0001   SNOOP

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MASTER

PROGRAM RC36-00238.00

SNOOPER

;KEYWORDS: MUS,UTILITY PROGRAM.

;ABSTRACT: THIS PROGRAM IS A UTILITY PROGRAM
;   INTERCEPTING MESSAGES AND ANSWERS
;   EXCHANGED BETWEEN TWO PROCESSES.
;   INFORMATION CONCERNING THE COMMUNICATION
;   BETWEEN THE PROCESSES WILL BE PRODUCED
;   ON A DEVICE SELECTED BY THE USER.
;   THE PROGRAM MUST BE OPERATED FROM TTY.

;RCSL:43-GL2270 ASCII SOURCE.
;RCSL:43-GL2272 REL. BIN.

;TITLE: SNOOPER

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;SIZE: 3300 BYTES. INCLUDING :
;   ONE   80 BYTES OPERATOR (TTY) BUFFER.
;   THREE 512 BYTES OUTPUT BUFFERS.

;DATE: 76.01.16

;GENERAL INFORMATION :
;********************

;   IN THE MUS SYSTEM ALL I/O OPERATIONS ARE
;   EFFECTUATED BY SENDING MESSAGES TO DRIVER
;   PROCESSES, WHICH HANDLE THE ACTUAL DATA-
;   TRANSPORTS. STATUS INFORMATION AND OTHER
;   SIGNIFICANT DATA ARE RETURNED AS ANSWERS
;   FROM THE DRIVERS TO THE REQUESTING PROCESSES
;   AFTER DATA TRANSPORT COMPLETION.
;   THIS PROGRAM PRODUCES A LOG OF THE MESSAGES
;   SENT TO A GIVEN PROCESS (SPECIFIED BY
;   THE USER) AND OF THE SUBSEQUENTLY RECEIVED
;   ANSWERS. THE LOG CONSISTS OF THE NAME OF THE
;   SENDING PROCESS FOLLOWED BY THE CONTENTS OF
;   THE FOUR MESSAGE WORDS AND INFORMATION
;   EXPRESSING THE NUMBER OF TIMER-PERIODS, WHICH
;   HAVE ELAPSED, SINCE LAST ANSWER WAS RETURNED
;   TO THE SENDING PROCESS. FURTHERMORE THE FOUR
;   WORDS IN THE ANSWER TO THE SENDING PROCESS
;   AS A RESULT OF THE DISPATCHED MESSAGE,
;   INFORMATION EXPRESSING THE NUMBER OF TIMER-
;   PERIODS, WHICH HAVE ELAPSED - FROM THE MESSAGE
;   FROM THE SENDING PROCESS WAS DELIVERED TO
;   THE DRIVER PROCESS UNTIL THE ANSWER FROM THE
;   DRIVER IS INTERCEPTED BY THE "SNOOPER", AND A
;   NUMBER OF DATA BYTES HANDLED BY THE DRIVER
;   WILL BE WRITTEN IN THE LOG.

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U1
U2          ;"SNOOPER" OPERATION :
U3          ;*******************
U4
U5          ;        WHEN THE PROGRAM HAS BEEN LOADED AND STARTED
U6          ;        THE MESSAGE :
U7
U8          ;        SNOOPER READY
U9
10          ;        WILL BE DISPLAYED, INDICATING THAT THE PROGRAM
11          ;        IS ABLE TO ACCEPT USER INITIALIZATION PARAMETER
12          ;        ANSWERS :
13
14          ;        MODULE NAME :
15
16          ;        THE ANSWER TO THIS QUESTION MUST BE A NAME OF
17          ;        THE DRIVER PROCESS, WHICH IS WANTED TO BE
18          ;        "SNOOPED" (E.G. MTO,SMD).
19          ;        IF THE PROCESS IS NOT FOUND "UNKNOWN" IS DISPLAYED
20          ;        FOLLOWED BY THE SAME QUESTION AGAIN.
21          ;        IF THE PROCESS IS FOUND, THE NAME OF THE PROCESS
22          ;        WILL BE EXCHANGED WITH THE NAME OF THE "SNOOPER"
23          ;        (SNOOP). THE "SNOOPER" WILL RENAME IT'S OWN NAME TO
24          ;        THE NAME OF THE DRIVER PROCESS.
25          ;        NOTE:    DUE TO THE EXCHANGE OF THE PROCESS NAMES,
26          ;        ****     IT IS RECOMMENDED TO INITIALIZE THE
27          ;                 "SNOOPER" BEFORE STARTING THE PROCESS(ES)
28          ;                 COMMUNICATION WITH THE RECEIVING PROCESS.
29
30          ;        SNOOP OUTPUT :
31
32          ;        THE ANSWER TO THIS QUESTION MUST BE A NAME OF A
33          ;        DRIVER PROCESS, WHICH IS ABLE TO HANDLE OUTPUT
34          ;        (E.G. MTO,LPT). THE OUTPUT FROM THE "SNOOPER"
35          ;        IS SENT TO THE SELECTED DRIVER IN ASCII CHARS.
36
37          ;        START COUNT :
38
39          ;        THE ANSWER TO THIS QUESTION MUST BE THE NUMBER OF
40          ;        BYTES FROM THE BEGINNING OF THE BLOCK OF DATA
41          ;        HANDLED BY THE "SNOOPED" PROCESS, WHICH THE
42          ;        USER WANTS TO SEE.
43
44          ;        END COUNT :
45
46          ;        THE ANSWER TO THIS QUESTION MUST BE THE NUMBER OF
47          ;        BYTES COUNTED FROM THE ENDING OF THE BLOCK OF
48          ;        DATA HANDLED BY THE "SNOOPED" PROCESS, WHICH THE
49          ;        USER WANTS TO SEE.
50
51          ;        FILE NO :
52
53          ;        THE ANSWER TO THIS QUESTION MUST BE THE NUMBER
54          ;        OF THE FILE IN WHICH THE "SNOOPER" OUTPUT IS
55          ;        WRITTEN.
56          ;        NOTE:    IT IS NOT ALL OUTPUT DRIVER PROCESSES
57          ;        ****     WHICH ARE USING THIS INFORMATION; THE
58          ;                 ANSWER IS THEN DUMMY.
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02
03         ;         WHEN THE INITIALIZATION PARAMETERS HAVE BEEN
04         ;         INITIALIZED, THEN THE "SNOOPER" PROGRAM
05         ;         IS ABLE TO HANDLE MESSAGES TO THE "SNOOPED"
06         ;         PROCESS AND THE COMMUNICATING PROCESS MAY
07         ;         BE STARTED.
08         ;         WHEN THE USER WISHES TO TERMINATE THE
09         ;         "SNOOP"-OPERATION THE PROCESS EXECUTING THE
10         ;         "SNOOPER"-PROGRAM MUST BE BREAK'ED, BY MEANS
11         ;         OF THE S-COMMAND : BREAK. THE NAME OF THE
12         ;         PROCESS TO BE BRAK'ED IS THE NAME ANSWERED AS
13         ;         RESPONSE TO THE QUESTION : MODULE NAME.
14
15     ;"SNOOPER" OUTPUT FORMAT :
16     ;************************
17
18         ;         THE LOG-OUTPUT IS INITIATED WITH THE HEADING :
19         ;         SNOOPER BEGIN : <NAME1>
20         ;         <NAME1> MEANS, THE NAME OF THE RECEIVING PROCESS.
21         ;         THE LOG-OUTPUT IS TERMINATED WITH THE TEXT :
22         ;         SNOOPER END.
23         ;         THE FORMAT OF THE MESSAGE/ANSWER INFORMATION :
24         ;         <NAME2> <MESS0> <MESS1> <MESS2> <MESS3> <TIME1>
25         ;                 <ANSW0> <ANSW1> <ANSW2> <ANSW3> <TIME2>
26         ;                                                          <DATA>
27         ;                                                          ......
28         ;                                                          ......
29         ;                                                          <DATA>
30         ;         <NAME2> MEANS, THE NAME IDENTIFYING THE
31         ;                        REQUESTING PROCESS.
32         ;         <MESSX> MEANS, THE CONTENTS OF THE WORD X IN
33         ;                        THE MESSAGE.
34         ;         <TIME1> MEANS, THE NUMBER OF TIMER-PERIODS
35         ;                        BETWEEN LAST ANSWER HAS BEEN
36         ;                        RETURNED TO THE REQUESTING
37         ;                        PROCESS AND THE MESSAGE IS
38         ;                        CATCHED BY THE "SNOOPER".
39         ;         <ANSWX> MEANS, THE CONTENTS OF THE WORD X IN
40         ;                        THE ANSWER TO THE MESSAGE.
41         ;         <TIME2> MEANS, THE NUMBER OF TIMER-PERIODS
42         ;                        WHICH HAVE ELAPSED WHILE THE
43         ;                        DRIVER PROCESS IS HANDLING THE
44         ;                        MESSAGE.
45         ;         <DATA>  MEANS, THE DATA WHICH HAS BEEN HANDLED
46         ;                        BY THE DRIVER PROCESS.
```