516-46 DJB 3/15/71

## .. CALC - A Desk Calculator Program

...CALC is a program written using FSNAP which enables the 516 via a teletype to be used as a desk calculator. It will accept standard mathematical symbols to define each operation followed by a numerical operator. Each computation is followed by a running tally to the right, thereby eliminating a need for a subtotal. A final total will clear the tally.

The list of commands are:

+n	addition
-n	subtraction
*n	multiplication
/n	division
↑n	exponentiation
=	total

where n is any non-zero value.

A sample program listing is shown below:

PROGRAM?	C,CALC			
DESK CALCU	ILATØR +	-	*	/
+5 -2.5 *6 /1.5 f2 TØTAL =	5.00 2.50 15.00 10.00 100.00			

The advantage of using ...CALC over a normal FSNAP file is the ability to perform any mathematical function and not be confined to the prescribed formula of that file. This is made possible by the program segment  $\underline{SYMCON}$ .

<u>SYMCØN</u> is a symbol converting routine called by ..CALC to interpret the math symbols. It converts them to a number which corresponds to the desired computation. The letter  $x^*$  is reserved for the normal exit to the 516 executive.

\*In #37 teletype machines this is an upper case X.