

PROCESSING UNIT ERROR LOG PRINT PROGRAM USER'S GUIDE

TABLE OF CONTENTS		PAGE
01.00.00	INTRODUCTION	02
02.00.00	PROCESSING UNIT ERROR LOG PRINT PROGRAM LOADING AND RUNNING	02
02.01.00	PROCESSING UNIT ERROR LOG PRINT PROGRAM OPERATIONAL MESSAGES	03
02.02.00	PROCESSING UNIT ERROR LOG PRINT PROGRAM ERROR MESSAGES	03
03.00.00	PROCESSING UNIT ERROR LOG PRINT PROGRAM SAMPLE SESSION	04
03.01.00	SAMPLE SESSION #1	04
03.02.00	SAMPLE SESSION #2	04
04.00.00	FORMAT OF PROCESSING UNIT ERROR LOG	05
04.01.00	4954 PROCESSING UNIT	05
05.00.00	PROCESSING UNIT ERROR LOG PRINT PROGRAM SAMPLE OUTPUT	07
05.01.00	4954 PROCESSING UNIT	07

01.00.00 INTRODUCTION.

THE PURPOSE OF THIS MAP IS TO DESCRIBE TO THE USER HOW TO SETUP AND USE THE PROCESSING UNIT ERROR LOG PRINT PROGRAM. EACH ERROR LOG FORMAT ASSEMBLED BY THE PROCESSING UNIT AND EACH OUTPUT FROM THE PROCESSING UNIT ERROR LOG PRINT PROGRAM WILL BE DESCRIBED.

THE PURPOSE OF THIS PROGRAM IS TO PRESENT THE DATA ASSOCIATED WITH AN ERROR USING A READABLE OUTPUT FOR USE BY THE CUSTOMER OR CE.

THE FOLLOWING PROCESSING UNITS HAVE ERROR LOGS AND ARE SUPPORTED BY THIS PROGRAM.
4954 PROCESSING UNIT

02.00.00 PROCESSING UNIT ERROR LOG PRINT PROGRAM LOADING AND RUNNING

SEE MAP 0015 SECTION 02.00.00 TO IPL THE SYSTEM TEST DISKETTE AND COME TO 'RDY ENTER' (MESSAGE CODE 3400).

THE FOLLOWING ECP COMMAND(S) IS/ARE ACTIVE WHILE THE PROCESSING UNIT ERROR LOG PRINT PROGRAM IS IN STORAGE.

0 A NO RESPONSE TO A QUESTION
1 A YES RESPONSE TO A QUESTION
2 CONTINUE RUNNING AT THE NEXT SEQUENTIAL INSTRUCTION
3 STOP PROGRAM
4 START PROGRAM
5 DUMP STORAGE
6 RESPOND TO PROGRAM

NOW ENTER, BY THE ALTERNATE CONSOLE, 'B34E1'. THIS WILL LOAD THE PROCESSING UNIT ERROR LOG PRINT PROGRAM AND START A SERIES OF MESSAGES TO SETUP THE PROGRAM TO PROCESS THE ERROR LOG DATA.

EXAMPLE: (ASSUME A DISPLAY IS THE ORIGINAL CONSOLE)

RDY
ENTER THE RDY ENTER IS A RESULT OF THE IPL
B34E1
U34E1 LOADED
ST
PRINTER CONSOLE PREFERRED
IS A 4973 OR 4974 AVAILABLE?
ENTER

ANY MESSAGE ENDING WITH A QUESTION MARK FOR EXAMPLE 'IS ONE AVAILABLE?' MUST BE ANSWERED WITH A YES OR NO. SEE MAP 0015 SECTION 03.00.00.

THE MESSAGE 'IS A 4973 OR 4974 AVAILABLE?' IS NECESSARY TO DETERMINE IF A PRINTER IS AVAILABLE FOR PRINTING THE PROCESSING UNIT ERROR LOG PRINT PROGRAM OUTPUT. PRINTER IS PREFERRED FOR KEEPING THE ERROR DATA.

IF ONE IS AVAILABLE THEN ANSWER YES AND SUPPLY THE DEVICE ADDRESS.

EXAMPLE: THIS IS A YES (1) RESPONSE.

ENTER PRINTER CONSOLE ADDRESS
ENTER
F01

THIS DEVICE ADDRESS MUST BE THE ADDRESS OF A 4973 OR 4974 ECP CONSOLE SUPPORTED PRINTER. THE PROCESSING UNIT ERROR LOG PRINT PROGRAM WILL VERIFY THE DEVICE ADDRESS BEFORE CONTINUING.

IF A PRINTER CONSOLE IS NOT AVAILABLE ANSWER NO AND PROCESSING UNIT ERROR LOG PRINT PROGRAM WILL USE THE TTY OR DISPLAY TO OUTPUT THE ERROR DATA. USING SCREEN CONTROL WILL PREVENT THE LOSS OF DATA.

EXAMPLE:
CONSOLE BEING CHANGED FOR FORMATTING

* AT THIS POINT THE ERROR LOG DATA WILL BE PRINTED. *
* SEE THIS MAP SECTION 05.00.00 *

PT
ENTER

THIS IS THE END OF THE PROCESSING UNIT ERROR LOG PRINT PROGRAM RUN. SEE SECTION 03.00.00 SAMPLE SESSION FOR ANY OPTION THE USER MAY SELECT.

02.01.00 PROCESSING UNIT ERROR LOG PRINT PROGRAM OPERATIONAL MESSAGES AND CODES

34E0 PRINTER CONSOLE PREFERRED
IS A 4973 OR 4974 AVAILABLE?
IS THERE A PRINTER ON THE SYSTEM.
34E1 ENTER PRINTER CONSOLE ADDRESS
ENTER THE DEVICE ADDRESS OF THE PRINTER TO BE USED FOR THE PRINTED OUTPUT.
34E9 THIS IS THE MESSAGE CODE USED WITH EACH LINE OF PRINTED OUTPUT THAT REPRESENTS ERROR LOG DATA.

** THREE ECP MESSAGE CODES ARE USED WHEN THE CONSOLE IS CHANGED **

3401 THIS CODE IS USED TO INDICATE THAT THE DISPLAY CONSOLE FAILED TO RESPOND CORRECTLY WHEN BEING RETURNED ONLINE. THE PROGRAMMER CONSOLE HAS BEEN ASSIGNED.
3407 CONSOLE BEING CHANGED FOR FORMATTING
THE DISPLAY CONSOLE HAS BEEN REMOVED AND WAS EXCHANGED WITH THE PRINTER SPECIFIED.
3408 CONSOLE RETURNED
THE DISPLAY CONSOLE HAS BEEN RETURNED AND CAN AGAIN BE USED FOR ECP INPUT.

02.02.00 PROCESSING UNIT ERROR LOG PRINT PROGRAM ERROR MESSAGES AND CODES

34EA PRINTER CONSOLE NOT USABLE
THE PRINTER CONSOLE SPECIFIED DOES NOT RESPOND TO NORMAL OPERATION OR THE CONSOLE ROUTINE COULD NOT BE READ INTO STORAGE. THE PROGRAM WILL BE TERMINATED.
34EF THIS MODEL PROCESSING UNIT DOES NOT HAVE AN ERROR LOG
THE PROGRAM WILL NOT RUN ON A PROCESSING UNIT THAT DOES NOT HAVE AN ERROR LOG.
THE FOLLOWING PROCESSING UNITS HAVE ERROR LOGS AND ARE SUPPORTED BY THIS PROGRAM.
4954 PROCESSING UNIT

03.00.00 PROCESSING UNIT ERROR LOG PRINT PROGRAM SAMPLE SESSION

*** WILL INDICATE EACH ENTRY TO BE MADE BY THE OPERATOR

03.01.00 SAMPLE SESSION #1

SAMPLE SESSION TO PRINT ALL ERROR DATA ON A DISPLAY.
IPL THE SYSTEM TEST DISKETTE PER SECTION 02.00.00 MAP 0015 WITH SCREEN CONTROL ON.

```
RDY
ENTER
B34E1
U34E1 LOADED ***
ST
PRINTER CONSOLE PREFERRED
IS A 4973 OR 4974 AVAILABLE?
ENTER
0 ***
*****
* AT THIS POINT THE ERROR LOG DATA WILL BE DISPLAYED. *
* SEE THIS MAP SECTION 05.00.00 *
* *
*****
PT
ENTER
```

03.02.00 SAMPLE SESSION #2

SAMPLE SESSION USING A DISPLAY CONSOLE AND CHANGE TO A PRINTER TO PRINT ALL ERROR DATA.
IPL THE SYSTEM TEST DISKETTE PER SECTION 02.00.00 MAP 0015 WITH SCREEN CONTROL ON.

```
RDY
ENTER
B34E1
U34E1 LOADED ***
ST
PRINTER CONSOLE PREFERRED
IS A 4973 OR 4974 AVAILABLE?
ENTER
I ***
ENTER PRINTER CONSOLE ADDRESS
ENTER
F01 ***
CONSOLE BEING CHANGED FOR FORMATTING
*****
* AT THIS POINT THE ERROR LOG DATA WILL BE PRINTED ON THE *
* DEVICE WITH AN ADDRESS OF 01 *
* SEE THIS MAP SECTION 05.00.00 *
* *
*****
CONSOLE RETURNED
PT
ENTER
```

04.00.00 FORMAT OF PROCESSING UNIT ERROR LOG

THIS SECTION WILL DESCRIBE THE FORMAT OF THE VARIOUS PROCESSING UNIT ERROR LOGS.

04.01.00 4954 PROCESSING UNIT

LOCAL STORE HEX ADDRESS	FUNCTION
OF	LAST ERROR LOG ENTRY ADDRESS
40	PROCESSING UNIT
THROUGH	ERROR LOG
7F	DATA FIELDS

THE FOLLOWING IS THE DESCRIPTION OF PROCESSING UNIT ERROR LOG DATA FIELD FORMAT:

MACHINE CHECK ENTRY:

PROCESSING UNIT CONTROL CHECK:
BITS 0 - 3 0000
BITS 4 - 5 1
BITS 5 - 15 ALL ZERO

TIMER OVERRUN:
BITS 0 - 3 0001
BITS 4 - 15 ALL ZERO

I/O CHECK:
BITS 0 - 3 0100
BITS 4 - 7 SEQUENCE INDICATOR
BITS 8 - 15 ALL ZERO
DEVI CE ADDRESS IF AVAILABLE

STORAGE PARITY (2 LOG ENTRIES):
FIRST ENTRY:
BITS 0 - 15 ADDRESS (CONTENTS OF SAR)

SECOND ENTRY:
BITS 0 - 3 1110
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 11 LEVEL
BITS 12 - 13 LAST ACTIVE ADDRESS KEY
BITS 14 - 15 CURRENT ACTIVE ADDRESS KEY

PROGRAM CHECK ENTRIES:

INVALID STORAGE ADDRESS CHECK (2 LOG ENTRIES):
FIRST ENTRY:
BITS 0 - 15 ADDRESS (CONTENTS OF CIAR)
SECOND ENTRY:
BITS 0 - 3 1100
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 11 LEVEL
BITS 12 - 13 LAST ACTIVE ADDRESS KEY
BITS 14 - 15 CURRENT ACTIVE ADDRESS KEY

SPECIFICATION CHECK (2 LOG ENTRIES):
FIRST ENTRY:
BITS 0 - 15 ADDRESS (CONTENTS OF CIAR)
SECOND ENTRY:
BITS 0 - 3 1101
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 11 LEVEL
BITS 12 - 13 LAST ACTIVE ADDRESS KEY
BITS 14 - 15 CURRENT ACTIVE ADDRESS KEY

STORAGE PROTECT CHECK (2 LOG ENTRIES):
FIRST ENTRY:
BITS 0 - 15 ADDRESS (CONTENTS OF CIAR)
SECOND ENTRY:
BITS 0 - 3 1111
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 11 LEVEL
BITS 12 - 13 LAST ACTIVE ADDRESS KEY
BITS 14 - 15 CURRENT ACTIVE ADDRESS KEY

PRIORITY INTERRUPT ENTRIES:

EXCEPTION INTERRUPT:
BITS 0 - 3 0110
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 15 LEVEL
DEVI CE ADDRESS

ATTENTION AND EXCEPTION INTERRUPT:
BITS 0 - 3 0111
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 15 LEVEL
DEVI CE ADDRESS

OPERATE I/O ENTRIES:

BUSY AFTER RESET:
BITS 0 - 3 0010
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 15 LEVEL
DEVI CE ADDRESS

COMMAND REJECT:
BITS 0 - 3 0011
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 15 LEVEL
DEVI CE ADDRESS

INTERFACE DATA CHECK:
BITS 0 - 3 0101
BITS 4 - 5 0
BITS 6 - 7 SUPERVISOR STATE
BITS 8 - 15 LEVEL
DEVI CE ADDRESS

05.00.00 PROCESSING UNIT ERROR LOG PRINT PROGRAM SAMPLE OUTPUT

THIS SECTION WILL DESCRIBE THE PRINTED OUTPUT OF THE VARIOUS PROCESSING UNIT ERROR LOGS AS PRINTED BY THE PROCESSING UNIT ERROR LOG PRINT PROGRAM
THE DATA USED IN THIS SAMPLE IS NOT REAL ERROR DATA AND IS USED TO SHOW FORMAT ONLY.

05.01.00 4954 PROCESSING UNIT

** PROCESSING UNIT 4954 ERROR LOG **

ENTRY	DATA	ADDRESS
01	C440	047E
02	6201	
03	6201	
04	6202	
05	C744	26C6
06	C300	8EB0
07	C744	82DC
08	3741	
09	3741	
10	3741	
11	3740	
12	3740	
13	3740	

** PROCESSING UNIT 4954 ERROR LOG SUMMARY **

TIMER OVERRUNS	00
PROCESSING UNIT CONTROL CHECKS	00
I/O CHECKS/SEQUENCE INDICATOR	00
STORAGE PARITY CHECKS	00
INVALID STORAGE ADDRESS CHECKS	04
SPECIFICATION CHECKS	00
STORAGE PROTECT CHECKS	00
OPERATE I/O-BUSY AFTER RESET	00
-COMMAND REJECT	06
-INTERFACE DATA CHECK	00
PRIORITY INTERRUPT-EXCEPTION	03
-ATTENTION	00