BVDR convert set up:

Most recent program files in G:\Marport_converter.

Copy into C:\nm:
BVDRReader.exe
bvdr_path.cfg
convert_bvdr.exe

Edit bvdr_path.cfg:

Leave first two lines intact (instructions)

Change first file line to point to your bvdr files (this will usually be C:\Program Files\Marport Server\Logs while at sea)

Change second file line to point to your NM data directory (this will be the same directory as scanpath.cfg)

Make a shortcut for convert_bvdr.exe on the desktop

How the converter works:

The raw data files from Marport have the extension .BVDR and are in binary proprietary format. Marport's programs BVDRReader.exe converts this file into a comma delimited (.CSV) data file. These two files are named by the date and Zulu hour they were created, for example: 20110731-22Z.csv was created on July 31, 2011 starting at 22:00 GMT. Unfortunately, the .BVDR and .CSV are binned by the hour, so they are not directly usable by our data analysis program (Scanplot) which is haul based.

Convert_bvdr will prompt the user for a haul number, and then checks the .SGT file from haul to get the beginning and end times of the tow. It uses these times to cycle through the Marport .CSV files to select the data corresponding the tow. Usually it will open and process two files, but it can process one or any number based on the length of the tow.

You can have your .BVDR and/or .CSV data in any directory; the BVDR_PATH.CFG file is used to point the program to the directory containing your data. The default (because it is the Marport default) is C:\Program Files\Marport Server\Logs, but you can change it to any other directory. All input and output files will go into this directory.

The .SGT file should conform to standard NM protocol; it should be in a directory directly under the C:\NM directory (i.e. C:\NM\MY_DATA)

All Marport data is coded by user defined "unit numbers". All output data retains the original Marport unit number (defined by the user in Marport set up) with one exception: The height and spread output date is ALWAYS coded 12 and 23 to conform to Scanmar default protocol, so it can be used in Scanplot.

Running the converter:

Run convert_bvdr.exe You will be prompted for a haul number. This haul number is used to select the tow start and end times and select the appropriate 1-3 .BVDR files to convert. If a .BVDR file is available, the program shells out to BVDRReader which will open in a DOS (black) window. It will tell you whether it converted the files or say that they are up to date (if it tells you the file is up to date, it means the file already exists, if you want to replace it, you need to delete the old file before running the program). You will need to press Enter at the prompt to end BVDRReader. A BVDRReader window will open for each file that needs to be converted automatically. This will normally be two files; if there are fewer or more, double check your .SGT file to confirm tow start/end/duration.

If the .BVDR file is NOT available (for example if you already converted and only have a .CSV file), it will give you a message saying it could not find the file. Just press "OK" and it will look for and convert the available .CSV file.

The .CSV files from BVDRReader at automatically converted into several files:

All output files have the following prefix, cruise_vessel_haul:
CCCCCC_VVV_HHHH.xxx

and the following extensions:
.MPT spread and height ***CODED 12 & 23 for unit numbers to run through Scanplot!!!****
The rest match the $nmea names in the input file:

.TEH height
.TED depth
.TET headrope temperature
.TMP wing temperature
.PIT pitch
.ROL roll
.GLL $GLL gps string data
.RMC $GRMC gps string data

.MPT is a NM program readable comma delimited text file (can be renamed or appended to current .SGP files; same data structure, but NO header)

The main bug we have encountered is that the BVDRReader adds a corrupted data line after each height record ($01TEH). My conversion program can handle 99% of these lines, but sometimes a random EOF (end of file) binary value is in the corrupted line and is interpreted as the end of the file. You will need to check each .txt or .MPT file to see that the last record corresponds to the last $01TEH or $01DST record in the .CSV file.

Also remember that the conversion program from .CSV to .MPT **ALWAYS appends**, so if you have a problem with the program, you will want to delete or rename the .MPT files before re-converting.

The .BVDR and .CSV files are named with YYYYMMDD-HHZ; year, month, day, hour (Zulu). If you want to compare these files to .SGT and other NM data files, you will have to pick the hour that corresponds to +8 hours after the time in the .SGT files, rounded up. If your tow started at 06:50 and continued into 07:45 (.SGT), your .BVDR and .CSV files will have a 14Z and 15Z extension.

Robin (-4139)

Filename Extensions and File Formats **(Lauth v.5.2016)**

Loadable into WHEELHOUSE Program

BTD

VESSEL,CRUISE,HAUL,SERIAL_NUMBER,DATE_TIME,TEMPERATURE,DEPTH
162,201202,1,859,8/14/2012 07:19:11,16.330,-0.1

BTH

VESSEL,CRUISE,HAUL,MODEL_NUMBER,VERSION_NUMBER,SERIAL_NUMBER,HOST_TIME,LOGGER_TIME,LOGGING_START,LOGGING_END,SAMPLE_PERIOD,NUMBER_CHANNELS,NUMBER_SAMPLES,MODE
162,201202,1,SBE 39,1.7a,00859,08/14/12 08:10:00,08/14/12 08:09:53,08/14/12 07:19:11,08/14/12 08:09:45,3,2,0,2
Xgps (created from BVDR Convert program using an SGT file)
VESSEL,CRUISE,HAUL,DATE_TIME,LATITUDE,LONGITUDE
162,201202,2,08/14/2012 12:29:05,6601.931,-16828.844

BC2

"Plot Title: Haul0002bc2 "
"#","Time, GMT-08:00","X Accel, g(LGR S/N: 2243739)","Y Accel, g(LGR S/N: 2243739)","Z Accel, g(LGR S/N: 2243739)","Batt, V(LGR S/N: 2243739)","Coupler Detached(LGR S/N: 2243739)","Coupler Attached(LGR S/N: 2243739)","Host Connected(LGR S/N: 2243739)","Stopped(LGR S/N: 2243739)","End Of File(LGR S/N: 2243739)"
1,08/14/2012 12:22:20,3.150,-1.100,-0.175,2.97,,,,,
2,08/14/2012 12:22:21,3.150,-1.074,-0.075,2.97,,,,,
3,08/14/2012 12:22:22,3.150,-0.900,0.225,2.99,,,,,
4,08/14/2012 12:22:23,3.150,-0.675,0.425,2.99,,,,,
5,08/14/2012 12:22:24,3.150,-0.550,0.600,2.99,,,,,
6,08/14/2012 12:22:25,3.150,-0.475,-0.124,3.03,Logged,,,,

MARP

$GPRMC,235937.000,A,5641.1396,N,16921.1609,W,2.08,273.07,290615,,,D7A
$01TEH,4.2,m1D
$01TED,22,m39
$01TET,7.1,C2F
$GPRMC,235938.000,A,5641.1396,N,16921.1618,W,1.93,273.88,290615,,,D73
$01TEH,4.8,m17
$01TED,22,m39
$01TET,7.1,C2F
$01DST,2.9,F,5.3,M,1,C-2/CH13C
$GPRMC,235939.000,A,5641.1397,N,16921.1629,W,1.90,268.09,290615,,,D71
$01TEH,4.7,m18
$01TED,22,m39
$01TET,7.1,C2F
$GPRMC,235940.000,A,5641.1396,N,16921.1640,W,1.84,263.64,290615,,,D74
$01TEH,5.3,m1D
$01TED,22,m39
$01TET,7.1,C2F
$01TEH,4.6,m19

GPS (needs to be created from Globe log file or BVDR Convert program - see below)

162,201501,28,06/07/2015 14:00:00,5646.9634,-16210.2890
162,201501,28,06/07/2015 14:00:01,5646.9606,-16210.2894
162,201501,28,06/07/2015 14:00:03,5646.9550,-16210.2900
162,201501,28,06/07/2015 14:00:04,5646.9522,-16210.2903
162,201501,28,06/07/2015 14:00:05,5646.9494,-16210.2906
162,201501,28,06/07/2015 14:00:06,5646.9466,-16210.2910
162,201501,28,06/07/2015 14:00:08,5646.9409,-16210.2919

BVDR Convert Program File Formats

SGT file for respective haul in C:\NM directory
Output files are RMC (same format as GPS), TET (BTD temperature format), TED (BTD depth format), MPT (same format as SGP), TEH (same format as SGP height only),

SGT (needed for respective haul in C:\NM to run BVDR Convert program)

VESSEL,CRUISE,HAUL,DATE_TIME,TIME_FLAG,POSITION_METHOD,LATITUDE,LONGITUDE,COMMENT
94,201501,165,7/17/2015 16:01:46,1,11,,,
94,201501,165,7/17/2015 16:41:11,8,11,,,

RMC (change extension to GPS to upload into WHEELHOUSE)
162,201202,2,08/14/2012 12:33:22,12,17.2
162,201202,2,08/14/2012 12:33:23,23,7.0

MPT (change extension to SGP to upload into WHEELHOUSE)
162,201501,28,06/07/2015 15:10:40,23,2.1
162,201501,28,06/07/2015 15:10:41,23,2.0
162,201501,28,06/07/2015 15:10:41,12,15.6
162,201501,28,06/07/2015 15:10:42,23,2.1
162,201501,28,06/07/2015 15:10:44,23,2.1
162,201501,28,06/07/2015 15:10:45,12,15.6
162,201501,28,06/07/2015 15:10:45,23,2.0
162,201501,28,06/07/2015 15:10:46,23,2.1
162,201501,28,06/07/2015 15:10:47,23,2.1
162,201501,28,06/07/2015 15:10:48,12,15.6
162,201501,28,06/07/2015 15:10:48,23,2.1
162,201501,28,06/07/2015 15:10:49,23,2.1
162,201501,28,06/07/2015 15:10:50,23,2.1
162,201501,28,06/07/2015 15:10:51,23,2.1
162,201501,28,06/07/2015 15:10:51,12,15.1

TET
VESSEL,CRUISE,HAUL,SERIAL_NUMBER,DATE_TIME,DEPTH
162,201202,1,859,8/14/2012 07:19:11,-0.1

TED
VESSEL,CRUISE,HAUL,SERIAL_NUMBER,DATE_TIME,TEMPERATURE
162,201202,1,859,8/14/2012 07:19:11,16.330