EDOC108

Projet EUROGAM

Tape format

standard eurogam

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1 Introduction

The 'Tape Standard' for 'Eurogam ' is based on the ANSI standard . We propose it with the variable format D and the special structured data block .

2 Volume and file header label

The blocks VOL1, HDR1, HDR2, EOF1 , EOF2 and data file blocks should be written by the Data Acquisition software or by others softwares (which save or restore data on/from the tape from/to memory or disk). Other labels defined by the standards (as UHLn and UTLn) should not be used.'

2.1 general structure

- a initialised tape contains :
- VOL1 **
- a tape with files contains: :
- VOL1 HDR1 HDR2 * — file — * EOF1 EOF2 **

nota1 : the file is definited later
nota2 : * represents a 'tape mark'

2.2 block structure

'Volume label' VOL1

- 1-4 : identifier set to VOL1
- 5-10 : volume name(6 characters)
- 11-37 : spaces
- 38-51 : user name(14 characters ou spaces)
- 52-79 : spaces
- 80 : version 3 of the standard norme

'file header 1' set to HDR1

- 1-4 : identifierHDR1
- 5-21 : file name (1 a 8 characters)
- 22-27 : the volume name (the same as in VOL1
- 28-31 : 0001 (in ASCII)
- 32-35 : file number ; begin with 1 then increase 1 with each file
- 36-39 : generation number 0001
- 40-41 : version number set to 0
- 42-47 : date file creation ' yyddd' ('yy' is the year , 'ddd ' day number
- 48-54 : spaces
- 55-60 : 000000
- 61-73 : system code spaces
- 74-80 : spaces

'file header 2' HDR2

- 1-4 : identifier set to HDR2
- 5 : variable format = D
- 6-10 : maximun number of characters per blocks; 8192 bytes
- 11-15 : length record - should be same as block length (8192 bytes)
- 16-50 : spaces
- 51-52 : set to 00
- 53-80 : spaces

'end file header 1' EOF1

- 1-4 : identifier set to EOF1
- 5-54 : same that HDR1
- 55-60 : number of blocks in the file (between 2 tapes marks)
- 61-80 : spaces

'end file header 2' set to EOF2

- 1-4 : end file header 2 EOF2
- 5 -80 : same that HDR2

2.3 'data block structure

the blocks allow to :

- 1-4 : block length in ASCII less than or equal 8192 bytes
- 5-12 : type of data bloc : FILEH,EVENTH,EVENTD,SPECTH,SPECTD,COMMENT
- 13-20 : block counter in ASCII
- 21-end : the specific 'data'

A data file allow every kind of blocks .

'type of data bloc' :

- FILEH for file definition
- COMMENT for comments,
- SCALER for scaling counter,
- PARAM for different parameters,
- EVENTH for events header,
- EVENTD for events data
- SPECTH for spectrum header
- SPECTD for spectrum data

'data block'

- a file can contain every spectra with different length
- the events blocks must be defined
- one logical block in one physical block
- for exabyte the length must be 8192 bytes

3 Other general proposals

- the file must be monovolume
- each ascii field are padded with trailing space
- empty field must be filled with spaces
- to decrease the number of tape marks on exabyte , we propose to save many spectra in one file