

L2 Header

B0	# objects (NOT IN HEADER)	[note 255 max!]
B1	Header Length in 4B words (1B)	[=3 for default]
B2	Object Length in 4B words (1B)	[ALL same size!]
B3	Header/ Trailer Format # (hi 3 bits) Object Format # (lo 5 bits)	[ONLY changes if new format] [ONLY changes if new format]
B4	Data Type # (1B)	[unique in all L2 MBT inputs]
B5	Bunch # (1B)	
B6-7	Rotation# (2B)	[B6 is LSB of rotation]
B8	Algorithm Major Version (1 B)	[e.g. 7 from Version 7.1]
B9	Algorithm Minor Version (1B) or Processor Specific Bits (1B)	[e.g. 1 from 7.1] [esp. if hardware data source]
B10	Processor Specific Bits (1B)	
B11	Status Bits	[b7 on means some error] [some standard for L2 Proc]

Standard Status Bits

b7, b0 for all; others if L2proc

- 7 **error on event (any kind): use at own risk**
- 6 no processing attempted (none required)
- 5 object list truncated (any reason)
- 4 Receiver error on some input physical trailer
- 3
- 2
- 1 more data-type info (processor-specific)
other test modes; unbiased-sample data...
- 0 0 for real data, 1 for MC data

L2 Trailer

B0 Bunch # (1B) = B5 of Header

B1 **Data Type** # (1B) = B4 of Header

(Swapped even/odd from Header)

B2 **Longitudinal Parity** of even Bytes

B3 **Longitudinal Parity** of odd Bytes

or--if parity too slow to calculate, Turn # (B6-7 of Header)

MBT Out, SLIC, FIC will append physical trailer with 8-bit hardware-generated longitudinal parity

Zero padding to 16 B group FOLLOWS trailer, before End of Event

L2 Physical Trailer

- FIC, SLIC, MBT Out: add a physical 2B trailer
 - after logical trailer, before End Event
 - This BREAKS 16B boundary, but handled by MBT
 - B0 8 bit longitudinal parity of received data
 - B1 Status Bits [b7 on if any receive error]
 - not included longitudinal parity!
 - b0, b1 are type ID: 0 = FIC, 1 = SLIC, 2 = MBT
- MBT inputs place this in B0, B1 of 16B physical trailer
 - adds B14, its own longitudinal parity of everything received
 - B15 its own Error Bits [b7 on if any receive error]
 - reserves 4B for incoming, may give error locations in B4-13
 - MBT Outs produce 2B physical trailer like FIC