VIII.3.3-UNIT-HG   UNIT HYDROGRAPH OPERATION

Identifier: UNIT-HG

Operation Number: 2

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

Position	Contents
1	Version number for the Operation (integer)
2-6	General name for the area or point where the Operation is applied
7	User specified drainage area (KM2)
8	Area represented by unit graph (KM2)
9	Number of PO values (integer)
10	Number of hydrograph ordinates (integer)
11	Initial carryover indicator: 0 = default values used 1 = values input by user
12	For future use (currently set to 1.0)
13-14	Runoff time series identifier
15	Runoff time series data type code
16	Runoff time series time interval (integer)
17-18	Discharge time series identifier
19	Discharge time series data type
20	Discharge time series time interval (integer)
21	Number of carryover values (integer)
22	Location of first unit hydrograph ordinate
23	Input units indicator: 0 = metric 1 = English
24	Constant baseflow value (CMS)
25-26	Reserved for future use (set to 0.01)

Position   Contents

   PO(22) thru   Unit hydrograph ordinates (CMS/MM)
  PO(22)-1+PO(10)

      The size of the PO array is equal to 26+ number of unit
      hydrograph ordinates.

Carryover Array: The FORTRAN identifier used for the carryover array
is CO. Carryover values for this Operation are runoff time series
values. The number of values is equal to the number of unit
hydrograph ordinates minus one, divided by the ratio of the runoff
time series time interval to the discharge time series time interval.
The default initial carryover values are zeroes.

Subroutine Names and Functions

      Subroutine   Function

      PIN2   Input cards and stores values in PO and CO arrays

      PRP2   Print information in PO array

      PRC2   Print information in CO array

      EX2   Execute the Operation

      FSAV2   Determine runoff to be saved as carryover

      COX2   Perform carryover transfer

      PUC2   Punch information in PO and CO arrays

      TAB2   Make entry into the Operations Table

Subroutines PIN2, PRP2, PRC2 and PUC2 have the standard argument
lists for these subroutines as given in Section VIII.4.3.

```
SUBROUTINE COX2 (PO,CO,PN,CN,WO,NWO)
```

Function: This is the carryover transfer subroutine for the UNIT-HG
Operation.

Argument List:

Argument	Input/ Output	Type	Dimension	Description
PO	Input	R*4	Variable	Contains old parameters and other information
CO	Input	R*4	Variable	Contains old carryover values
PN	Input	R*4	Variable	Contains new parameter values
CN	Both	R*4	Variable	Contains new carryover values – user specified on input, adjusted based on old carryover and new parameters on output
WO	Input	R*4	Variable	Carryover working space
NWO	Input	I*4	1	Size of working space available

SUBROUTINE EX2 (PO,CO,RO,Q,QT,C)

Function: This is the execution subroutine for the UNIT-HG
Operation.

Argument List:

Argument	Input/ Output	Type	Dimension	Description
PO	Input	R*4	Variable	Contains parameters and other information
CO	Both	R*4	Variable	Contains carryover values
RO	Input	R*4	Variable	Runoff time series data
Q	Output	R*4	Variable	Discharge time series data
QT	Input	R*4	Variable	Discharge time series working space
C	Input	R*4	Variable	Carryover working space

SUBROUTINE TAB2 (TO,LEFT,IUSET,NXT,LPO,PO,LCO,TS,MTS,NWORK,NDD,LWORK)

Function: This is the Operations Table entry subroutine for the UNIT-HG Operation.

Argument List: The arguments for this subroutine are similar to the arguments for the Operation table entry subroutines 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:

Position	Contents
1	The number of this Operation
2	The location in the T array of the next Operation to be executed
3	The location of the parameter array for this Operation in the P array
4	The location of the carryover array for this Operation in the C array: 0 = no carryover
5	Location of runoff data in the D array
6	Location of discharge data in the D array
7	Location of working space for local area discharge values in the D array
8	Location of working space for temporary carryover values in the D array