

Error with JPEG packing: jpc_abstorelstepsize: Assertion `!((expn) & (~0x1f))' failed - ecCodes GRIB FAQ

Problem

When converting to JPEG packing with the [JasPer](#) library, you get the above assertion:

```
% grib_set -s packingType=grid_jpeg input.grib2 output.grib2
grib_set: jpc_enc.c:186: jpc_abstorelstepsize: Assertion `!((expn) & (~0x1f))' failed.
Aborted (core dumped)
```

This problem can also occur if you have an existing JPEG packed field and you wish to encode it with different values e.g. scaling all values up

```
% grib_set -s scaleValuesBy=150 input.grib2 output.grib2
```

Solution

This is a problem in the Jasper library. It seems to be related to the number of bits per value of the input field.

Pick a decimal precision value that will avoid the assertion and preserves the required precision

1. `grib_set -s setDecimalPrecision=4,packingType=grid_jpeg input.grib2 output.grib2`
2. Check the statistics before and after
3. `grib_ls -n statistics input.grib2`
4. `grib_ls -n statistics output.grib2`
5. Compare the results

Related articles

- [What happens when I set the packingType to grid_jpeg on a GRIB1 message - ecCodes GRIB FAQ](#)
- [Issues converting from grid_complex_spatial_differencing to simple packing - ecCodes GRIB FAQ](#)
- [How can I change from second order to simple packing - ecCodes GRIB FAQ](#)
- [Why am I not able to set the missing value in the GRIB message - ecCodes GRIB FAQ](#)
- [Can I use my own GRIB/BUFR sample files - ecCodes GRIB and BUFR FAQ](#)