

I revised venus-ravi2:/usr/local/ravi/post\_proc/check\_header.c to print out the first few values from a data file along with a header. From

```
./check_header -l localhost /mnt/PESD_data/vsr1a.1w1.10-113-2200.raw
```

I got this for the data, in (real, imaginary) pairs:

```
-1.5 -11.5
-2.5 -7.5
-35.5 -8.5
70.5 6.5
33.5 -29.5
-54.5 -22.5
```

....

Reading the first few data bytes from that file into a buffer through an sshfs mount and then unpacking that with `struct.unpack("!16b",buf[0:16])` and adding 0.5 I got:

```
-16.5, -11.5, -6.5, -1.5, 16.5, -7.5, -14.5, -2.5,
-49.5, -8.5, 6.5, -35.5, 34.5, 6.5, 41.5, 70.5
```

I've used boldface to show how they match up. Using `struct.unpack("!xbxbxbxbxbxbxb",buf[0:16])` I get this:

```
(-12, -2, -8, -3, -9, -36, 6, 70)
```

which, adding 0.5, gives what's expected. So where do these unexpected bytes come from? Doing this on ravi2:

```
kuiper@venus-ravi2:/usr/local/ravi/post_proc$ od -j 152 -N 16 -t d1
/mnt/PESD_data/vsrla.1w1.10-113-2200.raw
0000230 -17 -12 -7 -2 16 -8 -15 -3 -50 -9 6 -36 34 6 41 70
```

which confirms what I see over an sshfs mount. Is it really possible that `vdr_io` between a 32-bit machine (venus-vsrl) and a 64-bit machine (ravi2) uses only every other byte on disk?