <li>110</li> <li>** 20</li> <li>*** 15</li> </ul>
22445A	RTE TRACK ASSIGNMENT TABLE LOG	10
22446A	MAGNETIC TAPE SYSTEM PROGRAM CATALOG	10
22447A	HP 5360 COMPUTING COUNTER DRIVER	10
22448B	CORE RESIDENT DOS-M BOOTSTRAP	10
22449A	TYPE 3 LANGUAGE GENERATOR	30
22450A	PRIVILEGED RTE DRIVER FOR THE HP 8054 AUDIO ANALYZER (DVR75)	10
22451A	RELAY TIMER FOR HP 12551B RELAY REGISTER INTERFACE	10
22452A	BCS-FORTRAN/ALGOL MEMORY ALLOCATION ROUTINE	10
22453B	HP 2100 REMOTE JOB ENTRY TO IBM HOST CPU	30
22457B	DEFINE AND FILL FILES FROM DOS-M USER PROGRAM	20
22458B	DOS/DOS-M HP 7970 7-TRACK MAGNETIC TAPE DRIVER (DVR24) WITH DMA	10
22461A	FILE AND REWIND FOR THE TENNECOMP TP-1371 MINIDEK SYSTEM	10
22462A	READ/WRITE ROUTINES FOR THE TENNECOMP TP-1371 MINIDEK SYSTEM	10
22464A	TEKTRONIX 4010 VIDEO DISPLAY UNIT DRIVER-BASIC CALLABLE	10
22465A	EXTENDED PRECISION ADAPTER FOR BCS	20
22466C	HP 2311A SUBSYSTEM DOS-M DRIVER	10
22468A	EXPAND/CONTRACT DOS-M FILES	10
22471A	HP 7210 PLOTTER DRIVER FOR DOS-M	10
22472A	HP 2310/2311 SUBSYSTEM DRIVER FOR DOS-M	10
22473B	HP 7210 PLOTTER DRIVER FOR RTE	10
22475A	HP 2311A SUBSYSTEM DRIVER - BASIC CALLABLE	10
22476A	MULTI-PURPOSE SUBROUTINE PACKAGE FOR HP BASIC 20392A	20
22477A	FLOATING POINT OVERLAY FOR HP BASIC	10
22484A	DOS-M USER FILE DESCRIPTION DIRECTORY	10
22485A	DOS-M DIRECTORY LISTING PROGRAM WITH MASKING FACILITY	10
22488A	DOS-M ABSOLUTE BINARY TAPE LOADER	10
22489A	CORE SIZE INDEPENDENT TELEPRINTER SIO DRIVER (LINE PRINTER COMPATIBLE)	10
22490A	CORE SIZE INDEPENDENT PHOTO READER SIO DRIVER	10
22491A	CORE SIZE INDEPENDENT PAPER TAPE PUNCH SIO DRIVER	10
22493A	CREATE D08EN MAGNETIC TAPE	10
22494B	HAVERING EDUCATIONAL BASIC FOR DOS-M	<ul style="list-style-type: none"> <li>110</li> <li>*** 15</li> <li>40</li> <li>*** 15</li> </ul>
22496A	CDC USER 200 TERMINAL SIMULATOR	<ul style="list-style-type: none"> <li>** 40</li> <li>*** 15</li> </ul>
22505A	RTE HP 1331C STORAGE SCOPE DRIVER - DVR47	10
22506A	RTE HP 1331C STORAGE SCOPE LIBRARY	10
22507A	CONVERSION ROUTINE FOR HP 2058E SUBSYSTEM RTE DRIVER	10
22508A	HP 2058E SCANNER SUBSYSTEM RTE DRIVER (DVR57)	10
22509A	DOS/DOS-M HP 1331C STORAGE SCOPE LIBRARY	10
22510A	DOS/DOS-M HP 1331C STORAGE SCOPE DRIVER - DVR47	10
22512A	DOS-M DRIVER PACKAGE FOR ACCESSING FRONT-END MAGNETIC TAPE	20
22519A	DOS-M AUTOLOAD ROUTINE	10
22523A	BCS DDEC LINE PRINTER DRIVER (D.16)	10
22529A	INTEL 8008 ASSEMBLER FOR HP 2100	20
22533A	RESTORE BASIC BINARY LOADER (PBOOT)	10
22538A	DOS-M CENTRONICS 101-A LINE PRINTER DRIVER (DVR00)	20
22539A	DOS-M SYSTEM TELEPRINTER WITH PAPER TAPE I/O (DVR00)	20
22547A	DOS-M ONLINE BOOT FROM MTS	20
22554A	DOS-M/DOS III UTILITIES	30
22556A	ALGOL OPERATING SYSTEM FOR MTS AND BCS LOADER, REVISION G/H	20
22560A	HP 2000 SERIES TSB COLD DUMP TAPE ANALYZER (COTA) LIST THE RTE TABLES	* 35
22575A	DOS-M/DOS III MULTI-FILE ASSEMBLER/CROSS REFERENCE TABLE GENERATOR	20
22585A	64-BIT INTEGER LIBRARY-FORTRAN CALLABLE	30
22589A	IBM 0.S. CROSS ASSEMBLER FOR HP 2100	* 60
22594A	2000F BASIC FOR DOS-M/DOS-III	*100
22625A	IBM 1130 FORTRAN TO HP 2100 FORTRAN TRANSLATOR	30
22641A	TRIPLE WORD ROUTINES	70
22645A	2000E TSB PATCH UTILITY	20
22647A	PATCH MERGE ABSOLUTE BINARY TAPES	20
22659A	IBM 0.S. CROSS MICROASSEMBLER FOR HP 2100	* 60

# 2000 NON-BASIC CONTRIBUTED PROGRAMS PRICE LIST

## 100 DATA HANDLING

ORDER NO.	TITLE	PRICE
22041E	PUNCHED TAPE DUPLICATOR	10
22079B	NUMERIC STRING SORT FOR ASCII RECORDS	10
22081A	BIT OPERATIONS (SET, CLEAR, TEST) - FORTRAN CALLABLE	10
22086A	EBCDIC TO ASCII TRANSLATOR	10
22090A	KEYBOARD TAPE GENERATOR	10
22093A	ASCII/IBM 8-LEVEL CHARACTER CONVERSION ROUTINE	10
22113B	MTS PUNCHED TAPE DUPLICATOR	10
22114A	REPRODUCE/EDIT PAPER TAPE	10
22116A	ORDERING A FLOATING POINT ARRAY	10
22165A	CARD TO MAGNETIC TAPE UTILITY	10
22166A	MAGNETIC TAPE TO PRINT UTILITY PROGRAM	10
22167A	ORDERING A FIXED POINT ARRAY	10
22168A	RANKING A FLOATING POINT ARRAY	10
22169A	ORDERING A FLOATING POINT ARRAY	10
22171A	FORTRAN UNIT REFERENCE NUMBER EDITOR	10
22172C	IOC - FORTRAN CALLABLE	10
22180C	FAST PUNCH VERIFY	10
22197A	SINGLE DRIVE MAGNETIC TAPE COPY PROGRAM	10
22198C	MAGNETIC TAPE STORAGE AND RETRIEVAL PROGRAM	20
22204A	DATA BLOCK MOVEMENT	10
22207A	CHARACTER AND BIT STRING PROCEDURES FOR ALGOL	10
22209C	DRUM BASED MAGNETIC TAPE DUPLICATOR	10
22214A	CHARACTER CODE TRANSLATOR	10
22238A	FORTRAN RUN-TIME FORMAT SPECIFICATION	10
22252A	RTE/DOS DUPLICATOR PROGRAM	10
22272A	DISC/DRUM UTILITY	10
22274A	4-2-2-1 BCD TO FLOATING POINT CONVERSION FOR RTE	10
22277A	DOS-M FILE ACCESS AND STRING LOOKUP	10
22282A	DOS-M LIBRARIAN	10
22284A	DOS-M DUMP/RESTORE PROGRAM	10
22285C	CONVERSATIONAL DOS-M DISC FILE EDITOR	10
22286A	D M SYMBOLIC EDITOR	20
22299A	DOS/DOS-M SOURCE STORAGE AND RETRIEVAL	10
22341A	FTN IV CORE SAVER	10
22343A	FIELDSORT	10
22347A	DOS/DOS-M SOURCE FILE VERIFY PROGRAM	10
22354B	DOS-M STORE ABSOLUTES	10
22355A	DOS-M PAPER TAPE/DISC VERIFY	10
22356A	PACKED MAGNETIC TAPE STORAGE AND RETRIEVAL FOR DOS-M	30
22358A	EASY MAGNETIC TAPE I/O AND STATUS INFORMATION	10
22359A	HANDIO	10
22360A	DOS-M PAPER TAPE REPRODUCER	10
22364A	EFMP RECORD READ/WRITE	10
22368A	PAPER TAPE COPY	20
22369A	DOS-M FILE WRITER	10
22371A	QUOTATION MARKS CONVERSION IN DOS/DOS-M FILES	10
22373B	ITEMIZED EXTENDED FILE MANAGEMENT PACKAGE	70
22376A	ASCII DISC FILE FIELD SORT	10
22381A	RELOCATABLE MODULE LISTER	10
22383A	ALPHANUMERIC RECORD SORT	10
22386A	MULTIRECORD FORMATTED OUTPUT LISTER	10
22392A	RELOCATABLE OBJECT UTILITY LIBRARIAN	10
22393A	ON-LINE EDITOR	10
22400A	ZERO	10
22404A	SPACE SAVING ASCII STORAGE ROUTINES	10
22427A	MEDIA CONVERSION	10
22429A	EFMP FILE TRANSFER	10
22430A	NUMERIC SORT	10
22432B	EFMP DIRECTORY LISTER	10
22433A	ASCII/INTEGER CONVERSION ROUTINE	10
22467A	INTEGER EXTRACTION FROM A STRING OF TEXT	10
22479A	ALPHANUMERIC DISC FILE SORT	10
22482A	HP 2020B MAGNETIC TAPE STORAGE & RETRIEVAL	20
22483B	APPLICATIONS DATA MANAGEMENT PACKAGE (ADM)	* 30
22486A	EFMP READ/WRITE WITH FORTRAN IV INPUT/OUTPUT LISTS	20
22495A	FORTRAN FORMATTED READ FROM DOS-M S-TYPE USER FILES	10
22500A	DOS-M RELOCATABLE PROGRAM TAPE EDITOR	10
22504A	CHARACTER PACKING AND UNPACKING	10
22525A	READ/WRITE DOS-M FILES IN RTE ENVIRONMENT	10
22528A	SERIAL ACCESS TO DOS-M FILES	10
22535B	MAGNETIC TAPE COPY	10
22537A	DOS-M ASCII FILE RETRIEVAL SUBROUTINE	20
22544A	16K STAND-ALONE DUMP OF HP 2000C/F FORMAT MAGNETIC TAPE	50
22549A	DOS-M MAGNETIC TAPE COPY	20
22550A	EFMP FILE SORT	20
22593A	MAIL LIST PROCESSOR	20
22612A	RTE MAGNETIC TAPE FILE MANAGER	20
22635A	DOS-M/2000E TIME-SHARED BASIC FILE HANDLER	30
22664A	RTE CONVERSATIONAL SUPER EDITOR	70

## 200 TESTING, DEBUGGING AND PROGRAMMING AIDS

ORDER NO.	TITLE	PRICE
22014A	BINARY TAPE EDITOR	10
22015B	BASIC LINE RESEQUENCER	10
22016C	SYMBOLIC ALPHANUMERIC GENERATOR	10
22064B	AUTOMATIC TABBING PROGRAM	10
22088A	OCTAL UTILITY SYSTEM (MOCUS)	10
22089A	TELEPRINTER OCTAL INPUT PROGRAM	10
22174A	BCS DUMP IN BBL FORMAT	10
22190A	ABSOLUTE PROGRAM CONTROL SYSTEM	10
22191A	NAM-ENT-EXT EDITOR	10
22193A	INTERPRETIVE BINARY SIMULATOR	60
22205A	TABULATION AND FORM-FEED CALLS FOR HP 2754 TELEPRINTER	10
22250A	'EXEC' CALL ADAPTER ROUTINE	** 20
22251A	MAGNETIC TAPE TO LINE PRINTER ROUTINE	*** 15
22257A	MYS/BCS SYSTEM ABSOLUTE DUMP	10
22259A	DOS TO MAGNETIC TAPE DUMP	10
22260A	MAGNETIC TAPE TO DOS DUMP	10
22267A	MYS FORTRAN CHAIN	10
22269A	PAPER TAPE TITLER	10
22278A	TAB FOR PREPARING FORTRAN TAPES	10
22280A	ABSOLUTE CORE DUMP ROUTINE	10
22287A	CHAIN FROM PHOTOREADER IN HP BASIC	10
22289A	ALGOL ARRAY TRANSFER FOR SEGMENTATION	10
22290A	CORE PUNCH IN BBL FORMAT	10
22293B	OCTAL ASSEMBLY PROCESSOR AND UTILITY SYSTEM	10
22300B	QUICK FIXED HEAD DUMP	10
22310A	FORTRAN/ALGOL ARRAY TRANSFER ROUTINE	10
22314A	RTE CROSS-REFERENCE SYMBOL TABLE GENERATOR	10
22320A	DOS/DOS-M HP 2020/3030 MAGNETIC TAPE CONTROL PROGRAM	10
22322A	ABSOLUTE OCTAL OR DECIMAL CORE DUMP	10
22333A	HP 9300B DISC EXERCISER	10
22340A	360 FORMAT MAGNETIC TAPE DUMP	30
22346A	DOS/DOS-M ASSEMBLY LANGUAGE COMMENT INSERTER	10
22351A	ASCII STRING SEARCH FROM DISC FILE	10
22352A	ASCII STRING SEARCH FROM PHOTOREADER	10
22368A	ALGOL SEGMENT RETURN TO MAIN PROGRAM	10
22428A	ASSEMBLER JUSTIFICATION PROGRAM	10
22431A	DOS-M SEGMENT RETURN TO MAIN	10
22444A	COMMENT INSERTER FOR ASSEMBLER PROGRAMS	10
22454C	QUICK SDUMP FOR HP 7900A MOVING HEAD DISC	10
22455A	HP 'IDEAL' COMMERCIAL SUBROUTINE LIBRARY	40
22463A	HP 7900 DISC TO DISC DUMP	10
22469A	HP 2070 DISC TO DISC DUMP	10
22480B	DUMP FROM DOS-M MAGNETIC TAPE STORAGE AND RETRIEVAL (HP 22190) FORMAT	10
22481B	LOAD DOS-M FROM MAGNETIC TAPE STORAGE & RETRIEVAL (HP 22190) FORMAT	10
22501A	HEXADECIMAL/OCTAL LIST OF ANSI-COMPATIBLE MAGNETIC TAPE (TDUMP)	20
22524A	RTE ALPHANUMERIC TAPE LABEL GENERATOR	10
22526A	DOS-M FORTRAN IV CROSS REFERENCE TABLE GENERATOR	10
22527A	DEBUG FOR ABSOLUTE/BCS PROGRAMS	10
22530B	CHEMACK (HP 22190) MAGNETIC TAPE SOURCE FORMAT TO DOS-M SOURCE FILE	20
22540A	DOS-M HAZELTINE 2000 TERMINAL DRIVER (DVR00)	20
22542A	HP 2070/7900 DISC/MAGNETIC TAPE UTILITY (MADIU)	20
22557A	8K SDUMP FOR HP 7900A MOVING HEAD DISC	20
22600A	RTE DEBUG WITH TRACE	30
22640B	BCS ACTIVITY PROFILE GEN (ACP)	20

## 300 MATH AND NUMERICAL ANALYSIS

22017A	GAMMA FUNCTION ROUTINE	10
22018A	K BESSEL FUNCTION ROUTINE	10
22019A	I BESSEL FUNCTION ROUTINE	10
22020A	Y BESSEL FUNCTION ROUTINE	10
22021A	LOCATE MAXIMUM-MINIMUM INTEGER	10
22022A	SOLUTION OF LINEAR LEAST SQUARES PROBLEMS	10
22023A	TRAPEZOIDAL INTEGRATION ROUTINE	10
22024A	TRAPEZOIDAL INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	10
22025A	SIMPSON AND NEWTON'S 3/8 INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	10
22026A	HERMITIAN FOURTH-ORDER INTEGRATION ROUTINE	10
22027B	HERMITIAN FOURTH-ORDER INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	10
22028A	HERMITIAN SIXTH-ORDER INTEGRATION ROUTINE	10
22029A	HERMITIAN SIXTH-ORDER INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	10
22030B	COMPLEX ROOTS OF A REAL POLYNOMIAL	10
22031A	ADD ROWS OF MATRICES	10
22032A	RANK AND BASIS ROUTINE	10
22033A	SOLUTION OF SIMULTANEOUS LINEAR EQUATIONS	10
22034A	SOLUTION OF SIMULTANEOUS LINEAR EQUATIONS, BAND-MATRIX	10
22035A	SOLUTION OF SIMULTANEOUS LINEAR EQUATIONS, SYMMETRIC MATRIX	10
22036A	REAL FOURIER TRANSFORM	10
22037B	COMPLEX FOURIER TRANSFORM	10

PRICE LEGEND  
 No asterisk - Option K01  
 \* - Option K21  
 \*\* - Option B01  
 \*\*\* - Option L00

# 2000 NON-BASIC CONTRIBUTED PROGRAMS PRICE LIST

## 300 MATH AND NUMERICAL ANALYSIS, Continued

ORDER NO.	TITLE	PRICE
22038A	SYSTEM OF ORDINARY DIFFERENTIAL EQUATIONS	10
22004C	INTEGRATED MATH CALCULATOR PROGRAM	10
22005B	EXTENDED PRECISION CALCULATOR	10
22007D	DOUBLE PRECISION INTEGER LIBRARY	10
22117A	TRANSFORMATIONS	10
22118C	MATRIX INVERSION SUBROUTINES	10
22119B	MATRIX ARITHMETIC SUBROUTINE	10
22120A	MATRIX ARITHMETIC PROGRAM	10
22122A	SIMULTANEOUS EQUATION SOLVER PROGRAM	10
22123A	SIMULTANEOUS EQUATION SOLVER ROUTINE	10
22144A	INTEGRATION ROUTINE	10
22189B	GENERAL FAST FOURIER TRANSFORM	10
22192A	EIGENVALUES OF A SYMMETRIC REAL MATRIX	10
22218A	FAST FOURIER TRANSFORM	10
22220A	LINEAR LEAST SQUARES PROBLEM SOLVER	10
22239A	EXTENDED-PRECISION ARITHMETIC LIBRARY	10
22234A	COMPLEX MATH PACKAGE	20
22256A	FRESNEL INTEGRAL EVALUATION	10
22268B	DECIMAL ARITHMETIC AND MOVE/COMPARE ROUTINES	30
22334A	THREE-WORD EXTENDED PRECISION ARITHMETIC ROUTINES	10
22335A	FIVE-WORD EXTENDED PRECISION ARITHMETIC ROUTINES	10
22511A	INVERSE SIN AND COS ROUTINE	10
22531A	COMPLEX ARITHMETIC FOR HP BASIC	10

## 400 PROBABILITY AND STATISTICS

22039A	MEAN, DEVIATION, AND CORRELATION COEFFICIENTS ROUTINE	10
22121A	CROSS-TABULATION PROGRAM	10
22124A	AUTOCORRELATION AND SPECTRAL DENSITY	10
22125A	MOVING AVERAGES	10
22126A	CROSS CORRELATION ANALYSIS	10
22127A	DISCRIMINANT ANALYSIS PROGRAM	10
22128A	LEAST SQUARES REGRESSION PROGRAM	10
22129A	LINEAR REGRESSION INTERVAL ESTIMATES	10
22130A	POLYNOMIAL REGRESSION PROGRAM	10
22131A	POLYNOMIAL REGRESSION CONFIDENCE INTERVALS	10
22132A	STEPWISE REGRESSION PROGRAM	10
22133A	BIOASSAY PROGRAM	10
22134A	ORTHOGONAL REGRESSION PROGRAM	10
22135A	LINEAR REGRESSION WITH REPLICATION	10
22136A	NONLINEAR REGRESSION PROGRAM	10
22137A	CUMULATIVE DISTRIBUTION PROGRAM	10
22138A	KENDALL'S COEFFICIENT OF CONCORDANCE: W	10
22139A	KENDALL'S COEFFICIENT OF CONCORDANCE	10
22140A	KENDALL'S TAU CORRELATION	10
22141A	GENERAL STATISTICS PROGRAM	10
22142B	GENERAL STATISTICS FOR MULTIPLE GROUPS	10
22143A	PROBABILITY SUBPROGRAMS	10
22145B	CONFIDENCE INTERVAL FOR MEAN AND VARIANCE OF A NORMAL DISTRIBUTION	10
22146C	SAMPLE SIZE DETERMINATION ON THE SAMPLE VARIANCE	10
22147A	MULTIPLE CORRELATION ROUTINE	10
22148A	COMPLETELY RANDOMIZED DESIGN	10
22149A	COMPLETELY RANDOMIZED DESIGN WITH SUBSAMPLING	10
22150A	RANDOMIZED COMPLETE BLOCK DESIGN	10
22151B	RANDOMIZED COMPLETE BLOCK DESIGN WITH SUBSAMPLING	10
22152A	TWO-WAY FACTORIAL DESIGN	10
22153A	THREE-WAY FACTORIAL DESIGN	10
22154A	ANALYSIS OF VARIANCE INFORMATION GENERATOR	10
22155A	DUNCAN'S MULTIPLE RANGE TEST	10
22156A	PAIRED T-TEST	10
22157B	BARTLETT'S HOMOGENEITY OF VARIANCE TEST	10
22158C	KOLMOGOROV-SMIRNOV GOODNESS-OF-FIT TEST	10
22159B	CHI SQUARE GOODNESS-OF-FIT TEST	10
22160A	TESTS OF HYPOTHESIS FOR VARIANCES	10
22161B	TEST OF HYPOTHESIS FOR MEANS	10
22183A	SAMPLE SIZE DETERMINATION TO TEST H0	10
22184A	POOLING OF GROUPS IN REGRESSION	10
22185A	MULTIPLE REGRESSION PROGRAM	10
22186A	MULTIPLE CORRELATION MATRIX PROGRAM	10
22187A	NONLINEAR REGRESSION OF A SINGLE-VARIABLE FUNCTION	10
22188A	NONLINEAR REGRESSION OF AN ARBITRARY FUNCTION	10
22194A	PSEUDO-RANDOM NUMBER GENERATOR	10
22265A	FLOATING POINT RANDOM NUMBER GENERATOR	10
22308A	GAUSSIAN RANDOM NUMBER GENERATOR	10
22397A	COMBINATION GENERATOR	10
22413A	RANDOM INTEGER NUMBER GENERATOR	10
22434A	RANDOM NUMBER GENERATORS	10
22437A	WILCOXON-MANN-WHITNEY TEST	10
22517A	NORMAL DISTRIBUTION	10
22518A	VARIANCE RATIO DISTRIBUTION	10

PRICE LEGEND  
 No asterisk — Option K01  
 \* — Option K21  
 \*\* — Option B01  
 \*\*\* — Option L00

## 500 SCIENTIFIC AND ENGINEERING APPLICATIONS

ORDER NO.	TITLE	PRICE
22221B	HP BIOMEDICAL RESPONSE AVERAGING PROGRAM	100
22222A	BLOOD ACID-BASE VARIABLES DETERMINATION PROGRAM	10
22240A	LUNG COMPLIANCE AND RESISTANCE MEASUREMENT SYSTEM	20
22325A	COPPER-CONSTANTAN THERMOCOUPLE VOLTAGE TO CELSIUS DEGREES CONVERSION	10
22384A	EFFECTIVE PERCEIVED NOISE LEVEL	40
22435A	SECOND VIRIAL COEFFICIENTS	10
22487A	CIVIL ENGINEERING COORDINATE GEOMETRY (COGO)	80
22498B	STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS)	15

## 600 MANAGEMENT SCIENCES AND OPERATIONS RESEARCH

22460A	CONTINUOUS SYSTEM MODELING PROGRAM (CSMP)	50
22497A	PERT FOR DOS/DOS-M	20
22532A	SYSTEM SIMULATION PROGRAM (SSP)	30

## 700 BUSINESS AND MANUFACTURING APPLICATIONS

22378A	RTE LOGBOOK	20
22604A	BILL OF MATERIAL PACKAGE	50

## 800 EDUCATION

22266A	MARK SENSE EDUCATIONAL TEST CARD SCORING PROGRAM	10
22332A	THE EXECUTIVE GAME	10
22492A	THE EXECUTIVE GAME FOR DOS-M	10

## 900 UNCLASSIFIED (microcode, games, plotting routines)

22094A	JEU DE MORPIONS (GAME OF TIC-TAC-TOE)	10
22099A	DOS DEMO	10
22162B	X-Y PLOTTER ON PRINTER	10
22163A	TIME SERIES PLOTTER	10
22164B	HISTOGRAM PLOTTER PROGRAM	10
22182A	HISTOGRAM PLOTTER ROUTINE	10
22262A	THREE DIMENSIONAL PLOT SUBROUTINE	10
22298A	BATTLESHIP	10
22348A	X-Y PLOTTER FOR 11 INCH PAGE PRINTER	10
22425A	THREE DIMENSIONAL TRANSFORMATIONS USING EULER'S ANGLES	10
22426A	LOGARITHMIC AXIS GENERATOR FOR THE CALCOMP 565	10
22436A	HANGMAN	10
22474A	HP 7210 PLOTTER LIBRARY	30
22515A	PSEUDO-DMA INPUT (MULTI-CHANNEL)	10
22516A	WORD MOVE (INTERRUPTABLE)	10
22548A	TEKTRONIX T4002 PLOTTER LIBRARY FOR RTE	20
22569A	RTE CALCOMP/TEKTRONIX PLOTTER LIBRARY	50
22582A	UPPER/LOWER CASE CHARACTER GENERATOR FOR HP 7210	40
22587A	MICROCODED DOS-M ROUTINES ,PHR2 AND ,FLUN	20
22603A	ON-LINE ACCESS TO HP WCS (MICROBASIC)	40
22618A	MICROCODED FAST FOURIER TRANSFORM	20
22624A	MICROCODED FAST FOURIER TRANSFORM WITH AUTOMATIC RESCALING	20
22649A	MICROCODED INTEGER SORT	20
22661A	FAST MICROCODED MULTIPLY INSTRUCTION	20
22662A	BURST MODE OUTPUT INSTRUCTION	20
22663A	BYTE DATA MANIPULATION WITH MICROCODED ROUTINES	20
22665A	TCS ORDER PROCESSING DEMONSTRATION	60
22670A	MICROPROGRAMMED INDEX REGISTER INSTRUCTIONS	20

# 2000 NON-BASIC CONTRIBUTED PROGRAMS CROSS REFERENCE INDEX

	PROGRAM NO.	CLASS CODE		PROGRAM NO.	CLASS CODE
AERONAUTICAL ENGINEERING			EDUCATIONAL BASIC HP 2767 LINE PRINTER DRIVER		
EFFECTIVE PERCEIVED NOISE LEVEL	22384A	517	SUPER BASIC FOR DOS-M	22409A	011
ALGOL			READ/WRITE ROUTINES FOR THE TENNECOMP TP-1371	22417C	018
FILE THREE INPUT FOR MTS ALGOL	22100A	015	MINIOEK SYSTEM	22462A	016
CHARACTER AND BIT STRING PROCEDURES FOR ALGOL	22207A	104	HP 2311A SUBSYSTEM DRIVER - BASIC CALLABLE	22475A	013
ALGOL OPERATING SYSTEM FOR MTS	22270D	018	MULTI-PURPOSE SUBROUTINE PACKAGE FOR HP BASIC	22476A	018
ALGOL ARRAY TRANSFER FOR SEGMENTATION	22289A	212	20392A		
FORTRAN/ALGOL ARRAY TRANSFER ROUTINE	22310A	212	FLOATING POINT OVERLAY FOR HP BASIC	22477A	022
ALGOL SEGMENT RETURN TO MAIN PROGRAM	22366A	212	HAVERING EDUCATIONAL BASIC FOR DOS-M	22494B	018
DOS/RTE ALGOL COMPILER	22443A	018	COMPLEX ARITHMETIC FOR HP BASIC	22531A	303
ALGOL OPERATING SYSTEM FOR MTS AND BCS LOADER, REVISION G/H	22556A	016	2000F BASIC FOR DOS-M/DOS-III	22608B	018
			2000E TSB PATCH UTILITY	22645A	022
ANALYSIS OF VARIANCE AND COVARIANCE			BCD/ASCII ARITHMETIC		
LEAST SQUARES REGRESSION PROGRAM	22128A	404	DECIMAL ARITHMETIC AND MOVE/COMPARE ROUTINES	22260B	304
LINEAR REGRESSION INTERVAL ESTIMATES	22129A	404	BESSEL FUNCTION		
ORTHOGONAL REGRESSION PROGRAM	22134A	404	K BESSEL FUNCTION ROUTINE	22018A	306
COMPLETELY RANDOMIZED DESIGN	22148A	410	I BESSEL FUNCTION ROUTINE	22019A	306
COMPLETELY RANDOMIZED DESIGN WITH SUBSAMPLING	22149A	410	Y BESSEL FUNCTION ROUTINE	22020A	306
RANDOMIZED COMPLETE BLOCK DESIGN	22150A	410	BILL OF MATERIALS		
RANDOMIZED COMPLETE BLOCK DESIGN WITH SUBSAMPLING	22151B	410	BILL OF MATERIAL PACKAGE	22604A	705
TWO-WAY FACTORIAL DESIGN	22152A	410	BIT		
THREE-WAY FACTORIAL DESIGN	22153A	410	BIT OPERATIONS (SET, CLEAR, TEST) - FORTRAN	22081A	104
ANALYSIS OF VARIANCE INFORMATION GENERATOR	22154A	410	CALLABLE		
DUNCAN'S MULTIPLE RANGE TEST	22155A	407	CHARACTER AND BIT STRING PROCEDURES FOR ALGOL	22207A	104
BARTLETT'S HOMOGENEITY OF VARIANCE TEST	22157B	401	BOOTSTRAP		
TESTS OF HYPOTHESIS FOR VARIANCES	22160A	401	BOOTSTRAP LOADER GENERATOR	22009B	017
MULTIPLE REGRESSION PROGRAM	22185A	404	LOADER BOOTSTRAP	22223C	017
ARITHMETIC			DOS-M HARDWARE BOOT	22342A	017
INTEGRATED MATH CALCULATOR PROGRAM	22084C	301	ON-LINE SYSTEM LOAD FOR MOVING-HEAD RTE	22344A	017
DOUBLE PRECISION INTEGER LIBRARY	22097D	302	ON-LINE MOVING-HEAD RTE BOOTSTRAP FROM DOS-M OR DOS	22345A	017
COMPLEX MATH PACKAGE	22234A	303	DOS-M BOOTSTRAP PROGRAM FOR DOS-M OR DOS	22349A	017
DECIMAL ARITHMETIC AND MOVE/COMPARE ROUTINES	22268B	304	DOS-M BOOTSTRAP PROGRAM FROM RTE	22350A	017
THREE-WORD EXTENDED PRECISION ARITHMETIC ROUTINES	22334A	302	MTS BOOT FROM DOS-M	22357A	017
FIVE-WORD EXTENDED PRECISION ARITHMETIC ROUTINES	22335A	302	CORE RESIDENT DOS-M BOOTSTRAP	22448B	017
COMPLEX ARITHMETIC FOR HP BASIC	22531A	303	DOS-M AUTOLOAD ROUTINE	22519A	017
TRIPLE WORD ROUTINES	22641A	021	RESTORE BASIC BINARY LOADER (PBOOT)	22533A	017
FAST MICROCODED MULTIPLY INSTRUCTION	22661A	905	DOS-M ONLINE BOOT FROM MTS	22547A	017
ASCII			BUSINESS (EDUCATION)		
EBCDIC TO ASCII TRANSLATOR	22086A	105	THE EXECUTIVE GAME	22332A	800
ASCII/IBM 8-LEVEL CHARACTER CONVERSION ROUTINE	22093A	105	THE EXECUTIVE GAME FOR DOS-M	22492A	800
CHARACTER CODE TRANSLATOR	22214A	105	BUSINESS INFORMATION SYSTEMS		
TELEX TO ASCII PHOTOREADER DRIVER	22264B	009	TCS ORDER PROCESSING DEMONSTRATION	22665A	901
ASCII DISC FILE FIELD SORT	22376A	107	CALCOMP		
SPACE SAVING ASCII STORAGE ROUTINES	22404A	104	CALCOMP PLOTTER DRIVER - BASIC CALLABLE	22077B	014
INTEGER EXTRACTION FROM A STRING OF TEXT	22467A	104	LOGARITHMIC AXIS GENERATOR FOR THE CALCOMP 565	22426A	904
ALPHANUMERIC DISC FILE SORT	22479A	107	RTE CALCOMP/TEKTRONIX PLOTTER LIBRARY	22569A	904
DOS-M ASCII FILE RETRIEVAL SUBROUTINE	22537A	110	CALCULATOR		
EFMP FILE SORT	22550A	107	INTEGRATED MATH CALCULATOR PROGRAM	22084C	301
ASSEMBLER			EXTENDED PRECISION CALCULATOR	22085B	302
INVERSE ASSEMBLER	22013B	018	CARD		
AUTOMATIC TABBING PROGRAM	22064B	212	CARD TO MAGNETIC TAPE UTILITY	22165A	100
ABSOLUTE OBJECT DECODER	22292B	018	CHAIN		
DOS/DOS-M ASSEMBLY LANGUAGE COMMENT INSERTER	22346A	212	MTS FORTRAN CHAIN	22267A	212
SYMBOLIC MACRO ASSEMBLER FOR THE HP 2100	22385A	018	CHAIN FROM PHOTOREADER IN HP BASIC	22287A	212
ASSEMBLER JUSTIFICATION PROGRAM	22428A	212	ALGOL ARRAY TRANSFER FOR SEGMENTATION	22289A	212
DOS-M RELOCATABLE REVERSE ASSEMBLER	22438A	018	CHARACTER/SYMBOL MANIPULATION		
8K SID RELOCATABLE REVERSE ASSEMBLER	22439A	018	BIT OPERATIONS (SET, CLEAR, TEST) - FORTRAN	22081A	104
8K SID ABSOLUTE REVERSE ASSEMBLER	22440A	018	CALLABLE		
COMMENT INSERTER FOR ASSEMBLER PROGRAMS	22444A	212	DATA BLOCK MOVEMENT	22204A	104
INTEL 8008 ASSEMBLER FOR HP 2100	22529A	018	CHARACTER AND BIT STRING PROCEDURES FOR ALGOL	22207A	104
DOS-M/DOS III MULTI-FILE ASSEMBLER/CROSS REFERENCE TABLE GENERATOR	22585A	018	DECIMAL ARITHMETIC AND MOVE/COMPARE ROUTINES	22268B	304
IBM O.S. CROSS ASSEMBLER FOR HP 2100	22594A	018	SPACE SAVING ASCII STORAGE ROUTINES	22404A	104
IBM O.S. CROSS MICROASSEMBLER FOR HP 2100	22659A	018	INTEGER EXTRACTION FROM A STRING OF TEXT	22467A	104
AUTO RESTART			MULTI-PURPOSE SUBROUTINE PACKAGE FOR HP BASIC	22476A	018
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BCS POWER FAIL TELEPRINTER DRIVER WITH AUTORESTART OPTION	22311A	002	CHARACTER PACKING AND UNPACKING	22504A	104
BASIC			BYTE DATA MANIPULATION WITH MICROCODED ROUTINES	22663A	905
BASIC LINE RESEQUENCER	22015B	212	CHEMICAL ENGINEERING		
BASIC PHOTOREADER DATA INPUT	22082B	009	COPPER-CONSTANTAN THERMOCOUPLE VOLTAGE TO CELSIUS DEGREES CONVERSION	22325A	505
OCTAL UTILITY SYSTEM (MOCUS)	22088A	211	SECOND VIRIAL COEFFICIENTS	22435A	516
BASIC LANGUAGE DATA ACQUISITION SYSTEM	22199A	012	CHEMISTRY		
PACIFIC UNION COLLEGE MULTI-TERMINAL HP BASIC SYSTEM	22201D	018	HP 3360A GAS CHROMATOGRAPH SYSTEM DRIVER - BASIC CALLABLE	22407B	006
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HP 7970 MAGNETIC TAPE DRIVER - BASIC CALLABLE	22239A	016			
MSU MULTI-TERMINAL BASIC SYSTEM WITH CARD READER CAPABILITY	22255D	018			
MINI-BASIC	22261A	018			
CHAIN FROM PHOTOREADER IN HP BASIC	22287A	212			
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DISC BASIC EXECUTIVE	22338A	008			
HP BASIC TO FORTRAN TRANSLATOR FOR DOS/DOS-M	22388A	018			
DOS-M EAU RELOCATABLE BASIC	22389A	018			
HP 2778/2797 LINE PRINTER PATCH FOR EDUCATIONAL BASIC	22399A	011			



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DIGITAL VOLTAGE SOURCE (SEE VOLTAGE SOURCE)			DOS-M HAZELTINE 2000 TERMINAL DRIVER (DVR00)	22548A	207
DIGITAL VOLTMETER			HP 2870/7900 DISC/MAGNETIC TAPE UTILITY (MADIU)	22542A	207
HP 2401C DIGITAL VOLTMETER DRIVER - FORTRAN CALLABLE	22080B	013	16K STAND-ALONE DUMP OF HP 2000C/F FORMAT MAGNETIC TAPE	22344A	102
HP 2401C DATA SOURCE INTERFACE DRIVER - FORTRAN CALLABLE	22080A	013	8K SDUMP FOR HP 7900A MOVING HEAD DISC	22557A	207
HP 3460A DIGITAL VOLTMETER DRIVER - FORTRAN CALLABLE	22080A	013	RTE DEBUG WITH TRACE	22600A	211
HP 3460A/B DATA SOURCE INTERFACE DRIVER - FORTRAN CALLABLE	22055A	013	RTE MAGNETIC TAPE FILE MANAGER	22612A	102
HP 2320 LOW SPEED A-TO-D SUBSYSTEM DRIVER - FORTRAN CALLABLE	22061A	013	DUPLICATION		
HP 2322A LOW SPEED A-TO-D SUBSYSTEM DRIVER - FORTRAN CALLABLE	22062A	013	PUNCHED TAPE DUPLICATOR	22041E	106
HP 2323A LOW SPEED A-TO-D SUBSYSTEM DRIVER - FORTRAN CALLABLE	22069A	013	MTS PUNCHED TAPE DUPLICATOR	22113B	100
HP 3460A/B DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	22102B	013	REPRODUCE/EDIT PAPER TAPE	22114A	101
HP 2402A DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	22104B	013	FAST PUNCH VERIFY	22100C	106
HP 3459A DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	22100C	013	SINGLE DRIVE MAGNETIC TAPE COPY PROGRAM	22197A	106
HP 3480A/B DIGITAL VOLTMETER DRIVER - BASIC CALLABLE	22215A	013	MAGNETIC TAPE STORAGE AND RETRIEVAL PROGRAM	22198C	102
HP 3480A/B DIGITAL VOLTMETER DRIVER - FORTRAN CALLABLE	22220B	013	DRUM BASED MAGNETIC TAPE DUPLICATOR	22209C	106
DOS/DOS-M/RTE 3400 DVM DRIVER AND BCD CONVERSION	22294A	013	RTE/DOS DUPLICATOR PROGRAM	22252A	106
HP 2402A DIGITAL VOLTMETER DRIVER - BASIC CALLABLE	22305A	013	DOS/DOS-M SOURCE FILE VERIFY PROGRAM	22347A	106
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HP 2770A/2771A DISC DRIVER - FORTRAN CALLABLE	22063A	015	PAPER TAPE COPY	22368A	106
HP 2770A/2771A DISC DRIVER - BASIC CALLABLE	22111C	015	DOS-M ABSOLUTE OBJECT DECODER	22415B	010
HP 2070A CARTRIDGE DISC DRIVER - BASIC CALLABLE	22210B	015	HP 2020B MAGNETIC TAPE STORAGE & RETRIEVAL	22482A	102
HP 2070A CARTRIDGE DISC DRIVER - FORTRAN CALLABLE	22225B	015	MAGNETIC TAPE COPY	22535B	106
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DOS-M DUMP/RESTORE PROGRAM	22204A	102	EBCDIC		
QUICK FIXED HEAD SDUMP	22300B	207	EBCDIC TO ASCII TRANSLATOR	22086A	105
HP 2070A CARTRIDGE DISC MEMORY DRIVER - FORTRAN CALLABLE	22301A	015	ASCII/IBM 8-LEVEL CHARACTER CONVERSION ROUTINE	22093A	105
HP 0300N DISC EXERCISER	22333A	210	CHARACTER CODE TRANSLATOR	22214A	105
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RTE TRACK ASSIGNMENT TABLE LOG	22440A	022	BINARY TAPE EDITOR	22014A	212
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HP 2070/7900 DISC/MAGNETIC TAPE UTILITY (MADIU)	22542A	207	REPRODUCE/EDIT PAPER TAPE	22114A	101
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THE EXECUTIVE GAME FOR DOS-M	22492A	000	CLEAR JOB BINARY AREA IN DOS/DOS-M	22273A	022
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DISCRIMINANT ANALYSIS PROGRAM	22127A	403	DOS-M LIBRARIAN	22282A	100
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MAGNETIC TAPE TO DOS DUMP	22260A	207	RTE CONVERSATIONAL SUPER EDITOR	22664A	101
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ABSOLUTE CORE DUMP ROUTINE	22280A	207	MARK SENSE EDUCATIONAL TEST CARD SCORING PROGRAM	22266A	720
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CORE PUNCH IN BBL FORMAT	22290A	207	EIGENVALUES OF A SYMMETRIC REAL MATRIX	22192A	313
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HP 2070 DISC TO DISC DUMP	22469A	207	COMPLETELY RANDOMIZED DESIGN	22148A	410
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			EXTENDED PRECISION CALCULATOR	22005B	302
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ORTHOGONAL REGRESSION PROGRAM	22134A	484	COMBINATION GENERATOR	22397A	413
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DOS-M FILE ACCESS AND STRING LOOKUP	22277A	110	HP 5100B FREQUENCY SYNTHESIZER DRIVER - FORTRAN CALLABLE	22075A	006
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PSEUDO REPORT GENERATOR	22330B	005	HP 5100B FREQUENCY SYNTHESIZER DRIVER - BASIC CALLABLE	22211A	006
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DOS-M STORE ABSOLUTES	22354B	100	HP 1900 PROGRAMMABLE PULSE GENERATOR - FORTRAN CALLABLE	22336A	006
EFMP RECORD READ/WRITE	22364A	110	HP 1900 PROGRAMMABLE PULSE GENERATOR DRIVER - BASIC CALLABLE	22337A	006
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EFMP FILE TRANSFER	22429A	110	OSCILLOSCOPE PLOTTING SUBROUTINE	22253C	014
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APPLICATIONS DATA MANAGEMENT PACKAGE (ADM)	22483B	102	BASIC PLOT SUBROUTINES	22279A	014
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RTE MAGNETIC TAPE FILE MANAGER	22612A	102	TEKTRONIX 4010 VIDEO DISPLAY UNIT DRIVER-BASIC CALLABLE	22464A	014
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FORTRAN RUN-TIME FORMAT SPECIFICATION	22238A	112	HERMITIAN SIXTH-ORDER INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22029A	310
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FORTRAN/ALGOL ARRAY TRANSFER ROUTINE	22310A	212	GENERAL STATISTICS PROGRAM	22141A	408
HP BASIC TO FORTRAN TRANSLATOR FOR DOS/DOS-M	22388A	010	HISTOGRAM PLOTTER PROGRAM	22164B	004
HP 'IDEAL' COMMERCIAL SUBROUTINE LIBRARY	22455A	212	HISTOGRAM PLOTTER ROUTINE	22182A	004
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DOS-M FORTRAN IV CROSS REFERENCE TABLE GENERATOR	22526A	211	EIGENVALUES OF A SYMMETRIC REAL MATRIX	22192A	313
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FAST FOURIER TRANSFORM	22218A	316	HP 3460A/B DATA SOURCE INTERFACE DRIVER - FORTRAN CALLABLE	22055A	013
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MICROCODED FAST FOURIER TRANSFORM WITH AUTOMATIC RESCALING	22624A	905	HP 2322A LOW SPEED A-TO-D SUBSYSTEM DRIVER - FORTRAN CALLABLE	22062A	013
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GAMMA FUNCTION ROUTINE	22017A	306	HP 3460A/B DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	22102B	013
K BESSEL FUNCTION ROUTINE	22018A	306	HP 2402A DATA SOURCE INTERFACE DRIVER - BASIC CALLABLE	22104B	013
I BESSEL FUNCTION ROUTINE	22019A	306	HP 3450A DATA SOURCE INTERFACE DRIVER -BASIC CALLABLE	22108C	013
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DOS HP 2322A LOW SPEED ANALOG TO DIGITAL	22331A	013	MAGNETIC TAPE		
SUBSYSTEM DRIVER			ALGOL OPERATING SYSTEM FOR MTS AND BCS LOADER,	22556A	016
DOS HP 2320A LOW SPEED ANALOG-TO-DIGITAL	22339A	013	REVISION G/H		
SUBSYSTEM DRIVER			I/O, PAPER TAPE		
HP 2311A SUBSYSTEM DOS-M DRIVER	22466C	013	RUN-TIME DATA INPUT FOR BASIC	22044B	009
HP 2310/2311 SUBSYSTEM DRIVER FOR DOS-M	22472A	013	HIGH SPEED PUNCH DRIVER - BASIC CALLABLE	22078B	009
HP 2311A SUBSYSTEM DRIVER - BASIC CALLABLE	22475A	013	BASIC PHOTOREADER DATA INPUT	22082B	009
CONVERSION ROUTINE FOR HP 2058E SUBSYSTEM RTE	22507A	013	HP 2754A PUNCH/LIST IN KT MODE	22176A	009
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HP 2058E SCANNER SUBSYSTEM RTE DRIVER (DVR57)	22508A	013	FAST DOS/DOS-M PHOTOREADER DRIVER	22247B	009
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HP 2778A/2771A DISC DRIVER - FORTRAN CALLABLE	22063A	015	DOS/DOS-M PHOTOREADER DRIVER TO READ ABSOLUTE	22353A	009
HP 2778A/2771A DISC DRIVER - BASIC CALLABLE	22111C	015	BINARY TAPES		
HP 2078A CARTRIDGE DISC DRIVER - BASIC CALLABLE	22216B	015	CORE SIZE INDEPENDENT PHOTO READER SID DRIVER	22490A	009
HP 2078A CARTRIDGE DISC DRIVER - FORTRAN CALLABLE	22225B	015	CORE SIZE INDEPENDENT PAPER TAPE PUNCH SID DRIVER	22491A	009
DOS-M PRIVILEGED DISC I/O ROUTINES	22233C	015	DOS-M SYSTEM TELEPRINTER WITH PAPER TAPE I/O	22539A	002
HP 2078A CARTRIDGE DISC MEMORY DRIVER - FORTRAN	22301A	015	(DVR00)		
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HP 2331A X-Y DISPLAY SUBSYSTEM DRIVER - BASIC	22217B	014	BASIC CALLABLE LINE PRINTER DRIVER	22400A	011
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OSCILLOSCOPE PLOTTING SUBROUTINE	22253C	014	DOS-M CENTRONICS 101-A LINE PRINTER DRIVER (DVR00)	22536A	011
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HP 1331C STORAGE SCOPE DRIVER - BASIC CALLABLE	22318A	014	SYNCHRONOUS HIGH SPEED DATA ACQUISITION PROGRAM	22170A	003
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HP 7004 X-Y RECORDER LIBRARY	22390A	014	WAVETEK BASIC DRIVER	22200A	006
HP 1331C SID SCOPE DISPLAY DRIVER	22391A	014	HP 12551A/B RELAY REGISTER INTERFACE DRIVER -	22229B	003
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CALLABLE			HP 12551B RELAY REGISTER INTERFACE DRIVER - BASIC	22313A	003
HP 7210 PLOTTER DRIVER FOR DOS-M	22471A	014	CALLABLE		
HP 7210 PLOTTER DRIVER FOR RTE	22473B	014	HP 1900 PROGRAMMABLE PULSE GENERATOR - FORTRAN	22336A	006
RTE HP 1331C STORAGE SCOPE DRIVER - DVR47	22505A	014	CALLABLE		
RTE HP 1331C STORAGE SCOPE LIBRARY	22506A	014	HP 1900 PROGRAMMABLE PULSE GENERATOR DRIVER -	22337A	006
DOS/DOS-M HP 1331C STORAGE SCOPE LIBRARY	22509A	014	CALLABLE		
DOS/DOS-M HP 1331C STORAGE SCOPE DRIVER - DVR47	22510A	014	HP 1900 PROGRAMMABLE PULSE GENERATOR DRIVER -	22451A	003
TEKTRONIX T4002 PLOTTER LIBRARY FOR RTE	22548A	904	BASIC CALLABLE		
RTE CALCOMP/TEKTRONIX PLOTTER LIBRARY	22569A	904	RELAY TIMER FOR HP 12551B RELAY REGISTER INTERFACE		
UPPER/LOWER CASE CHARACTER GENERATOR FOR HP 7210	22582A	904	I/O, STATUS PROCESSING		
I/O, INSTRUMENT			PROGRAM EXECUTION TIMER	22195B	003
COUNTER DATA SOURCE INTERFACE DRIVER - FORTRAN	22004A	006	FORTRAN I/O STATUS FUNCTION	22236A	004
CALLABLE			I/O, TELECOMMUNICATIONS		
HP 5100B FREQUENCY SYNTHESIZER DRIVER - FORTRAN	22075A	006	TELEPRINTER OCTAL INPUT PROGRAM	22089A	212
CALLABLE			TELEPRINTER/LINEPRINTER OUTPUT SELECTOR FOR HP	22237C	002
HP 2911A/B CROSSBAR SCANNER DRIVER - BASIC	22101B	006	BASIC		
CALLABLE			16K BINARY SYNCHRONOUS CONTROLLED DATA	22244B	002
COUNTER DATA SOURCE INTERFACE DRIVER - BASIC	22106B	006	COMMUNICATIONS PROGRAM		
CALLABLE			USER INTERFACE TO BCS TELECOMMUNICATIONS DRIVER	22245A	002
HP 2912A REED SCANNER DRIVER - BASIC CALLABLE	22107B	006	D,50		
WAVETEK BASIC DRIVER	22200A	006	DOS-M REMOTE TAPE READER DRIVER	22246B	002
HP 5100B FREQUENCY SYNTHESIZER DRIVER - BASIC	22211A	006	BCS POWER FAIL TELEPRINTER DRIVER WITH	22311A	002
CALLABLE			AUTORESTART OPTION		
4-2-2-1 BCD TO FLOATING POINT CONVERSION FOR RTE	22274A	105	ABSOLUTE OCTAL OR DECIMAL CORE DUMP	22322A	207
RTE CROSSBAR SCANNER DRIVER & CHANNEL CODE	22276A	006	BCS TELECOMMUNICATIONS DRIVER FOR SYNCHRONOUS AND	22328C	002
CONVERSION			ASYNCHRONOUS DEVICES		
HP 12551B RELAY REGISTER INTERFACE DRIVER - BASIC	22313A	003	8K BINARY SYNCHRONOUS CONTROLLED DATA	22367A	002
CALLABLE			COMMUNICATIONS PROGRAM		
HP 1900 PROGRAMMABLE PULSE GENERATOR - FORTRAN	22336A	006	HP 2100 REMOTE BATCH TERMINAL TO A UNIVAC 1108	22372A	002
CALLABLE			A BCS ASYNCHRONOUS DATA SET INTERFACE DRIVER	22374A	002
HP 1900 PROGRAMMABLE PULSE GENERATOR DRIVER -	22337A	006	SIO LIST OUTPUT TO A STORAGE SCOPE	22379A	014
BASIC CALLABLE			RELOCATABLE MODULE LISTER	22381A	108
DISC BASIC EXECUTIVE	22338A	008	D,70 REVERSE CHANNEL TELECOMMUNICATIONS DRIVER	22387A	002
HP 3360A GAS CHROMATOGRAPH SYSTEM DRIVER - BASIC	22407B	006	CORE-SAVING TELEPRINTER I/O DRIVER AND CODE	22394A	002
CALLABLE			CONVERSION ROUTINE		
RTE MULTIPROGRAMMER DRIVER (DVR61)	22410A	006	HP 2100 REMOTE JOB ENTRY TO IBM HOST CPU	22453B	002
00.1 BASIC DRIVER FOR HP 8054A REAL TIME ANALYZER	22442A	006	CORE SIZE INDEPENDENT TELEPRINTER SID DRIVER	22489A	002
HP 5360 COMPUTING COUNTER DRIVER	22447A	006	(LINE PRINTER COMPATIBLE)		
PRIVILEGED RTE DRIVER FOR THE HP 8054 AUDIO	22450A	006	CDC USER 200 TERMINAL SIMULATOR	22496A	002
ANALYZER (DVR75)			HEXADECIMAL/OCTAL LIST OF ANSI-COMPATIBLE	22501A	207
8K SDUMP FOR HP 7000A MOVING HEAD DISC	22557A	207	MAGNETIC TAPE (TDUMP)		
I/O, MAGNETIC TAPE			DOS-M SYSTEM TELEPRINTER WITH PAPER TAPE I/O	22539A	002
FILE THREE INPUT FOR MTS ALGOL	22100A	016	(DVR00)		
RTE HP 2020 MAGNETIC TAPE DRIVER	22101A	016	IBM		
HP 3030G MAGNETIC TAPE DRIVER - FORTRAN CALLABLE	22208A	016	AN HP 2116-FAMILY SIMULATOR FOR THE IBM 360	22042C	008
HP 7970 MAGNETIC TAPE DRIVER - BASIC CALLABLE	22239A	016	MAGNETIC TAPE TO LINE PRINTER ROUTINE	22251A	207
ALGOL OPERATING SYSTEM FOR MTS	22270D	016	BCS TELECOMMUNICATIONS DRIVER FOR SYNCHRONOUS AND	22328C	002
DOS/DOS-M HP 2020 MAGNETIC TAPE DRIVER	22319A	016	ASYNCHRONOUS DEVICES		
NON-DMA BCS HP 3030 DRIVER	22414A	016	360 FORMAT MAGNETIC TAPE DUMP	22340A	207
DOS/DOS-M HP 7970 7-TRACK MAGNETIC TAPE DRIVER	22458B	016	AN HP ASSEMBLER FOR THE IBM 360	22390B	018
(DVR24) WITH DMA			HP 2100 REMOTE JOB ENTRY TO IBM HOST CPU	22453B	002
FILE AND REWIND FOR THE TENNECOMP TP-1371 MINIDEK	22461A	016	IBM 0,3, CROSS ASSEMBLER FOR HP 2100	22594A	018
SYSTEM			IBM 1130 FORTRAN TO HP 2100 FORTRAN TRANSLATOR	22625A	018
READ/WRITE ROUTINES FOR THE TENNECOMP TP-1371	22462A	016	IBM 0,3, CROSS MICROASSEMBLER FOR HP 2100	22659A	018
MINIDEK SYSTEM					

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	PROGRAM NO.	CLASS CODE		PROGRAM NO.	CLASS CODE
<b>INFORMATION STORAGE AND RETRIEVAL</b>			<b>LINE PRINTER</b>		
MAGNETIC TAPE STORAGE AND RETRIEVAL PROGRAM	22198C	102	BASIC HP 2778A LINE PRINTER DRIVER	22095A	011
DOS TO MAGNETIC TAPE DUMP	22259A	207	MAGNETIC TAPE TO PRINT UTILITY PROGRAM	22166A	100
MAGNETIC TAPE TO DOS DUMP	22260A	207	MAGNETIC TAPE TO LINE PRINTER ROUTINE	22251A	207
DISC/DRUM UTILITY	22272A	102	HP 2767 LINE PRINTER BASIC DRIVER	22258A	011
DOS-M DUMP/RESTORE PROGRAM	22284A	102	HP 2778/2767 LINE PRINTER PATCH FOR EDUCATIONAL BASIC	22399A	011
DOS/DOS-M SOURCE STORAGE AND RETRIEVAL	22299A	102	BASIC CALLABLE LINE PRINTER DRIVER	22408A	011
DISC BASIC EXECUTIVE	22338A	000	EDUCATIONAL BASIC HP 2767 LINE PRINTER DRIVER	22409A	011
FIELD SORT	22343A	107	A.B. DISK VIDEOJET SIO LINE PRINTER DRIVER	22411A	011
PACKED MAGNETIC TAPE STORAGE AND RETRIEVAL FOR DOS-M	22356A	102	CORE SIZE INDEPENDENT TELEPRINTER SIO DRIVER (LINE PRINTER COMPATIBLE)	22489A	002
MAGNETIC TAPE SYSTEM PROGRAM CATALOG	22446A	022	BCS DEC LINE PRINTER DRIVER (0.16)	22523A	011
DUMP FROM DOS-M MAGNETIC TAPE STORAGE AND RETRIEVAL (HP 22198) FORMAT	22480B	207	DOS-M CENTRONICS 101-A LINE PRINTER DRIVER (DVR00)	22538A	011
LOAD DOS-M FROM MAGNETIC TAPE STORAGE & RETRIEVAL (HP 22198) FORMAT	22481B	207	<b>LINEAR</b>		
HP 2020B MAGNETIC TAPE STORAGE & RETRIEVAL APPLICATIONS DATA MANAGEMENT PACKAGE (ADM)	22482A	102	DISCRIMINANT ANALYSIS PROGRAM	22127A	403
DOS-M USER FILE DESCRIPTION DIRECTORY	22483B	102	LINEAR REGRESSION INTERVAL ESTIMATES	22129A	404
DOS-M DIRECTORY LISTING PROGRAM WITH MASKING FACILITY	22484A	022	BIOASSAY PROGRAM	22133A	404
READ/WRITE DOS-M FILES IN RTE ENVIRONMENT	22525A	110	LINEAR REGRESSION WITH REPLICATION	22135A	404
CHERNACK (HP 22198) MAGNETIC TAPE SOURCE FORMAT TO DOS-M SOURCE FILE	22530B	207	POOLING OF GROUPS IN REGRESSION	22184A	404
16K STAND-ALONE DUMP OF HP 2000C/F FORMAT MAGNETIC TAPE	22544A	102	<b>LOADERS</b>		
MAIL LIST PROCESSOR	22593A	102	BOOTSTRAP LOADER GENERATOR	22009B	017
BILL OF MATERIAL PACKAGE	22604A	705	LOADER BOOTSTRAP	22223C	017
RTE MAGNETIC TAPE FILE MANAGER	22612A	102	OFFLINE RELOCATING LOADER	22297A	017
DOS-M/2000E TIME-SHARED BASIC FILE HANDLER	22635A	102	DOS-M HARDWARE BOOT	22342A	017
TCS ORDER PROCESSING DEMONSTRATION	22665A	901	ON-LINE SYSTEM LOAD FOR MOVING-HEAD RTE	22344A	017
<b>INTEGER</b>			ON-LINE MOVING-HEAD RTE BOOTSTRAP FROM DOS-M OR DOS	22345A	017
INTEGER EXTRACTION FROM A STRING OF TEXT	22467A	104	DOS-M BOOTSTRAP PROGRAM FOR DOS-M OR DOS	22349A	017
64-BIT INTEGER LIBRARY-FORTRAN CALLABLE	22589A	021	DOS-M BOOTSTRAP PROGRAM FROM RTE	22350A	017
MICROCODED INTEGER SORT	22649A	905	MTS BOOT FROM DOS-M	22357A	017
FAST MICROCODED MULTIPLY INSTRUCTION	22661A	905	CORE RESIDENT DOS-M BOOTSTRAP	22440B	017
<b>INTEGRAL TRANSFORMS</b>			DOS-M ABSOLUTE BINARY TAPE LOADER	22480A	017
REAL FOURIER TRANSFORM	22036A	316	DOS-M AUTOLOAD ROUTINE	22519A	017
COMPLEX FOURIER TRANSFORM	22037B	316	RESTORE BASIC BINARY LOADER (PBOOT)	22533A	017
GENERAL FAST FOURIER TRANSFORM	22189B	316	DOS-M ONLINE BOOT FROM MTS	22547A	017
FAST FOURIER TRANSFORM	22218A	316	<b>LOGARITHMIC</b>		
MICROCODED FAST FOURIER TRANSFORM	22618A	905	<b>TRANSFORMATIONS</b>		
MICROCODED FAST FOURIER TRANSFORM WITH AUTOMATIC RESCALING	22624A	905	LOGARITHMIC AXIS GENERATOR FOR THE CALCOMP 565	22117A	306
<b>INTEGRATION</b>			22426A	904	
TRAPEZOIDAL INTEGRATION ROUTINE	22023A	310	<b>MAGNETIC TAPE</b>		
TRAPEZOIDAL INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22024A	310	FILE THREE INPUT FOR MTS ALGOL	22100A	016
SIMPSON AND NEWTON'S 3/8 INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22025A	310	MTS PUNCHED TAPE DUPLICATOR	22113B	106
HERMITIAN FOURTH-ORDER INTEGRATION ROUTINE	22026A	310	CARD TO MAGNETIC TAPE UTILITY	22165A	100
HERMITIAN FOURTH-ORDER INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22027B	310	MAGNETIC TAPE TO PRINT UTILITY PROGRAM	22166A	100
HERMITIAN SIXTH-ORDER INTEGRATION ROUTINE	22028A	310	RTE HP 2020 MAGNETIC TAPE DRIVER	22181A	016
HERMITIAN SIXTH-ORDER INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22029A	310	SINGLE DRIVE MAGNETIC TAPE COPY PROGRAM	22197A	100
INTEGRATION ROUTINE	22144A	310	MAGNETIC TAPE STORAGE AND RETRIEVAL PROGRAM	22198C	102
FRESNEL INTEGRAL EVALUATION	22256A	306	HP 3030G MAGNETIC TAPE DRIVER - FORTRAN CALLABLE	22208A	016
<b>INVERSE</b>			DRUM BASED MAGNETIC TAPE DUPLICATOR	22209C	106
INVERSE ASSEMBLER	22013B	010	HP 797B MAGNETIC TAPE DRIVER - BASIC CALLABLE	22239A	016
ABSOLUTE OBJECT DECODER	22292B	010	MAGNETIC TAPE TO LINE PRINTER ROUTINE	22251A	207
OCTAL ASSEMBLY PROCESSOR AND UTILITY SYSTEM	22293B	211	MTS/BCS SYSTEM ABSOLUTE DUMP	22257A	207
DOS-M RELOCATABLE REVERSE ASSEMBLER	22438A	010	DOS TO MAGNETIC TAPE DUMP	22259A	207
8K SIO RELOCATABLE REVERSE ASSEMBLER	22439A	010	MAGNETIC TAPE TO DOS DUMP	22260A	207
8K SIO ABSOLUTE REVERSE ASSEMBLER	22440A	010	MTS FORTRAN CHAIN	22267A	212
INVERSE SIN AND COS ROUTINE	22511A	306	ALGOL OPERATING SYSTEM FOR MTS	22270D	016
<b>JOB REPORTING</b>			DISC/DRUM UTILITY	22272A	102
RTE LOGBOOK	22378A	701	DOS-M DUMP/RESTORE PROGRAM	22284A	102
<b>LABEL</b>			DOS/DOS-M SOURCE STORAGE AND RETRIEVAL	22299A	102
SYMBOLIC ALPHANUMERIC GENERATOR	22016C	212	DOS/DO8-M HP 2020 MAGNETIC TAPE DRIVER	22319A	016
PAPER TAPE TITLER	22269A	212	DOS/DO8-M HP 2020/3030 MAGNETIC TAPE CONTROL PROGRAM	22328A	212
RTE ALPHANUMERIC TAPE LABEL GENERATOR	22324A	212	360 FORMAT MAGNETIC TAPE DUMP	22340A	207
<b>LANGUAGE TRANSLATORS (SEE TRANSLATORS, LANGUAGE)</b>			PACKED MAGNETIC TAPE STORAGE AND RETRIEVAL FOR DOS-M	22356A	102
<b>LEAST SQUARES</b>			MTS BOOT FROM DOS-M	22357A	017
SOLUTION OF LINEAR LEAST SQUARES PROBLEMS	22022A	309	EASY MAGNETIC TAPE I/O AND STATUS INFORMATION	22358A	100
LEAST SQUARES REGRESSION PROGRAM	22128A	404	HANDI=0	22359A	100
LINEAR REGRESSION INTERVAL ESTIMATES	22129A	404	MAGNETIC TAPE SYSTEM PROGRAM CATALOG	22446A	022
POLYNOMIAL REGRESSION PROGRAM	22130A	404	HP R100 REMOTE JOB ENTRY TO IBM MOST CPU	22453B	002
POLYNOMIAL REGRESSION CONFIDENCE INTERVALS	22131A	404	QUICK SDUMP FOR HP 7900A MOVING HEAD DISC	22454C	207
NONLINEAR REGRESSION OF A SINGLE-VARIABLE FUNCTION	22187A	404	DUMP FROM DOS-M MAGNETIC TAPE STORAGE AND RETRIEVAL (HP 22198) FORMAT	22480B	207
NONLINEAR REGRESSION OF AN ARBITRARY FUNCTION	22188A	404	LOAD DOS-M FROM MAGNETIC TAPE STORAGE & RETRIEVAL (HP 22198) FORMAT	22481B	207
LINEAR LEAST SQUARES PROBLEM SOLVER	22220A	309	HP 2020B MAGNETIC TAPE STORAGE & RETRIEVAL	22482A	102
			CREATE DSGEN MAGNETIC TAPE	22493A	000
			DOS-M RELOCATABLE PROGRAM TAPE EDITOR	22500A	101
			HEXADECIMAL/OCTAL LIST OF ANSI-COMPATIBLE MAGNETIC TAPE (TDUMP)	22501A	207
			DOS-M DRIVER PACKAGE FOR ACCESSING FRONT-END MAGNETIC TAPE	22512A	016
			CHERNACK (HP 22198) MAGNETIC TAPE SOURCE FORMAT TO DOS-M SOURCE FILE	22530B	207
			MAGNETIC TAPE COPY	22535B	106
			HP 2070/7900 DISC/MAGNETIC TAPE UTILITY (MADIU)	22542A	207
			16K STAND-ALONE DUMP OF HP 2000C/F FORMAT MAGNETIC TAPE	22544A	102
			DOS-M ONLINE BOOT FROM MTS	22547A	017
			DOS-M MAGNETIC TAPE COPY	22549A	106
			ALGOL OPERATING SYSTEM FOR MTS AND BCS LOADER, REVISION G/H	22556A	016
			8K SDUMP FOR HP 7900A MOVING HEAD DISC	22557A	207
			RTE MAGNETIC TAPE FILE MANAGER	22612A	102

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	PROGRAM NO.	CLASS CODE		PROGRAM NO.	CLASS CODE
MARK SENSE			NUMERICAL DIFFERENTIATION		
MARK SENSE EDUCATIONAL TEST CARD SCORING PROGRAM	22266A	720	SCIENTIFIC SUBROUTINE PACKAGE	22329A	021
MATHEMATICS, GENERAL			NUMERICAL INTEGRATION		
LOCATE MAXIMUM=MINIMUM INTEGER	22021A	301	TRAPEZOIDAL INTEGRATION ROUTINE	22023A	310
INTEGRATED MATH CALCULATOR PROGRAM	22084C	301	TRAPEZOIDAL INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22024A	310
TRANSFORMATIONS	22117A	306	SIMPSON AND NEWTON'S 3/8 INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22025A	310
EXTENDED-PRECISION ARITHMETIC LIBRARY	22230A	302	HERMITIAN FOURTH-ORDER INTEGRATION ROUTINE	22026A	310
COMPLEX MATH PACKAGE	22234A	303	HERMITIAN FOURTH-ORDER INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22027B	310
THREE-WORD EXTENDED PRECISION ARITHMETIC ROUTINES	22334A	302	HERMITIAN SIXTH-ORDER INTEGRATION ROUTINE	22028A	310
FIVE-WORD EXTENDED PRECISION ARITHMETIC ROUTINES	22335A	302	HERMITIAN SIXTH-ORDER INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22029A	310
FAST MICROCODED MULTIPLY INSTRUCTION	22661A	905	INTEGRATION ROUTINE	22144A	310
MATRIX OPERATIONS			ORDINARY DIFFERENTIAL EQUATIONS		
SOLUTION OF LINEAR LEAST SQUARES PROBLEMS	22022A	309	SYSTEM OF ORDINARY DIFFERENTIAL EQUATIONS	22038A	310
ADD ROWS OF MATRICES	22031A	312	ORTHOGONAL		
RANK AND BASIS ROUTINE	22032A	312	ORTHOGONAL REGRESSION PROGRAM		
SOLUTION OF SIMULTANEOUS LINEAR EQUATIONS	22033A	314	PAPER TAPE		
SOLUTION OF SIMULTANEOUS LINEAR EQUATIONS, BAND-MATRIX	22034A	314	BINARY TAPE EDITOR	22014A	212
SOLUTION OF SIMULTANEOUS LINEAR EQUATIONS, SYMMETRIC MATRIX	22035A	314	SYMBOLIC ALPHANUMERIC GENERATOR	22010C	212
MATRIX INVERSION SUBROUTINES	22118C	312	PUNCHED TAPE DUPLICATOR	22041E	106
MATRIX ARITHMETIC SUBROUTINE	22119B	312	RUN-TIME DATA INPUT FOR BASIC	22044B	009
MATRIX ARITHMETIC PROGRAM	22120A	312	HIGH SPEED PUNCH DRIVER - BASIC CALLABLE	22078B	009
SIMULTANEOUS EQUATION SOLVER PROGRAM	22122A	314	BASIC PHOTOREADER DATA INPUT	22082B	009
SIMULTANEOUS EQUATION SOLVER ROUTINE	22123A	314	KEYBOARD TAPE GENERATOR	22090A	106
LINEAR LEAST SQUARES PROBLEM SOLVER	22220A	309	MTS PUNCHED TAPE DUPLICATOR	22113B	106
SCIENTIFIC SUBROUTINE PACKAGE	22329A	021	HP 2754A PUNCH/LIST IN KT MODE	22176A	009
MEDIA CONVERSION			FAST PUNCH VERIFY		
MEDIA CONVERSION			2208=M REMOTE TAPE READER DRIVER	22246B	002
MEDIA CONVERSION	22427A	109	FAST DOS/DOS=M PHOTOREADER DRIVER	22247B	009
MEDICAL SCIENCES			RTE/DOS DUPLICATOR PROGRAM	22252A	106
HP BIOMEDICAL RESPONSE AVERAGING PROGRAM	22221B	506	PAPER TAPE TITLER	22269A	212
BLOOD ACID=BASE VARIABLES DETERMINATION PROGRAM	22222A	506	ASCII STRING SEARCH FROM PHOTOREADER	22352A	212
LUNG COMPLIANCE AND RESISTANCE MEASUREMENT SYSTEM	22249A	506	DOS=M PAPER TAPE/DISC VERIFY	22355A	106
MEMORY			DOS=M PAPER TAPE REPRODUCER	22360A	106
DATA BLOCK MOVEMENT	22204A	104	PAPER TAPE COPY	22368A	106
BCS-FORTRAN/ALGOL MEMORY ALLOCATION ROUTINE	22452A	000	CORE SIZE INDEPENDENT PHOTO READER SIO DRIVER	22490A	009
MICROPROGRAMMED INDEX REGISTER INSTRUCTIONS	22670A	905	CORE SIZE INDEPENDENT PAPER TAPE PUNCH SIO DRIVER	22491A	009
MICROCODE			RTE ALPHANUMERIC TAPE LABEL GENERATOR	22524A	212
PSEUDO-DMA INPUT (MULTI-CHANNEL)	22515A	905	PERT		
WORD MOVE (INTERRUPTABLE)	22516A	905	PERT FOR DOS/DOS=M		
MICROCODED DOS=M ROUTINES ,PWR2 AND .FLUN	22587A	905	PHYSICS		
ON-LINE ACCESS TO HP WCS (MICROBASIC)	22603A	905	COPPER=CONSTANTAN THERMOCOUPLE VOLTAGE TO CELSIUS DEGREES CONVERSION		
MICROCODED FAST FOURIER TRANSFORM	22618A	905	PLOTTING ROUTINES		
MICROCODED FAST FOURIER TRANSFORM WITH AUTOMATIC RESCALING	22024A	905	CALCOMP PLOTTER DRIVER - BASIC CALLABLE	22077B	014
BCS ACTIVITY PROFILE GEN (ACP)	22646B	212	X-Y PLOTTER ON PRINTER	22162B	904
MICROCODED INTEGER SORT	22649A	905	TIME SERIES PLOTTER	22163A	904
IBM O.S. CROSS MICROASSEMBLER FOR HP 2100	22659A	010	HISTOGRAM PLOTTER PROGRAM	22164B	904
FAST MICROCODED MULTIPLY INSTRUCTION	22661A	905	HISTOGRAM PLOTTER ROUTINE	22182A	904
BURST MODE OUTPUT INSTRUCTION	22662A	905	HIGH SPEED CONTINUOUS LINE PLOTTER FOR HP 7004B	22219A	014
BYTE DATA MANIPULATION WITH MICROCODED ROUTINES	22663A	905	X-Y PLOTTING ROUTINE	22242A	014
MICROPROGRAMMED INDEX REGISTER INSTRUCTIONS	22670A	905	OSCILLOSCOPE PLOTTING SUBROUTINE	22253C	014
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MOVING AVERAGES			PLOT, RELAY, WAIT	22263A	014
MULTIPLE			BASIC PLOT SUBROUTINES	22279A	014
DISCRIMINANT ANALYSIS PROGRAM	22127A	403	X-Y PLOTTER FOR 11 INCH PAGE PRINTER	22348A	904
STEPWISE REGRESSION PROGRAM	22132A	404	HP 7004 X-Y RECORDER LIBRARY	22390A	014
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MULTIPLE CORRELATION ROUTINE	22147A	407	LOGARITHMIC AXIS GENERATOR FOR THE CALCOMP 565	22426A	904
MULTIPLE REGRESSION PROGRAM	22185A	404	HP 7210 PLOTTER LIBRARY	22474A	904
MULTIPLE CORRELATION MATRIX PROGRAM	22186A	409	RTE HP 1331C STORAGE SCOPE DRIVER - DVR47	22505A	014
NEWTON			DOS/DOS=M HP 1331C STORAGE SCOPE LIBRARY	22509A	014
SIMPSON AND NEWTON'S 3/8 INTEGRATION ROUTINE, EQUAL INTERVAL ARGUMENT	22025A	310	DOS/DOS=M HP 1331C STORAGE SCOPE DRIVER - DVR47	22510A	014
NON=LINEAR			TEKTRONIX T4002 PLOTTER LIBRARY FOR RTE	22548A	904
NONLINEAR REGRESSION PROGRAM	22136A	404	RTE CALCOMP/TEKTRONIX PLOTTER LIBRARY	22569A	904
NONLINEAR REGRESSION OF A SINGLE-VARIABLE FUNCTION	22187A	404	UPPER/LOWER CASE CHARACTER GENERATOR FOR HP 7210	22582A	904
NONLINEAR REGRESSION OF AN ARBITRARY FUNCTION	22188A	404	POLYNOMIAL		
NON-PARAMETRIC STATISTICS			COMPLEX ROOTS OF A REAL POLYNOMIAL	22030B	311
CROSS-TABULATION PROGRAM	22121A	407	POLYNOMIAL REGRESSION PROGRAM	22130A	404
KENDALL'S COEFFICIENT OF CONCORDANCE: M	22138A	407	POLYNOMIAL REGRESSION CONFIDENCE INTERVALS	22131A	404
KENDALL'S COEFFICIENT OF CONCORDANCE	22139A	407	NONLINEAR REGRESSION OF A SINGLE-VARIABLE FUNCTION	22187A	404
KENDALL'S TAU CORRELATION	22140A	407	POLYNOMIALS AND POLYNOMIAL EQUATIONS (311)		
MULTIPLE CORRELATION ROUTINE	22147A	407	COMPLEX ROOTS OF A REAL POLYNOMIAL		
DUNCAN'S MULTIPLE RANGE TEST	22155A	407	SCIENTIFIC SUBROUTINE PACKAGE		
KOLMOGOROV-SMIRNOV GOODNESS-OF-FIT TEST	22158C	407	POWER FAIL		
WILCOXON-MANN-WHITNEY TEST	22437A	407	FORTRAN POWER FAIL LINK		
			BCS POWER FAIL TELEPRINTER DRIVER WITH AUTORESTART OPTION		

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	PROGRAM NO.	CLASS CODE		PROGRAM NO.	CLASS CODE
<b>PREPARATION OF SYSTEMS</b>			<b>REGISTER</b>		
BOOTSTRAP LOADER GENERATOR	22009B	017	HP 12551A/B RELAY REGISTER INTERFACE DRIVER -	22229B	003
AN HP 2116-FAMILY SIMULATOR FOR THE IBM 360	22042C	000	FORTRAN CALLABLE		
LOADER BOOTSTRAP	22223C	017	HP 12551B RELAY REGISTER INTERFACE DRIVER - BASIC	22313A	003
ALGOL OPERATING SYSTEM FOR MTS	22270D	010	CALLABLE		
DISC BASIC EXECUTIVE	22330A	000	RELAY TIMER FOR HP 12551B RELAY REGISTER INTERFACE	22451A	003
FTN IV CORE SAVER	22341A	100	MICROPROGRAMMED INDEX REGISTER INSTRUCTIONS	22670A	005
RELOCATABLE OBJECT UTILITY LIBRARIAN	22392A	100			
PSEUDO MULTIPROGRAMMING EXECUTIVE FOR BCS	22441A	000			
BCS-FORTRAN/ALGOL MEMORY ALLOCATION ROUTINE	22452A	000			
CREATE DSGEN MAGNETIC TAPE	22493A	000			
ALGOL OPERATING SYSTEM FOR MTS AND BCS LOADER, REVISION 6/M	22556A	010			
PATCH MERGE ABSOLUTE BINARY TAPES	22647A	000			
<b>PRINTER (SEE LINE PRINTER OR TELEPRINTER)</b>			<b>REGRESSION ANALYSIS</b>		
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