

SEPTEMBER/1979

085-000096-01 PAGE 1

RELEASE NOTICE: COMMERCIAL SYSTEMS CS/30 INTERACTIVE COBOL REVISION 4.10

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1. RELATIONSHIP OF RELEASE AND UPDATE

THE PURPOSE OF THE PRODUCT RELEASE NOTICE IS TO PROVIDE YOU WITH SPECIFIC INFORMATION ABOUT THE PRODUCT WHICH IS NOT AVAILABLE IN THE PRODUCT MANUALS. A PIECE OF INFORMATION MAY BE REPEATED IN MORE THAN ONE RELEASE NOTICE IF THE APPROPRIATE MANUAL IS NOT YET AVAILABLE.

BETWEEN REVISIONS OF THE PRODUCT, PERIODIC UPDATES TO THE PRODUCT MAY BE ISSUED. THE PURPOSE OF AN UPDATE IS TO PROVIDE A LEVEL OF CORRECTIONS TO THE PRODUCT THAT DOES NOT REQUIRE A RELEASE OF THE COMPLETE PRODUCT (WHICH IS WHAT DISTINGUISHES A RELEASE FROM AN UPDATE). AN UPDATE USUALLY CONSISTS OF A PATCH FILE ON MACHINE-READABLE MEDIA AND A PRINTED UPDATE NOTICE. WE RECOMMEND THAT THE RELEASE NOTICE AND ITS SUBSEQUENT UPDATE NOTICES BE FILED AND REFERENCED SO THAT THE CURRENT STATE OF THE PRODUCT CAN BE MAINTAINED.

A RELEASE OF THE PRODUCT CONSISTS OF FOUR MAJOR PARTS, AS DEFINED BELOW:

PART DESCRIPTION -----	PART NUMBER -----
1. CS/30 INTERACTIVE COBOL REV. 4.10 RELEASE NOTICE	085-000096-01
2. CS/30 INTERACTIVE COBOL REV. 4.10 RELEASE MEDIA	DEFINED BY THIS RELEASE NOTICE IN SECTION 7A: PRODUCT ORGAN- IZATION.
3. CS/30 INTERACTIVE COBOL REV. 4.10 UPDATE NOTICE	078-000067-01
4. CS/30 INTERACTIVE COBOL REV. 4.10 UPDATE MEDIA 4A. DISKETTE	072-000503-01

NOTE: THERE IS NO UPDATE APPLICABLE FOR THIS RELEASE!

THE PART NUMBER WILL BE THE SAME FOR SUBSEQUENT REVISION 4.10 UPDATES EXCEPT THAT THE SUFFIX CHARACTER WILL BE INCREMENTED.

2. CONTENT OUTLINE:

1. RELATIONSHIP OF RELEASE AND UPDATE
2. CONTENT OUTLINE
3. ENVIRONMENT
4. ENHANCEMENTS
5. FIXES
6. NOTES AND WARNINGS
7. PRODUCT ORGANIZATION
 - A. SOFTWARE
 - B. DOCUMENTATION
8. DOCUMENT CHANGES
9. NEW DOCUMENTATION
10. INSTALLATION PROCEDURES
 - A. IF YOU MAKE A TYPING MISTAKE
 - B. MAGNETIC TAPE
 - B1. RELEASE TAPE CONTENTS
 - C. CARTRIDGE DISK
 - D. DISKETTE

3. ENVIRONMENT

A. PREREQUISITES

ANY LICENSED COMMERCIAL SYSTEMS CS/30 CONFIGURATION.

B. DEPENDENT COMPONENTS

NONE.

4. INTERACTIVE COBOL REV. 4.10 ENHANCEMENTS AND ADDITIONS

THE FOLLOWING IS A LIST OF ENHANCEMENTS INCLUDED IN THIS REVISION:

1. A NEW RUNTIME SYSTEM CALL "#F" WHICH PERFORMS A FULL INITIALIZATION ON THE DEVICE SPECIFIED. THIS CALL IS EQUIVALENT TO THE "INIT/F" CLI COMMAND.
2. MAXIMUM MEMORY CAPACITY IS NOW ONE-HALF MEGABYTE (ON C5/C6 SYSTEMS ONLY). IN CONJUNCTION WITH THIS INCREASED MEMORY SIZE, THE MAXIMUM USER SPACE (FOR C5/C6 SYSTEMS) IS NOW 384 K BYTES.
3. THE CS/60 C6 SYSTEMS WILL NOW SUPPORT UP TO 16 TERMINALS.
4. THE CSGEN PROGRAM HAS BEEN MODIFIED TO ASK FOR THE NUMBER OF TERMINALS DESIRED. WHEN A NUMBER SMALLER THAN THE MAXIMUM FOR A GIVEN SYSTEM IS USED THE SYSTEM GENERATED WILL CONTAIN EXTRA BUFFERS TO ENHANCE THROUGHPUT INVOLVING FILE I/O.
5. THE "REORG" UTILITY HAS BEEN MODIFIED TO OPERATE MORE EFFICIENTLY AND AT A HIGHER SPEED.
6. A NEW BOOTSTRAP PROGRAM CALLED "MBOOT" HAS BEEN PROVIDED FOR THE CS/20 AND CS/30 SYSTEMS. MBOOT OPERATES IN THE SAME MANNER AS THE CS/40 AND CS/60 "BOOT" PROGRAM.
7. THE CLI "FDUMP/FLOAD" UTILITIES' ERROR REPORTING FACILITIES HAVE BEEN ENHANCED AND CLARIFIED.
8. ICEDIT ENHANCEMENTS HAVE BEEN MADE: THE "FIND" COMMAND NOW USES THE GRAVE () AS A TEMPLATE CHARACTER (I.E. JOB WILL FIND ALL OCCURRENCES OF THE STRING "JOBXX" WHERE XX IS ANY TWO CHARACTERS). TYPING LJE FOLLOWED BY A SPACE AND (CR) WHEN USING THE OUTPUT COMMAND TO SET UP LJE EXECUTION FILES WILL AUTOMATICALLY CREATE AN OUTPUT FILE NAMED LJETT.LJ, WHERE TT IS THE TERMINAL NUMBER. THIS CAN BE USED TO REDUCE THE NUMBER OF .DJ FILES THAT RESULT FROM LJE EXECUTION.
9. THE DISK SWAPPING SYSTEMS (DSCI AND EDSCI) NOW SUPPORT SHARED PROCEDURES, I.E. WHEN MORE THAN ONE TERMINAL IS EXECUTING A GIVEN PROGRAM ONLY ONE COPY THE THE .PD FILE WILL BE MAINTAINED. THIS WILL REDUCE THE AMOUNT OF MEMORY SPACE REQUIRED, REDUCE THE AMOUNT OF SWAPPING, AND THEREFORE IMPROVE PERFORMANCE UNDER THAT CONDITION.
10. THE CS30 ENVIRONMENT NOW SUPPORTS 4 TERMINAL SYSTEMS.
11. DATA CHANNEL PRINTERS ARE NOW SUPPORTED ON MAPPED CS/60 SYSTEMS.
12. ADDITIONAL ENHANCEMENTS AND FUNCTIONALITY IN THIS RELEASE CAN BE FOUND IN THE NEW DOCUMENTATION SHIPPED WITH THIS RELEASE.
13. THE "READ PREVIOUS" OPTION OF THE COBOL VERB IS NOW SUPPORTED ON MAPPED REV. 4.10 SYSTEMS.

5. FIXES:

THE FOLLOWING IS A LIST OF PROBLEMS CORRECTED WITH THIS RELEASE.

1. PROBLEM: ANALYZE AND COLLAPSE INCORRECTLY HANDLING LARGE FILES.
SOLUTION: CORRECTED IN REV 4.10.
2. PROBLEM: ISAM INCORRECTLY ACCESSING ALTERNATE KEY STRUCTURES.
SOLUTION: ISAM HAS BEEN CORRECTED TO PROPERLY HANDLE ALTERNATE KEY CASES.
3. PROBLEM: ZSORT FAILS IN THE FOREGROUND WHEN I/O CALLS ARE MADE IN THE BACKGROUND.
SOLUTION: ZSORT TASK SCHEDULING HAS BEEN MODIFIED TO PREVENT FOREGROUND FAILURES.
4. PROBLEM: SCREEN/ICSCREEN INCORRECTLY HANDLING SOURCE INPUT FILES.
SOLUTION: THE UTILITIES HAVE BEEN CORRECTED TO PROPERLY HANDLE ALL LEGAL SOURCE INPUT.
5. PROBLEM: THE "/D" OPTION OF "COLLAPSE" DID NOT WORK PROPERLY.
SOLUTION: COLLAPSE HAS BEEN CORRECTED TO PHYSICALLY DELETE RECORDS FROM AN ISAM FILE.
6. PROBLEM: THE INDEX TABLE REPORTING FEATURE OF COLLAPSE WORKED IMPROPERLY.
SOLUTION. COLLAPSE HAS BEEN MODIFIED TO PROPERLY REPORT INDEX STRUCTURES.
7. PROBLEM: ICEDIT FUNCTIONS NOT WORKING PROPERLY.
SOLUTION: SEVERAL CORRECTIONS HAVE BEEN MADE TO ICEDIT TO HANDLE RANGE TESTING, FILE HANDLING, DELETIONS, ETC.
8. PROBLEM: COBOL PROGRAM SWITCHES NOT BEING HANDLED CORRECTLY.
SOLUTION: CORRECTED PROCESSING OF SWITCH VARIABLES.

6. NOTES AND WARNINGS

1.) WARNING: REV. 4.10 INCLUDES A NEW CLI UTILITY NAMED "SCREEN" WHICH WILL OVERWRITE YOUR OLD VERSION OF SCREEN DURING THE THE INSTALLATION PROCESS. IF YOU WISH TO SAVE YOUR OLD SCREEN PROGRAM, MOVE IT TO YOUR BACKUP ALONG WITH YOUR PROGRAM AND DATA FILES PRIOR TO INSTALLING THE REV 4.10 SOFTWARE. YOUR OLD "SCREEN" MUST NOT BE LOADED INTO THE DIRECTORY CONTAINING THE NEW "SCREEN"; IF YOU INTEND TO USE IT, IT MUST BE RUN FROM A SEPARATE DIRECTORY.

2.) IN COBOL, BEFORE EXECUTING A "READ PREVIOUS" VERB, A SUCCESSFUL "READ" MUST BE EXECUTED TO ESTABLISH THE "KEY OF REFERENCE". THEREFORE, THE "START" VERB ALONE WILL NOT ESTABLISH THE "KEY OF REFERENCE" FOR THE "READ PREVIOUS" VERB. UNPREDICTABLE RESULTS MAY OCCUR IF THIS PROCEDURE IS NOT USED.

3.) WHEN ACCEPTING FROM A SCREEN FIELD TO A COMPUTATIONAL DATA ITEM, IF THE VALUE BEING ACCEPTED EXCEEDS THE MAXIMUM ALLOWABLE VALUE OF THE COMPUTATIONAL FIELD, THE RESULTS ARE UNPREDICTABLE. EXAMPLE: IF ACCEPTING A KEY FOR A RELATIVE FILE FROM THE SCREEN SECTION, THE MAXIMUM VALUE OF THAT KEY SHOULD NOT EXCEED 65,535.

4.) PERFORM STATEMENTS IN A COBOL PROGRAM MAY ONLY BE NESTED TO 15 LEVELS WITH REV.4.10. REV. 2.00 ALLOWED NESTING TO 30 LEVELS.

5.) WITH THE NEW SYSTEM GENERATION PROGRAM, A CONFLICT MAY ARISE IF THE USER WISHES TO GENERATE MORE THAN ONE OPERATING SYSTEM AND COBOL INTERPRETER ON THE SAME DISK PACK. SINCE GENERATING A CUSTOMIZED COBOL INTERPRETER IS AN OPTION IN THE FUNCTIONALITY OF EACH SYSTEM GENERATION, THE POSSIBILITY EXISTS OF OVERWRITING ONE OPERATING SYSTEM'S SPECIAL INTERPRETER WITH THE INTERPRETER GENERATED FOR AN ENTIRELY DIFFERENT SORT OF OPERATING SYSTEM. IF THE FIRST SYSTEM IS "BOOTED" BUT THE INTERPRETER FOR THE OTHER SYSTEM IS RUN, THE RESULTS ARE UNPREDICTABLE!

IF TWO COBOL INTERPRETERS ARE NEEDED TO BE GENERATED ON ONE PACK, THE EASIEST WAY TO AVOID CONFLICTS IS TO "RENAME" THE GENERATED COBOL INTERPRETER FILES AFTER THE FIRST SYSTEM IS GENERATED, THEN GENERATE THE SECOND OPERATING SYSTEM. THE RENAMED INTERPRETER MUST BE BROUGHT UP USING THAT NEW NAME.

(NOTE: ANY INTERPRETERS ".LG" FILENAME CANNOT AND SHOULD NOT BE RENAMED FOR ANY REASON! SINCE THE ".LG" FILE FOR ANY ONE MODEL SYSTEM IS EXACTLY THE SAME REGARDLESS OF THE ANSWERS TO SYSTEM GENERATION QUESTIONS, THERE IS NO NEED TO RENAME THAT FILE!) TIP AND TECHNIQUE 8.4 OUTLINES THE RENAMING PROCEDURE.

6.) ANY DATA DISPLAYED ON THE SCREEN FROM OTHER THAN THE SCREEN SECTION WILL TREAT THE SCREEN AS IF IT WERE IN ROLL MODE. DISPLAYING DATA THROUGH THE SCREEN-SECTION ALLOWS CURSOR CONTROL.

7.) THE "CLEAR/A/V/D" COMMAND MUST ONLY BE DONE AFTER AN ABNORMAL TERMINATION OF THE SYSTEM. ABNORMAL TERMINATION IS DEFINED AS ANYTHING OTHER THAN THE RELEASE OF THE MASTER DIRECTORY.

8.) IF THE COBOL INTERPRETER FALLS THROUGH TO THE CLI "R" PROMPT AND LEAVES THE TERMINAL IN LOW INTENSITY DO THE FOLLOWING:

1. TURN THE TERMINAL OFF
2. TURN THE TERMINAL ON
3. THEN HIT (CR) CARRIAGE RETURN

9.) THE PROGRAMMER IS RESPONSIBLE FOR INITIALIZING ALL FIELDS IN WORKING STORAGE LINKAGE SECTION.

10.) THE ACCEPTABLE MAXIMUM NUMBER OF BAD BLOCKS BY MEDIA TYPE IS AS FOLLOWS:

1. DISKETTE	0
2. 5MB	10
3. 10MB	10
4. 50MB	15
5. 96MB	15
6. 190MB	25

ALL OPERATING SYSTEMS USE THESE AS THE DEFAULT AS WELL AS THE MAXIMUM.

11.) FDUMP AND FLOAD OPERATE ON ENTIRE DIRECTORIES, NOT INDIVIDUAL FILES. WHEN USING FILES AS AN ARGUMENT THE PROGRAM MAY TRAP. (NOTE THAT THERE ARE NEW ERROR MESSAGES FOR FDUMP/FLOAD, ALSO IF A DISK WITH SUBDIRECTORIES IS TO BE FDUMPED OR FLOADED; THE VERSION OF ICOS USED MUST BE SYSGENED WITH THE EXACT NUMBER OF SUBDIRECTORIES ON THAT DISK.)

12.) IN REVISION 4.10, THE CAPABILITY FOR THE SOFTWARE TO PRINT UPPER/LOWER CASE IS INCLUDED FOR SYSTEMS WITH A 240 LPM.

IF YOUR PRINTER IS A 300 LPM PRINTER, YOU WILL NOT BE ABLE TO PRINT LOWER CASE. IF YOU ATTEMPT TO PRINT LOWER CASE DATA AND YOUR PRINTER WAS PURCHASED FROM DG AFTER 06/15/78, THE PRINTER TRANSLATES THOSE LOWER CASE CHARACTERS TO UPPER CASE ECO #7632 WAS INCORPORATED ON 06/15/78. IF YOU ATTEMPT TO PRINT LOWER CASE DATA TO YOUR PRINTER AND YOU GET BLANKS, THE ECO HAS NOT BEEN INSTALLED. YOU SHOULD CALL YOUR F.E. AND REQUEST THE INSTALLATION OF THE "96 CHARACTER FOLD-OVER OPTION" ON THE MAIN LOGIC BOARD OF THE LINE PRINTER. THAT OPTION CONSISTS OF:

DELETE JUMPER	INSTALL JUMPER
W-15	W-13
W-32	W-33

LINE PRINTERS WITHOUT THIS ECO WERE PURCHASED BEFORE 6/15/78.

13.) ACCEPT'S FROM SCREEN SECTION SHOULD BE PRECEDED BY A DISPLAY TO GET PROPER UNDERSCORES.

14.) WARNING: DKINIT DOES NOT ENTER THE CORRECT BAD BLOCK NUMBER INTO THE BAD BLOCK TABLE. ON ALL DISKS, ADD 1 TO THE VALUES DKINIT GIVES YOU AND ENTER THESE NEW VALUES INTO THE BAD BLOCK TABLE.

15.) FLOAD GIVES AN ERROR "ILLEGAL COMMAND" WHEN TRYING TO USE A DEVICE AS AN ARGUMENT.

16.) WHEN USING THE CLI COMMAND LIST WITH AN ARGUMENT THAT CONTAINS A SUBDIRECTORY NAME AS PART OF THAT ARGUMENT, THE USER MUST SUPPLY A FILENAME WITHOUT * OR - CONTAINED IN THAT FILENAME. OTHERWISE, LIST WILL JUST RETURN TO THE "R" PROMPT WITHOUT ANY OUTPUT.

17.) WHEN DOING A FILE COMPARISON (FILCOM) OF TWO FILES THAT ARE IDENTICAL EXCEPT ONE FILE CONTAINS ONE EXTRA BYTE, FILCOM WILL NOT INDICATE A DISCREPANCY.

18.) CLI COMMANDS THAT ALLOW YOU TO USE BOTH PARENTHESIS AND ANGLE BRACKETS MAY NOT WORK PROPERLY. EXAMPLE: LIST AB(1,2).<X,Y> WILL ONLY LIST AB1.X AND AB2.X. IT WILL NOT LIST AB1.Y AND AB2.Y ALTHOUGH THEY MAY EXIST.

19.) THE FOLLOWING EXAMPLE WILL DUMP TO TAPE FILE ABC.XX EVEN THOUGH AB-.XX/N WAS SPECIFIED AS AN ARGUMENT. ALL CLI COMMANDS ACT THE SAME.
DUMP/V MTO:0 ABC.XX AB-.XX/N

20.) WARNING: DO NOT USE ZERO EDITING CHARACTER TO THE LEFT OF NUMERIC CHARACTER IN PICTURE CLAUSES. CRT WILL LOOP DISPLAYING UNDERScores.

EX: \$90099.99 WILL FAIL
\$999.00 WILL NOT FAIL

21.) WHEN USING THE /C SWITCH (CARD FORMAT SOURCE) WITH A COBOL COMPILE COMMAND, ALL FILES INCLUDING ANY "COPY" FILES MUST BE IN CARD FORMAT OR THE COMPILE WILL FAIL. WHEN THE COMPILE OPTION IS USED ON EXITING FROM "ICEDIT", ALL FILES INCLUDING "COPY" FILES MUST BE IN CARD FORMAT AS "ICEDIT" OUTPUTS SOURCE IN CARD FORMAT BY DEFAULT.

22.) WHEN USING THE STARTER OPERATING SYSTEMS "BOOTSYS" OR "FBOOTSYS" DO NOT ATTEMPT TO PRINT FILES... NEITHER OF THESE OPERATING SYSTEMS HAVE PRINTERS SYSGENED INTO THEM.

23.) WHEN RUNNING LJE, THE INTERPRETER MUST BE BROUGHT UP WITH THE "/I" SWITCH. IF THIS IS NOT DONE LJE CANNOT BE TERMINATED PROPERLY.

24.) THE PROGRAMMER IS RESPONSIBLE FOR INITIALIZING A DEVICE BEFORE ATTEMPTING TO "DIR" TO THAT DEVICE.

25.) AN ATTEMPT TO CREATE A "LINK" TO A NON-EXISTENT FILE WILL CAUSE AN ERROR "30" AT RUNTIME. THIS IS A SYSTEM RESTRICTION AND SHOULD NOT BE DONE.

26.) WHEN A GROUP ITEM IS DEFINED AS FOLLOWS:

01 FIELD-A.
03 PART-1 PIC 99.
03 PART-2 PIC XX.

THE ITEM IS CONSIDERED TO BE "ALPHANUMERIC" ALTHOUGH THE PARTS ARE TREATED INDIVIDUALLY AS NUMERIC AND ALPHABETIC. THIS MEANS THAT IF ON AN "ACCEPT" OF "FIELD-A", ONLY ALPHA CHARACTERS ARE ENTERED (E.G. "ZZ") A SUBSEQUENT DISPLAY OF "FIELD-A" WILL SHOW THE FIRST TWO CHARACTERS AS ZEROS, NOT AS THE ALPHA CHARACTERS ENTERED. THIS IS ACCORDING TO THE COBOL RULES FOR DISPLAY OF ITEMS FROM WORKING STORAGE.

27.) CS/20 AND CS/30 SYSTEMS DO NOT SUPPORT SEQUENTIALLY ALLOCATED FILES AT THE OPERATING SYSTEM LEVEL (FILES WHICH HAVE NO FILE TYPE DISPLAYED ON A "LIST/E" COMMAND).

28.) THE UNDERSCORE CHARACTER "_" IS INTERPRETED AS A FIELD TERMINATOR ON EXECUTION OF A SCREEN "ACCEPT" STATEMENT.

7. PRODUCT ORGANIZATION

A. SOFTWARE

MODEL	CS/30 INTERACTIVE COBOL ON DISKETTES
3809	
R	072-000492-01 CS/30 INTERACTIVE COBOL STARTER DISKETTE
R	072-000493-01 CS/30 INTERACTIVE COBOL 1 OF 6
R	072-000494-01 CS/30 INTERACTIVE COBOL 2 OF 6
R	072-000495-01 CS/30 INTERACTIVE COBOL 3 OF 6
R	072-000496-01 CS/30 INTERACTIVE COBOL 4 OF 6
R	072-000497-01 CS/30 INTERACTIVE COBOL 5 OF 6
A	072-000498-00 CS/30 INTERACTIVE COBOL 6 OF 6

B. DOCUMENTATION

R	085-000096-01	CS/30 INTERACTIVE COBOL REVISION 4.10 RELEASE NOTICE
R	078-000067-01	CS/30 INTERACTIVE COBOL REVISION 4.10 UPDATE NOTICE
-	055-000001-02	CS COMMERCIAL SYSTEMS CONCEPTS AND FACILITIES
-	045-000011-02	INTERACTIVE COBOL REFERENCE MANUAL
-	045-000012-02	OPERATING CS SYSTEMS: A GUIDE FOR THE SYSTEM DEVELOPER
-	055-000002-01	CS COMMERCIAL SYSTEMS PLANNING GUIDE
-	093-000018-09	TEXT EDITOR (N)
-	055-000006-00	SCREEN - COBOL SCREEN PRODUCTION EDITOR
-	055-000004-00	ICEDIT - INTERACTIVE COBOL EDITOR
-	055-000003-00	CS COMMERCIAL SYSTEMS PLANNING GUIDE ADDENDUM

DOCUMENTATION CHANGES

THERE ARE DOCUMENTATION CHANGES TO THE FOLLOWING MANUALS THAT ARE INCLUDED WITH THE REV. 4.10 RELEASE. THEY ARE:

MANUAL NAME -----	PART NO. -----
1. CONCEPTS AND FACILITIES	055-000001-02
2. PLANNING GUIDE	055-000002-01
3. INTERACTIVE COBOL PROGRAMMER'S REFERENCE GUIDE	045-000011-02
4. OPERATING CS SYSTEMS:A GUIDE FOR THE SYSTEM DEVELOPER	045-000012-02

9. NEW DOCUMENTATION

AFTER CREATING YOUR DISK PACK, BRINGING ALL THE FILES FROM THE RELEASE MEDIA FOR YOUR PARTICULAR SYSTEM, GENERATING, THEN "BOOTING" AN OPERATING SYSTEM TAILORED TO YOUR PARTICULAR CONFIGURATION, IT IS ADVISABLE TO PRINT ALL DOCUMENTATION FILES CONCERNING, AND INCLUDED WITH, THE RELEASE.

TO PRINT THE SUPPLEMENTAL DOCUMENTATION FOLLOW THE EXAMPLE BELOW:

1. "PRINT CRTEDIT.WU (CR)" <ICOS DISPLAY EDITOR>
2. "PRINTTT (CR)" <FOR A LISTING OF TIPS AND TECHNIQUES>
3. "PRINT 085000096.01 (CR)" <THIS RELEASE NOTICE>
4. "PRINT CALC.WU (CR)" <DESK CALCULATOR INSTRUCTIONS>
5. "PRINT NOTES.WU (CR)" <MESSAGE FACILITY INSTRUCTIONS>
6. "PRINT CLOCK.WU (CR)" <CLOCK INSTRUCTIONS>
7. "PRINT DOCHANGES.WU (CR)" <FOR DOCUMENTATION CHANGES>

AFTER PRINTING THESE DOCUMENTATION FILES, THE USER MAY DELETE THE FILES FROM THE DISK PACK TO SAVE SPACE. THE FILES MAY ALWAYS BE RE"LOAD"ED FROM THE RELEASE MEDIA.

IF YOU MAKE A TYPING MISTAKE

THE RECOVERY PROCEDURE YOU TAKE WHEN YOU MAKE A TYPING MISTAKE
WILL VARY ACCORDING TO WHAT OPERATION YOU ARE PERFORMING:

OPERATION	RECOVERY
FILENAME? OR FROM MTO: OR (BOOTSTRAP LOADERS)	HIT THE DEL KEY, THEN REKEY THE FILENAME OR NUMBER.
XXINIT (DISK INITIALIZER)	TYPE CONTROL-A (DEPRESS THE CONTROL KEY AND A KEY TO REPEAT THE LAST QUESTION.
(M)BOOT.SV (BOOTSTRAP INSTALLER)	HIT DEL KEY TO BACKSPACE OVER THE MISKEYED LETTERS, THEN REKEY THE CORRECT LETTERS.
(M)BOOT.SV OR SYS.SV (ICOS SYSTEM)	HIT DEL KEY TO BACKSPACE OVER THE MISKEYED LETTER, THEN REKEY THE CORRECT LETTERS. TYPE BACKSLASH ("\") TO REKEY THE ENTIRE LINE. TYPE CONTROL-A TO GET THE "R" PROMPT.

MAGNETIC TAPE INSTALLATION PROCEDURES

NOT APPLICABLE FOR THIS RELEASE
CARTRIDGE DISK INSTALLATION PROCEDURES

NOT APPLICABLE FOR THIS RELEASE

CONTENTS OF DISKETTES

CS/30 INTERACTIVE COBOL REVISION 4.10

072-000492-01 (CS/30 STARTER DISKETTE)

- BOOT.SV
- SYS.<SV,OL> (CS REV. 4.00 STARTER SYSTEM)
- CLI.<SV,OL,ER>
- DO.<SV,MP>
- SYS.LB
- LOGON.<SR,PD,DD>
- CSINIT.<SV,MP>
- 085000096.01 (CS/30 REV. 4.00 RELEASE NOTICE)
- 078000067.01 (UPDATE NOTICE)
- CREATE.MC
- BEGIN.
- INSTALL.

072-000493-01 (COBOL INTERPRETER)

- BSCI.ER
- BSCI<0,1,2,3,4,5,6,7,A,B>.LB
- SYS.LB
- COBOL.<SV,OL,MP>
- COLLAPSE.<SV,OL,MP>
- ENPAT.SV
- PATCH.SV
- STAB.<SV,MP>
- CS30GEN.<SV,MP>

072-000494-01 (UTILITIES)

- REORG.<SV,MP>
- USORT.<SV,OL,MP>
- SCREEN.<SV,OL,MP,HP>
- ANALYZE.<PD,DD>
- FILESTATS.<PD,DD>
- TYPE.<PD,DD>
- CREV.<PD,DD,SV,MP>
- SCREENDMO.<PD,DD>
- SCREEN.DM
- CRTEDIT.<SV,MP>
- MESSAGES.<SV,MP>

072-000495-01

- MICOS<A,C,I,O>.LB
- MICOS.PF
- SYSNM.<SV,MP>
- NIT<,F>.LB
- RLDR.<SV,OL>
- MAC.SV
- -ALMSPD.RB
- INQUIRE.<SV,MP>
- MODEL.

072000496-01

- ICEDIT FILES
- LJE FILES
- ACLOCK.<PD,DD>
- CLOCK.<PD,DD>
- CLOCK\$NUM.
- CALC.<PD,DD>

072-000497-01 (DOCUMENTATION FILES)

- DEMO.- (DEMONSTRATION PROGRAM SOURCES AND COPY FILES)
- PRINTTT.MC
- TT.- (ALL FILES WITH THE "TT" PREFIX ARE "TIP AND TECHNIQUE" FILES)
- NOTE.-<PD,DD,H1,H2,HP,WU>

072-000498-00 (DOCUMENTATION FILES)

DOCCHANGES.WU
CRTEDIT.WU

INSTALLATION GUIDE FOR THE CS/30
-----BASIC INSTALLATION PROCEDURES

THE FIRST STEPS:

- CHECK THAT ALL EQUIPMENT HAS POWER AND THAT THE DISKETTE AND DISK DRIVES ARE READY TO ACCEPT MEDIA.
- CHECK THAT THE SYSTEM CONSOLE LINE/LOCAL SWITCH IS SET TO LINE, AND THAT THE PRINTER IS ON-LINE.
- INSERT THE PACK ON WHICH YOU WANT TO PUT THE MICOS SYSTEM INTO "DRIVE 0" OF YOUR DISK SUBSYSTEM.
NOTE: BE SURE THE "DRIVE" SWITCH IS IN THE "LOAD" POSITION. DO NOT ATTEMPT TO BRING THE DRIVE TO "READY" AT THIS POINT (SEE BELOW).

PROGRAM LOAD:

- SELECT "UNIT 0" ON THE DISKETTE DRIVE.
- LOAD THE CS/30 STARTER DISKETTE: PART NO. 072-000492-01

NOTE: THE DISKETTES MUST NOT BE WRITE PROTECTED

- PRESS THE "RESET" SWITCH IN THE UPPER LEFT-HAND CORNER OF THE CONTROL PANEL.

THE SYSTEM CONSOLE WILL DISPLAY THE MESSAGE: "DHO NOT READY" REPEATEDLY. STRIKE "CTRL-P" (CONTROL AND P KEYS SIMULTANEOUSLY). THE MESSAGE: "ENTER DEVICE CODE" WILL BE DISPLAYED.

AT THIS POINT SET THE DRIVE SWITCH TO THE "READY" POSITION. WHEN THE "READY" LIGHT COMES ON, ENTER "33" AT THE SYSTEM CONSOLE. NOTE: THIS ENTRY WILL NOT BE ECHOED ON THE DISPLAY SCREEN.

THE SYSTEM WILL THEN DISPLAY:

```
LOADING SYSTEM FLOPPY
QUITTING CONTROL
FILENAME?
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THEN:

TYPE IN YOUR RESPONSE, (WHICH IS SHOWN IN QUOTES IN THE EXAMPLE BELOW):

```
FILENAME? "CSINIT(CR)"
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(THE INSTRUCTION "(CR)" APPEARS IN THIS MANUAL WHEREVER YOU SHOULD PRESS THE CR KEY ON THE SYSTEM CONSOLE; THIS TELLS THE COMPUTER TO ACCEPT THE VALUE PRECEDING IT. IF YOU MAKE A TYPING MISTAKE WHILE TYPING IN AN ANSWER, BUT BEFORE PRESSING CR, CONSULT "WHAT TO DO ABOUT TYPING MISTAKES" TO CORRECT THE MISTAKE.

YOU HAVE ASKED BOOT.SV TO READ THE DISK INITIALIZER PROGRAM FROM

THE DISKETTE.

CSINIT.SV TYPES OUT:
CSINIT - REV. 00.40
DISK DRIVE MODEL NUMBER?

IT'S ASKING YOU FOR THE DATA GENERAL MODEL NUMBER OF YOUR DISK
DRIVE.

YOU TYPE IN:

"6095 (CR)" <-FOR 5 MB CARTRIDGE DISK

CSINIT.SV THEN TYPES:

DISK UNIT?

WHICH IS A REQUEST FOR THE MNEMONIC IDENTIFYING YOUR DISK.

YOU TYPE IN:

"DH0 (CR)" FOR 5 MB CARTRIDGE

THEN IT REQUESTS A COMMAND, AND YOU TYPE; (SHOWN BELOW):

COMMAND? "FULL(CR)"

WITH THIS, YOU REQUEST A FULL INITIALIZATION OF THE DISK.
CSINIT.SV WILL FULLY CHECK OUT YOUR DISK, DETECT ANY PORTIONS WHICH WILL
NOT RETAIN INFORMATION, AND MARK THEM SO THAT MICOS WILL BYPASS THEM. IT
ALSO CONSTRUCTS AND SAVES ON THE DISK CERTAIN TABLES WHICH MICOS NEEDS.

CSINIT.SV ASKS YOU SEVERAL QUESTIONS DURING THIS INITIALIZATION.
JUST KEY IN THE ANSWERS IN QUOTES IN THE DIALOG SHOWN IN TABLE 3-2.

THE PROGRAM TAKES SOME TIME TO CHECK OUT EACH PATTERN
SUCCESSIVELY, SO DON'T BE ALARMED WHEN YOU HAVE TO WAIT A FEW MINUTES.
(10-15 PER PATTERN, IN SOME CASES)

THE CONTINUING DIALOG FOR CSINIT IS AS FOLLOWS:

TABLE 3-2
CSINIT.SV DIALOGUE

FULL INIT DESTROYS ALL PREVIOUS DISK/DISKETTE STRUCTURE.
INIT/F MUST BE ISSUED AFTER FULL INIT.
DO YOU REALLY WANT A FULL INIT? (YES OR NO)

YOU TYPE IN: "YES (CR)"

NUMBER OF PATTERNS TO RUN (1-5)?

YOU TYPE "5 (CR)"

*** PATTERN #1 (125252) ***

*** PATTERN #2 (052525) ***

*** PATTERN #3 (155555) ***

*** PATTERN #4 (000000) ***

*** PATTERN #5 (177777) ***

DO YOU WISH TO DECLARE ANY BLOCKS BAD
THAT ARE NOT ALREADY IN THE BAD BLOCK TABLE? "NO (CR)"

DEFAULT REMAP AREA SIZE IS 12 BLOCK(S) LONG
IT NEEDS TO BE AT LEAST 0 BLOCK(S) LONG
REMAP AREA SIZE (TYPE RETURN FOR DEFAULT?) "(CR)"

REMAP AREA START BLOCK NUMBER (TYPE RETURN FOR DEFAULT?) "(CR)"

DEFAULT FRAME SIZE IS 53,
MIN IS 1, AND MAX IS 816

DISK FRAME SIZE (TYPE RETURN FOR DEFAULT?) "(CR)"

IF YOU ARE INITIALIZING A CS/20 SYSTEM DISKETTE
OR A CS/30 SYSTEM DISK, THE SYSTEM BOOTSTRAP
MUST BE INSTALLED.

INSTALL SYSTEM BOOTSTRAP?
ANSWER (YES) TO INSTALL BOOTSTRAP, (NO) TO STOP.

YOU TYPE: "YES (CR)"

BOOTSTRAP INSTALLATION COMPLETE.

FULL INIT COMPLETE.

COMMAND?

YOU TYPE "STOP (CR)"

INSTALLING THE INTERACTIVE COBOL STARTER SYSTEM:

WITH THE DISK INITIALIZED AND THE BOOTSTRAP LOADER INSTALLED, YOU
CAN NOW BEGIN INSTALLING THE REV. 4.10 RELEASE ON YOUR PACK.
YOU MUST AGAIN BRING IN BOOT.SV FROM DISKETTE. YOU MUST
RELEASE, THEN
RESEAT THE DISKETTE FRONT PANEL, SET DH0 TO "LOAD", LIFT THE RESET SWITCH,
TYPE "CONTROL-P", AND THEN "33" (CR).

TO THE FILENAME QUESTION, YOU REPLY:

FILENAME? "SYS(CR)"

YOU HAVE DIRECTED BOOT.SV TO LOAD THE CS/30 STARTER SYSTEM INTO THE
COMPUTER; WHEN BROUGHT IN, IT REQUESTS:

(FOLLOWING THE FORMAT OF THIS EXAMPLE DIALOGUE)

DATE (M/D/Y)? "08/08/75 (CR)"
TIME (H:M:S)? "20:48:40 (CR)"

THEN MICOS TYPES THE PROMPT LETTER:

R

YOUR CS/30 STARTER SYSTEM IS RUNNING ON DPO, THE DISKETTE. IT IS ALSO STORED ON THE STARTER DISKETTE WITH THE FILE NAME SYS.SV, (AND ITS OVERLAY FILES WITH THE NAME SYS.OL).

YOU MUST NOW DO AN MICOS INITIALIZATION OF THE DISK ON WHICH YOU ARE GOING TO INSTALL THE REV. 4.10 SOFTWARE. TO DO THIS, TYPE:

"INIT/F DH0 (CR)"

YOU ARE NOW READY TO BEGIN THE INSTALLATION PROCEDURES.

SYSTEM INSTALLATION PROCEDURES

THE FOLLOWING PROCEDURE WILL BEGIN THE INSTALLATION. TYPE:

"CREATE. (CR)"

FOLLOW THE DIRECTIONS ON THE CRT. MAKE SURE ALL INSTRUCTIONS ARE FOLLOWED EXACTLY AS DIRECTED.

BRIEFLY, THE FOLLOWING ACTIVITIES WILL TAKE PLACE AFTER TYPING CREATE.

THE CRT LISTS SOME INSTRUCTIONS TO INITIATE A MACRO NAMED BEGIN. BEGIN CONFIRMS THAT THE NEW DISK IS READY TO BEGIN INSTALLATION. (NOTE: IF CSINIT OR INSTALLING THE BOOTSTRAP HAVE NOT BEEN DONE, HIT A CONTROL A! GO BACK TO THE BEGINNING OF THESE INSTALLATION PROCEDURES AND START AGAIN AT THE POINT OF RUNNING CSINIT.)

IF THE DISK IS READY, HIT ANY KEY, SOME FILES ARE MOVED FROM THE DISKETTE TO THE DISK, AND AFTER A FEW MINUTES YOU SHOULD BE PROMPTED TO INPUT THE TIME AND DATE, SHORTLY AFTER WHICH, YOU WILL GET THE "R" PROMPT. AS PER THE CRT INSTRUCTIONS, YOU WILL START ANOTHER MACRO CALLED "INSTALL".

INSTALL ACTUALLY LOADS ALL THE NEW REV. 4.10 SOFTWARE FROM THE FIVE RELEASE DISKETTES. BE SURE TO CHECK EACH DISKETTES PART NUMBER WITH THE ONE SPECIFIED ON THE CRT.

AFTER ALL FIVE DISKETTES, (THE STARTER DISKETTE IS SEPARATE), HAVE BEEN LOADED, AND THE INSTALLATION MACROS FINISHED, YOU WILL SEE "CREATION PROCEDURE COMPLETED" ON THE CRT.

AT THE "R" PROMPT, RELEASE DPO. AFTER GETTING THE "MASTER DEVICE RELEASED" MESSAGE, PUSH THE "RESET" SWITCH AND BOOT DH0. THE CRT SHOULD COME UP WITH THE MESSAGE "FILENAME?"; YOU TYPE "SYS (CR)", AND PUT IN THE DATE AS REQUIRED.

UPON GETTING THE "R" PROMPT, YOU ARE NOW READY TO CREATE YOUR OWN MICOS DEVELOPMENT SYSTEM. TO DO SO, YOU TYPE;

"CS30GEN CS30DEV/S (CR)"

THE DIALOGUE THAT APPEARS ON YOUR CONSOLE SHOULD LOOK LIKE THOSE
EXAMPLES GIVEN IN THE CS30GEN INSTRUCTIONS FOUND IN THE "SYSTEM DEVELOP-
ER'S GUIDE".

YOUR DIALOGUE MAY LOOK DIFFERENT DUE TO YOUR SYSTEM
CONFIGURATION.

AFTER THE LAST QUESTION, THERE WILL BE ABOUT A FIVE MINUTE PAUSE
WHILE CS/30 ACTUALLY PUTS TOGETHER A SYSTEM TO YOUR SPECIFICATIONS. THIS
MEANS BOTH AN OPERATING SYSTEM AND A COBOL INTERPRETER, UNLESS YOU
SPECIFIED THAT ONLY ONE OR THE OTHER BE GENERATED; (SEE THE DOC-
UMENTATION ON CS30GEN). THIS WILL BE FOLLOWED BY LISTINGS OF "PATCHES"
BEING MADE TO BOTH, IF NECESSARY, AND FINALLY THE CLI'S "R" PROMPT.

THIS SIGNIFIES THAT THE PROCESSING YOU REQUESTED HAS BEEN
COMPLETED. YOU ARE NOW READY TO USE THE CS/30 SYSTEM YOU HAVE
CONFIGURED. JUST TYPE:

"BOOT CS30DEV(CR)"

AND CS/30 WILL RESPOND WITH:

MASTER DEVICE RELEASED

DATE (M/D/Y)?

TIME (H:M:S)?

YOU HAVE NOW LOADED ALL THE CS/30 SOFTWARE IN ONE PLACE, CALLED
THE MASTER DIRECTORY. THIS WILL ALLOW ACCESS TO ALL THESE FILES IN A
PRODUCTION, AS WELL AS A DEVELOPMENT/COMMUNICATIONS SYSTEM.

IN ORDER TO PRINT A COMPLETE LISTING OF ALL THE "TIPS AND
TECHNIQUES" FILES, WAIT FOR THE "R" PROMPT AFTER BRINGING YOUR SYSTEM UP
AND THE TYPE:

"PRINTTT (CR)"

YOU MAY WISH TO COMPILE THE DEMONSTRATION PROGRAMS INCLUDED IN
THE CS/30 SOFTWARE RELEASE AND THE "INTERACTIVE COBOL PROGRAMMER'S
REFERENCE" MANUAL BY TYPING:

"COBOL DEMO(MENU,PROG1,PROG2,PROG3,PROG4) \$LPT/L (CR)"

UPON COMPLETION OF THESE COMPILES, YOU MAY THEN WISH TO GENERATE
A PRODUCTION COBOL OPERATING SYSTEM AND USE IT TO EXECUTE THE
DEMONSTRATION PROGRAMS. REFER TO THE "OPERATING CS SYSTEMS: A GUIDE FOR
THE SYSTEM DEVELOPER" FOR THE PRODUCTION SYSTEMS GENERATION
PROCEDURES AND FOR THE OPERATION OF THE COBOL INTERPRETER.

YOU MAY WISH TO DELETE THE DEMONSTRATION PROGRAMS FROM YOUR DISK
TO SAVE SPACE. THIS CAN BE ACCOMPLISHED WITH THE FOLLOWING COMMAND:

"DELETE/V DEMO.- (CR)"

MORE EXTENSIVE DOCUMENTATION FOR ALL UTILITIES INCLUDED WITH REV.
4.10 CAN BE FOUND IN THE "GUIDE FOR THE SYSTEM DEVELOPER".

**

END OF RELEASE NOTICE

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