

## Binary Block – updated on June 15 2006

32																														8	7	6	5	4	3	2	1
Version 200 (0xC8)																	Ancillary File Header = 0xF1040																				
File Header length in byte																																					
Run number																																					
MH_ID				year																month				day													
MH_ID				hours																minute								sec									
MH_ID				String length in byte																																	
String block																																					
<b>Version 300 (0x12C)</b>																	Ancillary Event Header = 0xF1030																				
Event length in byte																																					
Event H				Number of event																																	
Event H				Spill number																Number of event in the spill																	
<b>SIS ID</b>																												<b>Num of scaler counters</b>									
																	<b>32 bit scaler counter value – channel 0</b>																				
																	<b>32 bit scaler counter value – channel 1</b>																				
<b>QDC HID</b>																												QDC fifo									
QDC ID																				QDC ch x				QDC value													
QDC ID																				QDC ch y				QDC value													
QDC ID																				QDC ch ...				QDC value													
<b>FADC HID</b>				SSD ID0																												FADC fifo					
FADC ID				SSD ID0				FADC ch x																FADC value													
FADC ID				SSD ID0				FADC ch y																FADC value													
FADC ID				SSD ID0				FADC ch ...																FADC value													
<b>FADC HID</b>				SSD ID1																												FADC fifo					
FADC ID				SSD ID1				FADC ch x																FADC value													
FADC ID				SSD ID1				FADC ch y																FADC value													
FADC ID				SSD ID1				FADC ch ...																FADC value													
<b>FADC HID</b>				SSD ID2																												FADC fifo					
FADC ID				SSD ID2				FADC ch x																FADC value													
FADC ID				SSD ID2				FADC ch y																FADC value													
FADC ID				SSD ID2				FADC ch z																FADC value													
FADC ID				SSD ID2				FADC ch ...																FADC value													
<b>FADC HID</b>				SSD ID3																												FADC fifo					
FADC ID				SSD ID3				FADC ch x																FADC value													
FADC ID				SSD ID3				FADC ch y																FADC value													
FADC ID				SSD ID3				FADC ch ...																FADC value													
The next event has the same structure starting from the 32 bit word containing the Ancillary event header																																					
<b>Version 100 (0x64)</b>																	<b>Ancillary Trailer Header = 0xF1050</b>																				
<b>Trailer Header length in byte</b>																																					
ME ID				Total number of collected events																																	
ME ID				year																month				day													
ME ID				hours																minute								sec									

- MH ID = 4 bits assigned to identify the Main Run Header, it is set to 15
- Ancillary File Header = 20 bits assigned to identify the Ancillary data
- Year, month, day, hh, min, sec = starting time and date of acq
- Stringblock = comment to the run formatted in a string (up to 80 chars)
- Spill Number = 16 bits assigned to the progressive spill number (max counts 65536)
- Event H = 4 bits assigned to identify the event header, it is set to 12
- DAQ Version = 8 bits assigned to identify the DAQ version (max. 256), it is set to 2
- Ancillary Event Header = 20 bits assigned to identify the Ancillary data
- Event length = 28 bits assigned to the length of the event in byte
- Number of event = 28 bits assigned to the progressive number of event
- Number of event in the spill = 12 bits assigned to the progressive number of event in the spill (max 4096)
- SIS ID = 4 bit assigned to identify the beginning of Scaler counters block set to 10..
- Num of scaler counters (8 bit): there are up to 32 counter, usually only 2 are read out.
- Every scaler counter data is 32bit long; they are in the order from 0 to 32.
- QDC ID = 4 bits assigned to identify the data from the CAEN V792 QDC, it is set to 1
- QDC fifo = 5 bits assigned to the number of converted QDC channels (max.32 for the CAEN V792 QDC)
- QDC ch. = 5 bits assigned to identify the converted QDC channel (max 32)
- QDC value = 12 bits assigned to the QDC converted data (max 4096)
- FADC ID = 4 bits assigned to identify the data from CAEN V550 FADC, it is set to 2
- SSD ID0-3 = 4 bits assigned to identify the X-Y SSD module (max 16)
- FADC ch = 12 bits assigned to the converted FADC channel (max 4096)
- FADC value = 12 bits assigned to the FADC converted data (max 4096)
- ME ID = 4 bits assigned to identify the End of Run, it is set to 14
- Total number of collected events
- Year, month, day, hh, min, sec = ending time and date of acq

4bit line header	value	Identification of:
MH ID	15	File header lines
Event H	11	Event header lines
SIS ID	10	Begin of Scaler block
QDC HID	3	QDC fifo value
QDC ID	1	QDC data
FADC HID	4	FADC fifo value
FADC ID	2	FADC data
ME ID	14	End of run lines