HEWLETT-PACKARD GENERAL SYSTEMS USERS GROUP

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RESOURCE OPTIMIZATION SERIES

# T E R M I O

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THIS SPL SUBROUTINE WAS DESIGNED FOR USE WITH COBOL PROGRAMS RUNNING IN AN ON-LINE ENVIRONMENT. IF YOU WOULD LIKE TO USE COBOL TO WRITE REPORTS TO ON-LINE TERMINALS YOU ARE STUCK WITH WRITING FIXED LENGTH RECORDS. SINCE MANY REPORTS HAVE VARYING LINE SIZES IT IS NOT POSSIBLE TO HAVE ONE PROGRAM PRINT THOSE REPORTS.

HOWEVER, IF YOU USE THIS SUBROUTINE YOU CAN SPECIFY THE SIZE OF EACH OUTPUT LINE. IN ADDITION, YOU CAN HAVE 'TERMIO' TRUNCATE ALL TRAILING SPACES AND RETURN THE NEW LENGTH TO YOUR PROGRAM BEFORE WRITING TO THE TERMINAL. A ROUTINE CALLED 'SQUISH' IS CALLED TO DO THIS. IF REPORTS ARE DESIGNED FOR ON-LINE SO THAT FIELDS WHICH DO NOT APPEAR ON EVERY LINE ARE ON THE RIGHT, THOSE LINES WILL BE SHORTER RESULTING IN INCREASED THROUGHPUT.

AN IMPORTANT CONSIDERATION WHEN PRINTING REPORTS IS THE ABILITY TO ALIGN FORMS AND BE ABLE TO RESTART THE PRINTING. ON THE HP/3000 YOU CAN USE CONTROL-S AND CONTROL-Q (DC3 AND DC1) TO STOP AND START PRINTING. ONCE FORMS ARE ALIGNED, YOU CAN SOFT- BREAK THE PRINTING WITH CONTROL-Y. 'TERMIO' CONTAINS A ROUTINE CALLED 'SETY' TO DO THIS.

'TERMIO' WAS WRITTEN TO BE USED WITH EITHER SMART OR DUMB TERMINALS AND HAS A NUMBER OF USES. FOR APPLICATION PROGRAMS RUNNING FROM A DUMB TERMINAL ONE OF THE FEATURES WHICH IS DESIRABLE IS TO BE ABLE TO CONTROL THE CURSOR. YOU CAN STORE THE CHARACTERS NEEDED TO HOME THE CURSOR AND SEND THEM OUT AS PART OF THE MESSAGE AND STILL MAINTAIN THE FLEXIBILITY OF VARYING LINE LENGTHS. THIS IS POSSIBLE BECAUSE THE OUTPUT LINE IS IN THREE PARTS. FIRST YOU HAVE A LEADER WHICH MAY CONTAIN HORIZONTAL TAB, VERTICAL TAB, OR NORMAL PRINTING LINE CONTROL CHARACTERS. NEXT, THE MESSAGE LINE FOLLOWED BY A TRAILER. THIS TRAILER WOULD CONTAIN THE COMMANDS FOR YOUR PARTICULAR TYPE OF TERMINAL TO CONTROL THE CURSOR. WHEN CALLING 'SQUISH' YOU MUST SPECIFY THE LENGTHS OF ALL THREE PARTS. 'SQUISH' WILL THEN REMOVE TRAILING SPACES FROM THE MESSAGE PART AND PLACE ALL THREE PIECES IN AN OUTPUT BUFFER. IT WILL ALSO RETURN THE LENTGTH. NOW, ALL YOU NEED DO IS CALL

'TERMIO' USING THE OUTPUT BUFFER AND THE LENGTH JUST RETURNED.

WHEN OPENING A TERMINAL FOR INPUT 'TERMIO' WILL TURN ECHO OFF, DISABLE BREAK, AND EOT OR CR WILL BE THE TERMINATING CHARACTER. ALSO, THE FILE NUMBER IS RETURNED IN CASE YOU NEED IT FOR OTHER COBOL SUBROUTINES. UPON COMPLETION OF A READ TO THE TERMINAL 'TERMIO' WILL RETURN THE LENGTH OF ALL DATA.

THE FOLLOWING IS A GUIDE FOR USING 'TERMIO':

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WORKING-STORAGE SECTION.

01  CREAD-CWRITE-PARAMETERS.
    05  FILEIN                  PIC S9999  COMP VALUE 0.
    05  FILEOUT                 PIC S9999  COMP VALUE 0.
    05  LGTH-I                  PIC S9999  COMP VALUE 0.
    05  LGTH-O                  PIC S9999  COMP VALUE 0.
    05  CHECK-ERR               PIC S9999  COMP VALUE 0.
    05  FLAG-Y                  PIC S9999  COMP.

01  PRINT-LINE-LENGTHS.
    05  LEN-1                   PIC S9999  COMP.
    05  LEN-2                   PIC S9999  COMP.
    05  LEN-3                   PIC S9999  COMP.
    05  LEN-LINE                PIC S9999  COMP.

01  PRINT-LINE-DATA.
    05  P-LEADER                PIC X(4).
    05  P-MESSAGE               PIC X(132).
    05  P-TRAILER               PIC X(12).
    05  P-PRT-LINE              PIC X(148).

01  TERMINAL-INPUT.
    05  T-INPUT                 PIC X(120).

PROCEDURE DIVISION.

*   OPENING A TERMINAL FOR INPUT

    CALL "COPEN" USING FILEIN, T-INPUT LGTH-I CHECK-ERR.

*   REMOVING TRAILING BLANKS.

    CALL "SQUISH" USING P-LEADER   LEN-1
                        P-MESSAGE  LEN-2
                        P-TRAILER  LEN-3
                        P-PRT-LINE LEN-LINE.

*   WRITING TERMINAL OUTPUT.

    CALL "CWRITE" USING FILEOUT P-PRT-LINE LGTH-O CHECK-ERR.

*   CONTROL-Y TRAP

    CALL "SETY" USING FLAG-Y.
*   NOTE: CONTROL-Y BREAK RECEIVED WHEN FLAG-Y IS 1.
*         RESET TO ZERO AND CONTINUE.

*   READING TERMINAL INPUT.
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    CALL "CREAD" USING FILEIN T-INPUT LGTH-I CHECK-ERR.
*   TURN ECHO ON

    CALL "CECHO" USING FILEIN T-INPUT LGTH-I CHECK-ERR.
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