

IX.4.4B-PRDTSn PROCESSED DATA BASE FILE PRDTSn

Purpose

Files PRDTSn contain the Processed Data Base time series data.

Description

ATTRIBUTES: fixed length 64 byte binary records

RECORD STRUCTURE:

<u>Variable</u>	<u>Type</u>	<u>Dimension</u>	Word <u>Position</u>	<u>Description</u>
The first record contains file control information:				
LUNIT	I*4	1	1	File unit number
MAXREC	I*4	1	2	Maximum number of records
NEXTRC	I*4	1	3	Next available record
NDATYP	I*4	1	4	Number of data types in file
LSTREC	I*4	1	5	Record number of last record read (used during execution only)

The remaining records are the time series records. 1/

<u>Variable</u>	<u>Type</u>	<u>Dimension</u>	Word <u>Position <u>2/</u></u> <u>cmp/exp</u>	<u>Description</u>
The time series header records contain the following information:				
LTSHDR	I*1	1	1/1	Length of header in words - set to zero if the length is more than 256 when compacted
IDTINT	I*1	1	1/2	Data time interval
NVLINT	I*1	1	1/3	Number of values per data time interval
	I*1	1	1/4	Not used
NTSMAX	I*2	1	2/4	Maximum number of data values <u>3/</u>
NTSNUM	I*2	1	2/5	Actual number of data values

<u>Variable</u>	<u>Type</u>	<u>Dimension</u>	Word <u>Position 2/</u> <u>cmp/exp</u>	<u>Description</u>
IPTREG	I*2	1	3/6	Location in the record of first regular data value
IPTFUT	I*2	1	3/7	Location in the record of first future data value: 0 = no future data
TSID	A8	1	4-5/8-9	Time series identifier
TSDTYP	A4	1	6/10	Data type code
TSUNIT	A4	1	7/11	Data units code
TSLOC	R*4	2	8-9/12-13	Latitude and longitude (degrees and tenths)
JULBEG	I*4	1	10/14	Julian hour of first data value
ITSFUT	I*4	1	11/15	If the code for the component that can write the data type is 'PP' then this is the record number of the future time series data; if the code for the component that can write the data type is 'FC' then this is the QPF flag with the following characteristics: 0 = QPF not used -1 = QPF used for the entire forecast run 1-120 = number of hours of QPF used in forecast run
			12/16	Unused
NRECNX	I*4	1	13/17	Record number of next time series record of the same data type
TSDESC	A20	1	14-18/18-22	Description
XBUF	?	?	19/23	Extra Buffer <u>4/</u>
The time series data records contain the following information:				
TS	R*4	TSMAX	?/?	Time series data

Notes:

1/ The number of records used for a time series can be computed as follows:

$$NREC = (NWORDS + LRECLT - 1) / LRECLT$$

where NREC is the number of records
NWORDS is the number of words
LRECLT is the number of words per record

The number of words can be computed as follows:

$$NWORDS = LTSHDR + LXBUF + NTSMAX$$

where NWORDS is the number of records
LTSHDR is the number of words in the time series header
LXBUF is the number of words in XBUF
NTSMAX is the maximum number of time series values 3/

2/ 'cmp' is the word position as it is stored in the file in compacted form.

'exp' is the word position as it is returned in expanded form from routines RPRDH and RPRDFH (see Section IX.3.5B).

3/ The maximum number of data values can be computed as follows:

$$NTSMAX = MAXDAY * 24 / IDTINT * NVLINT$$

where NTSMAX is the maximum number of data values
MAXDAY is the maximum number of days of data for the data type
IDTINT is the data time interval
NVLINT is the number of values per data time interval

4/ The Extra Buffer is an optional array and is defined if:

LENHDR - LENHED is greater than zero

where LENHDR is the length of the header in words
LENHED is the minimum length of a header in words (stored in common block PDATAS)