Reformatted Marie Data:

Notes:

a)

A1is Detector A1
A2 isDetector A2
B1/2 is Detectors B1 & B2 on the same board (One Temperature, 2 detector values)
B3/4 is Detectors B2 & B3 on the same board (One Temperature, 2 detector values)
C is C Detector
Power is Power card
CPU is CPU card
PSD1 is PSD1 detector
PSD2 is PSD2 Detector

b)
There are 2 temperature devices per board; mrg.det, and mrg.brd describe each device data

c)
Byte = 8 bit byte
Word = 16 bit unsigned
Real = 6 bytes

Mrg.evn:

The raw event files (EVN*.DAT in the PDS archive) have the Mrg.evn format.

The Mrg.evn file is a binary file of _detEventRecord records. Please see the following structure:

```
DetectorType = ( DetA1, DetA2, DetB1T, DetB1B, DetB2T, DetB2B, DetC1,
                 DetP1REv1Mag, DetP1REv1Pos, DetP1REv2Mag, DetP1REv2Pos,
                 DetP1CEv1Mag, DetP1CEv1Pos, DetP1CEv2Mag, DetP1CEv2Pos,
                 DetP2REv1Mag, DetP2REv1Pos, DetP2REv2Mag, DetP2REv2Pos,
                 DetP2CEv1Mag, DetP2CEv1Pos, DetP2CEv2Mag, DetP2CEv2Pos);

FlagType =   ( FlagA1,  FlagA2,  FlagA3,
               FlagB1,  FlagB2,  FlagB3,  FlagC1,
               FlagP1_S1,  FlagP2_S1, FlagP1_S2,  FlagP2_S2);

EventsArray = Array [ DetectorType ] of word;

FlagsArray  = Array [ FlagType ] of byte;

_DetEventRecord = Record
            TypeId  : Byte;   { 1 byte }
```

```
                InstID  : Byte;
                RunId   : Byte;
                RecordId: Byte;
                len     : Word;     { 16 bit unsigned }
                CheckSum: word;
                NumberEvents: byte;
                Time    : real; { 6 bytes }
                Events  : EventsArray;
                Flags   : FlagsArray;
end;
```

Mrg.cnt:

The count files (CNT*.DAT in the PDS archive) have the Mrg.cnt format.

The Mrg.cnt file is a binary file of records. Please see the following structure:

```
 DetCountsRec = record
     x : Real;
     y : _DetCountRecord;
end;

CountType =    ( CntA1F, CntA2F, CntB1F, CntB2F, CntC1F);
CountsArray = Array [ CountType  ] of word;
_DetCountRecord = Record
                TypeId  : Byte;
                InstID  : Byte;
                RunId   : Byte;
                RecordId: Byte;
                len     : Word;
                Time    : real;
                CheckSum: word;
                Counts  : CountsArray;
end;
```

Mrg.det:

The detector temperature files (DET*.TAB in the PDS archive) have the Mrg.det format.

Is a text file describing the detector temperatures with a UTC Time Stamp, followed by a Julian time. The file heading lists the order of the boards. (In the PDS archive, the file heading is simpler than shown and occupies 1 row.)

```
   A1     A2     B1/2   B3/4   C     Power   CPU   PSD1   PSD2
 ____________________________________________________________

10APR02  06:31:52.34  1052633191.8720703     28.0000000      31.0000000
29.0000000      26.0000000      25.0000000      22.0000000
26.0000000      37.0170799      37.7787284
```

Mrg.brd:

The board temperature files (BRD*.TAB in the PDS archive) have the Mrg.brd format.

Is a text file describing the board temperatures with a UTC Time Stamp, followed by a Julian time. The file heading lists the order of the boards. (In the PDS archive, the file heading is simpler than shown and occupies 1 row.)

```
   A1     A2     B1/2   B3/4   C     Power   CPU   PSD1   PSD2
 ____________________________________________________________

10APR02  06:31:52.34  1052633191.8720703     28.0000000      31.0000000
29.0000000      26.0000000      25.0000000      22.0000000
26.0000000      37.0170799      37.7787284
```

Mrg.pwr

The board power files (PWR*.TAB in the PDS archive) have the Mrg.pwr format.

Is a text file describing the power consumption in mw, with a UTC Time Stamp, followed by a Julian time. The file heading lists the order of the boards. (In the PDS archive, the file heading is simpler than shown and occupies 1 row.)

```
                    Power Consumption (mw)
                    ______________________

  A1   A2     B1/2   B3/4   C      Power  CPU    PSD1   PSD2
 ____________________________________________________________

10APR02  06:31:52.34  1052633191.8720703    210.0000000
710.0000000      305.0000000      420.0000000      355.0000000
205.0000000      745.0000000      872.5065199      775.2944986
```