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1620 GENERAL PROGRAM LIBRARY

1620 Edit Subroutine

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1.6.095

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1620 USERS GROUP PROGRAM REVIEW AND EVALUATION

(fill out in typewriter or pencil, do not use ink)

Program No._____   Date_____

Program Name:_____

1. Does the abstract adequately describe what the program is and what   Yes___ No___
    it does?
    Comment_____

2. Does the program do what the abstract says?   Yes___ No___
    Comment_____

3. Is the Description clear, understandable, and adequate?   Yes___ No___
    Comment_____

4. Are the Operating Instructions understandable and in sufficient detail?   Yes___ No___
    Comment_____
    Are the Sense Switch options adequately described (if applicable)?   Yes___ No___
    Are the mnemonic labels identified or sufficiently understandable?   Yes___ No___
    Comment_____

5. Does the source program compile satisfactorily (if applicable)?   Yes___ No___
    Comment_____

6. Does the object program run satisfactorily?   Yes___ No___
    Comment_____

7. Number of test cases run_____.   Are any restrictions as to data,
    size, range, etc. covered adequately in description?   Yes___ No___
    Comment_____

8. Does the Program Meet the minimal standards of the 1620 Users
    Group?   Yes___ No___
    Comment_____

9. Were all necessary parts of the program received?   Yes___ No___
    Comment_____

10. Please list on the back any suggestions to improve the usefulness of the program.
    These will be passed onto the author for his consideration.

Please return to: Your Name   _____

    Mr. Richard L. Pratt   Company   _____
    Data Corporation
    7500 Old Xenia Pike   Address   _____
    Dayton, Ohio   45432
                                 User Group Code_____

THIS REVIEW FORM IS PART OF THE 1620 USER GROUP ORGANIZATION'S PROGRAM
REVIEW AND EVALUATION PROCEDURE. NONMEMBERS ARE CORDIALLY INVITED
TO PARTICIPATE IN THIS EVALUATION.

1620 Edit Subroutine

1. Program Deck

Thomas L . Yates
Statistics Computing Lab
Oregon State University
Corvallis, Oregon
User # 5048

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1. TITLE (If subroutine, state in Title): __1620 EDIT SUBROUTINE__

2. Author; Organization: __THOMAS L. YATES, Statistics Computing Lab, Oregon State University,__
   __Corvallis, Oregon__
   Date: __7-24-63__ _____ Users Group Membership Code: 5048

3. Direct Inquiries to Name: __Thomas L. Yates, Director, Statistics Computing Lab, Oregon State__
   __University, Corvallis, Oregon__ _____ Phone: Pl. 2-4211, Ext. 1315

4. Description/Purpose: (5. Method; 6. Restriction/Range; When Applicable)
   __To provide data field editting similar to the IBM 1401. Input and output in alpha mode. Editting__
   __includes insertion of punctuation, zero suppression and sign control.__
   _____
   _____
   _____
   _____
   _____
   _____

7. Specifications (Check or fill in appropriate spaces):
   a. Storage used by program: __777__
   b. Equipment required by program:
      Card System __✓__; Magnetic Tape System _____; No. of Tapes _____;

      Paper Tape System _____; Disk File System _____; No. of Packs _____;

      TNS, TNF, MF ___; Auto divide ___; Indirect addressing __X__; Floating point hardware _____;

      Other (specify) __20K__

      Can program be used on lesser Machine? _____. Specify which requirements can be
      easily removed _____
   c. Programming type (Check appropriate spaces):

      Fortran without Format _____; Fortran with Format _____;

      Fortran II ___; Mainline, Complete ___; Subroutine or function subprogram(S or F) _____;

      Is the program a library (ie, SPS) function to the Fortran system checked? _____;

      SPS __X__; SPS - 1620/1710 _____;

      Mainline, Complete _____; Macro _____; Subroutine __X__;

      Other programming language: _____; Give details _____
   d. Language used in the writeup: _____

8. Additional Remarks: _____
   _____
   _____
   _____
   _____

PROGRAM WRITEUP

1. 1620 EDIT SUBROUTINE

2. November, 1963

3. Programmer: T. L. Yates
                  Statistics Computing Lab
                  Oregon State University
                  Corvallis, Oregon
                  User #5048
                  Phone Pl. 2-4211, Ext. 1315

4. Program Description: A subroutine written in SPS to edit data (results) in
   a manner similar to the 1401. The subroutine is in symbolic (unassemble)
   language and can be included in any SPS program. The routine provides for
   insertion of punctuation, other constant information, zero suppression and
   sign control of alpha mode fields of any length.

5. Input and Output Formats. Does not apply.

6. Restrictions: Both the data field and the edit field mask to be used on the data
   field must be in alpha mode with a flag on the high order digit of the field. Those
   users utilizing the TNF instruction should take note of the fact that this instruction
   does not set a flag in the high order position.

7. Error stops: Does not apply.

8. Operating Instructions: Linkage to the subroutine is obtained by the following
   sequence,

                  TFM   DW, "XA"
                  TFM   ADEW, "XB"
                  BTM   EDIT, "XC"

   where,

                  "XA" is units position address of data.
                  "XB" is units position address of field where editted result
                       is to be placed.
                  "XC" is units position address of edit mask.

The Edit Mask is prepared in a similar manner to the 1401 Edit Constant. The data field is inserted in blank characters in the mask, all other mask characters are retained in the result except,

(1) The first time a zero is encountered in the mask a data digit will replace it. Zero suppression will then be imposed from the high order digit back to the position which held the zero or to a significant digit. The zero suppression will also blank out all decimal points and commas to the left of the most significant digit.

(2) A minus (-) in the low order position of the mask will be retained if the data field is negative, otherwise it will be blanked out.

(3) "XB" and "XC" must be different memory locations if the mask is to be used by the program more than one time.

(4) If the mask field is too short to accomodate the data field the word 'EDIT' will be typed on the console typewriter and the subroutine will return control to the main routine without stopping.

(5) Upon exitting from the subroutine the Arithmetic Overflow Indicator will be ON.

9. Equipment Required: Any 1620 configuration with Indirect Addressing. The Subroutine uses 777 positions of memory.

10. Language: SPS. Following labels are used by subroutine,

ADED
ADEW
DW
CØMBAK
EDBLNK
EDDIG
EDERR
EDIT
EDTALY
EDZTLY
EWA
KOO
KO3
K10

K20
K23
K60
K70
K71
NØED

EXAMPLES

	DATA		
NUMERIC	ALPHA	MASK	EDITTED RESULT
001234	$\overline{7}$07071727374	$\overline{0}$00000000000 (bbbbbb)	707071727374 (001234)
001234	$\overline{7}$07071727374	$\overline{0}$00000000070 (bbbbb0)	000071727374 (bb1234)
001234	$\overline{7}$07071727374	$\overline{1}$30023000000030070 ($b, bbb. b0)	130000007172037374 ($bbb12. 34)
5678	$\overline{7}$5767778	$\overline{0}$02300007020 (b, bb0-)	752376777800 (5, 678b)
567$\overline{8}$	$\overline{7}$5767758	$\overline{0}$02300007020 (b, bb0-)	752376777820 (5, 678-)

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