

H Data format ALS - DTU Space binary (*.sbi)

The ALS files are provided in an 18-bit little-endian binary format. The bit-string is read according to the syntax given in the Table below. In python the data can be read by using the script provided in the text-box below.

Value	Byte Type	Standard size	Scaling factor
UTC time [hours]	Int	4	10^{-7}
Latitude [deg N]	Int	4	10^{-7}
Longitude [deg E]	Int	4	10^{-7}
Elevation [m]	Int	4	10^{-3}
Amplitude	signed char	1	1
Scan no. in scanline	unsigned char	1	1

```
dt = np.dtype([('tid', '<i'), ('lat', 'i'), ('lon', 'i'), ('hoj', 'i'), ('s1', 'b'), ('s2', 'B')])

data = np.fromfile(ifile, dtype=dt)

data['tid'] = data['tid'] * 1.0E-7

data['lat'] = data['lat'] * 1.0E-7

data['lon'] = data['lon'] * 1.0E-7

data['hoj'] = data['hoj'] * 1.0E-3
```