

RECOMP II USERS' PROGRAM NO. 1152

PROGRAM TITLE: SHORT FORM FLOATING POINT OUTPUT
(Familiarly known as Super Floating
Point Output)

PROGRAM CLASSIFICATION: Subroutine

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PURPOSE: To rapidly print out a block of
floating point data.

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PROGRAM TITLE: SHORT FORM FLOATING POINT OUTPUT

PURPOSE

To rapidly print out a block of floating point data.

DESCRIPTION

This subroutine converts a specified block of internally stored floating point binary numbers into floating point decimal format and types them out. Four significant decimal digits of the normalized fraction are typed. The location of the block, length of the block, and number of outputs per line are specified by the user.

USAGE

This program is a subroutine, and thus must be "called" by the users' program. The calling sequence, given below, must start in the left-half instruction of the word.

+ TRA 06100 + PZE XXXXO
+ PZE 00YYO + PZE 00ZZO
Return

where XXXX is origin (initial location) of block to be output
 00YY is number (octal) of numbers in block
 00ZZ is number (octal) of numbers to be typed on a line

The format for each output number is as follows:

Sign of number, four digits of fraction, sign of exponent, one digit exponent.

The sign of a positive exponent will be suppressed with a space.
Examples: - 362.5 will appear as -3625 3 and + 0.03625 will appear as +3625 - 1. A carriage return will occur prior to but not following each block typeout.

RESTRICTIONS

The numbers must be in normalized floating point format.

The magnitude of a number must be no greater than 10^{10} or, unless it is identically zero, less than 10^{-10} .

The Tab-Carriage Return Switch on the typewriter must be in the Carriage Return position.

TITLE: SHORT FORM FLOATING POINT OUTPUT
0610 - 0763

0610.0

+ SAX	7760.0	+ CTL	0610.0
+ CTV	0620.0	+ TRA	7770.0
+ CLA	0000.0	- CLA	0001.0
+ CLA	0000.0	- CLA	0001.0
+ CLA	0000.0	- CLA	0004.0
+ CLA	0000.0	- CLA	0001.0
+ CLA	7774.0	+ STO	7773.0
+ TYC	0010.0	+ TRA	7765.0

0620.0

+ STA	7771.1	+ ADD	0762.0
+ STA	0632.1	+ FCA	0000.0
+ XAR	0000.0	+ STA	7763.1
+ STA	7764.1	+ ARS	0024.0
+ STO	7762.0	+ CFL	0610.0
+ CTL	0630.0	+ XAR	0000.0
+ STA	7767.1	+ TYC	0010.0
+ TYC	0033.0	+ TRA	7767.0

0630.0

+ CTV	0610.0	+ CLA	7772.0
+ SUB	7775.0	+ STO	7772.0
+ ARS	0000.0	+ TZE	7336.0
+ CLA	7773.0	+ SUB	7775.0
+ STO	7773.0	+ TZE	7776.0
+ CLA	7767.0	+ ADD	0762.0
+ STO	7767.0	+ CFV	0610.0
+ CTV	0640.0	+ FCA	5216.0

0640.0

+ CFL	0630.0	+ TZE	0704.0
+ TMI	7772.1	+ TYC	0021.0
+ TRA	7773.0	+ TYC	0003.0
+ FST	7770.0	+ CLA	0661.0
+ SUB	7771.1	+ TZE	0753.0
+ TMI	0753.0	+ FCA	7770.0
+ XAR	0000.0	+ TZE	0670.0
+ TMI	0670.0	+ TRA	0763.0

0650.0

+ CTV	0660.0	+ XAR	0000.0
+ FST	7776.0	+ CLA	7774.0
+ ADD	7775.0	+ STO	7775.0
+ FCA	7776.0	+ FDV	7772.0
+ XAR	0000.0	+ TZE	7765.1
+ TPL	7760.1	+ XAR	0000.0
+ FST	7776.0	+ ARS	0000.0
+ CTL	0710.0	+ TRA	7760.0

PROGRAM TITLE: SHORT FORM FLOATING POINT OUTPUT

0660.0

+ SUB	7766.0	+ TRA	7764.1
+ CLA	0000.0	- CLA	0017.0
+ TZE	0000.0	- CLA	0000.0
+ CLA	0000.0	- CLA	0002.0
+ CLA	0000.0	- CLA	0000.1
+ CLA	0000.0	- CLA	0000.0
+ CTL	3334.0	+ FST	3071.0
- CLA	0000.0	- CLA	0007.0

0730.0

+ ADD	7771.0	+ ALS	0004.0
+ STO	7771.0	+ XAR	0000.0
+ MPY	7767.0	+ ADD	7771.0
+ ALS	0004.0	+ STO	7771.0
+ XAR	0000.0	+ MPY	7767.0
+ ADD	7771.0	+ ALS	0027.0
+ CTL	0740.0	+ TRA	7760.0
+ CLA	0000.0	- CLA	0005.0

0670.0

+ CTL	0670.0	+ TRA	7761.0
+ CTV	0660.0	+ XAR	0000.0
+ FST	7776.0	+ CLA	7775.0
+ SUB	7774.0	+ STO	7775.0
+ FCA	7776.0	+ FMP	7772.0
+ XAR	0000.0	+ TZE	7761.1
+ TMI	7761.1	+ XAR	0000.0
+ CTL	0700.0	+ TRA	7760.0

0740.0

+ ADD	7767.0	+ STO	7771.0
+ TYW	7771.1	+ CLA	7775.0
+ ALS	0043.0	+ TZE	7763.1
+ TMI	7770.0	+ TYC	0004.0
+ ADD	7766.0	+ STO	7771.0
+ TYW	7771.1	+ TRA	0761.0
+ SUB	6000.0	- CLA	0000.0
+ CLA	0002.1	- PNC	0000.0

0700.0

+ FDV	7772.0	+ FST	7776.0
+ CLA	7775.0	+ ADD	7774.0
+ STO	7775.0	+ ARS	0000.0
+ CTL	0710.0	+ TRA	7760.0
+ CLA	0706.0	+ TYC	7760.0
+ CTL	0750.0	+ TRA	7760.0
+ FSB	6102.0	- DSL	4113.0
+ FSB	7556.1	+ DIS	6102.0

0750.0

+ CLA	7762.0	+ TYC	7764.0
+ CTL	0630.0	+ TRA	7760.0
- DSL	4102.0	- DSL	4102.0
+ CTL	0750.0	+ TRA	7764.0
+ CLA	7771.0	+ TMI	7766.1
+ CLA	0707.0	+ TYC	7767.0
+ TRA	7760.0	+ CLA	0760.0
+ TYC	7767.0	+ TRA	7760.0

0710.0

+ FCA	0666.0	+ FAD	7776.1
+ XAR	0000.0	+ TZE	7767.0
+ TMI	7767.0	+ XAR	0000.0
+ FDV	7772.0	+ FST	7776.0
+ CLA	7775.0	+ ADD	7774.0
+ STO	7775.0	+ FCA	7776.0
+ CTL	0720.0	+ TRA	7760.0
+ CTL	0720.0	+ TRA	7760.1

0760.0

- PTW	7556.1	- PTW	7542.0
+ CTL	0750.0	+ TRA	7760.0
+ CLA	0000.0	- CLA	0002.0
+ CTL	0650.0	+ TRA	7760.0

0720.0

+ XAR	0000.0	+ ALS	0001.0
+ STA	7762.1	+ XAR	0000.0
+ ARS	0000.0	+ ARS	0000.0
+ MPY	7767.0	+ ALS	0004.0
+ ADD	0665.0	+ STO	7771.0
+ XAR	0000.0	+ MPY	7767.0
+ CTL	0730.0	+ TRA	7760.0
+ CLA	0000.0	- CLA	0005.0