IX.3.4B-WPDRRS SUBROUTINE WPDRRS

Description

Subroutine WPDRRS writes or deleted River, Reservoir or Snow (RRS) data for one station to the Preprocessor Data Base.

Calling Sequence

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CALL WPDRRS (STAID,IDTYPE,NTYPES,DTYPES,NVLPOB,UNITS,NUMOBS,LOBS,OBS,
             LMIN,MIN,LWBUFF,WBUFF,IWRITE,IFUT,LSTHR,IREV,ISTAT)
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Argument List

Argument	Input/ Output	Type	Dimension	Description
STAID	Input	A8	1	Station identifier
		or		
		I*4	1	Station number
IDTYPE	Input	I*4	1	Indicator for station identifier type: 0 = STAID is identifier 1 = STAID is number
NTYPES	Input	I*4	1	Number of data types to be written
DTYPES	Input	A4	NTYPES	Data type codes 1/
NVLPOB	Input	I*4	NTYPES	Number of values per observation for each data type 2/
UNITS	Input	A4	NTYPES	Units for each data type to be written 3/
NUMOBS	Input	I*4	NTYPES	Number of observations for each data type
LOBS	Input	I*4	1	Length of array OFS (R*4 words)
OFS	Input	R*4	LOBS	Array containing the following values for each observation: 4/ 5/ 6/ 7/ 8/ o observation time; Julian hours since 0Z on January 1, 1900 o observation value o time period of observation if mean data; units of HR The value for missing observation

Argument	Input/ Output	Type	Dimension	Description
				values is -999.0 and will overwrite any values currently on the file.
LMIN	Input	I*4	1	Length of array MIN
MIN	Input	I*4	LMIN	Array containing the minutes associated with each observation for each instantaneous data type 11/
LWBUFF	Input	I*4	1	Length of array WBUFF
WBUFF	Input	I*4 or R*4	LWBUFF	Work array
IWRITE	Output	I*4	NTYPES	Array indicating whether data type was written: 0 = all data were written -1 = some data were written but some were prior to allowable period 1 = data type not found for station 2 = none of the data were written because outside allowable period 3 = incorrect number of values per observation 4 = invalid units code 5 = some future data not written because they are before the hour of the last observed value on file (can only get this status when IFUT=1) 6 = data exists - not written 7 = invalid minutes 8 = value out of range 9 = data not found - not deleted
IFUT	Input	I*4	1	Indicating whether regular or future data are being written: 8/ 9/ 0 = regular data 1 = future data
LSTHR	Output	I*4	NTYPES	Array indicating the hour of the last observed data value on file for each data type

Argument	Input/ Output	Type	Dimension	Description
IREV	Input	I*4	1	Revision indicator: 10/ 0 = a non-revision write 1 = a revision write
ISTAT	Output	I*4	1	Status code: 0 = okay 1 = STAID not found 2 = one or more data types not found - data types which are found are written 12/ 3 = one or more observations were prior to the period that could be written for one or more data types 12/ 4 = system error accessing file 5 = combination of statuses 2 and 3 12/ 6 = WBUFF too small - some data not written 12/ 7 = some future data not written because they are before the hour of the last observation value on file for the data specified by IWRITE 12/ 8 = invalid revision indicator, invalid minutes or values out of range 12/ 9 = not enough minute values 12/ 10 = invalid value of IFUT or IREV 11 = data to be deleted not found 27 = some data types not found, wrong number of values per observation or invalid units; and future data before observed 12/ 28 = some data types not found, wrong number of values per observation or invalid units; and invalid revision indicator, value out of range or invalid minutes 12/ 37 = some data not written;

Argument	Input/ Output	Type	Dimension	Description
				future data before observed 12/
				38 = some data not written; invalid revision indicator, value out of range or invalid minutes 12/
				57 = one of the data types not found, wrong number of values per observation or invalid units; and future data before observed 12/
				58 = one of the data types not found, wrong number of values per observation or invalid units; and invalid revision indicator, value out of range or invalid minutes 12/
				78 = future data before observed; and invalid revision indicator, value out of range or invalid minutes 11
				87 = invalid revision indicator, value out of range or invalid minutes; and future data before observed 11

Notes:

1/ Valid types are given in VI.3.3B-DEFINE-STATION [Hyperlink].

2/ Must be correct for each data type or type is not written. Instantaneous data have two values per observation and mean data have three values per observation.

3/ Data will be converted to the proper units if needed.

4/ Observation time and time period must be stored as integer bytes.

5/ If the observation time is negative then value is to be deleted from the PPDB rather than added. If the value does not already exist then observations with negative observation times are ignored.

6/ Data cannot be written for observation times that are more than the predefined maximum number of days before the latest observation for the given station and data type. All other values are written to the file.

7/ If more than one observation for a given instantaneous data type have the same observation time then the last one written is the one stored in the PPDB. For mean data both the observation time and the time period must be the same before a value is overwritten.

8/ When writing regular data if the hour of the last observed data value being written is after the end of the observed data period on file then:
- o update the hour of the last observed data value on file
- o delete any future data on file between the old end of the observed data period and the new end of the observed data period

9/ When writing future data:
- o delete all future data for the station and data type being written before making the current write
- o only write future data which are after the end of the observed data period currently on file (a status is returned if some data are not written)
- o do not compute statistics

10/ Rules 4 through 8 apply for both revision and non-revision writes. The differences between revision and non-revision writes for RRS data are:
- o With the revision switch off observed data on file cannot be replaced. Future data can be replaced with observed data.
- o With the revision switch on data are always written except that observed data cannot be replaced by future data.

11/ Values in array MIN must be in the range 0-59 for instantaneous RRS data types. This array is undefined if no instantaneous data types are being written. Values of MIN indicate:

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    0   = the observation was made exactly on the hour
  1-30  = the observation was made after the hour
 31-59  = the observation was made before the hour
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12/ When these statuses occur check the values returned in the IWRITE array. This array specifies the problem for each data type written.