## g_density -center shifts coordinates in the wrong direction

### Description

In gmx_density.c, in the function center_coords at line 162 in version 5.0.4, the following code:

```
rvec_sub(box_center, com, shift);
```

should be replaced with:

```
rvec_sub(com, box_center, shift);
```

otherwise the shifting is incorrect.

To verify, take any system, generate the density profile using g_density option -center, then use trjconv to shift the system 1 nm along z and run g_density -center again. Instead of getting the same result as before, you get a result that is shifted by 2 nm (2 nm because 1 nm for your shift and an extra nm because the shift is corrected in the wrong direction).

Thank you,

Chris.

### Associated revisions

**Revision 3e9a0a12 - 06/19/2015 12:35 PM - Erik Lindahl**

Fix incorrect shift with g_density -center

Fixes #1698.

Change-Id: I22be246eded9c1fc6f421f14eb3938584afed0de

### History

**#1 - 06/17/2015 12:15 AM - Gerrit Code Review Bot**

Gerrit received a related patchset `1` for Issue #1698.

Uploader: Erik Lindahl (erik.lindahl@gmail.com)

Change-Id: l22be246eded9c1fc6f421f14eb3938584afed0de

Gerrit URL: https://gerrit.gromacs.org/4724

**#2 - 06/17/2015 12:15 AM - Erik Lindahl**

- Status changed from New to Fix uploaded

**#3 - 06/22/2015 12:34 PM - Rossen Apostolov**

- Status changed from Fix uploaded to Closed