

VIII.3.3-SUMPOINT TIME SERIES SUMMING POINT OPERATION

Identifier: SUMPOINT

Operation Number: 52

Original Programmer: Ray Fukunaga, Northwest River Forecast Center

Parameter Array: The FORTRAN identifier used for the parameter array for this Operation is P. The contents of the P array is:

<u>Position</u>	<u>Contents</u>
1	Operation version number (integer value)
2-19	Description (maximum 72 characters)
20	Number of input time series to be summed
21-22	Begin time interval output time series identifier
23	Begin time interval output time series data type code 'SQIB' = both begin and end time interval output time series identified 'NONE' = a single mean flow output time series is to be specified
24	Begin time interval output time series data time interval (units of HR)
25-26	End time interval output time series identifier
27	End time interval output time series data type code 'SQIE' = both begin and end time interval output time series identified 'SQME' or 'QME' = a single mean output time series identified
28	End time interval output time series data time interval (units of HR)

For each input time series to be summed:

29-30	Input time series identifier
31	Input time series data type code (SQIB, SQIE, SQIN or QIN)

Flow at a station may be described by either 1 time series (SQIN, QIN or SQIE) or by 2 time series (SQIB and SQIE)

<u>Position</u>	<u>Contents</u>
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32	Input time series data time interval (units of HR)
33	Carryover flag for initial value of begin time series:
	'CARY' = value from carryover array
	'FLAT' = set equal to second value of begin time series
	'ZERO' = set to zero
	'VALU' = read in from input

The number of positions required in the P array is 28 plus 5 times the number of time series to be summed.

Carryover Array: The FORTRAN identifier for the carryover array is C. The contents of the C array are dependent on the number inflow time series to be summed (position 20 in P array).

<u>Position</u>	<u>Contents</u>
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1+	Value of initial begin time interval time series: <ul style="list-style-type: none">o if PO(33)='CARY' element of C array used to set initial begin time interval valueo if PO(33)='FLAT', 'ZERO' or 'VALU' element of C array not used and set to zero
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Subroutine Names and Functions

<u>Subroutine</u>	<u>Function</u>
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PIN52	Input values, make checks and store values in P and C arrays
TAB52	Make entries into the Operation Table
PRP52	Print information stored in the P array
PRC52	Print information stored in the C array
PUC52	Punch input cards
COX52	Provide carryover control
EX52	Provide execution control

Subroutines PIN52, PRP52, PRC52, PUC52 and COX52 have the standard argument lists as described in Section VIII.4.3.

SUBROUTINE EX52 (P,C,OUTB,OUTE,LOCD,D)

Function

This is the execution control routine for Operation SUMPOINT.

Argument List

<u>Variable</u>	<u>Input/ Output</u>	<u>Type</u>	<u>Dimension</u>	<u>Description</u>
P	Input	R*4	Variable	Parameters, options and time series information
C	Input	R*4	Variable	Carryover information on input
OUTB	Output	R*4	Variable	Summed output begin interval values
OUTE	Output	R*4	Variable	Summed output end interval values
LOCD	Input	R*4	Variable	Element location in array D of the first value for each input time series
D	Input	R*4	Variable	Values of each of the input time series to be summed