## GROMACS - Bug #800

**pdb2gmx creates additional incorrect cmap entries**

09/01/2011 08:42 AM - Roland Schulz

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>Mark Abraham</td>
</tr>
<tr>
<td>Category:</td>
<td>preprocessing (pdb2gmx,grompp)</td>
</tr>
<tr>
<td>Target version:</td>
<td>4.5.6</td>
</tr>
<tr>
<td>Affected version - extra info:</td>
<td></td>
</tr>
<tr>
<td>Affected version:</td>
<td></td>
</tr>
<tr>
<td>Difficulty:</td>
<td>uncategorized</td>
</tr>
</tbody>
</table>

### Description

If some non amino acid residue(s) follow(s) the last amino acid, an additional cmap entry is generated. It is centered on the last amino acid and connects to the first N in the non-amino acid residue. The additional residues have to be bonded to the protein (like glycosylation) and thus be in the same segment for the error to occur.

The logic which creates the cmap entries (gen_cmap in pdb2top.c) should either take into account the termini detection (it works correctly in this case) or check that the previous or next residue participating in the cmap entry are protein residues (using residuetyes.dat). Not sure what is the best strategy.

### Related issues:

Related to GROMACS - Bug #886: pdb2gmx -cmap needs some mention in manual sec... Closed 02/21/2012

### Associated revisions

**Revision 4e4d743f - 02/23/2012 02:56 AM - Mark Abraham**

Fix pdb2gmx -cmap in corner cases

CMAP torsions are only generated when the atoms are from the same chain (pdb2gmx -merge allows multiple chains to be present in the moleculetype), and their residues are in residuetyes.dat as "Protein".

Fixes #800, #885

Change-Id: ldcc4f9a867beedc0be6a4c153606c0731eeec86f5f

**Revision 4e4d743f - 02/23/2012 02:56 AM - Mark Abraham**

Fix pdb2gmx -cmap in corner cases

CMAP torsions are only generated when the atoms are from the same chain (pdb2gmx -merge allows multiple chains to be present in the moleculetype), and their residues are in residuetyes.dat as "Protein".

Fixes #800, #885

Change-Id: ldcc4f9a867beedc0be6a4c153606c0731eeec86f5f

### History

**#1 - 09/01/2011 03:39 PM - Rossen Apostolov**

- Assignee set to Pär Bjelkmar

**#2 - 09/13/2011 11:18 PM - Roland Schulz**

- Target version set to 4.5.5

**#3 - 09/22/2011 03:51 PM - Rossen Apostolov**

- Target version changed from 4.5.5 to 4.5.6
#4 - 02/21/2012 11:42 PM - Mark Abraham
I don't have a test case, but I believe https://gerrit.gromacs.org/#/c/506/ fixes this.

#5 - 02/24/2012 05:41 AM - Roland Schulz
- Status changed from New to Closed

#6 - 02/24/2012 05:51 AM - Mark Abraham
- Category set to preprocessing (pdb2gmx,grompp)
- Assignee changed from Pär Bjelkmar to Mark Abraham