

4/19/98
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PDT Electronics software

Several flavors of the software have been used in PDT Electronics tests. One set of routines was developed for MVME166 using existing licensed VxWorks operating system on D0CHA. Similar set of routines was re-compiled later for Omnibyte VSBC-20 processor using Microtek compiler on D0GS09. The following is a list of routines and a brief functional description designed for MVME166.

1. **mrcfile.c** – writes raw data in a file on D0CHB. Length – 153 lines.
2. **mrcdat.c** – same as mrcfile.c, but doesn't write file.
3. **rr.c** – reframe and initialize both sections of the MRC. Length – 39 lines.
4. **wrdchk.c** – writes a pattern (\$5555 and \$AAAA) to check every bit in MRC memory buffer. Length – 52 lines.
5. **memfil.c** – fills memory with fixed values. Length – 34 lines.
6. **listerr.c** – accumulates error bits and displays them after a requested number of events has been collected. Length – 6 lines.

VSBC-20 software includes following routines:

1. **nofodat.020** – same as mrcdat.c
2. **rr.020** – same as rr.c
3. **memchk.020** – same as memchk.c

After raw data is accumulated, it was processed at D0CHB using Fortran 77 code. That code includes **stntvp.f** routine, which makes ntuple file for PAW. The length of this routine is the biggest – 229 lines of code. The code also has several versions to provide different software cuts and require three cells in stack to be hit (level 3 software trigger).