

0001 HIUT MACRO REV 06.30 00132153 12/22/78

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: NAME: BASCIOT.IX PART NUMBER: 097-001133
: DESCRIPTION: BASIC INPUT / OUTPUT TEST
: REVISION HISTORY:
: REV. DATE
: 00 12/29/78
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NY Basic I/O

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I. GOAL
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PROVIDE AN ADEQUATE TEST OF RELIABILITY OF THE INPUT/OUTPUT INSTRUCTIONS AND DATA CHANNEL OPERATION. THE PROGRAM SHOULD BE ABLE TO RUN ON ALL COMPUTER TYPES.

THE IUT.SK PROGRAM ALSO INCLUDES A REAL TIME CLOCK EXERCISER.

II. PROGRAM DESCRIPTION
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THE 'INPUT/OUTPUT TEST' PROGRAM (IOT.SK) WILL PERFORM TESTS ON ALL THE I/O INSTRUCTIONS BY USING A MULTIMODE I/O TESTER BOARD DEVELOPED BY TEST EQUIPMENT DESIGN. THE ALGORITHMS DESIGNED FOR THIS PROGRAM ARE BASED ON A SPECIFICATION OF THE I/O TESTER, DRAWING NUMBER 202-000-103, REV. EE. SPECIFIC QUESTIONS ON THE SPECIFICATION CAN BE FORWARDED TO HARRY WHITTEMORE, X5975, MS. B-55, TEST EQUIPMENT DESIGN.

BEFORE RUNNING BASCIOT, THE MULTIMODE I/O TESTER BOARD MUST BE IN PLACE, ALONG WITH THE NECESSARY INTP AND OCHP JUMPERS.

WHEN RUNNING IN MANUAL MODE, THE USER MUST FIRST ENTER A KEY DENOTING WHAT COMPUTER TYPE THE PROGRAM IS RUNNING ON.

PROGRAM EXECUTION TIME IS APPROXIMATELY 25-35 SECONDS.

ON THE REAL TIME CLOCK EXERCISER, LOOP COUNT VARIATIONS DUE TO THE MEMORY REFRESH CYCLE AND THE INDERTIMINATE NATURE OF THE PREFETCH PROCESSOR MAY CAUSE AN INTERMITTENT "RTC FREQUENCY TEST FAILURE". THIS SHOULD BE IGNORED UNLESS THE MESSAGE APPEARS FOR THE MAJORITY OF THE PASSES (IN WHICH CASE IT SHOULD BE TREATED AS AN ACTUAL RTC FREQUENCY TEST FAILURE).

THE PROGRAM WILL TEST THE FOLLOWING ITEMS IN THE FOLLOWING ORDER:

1. DATA OUT, DATA IN INSTRUCTIONS' PULSE VERIFICATION- IS THE CORRECT PULSE ASSERTED ON THE I/O BUS?
2. DATA OUT, DATA IN INSTRUCTIONS' DATA PATH- DO THE INSTRUCTIONS PROPERLY LOAD/READ THE CORRECT REGISTER ON THE I/O TESTER BOARD?
3. DATA OUT, DATA IN, & NIO INSTRUCTIONS' BUSY & DONE OPERATIONS- VERIFY THAT THE 'S', 'C', AND 'P' SUFFIXES CORRECTLY ASSERT THE 'STRT', 'CLR', AND 'IOPLS' I/O BUS SIGNALS, RESPECTIVELY.
4. BUSY & DONE SKIP INSTRUCTIONS- ASSERT OR CLEAR THE SELB AND SELD INSTRUCTIONS TO TEST THE SKP- I/O INSTRUCTIONS.
5. IORST- SHOULD CLEAR ALL REGISTERS.

