# HONEYWELL EDP

## GENERAL BULLETIN

# **SERIES 200**

## SOFTWARE CATALOG

GENERAL SYSTEM:

SUBJECT:

SPECIAL INSTRUCTIONS: ALL SYSTEMS

Composite Listing of Series 200 Software Systems.

This edition contains information regarding Series 200/Basic Programming System and Series 200/Operating System - Mod 1. Future editions of this catalog will include information regarding Series 200/Operating System - Mod 2 and Series 200/Operating System - Mod 8.

This catalog will be updated periodically by information releases in the form of Addenda.

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\*Underscoring denotes Order Number.

## PREFACE

This catalog is designed as a ready reference for information concerning Series 200 software. A Table of Contents and a cross-referenced index are provided to expedite information access. To increase the effectiveness of the catalog, each program is described in a format that presents a concise summary of equipment requirements and program functions. The following is an outline of this format.

LEVEL OF SOFTWARE	_	The appropriate software level (e.g., BASIC, MOD 1, etc.) is indicated. Presently, all Series 200 software is grouped according to equipment configuration into one of four levels: Basic, Mod 1, Mod 2, and Mod 8.
SYSTEM NAME		The name used originates from the Distribution Center in order to categorize groups of programs having similar operating environments (e.g., EASYCODER 1 references a system environment for programs such as ASSEMBLY, SORT 1, COLLATE 1, etc.).
SUBSYSTEM NAME	_	Two names are given: one functional name used in software publications, and one short name to identify the program received from the Distribution Center. Although both names refer to the same program, the functional name should be used when requesting documentation (e.g., Easycoder Assembler A rather than ASSEMBLY). Further information on subsystem designations is given below.
MINIMUM EQUIPMENT REQUIREMENTS	-	The minimum requirements listed for each program may be followed by optional hardware configurations where applicable.
DESCRIPTION	-	A brief summary of the functions and operating characteristic of the program is given.
RELATED REFERENCES	_	Any software publications containing information related to the program are referenced by their titles and order numbers.

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## NOTE

This table of contents lists only system names. However, the index was generated using both system and subsystem names, so as to enable quick and easy reference to all information. Subsystem names, wherever possible, specify the functions of the designated pieces of software. That is, names like Paper Tape Read Routine, rather than TOPPER, are used. In general, acronyms are used only as modifiers of system function names (e.g., COBOL Compiler, Easytran Symbolic Translator, etc.). Acronyms are not used, except for promotional purposes, as the formal names of software units. That is, when an acronym is used, it is accompanied by a function name (e.g., COBOL Compiler, not simply COBOL).

Programs which exist in several different versions within one or more levels are differentiated by appending to each program name a one-letter suffix which corresponds to the program's source-computer minimum memory requirements. This suffix is based on the following correspondence: <u>م</u>

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Size of Minimum Source Computer	Suffix
4K	А
8K	В
12K	С
16K	D
20K	E
24K	F
28K	G
32K	н
65K	J
131K	К
262K	$\mathbf{L}$

When programs correspond to the same size of source computer but carry different functional attributes (e.g., different peripheral environments), the basic name is augmented by appropriate adjectives and, where necessary to insure uniqueness, by an additional suffix consisting of one or more characters enclosed in parentheses. The following letters and numerals have been defined for use in such additional suffixes:

(M)	Used in	Easytran	operations
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- (P) Paper tape version
- (2) Two-character-address version
- (3) Three-character-address version
- (V) Handles variable-length data units

iv

Parenthetical suffixes are used as follows:

Old Name	<u>New Name</u>
THORP	1/2" Tape Handling Routine A(P)
Sort 1 PT	Tape Sort A(P)
IOTRAN	Tape I/O Translator A(M)

## HONEYWELL SERIES 200 SOFTWARE CATALOG

## DISTRIBUTION AGENCY

**BASIC SOFTWARE** 

SYSTEM NAME

EASYCODER 1

SUBSYSTEM NAME

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EASYCODER ASSEMBLY A ASSEMBLY

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 2 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 2 3/4 INCH MAGNETIC TAPE DRIVES

#### DESCRIPTION

EASYCODER ASSEMBLY A PROVIDES A PROGRAM ASSEMBLY SYSTEM WHICH TRANSLATES SOURCE PROGRAMS, WRITTEN IN SYMBOLIC LANGUAGE. THIS PROGRAM IS COMPOSED OF TWO PHASES REFFERED TO AS PHASE I AND PHASE II ASSEMELY. PHASE I PROCESSES THE SYMBOLIC PROGRAM INSTRUCTIONS CONVERTING THESE INSTRUCTIONS INTO PARTIALLY ASSEMBLED INTERMEDIATE CARDS (OR CARD IMAGES ON TAPE). PHASE II READS THE INTERMEDIATE CARDS (OR CARD IMAGES ON TAPE) AND PRODUCES THE PROGRAM LISTING AND THE FINISHED OBJECT PROGRAM. THE CONDENSE ROUTINE IS DESIGNED TO SUBSTANTIALLY REDUCE THE NUMBER OF CARDS (OR CARD IMAGES ON TAPE) REQUIRED TO CONTAIN AN OBJECT PROGRAM BY COMBINING SEVERAL INSTRUCTIONS OR CONSTANTS ON EACH CARD. NORMALLY. THE CONDENSE ROUTINE IS PERFORMED IMMEDIATELY AFTER ASSEMBLY TO PRODUCE A SELF-LOADING. CONDENSED OBJECT PROGRAM WHICH SIGNIFICANTLY REDUCES PROGRAM LOADING TIME. THE AVERAGE REDUCTION FACTOR REALIZED IN CONDENSING INSTRUCTIONS IS 5 TO 1. THE CONDENSED OBJECT PROGRAM CARDS ARE GENERATED IN EITHER TWO-CHARACTER OR THREE CHARACTER ADDRESS MODE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER 4K OPERATING PROCEDURES

DSI 243

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER ASSEMBLER

ORDER =041

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EASYCODER 1 SYSTEM NAME

TAPE SORT A SUBSYSTEM NAME SORT1

#### MINIMUM EQUIPMENT REQUIREMENTS

**4K CENTRAL PROCESSOR** 1 CARD READER/PUNCH 1/2 INCH MAGNETIC TAPE DRIVES

3

## OPTIONAL CONFIGURATION

- **4K CENTRAL PROCESSOR**
- CARD READER/PUNCH 1
- 3/4 INCH MAGNETIC TAPE DRIVES 3

## OPTIONAL CONFIGURATION

**4K CENTRAL PROCESSOR** CARD READER 1 1/2 INCH MAGNETIC TAPE DRIVES 3

#### OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD READER
- 3/4 INCH MAGNETIC TAPE DRIVES 3

#### DESCRIPTION

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TAPE SORT A IS A GENERAL PURPOSE PROGRAM WHICH PERFORMS BASIC SORTING FUNCTIONS ON A SERIES 200 COMPUTER EQUIPPED WITH MAGNETIC TAPE. TAPE SORT A IS COMPOSED OF THREE LOGICAL SEGMENTS; PRESORT. MERGE, LAST PASS. THE PRESORT ACCEPTS THE INPUT DATA AND PRODUCES ORDERED GROUPS OF DATA ON TWO OR MORE TAPE REELS. THE MERGE SEGMENT ORDERS THE GROUPS UNTIL ONE CONTIGUOUS GROUP REMAINS ON EACH REEL, AND THE LAST PASS COMBINES THESE GROUPS INTO A SINGLE OUTPUT TAPE FILE. CHARACTERISTICS OF THIS SORT PROCESS ARE: SORTS FIXED-LENGTH ITEMS BLOCKED ONE OR MORE PER RECORD; ALLOWS A MAXIMUM RECORD SIZE OF 800 CHARACTERSI PERFORMS THREE OR FOUR TAPE POLYPHASE MERGINGI LABELS OUTPUT TAPES AS SPECIFIED ON CONTROL CARDS PREPARED BY THE USER; PROVIDES REMEDIAL ACTIVITIES FOR HANDLING UNREADABLE RECORDS AND PROVIDES FOR INCLUSION OF OWN-CODING ELEMENTS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SORT1 AND COLLATE1

DSI 247A

SYSTEM NAME	EASYCODER	1
SUBSYSTEM NAME	COLATE A	
	COLATE1	

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 3 3/4 INCH MAGNETIC TAPE DRIVES

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD READER
- **3 3/4 INCH MAGNETIC TAPE DRIVES**

#### DESCRIPTION

COLLATE A IS A PROGRAM DESIGNED TO COMBINE TWO OR THREE FILES OF AN IDENTICAL ORDERED FORMAT INTO A SINGLE ORDERED FILE. EACH INPUT FILE MAY BE CONTAINED ON ONE OR MORE MAGNETIC TAPE REELS; THESE ARE PROCESSED SERIALLY FROM A SINGLE TAPE INPUT (I.E., NO ALTERNATE DRIVE MAY BE SPECIFIED). ALTHOUGH COLLATE A MAY BE USED TO COMBINE THE OUTPUTS OF SEVERAL SORTING OPERATIONS. IT IS PERFORMED AS A SEPARATE PROGRAM. COMPLETELY DISASSOCIATED FROM THE SORTS WHICH PRODUCE THE FILES TO BE COLLATED. CHARACTERISTICS OF COLLATE A ARE; COMBINES TWO OR THREE FILES INTO A SINGLE ORDERED FILE; ORDERS FIXED-LENGTH ITEMS BLOCKED ONE OR MORE PER RECORD UP TO A MAXIMUM OF 700 CHARACTERS; COLLATES ON UP TO SEVEN KEY FIELDS; ALLOWS MANUAL CORRECTION OR REMOVAL OF UNREADABLE RECORDS; ALLOWS CHANGES TO LABEL RECORDS OR FILE IDENTIFICATION RECORDS AND PROVIDES FOR THE INCLUSION OF OWN-CODING ELEMENTS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SORT,1 AND COLLATE1

DSI 247A

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EASYCODER 1

SUBSYSTEM NAME

SYSTEM NAME

1/2 " TAPE I/O A TIPTOP1

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR

- 1 CARD READER/PUNCH
- 1 1/2 INCH MAGNETIC TAPE DRIVE

## OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD READER
- 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE

1 3/4 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 2 1/2 INCH MAGNETIC TAPE DRIVES

#### DESCRIPTION

THIS PACKAGE CONSISTS OF A GROUP OF MACRO ROUTINES WHICH READ AND WRITE TAPE FILES AND PERFORM ASSOCIATED CONTROL OPERATIONS, SUCH AS OPENING AND CLOSING A TAPE FILE, SWAPPING TAPE UNITS, BLOCKING AND UNBLOCKING ITEMS IN DATA RECORDS, AND DETECTING READ/WRITE ERRORS WITH AUTOMATIC CORRECTION WHEN POSSIBLE. USE OF THIS PACKAGE RELIEVES THE PROGRAMMER OF PREPARING DETAILED CODING FOR EACH OF HIS TAPE FILES. MACRO INSTRUCTIONS ARE EMPLOYED WITHIN THE MAIN PROGRAM THEREBY CREATING, IN EFFECT A SINGLE ROUTINE FOR EACH FILE. USING THE PARAMETERS IN THE MACRO INSTRUCTIONS. THIS PACKAGE IS DESIGNED TO WORK WITH THE BASIC 4K EASYCODER ASSEMBLY SYSTEM AND WILL ACCEPT BLOCKED OR UNBLOCKED RECORDS. THE FILE-HANDLING MACRO ROUTINES AND THE TRANSLATOR PROGRAM ARE THE TWO MAIN ELEMENTS THAT COMPRISE THIS INPUT/OUTPUT CONTROL SYSTEM. THE INDIVIDUAL 1/2" TAPE I/O A ROUTINES ARE ASSEMBLED, DURING EASYCODER ASSEMBLY, WITH THE MAIN PROGRAM AND ARE THEN CALLED UPON AT EXECUTION TIME BY THE MACRO INSTRUCTIONS INCLUDED IN THE MAIN PROGRAM.

## FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TIPTOP 1, HALF-INCH TAPE INPUT OUTPUT PACKAGE DSI 267B

SYSTEM NAME	EASYCODER 1
SUBSYSTEM NAME	3/4" TAPE I/O B Tiptop2

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 3/4 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

## DESCRIPTION

THIS PACKAGE CONSISTS OF A GROUP OF MACRO ROUTINES WHICH READ AND WRITE TAPE FILES AND PERFORM ASSOCIATED CONTROL OPERATIONS SUCH AS OPENING AND CLOSING A TAPE FILE. SWAPPING TAPE UNITS. BLOCKING AND UNBLOCKING ITEMS IN DATA RECORDS. AND DETECTING READ/WRITE ERRORS WITH AUTOMATIC CORRECTION WHEN POSSIBLE. USE OF THIS PACKAGE RELEIVES THE PROGRAMMER OF PREPARING DETAILED CODING FOR EACH OF HIS TAPE FILES. MACRO INSTRUCTIONS ARE EMPLOYED WITHIN THE MAIN PROGRAM THEREBY CREATING. IN EFFECT. A SINGLE ROUTINE FOR EACH FILE. USING THE PARAMETERS IN THE MACRO INSTRUCTION. THIS PACKAGE WILL ACCEPT BLOCKED OR UNBLOCKED RECORDS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TIPTOP2, TAPE I/O PACKAGE FOR 3/4 INCH TAPE

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EASYCODER 1

SUBSYSTEM NAME

SYSTEM NAME

EASYCODER ASSEMBLY A(P) PT-ASSEM

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## MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 PAPER TAPE PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR

- 1 PAPER TAPE READER
- 1 PAPER TAPE PUNCH
- 1 3/4 INCH MAGNETIC TAPE DRIVE

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 Paper tape (Reader 2 1/2 Inch Magnetic tape Drives

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 2 3/4 INCH MAGNETIC TAPE DRIVES

## OPTIONAL CONFIGURATION

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4K CENTRAL PROCESSOR

- 1 PAPER TAPE READER 1 1/2 INCH MAGNETIC TAPE DRI
- 1 1/2 INCH MAGNETIC TAPE DRIVE 1 3/4 INCH MAGNETIC TAPE DRIVE

#### DESCRIPTION

PROVIDES A PROGRAM ASSEMBLY SYSTEM WHICH TRANSLATES SOURCE PROGRAMS CONTAINED ON PAPER TAPE (SYMBOLIC LANGUAGE) INTO MACHINE LANGUAGE. THIS EASYCODER ASSEMBLY PROGRAM IS CONTAINED IN EITHER TWO SELF-LOADING REELS OF PAPER TAPE LABELED ECODRP PHASE I AND ECODRP PHASE II. OR IN ONE SELF-LOADING REEL OF MAGNETIC TAPE LABELED ECODRP. PHASE I PROCESSES THE SYMBOLIC PROGRAM. PRODUCING INTERMEDIATE OUTPUT WHICH BECOMES INPUT TO PHASE II. PHASE II PRODUCES OUTPUT OF A SELF-LOADING PROGRAM OF THE ASSEMBLED OBJECT PROGRAM. IN MULTI-INSTRUCTION FORMAT. ON PAPER TAPE. OR OPTIONALLY WITH CARD IMAGES ON MAGNETIC TAPE (SINGLE INSTRUCTION PER CARD FORMAT). A SYMBOLIC AND MACHINE LANGUAGE PROGRAM LISTING, TO INCLUDE DIAGNOSTIC ERRORS DETECTED DURING ASSEMBLY. IS AN OPTIONAL FEATURE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER PAPER TAPE ASSEMBLY AND LOADER

DSI 395

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SYSTEM NAME

EASYCODER 1

SUBSYSTEM NAME

PAPER TAPE READ ROUTINE B TOPPER

## MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR 1 PAPER TAPE READER ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

READS PAPER TAPE AND TRANSLATES ANY CODING SYSTEM BY MEANS OF A USER SUPPLIED CODE CONVERSION TABLE. ALL INPUT PAPER TAPE OPERATIONS SUCH AS CHECKING TAPE LABELS, CHECKING FILE IDENTIFICATION.CHECKING FOR READ ERRORS, ETC., ARE HANDLED BY SIMPLE MACRO STATMENTS INCLUDED IN THE SOURCE PROGRAM. REDUCED PROGRAMMING EFFORT IS ONLY ONE ADVANTAGE OF THIS PACKAGE. SINCE TESTED AND EFFICIENT ROUTINES ARE EMPLOYED. PROGRAMMING ERRORS ARE REDUCED AND RECORD HANDLING IS STANDARDIZED. CARD INPUT IS ACCEPTABLE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TOPPER READ ROUTINE (PAPER TAPE)

DSI 340A

EASYCODER 1

SUBSYSTEM NAME

SYSTEM NAME

EASYCODER ASSEMBLY A/2 2K-ASSEM

MINIMUM EQUIPMENT REQUIREMENTS

2K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH

OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 CARD READER 2 1/2 INCH MAGNETIC TAPE DRIVES

OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 CARD READER

2 3/4 INCH MAGNETIC TAPE DRIVES

DESCRIPTION

ASSEMBLY ACCEPTS THE SOURCE PROGRAM CARDS AND AUTOMATICALLY PRODUCES A CORRESPONDING MACHINE-LANGUAGE PROGRAM (OBJECT PROGRAM) FOR A 2K SYSTEM.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER ASSEMBLER

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SYSTEM NAME

EASYCODER 1

SUBSYSTEM NAME

1/2" TAPE AND TERMINAL I/O B TIPTOP3

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

THIS IS AN INPUT/OUTPUT CONTROL SYSTEM FOR USE WITH PERIPHERAL EQUIPMENT IN THE IBM MODE. IT IS COMPOSED OF A SERIES OF TESTED ROUTINES WHICH MANAGE THE STANDARD INPUT/OUTPUT PROCEDURES FOR MAGNETIC TAPE, PUNCHED CARD, AND PRINTER OPERATIONS IN SUCH A WAY THAT THE NEED FOR WRITING DETAILED AND EXHAUSTIVE INPUT AND OUTPUT CODING IS ELIMINATED, THESE ROUTINES READ AND WRITE FILES, BLOCK AND UNBLOCK RECORDS, LABEL TAPE FILES, CHECK FOR ERRORS, AND HANDLE ALL PROGRAMMING FUNCTIONS NECESSARY TO COMPLETE PERIPHERAL OPERATIONS. CHANNEL-TEST CONTROL ROUTINES ARE PART OF THIS PACKAGE WHICH PERMIT THE USER TO TAKE ADVANTAGE OF SERIES 200 HARDWARE'S ABILITY TO READ AND WRITE SIMULTANEOUSLY WHILE COMPUTING. DESCRIPTIVE ENTRIES AND MACRO INSTRUCTIONS ARE PUNCHED ON CARDS AND INSERTED IN THE SOURCE PROGRAM DECK. THE INSTRUCTIONS CONTAINED IN THESE CARDS DESCRIBE THE FILES TO BE PROCESSED, PROVIDE LINKAGE WITH THE APPROPRIATE I/O ROUTINE AND WILL ACCEPT BLOCKED OR UNBLOCKED RECORDS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING; TIPTOP 3

DSI 323A

SYSTEM NAME	EASYCODER 1
SUBSYSTEM NAME	TAPE SORT A(P)

TAPE SORT A(P) Sort1Pt

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 3 3/4 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 3 3/4 INCH MAGNETIC TAPE DRIVES

#### DESCRIPTION

TAPE SORT A (P) IS A GENERAL PURPOSE PROGRAM WHICH PERFORMS BASIC SORTING FUNCTIONS ON A HONEYWELL SERIES 200 COMPUTER EQUIPPED WITH 1/2 OR 3/4 INCH MAGNETIC TAPES AND A MODEL 209 PAPER TAPE READER. TAPE SORT A(P) IS COMPOSED OF SEVERAL OPERATIONAL SEGMENTS WHICH CAN BE GROUPED INTO THREE LOGICAL SEGMENTS ; PRESORT , MERGE , AND LAST PASS. THE PRESORT SEGMENT ACCEPTS THE INPUT DATA IN THE FORM OF UNITS OF INFORMATION CALLED "ITEMS" AND PRODUCES ORDERED GROUPS OF ITEMS CALLED "STRINGS" ON TWO OR THREE TAPE REELS . THE MERGE SEGMENT COMBINES THE PRESORTED STRINGS INTO FEWER AND LONGER STRINGS DURING A SERIES OF MERGE PHASES WHICH ULTIMATELY RESULT IN ONLY ONE LONG STRING ON EACH WORK TAPE . THE LAST PASS SEGMENT FURTHER COMBINES THESE SINGLE STRINGS INTO A CONTIGUOUS SEQUENGE - THE SORTED FILE . CHARACTERISTICS OF THIS SORT PROCESS ARE: SORTS FIXED-LENGTH ITEMS BLOCKED ONE OR MORE PER RECORD : ALLOWS MAXIMUM RECORD SIZE OF 800 CHARACTERS : PERFORMS THREE OR FOUR TAPE POLYPHASE MERGING : SORTS ACCORDING TO CONTROL INFORMATION CONTAINED IN UP TO SEVEN KEY FIELDS IN EACH ITEM : SORTS UP TO ONE FULL REEL OF RECORDS : LOADS FROM PAPER TAPE : PROVIDES REMEDIAL ACTIVITES FOR HANDLING UNREADABLE RECORDS AND PROVIDES FOR INCLUSION OF OWN-CODING ELEMENTS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SORTIPT AND COLLATE1PT

DSI 396

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EASYCODER 1

SUBSYSTEM NAME

SYSTEM NAME

1/2" TAPE I/O B TIPTOP1A

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

## DESCRIPTION

1/2" TAPE I/O B PROCESSES 1/2 INCH MAGNETIC TAPE FILES CONTAINING EITHER FIXED OR VARIABLE LENGTH RECORDS ON HONEYWELL SERIES 200 COMPUTER SYSTEMS. MACRO INSTRUCTIONS ARE INCLUDED IN THE MAIN PROGRAM WHICH CALL 1/2" TAPE I/O B MACRO ROUTINES TO READ AND WRITE TAPE RECORDS. UNBLOCK AND BLOCK WITHIN RECORDS. OPEN AND CLOSE TAPE FILES AND DETECT READ/WRITE ERRORS. WHICH THIS PACKAGE WILL CORRECT WHEN POSSIBLE. AFTER A SOURCE PROGRAM IS WRITTEN WITH 1/2" TAPE I/O B MACROS. IT MUST BE SPECIALIZED BY EITHER LIBRARY PROCESSOR B OR LIBRARY PROCESSOR C AND THEN ASSEMBLED BY THE EASYCODER ASSEMBLY SYSTEM.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: 1/2-INCH TAPE INPUT/OUTPUT B + C

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SYSTEM	NAME	EASYCODER	1
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SUBSYSTEM NAME COLLATE A(P) COLATIPT

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 3 3/4 INCH MAGNETIC TAPE DRIVES

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 3 1/2 INCH MAGNETIC TAPE DRIVES

### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR

1 PAPER TAPE READER

3 3/4 INCH MAGNETIC TAPE DRIVES

#### DESCRIPTION

COLLATE A(P) IS A GENERAL PURPOSE PROGRAM LOADED FROM PAPER TAPE AND DESIGNED TO COMBINE TWO OR THREE PRESEQUENCED FILES OF IDENTICAL FORMAT INTO ONE SEQUENTIALLY ORDERED DATA FILE - THE COLLATED FILE. ALTHOUGH COLLATE A(P) MAY BE USED TO COMBINE THE OUTPUT FILES OF SEVERAL SORTING OPERATIONS, IT IS PERFORMED AS A SEPARATE PROGRAM, COMPLETELY DISASSOCIATED FROM THE SORTS WHICH PRODUCE THE FILES TO BE COLLATED. THE INPUT FILES MAY BE CONTAINED ON ONE OR MORE MAGNETIC TAPE REELS. ALL REELS CONTAINING A GIVEN FILE ARE PROCESSED SEQUENTIALLY FROM A SINGLE TAPE UNIT (I. E., NO ALTERNATE DRIVE MAY BE SPECIFIED). CHARACTERISTICS OF COLLATE A(P) ARE: COMBINES TWO OR THREE PRE-SEQUENCED FILES OF IDENTICAL FORMAT INTO A SINGLE ORDERED FILE; COLLATES FILES BY COMPARING KEY FIELDS OF ITEMS FROM EACH FILE; PROCESSES FIXED-LENGTH ITEMS BLOCKED ONE OR MORE PER RECORD (CONTAINING UP TO A MAXIMUM OF 800 OR 700 CHARACTERS WHEN COLLATING WITH 1/2 OR 3/4 INCH TAPE RESPECTIVELY); ALLOWS MANUAL CORRECTION OR DELETION OF UNREADABLE RECORDS AND PROVIDES FOR THE INCLUSION OF OWN CODING ELEMENTS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SORTIPT AND COLLATE1PT

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EASYCODER 1

SUBSYSTEM NAME

SYSTEM NAME

EASYCODER ASSEMBLY B 8K-ASSEM

MINIMUM EQUIPMENT REQUIREMENTS

8 K	CENTRAL PROCESSOR
1	CARD READER
1	CARD PUNCH

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

8 K	CENTRAL PROCESSOR		
1	CARD READER/PUNCH		
1	3/4 INCH MAGNETIC	TAPE	DRIVE

#### OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR
- 1 CARD READER
- 2 1/2 INCH MAGNETIC TAPE DRIVES

## OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR
- 1 CARD READER
- 2 3/4 INCH MAGNETIC TAPE DRIVES

## DESCRIPTION

EASYCODER ASSEMBLY B IS A TWO-PASS ASSEMBLER WHICH MAY BE LOADED FROM A CARD DECK OR TAPE. INITIALLY, PHASE I ASSEMBLY AND THE SYMBOLIC PROGRAM ARE FED INTO THE MACHINE, PRODUCING A PARTIALLY ASSEMBLED INTERMEDIATE OUTPUT PROGRAM WHICH. IN TURN, IS READ INTO THE MACHINE IMMEDIATELY FOLLOWING PHASE II ASSEMBLY TO PRODUCE THE COMPLETELY ASSEMBLED OBJECT PROGRAM. NORMALLY, THE OUTPUT OF ASSEMBLY IS THE CONDENSED-CARD OBJECT PROGRAM WHICH IS A SELF-LOADING, MACHINE-LANGUAGE VERSION OF THE SYMBOLIC PROGRAM. THE ASSEMBLY PROGRAM IS ALSO CAPABLE OF PRODUCING A PROGRAM LISTING (WHEN A PRINTER IS AVAILABLE) CONTAINING THE SYMBOLIC SOURCE PROGRAM AND THE CORRESPONDING OBJECT PROGRAM ENTRIES. OPTIONALLY A BRD FORMAT OUTPUT MAY BE PUNCHED TO BE RUN WITH CARD LOADER B.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING; EASYCODER B ASSEMBLY SYSTEM

**ORDER** = 011

SYSTEM NAME

EASYCODER 1

SUBSYSTEM NAME

SYMBOLIC UPDATE A(P) UPDATEAP

## MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 PAPER TAPE PUNCH

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH

#### DESCRIPTION

SYMBOLIC UPDATE A(P) PROVIDES A CONVENIENT MEANS FOR CORRECTING OR UPDATING AN EASYCODER SYMBOLIC PROGRAM WHICH IS STORED ON PAPER TAPE. ONE COMMON USE FOR THIS PROGRAM OCCURS WHEN THERE HAVE BEEN PERFORATING ERRORS IN THE SYMBOLIC PAPER TAPE. IN THIS CASE. THE SYMBOLIC UPDATE PROGRAM MAY BE USED TO ACCOMPLISH THE CORRECTION WITHOUT REQUIRING EITHER THE REPUNCHING OF THE ENTIRE SYMBOLIC PROGRAM OR THE REPUNCHING OF PORTIONS OF THE PROGRAM AND THEN SPLICING THE INTO THE ORIGINAL SYMBOLIC PROGRAM PAPER TAPE. ALSO, AS ITS NAME IMPLIES. THE SYMBOLIC UPDATE PROGRAM MAY BE USED TO UPDATE AN EXISTING PAPER TAPE SYMBOLIC PROGRAM OR PROVIDE A MODIFIED VERSION THEREOF. THE OUTPUT OF THE SYMBOLIC UPDATE PROGRAM IS PUNCHED ON PAPER TAPE IN SIX-LEVEL CODE WHICH HAS THE PROPER FORMAT TO BE ACCEPTED AS INPUT TO THE EASYCODER PAPER TAPE ASSEMBLY PROGRAM.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SYMBOLIC UPDATE A(P)

**ORDER =112** 

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SYSTEM NAME	EASYCODER 1
SUBSYSTEM NAME	UPDATE A
	UPDATEA

## MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH

1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH

1 3/4 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR

1 CARD READER

1 3/4 INCH MAGNETIC TAPE DRIVE

## DESCRIPTION

THE UPDATE PROGRAM IS USED TO CREATE AND MAINTAIN A FILE OF PROGRAMS ON A SELF LOADING TAPE (SLT). UPDATE IS PARTICULARLY USEFUL FOR STORING A SERIES OF PROGRAMS FROM AN EXISTING SLT. INPUT PROGRAMS MAY BE ON CARDS OR TAPE AND MAY BE SINGLE-INSTRUCTION OR CONDENSED FORM.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER 4K OPERATING PROCEDURES

DSI 243C

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER B ASSEMBLY SYSTEM

ORDER=011

SYSTEM NAME

EASYCODER 1

SUBSYSTEM NAME

LIBRARY PROCESSOR B MACROB

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#### MINIMUM EQUIPMENT REQUIREMENTS

**BK CENTRAL PROCESSOR** 

- 1 CARD READER
- 1 CARD PUNCH
  - ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR 1 CARD READER/PUNCH
- 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 3/4 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- **BK CENTRAL PROCESSOR**
- 1 CARD READER
- 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

**8K CENTRAL PROCESSOR** 

- 1 CARD READER
- 1 3/4 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR	
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- 1 PAPER TAPE READER
- 1 3/4 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR

- 1 PAPER TAPE READER AND PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE
- ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR
- 1 PAPER TAPE READER AND PUNCH
- 1 3/4 INCH MAGNETIC TAPE DRIVE
- ADVANCED PROGRAMMING OPTION

## DESCRIPTION

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MACRO IS A PROGRAM WHICH RECOGNIZES MACRO INSTRUCTIONS, OBTAINS THE MACRO ROUTINES CALLED SPECIALIZES THEM, AND INSERTS THEM INTO EASYCODER SYMBOLIC PROGRAMS. THE PROGRAM NAME MACRO SHOULD NOT BE CONFUSED WITH THE CONCEPT OF MACRO INSTRUCTIONS OR MACRO ROUTINES. A MACRO INSTRUCTION (PSEUDO INSTRUCTION) IS WRITTEN BY THE USER TO OBTAIN A MACRO ROUTINE. THE INSTRUCTION IS WRITTEN IN THE SYMBOLIC PROGRAM AT THE POINT WHERE THE MACRO ROUTINE IS WANTED AND CONTAINS PARAMETERS WHICH ARE USED BY MACRO TO SPECIALIZE THE ROUTINE. THE ROUTINE ITSELF IS A DECK OF CARDS OR (CARD IMAGES ON TAPE) FOUND IN THE GENERALIZED MACRO ROUTINE LIBRARY. IT IS INSERTED INTO A PROGRAM AS A SYMBOLIC ROUTINE EACH TIME IT IS CALLED.

FOR	FURTHER	INFO	RMATI	ON PL	EASE
	REFER	ΤO	THE F	OLLOW	ING:
	EASYCOD	ER B	ASSE	MBLY	SYSTEM

ORDER = 011

SYSTEM NAME EASYCODER 1 SUBSYSTEM NAME UPDATE B

UPDATEB

#### MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR 1 CARD READER 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- **BK CENTRAL PROCESSOR**
- 1 CARD READER/PUNCH
- 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

## DESCRIPTION

UPDATEB PERMITS MORE COMPACT STORAGE, EASIER MAINTENANCE, AND FASTER LOADING OF OBJECT PROGRAMS BY ENABLING THE USER TO STORE THEM ON MAGNETIC TAPE. UPDATEB HAS TWO SEPARATE FUNCTIONS: 1) CREATE A PROGRAM TAPE BY PLACING ONE OR MORE OBJECT CARD DECKS OR CARD-IMAGE TAPES ON A SELF-LOADING TAPE (SLT). 2) MAINTAIN AND UPDATE AN EXISTING SLT. UPDATEB WILL ACCEPT AS INPUT SELF-LOADING FORMAT OR BRD FORMAT CARD DECKS OR CARD IMAGE TAPES. ALSO, AN SLT CREATED BY UPDATEB MAY BE ACCEPTED AS INPUT TO UPDATEB.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SOFTWARE MANUAL COBOL COMPILER B

**ORDER = 292** 

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SYSTEM NAME

EASYCODER 1

SUBSYSTEM NAME

COBOL COMPILER B COBOLB

## MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

8 K	CENTRAL PROCESSOR
1	CARD PUNCH
1	CARD READER
1	PRINTER
2	1/2 INCH MAGNETIC TAPE DRIVES
	ADVANCED PROGRAMMING OPTION
	EDIT OPTION

## DESCRIPTION

COBOL COMPILER B IS BASIC COBOL COMPILER OPERATING IN AN 8K ENVIRONMENT. IT MAY BE USED AS PART OF THE EASYTAB PROGRAMMING SYSTEM. PROGRAMMING TAB OPERATIONS NOT COVERED BY ANY OF THE PRECODED EASYTAB UTILITY ROUTINES.

FOR FURTHER INFORMATION PLEASE	
REFER TO THE FOLLOWING:	
SOFTWARE MANUAL COBOL COMPILER B	ORDER = 292
EASYTAB UTILITY PROGRAMS	ORDER =206

EASYCODER 1

SUBSYSTEM NAME

SYSTEM NAME

UPDATE A (PAPER TAPE) UPDATEPT

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 3 1/2 INCH MAGNETIC TAPE DRIVES 1 PAPER TAPE READER 1 PRINTER

DESCRIPTION

PAPER TAPE UPDATE A IS USED TO CREATE AND MAINTAIN A FILE OF PROGRAMS FROM AN OLD SELF-LOADING TAPE TO A NEW SELF-LOADING TAPE UNDER CONTROL OF A PUNCHED PAPER TAPE. THE FUNCTIONS CONTROLLED BY THE ACTION DIREC-TORS PUNCHED IN THE PAPER TAPE ARE INSERTING NEW PROGRAMS AND COPYING. REPLACING AND DELETING EXISTING PROGRAMS. THE SEARCH ROUTINE IS AUTO-MATICALLY WRITTEN AS THE FIRST TWO RECORDS ON THE NEW SLT.

NOTE:

SOME FEATURES OF THIS SUBSYSTEM ARE NOT AVAILABLE WITH THE MINIMUM EQUIPMENT CONFIGURATION SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTAB UTILITY PROGRAMS

ORDER = 206

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LINK / SCOPE

SUBSYSTEM NAME

SYSTEM NAME

MONITOR Monitor

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 3/4 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR OLA

#### DESCRIPTION

MONITOR PROVIDES BUFFER AREAS AND MONITOR ROUTINES FOR ALL LINK / SCOPE ROUTINES. IT MUST PRECEDE ANY LINK / SCOPE ROUTINES IN THE ASSEMBLY DECK.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C (P) LINK A (P) ORDER =021 ORDER =033

SYSTEM NAME

LINK / SCOPE

SUBSYSTEM NAME ENDDECK ENDDECK

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 3/4 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR OLA

## DESCRIPTION

ENDDECK CAUSES BUFFER AREAS TO BE CLEARED AND THE PROGRAMS RETURNED TO THE MONITOR FOR ALL LINK / SCOPE ROUTINES. IT MUST FOLLOW LINK / SCOPE ROUTINES IN THE ASSEMBLY DECK.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) ORDER =021 SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	3/4TCU 3/4TCU

## MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 3/4 INCH MAGNETIC TAPE DRIVE

## DESCRIPTION

3/4 TCU PROVIDES TAPE HANDLING ROUTINES FOR 3/4 INCH. MAGNETIC TAPE SYSTEMS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C (P) LINK A (P) ORDER =033

SYSTEM NAME	LINK /	SCOPE

SUBSYSTEM	NAME	1/2TCU
		1/2TCU

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE

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DESCRIPTION

1/2 TCU PROVIDES TAPE HANDLING ROUTINES FOR 1/2" MAGNETIC TAPE SYSTEMS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =021 ORDER =033

SYSTEM	NAME	LINK	1	SCOPE

SUBSYSTEM NAME

MIXEDTCU MIXEDTCU

## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 2 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 2 3/4 INCH MAGNETIC TAPE DRIVES

#### DESCRIPTION

MIXEDTCU PROVIDES TAPE HANDLING ROUTINES FOR SYSTEMS WITH MORE THAN ONE TAPE CONTROL UNIT.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C (P) LINK A (P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	OLA OLA

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR OLA

## DESCRIPTION

OLA PROVIDES ROUTINES TO PROCESS INTERNAL COMMUNICATION BETWEEN AN H-800 OR H-1800 AND AN H-200.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEGUS MEDIA CONVERSION A + C (SCOPE) ORDER =021 SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033 - - -

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SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	CD-800TP CD-800TP

MINIMUM EQUIPMENT REQUIREMENTS

4 K	CENTRAL PROCESSOR		
1	CARD READER/PUNCH		
1	3/4 INCH MAGNETIC	TAPE	DRIVE

OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD READER 1 3/4 INCH MAGNETIC TAPE DRIVE

## DESCRIPTION

CD-800TP PROVIDES ROUTINES FOR INTERNAL COMMUNICATIONS BETWEEN AS MANY AS 3 CARD READERS AND 3 3/4" MAGNETIC TAPE DRIVES (TAPES IN 800/1800 FORMAT).

#### FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) ORDER = 021SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	CD-1/2TP CD-1/2TP

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

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## OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 1/2 INCH MAGNETIC TAPE DRIVE

DESCRIPTION

CD-1/2TP PROVIDES ROUTINES FOR INTERNAL COMMUNICATION BETWEEN AS MANY AS 3 CARD READERS AND 3 1/2" MAGNETIC TAPE DRIVES.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) ORDER =021 SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	800TP-PC 800TP-PC

#### MINIMUM EQUIPMENT REQUIREMENTS

4 K	CENTRAL PROCESSOR		
1	CARD READER/PUNCH		
1	3/4 INCH MAGNETIC	TAPE	DRIVE

## OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD PUNCH
- 1 3/4 INCH MAGNETIC TAPE DRIVE

## DESCRIPTION

800TP-PC PROVIDES ROUTINES FOR INTERNAL COMMUNICATIONS BETWEEN AS MANY AS 3 CARD PUNCHES AND 3 3/4" MAGNETIC TAPE DRIVES (TAPES IN 800/1800 FORMAT).

#### FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	1/2TP-PC 1/2TP-PC

## MINIMUM EQUIPMENT REQUIREMENTS

4 K	CENTRAL PROCESSOR		
1	CARD READER/PUNCH		
1	1/2 INCH MAGNETIC	TAPE	DRIVE

## OPTIONAL CONFIGURATION

4 K	CENTRAL PROCESSOR		
	CARD PUNCH		
1	1/2 INCH MAGNETIC	TAPE	DRIVE

## DESCRIPTION

1/2TP-PC PROVIDES ROUTINES FOR INTERNAL COMMUNICATIONS BETWEEN AS MANY AS 3 CARD PUNCHES AND 3 1/2" MAGNETIC TAPE DRIVES.

FOR FURTHER INFORM	ATION PLEASE		
REFER TO TH	E FOLLOWING:		
SIMULTANEOUS	MEDIA CONVERSION	A + C (SCOPE)	ORDER =021
SIMULTANEOUS	MEDIA CONVERSION	A/C(P) LINK A(P)	ORDER =033

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SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	3/4TP-PR 3/4TP-PR

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PRINTER 1 3/4 INCH MAGNETIC TAPE DRIVE

DESCRIPTION

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3/4TP-PR PROVIDES ROUTINES FOR INTERNAL COMMUNICATIONS BETWEEN AS MANY AS 3 PRINTERS AND 3 3/4"MAGNETIC TAPE DRIVES.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	1/2TP-PR 1/2TP-PR

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PRINTER 1 1/2 INCH MAGNETIC TAPE DRIVE

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DESCRIPTION

1/2TP-PR PROVIDES ROUTINES FOR INTERNAL COMMUNICATIONS BETWEEN AS MANY AS 3 PRINTERS AND 3 1/2" MAGNETIC TAPE DRIVES.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) ORDER =021 SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	P A P E R T P P A P E R T P

# MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 1/2 INCH MAGNETIC TAPE DRIVE

### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 3/4 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 PAPER TAPE PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

# DESCRIPTION

PAPERTP PROVIDES ROUTINES FOR INTERNAL COMMUNICATIONS BETWEEN AS MANY AS 3 PAPER TAPE READERS AND/OR PAPER TAPE PUNCHES AND 3 1/2" OR 3/4" MAGNETIC TAPE DRIVES.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME	LINK / SCOPE
SUBSYSTEM NAME	CD-400TP CD-400TP

# MINIMUM EQUIPMENT REQUIREMENTS

4 K	CENTRAL PROCESSOR		
1	CARD READER/PUNCH		
1	3/4 INCH MAGNETIC	TAPE	DRIVE

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# OPTIONAL CONFIGURATION

4 K	CENTRAL	PROCESSOR		
1	CARD REA	DER		
ĩ	3/4 INCH	MAGNETIC	TAPE	DRIVE

# DESCRIPTION

CD-400TP PROVIDES ROUTINES FOR INTERNAL COMMUNICATION BETWEEN AS MANY AS 3 CARD READERS WITH TRANSACTION MODE AND 3 3/4" TAPE DRIVES (400/1400 TAPE FORMAT).

FOR FURTHER INFORMATION PLEASE		
REFER TO THE FOLLOWING:		
SIMULTANEOUS MEDIA CONVERSION	A + C (SCOPE)	ORDER =021
SIMULTANEOUS MEDIA CONVERSION	A/C(P) LINK A(P)	ORDER =033

SYSTEM NAME

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LINK / SCOPE

SUBSYSTEM NAME 400TP-PC 400TP-PC

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 3/4 INCH MAGNETIC TAPE DRIVE

#### DESCRIPTION

400TP-PC PROVIDES ROUTINES FOR INTERNAL COMMUNICATION BETWEEN AS MANY AS 3 CARD PUNCHES AND 3 3/4" MAGNETIC TAPE DRIVES (TAPES IN 400/1400 FORMAT).

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SIMULTANEOUS MEDIA CONVERSION A + C (SCOPE) SIMULTANEOUS MEDIA CONVERSION A/C(P) LINK A(P) ORDER =033

SYSTEM NAME UTILITY

SUBSYSTEM NAME 1/2" TAPE HANDLING ROUTINE A THOR

# MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 1/2 INCH MAGNETIC TAPE DRIVE  $\sim$ 

## DESCRIPTION

1/2" TAPE HANDLING ROUTINE A IS A SET OF GENERAL TAPE HANDLING AND CORRECTION ROUTINES FOR USE ON SERIES 200 COMPUTERS. UNDER THE DIRECTION OF INPUT PARAMETERS (EITHER READ FROM PUNCHED CARDS OR ENTERED FROM THE CONTROL PANEL), THIS PACKAGE OF ROUTINES CAN BE INSTRUCTED TO PERFORM THE FOLLOWING OPERATIONS: POSITION A TAPE FORWARD; POSITION A TAPE BACKWARD; REWIND FROM ONE THROUGH THE MAXIMUM NUMBER OF TAPES ON A TAPE CONTROL UNIT; WRITE A DUMMY HEADER LABEL ON A TAPE; LOCATE AN ITEM ON TAPE CONTAINING SPECIFIED INFORMATION WITHIN A DEFINED FIELD; COPY INFORMATION FROM ONE TAPE TO ANOTHER; COPY A RECORD FROM ONE TAPE TO ANOTHER CORRECTING SPECIFIED INFORMATION WITHIN THAT RECORD; COMPARE ONE RECORD WITH ANOTHER, PRINTING THOSE RECORDS IN WHICH DIFFERENCES OCCUR AND EDIT RECORDS, OR SPECIFIED FIELDS WITHIN RECORDS, FROM A TAPE TO A PRINTER.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: THOR 1/2-INCH TAPE HANDLING OPTION ROUTINES ORDER =438

SYSTEM NAME UTILITY

SUBSYSTEM NAME 3/4" TAPE HANDLING ROUTINE A THORA

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

### OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD READER
- 1 3/4 INCH MAGNETIC TAPE DRIVE

#### DESCRIPTION

3/4" TAPE HANDLING ROUTINE A IS A SET OF GENERAL TAPE HANDLING AND CORRECTION ROUTINES FOR USE ON HONEYWELL SERIES 200 COMPUTERS. UNDER THE DIRECTION OF INPUT PARAMETERS (WHICH ARE READ FROM PUNCHED CARDS OR ENTERED FROM THE CONTROL PANEL), THIS PACKAGE OF ROUTINES CAN BE INSTRUCTED TO PERFORM THE FOLLOWING OPERATIONS: POSITION A TAPE FORWARD; POSITION A TAPE BACKWARD; REWIND FROM ONE THROUGH THE MAXIMUM NUMBER OF TAPES ON THE TAPE CONTROL UNIT; LOCATE AN ITEM ON TAPE CONTAINING SPECIFIED INFORMATION WITHIN A DEFINED FIELD; COPY INFORMATION FROM ONE TAPE TO ANOTHER; COPY A RECORD FROM ONE TAPE TO ANOTHER CORRECTING SPECIFIED INFORMATION WITHIN THAT RECORD; COPY A RECORD FROM ONE TAPE TO ANOTHER USING A SKIP COPY INSTRUCTION, COMPARE ONE RECORD WITH ANOTHER PRINTING THOSE RECORDS IN WHICH DEFFERENCES OCCUR AND EDIT RECORDS OR SPECIFIED FIELDS WITHIN RECORDS, FROM A TAPE TO A PRINTER.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: THOR-A 3/4-INCH TAPE-HANDLING OPTION ROUTINES DSI 292

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

INTEGER MULTIPLY/DIVIDE A(2V) MUL-DIVA

MINIMUM EQUIPMENT REQUIREMENTS

2K CENTRAL PROCESSOR

### DESCRIPTION

THE INTEGER MULTIPLY/DIVIDE A(2V) SUBROUTINES ARE DESIGNED TO ACCOMODATE REQUIREMENTS FOR INTEGER MULTIPLY/DIVIDE (2 CHARACTER ADDRESS MODE, VARIABLE-LENGTH DATA UNITS) AT INCREASED SPEEDS BY IMPOSING MAXIMA ON THE FIELD LENGTHS OF THE ARGUMENTS. USING THESE SUBROUTINES, IT TAKES APPROXIMATELY 4.0 MSEC. TO MULTIPLY FIVE DECIMAL DIGITS BY FIVE DECIMAL DIGITS AND 4.4 MSEC. TO DIVIDE FIVE DECIMAL DIGITS INTO FIVE DECIMAL DIGITS. THESE SUBROUTINES ARE CALLED THRU THE MEDIA OF LINKAGE STATEMENTS CONTAINED IN THE MAIN OPERATING PROGRAM.

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

TABULATING SIMULATOR A TABSIM

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER EDIT OPTION

OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER EDIT OPTION

OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH EDIT OPTION

OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 1 1/2 INCH MAGNETIC TAPE DRIVE EDIT OPTION

### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE EDIT OPTION

### DESCRIPTION

THE TABULATING SIMULATOR A SUBROUTINE PROVIDES THE MEDIA FOR SIMULATING THE OPERATIONS OF STANDARD TABULATING EQUIPMENT AND PRINTED AND/OR PUNCHED REPORTS FROM AN INPUT OF EITHER A DECK OF PUNCHED CARDS OR A SERIES OF CARD IMAGES ON MAGNETIC TAPE. THIS SUBROUTINE CAN PERFORM ANY OF THE FOLLOWING FUNCTIONS: PRINT A LISTING OF ALL DETAIL DATA CARDS (INCLUDES EDITING AND REARRANGEMENT); GROUP PRINT THE DETAIL DATA CARDS; ARITHMETICALLY PROCESS DETAIL DATA (ADD, SUBTRACT, MULTIPLY AND DIVIDE); PROVIDE TOTALS DERIVED FROM DETAIL DATA; CROSSFOOT DETAIL DATA PRINT RESULTS; PRINT HEADING LINES; PUNCH SUMMARY CARDS AND PERFORM ALL CONTROL FUNCTIONS ASSOCIATED WITH THESE OPERATIONS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TABULATING SIMULATORS A AND B

SYSTEM NAME UTILITY

SUBSYSTEM NAME SYMBOLIC UPDATE A CARDUP

# MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH

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#### DESCRIPTION

CARDUP IS A UTILITY ROUTINE USED TO MAINTAIN SERIES 200 SYMBOLIC SOFTWARE IN THE FIELD.

SYSTEM NAME

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UTILITY

SUBSYSTEM NAME

TABULATING SIMULATOR B TAB8K

MINIMUM EQUIPMENT REQUIREMENTS

- **8K CENTRAL PROCESSOR**
- 1 CARD READER/PUNCH
- 1 PRINTER
- EDIT OPTION

## OPTIONAL CONFIGURATION

- **BK CENTRAL PROCESSOR**
- 1 CARD READER
- 1 PRINTER
  - EDIT OPTION

#### OPTIONAL CONFIGURATION

- **8K CENTRAL PROCESSOR**
- 1 CARD READER
- 1 CARD PUNCH
- EDIT OPTION

#### OPTIONAL CONFIGURATION

- **BK CENTRAL PROCESSOR**
- 1 CARD READER
- 1 PRINTER
- 1 1/2 INCH MAGNETIC TAPE DRIVE
- EDIT OPTION

### OPTIONAL CONFIGURATION

- **8K CENTRAL PROCESSOR**
- 1 CARD READER
- 1 CARD PUNCH
- 1 1/2 INCH MAGNETIC TAPE DRIVE
  - EDIT OPTION

# DESCRIPTION

TABULATING SIMULATOR B IS AN EXTENSION OF THE BASIC TABULATING SIMULATOR A PROGRAM AND IS CAPABLE OF RECOGNIZING 20 DIFFERENT TYPES OF DETAIL DATA CARDS, PERFORMING STERLING CONVERSION ROUTINES AND ACCOMODATING THE FOLLOWING FUNCTIONS: PRINT A LISTING OF ALL DETAIL DATA CARDS (INCLUDES EDITING AND REARRANGEMENT); GROUP PRINT THE DETAIL DATA CARDS; ARITHMETICALLY PROCESS DETAIL DATA (ADD, SUBTRACT, MULTIPLY AND DIVIDE); PROVIDE TOTALS DERIVED FROM DETAIL DATA; CROSSFOOT DETAIL DATA AND PRINT RESULTS, PRINT HEADING LINES; PUNCH SUMMARY CARDS AND PERFORM ALL CONTROL FUNCTIONS ASSOCIATED WITH THESE OPERATIONS, ARITHMETIC OPERATIONS ARE PERFORMED ON STERLING QUANTITIES AND EDITING SUCH QUANTITIES FOR OUTPUT. IN POUNDS SHILLINGS AND PENCE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TABULATING SIMULATORS A AND B

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

FLOATING POINT SCIENTIFIC SUBROUTINES A SCI-MATH

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR ADVANCED PROGRAMMING OPTION

DESCRIPTION

THE FLOATING POINT/ARITHMETIC COMPARISON A SUBROUTINE PROVIDES MATHEMATICAL PROCESSING TO ADD, SUBTRACT, MULTIPLY OR DIVIDE VARIABLE LENGTH FLOATING POINT OPERANDS, AND PERFORMS FLOATING POINT INEQUALITY OR LESS THAN COMPARISONS. THE STANDARD PACKAGE USES A MANTISSA SET EQUAL TO 10 CHARACTERS. THE SUBROUTINE IS IN 3 CHARACTER ADDRESS MODE. THE SUBROUTINE IS CALLED USING LINKAGE STATEMENTS IN THE MAIN OPERATING PROGRAM.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING; SCIENTIFIC SUBROUTINE LIBRARY

DSI 424

# SYSTEM NAME

UTILITY

SUBSYSTEM NAME

1/2" TAPE HANDLING ROUTINE A(P) THORP

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR

1 PAPER TAPE READER AND PUNCH

1 1/2 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 PAPER TAPE READER

1 1/2 INCH MAGNETIC TAPE DRIVE

#### DESCRIPTION

THE 1/2" TAPE HANDLING ROUTINE A(P) IS A SET OF GENERAL TAPE HANDLING AND CORRECTION ROUTINES FOR USE ON SERIES 200 COMPUTERS. THIS PACKAGE OF ROUTINES IS ESSENTIALLY A PAPER TAPE VERSION OF THE 1/2" TAPE HANDLING ROUTINE A (FORMERLY THOR) AND IS DESIGNED TO MANIPULATE 1/2 INCH MAGNETIC TAPES. UNDER THE DIRECTION OF INPUT PARAMETERS (EITHER READ FROM PAPER TAPE OR ENTERED FROM THE CONTROL PANEL). THIS PACKAGE OF ROUTINES CAN BE INSTRUCTED TO PERFORM THE FOLLOWING OPERATIONS: POSITION A TAPE FORWARD; POSITION A TAPE BACKWARD; REWIND FROM ONE THROUGH THE MAXIMUM NUMBER OF TAPES ON A TAPE CONTROL UNIT; WRITE A DUMMY HEADER LABEL ON A TAPE; LOCATE AN ITEM ON TAPE CONTAINING SPECIFIED INFORMATION WITHIN A DEFINED FIELD; COPY INFORMATION FROM ONE TAPE TO ANOTHER CORRECTING SPECIFIED INFORMATION WITHIN THAT RECORD; COMPARE ONE RECORD WITH ANOTHER PRINTING THOSE RECORDS IN WHICH DIFFERENCES OCCUR AND EDIT RECORDS, OR SPECIFIED FIELDS WITHIN RECORDS. FROM A TAPE TO A PRINTER.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: THOR-P AND THOR-AP, PAPER TAPE UTILITY ROUTINES DSI 324

SYSTEM NAME UTILITY

SUBSYSTEM NAME

3/4" TAPE HANDLING ROUTINE A(P) THORAP

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 PAPER TAPE READER
- 1 3/4 INCH MAGNETIC TAPE DRIVE

#### DESCRIPTION

THE 3/4" TAPE HANDLING ROUTINE A(P) IS A SET OF GENERAL TAPE HANDLING AND CORRECTION ROUTINES FOR USE ON SERIES 200 COMPUTERS. THIS PACKAGE OF ROUTINES IS ESSENTIALLY A PAPER TAPE VERSION OF THE 3/4"TAPE HANDLING ROUTINE A (FORMERLY THORA) AND IS DESIGNED TO MANIPULATE 3/4 INCH MAGNETIC TAPES. UNDER THE DIRECTION OF INPUT PARAMETERS (EITHER READ FROM PAPER TAPE OR ENTERED FROM THE CONTROL PANEL). THIS PACKAGE OF ROUTINES CAN BE INSTRUCTED TO PERFORM THE FOLLOWING OPERATIONS: POSITION A TAPE FORWARD; POSITION A TAPE BACKWARD; REWIND FROM ONE THRU THE MAXIMUM NUMBER OF TAPES ON A TAPE CONTROL UNIT; WRITE A DUMMY HEADER LABEL ON A TAPE; LOCATE AN ITEM ON TAPE CONTAINING SPECIFIED INFORMATION WITHIN A DEFINED FIELD; COPY INFORMATION FROM ONE TAPE TO ANOTHER CORRECTING SPECIFIED INFORMATION WITHIN THAT RECORD; COMPARE ONE RECORD WITH ANOTHER PRINTING THOSE RECORDS IN WHICH DIFFERENCES OCCUR AND EDIT RECORDS. OR SPECIFIED FIELDS WITHIN RECORDS FROM A TAPE TO A PRINTER.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: THOR-P AND THOR-AP, PAPER TAPE UTILITY ROUTINES DSI 324

UTILITY

SUBSYSTEM NAME

SYSTEM NAME

INTEGER MULTIPLY/DIVIDE A(3V) MUL-DIVB

MINIMUM EQUIPMENT REQUIREMENTS

# 2K CENTRAL PROCESSOR

#### DESCRIPTION

THE INTEGER MULTIPLY/DIVIDE A (3V) SUBROUTINES ARE DESIGNED TO ACCOMODATE REQUIREMENTS FOR INTEGER MULTIPLY/DIVIDE (3 CHARACTER ADDRESS MODE, VARIABLE-LENGTH DATA UNITS) AT INCREASED SPEEDS BY IMPOSING MAXIMA ON THE FIELD LENGTHS OF THE ARGUMENTS. USING THESE SUBROUTINES, IT TAKES APPROXIMATELY 5.0 MSEC. TO MULTIPLY FIVE DECIMAL DIGITS BY FIVE DECIMAL DIGITS AND 5.3 MSEC. TO DIVIDE FIVE DECIMAL DIGITS INTO FIVE DECIMAL DIGITS. THESE SUBROUTINES ARE CALLED THRU THE MEDIA OF LINKAGE STATEMENTS CONTAINED IN THE MAIN OPERATING PROGRAM.

UTILITY

SUBSYSTEM NAME

SYSTEM NAME

INTEGER MULTIPLY/DIVIDE A(3) MUL-DIVC

MINIMUM EQUIPMENT REQUIREMENTS

# 2K CENTRAL PROCESSOR ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

THE INTEGER MULTIPLY/DIVIDE A (3) SUBROUTINES ARE DESIGNED TO ACCOMODATE REQUIREMENTS FOR INTEGER MULTIPLY/DIVIDE (3 CHARACTER ADDRESS MODE, MAXIMUM FIELD LENGTH 10 CHARACTERS) AT INCREASED SPEEDS BY IMPOSING MAXIMA ON THE FIELD LENGTHS OF THE ARGUMENTS. USING THE SUBROUTINES IT TAKES APPROXIMATELY 2390 USEC. (AVERAGE) TO MULTIPLY AND 2316 USEC. (AVERAGE) TO DIVIDE. THE SUBROUTINES ARE CALLED THRU THE MEDIA OF LINKAGE STATEMENTS CONTAINED IN THE MAIN OPERATING PROGRAM.

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SYSTEM NAME UTILITY

SUBSYSTEM NAME

FLOATING-POINT/FIXED-POINT CONVERSION A FF-CONV

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR ADVANCED PROGRAMMING OPTION

### DESCRIPTION

THE FLOATING-POINT/FIXED-POINT CONVERSION A SUBROUTINE CONVERTS A DECIMAL FLOATING POINT NUMBER WITH A 2 CHARACTER EXPONENT AND ANY LENGTH MANTISSA TO A VARIABLE LENGTH DECIMAL INTEGER, AND A SECOND PACKAGE THAT CONVERTS A VARIABLE LENGTH DECIMAL INTEGER TO A FLOATING DECIMAL NUMBER WITH A 2 CHARACTER EXPONENT AND MANTISSA OF ANY FIELD LENGTH. THIS SUBROUTINE IS CALLED USING LINKAGE STATEMENTS IN THE MAIN OPERATING PROGRAM.

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

TAPE HANDLING ROUTINE A

#### MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 CARD READER 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 CARD READER 1 3/4 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 1/2 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 3/4 INCH MAGNETIC TAPE DRIVE 3

# DESCRIPTION

THE TAPE HANDLING ROUTINE B PROVIDES EXPANDED TAPE HANDLING OPTION ROUTINES FOR MANIPULATING 1/2 INCH AND/OR 3/4 INCH MAGNETIC TAPES UNDER THE DIRECTION OF PARAMETERS READ FROM CARDS, PAPER TAPE OR ENTERED FROM THE CONTROL PANEL. THIS PACKAGE OF ROUTINES PERFORMS SUCH OPERATIONS AS REWINDING TAPES, EDITING TAPES, AND COPYING INFORMATION FROM ONE TAPE TO ANOTHER UNDER THE DIRECTION OF INPUT PARAMETERS. IN BRIEF, ALL FUNCTIONS THAT ARE PERFORMED SEPARATELY FOR 1/2" TAPE HANDLING ROUTINE A, 3/4"TAPE HANDLING ROUTINE A, 1/2" TAPE HANDLING ROUTINE A(P) AND 3/4"TAPE HANDLING ROUTINE A(P) CAN BE HANDLED BY THIS PROGRAM IN A SYSTEM HAVING AT LEAST 8K OF CORE MEMORY. OF PARTICULAR IMPORTANCE, HOWEVER, IS THE ABILITY OF THIS PROGRAM TO MANIPULATE BOTH 1/2 AND 3/4 INCH MAGNETIC TAPES IN A SINGLE OPERATION.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TAPE HANDLING ROUTINE B

DSI 537

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

INTEGER MULTIPLY/DIVIDE A(2) MUL-DIVD

#### MINIMUM EQUIPMENT REQUIREMENTS

# 2K CENTRAL PROCESSOR ADVANCED PROGRAMMING OPTION

# DESCRIPTION

THE INTEGER MULTIPLY/DIVIDE A(2) SUBROUTINES ARE DESIGNED TO ACCOMODATE REQUIREMENTS FOR INTEGER MULTIPLY/DIVIDE (2 CHARACTER ADDRESS MODE WITH MAXIMUM FIELD LENGTH OF 10 CHARACTERS) AT INCREASED SPEEDS BY IMPOSING MAXIMA ON THE FIELD LENGTHS OF THE ARGUMENTS. USING THE SUBROUTINES IT TAKES APPROXIMATELY 2508 USEC. (AVERAGE) TO MULTIPLY AND 3039 USEC. TO DIVIDE. THESE SUBROUTINES ARE CALLED THRU THE MEDIA OF LINKAGE STATEMENTS IN THE MAIN OPERATING PROGRAM.

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SYSTEM NAME

UTILITY

SUBSYSTEM NAME

REPORT GENERATOR A(3) RG-3CHAR

MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH EDIT OPTION

#### DESCRIPTION

REPORT GENERATOR B IS DESIGNED FOR SERIES 200 COMPUTERS HAVING 1/2" TAPE DRIVES AND, WITH ONLY MINOR MODIFICATIONS, HANDLES INPUT SYMBOLIC DECKS PREPARED FOR THE 1401 RPG PROGRAM. A SIGNIFICANT FEATURE IS THAT THE MODIFIED PROGRAM WILL RUN ON THE SERIES 200 AT FASTER SPEEDS THAN WERE POSSIBLE WITH THE ORIGINAL 14<sup>0</sup>1 RPG PROGRAM. THE TWO MAJOR STEPS IN THE PROCESS OF OPERATING THE SERIES 200 REPORT GENERATOR ARE (1) DESCRIBING THE REPORT AND ESTABLISHING THE FORMAT WHICH THE OUTPUT WILL TAKE AND (2) GENERATING THE SYMBOLIC PROGRAM WHICH IS LATER ASSEMBLED AND THEN EXECUTED TO PRODUCE THE REQUISITE REPORT. CARD INPUT IS DOUBLE BUFFERED AND CARD OUTPUT IS DOUBLE BUFFERED FOR ALL PUNCHED CARDS WHICH DO NOT USE THE STACKER-SELECT FEATURE. ALSO ON-LINE PRINTER OUTPUT IS DOUBLE-BUFFERED.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: REPORT GENERATOR A AND B

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

REPORT GENERATOR A(2) RG=2CHAR

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER EDIT OPTION

### OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE EDIT OPTION

#### DESCRIPTION

REPORT GENERATOR A IS DESIGNED FOR SERIES 200 COMPUTERS HAVING 1/2" TAPE DRIVES AND, WITH ONLY MINOR MODIFICATIONS, HANDLES INPUT SYMBOLIC DECKS PREPARED FOR THE 1401 RPG PROGRAM. A SIGNIFICANT FEATURE IS THAT THE MODIFIED PROGRAM WILL RUN ON THE SERIES 200 AT FASTER SPEEDS THAN WERE POSSIBLE WITH THE ORIGINAL 1401 RPG PROGRAM. THE TWO MAJOR STEPS IN THE PROCESS OF OPERATING THE SERIES 200 REPORT GENERATOR ARE (1) DESCRIBING THE REPORT AND ESTABLISHING THE FORMAT WHICH THE OUTPUT WILL TAKE AND (2) GENERATING THE SYMBOLIC PROGRAM WHICH IS LATER ASSEMBLED BY EASYCODER INTO AN OBJECT PROGRAM AND EXECUTED TO PRODUCE THE REQUISITE REPORT. CARD INPUT, CARD OUTPUT AND PRINTED OUTPUT IS SINGLE BUFFERED USING REPORT GENERATOR A.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: REPORT GENERATOR A AND B

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

MEMORY DUMP A Memdump

MINIMUM EQUIPMENT REQUIREMENTS

2K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER

OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 PRINTER 1 1/2 INCH MAGNETIC TAPE DRIVE

## OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER

OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 PRINTER

OPTIONAL CONFIGURATION.

2K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 PRINTER

#### OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR 1 PRINTER 1 3/4 INCH MAGNETIC TAPE DRIVE

#### DESCRIPTION

THE MEMORY DUMP ROUTINE EDITS AND PRINTS THE CONTENTS OF CORE MEMORY (BOTH DATA AND PUNCTUATION BITS) WITHIN LIMITS SPECIFIED AT THE TIME OF EXECUTION. THE ROUTINE CONSISTS OF TWO SEPARATE PARTS: THE MAIN BODY OF THE ROUTINE AND A PRINT BUFFER. THE MEMORY DUMP ROUTINE IS SELF-INITIALIZING; ONCE BROUGHT INTO MEMORY. IT MAY BE USED TO DUMP THE SAME OR DIFFERENT AREAS AS OFTEN AS DESIRED.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: MEMORY DUMP A

DSI 243B

SYSTEM NAME UTILITY

SUBSYSTEM NAME CRITICAL PATH METHOD A CPM-A

## MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 PRINTER
- 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

### DESCRIPTION

CPM-A IS A MANAGEMENT TOOL DESIGNED TO ASSIST IN THE PLANNING, SCHEDULING, AND CONTROL OF A PROJECT BY MEANS OF NETWORK ANALYSIS. IT PROVIDES A METHOD OF MONITORING THE DURATION AND COST OF ACTIVITIES AND POINTS OUT THE CRITICAL PATH OF A PROJECT SO THAT THE PRINCIPLE OF MANAGEMENT BY EXCEPTION MAY BE USED TO ENSURE THAT THE PROJECT'S SCHEDULE IS MET.

NOTE

SOME FEATURES OF THIS SUBSYSTEM ARE NOT AVAILABLE WITH THE MINIMUM EQUIPMENT CONFIGURATIONS SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: CRITICAL PATH METHOD A

UTILITY

SUBSYSTEM NAME

SYSTEM NAME

2

DATA CONVERSION A DATCONA

#### MINIMUM EQUIPMENT REQUIREMENTS

2K CENTRAL PROCESSOR 1 printer

1 1/2 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR

1 CARD READER

1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR

1 CARD PUNCH

1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

2K CENTRAL PROCESSOR

1 CARD READER/PUNCH

1 1/2 INCH MAGNETIC TAPE DRIVE

# DESCRIPTION

DATA CONVERSION A IS A SET OF THREE GENERALIZED TERMINAL CONVERSION ROUTINES: 1. CARD-TO-TAPE A, WHICH CONVERTS A PUNCHED-CARD FILE TO A CARD-IMAGE FILE ON MAGNETIC TAPE. 2. TAPE-TO-PRINTER A, WHICH CONVERTS A PRINT-IMAGE FILE ON MAGNETIC TAPE TO PRINTED COPY. 3. TAPE-TO-PUNCH A. WHICH CONVERTS A CARD-IMAGE FILE ON MAGNETIC TAPE TO A PUNCHED-CARD FILE. THE ROUTINES MAY BE SPECIALIZED AS INDEPENDENT PROGRAMS, SIMULTANEOUS MEDIA CONVERSION TERMINAL ROUTINE, OR FOREGROUND PROGRAMS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TAPE-TO-PRINTER ROUTINE A AND C

UTILITY

SUBSYSTEM NAME

SYSTEM NAME

STATISTICS PACKAGE D STAT-D

# MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR

- 1 CARD READER
- 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

### OPTIONAL CONFIGURATION

- 16K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# OPTIONAL CONFIGURATION

- 16K CENTRAL PROCESSOR
- 1 CARD READER AND PUNCH
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# DESCRIPTION

THE SERIES 200 STATISTICS PACKAGE D IS A SET OF FIVE PROGRAMS WHICH ENABLE THE USER TO PERFORM STATISTICAL ANALYSES OF SCIENTIFIC DATA. THE USER MAY COMPUTE MEASURES OF CENTRAL TENDENCY AND VARIABILITY FOR THE DESCRIPTION OF FREQUENCY DISTRIBUTIONS, ANALYZE BOTH SINGLE AND MULTIVARIATE RELATIONSHIPS IN TERMS OF DEPENDENCE OR INDEPENDENCE, AND DETERMINE THE DEGREE OF CORRESPONDENCE BETWEEN SELECTED SETS OF VARIABLES.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: STATISTICS PACKAGE D

ORDER =159

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SYSTEM NAME	UTILITY
SUBSYSTEM NAME	EASYTAB D EASYTABD

#### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR
1 CARD READER
1 PRINTER
4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR
1 CARD READER/PUNCH
1 PRINTER
4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 CARD READER 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR
1 PRINTER
5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 CARD READER/PUNCH

5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 6 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# DESCRIPTION

THE EASYTAB SYSTEM IS A SERIES OF SEVEN UTILITY PROGRAMS WHICH ENABLE THE USER TO PERFORM THE FOLLOWING TAB OPERATIONS ON A SERIES 200 COMPUTER: SORTING; UPDATE MAGNETIC TAPE FILES; BASIC INPUT/OUTPUT OPERATIONS; TOTALING; REPRODUCING; MERGING; AND SELECTING.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTAB UTILITY PROGRAMS

ORDER = 206

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SYSTEM NAME UTILITY

SUBSYSTEM NAME LINEAR PROGRAMMING PACKAGE D

MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR

- 1 CARD READER/PUNCH
- 1 PRINTER
- 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION EDIT OPTION

OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

- 1 CARD READER
- 1 CARD PUNCH
- 1 PRINTER
- 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION
  - EDIT OPTION

### DESCRIPTION

THE HONEYWELL SERIES 200 LINEAR PROGRAMMING PACKAGE D IS A MATHEMATICAL PROCEDURE WHICH OPTIMIZES PROBLEMS DEALING WITH THE INTERACTION OF MANY VARIABLES SUBJECT TO CERTAIN RESTRAINING CONDITIONS. IT IS A MAX-IMIZING ALGORITHM CALLED THE STANDARD SIMPLEX METHOD. IT ALSO HAS "COST RANGING" AND "RIGHT-HAND SIDE RANGING CAPABILITIES. LPD IS WRIT-TEN IN FORTRAN SOURCE LANGUAGE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: LINEAR PROGRAMMING PACKAGE D

SYSTEM	NAME	UTILITY

SUBSYSTEM	NAME	EASYTAB B
		EASYTABB

#### MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR
1 CARD READER/PUNCH
1 PRINTER
2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR
1 CARD PUNCH
1 CARD READER
1 PRINTER
2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

# OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

## DESCRIPTION

THE EASYTAB SYSTEM IS A SERIES OF SEVEN UTILITY PROGRAMS WHICH ENABLE THE USER TO PERFORM THE FOLLOWING TAB OPERATIONS ON A SERIES 200 COMPUTER: SORTING, UPDATE MAGNETIC TAPE FILES, BASIC INPUT/OUTPUT OPERATIONS, TOTALING, REPRODUCING, MERGING, AND SELECTING.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTAB UTILITY PROGRAMS

ORDER = 206

3

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UTILITY

SUBSYSTEM NAME

SYSTEM NAME

LINEAR PROGRAMING PACKAGE H (BASIC) LPH-B

# MINIMUM EQUIPMENT REQUIREMENTS

32K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER 5 1/2 INCH MAGNETIC TAPE DRIVES

DESCRIPTION

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LPH-B IS A SERIES 200 SOFTWARE SYSTEM DESIGNED TO ASSIST MANAGERS AND SCIENTISTS IN MAKING TIMELY, ACCURATE OPERATIONAL DECISIONS. THE SYSTEM PRESENTS A SYSTEMATIC APPROACH TO OPERATIONS RESEARCH, AND CAN BE USED TO SOLVE LINEAR PROGRAMMING PROBLEMS IN SUCH FIELDS AS INDUSTRY, TRANSPORTATION, AGRICULTURE, ECONOMICS, AND ENGINEERING.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: LINEAR PROGRAMMING SYSTEM H(BASIC)

SYSTEM NAME

UTILITY

SUBSYSTEM NAME

TABULATING SIMULATOR A (120) TAB120A

MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER EDIT OPTION

### RESTRICTIONS

THIS SUBSYSTEM WILL NOT RUN ON THE FOLLOWING MACHINES

> H-200 H-1200 H-2200 H-4200 H-8200

# DESCRIPTION

TABULATING SIMULATOR A (120) IS A ROUTINE THAT PROVIDES THE MEDIA FOR SIMULATING THE OPERATIONS OF STANDARD TABULATING EQUIPMENT ON THE H-120. TAB120A WILL RUN ONLY ON A H-120 CENTRAL PROCESSOR.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TABULATING SIMULATORS A AND B

ORDER = 168

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SYSTEM NAME

SUBSYSTEM NAME

UTILITY

TABULATING SIMULATOR B (120) Tab120b

MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER EDIT OPTION

RESTRICTIONS

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THIS SUBSYSTEM WILL NOT RUN ON THE FOLLOWING MACHINES

> H-200 H-1200 H-2200 H-4200 H-8200

#### DESCRIPTION

TABULATING SIMULATOR B (120) IS A ROUTINE THAT PROVIDES THE MEDIA FOR SIMULATING THE OPERATIONS OF STANDARD TABULATING EQUIPMENT ON THE H-120. TAB120B WILL RUN ONLY ON A H-120 CENTRAL PROCESSOR.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TABULATING SIMULATORS A AND B

SYSTEM NAME

LIBERATOR

SUBSYSTEM NAME

BRIDGE OBJECT TRANSLATOR A BRIDGE

### MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

BRIDGE ACCEPTS A 1401 MACHINE-LANGUAGE PROGRAM AS A SOURCE PROGRAM. ANALYZES, AND TRANSFORMS IT INTO SERIES 200 MACHINE-LANGUAGE OBJECT PROGRAM AND PRODUCES A PROGRAM LISTING WITH DIAGNOSTICS. THE RESULTANT OBJECT PROGRAM CAN THEN BE LOADED DIRECTLY INTO THE MACHINE FOR SUBSEQUENT PRODUCTION RUNS. THE BRIDGE PROGRAM ACCEPTS A 1401 OBJECT PROGRAM LOAD DECK PUNCHED IN AUTOCODER CONDENSED, SPS SINGLE INSTRUCTION (TWO FORMATS), OR SPS CONDENSED FORMATS. THE ACTIVITIES PERFORMED BY THE CONVERSION PROGRAM ARE DIVIDED INTO FIVE (5) PHASES: PHASE 1 - LOADING THE 1401 PROGRAM TO BE CONVERTED; PHASE 2 - ANALYSIS OF THE PROGRAMS TO BE CONVERTED; PHASE 3 - WRITES THE 1401 PROGRAM, AS ANALYZED, TO MAGNETIC TAPE OR PUNCHED CARDS; PHASE 4 - CONVERTS THE 1401 PROGRAM, PUNCHES SERIES 200 PROGRAM OR WRITES PROGRAM TO TAPE AND PRODUCES AN OBJECT PROGRAM LISTING; AND PHASE 5 - OPTIONAL PHASE USED ONLY WHEN CONDENSED SERIES 200 LOAD CARD FORMAT IS DESIRED.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING; BRIDGE REGERENCE MANUAL (LIBERATOR)

DSI 392

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LIBERATOR

SUBSYSTEM NAME

SYSTEM NAME

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EASYTRAN SYMBOLIC TRANSLATOR B ETRAN200

### MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR
1 CARD READER
1 CARD PUNCH
1 PRINTER
4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION EVEN PARITY OPTION IBM FORMAT FEATURE HOLE COUNT CONTROL ON PUNCH

# OPTIONAL CONFIGURATION

- **8K CENTRAL PROCESSOR**
- 1 CARD READER/PUNCH
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION EVEN PARITY OPTION IBM FORMAT FEATURE HOLE COUNT CONTROL ON PUNCH

## DESCRIPTION

EASYTRAN SYMBOLIC TRANSLATOR B IS AN AUTOMATIC TRANSLATING PROGRAM FOR CONVERTING 1401 AND 1460 SYMBOLIC PROGRAMS TO HONEYWELL ASSEMBLY LANGUAGE. SPS. AUTOCODER. OR MIXED SPS/AUTOCODER SYMBOLIC PROGRAMS ARE ACCEPTED AND CONVERTED TO SYMBOLIC EASYCODER LANGUAGE. THE FOUR PHASES OF EASYTRAN ARE: SPS-TO-AUTOCODER PREPASS OF EASYTRAN WHEREIN SPS STATEMENTS ARE CONVERTED TO SYMBOLIC AUTOCODER LANGUAGE. THE NEXT THREE PHASES TRANSLATE AUTOCODER PROGRAMS INTO SYMBOLIC EASYCODER LANGUAGE. BECAUSE SPS-TO-AUTOCODER PREPASS IS AN INDEPENDANT SEGMENT OF EASYTRAN, SPS PROGRAMS MAY BE CONVERTED TO SYMBOLIC AUTOCODER LANGUAGE ON A BATCH BASIS. THE BATCH TAPE OF AUTOCODER SYMBOLIC PROGRAMS MAY THEN BE CONVERTED TO EASYCODER.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTRAN SYMBOLIC TRANSLATOR B AND C

SYSTEM NAME LIBERATOR

SUBSYSTEM NAME TAPE I/O TRANSLATOR A(M) IOTRAN

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH

# OPTIONAL CONFIGURATION

4K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

# OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR 1 CARD READER/PUNCH
- 1 3/4 INCH MAGNETIC TAPE DRIVE

### DESCRIPTION

THE PRIMARY FUNCTION OF I/O TRANSLATOR A(M) IS TO PRE-ASSEMBLE THE 1401 SYMBOLIC DECK WITH LINKAGES TO THE 1/2"TAPE I/O B(M) PROGRAM. SUBSEQUENTLY, THE INPUT AND I/O SYMBOLIC PROGRAMS ARE ASSEMBLED BY AN EASYCODER RUN. SENSE SWITCHES ARE USED TO INDICATE IF TAPE, PUNCHED CARD OR PRINTED OUTPUT IS DESIRED.

#### NOTE:

THIS PACKAGE IS TO BE USED ONLY WITH REVISION O OF 1/2 TAPE I/O B(M). ALL LATER REVISIONS OF THE LATTER ARE PROCESSED BY LIBRARY PROCESSOR B.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: 1/2 TAPE I/O B SUPPLEMENT TO EASYTRAN MANUAL ORDER =010

SYSTEM NAME LIBERATOR

SUBSYSTEM NAME

1/2" TAPE I/O B(M) TRIO

### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE

#### DESCRIPTION

THE 1/2" TAPE I/O B(M) PROGRAM IS DESIGNED TO GENERATE SYMBOLIC ROUTINES TO PERFORM MAGNETIC TAPE HANDLING FUNCTIONS. THIS PROGRAM REPLACES THE 1401 IOCS CALLS CONTAINED IN PROGRAMS CONVERTED BY EASYTRAN. THE EASYCODER PROGRAM PRODUCED BY EASYTRAN IS MODIFIED BY THE PROGRAMMER TO INCLUDE APPROPRIATE MACRO STATEMENTS. THE RESULTANT SYMBOLIC PROGRAM AND THE 1/2" TAPE I/O B(M) SYMBOLIC PROGRAM ARE PROCESSED BY A PRE-ASSEMBLY PHASE (TAPE I/O TRANSLATOR A(M) AND ARE THEN ASSEMBLED BY AN EASYCODER RUN. THE ACTION PERFORMED BY THIS PROGRAM DIFFERS FROM THAT OF OTHER SERIES 200 CONTROL PACKAGES IN THAT THIS PROGRAM DOES NOT ITSELF PERFORM THE INPUT/OUTPUT ACTION CALLED FOR. THE CODING FOR THESE ACTIONS IS INCLUDED IN THE PROGRAM PRODUCED BY EASYTRAN. THIS I/O CONTROL PACKAGE RECOGNIZES CALLS FOR I/O ACTION AND TRANSFERS CONTROL TO THE APPROPRIATE CODING. USE OF THIS SOFTWARE PACKAGE PERMITS THE FOLLOWING OPERATIONS: READING AND WRITING OF TAPE RECORDS: UNBLOCKING OF RECORDS DURING INPUT AND BLOCKING OR REBLOCKING FOR OUTPUT; OPENING AND CLOSING TAPE FILES; AND CHECKING FOR READ/WRITE ERRORS WITH AUTOMATIC CORRECTION WHERE POSSIBLE.

# NOTE:

THIS PACKAGE IS TO BE USED ONLY WITH REVISION O OF 1/2 TAPE I/O B(M). ALL LATER REVISIONS OF THE LATTER ARE PROCESSED BY LIBRARY PROCESSOR B.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTRAN SYMBOLIC TRANSLATOR B AND C

SYSTEM NAME

LIBERATOR

SUBSYSTEM NAME

1401 ADDRESS TRANSLATOR A(M) ADTABLES

#### MINIMUM EQUIPMENT REQUIREMENTS

4K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER

## OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR 1 CARD READER/PUNCH
- 1 PRINTER

## DESCRIPTION

THIS IS AN AUXILIARY PROGRAM USED WITH BRIDGE. THE TRANSLATOR PROCESS PRODUCES A CHART CONTAINING EQUIVALENT VALUES UP TO 16K FOR DECIMAL, OCTAL, AND 1401 THREE-CHARACTER CODED DECIMAL ADDRESSES. THE OUTPUT OF THIS PROGRAM IS USED IN DEBUGGING AND HAND-TAILORING 1401 PROGRAMS WHICH ARE TRANSLATED BY BRIDGE. IT PROVIDES THE USER WITH A READY REFERENCE FOR CONVERSION BETWEEN ACTUAL DECIMAL ADDRESSES. OCTAL ADDRESSES AND CODED DECIMAL ADDRESSES.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: LIBERATOR PROGRAMS

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SYSTEM NAME LIBERATOR

SUBSYSTEM NAME EASYTRAN SYMBOLIC TRANSLATOR C EXT-ETRN

### MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION EVEN PARITY OPTION IBM FORMAT FEATURE HOLE COUNT CONTROL ON PUNCH

### OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION EVEN PARITY OPTION IBM FORMAT FEATURE HOLE COUNT CONTROL ON PUNCH

### DESCRIPTION

EASYTRAN SYMBOLIC TRANSLATOR C IS AN ADVANCED VERSION OF EASYTRAN SYMBOLIC TRANSLATOR B (FORMERLY EASYTRAN 200), WHICH CONVERTS SYMBOLIC PROGRAMS FROM 1401 OR 1460 SPS/AUTOCODER TO SERIES 200 EASYCODER ASSEMBLY LANGUAGE. THERE ARE TWO PRINCIPAL DIFFERENCES BETWEEN BASIC AND EXTENDED EASYTRAN: THE EXTENDED VERSION PRODUCES EXTENDED EASYCODER SYMBOLIC OUTPUT WHICH IS ASSEMBLED UNDER EASYCODER ASSEMBLY C; AND THE EXTENDED VERSION AUTOMATICALLY TRANSLATES IOCS MACRO INSTRUCTIONS (CALLS), DIOCS ENTRIES AND DTF ENTRIES INTO HONEYWELL 1/2"TAPE AND TERMINAL I/O B (FORMERLY TIPTOP3) MACRO CALLS, DIOCS ENTRIES, AND DTF ENTRIES, ELIMINATING THE NECESSITY FOR TRANSLATING IOCS WITH THE HONEYWELL PROGRAM TAPE I/O TRANSLATOR A(M) (FORMERLY IOTRAN). THE FUNCTIONAL DESCRIPTION OF EASYTRAN SYMBOLIC TRANSLATOR C, THE OPERATING PROCEDURES, AND THE METHOD FOR INITIALLY CREATING A SYSTEMS TAPE ARE IDENTICAL TO THOSE FOR EASYTRAN SYMBOLIC TRANSLATOR B.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTRAN SYMBOLIC TRANSLATOR B AND C

SYSTEM NAME

APPLICATIONS

SUBSYSTEM NAME

INVENTORY SIMULATION SYSTEM MFG-ISIM

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## MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD PUNCH 1 PRINTER 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION EDIT OPTION

## OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION EDIT OPTION

### DESCRIPTION

THE INVENTORY SIMULATION SYSTEM DEMONSTRATES THE TECHNIQUES USED BY FICS (FORECASTING FOR INVENTORY CONTROL SYSTEM). THIS SYSTEM USES AN ADVANCED EXPONENTIAL SMOOTHING TECHNIQUE TO FORECAST REQUIREMENTS AND PLANS THE INVENTORY REQUIRED TO OPERATE A FIXED LOT SIZE-VARIABLE REORDER CYCLE SYSTEM.

FOR FURTHER INFORMATION PLEASEREFER TO THE FOLLOWING:FICS-FORCASTING FOR INVENTORY CONTROL SYSTEMORDER =186FICS-FORCASTING FOR INVENTORY CONTROLORDER =071

SYSTEM NAME

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APPLICATIONS

SUBSYSTEM NAME

FORCASTING FOR INVENTORY CONTROL SYSTEM MFG-FICS

# MINIMUM EQUIPMENT REQUIREMENTS

- **8K CENTRAL PROCESSOR**
- 1 CARD READER
- 1 CARD PUNCH
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

### OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### DESCRIPTION

FICS (FORECASTING FOR INVENTORY CONTROL) UTILIZES AN ADVANCED EXPONEN-TIAL SMOOTHING TECHNIQUE TO ANALYZE SALES DATA WHICH MAY INCLUDE TRENDS AND RANDOM FLUCTUATIONS, ROUTINE FORECASTS ARE GENERATED AND USED IN PLANNING LOT SIZES. SAFETY STOCKS, AND REORDER POINTS. ACCURATE FORE-CASTS OF EXPECTED SALES ARE VITAL FOR PRODUCTION SCHEDULING AND INVEN-TORY CONTROL.

FOR FURTHER INFORMATION PLEASE<br/>REFER TO THE FOLLOWING:<br/>FICS-FORCASTING FOR INVENTORY CONTROL SYSTEMORDER =186<br/>ORDER =186FICS-FORCASTING FOR INVENTORY CONTROLORDER =071

SYSTEM NAME APPLICATIONS

SUBSYSTEM NAME COMPUTERIZED PORTFOLIO ANALYSIS

## MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

# OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES

### DESCRIPTION

COMPUTERIZED PORTFOLIO ANALYSIS ENABLES A SUBSCRIBER TO STANDARD AND POOR'S COMPUSTAT SERVICE TO EVALUATE AND COMPARE THE FINANCIAL STATUS AND PERFORMANCE OF 1,000 INDUSTRIAL AND UTILITY COMPANIES RAPIDLY AND SIMULTANECUSLY.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: COMPUTERIZED PORTFOLIO ANALYSIS

ORDER =029

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SYSTEM	NAME	APPLICATIONS

SUBSYSTEM NAME WORDCOM WORDCOM

MINIMUM EQUIPMENT REQUIREMENTS

- **8K CENTRAL PROCESSOR**
- 1 CARD READER
- 1 CARD PUNCH
- 1 PRINTER
- 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

- **8K CENTRAL PROCESSOR**
- 1 CARD READER/PUNCH
- 1 PRINTER
- 2 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

# DESCRIPTION

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WORDCOM IS A SIMPLIFIED BUT REALISTIC COMPUTER LANGUAGE. WITH IT. EDUCATIONAL INSTITUTIONS CAN USE THEIR SERIES 200 COMPUTER TO TEACH FUNDAMENTAL COMPUTING PRINCIPLES. STUDENTS CAN WRITE WORKABLE PROGRAMS. GAIN INSIGHT INTO THE WAY A COMPUTER WORKS, AND LEARN ALL THE FUNDAMENTALS OF ASSEMBLY AND MACHINE LANGUAGE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: WORDCOM INSTRUCTIONAL PROGRAMMING LANGUARE

SYSTEM NAME APPLICATIONS

SUBSYSTEM NAME MANAGE MANAGE

# MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 3 1/2 INCH MAGNETIC TAPE DRIVES

# OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR
 1 CARD READER/PUNCH
 1 PRINTER
 3 1/2 INCH MAGNETIC TAPE DRIVES

DESCRIPTION

MANAGE IS A PERT-LIKE COMPUTER SOFTWARE PACKAGE WHICH IS USED AS A TOOL FOR SCHEDULING A COMPUTER SYSTEMS INSTALLATION. MANAGE MAY ALSO BE USED BY AN OPERATING INSTALLATION FOR SCHEDULING NEW APPLICATIONS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: MANAGE REFERENCE MANUAL

ORDER=181

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SYSTEM NAME

# APPLICATIONS

SUBSYSTEM NAME AUTOLOG AUTOLOG

### MINIMUM EQUIPMENT REQUIREMENTS

- **4K CENTRAL PROCESSOR**
- 1 CARD READER
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES

# OPTIONAL CONFIGURATION

- 4K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES

#### DESCRIPTION

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AUTOLOG IS A SERIES OF PROGRAMS WHICH PRODUCE DETAILED REPORTS ON EQUIPMENT UTILIZATION FOR SERIES 200 CUSTOMERS. AUTOLOG REPORTS PROVIDE AN ACCURATE RECORD OF ALL JOBS PER-FORMED AND THE SPECIFIC EQUIPMENT UNITS INVOLVED, AS WELL AS THE CAUSES OF RERUNS AND DOWNTIME. THIS INFORMATION IN TURN REDUCES THE TIME NEEDED TO COMPILE OPERATING STATISTICS AND PROVIDES DATA WHICH THE USER CAN QUICKLY ANALYZE IN ORDER TO SUGGEST PERTINENT REMEDIAL ACTION.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: AUTOLOG REFERENCE MANUAL

SYSTEM NAME APPLICATIONS

SUBSYSTEM NAME PROFIT PROFIT

MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR
1 CARD READER
1 CARD PUNCH
1 PRINTER
3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

DESCRIPTION

PROFIT- PROGRAMMING, REVIEWING, ORDERING AND FORCASTING INVENTORY TECHNIQUE- PERFORMS THREE COMPREHENSIVE SERVICES :

- 1. MAINTAINING, AT LEAST COST, THE REQUSITE INVENTORY TO SUPPORT A DESIRED LEVEL OF CUSTOMER SERVICE.
- 2. REPLENISHING INVENTORY ON A SINGLE OR JOINT ECONOMIC-ORDER-QUANTITY BASIS.
- 3. SCHEDULING OF INBOUND FREIGHT.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: PROFIT REFERENCE HANDBOOK

ORDER = 224

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SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

PLUS LOADER MONITORS PLUS1

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

# DESCRIPTION

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THE TAPE LOADER MONITORS SEARCH FOR, LOAD, AND START SERIES 200 PROGRAMS WHICH ARE RECORDED ON A BINARY RUN TAPE (BRT). THE OBJECT PROGRAMS STORED ON A BRT MAY HAVE BEEN ASSEMBLED BY EASYCODER ASSEMBLY C OR COMPILED BY EITHER THE COBOL D+H COMPILERS OR THE FORTRAN D COMPILER.

CARD LOADER MONITOR B SEARCHES FOR, LOADS, AND STARTS SERIES 200 PROGRAMS PUNCHED ON CARDS IN A BINARY RUN TAPE (BRT) FORMAT. A GIVEN PROGRAM IS IDENTIFIED BY VARIOUS COMBINATIONS OF KEYS OR SEARCH PARAMETERS. A CALL TO SEARCH FOR AND LOAD A PROGRAM MAY ORIGINATE FROM EITHER THE OPERATOR OR ANOTHER PROGRAM.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: CARD LOADER MONITOR B TAPE LOADER MONITOR C

ORDER =154 ORDER =221

SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

UPDATE AND SELECT C UPSELC

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 PRINTER
- 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

## 12K CENTRAL PROCESSOR

1 CARD READER/PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES

ADVANCED PROGRAMMING OPTION

# DESCRIPTION

UPDATE AND SELECT C IS DESIGNED TO MAINTAIN A MASTER FILE OF EXECUTABLE PROGRAMS IN MACHINE-LANGUAGE FORM, UPDATE THE BINARY EXECUTABLE PROGRAMS AND SELECT PROGRAMS FROM THIS FILE FOR EXECTUION. THIS PROGRAM CAN PERFORM THE FOLLOWING OPERATIONS: INSERT A DESIGNATED UNIT INTO THE MASTER FILE; DELETE A SPECIFIED UNIT FROM THE MASTER FILE; POSITION THE MASTER AFTER A GIVEN UNIT; SELECT A UNIT (OR BLOCK OF UNITS) AND PLACE IT ON A SELECTED RUNTAPE; AND BACKUP THE MASTER FILE AND SELECT A DESIGNATED UNIT (OR BLOCK OF UNITS), PLACING THE UNIT (S) ON A SELECTED RUNTAPE. UPDATING THE MASTER FILE IS ACCOMPLISHED BY WRITING A NEW MASTER TAPE, ADDING, DELETING OR REPLACING UNITS OF CODE AS SPECIFIED BY THE DIRECTOR DECK. SELECTION CONSISTS OF CREATING A SELECTED RUNTAPE BY COPYING SPECIFIED UNITS FROM EITHER THE NEW MASTER TAPE OR THE INPUT TAPE. AS WITH UPDATING, SELECTION IS CONTROLLED BY THE DIRECTOR DECK SPECIFIES THE ORDER IN WHICH THE PROGRAMS WILL APPEAR ON THE SELECTED RUNTAPE.

NOTE

SOME FEATURES OF THIS PROGRAM NOT AVAILABLE WITH MINIMUM CONFIGURATIONS SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: UPDATE AND SELECT C AND D

SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

LIBRARY PROCESSOR C LIB PROC

### MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR

- 1 CARD READER
- 3 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 PAPER TAPE READER
- 3 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR

- 1 PAPER TAPE READER AND PUNCH
- 3 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD PUNCH
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### DESCRIPTION

LIBRARY PROCESSOR C IS USED PRIOR TO THE ASSEMBLY OF A EXTENDED EASYCODER SOURCE PROGRAM. THIS PROGRAM INSERTS MACRO ROUTINES WHICH EXIST ON THE SYMBOLIC PROGRAM TAPE (SPT) INTO SOURCE PROGRAMS IN RESPONSE TO MACRO INSTRUCTIONS (CALLS) WITHIN THE SOURCE PROGRAMS, AND SPECIALIZES EACH ROUTINE TO PERFORM THE SPECIFIED FUNCTION DESIRED. LIBRARY PROCESSOR C HAS THE SAME FUNCTION IN MOD 1 THAT THE PROGRAM MACRO B HAS IN THE BASIC SYSTEM. THE SAME TERMS ARE USED IN THE DESCRIPTION OF BOTH PROGRAMS. THE SOURCE PROGRAMS AND MACRO ROUTINES ARE PROCESSED BY LIBRARY PROCESSOR C WHICH IS STORED ON THE BINARY RUN TAPE (BRT). THE PROCESSING REPRODUCES THE SOURCE PROGRAM(S). INSERTING THE SPECIALIZED MACRO ROUTINES TO FORM A NEW DECK WHICH IS NOW READY FOR ASSEMBLY BY EASYCODER ASSEMBLY C OR D.

NOTE:

SOME FEATURES OF THIS PROGRAM NOT AVAILABLE WITH MINIMUM CONFIGURATIONS SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE **REFER TO THE FOLLOWING:** LIBRARY PROCESSOR C AND D

**ORDER = 051** 

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SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

EASYCODER ASSEMBLY C ASSEMBLC

### MINIMUM EQUIPMENT REQUIREMENTS

- 12K CENTRAL PROCESSOR
- 1 CARD READER
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 PAPER TAPE READER
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 PAPER TAPE READER AND PUNCH
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

### 12K CENTRAL PROCESSOR

- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

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- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
  - 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 PAPER TAPE READER
- 4 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

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12K CENTRAL PROCESSOR

- 1 PAPER TAPE READER AND PUNCH
  - 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### DESCRIPTION

EASYCODER ASSEMBLY C ACCEPTS PROGRAMS WRITTEN IN EASYCODER SYMBOLIC LANGUAGE, ASSEMBLES THEM, STORES THEM IN ABSOLUTE FOR<sup>M</sup> ON A EXECUTABLE RUN TAPE AS WELL AS IN AN UPDATABLE SYMBOLIC LIBRARY; PROVIDES FOR INDIVIDUAL UPDATING, REASSEMBLY, AND SELECTION OF PROGRAMS FROM THE LIBRARY. ALLOWS FOR BATCH PROCESSING AND INCLUDES A MACRO-PROCESSING SYSTEM. THREE TYPES OF SYMBOLIC STATEMENTS ARE INCLUDED IN THE EASYCODER LANGUAGE. DATA FORMATTING STATEMENTS - THROUGH USE OF THESE STATEMENTS, ASSEMBLY IS INSTRUCTED TO SET UP CONSTANTS AND RESERVE MEMORY AREAS AND TO PUNCTUATE MEMORY TO INDICATE FIELD BOUNDRIES; ASSEMBLY CONTROL STATEMENTS - THESE STATEMENTS INSTRUCT ASSEMBLY IN THE PERFORMANCE OF A WIDE VARIETY OF FUNCTIONS RELATING TO THE PROCESS OF CREATING AN OBJECT PROGRAM AND; MACHINE INSTRUCTION STATEMENTS - THESE ARE THE SYMBOLIC INSTRUCTIONS WHICH ARE CONVERTED BY THE ASSEMBLY INTO MACHINE-LANGUAGE COMMANDS.

NOTE: SOME FEATURES OF THIS PROGRAM NOT AVAILABLE WITH MINIMUM CONFIGURATIONS SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER ASSEMBLERS C AND D

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SYSTEM NAME EASYCODER 2

SUBSYSTEM NAME BRT PUNCH C

PLUS2

## MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

### DESCRIPTION

BRT PUNCH C CONVERTS OBJECT PROGRAMS FROM BINARY RUN TAPE RECORDS TO PUNCHED CARDS FOR EXECUTION UNDER CARD LOADER MONITOR B. UP TO SIX BRT'S MAY SUPPLY INPUT PROGRAMS TO BE PUNCHED ON CARDS. BRT PUNCH C IS CAPABLE OF SEARCHING ANY OF THE SIX BRT'S FOR ANY PROGRAM. THE OPERATION OF THIS PROGRAM IS CONTROLLED BY A DIRECTOR FILE, WHICH IS READ FROM EITHER CARDS OR A CARD-IMAGE MAGNETIC TAPE. OUTPUT OF BRT PUNCH C IS A BRT-FORMAT CARD DECK. SUITABLE FOR LOADING AND EXECUTION UNDER CARD LOADER MONITOR B. UNDER A OUTPUT OPTION, HOWEVER, BRT PUNCH C MAY BE DIRECTED TO PRODUCE A CARD-IMAGE TAPE FOR SUBSEQUENT CONVERSION TO BRT-FORMAT CARDS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: BRT PUNCH C

SYSTEM	NAME	EASYCODER	2

SUBSYSTEM NAME TAPE SORT C SORT2

### MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 CARD READER/PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### DESCRIPTION

TAPE SORT C IS DESIGNED TO PERFORM SORTING FUNCTIONS ON SERIES 200 COMPUTERS USING 1/2 INCH MAGNETIC TAPE UNITS AND FIXED LENGTH RECORDS. THIS PROGRAM IS COMPOSED OF SEVERAL OPERATIONAL SEGMENTS WHICH CAN BE GROUPED INTO THREE LOGICAL SEGMENTS: PRESORT; MERGE; AND LAST PASS. THE PRESORT ACCEPTS THE INPUT DATA IN THE FORM OF FIXED LENGTH UNITS OF INFORMATION CALLED "ITEMS" AND DISTRIBUTES ORDERED GROUPS OF ITEMS CALLED "STRINGS" ON FROM TWO TO FIVE TAPES. THE MERGE COMBINES THE PRESORTED STRINGS INTO FEWER AND LONGER STRINGS DURING A SERIES OF MERGE PHASES WHICH ULTIMATELY RESULT IN ONLY ONE LONG STRING ON EACH WORK TAPE EXCEPT ONE. THE LAST PASS FURTHER COMBINES THESE SINGLE STRINGS INTO CONTIGUOUS SEQUENCE-THE SORTED FILE. THIS PROGRAM WILL SORT FIXED LENGTH ITEMS ALLOW A MAXIMUM RECORD SIZE DEPENDENT UPON THE NUMBER OF TAPES USED IN THE MERGET PERFORMS READ-BACKWARD; POLYPHASE MERGING USING FROM THREE TO SIX TAPES; SORT ACCORDING TO CONTROL INFORMATION CONTAINED IN UP TO TEN SORT KEY FIELDS IN EACH ITEM; SORT UP TO ONE FULL REEL OF TAPE; LABEL OUTPUT TAPES AS SPECIFIED BY THE USER; PROVIDE REMEDIAL ACTIVITIES FOR HANDLING UNREADABLE RECORDS; PROVIDE FOR INCLUSION OF OWNCODING ELEMENTS; AND PROVIDES THE FINAL OUTPUT TAPE ON A SPECIFIED DRIVE (WORK TAPE 1).

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TAPE SORT C + COLLATE C

ORDER = 018

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SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

TAPE HANDLING ROUTINE C THORX

#### MINIMUM EQUIPMENT REQUIREMENTS

**8K CENTRAL PROCESSOR** 

- 1 CARD READER/PUNCH
- 1 1/2 INCH MAGNETIC TAPE DRIVE
  - ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR
- 1 CARD READER
- 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

- 8K CENTRAL PROCESSOR
- 1 PAPER TAPE READER AND PUNCH
- 1 1/2 INCH MAGNETIC TAPE DRIVE
- ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- **8K CENTRAL PROCESSOR**
- 1 PAPER TAPE READER
- 1 1/2 INCH MAGNETIC TAPE DRIVE
- ADVANCED PROGRAMMING OPTION

### DESCRIPTION

TAPE HANDLING ROUTINE C PROVIDES EXPANDED TAPE HANDLING OPTION ROUTINES FOR MANIPULATING 1/2 AND/OR 3/4 INCH MAGNETIC TAPES UNDER THE DIRECTION OF PARAMETERS READ FROM CARDS, READ FROM PAPER TAPE, OR ENTERED FROM THE CONTROL PANEL. THIS PROGRAM PERFORMS SUCH OPERATIONS AS REWINDING TAPES, EDITING TAPES, AND COPYING INFORMATION FROM ONE TAPE TO ANOTHER UNDER THE DIRECTION OF INPUT PARAMETERS. IN BRIEF, ALL ACTIONS PERFORMED BY 1/2" TAPE HANDLING ROUTINE A, 3/4" TAPE HANDLING ROUTINE A, 1/2" TAPE HANDLING ROUTINE A(P), AND 3/4" TAPE HANDLING ROUTINE A(P) CAN BE HANDLED BY TAPE HANDLING ROUTINE C IN A SYSTEM HAVING AT LEAST 8K OF CORE MEMORY. OF PARTICULAR IMPORTANCE, HOWEVER. IS THE ABILITY OF THIS PROGRAM TO MANIPULATE BOTH 1/2 AND 3/4 INCH MAGNETIC TAPE UNITS IN A SINGLE OPERATION. IN ADDITION, THIS PROGRAM IS CAPABLE OF OPERATING WITH THE BASIC, INTERMEDIATE, AND EXTENDED EASYCODER SYSTEMS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TAPE HANDLING ROUTINE B

SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

1/2" TAPE TERMINAL I/O C TIPTOP3

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

## DESCRIPTION

1/2" TAPE AND TERMINAL I/O C IS FUNCTIONALLY COMPATIBLE WITH THE IBM 1401 IOCS (INPUT OUTPUT CONTROL SYSTEM). IT IS COMPOSED OF A SERIES OF ROUTINES WHICH MANAGE THE STANDARD INPUT/OUTPUT PROCEDURES FOR 1/2" MAGNETIC TAPE, PUNCHED CARD, AND PRINTER OPERATIONS IN SUCH A WAY THAT THE NEED FOR WRITING DETAILED AND EXHAUSTIVE INPUT AND OUTPUT CODING IS ELIMINATED. THIS PACKAGE SUPPLIES THE USER WITH ROUTINES WHICH READ AND WRITE FILES, BLOCK AND UNBLOCK RECORDS, LABEL TAPE FILES, CHECK FOR ERRORS, AND HANDLE ALL THE PROGRAMMING FUNCTIONS NECESSARY TO COMPLETE PERIPHERAL OPERATIONS. CHANNEL-TEST CONTROL ROUTINES ARE INCLUDED IN THIS PACKAGE WHICH PERMIT THE USER TO TAKE ADVANTAGE OF THE ABILITY OF SERIES 200 READ AND WRITE SIMULTANEOUSLY WHILE COMPUTING. TWO TYPES OF SOURCE PROGRAM CODING ARE REQUIRED: DESCRIPTIVE ENTRIES AND MACRO INSTRUCTIONS. THIS CODING IS PUNCHED ON CARDS AND IS INSERTED IN THE SOURCE PROGRAM DECK. THESE ARE SUPPLIED AUTOMATICALLY WHEN A PROGRAM IS TRANSLATED BY EASYTRAN C

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: 1/2-INCH TAPE AND TERMINAL I/O B AND C

ORDER =010

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SYSTEM NAME	EASYCODER 2
SUBSYSTEM NAME	ANALYZER C ANALYZER

### MINIMUM EQUIPMENT REQUIREMENTS

- 12K CENTRAL PROCESSOR
- 1 CARD READER
- 1 PRINTER
- 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION
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## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 PAPER TAPE READER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR

- 1 PAPER TAPE READER AND PUNCH
- 4 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 6 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

ANALYZER C IS A POWERFUL PROGRAMMING AID WHICH THE PROGRAMMER MAY USE TO SIMPLIFY THE TASK OF ANALYZING ANY SERIES 200 PROGRAM THAT IS CODED IN EASYCODER SYMBOLIC LANGUAGE. FROM THE INPUT PROGRAM(S), THE ANALYZER EXTRACTS SYMBOLIC TAGS. REFERENCES (TO EACH TAG, TO INDEX REGISTERS, AND TO ABSOLUTE ADDRESSES), AND CALLS TO LIBRARY ROUTINES AND PROCESSES THE INFORMATION TO PRODUCE THE ANALYZER PRINTED LISTING. THE ANLYZER LISTING IS ARRANGED IN ALPHA-NUMERIC ORDER SO THAT ALL INFORMATION ABOUT A PARTICULAR TAG, ABSOLUTE LOCATION, OR LIBRARY ROUTINE APPEARS GROUPED IN ONE PLACE ON THE PRINTED LISTING. PROGRAMS TO BE ANALYZED MAY BE TAKEN FROM AN EASYCODER SYMBOLIC PROGRAM TAPE (SPT), FROM A CARD-IMAGE TAPE, FROM PUNCHED CARDS, OR FROM PAPER TAPE. A MAXIMUM OF 30 PROGRAMS MAY BE ANALYZED IN ANY ONE ANALYZER C RUN.

NOTE: SOME FEATURES OF THIS PROGRAM NOT AVAILABLE WITH MINIMUM CONFIGURATIONS SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: ANALYZER C

ORDER = 019

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SYSTEM NAME	EASYCODER 2
SUBSYSTEM NAME	COLLATE C
	COLATE2

## MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

# DESCRIPTION

COLLATE C IS DESIGNED TO PERFORM BASIC COLLATION OF FIXED LENGTH RECORDS ON SERIES 200 COMPUTERS. COLLATE C MAY BE RUN AS ONE PROGRAM WITHIN A SERIES, AS THE INITIAL PROGRAM IN A SERIES, OR AS A SINGLE PROGRAM. COLLATE C IS A GENERAL-PURPOSE SERIES 200 PROGRAM DESIGNED TO COMBINE FROM TWO TO FIVE PREVIOUSLY SEQUENCED (SORTED) FILES CONSISTING OF FIXED-LENGTH ITEMS OF INFORMATION IN IDENTICAL FORMAT, THEREBY PRODUCING A SINGLE SEQUENCED OUTPUT FILE - THE COLLATED FILE. THIS PROGRAM PERFORMS A SINGLE-PASS ROUTINE TO COMPARE ITEMS FROM EACH INPUT FILE AND TO WRITE THE ITEMS IN SEQUENCE (ACCORDING TO COMPARISONS) ON 1/2 INCH MAGNETIC TAPE. EACH INPUT FILE MAY BE CONTAINED ON ONE OR MORE MAGNETIC TAPE REELS: HOWEVER, ALL REELS CONTAINING A GIVEN FILE ARE PROCESSED SEQUENTIALLY FROM A SINGLE TAPE UNIT. IF IT IS DESIRED TO COLLATE MORE THAN FIVE INPUT FILES, TWO OR MORE COLLATE RUNS ARE REQUIRED. COLLATE C WILL COMBINE TWO TO FIVE PREVIOUSLY ORDERED FILES INTO A SINGLE ORDERED FILE, PROCESS FIXED-LENGTH ITEMS; COLLATE ACCORDING TO CONTROL INFORMATION CONTAINED IN UP TO 10 COLLATE KEY FIELDS IN EACH ITEM; ALLOWS MANUAL CORRECTION OR REMOVAL OF UNREADABLE RECORDS; PROVIDES FOR COLLATING SEQUENCE TRANSLATION; ALLOWS LABEL RECORD CHANGES; COLLATES IN ASCENDING OR DESCENDING SEQUENCE; AND PROVIDES FOR THE INCLUSION OF OWN CODING TO MODIFY HEADER AND TRAILER LABELS AND TO INSPECT, MODIFY, ADD, AND DELETE ITEMS DURING THE COLLATE PROCESS.

# FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TAPE SORT C AND COLLATE C

SYSTEM NAME EASYCODER 2

SUBSYSTEM NAME

TAPE SORT C(V) Sort2v

## MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR

- 1 CARD READER
- 3 1/2 INCH MAGNETIC TAPE DRIVES

ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

# 12K CENTRAL PROCESSOR

1 CARD READER/PUNCH 1 CONSOLE 1 PRINTER 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

12K	CENTRAL PROCESSOR
1	CONSOLE
1	PRINTER
4	1/2 INCH MAGNETIC TAPE DRIVES
	ADVANCED PROGRAMMING OPTION

### DESCRIPTION

TAPE SORT C (V) IS A GENERAL PURPOSE PROGRAM WHICH PERFORMS VARIABLE-LENGTH SORTING FUNCTIONS USING 1/2 INCH MAGNETIC TAPE. BECAUSE IT IS A GENERAL PURPOSE PROGRAM, TAPE SORT C (V) CAN BE ADAPTED TO DIFFERENT DATA FORMATS AND EQUIPMENT CONFIGURATIONS. ENABLING IT TO HANDLE A WIDE VARIETY OF SORTING APPLICATIONS. THE INFORMATION USED TO SPECIALIZE THIS PROGRAM IS ENTERED AT THE BEGINNING OF THE SORT PROGRAM BY MEANS OF PARAMETERS SPECIFIED BY THE USER. THIS PROGRAM IS COMPOSED OF SEVERAL OPERATIONAL SEGMENTS WHICH CAN BE GROUPED INTO THREE LOGICAL SEGMENTS: PRESORT, MERGE, AND LAST-PASS. THE PRESORT SEGMENT ACCEPTS THE INPUT DATA IN THE FORM OF VARIABLE-LENGTH UNITS OF INFORMATION CALLED "ITEMS" AND DISTRIBUTES ORDERED GROUPS OF ITEMS CALLED "STRINGS" ON FROM TWO TO FIVE TAPE REELS. THE MERGE SEGMENT COMBINES THE PRESORTED STRINGS INTO FEWER AND LONGER STRINGS DURING A SERIES OF MERGE PHASES WHICH ULTIMATELY RESULT IN ONLY ONE LONG STRING ON EACH WORK TAPE EXCEPT ONE. THE LAST-PASS SEGMENT FURTHER COMBINES THESE SINGLE+STRINGS INTO A CONTIGUOUS

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SEQUENCE - THE SORTED FILE. THE ACTIVITIES PERFORMED DURING THE PRESORT AND LAST-PASS SEGMENTS CAN BE AUGMENTED BY ROUTINES WRITTEN BY THE USER (OWN CODING). THIS PROGRAM WILL SORT VARIABLE-LENGTH ITEMS BLOCKED BY A VARIABLE NUMBER PER RECORD: ALLOW A MAXIMUM RECORD SIZE DEPENDENT UPON THE NUMBER OF TAPES USED IN THE MERGE: PERFORMS READ-BACKWARD, POLYPHASE MERGING USING FROM THREE TO SIX TAPES; SORT ACCORDING TO CONTROL INFORMATION CONTAINED IN UP TO TEN SORT KEY FIELD IN EACH ITEM; SORT UP TO ONE FULL REEL OF RECORDS; LABELS OUTPUT TAPES AS SPECIFIED BY THE USER; PROVIDES REMEDIAL ACTIVITIES FOR HANDLING UNREADABLE RECORDS; PROVIDES FOR INCLUSION OF OWN-CODING ELEMENTS: AND PROVIDES THE FINAL OUTPUT TAPE ON A SPECIFIED DRIVE (WORK TAPE 1).

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SORT C (V) AND COLLATE C(V)

SYSTEM NAME EASYCODER I	AME EASYLUDE	K 2	
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SUBSYSTEM NAME SPT MERGE C SPTMERGE

## MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR

- 1 CARD READER
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

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## OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR

- 1 CARD READER/PUNCH
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 PAPER TAPE READER
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

# 12K CENTRAL PROCESSOR

- 1 PAPER TAPE READER AND PUNCH
- 1 PRINTER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

### 12K CENTRAL PROCESSOR

- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 PAPER TAPE READER
  - 4 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

SPT MERGE C PERMITS EASIER AND FASTER HANDLING OF PROGRAMS WHICH ARE STACKED ON SYMBOLIC PROGRAM TAPES (SPT). THIS PROGRAM SELECTS AND EXTRACTS THE PROGRAMS DESIGNATED <sup>B</sup>Y THE USER FROM ONE OR MORE (UP TO FOUR) SPT'S. THE EXTRACTED PROGRAMS ARE WRITTEN ON A NEW SPT CREATED BY THE SPT MERGE PROGRAM. THUS, IT IS POSSIBLE FOR THE USER TO CONSOLIDATE A NUMBER OF SPT'S ONTO ONE MASTER SPT WITH THE PROGRAMS ARRANGED IN ANY DESIRED ORDER. SPT MERGE C PRODUCES A DIRECTORY LISTING ON THE PRINTER TO RECORD THE REVISION NUMBERS OF THE INPUT SPT'S AND THE SEQUENCE OF THE PROGRAMS AS THEY APPEAR ON THE OUTPUT SPT.

FOR	FURTH	IER	INFC	RMAT	ION	PLEASE
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	SPT	MERI	GE C			

### EASYCODER 2

SUBSYSTEM NAME

SYSTEM NAME

STANDARD I/O CALLS C IOMAC

MINIMUM EQUIPMENT REQUIREMENTS

## 12K CENTRAL PROCESSOR ADVANCED PROGRAMMING OPTION

# DESCRIPTION

STANDARD I/O CALLS C HAS BEEN DESIGNED TO SIMPLIFY THE RELEASE AND DISTRIBUTION OF DIFFERENT I/O PACKAGES WHICH USE THE SAME ACTION MACRO CALLS. STANDARD ACTION MACRO ROUTINES ARE CONTAINED IN THIS PROGRAM WHICH PROVIDE THE CONTROL TO ACCOMMODATE THE AFOREMENTIONED I/O PACKAGES. THIS PROGRAM MAY BE USED WITH SYSTEMS I/O, TERMINAL I/O, 3/4" TAPE I/O B (FORMERLY TIPTOP 2), PAPER TAPE READ ROUTINE B (FORMERLY TOPPER), AND DRUM I/O C (FORMERLY DIPDOP2). THIS PROGRAM CANNOT BE USED WITH THE 1/2" TAPE I/O A (FORMERLY TIPTOP1), 1/2" TAPE I/O B (FORMERLY TIPTOP1A), OR 1/2" TAPE AND TERMINAL I/O B (FORMERLY TIPTOP 3) SINCE THEIR ACTION MACRO CALLS ARE NOT CONSISTENT WITH THOSE CONTAINED IN THIS PACKAGE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: DIPDOP

DSI 405

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SYSTEM NAME	EASYCODER 2
SUBSYSTEM NAME	DRUM I/O C

DIPDOP2

# MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 DRUM ADVANCED PROGRAMMING OPTION

## DESCRIPTION

VARIABLES.

DRUM I/O C IS A SET OF ROUTINES WHICH COMPRISE THE INPUT/OUTPUT CONTROL PACKAGE FOR SERIES 200 COMPUTERS USING TYPE 270 DRUM RANDOM ACCESS EQUIPMENT. SIMPLE MACRO STATEMENTS SUCH AS =OPEN. =GET, =PUT, =WAIT, AND =CLOSE ARE INCLUDED IN THE SOURCE PROGRAM AND WHEN ASSEMBLED PRODUCE MACHINE INSTRUCTIONS WHICH CAUSE THE DESIRED INPUT/OUTPUT OPERATIONS TO BE PERFORMED. IN ADDITION TO THE FIVE TYPES OF ACTION MACRO STATEMENTS. DRUM I/O CONSISTS OF A COMMON ROUTINE, #DRC, AND A ROUTINE, #DRS, WHICH IS SPECIALIZED FOR EACH FILE TO BE READ OR WRITTEN. THERE ARE FOUR SETS OF OPERATING VARIABLES WITHIN DRUM I/O C :

1. FILE ACCESS MAY BE RANDOM, SERIAL OR DESIGNATED. 2. FILES MAY BE SINGLE-RECORD OR MULTI-RECORD.

3. FILES MAY BE INPUT-ONLY, OUTPUT-ONLY, OR INPUT-OUTPUT. 4. ITEM LENGTH MAY BE FIXED OR VARIABLE.

THE PROGRAM MAY BE OPERATED IN EITHER THE LOCATE OR THE TRANSMIT COMMUNICATIONS MODE. THERE ARE 28 VALID COMBINATIONS OF THE ABOVE

FOR FURTHER INFORMATION PLEASE **REFER TO THE FOLLOWING:** DRUM I/O C

SYSTEM NAME EASYCODER 2

SUBSYSTEM NAME DRUM INTERROGATION ALTERATION + LOADING SYST DIAL

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 DRUM

## DESCRIPTION

DRUM INTERROGATION, ALTERATION, AND LOADING SYSTEM IS A SET OF UTILITY DRUM-HANDLING AND CORRECTION ROUTINES FOR USE ON THE MODEL 270 RANDOM ACCESS DRUM ON THE SERIES 200.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: DIAL 200

DSI 404

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SYSTEM NAME EASYCODER 2

SUBSYSTEM NAME CON

CONSOLE I/O C Tyro2

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CONSOLE ADVANCED PROGRAMMING OPTION

DESCRIPTION

CONSOLE I/O C IS A SERIES 200 SYSTEMS I/O PROGRAM WHICH HANDLES ALPHANUMERIC. DECIMAL, AND OCTAL TYPEOUTS AND TYPEINS ON THE CONSOLE TYPEWRITER. THIS PROGRAM CONSISTS OF A MACRO CONTROL ROUTINE (: CONSL). CONTAINING CODING WHICH PERFORMS TYPEWRITER OUTPUT AND INPUT OEPRATIONS AS REQUESTED BY MACRO INSTRUCTIONS IN THE USER'S PROGRAM. THE COMMUNICATION OR DATA MESSAGE MAY CONSIST OF A TYPEOUT ONLY. OR IT MAY BE A TYPEOUT FOLLOWED BY A TYPEIN. CONSOLE I/O C MACRO INSTRUCTIONS ARE SPECIALIZED BY THE PROGRAM LIBRARY PROCESSOR B (FORMERLY MACRO) OR LIBRARY PROCESSOR C (FORMERLY LIBRARY PREPROCESSOR) AND ASSEMBLED BY EASYCODER.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: TYRO 2

DSI 413

SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

DRUM CONTROL PACKAGE PLUSDRUM

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 DRUM ADVANCED PROGRAMMING OPTION

DESCRIPTION

THE DRUM CONTROL PACKAGE CONTAINS EVERYTHING NECESSARY TO STORE, LOAD, AND MONITOR PROGRAMS CONTAINED ON A Model 270 Random Access Drum.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: PLUS DRUM PROGRAM STORE

SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

COLLATE C(V) COLATE2V

### MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR

- 1 CARD READER
- 3 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

1

- 12K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
  - CONSOLE
- **3** 1/2 INCH MAGNETIC TAPE DRIVES
- 1 PRINTER
  - ADVANCED PROGRAMMING OPTION

### OPTIONAL CONFIGURATION

- 12K CENTRAL PROCESSOR
- 1 CONSOLE
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

COLLATE C (V) IS A GENERAL-PURPOSE SERIES 200 PROGRAM DESIGNED TO COMBINE FROM TWO TO FIVE PREVIOUSLY SEQUENCED (SORTED) FILES CONSISTING OF VARIABLE-LENGTH ITEMS OF INFORMATION IN IDENTICAL FORMAT, THEREBY PRODUCING A SINGLE SEQUENCED CUTPUT FILE - THE COLLATED FILE. THIS PROGRAM PERFORMS A SINGLE-PASS ROUTINE TO COMPARE ITEMS FROM EACH INPUT FILE AND TO WRITE THE ITEMS IN SEQUENCE (ACCORDING TO COMPARISONS) ON 1/2" MAGNETIC TAPE. EACH INPUT FILE MAY BE CONTAINED ON ONE OR MORE MAGNETIC TAPE REELS; HOWEVER, ALL REELS CONTAINING A GIVEN FILF ARE PROCESSED SEQUENTIALLY FROM A SINGLE TAPE UNIT. IF IT IS DESIRED TO COLLATE MORE THAN FIVE INPUT FILES. TWO OR MORE COLLATE RUNS ARE REQUIRED. COLLATE C (V) WILL COMBINE TWO TO FIVE PREVIOUSLY ORDERED FILES INTO A SINGLE ORDERED FILE, PROCESS VARIABLE-LENGTH ITEMS BLOCKED A VARIABLE NUMBER PER RECORD: COLLATE ACCORDING TO CONTROL INFORMATION CONTAINED IN UP TO 10 COLLATE KEY FIELDS IN EACH ITEM; ALLOWS MANUAL CORRECTION OR REMOVAL OF UNREADABLE RECORDS; PROVIDES FOR COLLATING SEQUENCE TRANSLATION; ALLOWS LABEL RECORD CHANGES; COLLATES IN ASCENDING OR DESCENDING SEQUENCE; AND PROVIDES FOR THE INCLUSION OF OWN CODING TO MODIFY HEADER AND TRAILER LABELS AND TO INSPECT, MODIFY, ADD, AND DELETE ITEMS DURING THE COLLATE PROCESS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: SORT C(V) AND COLLATE C(V)

**ORDER = 207** 

### MOD1-23

SYSTEM NAME EASYCODER 2

SUBSYSTEM NAME DRUM SORT C

DRUMSRTC

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 DRUM

## DESCRIPTION

DRUM SORT C IS PROVIDED TO SORT A FILE EXISTING ON A DRUM USING ONLY THE CENTRAL PROCESSOR AND SOME WORK AREA ON THE DRUM. FROM THE ITEM FILE A KEY FILE IS DEVELOPED. CONSISTING OF THE KEYS AND DRUM ADDRESSES OF THE ITEMS. THE KEY FILE IS SORTED, AND AT THIS POINT THE KEYSORT IS COMPLETE. AN INPUT MACRO. : FTCH. IS PROVIDED IN ORDER TO BRING THE ITEMS INTO MAIN MEMORY ONE BY ONE. THE SEGMENTS OF DRUM SORT C AND THEIR FUNCTIONS ARE: PRESORT - REDUCES EACH ITEM TO A KEY AND DRUM ADDRESS, AND SORTS THEM INTO INITIAL GROUPS OR STRINGS WHICH ARE WRITTEN ONTO THE WORK AREA; AND THE MERGE - COMBINES GROUPS OF THESE STRINGS TOGETHER TO PRODUCE ONE SINGLE SEQUENCED STRING IN THE SAME WORK AREA. THE PRESORT AND MERGE TAKEN TOGETHER FORM THE KEYSORT. FTCH MAY THEN BE USED AS AN INPUT MACRO CALL TO BRING EACH SORTED ITEM INTO MEMORY BY UTILIZING THE DRUM ADDRESS ASSOCIATED WITH THE KEY. IN ADDITION, UP TO 10 KEY FIELDS MAY BE USED FOR SORTING CRITERIA, AND SEQUENCE COUNTS AND ITEM COUNT CHECKS ARE PERFORMED IN THE SORT.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: DRUM SORT C

**ORDER = 157** 

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SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

UPDATE AND SELECT D UPSELD

### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

- 3 1/2 INCH MAGNETIC TAPE DRIVES
- 1 PRINTER
- 1 CARD READER
  - ADVANCED PROGRAMMING OPTION

# OPTIONAL CONFIGURATION

- 16K CENTRAL PROCESSOR
- 1 CARD READER
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K	CENTRAL PROCESSOR
1	CARD READER/PUNCH
1	PRINTER
2	1/2 INCH MAGNETIC TAPE DRIVES
	ADVANCED PROGRAMMING OPTION

## OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

- 1 CARD READER/PUNCH
- 3 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

# DESCRIPTION

UPDATE AND SELECT D IS DESIGNED TO MAINTAIN A MASTER FILE OF EXECUTABLE PROGRAMS IN MACHINE-LANGUAGE FORM. UPDATE THE BINARY EXECUTABLE PROGRAMS AND SELECT PROGRAMS FROM THIS FILE FOR EXECUTION. THIS PROGRAM CAN PERFORM THE FOLLOWING OPERATIONS: INSERT A DESIGNATED UNIT INTO THE MASTER FILE; DELETE A SPECIFIED UNIT FROM THE MASTER FILE; POSITION THE MASTER AFTER A GIVEN UNIT; SELECT A UNIT (OR BLOCK OF UNITS) AND PLACE IT ON A SELECTED RUNTAPE; AND BACKUP THE MASTER FILE AND SELECT A DESIGNATED UNIT (OR BLOCK OF UNITS), PLACING THE UNIT(S) ON A SELECTED RUNTAPE; UPDATING THE MASTER FILE ACCOMPLISHED BY WRITING A NEW MASTER TAPE, ADDING, DELETING OR REPLACING UNITS OF CODE AS SPECIFIED BY THE DIRECTOR DECK. SELECTION CONSISTS OF CREATING A SELECTED RUNTAPE BY COPYING SPECIFIED UNITS FROM EITHER THE NEW MASTER OR THE INPUT TAPE. AS WITH UPDATING, SELECTION IS CONTROLLED BY THE DIRECTOR DECK WHICH SPECIFIES THE ORDER IN WHICH THE PROGRAMS WILL APPEAR ON THE SELECTED RUNTAPE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: UPDATE AND SELECT C AND D

ORDER = 025

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SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

FLOATING TAPE LOADER MONITOR C

#### MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

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FTLMONC SEARCHES FOR, LOADS, AND STARTS SERIES 200 PROGRAMS WHICH ARE RECORDED ON BINARY RUN TAPES (BRT). THE OBJECT PROGRAMS MAY BE ASSEMBLED BY EASYCODER ASSEMBLY C OR COMPILED BY EITHER THE COBOL COMPILER D OR THE FORTRAN COMPILER D. DIFFERING FROM TAPE LOADER MONITOR C (3) AND TAPE LOADER MONITOR C (4) FTLMONC IS RELOCATABLE AND MAY BE LOADED INTO ANY AVAILABLE MEMORY BANK ABOVE O AT EXECUTION TIME.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: FLOATING TAPE LOADER MONITOR / INTERRUPT CONTROL ORDER =005

SYSTEM NAME EASYCODER 2

SUBSYSTEM NAME

INTERRUPT CONTROL D INTCOND

2

MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

DESCRIPTION

INTERRUPT CONTROL D OPERATES IN THE MOD1 PROGRAMMING SYSTEMS AND CONTROLS THE SIMULTANEOUS PROCESSING OF A BACKGROUND PROGRAM AND A FOREGROUND PROGRAM.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: FLOATING TAPE LOADER MONITOR / INTERRUPT CONTROL ORDER =005

SYSTEM NAME

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EASYCODER 2

SUBSYSTEM NAME

DATA CONVERSION C DATCONC

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE 1 PRINTER

OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 CARD READER 1 1/2 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 CARD PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

DESCRIPTION

DATA CONVERSION C IS A SET OF THREE GENERALIZED TERMINAL CONVERSION ROUTINES: 1. CARD-TO-TAPE A, WHICH CONVERTS A PUNCHED-CARD FILE TO A CARD-IMAGE FILE ON MAGNETIC TAPE. 2. TAPE-TO-PRINTER A, WHICH CONVERTS A PRINT-IMAGE FILE ON MAGNETIC TAPE TO PRINTED COPY. 3. TAPE-TO-PUNCH A, WHICH CONVERTS A CARD-IMAGE FILE ON MAGNETIC TAPE TO A PUNCHED-CARD FILE. THE ROUTINES MAY BE SPECIALIZED AS INDEPENDENT PROGRAMS, SIMULTANEOUS MEDIA CONVERSION TERMINAL ROUTINES, OR FOREGROUND PROGRAMS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: DATA CONVERSION A AND C

ORDER =231

EASYCODER 2

SUBSYSTEM NAME

SYSTEM NAME

PROGRAM TEST SYSTEM C PTSC

#### MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 1 1/2 INCH MAGNETIC TAPE DRIVE

#### OPTIONAL CONFIGURATION

12K	CENTRAL PROCESSOR		
1	CARD READER/PUNCH		
1	PRINTER		
1	1/2 INCH MAGNETIC	TAPE	DRIVE

#### DESCRIPTION

PTSC (PROGRAM TEST SYSTEM C) IS AN AUTOMATIC CHECKOUT SYSTEM FOR ALL SERIES 200 PROGRAMS OPERATING WITH A MACHINE CONFIGURATION OF 12,288 MEMORY LOCATIONS OR GREATER. IT IS AN INTEGRAL PART OF THE SERIES 200 OPERATING SYSTEM MOD 1. THE SYSTEM OPERATES IN CONJUNCTION WITH THE TAPE LOADER-MONITOR PROGRAM TO PROVIDE RUN-TO-RUN SEQUENCING IN WHICH TEST DATA GENERATION, PROGRAM PATCHING, AND PRODUCTION OF DIAGNOSTICS FOR PROGRAM CHECKOUT ARE ALL ACCOMPLISHED WITH LITTLE OR NO OPERATOR INTERVENTION. THE PROGRAM TEST SYSTEM COMPRISES A SERIES OF UTILITY PROGRAMS WHICH ARE CALLED USING CONSOLE CALL CARDS. ONLY THOSE FUNCTIONS NEEDED FOR A PARTICULAR CHECKOUT RUN NEED BE CALLED. THE SYSTEM IS COMPLETELY OPEN-ENDED IN THAT ADDITIONAL FUNCTIONS CAN BE ADDED.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: PROGRAM TEST SYSTEM C

ORDER = 049

SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

1/2" TAPE I/O C 1/21/0C

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 1/2 INCH MAGNETIC TAPE DRIVE ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

1/2" TAPE I/OC CONSISTS OF ROUTINES TO PROCESS STANDARD TAPE FILES CONTAINING EITHER FIXED OR VARIABLE-LENGTH ITEMS IN EITHER BANNERED OR UNBANNERED RECORDS. THE MACRO ROUTINES MAY BE CALLED TO PERFORM THE FOLLOWING FUNCTIONS: A) OPENING AND CLOSING TAPE FILES B) READ AND WRITE RECORDS WITHIN FILES C) UNBLOCKS AND BLOCK ITEMS WITHIN RECORDS D) DETECT ERRORS AND AUTOMATICALLY CORRECT THEM, WHEN POSSIBLE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: 1/2 INCH TAPE I/O B/C

ORDER = 010

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SYSTEM NAME CASYCODER 2

SUBSYSTEM NAME EASYTAB D SORT B(D) EZTABSD

#### MINIMUM EQUIPMENT REQUIREMENTS

**16K CENTRAL PROCESSOR** 

1 CARD READER

3 1/2 INCH MAGNETIC TAPE DRIVES

ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 CARD READER/PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR

1 CARD READER

3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

**16K CENTRAL PROCESSOR** 

1 CARD READER/PUNCH

3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

EASYTAB D SORT B(D) IS THE SYMBOLIC VERSION OF SORT B(D) CONTAINED IN EASYTAB D.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTAB UTILITY PROGRAMS

ORDER=206

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SYSTEM NAME

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EASYCODER 2

SUBSYSTEM NAME

LIBRARY PROCESSOR D LIB PROD

#### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR 1 CARD READER/PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 CARD READER 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 2 1/2 INCH MAGNETIC TAPE DRIVES 1 CARD READER

ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

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16K CENTRAL PROCESSOR 2 1/2 INCH MAGNETIC TAPE DRIVES

1 PAPER TAPE READER

ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

- 1 CARD PUNCH
- 3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

#### 16K CENTRAL PROCESSOR 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

LIBRARY PROCESSOR D IS USED PRIOR TO THE ASSEMBLY OF A EXTENDED EASYCODER SOURCE PROGRAM. THIS PROGRAM INSERTS MACRO ROUTINES WHICH EXIST ON A SYMBOLIC PROGRAM TAPE (SPT) INTO SOURCE PROGRAMS IN RESPONSE TO MACRO INSTRUCTIONS (CALLS) WITHIN THE SOURCE PROGRAMS. AND SPECIALIZES EACH ROUTINE TO PERFORM THE SPECIFIED FUNCTION DESIRED. THE SOURCE PROGRAMS AND MACRO ROUTINES ARE PROCESSED BY LIBRARY PROCESSOR D WHICH IS STORED ON THE BINARY RUN TAPE (BRT). THE PROCESSING REPRODUCES THE SOURCE PROGRAMS(S), INSERTING THE SPECIALIZED MACRO ROUTINES TO FORM A NEW DECK WHICH IS NOW READY FOR ASSEMBLY BY EASYCODER ASSEMBLY C OR D.

NOTE: SOME FEATURES OF THIS PROGRAM NOT AVAILABLE WITH MINIMUM CONFIGURATIONS SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: LIBRARY PROCESSORS C AND D

**ORDER = 051** 

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SYSTEM NAME

**EASYCODER 2** 

SUBSYSTEM NAME

EASYCODER ASSEMBLY D ASSEMBLD

MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR **3 1/2 INCH MAGNETIC TAPE DRIVES 1 PRINTER** 1 CARD READER

ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

1 CARD READER/PUNCH

- PRINTER 1
- 1/2 INCH MAGNETIC TAPE DRIVES 3
  - ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

- **1 PAPER TAPE READER**
- PRINTER 1
- 1/2 INCH MAGNETIC TAPE DRIVES 3 ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

- **1 PAPER TAPE READER AND PUNCH**
- 1 PRINTER
- 1/2 INCH MAGNETIC TAPE DRIVES 3 ADVANCED PROGRAMMING OPTION

OPTIONAL CONFIGURATION

**16K CENTRAL PROCESSOR** 

- 1 PRINTER
- 1/2 INCH MAGNETIC TAPE DRIVES 4
  - ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- **16K CENTRAL PROCESSOR**
- 1 CARD READER
- 1/2 INCH MAGNETIC TAPE DRIVES ۵ ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

**16K CENTRAL PROCESSOR** 

- 1 CARD READER/PUNCH
- 4 1/2 INCH MAGNETIC TAPE DRIVES
- ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- 16K CENTRAL PROCESSOR
- 4 1/2 INCH MAGNETIC TAPE DRIVES
- 1 PAPER TAPE READER
  - ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- **16K CENTRAL PROCESSOR**
- 1 PAPER TAPE READER AND PUNCH
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES
  - ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

EASYCODER ASSEMBLY D ACCEPTS PROGRAMS WRITTEN IN EASYCODER SYMBOLIC LANGUAGE, ASSEMBLES THEM, STORES THEM IN ABSOLUTE FORM ON A EXECUTABLE RUNTAPE AS WELL AS IN AN UPDATABLE SYMBOLIC LIBRARY; PROVIDES FOR INDIVIDUAL UPDATING, REASSEMBLY, AND SELECTION OF PROGRAMS FROM THE LIBRARY, ALLOWS FOR BATCH PROCESSING AND INCLUDES A MACRO-PROCESSING SYSTEM. THREE TYPES OF SYMBOLIC STATEMENTS ARE INCLUDED IN THE EASYCODER LANGUAGE. DATA FORMATTING STATEMENTS - THROUGH USE OF THESE STATEMENTS, ASSEMBLY IS INSTRUCTED TO SET UP CONSTANTS, RESERVE MEMORY AREAS, AND TO PUNCTUATE MEMORY TO INDICATE FIELD BOUNDRIES; ASSEMBLY CONTROL STATEMENTS -THESE STATEMENTS INSTRUCT ASSEMBLY IN THE PERFORMANCE OF A WIDE VARIETY OF FUNCTIONS RELATING TO THE PROCESS OF CREATING AN OBJECT PROGRAM; AND MACHINE INSTRUCTION STATEMENTS - THESE ARE THE SYMBOLIC INSTRUCTIONS WHICH ARE CONVERTED BY THE ASSEMBLY INTO MACHINE-LANGUAGE COMMANDS.

NOTEI

SOME FEATURES OF THIS PROGRAM NOT AVAILABLE WITH MINIMUM CONFIGURATIONS SHOWN ABOVE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYCODER ASSEMBLERS C AND D

ORDER =041

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SYSTEM NAME EASYCODER 2

SUBSYSTEM NAME EASYTAB B SORT B(B) EZTABSB

#### MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR
1 CARD READER
1 CARD PUNCH
1 PRINTER
3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

OPTIONAL CONFIGURATION

8 K	CENTRAL PROCESSOR
1	CARD READER/PUNCH
1	PRINTER
3	1/2 INCH MAGNETIC TAPE DRIVES
	ADVANCED PROGRAMMING OPTION
	EDIT OPTION

DESCRIPTION

EASYTAB B SORT B(B) IS THE SYMBOLIC VERSION OF SORT B(B) CONTAINED IN EASYTAB B.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTAB UTILITY PROGRAMS

ORDER=206

SYSTEM	NAME	EASYCODER 2

SUBSYSTEM	NAME	PERT TIME-C
		PERT-C

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 4 1/2 INCH MAGNETIC TAPE DRIVES 1 CARD READER 1 PRINTER ADVANCED PROGRAMMING OPTION

DESCRIPTION

PERT TIME C IS A HONEYWELL SERIES 200 PROGRAM WHICH GIVES A PROJECT MANAGER POWERFUL ASSISTANCE IN PLANNING AND SCHEDULING LARGE PROJECTS. THE ADVANTAGES OF PERT TIME C LIE IN ITS ABILITY TO ANALYZE NETWORKS OF GREAT COMPLEXITY (UP TO 2,000 ACTIVITIES) WHILE OPERATING WITH ONLY 12,288 CHARACTERS OF MAIN MEMORY. THE NETWORK ANALYSIS ENABLES MANAGERS TO PLAN AND CONTROL ACTIVITIES DIRECTED TOWARD THE COMPLETION OF A PARTICULAR PROJECT. TO FORECAST CRITICAL AREAS. AND TO INITIATE CORRECTIVE ACTION IF NECESSARY.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: PERT TIME C

ORDER =419

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SYSTEM NAME

EASYCODER 2

SUBSYSTEM NAME

REPORT GENERATOR C REPGEN-C

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 1/2 INCH MAGNETIC TAPE DRIVE

DESCRIPTION

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REPORT GENERATOR C GENERATES A SYMBOLIC PROGRAM ON PUNCHED CARDS OR, OPTIONALLY, ON A CARD IMAGE TAPE. THIS OUTPUT MAY THEN BE ASSEMBLED BY EASYCODER C OR D AND WILL BE IN THE THREE CHARACTER ADDRESSING MODE. THE ASSEMBLED PROGRAM IS CAPABLE OF BEING RUN UNDER EITHER TAPE LOADER MONITOR C OR FLOATING TAPE LOADER MONITOR C. THE INPUT TO THE GENERATED PROGRAM MAY BE EITHER PUNCHED CARDS OR 1/2 INCH TAPE FILES; THE OUTPUT MAY BE EITHER PRINTED FILE, PUNCHED CARDS, OR 1/2 INCH TAPE FILE, OR ANY COMBINATION OF THESE THREE.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: REPORT GENERATOR, ADDENDUM 3

ORDER = 080

SYSTEM NAME

COBOL

SUBSYSTEM NAME

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COBOL COMPILER D COBOL16

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#### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K	CENTRAL PROCESSOR	
1	CARD READER/PUNCH	
1	PRINTER	
4	1/2 INCH MAGNETIC T	APE DRIVES

#### OPTIONAL CONFIGURATION

16K	CENTRAL PROCESSOR
1	CARD READER
1	CARD PUNCH
1	PRINTER
1	DRUM
3	1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K	CENTRAL PROCESSOR
1	CARD READER/PUNCH
1	PRINTER
1	DRUM

3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 CARD PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 PAPER TAPE PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

**16K CENTRAL PROCESSOR** 

- 1 CARD READER
- 1 PAPER TAPE PUNCH
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

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16K	CENTRAL PROCESSOR	
1	PAPER TAPE READER	AND PUNCH
1	PRINTER	
4	1/2 INCH MAGNETIC	TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 CARD PUNCH 1 PRINTER 1 DRUM 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 PAPER TAPE PUNCH 1 PRINTER 1 DRUM 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR
1 CARD READER
1 PAPER TAPE PUNCH
1 PRINTER
1 DRUM
3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 PRINTER 1 DRUM

3 1/2 INCH MAGNETIC TAPE DRIVES

#### DESCRIPTION

COBOL COMPILER D IS A COMPILER WHICH ANALYZES, INTERPRETS, GENERATES AND ASSEMBLES AN ENGLISH LANGUAGE PROGRAM INTO MACHINE LANGUAGE FOR OPERATION UNDER CONTROL OF THE EASYCODER MONITOR. THIS COMPILER POSSESSES SEVERAL IMPORTANT FEATURES SOME OF WHICH ARE: BATCHED SOURCE PROGRAMS ARE ACCEPTED AND CAN OPERATE IN A BATCHED-COMPILE, LOAD AND GO MODE; PROGRAMS CAN BE COMPILED TO A FILE OF PROGRAMS FOR OPERATION UNDER CONTROL OF THE SERIES 200 OPERATING SYSTEM; SOURCE-LANGUAGE PROGRAMS CAN BE MAINTAINED IN MAGNETIC TAPE LIBRARIES TO FACILITATE PROGRAM CORRECTION DURING CHECKOUT. A VARIETY OF TESTING AND DEBUGGING AIDS IS PROVIDED WITH THIS COMPILER SUCH AS DYNAMIC AND STATIC DUMPING CAPABILITY, ENGLISH LANGUAGE DIAGNOSTICS, MEMORY MAPPING, AND TEST DATA DISTRIBUTION; AND ADDRESSES OF PERIPHERAL DEVICES CAN BE ASSIGNED AT OBJECT TIME TO ALLOW USE OF A SINGLE PROGRAM WITH A VARIETY OF DIFFERENT PERIPHERAL ARRAYS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING COBOL COMPILER D AND H

ORDER=065

COBOL

SUBSYSTEM NAME

SYSTEM NAME

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COBOL COMPILER H Cobolh

#### MINIMUM EQUIPMENT REQUIREMENTS

32K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 CARD READER 1 CARD PUNCH 1 PRINTER 1 DRUM 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 1 DRUM 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 CARD PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 PAPER TAPE PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE 4 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 CARD READER 1 PAPER TAPE PUNCH 1 3/4 INCH MAGNETIC TAPE DRIVE 4 1/2 INCH MAGNETIC TAPE DRIVES

OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES

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OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 CARD PUNCH 1 PRINTER 1 DRUM 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 PAPER TAPE READER 1 PAPER TAPE PUNCH 1 PRINTER 1 DRUM 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 CARD READER 1 PAPER TAPE PUNCH 1 PRINTER 1 DRUM 3 1/2 INCH MAGNETIC TAPE DRIVES

#### OPTIONAL CONFIGURATION

32K CENTRAL PROCESSOR 1 PAPER TAPE READER AND PUNCH 1 PRINTER

1 DRUM

3 1/2 INCH MAGNETIC TAPE DRIVES

DESCRIPTION

COBOL COMPILER H ANALYZES, INTERPRETS, GENERATES, AND ASSEMBLES ENGLISH LANGUAGE PROGRAMS INTO MACHINE LANGUAGE FOR OPERATION UNDER CONTROL OF THE EASYCODER MONITOR. THE ABILITY TO PRODUCE FOUR-CHARACTER ADDRESS CODES PERMITS COMPILATION OF OBJECT PROGRAMS FOR MACHINES LARGER THAN 32K. THIS COMPILER POSSESSES SEVERAL IMPORTANT FEATURES, SOME OF WHICH ARF:

- 1. TWO OR MORE SOURCE PROGRAMS MAY BE BATCH-COMPILED AND BATCH-RUN IN THE LOAD-AND-GO MODE.
- 2. PROGRAMS CAN BE COMPILED TO CREATE A FILE OF PROGRAMS FOR OPERATION UNDER CONTROL OF THE SERIES 200 OPERATING SYSTEM.
- 3. SOURCE-LANGUAGE PROGRAMS CAN BE MAINTAINED IN MAGNETIC TAPE LIBRARIES TO FACILITATE PROGRAM CORRECTION DURING CHECKOUT.

A VARIETY OF TESTING AND DEBUGGING AIDS IS PROVIDED WITH THIS COMPILER SUCH AS DYNAMIC AND STATIC DUMPING CAPABILITY, ENGLISH LANGUAGE DIAGNOS-TICS, MEMORY MAPPING, AND TEST DATA DISTRIBUTION. ADDRESSES OF PERIPHERAL DEVICES CAN BE ASSIGNED AT OBJECT TIME TO ALLOW THE USE OF A SINGLE PROGRAM WITH A VARIETY OF DIFFERENT PERIPHERAL ARRAYS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: COBOL COMPILERS D AND H REFERENCE MANUAL

ORDER = 065

SYSTEM NAME

COBOL

SUBSYSTEM NAME

COBOL SORT ROUTINES CBLSORTS

#### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR

1 CARD READER

3 1/2 INCH MAGNETIC TAPE DRIVES

ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

1 CARD READER/PUNCH

3 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

DESCRIPTION

THE COBOL SORT ROUTINES ARE THE SORTS AND COLLATES COMMON TO BOTH COBOL COMPILER D AND COBOL COMPILER H. THEY ARE USED AT OBJECT TIME ONLY.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: COBOL COMPILERS D AND H

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SYSTEM NAME

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SUBSYSTEM NAME

COBOL COMPILER B COBOLB

#### MINIMUM EQUIPMENT REQUIREMENTS

8K CENTRAL PROCESSOR
1 CARD READER/PUNCH
1 PRINTER
2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

COBOL

#### OPTIONAL CONFIGURATION

8K CENTRAL PROCESSOR
1 CARD PUNCH
1 CARD READER
1 PRINTER
2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### DESCRIPTION

COBOL COMPILER B IS A BASIC COBOL COMPILER OPERATING IN AN 8K ENVIRONMENT. IT MAY BE USED AS PART OF THE EASYTAB PROGRAMMING SYSTEM, PROGRAMMING TAB OPERATIONS NOT COVERED BY ANY PRE-CODED EASYTAB UTILITY ROUTINES.

NOTE: THIS SUBSYSTEM OPERATES AS A BASIC SUBSYSTEM, BUT IS WRITTEN AND MAINTAINED WITH MOD-1 SOFTWARE. IT IS FOR THIS EASE OF MAINTENANCE THAT COBOL B IS KEPT WITH MOD-1 AS WELL AS BASIC SOFTWARE.

FOR FURTHER INFORMATION PLEASEREFER TO THE FOLLOWING:COBOL COMPILER BEASYTAB UTILITY PROGRAMSORDER=206

SYSTEM NAME

FORTRAN

SUBSYSTEM NAME

FORTRAN COMPILER D Fortrand

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#### MINIMUM EQUIPMENT REQUIREMENTS

**16K CENTRAL PROCESSOR** 

- 1 CARD READER
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 CARD READER/PUNCH

- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR

1 PRINTER 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 6 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

 16K CENTRAL PROCESSOR
 1 CARD READER
 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

- 16K CENTRAL PROCESSOR 1 CARD READER/PUNCH 5 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION
  - EDIT OPTION

#### DESCRIPTION

THE FORTRAN COMPILER D IS THE SMALLEST OF SERIES 200 FORTRAN COMPILERS; HOWEVER, IT POSSESSES THE CAPABILITY TO TRANSLATE A MAJOR PORTION OF THE FORTRAN IV LANGUAGE. THIS WELL ACCEPTED LANGUAGE ALLOWS THE USER TO EXPRESS A WIDE VARIETY OF ENGINEERING, SCIENTIFIC, AND DATA PROCESSING WITH EASE. SOURCE PROGRAMS ARE COMPILED RAPIDLY, COMBINED WITH OTHER PREVIOUSLY COMPILED OR ASSEMBLED OBJECT PROGRAMS, AND IMMEDIATELY LOADED FOR EXECUTION. THIS COMPILER HANDLES SUCH FORTRAN IV FEATURES AS LOGICAL STATEMENTS AND TESTING, DATA INITIALIZATION, LABELLED COMMON AREAS, AND TYPE STATEMENT DECLARATIONS. THE USER SPECIFIES THE PRECISION OF COMPUTATION TO BE EMPLOYED FOR EACH PROGRAM, FROM 2 TO 20 DIGITS. A VERY COMPLETE SYSTEM TO DETECT AND DIAGNOSE ERRORS AND INCONSISTENCIES IN FORTRAN PROGRAMS IS AVAILABLE AND IS EITHER INCLUDED IN THE COMPILATION PROCESS OR ELSE BYPASSED, AS THE USER DESIRES.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: FORTRAN COMPILER D MANUAL

ORDER = 027

SYSTEM NAME EX-APPLICATIONS

SUBSYSTEM NAME AUTOTIMER AUTOTIME

#### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- 16K CENTRAL PROCESSOR
- 1 CARD READER/PUNCH
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION

#### OPTIONAL CONFIGURATION

- 16K CENTRAL PROCESSOR
- 5 1/2 INCH MAGNETIC TAPE DRIVES
- 1 PRINTER
- 1 CARD READER
  - ADVANCED PROGRAMMING OPTION

#### DESCRIPTION

AUTOTIMER2 IS A SERIES OF PROGRAMS WHICH ESTIMATE THE TIME REQUIRED TO PERFORM VARIOUS TASKS ON THE HONEYWELL 120, 200, 1200 AND 2200 COMPUTERS. AUTOTIMER IS CHIEFLY USED BY HONEYWELL SYSTEMS ANALYSTS IN DETERMINING WHICH 200-SERIES COMPUTER IS BEST SUITED TO A PARTICULAR APPLICATION. IT IS ALSO USED IN OTHER SYSTEMS WORK WHERE TIMING ESTIMATES ARE REQUIRED; FOR EXAMPLE, AS A PLANNING AID WHEN HONEYWELL CUSTOMERS ARE ADDING NEW APPLICATIONS TO THEIR COMPUTERS.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: AUTOTIMER 2

**ORDER = 098** 

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SYSTEM NAME

LIBERATOR2

SUBSYSTEM NAME

EASYTRAN SYMBOLIC TRANSLATOR D Eztrnd

#### MINIMUM EQUIPMENT REQUIREMENTS

16K CENTRAL PROCESSOR

- 1 CARD READER
- 1 PRINTER
- 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### OPTIONAL CONFIGURATION

16K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 4 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION EDIT OPTION

#### DESCRIPTION

EASYTRAN SYMBOLIC TRANSLATOR D IS A COMPREHENSIVE SYSTEM FOR THE CONVERSION OF 1401/1460 SPS/AUTOCODER PROGRAMS INTO SYMBOLIC PROGRAMS CODED IN SERIES 200 EASYCODER ASSEMBLY D LANGUAGE. THE CONVERTED PROGRAMS ARE SUBSEQUENTLY UPDATED AND ASSEMBLED WITHIN THE FRAMEWORK OF THE SYSTEM. THE FINAL OUTPUT IS AN EXECUT-ABLE PROGRAM WHICH IS ENTIRELY COMPATIBLE WITH ALL ELEMENTS OF THE SERIES 200 OPERATING SYSTEM MOD1.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTRAN SYMBOLIC TRANSLATOR D

ORDER =107

LIBERATOR2

SUBSYSTEM NAME

SYSTEM NAME

EASYTRAN PROGRAM MODIFER C EZMODC

MINIMUM EQUIPMENT REQUIREMENTS

12K CENTRAL PROCESSOR 1 CARD READER 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION 132 PRINT POSITIONS HOLE COUNT ON READER

OPTIONAL CONFIGURATION

12K CENTRAL PROCESSOR 1 CARD READER/PUNCH 1 PRINTER 2 1/2 INCH MAGNETIC TAPE DRIVES ADVANCED PROGRAMMING OPTION 132 PRINT POSITIONS HOLE COUNT ON READER

DESCRIPTION

EASYTRAN PROGRAM MODIFIER C IS A HONEYWELL SERIES 200 PROGRAM WHICH MODIFIES SERIES 200 PROGRAMS CODED ON CARDS OR TAPE IN EASYCODER ASSEMBLY A LANGUAGE. THIS SYMBOLIC LANGUAGE HAS RESULTED FROM CONVERSIONS USING EITHER 1401 EASYTRAN OR EASYTRAN SYMBOLIC TRANSLATOR B. THIS SYMBOLIC INPUT IS MODIFIED TO BE ACCEPTABLE TO EASYCODER ASSEMBLY C AND OPERABLE WITH MODI OPERATING SYSTEM. THE MODIFIED PROGRAM IS OUTPUT ON A CARD IMAGE TAPE (CIT) SUITABLE FOR PROCESSING BY LIBRARY PROCESSOR B. LIBRARY PROCESSOR C AND/OR EASYCODER ASSEMBLY C.

FOR FURTHER INFORMATION PLEASE REFER TO THE FOLLOWING: EASYTRAN PROGRAM MODIFIER C

ORDER=147

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A/2 EASYCODER ASSEMBLER A/2 (2K-ASSEM), BSC-10 A(CARDUP) SYMBOLIC UPDATE A(CARDUP) . BSC-42 A(CPM-A) CRITICAL PATH METHOD A(CPM-A), BSC-56 A (DATCONA) DATA CONVERSION A (DATCONA) + BSC-57 A(FF-CONV) FLOATING-POINT/FIXED-POINT CONVERSION A(FF-CONV), BSC-49 A (M) 1401 ADDRESS TRANSLATOR A(M) (ADTABLES), BSC-70 A (MEMDUMP) MEMORY DUMP A (MEMDUMP) + BSC A(P) COLLATE A(P) (COLLATIPT) + BSC-14 SUBDER ASSEMBLER A(P) (PT-ASSEMBLY), BSC-7 SYMBOLIC UPDATE A(P) (UPDATEA(P)), BSC-16 TAPE SORT A(P) (SORT1PT), USC-12 1/2 INCH TAPE HANDLING ROUTINE A(P) (THORP), BSC-45 3/4 INCH TAPE HANDLING ROUTINE A(P) (THORAP), BSC-46 A(RG=2CHAR) REPORT GENERATOR A(RG-2CHAR), BSC-54 A (SCI-MATH) FLOATING-POINT SCIENTIFIC SUBROUTINES A(SCI-MATH), 85C+44 A (TABSIM) TABULATING SIMULATOR A (TABSIM) . BSC-41 A (THOR) 1/2 INCH TAPE HANDLING ROUTINE A(THOR), BSC-38 A(THORA) 3/4 INCH TAPE HANULING ROUTINE A(THORA), BSC-39 A (THOREX) TAPE HANDLING ROUTINE A(THOREX), BSC-50 A (UPDATEA) UPDATE A (UPDATEA) + BSC-17 A(120) TABULATOR SIMULATOR A(120) (TAB120A), BSC-64 A(2) INTEGER MULTIPLY/DIVIDE A(2) (MUL-DIVD), BSC-52 A(2V) INTEGER MULTIPLY/DIVIDE A(2V) (MUL+DIVA), BSC-40 A(3) INTEGER MULTIPLY/DIVIDE A(3) (MUL-DIVC), BSC-48 A(3V) INTEGOR MULTIPLY/DIVIDE A(3V) (MUL-DIVB), BSC-47 ADDRESS TRANSLATOR A(M) 1401 ADDRESS TRANSLATOR A(M) (ADTABLES), BSC=70 ADTABLES 1401 ADDRESS TRANSLATOR A(M) (ADTABLES), BSC-70 ALTERATION LOADING SYSTEM DRUM INTERROGATION ALTERATION + LOADING SYSTEM (DIAL), MOD1-20 ANALYSIS COMPUTERIZED PORTFOLIO ANALYSIS (FIN-CPA), BSC-74 ANALYZER C (ANALYZER) , MODI-11 APPLICATIONS. USC-72 ASSEMBLER " A/2, EASYCODER ASSEMBLER A/2 (2K-ASSEM), BSC-10 " A(P), EASYCODER ASSEMBLER A(P) (PT-ASSEMBLY), BSC-7 " C (ASSEMBLC) EASYCODER ASSEMBLER C(ASSEMBLC), MOD1-5 " D(ASSEMBLD) . EASYCODER ASSEMBLER D(ASSEMBLD), MOD1-35 EASYCODER ASSEMBLER A (ASSEMBLY), BSC-1 EASYCODER ASSEMBLER B (8K-ASSEM), BSC-15 ASSEMBLY EASYCODER ASSEMBLER & (ASSEMBLY), BSC-1 AUTOLOG. BSC-77 AUTOTIME AUTOTIMER (AUTOTIME) + MOD1=50 AUTOTIMER (AUTOTIME), MOD1-50 8 (B) SORT B(B) EASYTAB B SORT B(B) (EZTABSB) + MODI-37 B(BRIDGE) BRIDGE OBJECT PROGRAM TRANSLATOR B(BRIDGE), BSC-66 B(COBOLB) COBOL COMPILER B(COBOLB), MOD1=47 8 (D) SORT B(D). EASYTAB D SORT B(D) (EZTABSD), MODI-32 B (EASYTABB) EASYTAB B(EASYTABB), BSC-62 B(ETRAN 200)

B(ETRAN 200) EASYTRAN SYMBOLIC TRANSLATOR B(ETRAN 200), BSC-67 B(M) 1/2 INCH TAPE 1/0 B(M) (TRT0), BSC-69 B(RG=3CHAR) REPORT GENERATOR B(RG-3CHAR), BSC-53 B(TAB8K) TABULATING SIMULATOR B(TABBK) + BSC+43 B(120) TABULATOR SIMULATOR B(120) (TAB120B), BSC-65 BASIC PROGRAMMING SYSTEM, BSC-1 BRIDGE OBJECT PROGRAM TRANSLATOR B(BRIDGE), BSC-66 BRT PUNCH C(PLUS2), MODI=7 C (ANALYZER) ANALYZER C(ANALYZER), MOD1-11 C (ASSEMBLC) EASYCODER ASSEMBLER C(ASSEMBLC) . MOD1-5 C(COLATE2) COLLATE C(COLATE2), MOD1-13 C (DATCONC) DATA CONVERSION C (DATCONC) + MOD1+29 C(DIPDOP 2) DRUM I/O C(DIPDOP 2), MOD1-19 C (DRUMSRTC) DRUM SORT C(DRUMSRTC), MOD1-24 C(EZMODC) EASYTRAN PROGRAM MODIFIER C(EZMODC), MODI-52 C (FTMONC) FLOATING TAPE LOADER MONITOR C(FTMONC), MODI-27 C(IOMAC) STANDARD I/O CALLS C(IOMAC), MODI-18 LIBRARY PROCESSOR C(LIB PROC), MOD1-3 C (PLUS2) BRT PUNCH C(PLUS2) . MOD1-7 C(PTSC) PROGRAM TEST SYSTEM C(PTSC), MOD1=30 C(REPGEN-C) REPORT GENERATOR C(REPGEN-C), MOD1-39 C (SPTMERGE) SPT MERGE C (SPTMERGE) . MOD1-16 C(THORX) TAPE HANDLING ROUTINE C (THORX) . MOD1-9 C(TIPTOP3) 1/2 INCH TAPE TERMINAL I/O C(TIPTOP3), MODI-10 C(TYROZ) CONSOLE I/O C(TYRO2) . MOD1-21 C (UPSELC) SELECT C (UPSELC) UPBATE AND SELECT C (UPSELC) , MOD1-2 C (V) COLLATE C(V) (COLATE2(V)), MOD1-23 TAPE SORT C(V) (SORT2V), MOD1-14 C(1/21/0C) 1/2 INCH TAPE 1/0 C(1/21/0C), MOD1-31 CALLS C(10MAC) STANDARD I/O CALLS C(IOMAC). MOD1=18 CBLSORTS COBOL SORT ROUTINES (CBLSORTS), MOD1-46 CD-1/2TP, BSC-30 CD-400TP, BSC-36 CD-800TP, BSC-29 COBUL, MOD1-40 COMPILER B (COBOLB), BSC-21 COMPILER B(COBOLB), MOD1-47 COMPILER D(COBOL16), MOD1-40 ... " COMPILER H(COBOLH), MODI-43 " SORT ROUTINES (CBLSORTS), MODI-46 COBOLB COBOL COMPILER B (COBOLB), BSC-21 COLATE2 (V) COLLATE C(V) (COLATE2(V)), MOD1-23 COLLATE A (COLLATEI). BSC-4 " A(P) (COLLATIPT), BSC-14 " C(COLATE2), MOD1=13 " C(V) (COLATE2(V)) + MOD1-23 COLLATES COLLATE A (COLLATE1), BSC-4 COLLATIPT COLLATE A(P) (COLLATIPT), BSC-14 COMPILER " B(COBOLB), COBOL COMPILER B(COBOLB), MOD1-47 COBOL COMPILER B (COBOLB) + BSC-21 " D(COBOL16) . COBOL COMPILER D(COBOL16), MOD1-40 (CONT.)

COMPILER (CONT.) D(FORTRAND) FORTRAN COMPILER D(FORTRAND), MOD1-48 H (COBOLH), COBOL COMPILER H (COBOLH), MOD1-43 COMPUTERIZED PORTFOLIO ANALYSIS (FIN-CPA), BSC-74 CONSOLE I/O C(TYRO2), MODI-21 CONTROL D(INTCOND), INTERRUPT CONTROL D(INTCOND), MODI-28 \* PACKAGE, DRUM CONTROL PACKAGE (PLUSDRUM), MOD1-22 FORECASTING FOR INVENTORY CONTROL SYSTEM (MFG-FICS), 8SC-73 CONVERSION A(DATCONA), DATA CONVERSION A(DATCONA), BSC-57 " A(FF+CONV). FLOATING-POINT/FIXED-POINT CONVERSION A(FF-CONV), BSC-49 " C(DATCONC). DATA CONVERSION C(DATCONC), MODI-29 CRITICAL PATH METHOD A(CPM-A), BSC-56 CSORTZ TAPE SORT (SORT2)+ MODI-8 D(ASSEMBLD) EASYCODER ASSEMBLER D(ASSEMBLD), MOD1-35 D(COBOL16) COBOL COMPILER D(COBOL16), MOD1-40 D(EASYTABD) EASYTAB D(EASYTABD), BSC-59 D(EZTRND) EASYTRAN SYMBOLIC TRANSLATOR D(EZTRND), MOD1-51 D(FORTRAND) FORTRAN COMPILER D(FORTRAND) + MOD1-48 D(INTCOND) INTERRUPT CONTROL D(INTCOND), MOD1-28 D(LIB PROD) LIBRARY PROCESSOR D(LIB PROD), MOD1-33 D(LPD) LINEAR PROGRAMMING PACKAGE D(LPD), BSC-61 D(STAT+D) STATISTICS PACKAGE D(STAT-D), BSC-58 D(UPSELD) SELECT D(UPSELD) . UPDATE AND SELECT D(UPSELD), MOU1-25 DATA CONVERSION " A(DATCONA), BSC-57 \* C(DATCONC) + MOD1-29 DIAL DRUM INTERROGATION ALTERATION + LOADING SYSTEM (DIAL) + MOD1-20 DRUM " CONTROL PACKAGE (PLUSDRUM), MODI-22 " I/O C(DIPDOP 2), MODI-19 " I/O C(DIPDOP 2), TPATION + LOADING S " INTERROGATION ALTERATION + LOADING SYSTEM (DIAL), MOD1-20 " SORT C(DRUMSRTC), MOD1-24 DUMP A (MEMDUMP) TEMORY DUMP A (MEMDUMP) , BSC-22 EASYCODER ASSEMBLER EASYCODER ASSEMBLER A (ASSEMBLY), BSC-1 EASYCODER ASSEMBLER B (BK-ASSEM), BSC-15 "ASSEMBLER A/2 (2K-ASSEM), BSC-10 "ASSEMBLER A(P) (PT-ASSEMBLY), BSC-7 "ASSEMBLER C(ASSEMBLC), MOD1-5 "ASSEMBLER D(ASSEMBLD), MOD1-35 " 1. BSC=1 " 2. BSC=79 EASYTAB "B SORT B(B) (EZTABSB), MODI-37 "B(EASYTABB), BSC-62 "D SORT B(D) (EZTABSD), MODI-32 "D(EASYTABD), BSC-59 EASYTRAN \* PROGRAM HODIFIER C(EZMODC), MODI-52 \* Symbolic translator b(Etran 200), bSC-67 \* Symbolic translator c (Ext-Etra), bSC-71 SYMBOLIC TRANSLATOR D(EZTRND), MODI-51 ENDDECK, BSC-24 EX-APPLICATIONS, MOD1-50 EXT+ETRA EASYTRAN SYMBOLIC TRANSLATOR C (EXT-ETRA), BSC-71 EZTABSB EASYTAB & SORT B(B) (EZTABSB), MOD1-37 EZTABSD (CONT.)

EZTABSD EASYTAB D SORT B(D) (EZTABSD), MOD1-32 FIN-CPA COMPUTERIZED PORTFOLIO ANALYSIS (FIN-CPA), BSC-74 FLOATING TAPE LOADER MONITOR C(FTMONC), MODI-27 FLOATING-POINT SCIENTIFIC SUBROUTINES A(SCI-MATH FLOATING-POINT SCIENTIFIC SUBROUTINES A(SCI-MATH). BSC-44 FLOATING-POINT/FIXED-POINT CONVERSION A (FF-CONV) + BSC-49 FORECASTING FOR INVENTORY CONTROL SYSTEM (MFG-FICS). **BSC-73** FORTRAN, MODI-48 " COMPILER D(FORTRAND), MODI-48 GENERATOR " A (RG-2CHAR) REPORT GENERATOR A(RG-2CHAR), BSC-54 " B(RG-3CHAR), REPORT GENERATOR B(RG-3CHAR), BSC-53 C(REPGEN-C) REPORT GENERATOR C(REPGEN-C), MOD1-39 H(BASIC) LINEAR PROGRAMMING PACKAGE H(BASIC) (LPH-B), BSC-63 H(COBOLH) COBOL COMPILER H(COBOLH), MOD1-43 A (P) . 1/2 INCH TAPE HANDLING ROUTINE A(P) (THORP). BSC-45 3/4 INCH TAPE HANDLING ROUTINE A(P) (THORAP). BSC-46 " A(THOR), 1/2 INCH TAPE HANDLING ROUTINE A(THOR), BSC-38 A(THORA), 3/4 INCH TAPE HANDLING ROUTINE A(THORA), BSC-39 A(THOREX) TAPE HANDLING ROUTINE A (THORFX) . BSC-50 C (THORA) TAPE HANDLING ROUTINE C(THORX), MOD1-9 1/0 = в (М) • 1/2 INCH TAPE I/O B(M) (TRTO), BSC-69
" C(DIPDOP 2),
DRUM I/O C(DIPDOP 2), MOD1-19 " C(TIPTOP3 1/2 INCH TAPE TERMINAL I/O C(TIPTOP3), MOD1-10 C(TYROZ), CONSOLE I/O C(TYRO2), MOD1-21 " C(1/21/OC), 1/2 INCH TAPE 1/0 C(1/21/OC), MOD1-31 CALLS C(IOMAC) STANDARD I/O CALLS C(IOMAC), MODI-18 TERMINAL 1/0, 1/2 INCH TAPE AND TERMINAL 1/0 B (TIPTOP3), BSC-11 " TRANSLATOR. TARNSLATUR, TAPE I/O TRANSLATOR A (M) (IOTRAN), BSC-68 1/2 INCH TAPE I/O A (TIPTOP1), BSC-5 1/2 INCH TAPE I/O B (TIPTOP1A), BSC-13 3/4 INCH TAPE 1/O B (TIPTOP2), BSC-6 INCH TAPE HANDLING ROUTINE A(P). 1/2 INCH TAPE HANDLING ROUTINE A(P) (THORP). BSC-3/4 INCH TAPE HANDLING ROUTINE A(P) (THORAP). BSC-46 " HANDLING ROUTINE A(THOR), 1/2 INCH TAPE HANDLING ROUTINE A(THOR), BSC-38 " HANDLING ROUTINE A(THORA), 3/4 INCH TAPE HANDLING ROUTINE A(THORA) . BSC-39 " 1/0. 1/2 INCH TAPE 1/0 A (TIPTOP1), BSC-5 1/2 INCH TAPE 1/0 B (TIPTOP1A), BSC-3/4 INCH TAPE 1/0 B (TIPTOP2), BSC+6 BSC-13 " 1/0 B(M) + 1/2 INCH TAPE 1/0 B(M) (TRTO) + BSC=69 1/2 INCH TAPE I/O C(1/21/OC), MODI=31
" TERMINAL I/O C(TIPTOP3),
1/2 INCH TAPE TERMINAL I/O C(TIPTOP3), MODI=10
1/2 INCH TAPE AND TERMINAL I/O B (TIPTOP3), BSC=11 INTEGER MULTIPLY/DIVIDE " A(2) (MUL-DIVD), BSC+52 " A(2V) (MUL-DIVA), BSC+40 " A(3) (MUL-DIVC), BSC-48 INTEGOR MULTIPLYDIVIDE A(3V) (MUL-DIVB), BSC-47 INTERROGATION ALTERATION LOADING SYSTEM DRUM INTERROGATION ALTERATION + LOADING SYSTEM (CONT.)

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INTERROGATION ALTERATION LOADING SYSTEM (CONT.) (DIAL) + MOD1-20 INTERRUPT CONTROL D(INTCOND) + MOD1-28 INVENTORY CONTROL SYSTEM. FORECASTING FOR INVENTORY CONTROL SYSTEM (MFG-FICS), BSC-73 " SIMULATION SYSTEM (MFG-ISIM), BSC-72 IOTRAN TAPE I/O TRANSLATOR & (M) (IOTRAN), BSC-68 TAPE I/O TRANSLATOR / LIBERATOR, BSC-66 LIBERATOR2, MODI-51 LIBRARY PROCESSOR " B (MACROB), BSC-18 " C(LIB PROC), MODI-3 " D(LIB PROD), MODI-33 LINEAR PROGRAMMING PACKAGE " D(LPD), BSC-61 " H(BASIC) (LPH-B), BSC-63 LINK/SCOPE, BSC-23 LOADER "MONITOR C(FTMONC), FLOATING TAPE LOADER MONITOR C(FTMONC), MOD1-27 " MONITORS, PLUS LOADER MONITORS (PLUS1), BSC-79 LOADING SYSTEM DRUM INTERROGATION ALTERATION + LOADING SYSTEM (DIAL), MOD1-20 LPH-B LINEAR PROGRAMMING PACKAGE H(BASIC) (LPH-B), BSC+63 MACROB LIBRARY PROCESSOR B (MACROB), BSC-18 MANAGE, BSC-76 Merge C(SPTMerge) SPT Merge C(SPTMerge), MOD1-16 METHOD A(CPM-A) CRITICAL PATH METHOD A (CPN-A) . 85C-56 MFG-FICS Forecasting for inventory control system (MFG-Fics), BSC-73 MFG=ISIM INVENTORY SIMULATION SYSTEM (MFG-ISIM), BSC-72 MIXED TCU, BSC-27 Modifier C(ezmodc) EASYTRAN PROGRAM MODIFIER C(EZMODC), Modi-52 MONITOR. BSC-23 " C(FTMONC) + FLOATING TAPE LOADER MONITOR C(FTMONC) + MOD1-27 PLUS LOADER MONITORS (PLUS1), BSC-79 MUL-DIVA INTEGER MULTIPLY/DIVIDE A(2V) (MUL-DIVA), BSC-40 MUL + DIVB INTEGOR MULTIPLY/DIVIDE A(3V) (MUL-DIVB), BSC-47 MUL-BIVC INTEGER MULTIPLY/DIVIDE A(3) (MUL-DIVC). 85C-48 MUL-DIVD INTEGER MULTIPLY/DIVIDE A(2) (MUL-DIVD), BSC-52 MULTIPLY/DIVIDE NA(2), INTEGER MULTIPLY/DIVIDE A(2) (MUL-DIVD), BSC-52 " A(2V) INTEGER MULTIPLY/DIVIDE A(2V) (MUL-DIVA), BSC-40 " A(3), INTEGER MULTIPLY/DIVIDE A(3) (MUL-DIVC), BSC-48 " A (3V) . INTEGOR MULTIPLY/DIVIDE A(3V) (MUL-DIVB), BSC-47 Object program translator B(Bridge) Bridge object program translator B(Bridge), BSC-66 OLA. BSC-28 OPERATING SYSTEM-MOD1. BSC-79 PACKAGE " D(LPD) LINEAR PROGRAMMING PACKAGE D(LPU) . BSC-61 " D(STAT=D). STATISTICS PACKAGE D(STAT-D) + BSC-58 DRUM CONTROL PACKAGE (PLUSDRUM) + MOD1-22 H(BASIC). LINEAR PROGRAMMING PACKAGE H(BASIC) (LPH-B). B5C-63 PAPER TAPE " READ ROUTINE B (TOPPER), BSC-9 UPDATE A (PAPER TAPE) (UPDATEPT), BSC-22 PAPERTP, BSC-35 PATH METHOD A (CPM-A) Critical Path Method A (CPM-A), BSC-56 PERT TIME-C (PERT+C) + MOD1-38 PERT-C (CONT.)

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PERT-C (CONT.)
PERT TIME=C (PERT-C), MOD1-38
PLUS LOADER MONITORS (PLUS1), BSC-79
PLUSDRUM
        DRUM CONTROL PACKAGE (PLUSDRUM), MOD1-22
PLUS1
       PLUS LOADER MONITORS (PLUS1), BSC-79
PORTFOLIO ANALYSIS
Computerized Portfolio Analysis (Fin-CPA), BSC-74
        LIBRARY PROCESSOR C(LIB PROC), MOD1-3
PROCESSOR
       C(LIB PROC) .
            LIBRARY PROCESSOR C(LIB PROC), MOD1=3
     " D(LIB PROD),
LIBRARY PROCESSOR D(LIB PROD), MOD1-33
        LIBRARY PROCESSOR B (MACROB), BSC-18
       LIBRARY PRUCESSOR D(LIB PROD) . MOD1-33
PROFIT, BSC-78
PROGRAM
       AM

MODIFIER C(EZMODC),

EASYTRAN PROGRAM MODIFIER C(EZMODC), MOD1-52

TEST SYSTEM C(PTSC), MOD1-30

TRANSLATOR B(BRIDGE),

BRIDGE UBJECT PROGRAM TRANSLATOR B(BRIDGE),

BRIDGE UBJECT PROGRAM TRANSLATOR B(BRIDGE),
                    BSC-66
PROGRAMMING PACKAGE
      D(LPD) •
            LINEAR PROGRAMMING PACKAGE D(LPD), BSC-61
       H (BASIC)
            LINEAR PROGRAMMING PACKAGE H(BASIC) (LPH-B).
BSC-63
PROGRAMMING SYSTEM
       BASIC PROGRAMMING SYSTEM, BSC-1
PT-ASSEMBLY
        EASYCODER ASSEMBLER A(P) (PT-ASSEMBLY), BSC-7
PUNCH C(PLUS2)
BRT PUNCH C(PLUS2), MOD1=7
READ ROUTINE
PAPER TAPE READ ROUTINE B (TOPPER) + BSC-9
     " A (RG-2CHAR), BSC-54
" B (RG-3CHAR), BSC-53
" C (REPGEN-C), MOD1-39
ROUTINE
       A(P)
            1/2 INCH TAPE HANDLING ROUTINE A(P) (THORP).
            BSC-45
3/4 INCH TAPE HANDLING ROUTINE A(P) (THORAP).
                    B SC - 46
     " A(THOR),
1/2 INCH TAPE HANDLING ROUTINE A(THOR), BSC-38
       A (THORA) ,
            3/4 INCH TAPE HANDLING ROUTINE A(THORA). BSC-39
     " A(THOREX)
            TAPE HANDLING ROUTINE A(THOREX), BSC-50
C (THORX),
TAPE HANDLING ROUTINE C (THORX), MODI-9
COBOL SORT ROUTINES (CBLSORTS), MODI-46
PAPER TAPE READ ROUTINE B (TOPPER), BSC-9
SCIENTIFIC SUBROUTINES A (SCI-MATH)
        FLOATING-POINT SCIENTIFIC SUBROUTINES A(SCI-MATH).
            BSC-44
SELECT
       C(UPSELC),
     UPDATE AND SELECT C(UPSELC), MODI-2
" D(UPSELD),
            UPDATE AND SELECT D(UPSELD), MOD1-25
SIMULATION SYSTEM
       INVENTORY SIMULATION SYSTEM (MFG-ISIM), BSC-72
SIMULATOR
       A (TABSIM)
            TABULATING SIMULATOR A (TABSIM) . BSC=41
     " A(120),
             TABULATOR SIMULATOR A(120) (TAB120A), BSC-64
     B (TAB&K)
            TABULATING SIMULATOR B(TAB8K). BSC-43
     " B(120) .
            TABULATOR SIMULATOR B(120) (TAB1208), BSC-65
SORT
     " A(P),
TAPE SORT A(P) (SORT1PT), BSC-12
     " B(B),
EASYTAB B SORT B(B) (EZTABSB), MOD1-37
     " B(D),
            EASYTAB D SORT B(D) (EZTABSD), MOD1-32
             (CONT.)
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SORT (CONT.)
" C(DRUMSRTC),
                DRUM SORT C(DRUMSRTC) , MOD1-24
       .
         C(V).
                 TAPE SORT C(V) (SORT2V), MOD1-14
       * CSORT2+
                 TAPE SORT CSORT2), MOD1-8
      " ROUTINES,
COBOL SORT ROUTINES (CBLSORTS), MOD1-46
          TAPE SORT A (SORT1), BSC-3
SORT1
          TAPE SORT A (SORT1), BSC-3
SORTIPT
          TAPE SORT A(P) (SORTIPT). BSC-12
SORT2V
          TAPE SORT C(V) (SURT2V), MOD1-14
SPT MERGE C(SPTMERGE), MODI-16
STANDARD I/O CALLS C(IOMAC), MODI-18
STATISTICS PACKAGE D(STAT-D), BSC-58
SUBROUTINES A(SCI-MATH)
         FLOATING-POINT SCIENTIFIC SUBROUTINES A(SCI-MATH).
                BSC-44
SYMBOLIC TRANSLATOR
        B(ETRAN 200),
EASYTRAN_SYMBOLIC TRANSLATOR B(ETRAN 200),
                          BSC-67
       . D(EZTRND),
         EASYTRAN SYMBOLIC TRANSLATOR D(EZTRND), MODI-51
EASYTRAN SYMBOLIC TRANSLATOR C (EXT-ETRA), BSC-71
SYMBOLIC UPDATE
" A(CARDUP), BSC-42
       * A(P) (UPDATEA(P))+ BSC-16
SYSTEM
         BASIC PROGRAMMING SYSTEM, BSC-1
      C(PTSC),
PROGRAM TEST SYSTEM C(PTSC), MOUL 30
DRUM INTERROGATION ALTERATION + LOADING SYSTEM
         (DIAL) + MOD1=20
INVENTORY CONTROL SYSTEM.
                FORECASTING FOR INVENTORY CONTROL SYSTEM
         (MFG-FICS), BSC-73
INVENTORY SIMULATION SYSTEM (MFG-ISIM), BSC-72
SYSTEM-MOD1
OPERATING SYSTEM-MODI, BSC-79
TABULATING SIMULATOR
      " A (TABSIM) + BSC-41
" B (TABBK) , BSC-43
TABULATOR SIMULATOR
" A(120) (TAB120A), BSC-64
" B(120) (TAB120B), BSC-65
TAB120A
         TABULATOR SIMULATOR A(120) (TAB120A), BSC-64
TAB120B
          TABULATOR SIMULATOR B(120) (TAB120B), BSC-65
TAPE
       " HANDLING ROUTINE A(P)
                1/2 INCH TAPE HANDLING ROUTINE A(P) (THORP).
                          850-45
                3/4 INCH TAPE HANDLING ROUTINE A(P) (THORAP),
                          BSC-46
       " HANDLING ROUTINE A (THOR)
         MANDLING ROUTINE A(THOR),

1/2 INCH TAPE HANDLING ROUTINE A(THOR), BSC-38

HANDLING ROUTINE A(THORA),

3/4 INCH TAPE HANDLING ROUTINE A(THORA), BSC-39

HANDLING ROUTINE A(THOREX), BSC-50

HANDLING ROUTINE C(THORX), MOD1-9
       " I/O,
                1/2 INCH TAPE I/O A (TIPTOP1), BSC-5
1/2 INCH TAPE I/O B (TIPTOP1A), BSC-13
3/4 INCH TAPE I/O B (TIPTOP2), BSC-6
      " 1/0 B(M),
1/2 INCH TAPE 1/0 B(M) (TRTO), BSC-69
      " I/O C(1/21/OC),
1/2 INCH TAPE I/O C(1/21/OC), MODI-31
      # I/O TRANSLATOR A (M) (IOTRAN), BSC-66
# LOADER MONITOR C(FTMONC),
FLOATING TAPE LOADER MONITOR C(FTMONC), MOD1-27
      FLOATING TAPE LOADER MONITOR C(FTMONC), MODI-27

" READ ROUTINE,

PAPER TAPE READ ROUTINE B (TOPPER), BSC-9

" SORT A (SORT1), BSC-3

" SORT A (P) (SORT1PT), BSC-12

" SORT C(V) (SORT2V), MODI-14

" SORT CSORT2), MODI-8

" TERMINAL 1/0 C(TIPTOP3), MODI-10

UPDATE A (PAPER TAPE) (UPDATEPT), BSC-22

1/2 INCH TAPE AND TERMINAL 1/0 B (TIPTOP3), BSC-11

(CONT.)
TCU (CONT.)
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TCU MIXED TCU, BSC-27 1/2 TCU, BSC-26 3/4 TCU, BSC-25 TERMINAL I/O " C(TIPTOP3) 1/2 INCH TAPE TERMINAL 1/O C(TIPTOP3), MODI-10 1/2 INCH TAPE AND TERMINAL 1/O B (TIPTOP3), BSC-11 TEST SYSTEM C(PTSC) PROGRAM TEST SYSTEM C(PTSC) . MOD1-30 THORAP 3/4 INCH TAPE HANDLING ROUTINE A(P) (THORAP), BSC-46 THORP 1/2 INCH TAPE HANDLING ROUTINE A(P) (THORP), BSC-45 TIME-C PERT TIME-C (PERT-C), MOD1-38 TIPTOP1 1/2 INCH TAPE I/O A (TIPTOP1), BSC-5 TIPTOPIA 1/2 INCH TAPE I/O B (TIPTOPIA), BSC-13 TIPTOP2 3/4 INCH TAPE 1/0 B (TIPTOP2), BSC-6 TIPTOP3 1/2 INCH TAPE AND TERMINAL I/O B (TIPTOP3) . BSC-11 TOPPER PAPER TAPE READ ROUTINE B (TOPPER), BSC-9 TRANSLATOR # A (M) . 1401 ADDRESS TRANSLATOR A(M) (ADTABLES), BSC-70 \* B(BRIDGE) BRIDGE OBJECT PROGRAM TRANSLATOR B(BRIDGE), BSC-66 " B(ETRAN 200), EASYTRAN SYMBOLIC TRANSLATOR B(ETRAN 200), BSC+67 " D(EZTRND), EASYTRAN SYMBOLIC TRANSLATOR D(EZTRND), MOD1-51 EASYTRAN SYMBOLIC TRANSLATOR C (EXT-ETRA), BSC-71 TAPE I/O TRANSLATOR A (M) (IOTRAN), BSC-68 TRTO 1/2 INCH TAPE I/O B(M) (TRTO). BSC-69 UPDATE " A (PAPER TAPE) (UPDATEPT), BSC-22 " A(CARDUP), SYMBOLIC UPDATE A(CARDUP), BSC-42 " A(P), SYMBOLIC UPDATE A(P) (UPDATEA(P)), BSC-16 " A(UPDATEA), BSC-17
" AND SELECT C(UPSELC), MOD1-2
" AND SELECT D(UPSELD), MOD1-25 " B (UPDATEB) + BSC-20 UPDATEA (P) SYMBOLIC UPDATE A(P) (UPDATEA(P)), BSC-16 UPDATEB UPDATE B (UPDATEB), BSC-20 UPDATEPT UPDATE & (PAPER TAPE) (UPDATEPT), BSC-22. UTILITY, BSC-38, BSC-64 WORDCOM, BSC-75 1/2 INCH TAPE " AND TERMINAL I/O B (TIPTOP3), BSC-11 " HANDLING ROUTINE A(P) (THORP), BSC-45 " HANDLING ROUTINE A(THOR), BSC-38 " 1/0, 1/2 INCH TAPE 1/0 A (TIPTOP1), BSC+5 1/2 INCH TAPE 1/0 B (TIPTOP1A), BSC+13 " I/O B(M) (TRTO), BSC-69 " I/O C(1/21/OC), MOD1-31 " TERMINAL I/O C(TIPTOP3), MOD1-10 1/2 TCU, BSC-26 1/2TP-PC+ BSC-32 1/2TP-PR+ BSC-34 1401 ADDRESS TRANSLATOR A(M) (ADTABLES), BSC-70 DRUM I/O C(DIPDOP 2), MOD1-19 2K-ASSEM EASYCOUER ASSEMBLER A/2 (2K-ASSEM), BSC-10 200) EASYTRAN SYMBOLIC TRANSLATOR B(ETRAN 200), BSC-67 3/4 " INCH TAPE I/O B (TIPTOP2), BSC-6 " TCU, BSC-25 3/4 INCH TAPE HANDLING ROUTINE " A(P) (THORAP), BSC-46 " BSC-20 " A(THORA), BSC-39 3/4TP-PR. BSC-33 400-TP-PC, BSC-37

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