

VIII.3.3-STAT-QME MEAN DAILY DISCHARGE STATISTICAL SUMMARY OPERATION

Identifier: STAT-QME

Operation Number: 16

Parameter Array: The FORTRAN identifier used for the parameter array for this operation is PO. The contents of the PO array are:

<u>Position</u>	<u>Contents</u>
1	Operation version number (integer value)
2-6	General name for the area or point where the operation is applied
7	User specified drainage area (units of KM2)
8	Simulated discharge time series identifier
9-10	Simulated discharge time series data type
11	Simulated discharge time series data time interval (integer value)
12-13	Observed discharge time series identifier
14	Observed discharge time series data type
15	Observed discharge time series data time interval (integer value)
16	Yearly statistics option (integer value)
17	Quarterly accumulation table option (integer value)
18	Cumulative frequency table option (integer value)
19	Discharge-exceedence table option (integer value)
20	Number of carryover work spaces needed by this operation (integer value)
21	First available record for this operation on the scratch file (integer value)
22-27	Flow intervals
28	Number of PO values

Subroutines Names and Functions: Subroutines associated with this Operation are:

<u>Subroutine</u>	<u>Function</u>
PIN16	Input cards and stores values in PO array
INA16	Initializes multi year carryover values
INB16	Initializes arrays for the quarterly accumulation table
INC16	Initializes values for carryover for the cumulative frequency table
IND16	Initializes values for the discharge-exceedence plot
PRP16	Print information in PO array
EX16	Execute the Operation
PRTPR16	Print real carryover debug information
PRTI16	Print integer carryover debug information
STAT16	Perform statistical computations
TAB16	Make entry into the Operations Table

Subroutine PRP16 has the standard argument list as given in Section VIII.4.3.

SUBROUTINE PIN16 (PO,LEFTP,IUSEP,W,LEFTW,Q)

Function: This is the input subroutine for Operation STAT-QME

Argument List:

<u>Variable</u>	<u>Input/ Output</u>	<u>Type</u>	<u>Dimension</u>	<u>Description</u>
PO	Output	R*4	Variable	Contains parameters and other information
LEFTP	Input	I*4	1	Number of spaces left in PO array
IUSEP	Output	I*4	1	Number of PO spaces used by this operation
W	-	R*4	Variable	Work space
LEFTW	Input	I*4	1	Number of spaces available in W array
Q	-	R*4	372	Work space used for writing to scratch file

SUBROUTINE EX16 (PO, QS, QO, W, ORD)

Function: This is the execution routine for Operation STAT-QME.

Argument List:

<u>Variable</u>	<u>Input/ Output</u>	<u>Type</u>	<u>Dimension</u>	<u>Description</u>
PO	Input	R*4	Variable	Contains parameters and other information
QS	Input	R*4	Variable	Simulated discharge time series data
QO	Input	R*4	Variable	Observed discharge time series data
W	-	R*4	Variable	Carryover work space
ORD	-	R*4	100	Discharge-exceedence plot work space

SUBROUTINE STAT16 (PO, QS, QO, W(1), W(13), ..., W(IOBS), ORD, IMON, IYEA,  
 LMON, LYEA)

Function: This is the routine which performs the computations  
 Operation STAT-QME.

Argument List:

<u>Variable</u>	<u>Input/ Output</u>	<u>Type</u>	<u>Dimension</u>	<u>Description</u>
PO	Output	R*4	Variable	Contains parameters and other information
QS	Input	R*4	Variable	Simulated discharge time series data
QO	Input	R*4	Variable	Observed discharge time series data
W( )	Both	R*4	Variable	Carryover values
ORD	-	R*4	100	Discharge-exceedence plot work space
IMON	Input	I*4	1	First month of simulation
IYEA	Input	I*4	1	First year of simulation
LMON	Input	I*4	1	Last month of simulation
LYEA	Input	I*4	1	Last year of simulation

SUBROUTINE TAB16 (TO,LEFT,IUSET,NXT,LPO,PO,TS,MTS,NWORK,LWORK,IDT)

Function: This is the Operations Table entry routine for Operation STAT-QME.

Argument List: The arguments for this routine are similar to the arguments for the operations table entry routines for other operations. A description of the arguments is contained in Section VIII.4.2.-TAB.

Operation Table Array: The contents of the TO array are:

<u>Position</u>	<u>Contents</u>
1	Operation number
2	Location in the T array of the next operation to be executed
3	Location of the parameter array for the operation in the P array
4	Location of the simulated discharge data in the D array
5	Location of the observed discharge data in the D array
6	Location of carryover work space in the D array
7	Location of work space in the D array to plot the exceedence table