HONEYWELL EDP

SERIES 200

SOFTWARE RELEASE BULLETIN
ADDENDUM # 55

Subject: SOFTWARE INCLUDED IN THIS RELEASE:

TIPTOP3 (1/2" TAPE AND TERMINAL I/O B)
UPDATEB (UPDATE B)
COBOLB (COBOL COMPILER B)
1/2TP-PC (1/2" TAPE TO PUNCH)
DATCONA (DATA CONVERSION A)
EASYTABB (EASYTAB B UTILITY ROUTINES)
LIB PROC (LIBRARY PROCESSOR C)
PLUS2 (BRT PUNCH C)
ANALYZER (ANALYZER C)
TIPTOP3 (1/2" TAPE AND TERMINAL I/O C)
DATCONC (DATA CONVERSION C)
LIB PROD (LIBRARY PROCESSOR D)
ASSEMBLD (EASYCODER ASSEMBLY D)
COBOLB (COBOL COMPILER B)
FORTRAND (FORTRAN COMPILER D)
AUTOTIME (AUTOTIMER D)

Purpose: In accordance with our policy of maintaining an up-to-date software package at all Honeywell installations, we are releasing software modifications to Honeywell Data Distribution Centers. Any future Software Releases will assume your master programs to be current through this release.

Installations desiring this software may obtain it by contacting their Honeywell representative.

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SYSTEM	EASYCODER1	REVISION Ø23
SUBSYSTEM	TIPTOP3	REVISION ØØ3
PROGRAMS	CLOSE	REVISION ØØ1
	DCLOS	REVISION ØØ3
	DIOCS	REVISION ØØ5
	DTF	REVISION ØØ5
	FEORL	REVISION ØØ1
	GET	REVISION ØØ2
	OPEN	REVISION ØØ1
	PUT	REVISION ØØ2
	RDLIN	REVISION ØØ1
	RELSE	REVISION ØØ1
	SKIP	REVISION ØØ2
	SPACE	REVISION ØØ3

Description of changes:

1. Operation in 3 or 4 character addressing mode with no additional parameters required. All address modification is determined by analyzing the address mode specified by the source program.

2. Optional error communication via console typewriter.

3. Single or double buffering option on tape files determined by specification or omission of alternate buffer parameter. Double buffering for tape files is no longer forced.

4. The punch error routine has been corrected to conform to Honeywell standards.

5. Noise record checking is provided before header label and before first data record.

6. The tape read routine has been rewritten to check for a greater variety of error situations in their proper sequence. This routine now distinguishes between noise and wrong length records, and if a combination of the two should occur, it will check for frame drop out and re-test wrong length record to attempt to recover lost frames.

7. All known deficient combinations of spacing and skipping in print routines have been corrected.

8. The output RELSE routines have been corrected.

9. Alternate tape routine has been compressed to save memory space and execution time.

For further information, please refer to:

Software Manual, 1/2" Tape and Terminal I/O B and C, Order #167.

SYSTEM EASYCODER1 REVISION Ø21

SUBSYSTEM UPDATEB REVISION ØØØ

PROGRAM UPDATB REVISION ØØØ

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 program card decks or card-image tapes on a self-loading tape (SLT).

2) Maintain and update an existing SLT.

Minimum Equipment Requirements for UPDATEB:

1) 8,192 Storage Positions
2) 2 1/2" Magnetic Tape Units
3) 1 Card Reader
4) Advanced Programming Option

Additional Equipment Usage:

1) 1 1/2" Magnetic Tape Unit
2) 1 Printer

For further information, please refer to:

Software Manual COBOL Compiler B, Order #292.

Operational Characteristics:

When running with Sense Switch 2 off, logical 2 tape assignment must always be active.

SYSTEM	EASYCODER1	REVISION Ø23
SUBSYSTEM	COBOLB	REVISION ØØØ
PROGRAMS	C-DECK	REVISION ØØØ
	COBOLB	REVISION ØØ5
	8KIES	REVISION Ø39
	8KDDSB	REVISION Ø51
	8KDSA1	REVISION Ø17
	8KDSA2	REVISION Ø25
	8KDDA	REVISION Ø14
	8KPDSN	REVISION Ø19
	8KPRGN	REVISION Ø13
	@CLODR	REVISION ØØØ
	@TLODR	REVISION ØØØ
	8KIOG	REVISION Ø2Ø
	8KGEN	REVISION Ø86
	8KLAST	REVISION ØØ2

COBOL COMPILER B is a Basic Cobol Compiler operating in a 8K environment. It may be used as part of the EASYTAB programming system, programming tab operations not covered by any of the pre-coded EASYTAB Utility Routines.

Minimum Equipment Requirements for COBOLB:

1) Compilation

   a) 8,192 Storage Positions
   b) 2 1/2" Magnetic Tape Units
   c) 1 Card Reader / Punch (or 2 separate units)
   d) 1 Printer
   e) Advanced Programming Option

2) Execution

   a) 8,192 Storage Positions
   b) Advanced Programming Option
   c) Edit Option

Additional Equipment Usage:

1) Compilation

   a) 24,576 Storage Positions
   b) 1 1/2" Magnetic Tape Unit

2) Execution

a) 24,576 Storage Positions
b) Up to 8 1/2" Magnetic Tape Units
c) 1 High Speed Printer (132 Print Positions Optional)
d) 1 Card Reader / Punch (or 2 separate units)

For further information, please refer to:

Software Manual, COBOL COMPILER B, Order #292.

OPERATIONAL CHARACTERISTICS: KNOWN PROBLEMS AND RESTRICTIONS

1. An error indication for a missing period will occur if a paragraph name is preceded by a NOTE sentence. This error indication will occur even if a period terminates the NOTE sentence.

2. The compiler can initially clear an item to the figurative constants, space or quote, only if the size of the item does not exceed 63_{10} characters.

3. If the diagnostic:

   "The Table for Syntax Analysis has Overflowed."

   appears while processing the Environment Division of a source program, it will indicate one of the following conditions:

   A. a missing key paragraph header

   B. a missing Section header

   C. a key word spelled incorrectly

   In any event, the user should correct all known errors and compile the program again.

4. More than 7 insertion characters in an item will cause a fatal error.

5. If there are editing characters in a field described as alphanumeric then editing will be performed left to right instead of right to left when the sending and receiving fields have different sizes. This is a difference from DOD COBOL.

6. When an IF numeric test is executed referencing a field described as numeric signed and the contents of the field are <u>not</u> numeric, then the zone bits of the units position of the field are erroneously set to zero.

C-Deck is the UpdateB Director Deck for creating a COBOLB SLT. In order to use C-Deck:

1. Remove the prog card.
2. Insert a 1EOF at the end.

SYSTEM	LINK / SCOPE	REVISION Ø1Ø
SUBSYSTEM	1/2TP-PC	REVISION ØØ2
PROGRAMS:	35	REVISION ØØ1
	36	REVISION ØØ1
	37	REVISION ØØ1

Description of changes:

1. Exactly 80 or, if transcription mode, 160 characters will be moved from the tape buffer to the punch buffer instead of 81 and 161.

2. During initialization, a record mark is set in either the 81st or 161st position of the punch buffer.

3. During initialization, a dummy punch instruction will be executed in order to move the card at the punch station out.

4. During termination, housekeeping the record mark in either the 81st or 161st position of the punch buffer will be cleared.

5. The erroneous constant at "HQ" in Program 35 has been corrected.

Reason for changes:

1. The 224 or 214 punch requires a record mark at the end of the buffer.

2. When the 224 or 214 Reader / Punch switches from reading to punching, the last card read is positioned at the punch station.

The information stated above may be used to update the existing documentation:

Software Manual, Simultaneous Media Conversion A and C, Order #Ø21.

SYSTEM UTILITY REVISION Ø26

SUBSYSTEM DATCONA REVISION ØØ2

PROGRAM $TPPCH REVISION ØØØ

$TPPCH is a generalized macro routine for creating a punched-card file from a punch-image file on half-inch magnetic tape. It may be specialized for use as one of three general types of programs: an independent program, a Simultaneous Media Conversion (Scope) co-routine, and a foreground program in the interrupt mode.

Minimum Equipment Requirements for $TPPCH:

1) 2,048 Storage Positions
2) 1 1/2" Magnetic Tape Unit
3) 1 Card Punch

Additional Equipment Usage:

1) 1 Card Reader
2) IBM Format Option
3) IBM Code Compatibility Option

For further information, please refer to:

Software Manual, Data Conversion A and C, Order #231.

SYSTEM	UTILITY	REVISION Ø26
SUBSYSTEM	EASYTABB	REVISION ØØØ
PROGRAMS:	SORTBB	REVISION Ø24
	ALTERB	REVISION ØØØ
	PERIOB	REVISION ØØØ
	TOTALB	REVISION ØØØ
	SELECB	REVISION ØØØ
	REPROB	REVISION ØØØ
	MERGEB	REVISION ØØØ

This is the first release of EASYTABB. EASYTABB is now in a general release status.

The **EASYTABB** system is comprised of seven utility programs. Six of these programs are written in COBOLB. The seventh "SORTBB" is written in **EASY-CODER.** All seven programs operate with Loader B and the operating characteristics which apply to Loader B also apply to the Easytab B programs.

SORTBB is a routine designed to perform sorting functions on a Series 200 magnetic tape system. SORTBB can accept as input either cards or magnetic tape. Key fields may range from one to eight, and output may be in ascending or descending order.

ALTERB performs basic updating functions to a magnetic tape file. Items on the tape file may be deleted, inserted, or replaced.

PERIOB performs basic input / output operations under the control of Sense Switches. Card to tape, tape to cards and tape to print operations may be performed.

TOTALB performs accumulations on up to seven fields with four levels of control breaks. Input can be card or tape, output is a printed report. List or tab functions can be performed.

SELECB performs three types of select functions, selects items from an input file by item count, by location in a group, or by logical tests. Input can be card or tape, output can be card, tape or a printed listing.

REPROB performs various reproducing functions such as 80/80 reproducing, offset reproducing, card numbering and gang punching. Input can be card or tape, output can be card or tape. A printed listing of the input and/or output can be obtained with the use of Sense Switches.

MERGEB performs merging functions on two ordered files. Match merging, normal merging, select primary and select secondary functions can be performed. Input can be card and tape, or two tape files, output is a merged file. Unmatched items can be printed or punched on cards.

Minimum Equipment Requirements:

a) 8,192 Characters of Memory
b) 1 Card Reader / Punch on a separate Reader and Punch
c) 1 Printer
d) 3 Magnetic Tape Drives
e) Advanced Programming Option
f) Edit Option

For further information, please refer to:

Software Manual: EASYTAB Utility Programs, Order #206

Note: The source decks included in this release have been prepared for individual compilations, not batch compilations. The output from compilation will be Binary Run Decks.

OPERATIONAL CHARACTERISTICS OF SORTBB (CARD VERSION)

1. Depress the "Initialize" button.
2. Load the SORTBB deck in the Card Reader.
3. Set the "Contents" button to 41 (Octal).
4. Depress the "Bootstrap" button.
5. Depress the "Run" button.
6. At the first Programmed Halt (BC = 17Ø7Ø) enter into location zero the highest memory bank available by using the relocation character as defined in Table 1. The highest available memory must be the same as that indicated on the SORTB parameter card.
7. Depress the "Run" button.

TABLE I

RELOCATION BANK INDICATOR VALUES

RELOCATION BANK INDICATOR (location 0)	HIGHEST ADDRESS (octal)	MEMORY SIZE
$Ø1_8$	Ø1 77 77	8K
Ø2	Ø2 77 77	12K
Ø3	Ø3 77 77	16K
Ø4	Ø4 77 77	20K
Ø5	Ø5 77 77	24K
Ø6	Ø6 77 77	28K
Ø7	Ø7 77 77	32K

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	LIB PROC	REVISION ØØ6
PROGRAM	AACLIB	REVISION Ø11

The following features have been added to the Library Processor C.

1. The ability to operate as an integrated system with EASYCODER ASSEMBLY C.

2. Automatic re-specialization of nested macros.

3. The ability to re-specialize all macros in a program. This option is elected on the program director card.

4. The ability to prevent the specialization of macro routines called for in the input deck.

5. Delimiting macro coding in a program by M and N statements; an M statement preceding the first statement of a macro routine and an N statement following the last statement of the routine.

6. H-120 ICU capability added to the I/O routines.

For further information please refer to:

Software Manual, Library Processors C and D, Order #Ø51.

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	PLUS2	REVISION ØØ6
PROGRAM	AAAPUN	REVISION ØØ5

Description of change:

The I/O error routines were corrected to include 120 integrated control unit capability.

The information stated above may be used to update the existing documentation.

Software Bulletin, BRT Punch C, Order #Ø2Ø.

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	ANALYZER	REVISION ØØ3
PROGRAM	AAJANA	REVISION ØØ6

Description of changes:

1) A record mark is set at the end of the card input buffer.

2) M and N type cards have been eliminated from the analyzer listing.

3) A listing of Y type address modification is provided.

The information stated above may be used to update the existing documentation:

Software Bulletin, Analyzer C, Order #Ø19.

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	TIPTOP3	REVISION ØØ3
PROGRAMS	CLOSE	REVISION ØØ1
	DCLOS	REVISION ØØ3
	DIOCS	REVISION ØØ5
	DTF	REVISION ØØ5
	FEORL	REVISION ØØ1
	GET	REVISION ØØ2
	OPEN	REVISION ØØ1
	PUT	REVISION ØØ2
	RDLIN	REVISION ØØ1
	RELSE	REVISION ØØ1
	SKIP	REVISION ØØ2
	SPACE	REVISION ØØ3

Description of changes:

1. Operation in 3 or 4 character addressing mode with no additional parameters required. All address modification is determined by analyzing the address mode specified by the source program.

2. Optional error communication via console typewriter.

3. Single or double buffering option on tape files determined by specification or omission of alternate buffer parameter. Double buffering for tape files is no longer forced.

4. The punch error routine has been corrected to conform to Honeywell standards.

5. Noise record checking is provided before header label and before first data record.

6. The tape read routine has been rewritten to check for a greater variety of error situations in their proper sequence. This routine now distinguishes between noise and wrong length records, and if a combination of the two should occur, it will check for frame drop out and re-test wrong length record to attempt to recover lost frames.

7. All known deficient combinations of spacing and skipping in print routines have been corrected.

8. The output RELSE routines have been corrected.

9. Alternate tape routine has been compressed to save memory space and execution time.

For further information, please refer to:

Software Manual, 1/2" Tape and Terminal I/O B and C, Order #167.

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	DATCONC	REVISION ØØ2
PROGRAM	$TPPCH	REVISION ØØØ

$TPPCH is a generalized macro routines for creating a punched-card file from a punch-image file on half-inch magnetic tape. It may be specialized for use as one of three general types of programs: an independent program, a Simultaneous Media Conversion (Scope) co-routine, and a foreground program in the interrupt mode.

Minimum Equipment Requirements for $TPPCH:

1) 12,288 Storage Positions
2) 1 1/2" Magnetic Tape Unit
3) 1 Card Punch

Additional Equipment Usage:

1) 1 Card Reader
2) IBM Format Option
3) IBM Code Compatibility Option

For further information, please refer to:

Software Manual, Data Conversion A and C, Order #231.

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	LIB PROD	REVISION ØØØ
PROGRAM	AACLPR	REVISION ØØØ

Library Processor D processes symbolic card-image files that contain input to EASYCODER ASSEMBLY D. Library Processor D inserts macro routines which exist on a library symbolic program tape (SPT) into source programs in response to macro instructions (calls) within source programs. In this process, each macro routine is specialized to perform the specific function desired. The only difference between Library Processors C and D is that Library Processor D accepts symbolic programs using the alternate card format. The alternate card format contains an 11-character location field.

Minimum Equipment Requirements for Lib ProcD:

1) 16,384 Storage Positions
2) 2 1/2" magnetic tape units
3) 1 Card Reader
4) 1 Card Punch
5) Advanced Programming Option

Additional Equipment Usage:

1) 16,384 Storage Positions
2) 2 1/2" Magnetic Tape Units
3) Paper Tape Reader
4) 220 Console Typewriter

For further information, please refer to:

Software Manual, Library Processors C and D, Order #051

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	ASSEMBLD	REVISION ØØØ
PROGRAMS	AABDST	REVISION ØØØ
	AABEZD	REVISION ØØØ
	AABDNI	REVISION ØØØ
	AABDTL	REVISION ØØØ
	AABDDT	REVISION ØØØ
	AABDRS	REVISION ØØØ
	AABDRQ	REVISION ØØØ
	AABDRR	REVISION ØØØ
	AABD12	REVISION ØØØ

EASYCODER ASSEMBLYD translates symbolic coding into machine language. It writes the assembled programs (in symbolic and machine language) onto a symbolic program tape (SPT) and may produce a listing of the program. It may also write the programs in machine language onto a binary run tape (BRT) from which the programs may be loaded and executed. EASYCODER ASSEMBLYD also provides the facility for maintaining programs on the SPT. Programs can be added to or deleted from an SPT, and correction can be made to the individual programs during one assembly run.

Minimum Equipment Requirements for ASSEMBLD:

1) 16,384 Storage Positions
2) 2 1/2" Magnetic Tape Units
3) 1 Card Reader
4) Advanced Programming Option

Additional Equipment Usage:

1) 16,384 Storage Positions
2) 2 1/2" Magnetic Tape Units
3) 1 Card Punch
4) 1 Paper Tape Reader
5) 1 Printer
6) 220-1, 220-2 Console Typewriter

For further information, please refer to:

Software Manual EASYCODER Assemblers C and D, Order #041.

SYSTEM	EASYCODER2	REVISION Ø21
SUBSYSTEM	EZTABSB	REVISION ØØØ
PROGRAM	SORTBB	REVISION Ø24

SORTBB is being included on the SPT in the event that any symbolic corrections to EASYTABB SORTBB are required.

SYSTEM	COBOL	REVISION Ø9Ø
SUBSYSTEM	COBOL B	REVISION ØØØ
PROGRAMS	COBOLB	REVISION ØØ5
	8KIES	REVISION Ø39
	8KDDSB	REVISION Ø51
	8KDSA1	REVISION Ø17
	8KDSA2	REVISION Ø25
	8KDDA	REVISION Ø14
	8KPDSN	REVISION Ø19
	8KPRGN	REVISION Ø13
	8KIOG	REVISION Ø2Ø
	8KGEN	REVISION Ø86
	8KLAST	REVISION ØØ2

COBOL COMPILER B is a Basic Cobol Compiler operating in a 8K environment. It may be used as part of the EASYTAB programming system, programming tab operations not covered by any of the pre-coded Easytab Utility Routines.

Minimum Equipment Requirements for COBOLB:

1) Compilation

   a) 8,192 Storage Positions
   b) 2 1/2" Magnetic Tape Units
   c) 1 Card Reader / Punch (or 2 separate units)
   d) 1 Printer
   e) Advanced Programming Option

2) Execution

   a) 8,192 Storage Positions
   b) Advanced Programming Option
   c) Edit Option

Additional Equipment Usage:

1) Compilation

   a) 24,576 Storage Positions
   b) 1 1/2" Magnetic Tape Unit

2) Execution

   a) 24,576 Storage Positions
   b) Up to 8 1/2" Magnetic Tape Units
   c) 1 High Speed Printer (132 Print Positions Optional)
   d) 1 Card Reader / Punch (or 2 separate units)

For further information, please refer to:

Software Manual, COBOL COMPILER B, Order #292.

OPERATIONAL CHARACTERISTICS: KNOWN PROBLEMS AND RESTRICTIONS

1. An error indication for a missing period will occur if a paragraph name is preceded by a NOTE sentence. This error indication will occur even if a period terminates the NOTE sentence.

2. The compiler can initially clear an item to the figurative constants, space or quote, only if the size of the item does not exceed 63_{10} characters.

3. If the diagnostic:

   "The Table for Syntax Analysis has Overflowed."

   appears while processing the Environment Division of a source program, it will indicate one of the following conditions:

   A. a missing key paragraph header

   B. a missing Section header

   C. a key word spelled incorrectly

   In any event, the user should correct all known errors and compile the program again.

4. More than 7 insertion characters in an item will cause a fatal error.

5. If there are editing characters in a field described as alphanumeric then editing will be performed left to right instead of right to left when the sending and receiving fields have different sizes. This is a difference from DOD COBOL.

6. When an IF numeric test is executed referencing a field described as numeric signed and the contents of the field are <u>not</u> numeric, then the zone bits of the units position of the field are erroneously set to zero.

SYSTEM FORTRAN REVISION ØØ3

SUBSYSTEM FORTRAND REVISION ØØ3

Revision 3.Ø of FORTRAND embodies major changes and improvements. The availability of the manual is essential to the effective use of the system.

Note should be taken of a number of changes in the general system.

1. Method of specifying system memory size on Console Call Cards (Column 11). See Section 9 of manual.

2. Method of specifying object memory size on *JOBID cards. See Section 7 of manual.

3. Default precision size has been changed for both integer and floating point (real) to enhance execution.

   Default integer precision has been changed from 5 to 3.

   Default floating point (real) precision has been changed from 10 to 7.

   Care should be exercised when retrieving programs from stack tapes that precision compatibility is maintained.

NEW FEATURES

1. Four Character Capability

   The system is now able to employ either 3 or 4 character object code at execution time. With four character addressing mode, memory up to 262,144 characters may be accessed; a minimum of 32K memory is required to use four character mode. The option is specified on Console Call Cards; details are spelled out in Sections 9 and 11, and Appendix E of the manual.

   Four Character Capability Restrictions

   Unlabeled COMMON allocation is limited to 28K of memory.

   Labeled COMMON allocation is limited to 32K.

   If a FORTRAN program program contains an assigned GO TO statement, integer precision must be a minimum of 4.

   System dumping (triggered by setting the Sequence Counter at 32_8) is limited to 32K of memory. Dumps which are taken via source statements (CALL, DUMP, etc.) however, will dump all of specified memory.

Binary decks which have been previously punched as well as programs which reside on stack tapes and which are to be run in four character mode will have to be recompiled and saved with Revision 3.0 of the system.

2. Modular Object I/O

Object I/O has been segmented into a number of modules. Only those modules which are functionally required are allocated at object time.

Module	Function
ACBOIO	I/O control program
BCDCON	For formatted READs or WRITEs
BINARY	For unformatted READs or WRITEs.
BACKSP	For BACKSPACE statements
ENDFIL	For ENDFILE statements
EOFPAR	For CALL EOF or CALL PARITY
EFGCNV	For E, F, or G conversions
INTCON	For I conversions
LOGOCT	For L or O conversions
VFORMT	For array formats

I/O modules are allocated on a chain basis. Through the judicious use of chaining and I/O functions, significant savings in object memory space may be achieved.

3. Increased Number of Chains

The maximum number of chains allowed in a job has been increased from 9 to 30.

4. Off-Line Output Capability

The system now allows an off-line punch and/or print tape to be specified on Console Call Cards. Printing and punching may be assigned to the same tape, if desired.

Note: If off-line printing and/or punching are specified when compiling to generate a go-later tape, then the same options must be specified on the Console Call Cards when executing those programs on the go-later run tape. See Section 9 of the manual.

5. Executing in 12K Memory

While it is not possible to use the FORTRAN D compiler with less than 16K of memory, it is possible to compile a small program onto a go-later tape to be executed on a 12K computer. The option for a 12K object memory may be specified on the *JOBID card when compiling the program.

DIFFICULTIES RESOLVED SINCE LAST REVISION

1. More than 132 Char. in format statement not diagnosed.
2. Buffer not cleared after listing data cards during compilation.
3. Hangup in Run Tape Generator.
4. Variable Format not working.
5. F19 precision causes blowup in RTG.
6. Erroneous preprocessor diagnostic of too many left parens.
7. Variable name and operator picked up as function name by preprocessor.
8. Format error or loop on Legal I/O statement at object execution.
9. FPP does not give correct answers when called indirectly on a 201-0 C.P.
10. Undefined compiler diagnostic = 252 on logical IF statement.
11. Preprocessor sporadically drops C from comment cards on printer list.
12. Erroneous results on a -O C.P. on a program with no explicit calls to the FPP package.
13. Subscripts of the numeral 1 in arithmetic statements cause unspecified results in program.
14. Erroneous results by program when Floating Point mantissa precision is reduced from F4 to F3 or F2.
15. Variable outputted incorrectly when using G15 and F15 field specs.
16. Hangup while creating a Load and Go BRT.
17. Two different temporary locations used for value of a Fixed Point Constant.
18. REREAD giving erroneous results when REREAD and actual READ statement are in different chains.
19. Write BCD tape after read BCD tape does not work properly when tape is to be read in again.

20. *CHAIN, TITLE, and *DATA cards ignored during compilation.

21. Certain real numbers printed out incorrectly using F conversion.

22. Write statement without list causes problems when paren count is not balanced in Hollerith format statement.

23. No error message when insufficient memory caused by large dimension statement.

24. The first physical record of several logical binary records written on tape has erroneous sequence number causing rewind when a backspace is attempted.

25. Backspace in sequence of rewind, read, and backspace leaves a spare record in the area.

IMPROVEMENTS IMPLEMENTED SINCE LAST REVISION

1. Increase maximum number of chains per job. (Increased from 9 to 30).

2. Segmentize object I/O.

3. Provide off-line input to both compilation and execution.

4. System continues to allocate memory after available object time memory has been exceeded.

OUTSTANDING DIFFICULTIES AND SYSTEM RESTRICTIONS

Outstanding Difficulties

1. Preprocessor illegal diagnostic of missing comma and switching order of *DATA card and first data card on listing.

2. Preprocessor erroneous diagnostic of logical IF statement.

3. Four preprocessor erroneous diagnostic regarding implicit reals defined as integers, false error stating variable may not begin with a number, false diagnostic stating statement improperly terminated and false indication of duplicated in COMMON.

4. Preprocessor erroneousley diagnoses duplicate in COMMON when variable appears in both COMMON and INTEGER statements.

5. Preprocessor does not flag a variable placed in two different INTEGER statements.

6. An Easycoder subroutine of one BRT record in length is not allocated properly.

7. FLOAT routine in logical IF causes execution blowup (isolated case).

SYSTEM RESTRICTIONS

1. A format statement may not overflow a unit record without employing a slash. Therefore incoming data must terminate with either the completion of a unit record or the filling of all of the list elements.

2. Any of the reserved words indicating specification statements may not begin a variable name.

3. When generating a go-later tape using the 4 character option, the E (emergency) restart option is not operative. Should a hangup occur, the offending job should be deleted and the run be restarted.

SYSTEM EX-APPLICATIONS REVISION ØØ4

SUBSYSTEM AUTOTIME REVISION ØØ4

This revision has reinstated the equipment program specifying the 204B-4 secondary drives. It is no longer necessary to use the temporary fix for timing and pricing a system with these drives, as was specified in the Software Release Bulletin Addendum #54 containing Revision 3 which was released last month.

For further information, please refer to:

Software Bulletin AUTOTIMER Order #098.