**Appion - Bug #947**

**makegoodaverage.php needs a better default value for avgjump and error checking**

10/15/2010 03:13 PM - Amber Herold

<table>
<thead>
<tr>
<th>Status:</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td></td>
</tr>
<tr>
<td>Category:</td>
<td></td>
</tr>
<tr>
<td>Target version:</td>
<td>Appion/Leginon Future Version</td>
</tr>
<tr>
<td>Affected Version:</td>
<td>Appion/Leginon 2.2.0</td>
</tr>
<tr>
<td>Show in known bugs:</td>
<td>No</td>
</tr>
</tbody>
</table>

**Description**

I good this error message:

```plaintext
!!! WARNING: EMAN failed with subprocess error code 1
EMAN: proc3d /ami/data00/appion/10sep01b/recon/emanrecon4/eulers/refine4_10oct14o45/threed.
.../threed.mrc mask=100 norm
Traceback (most recent call last):
File "/opt/appion/bin/makegoodaverages.py", line 429, in ?
makegood.start()
File "/opt/appion/bin/makegoodaverages.py", line 380, in start
apEMAN.make3d(self.params['oddstack'],"odd.mrc", sym=self.params['sym'],mode=self.params['mode'],hard=self.params['hard'])
KeyError: 'oddstack'
```

**Related issues:**
- Related to Appion - Test Case #924: test makegoodaverage.php
  - Fail
  - 10/13/2010
  - 10/15/2010
- Related to Appion - Task #950: Document makegoodaverages.py
  - Closed
  - 10/19/2010

**History**

**#1 - 10/19/2010 01:34 PM - Amber Herold**

From Dmitry:

I ran makegoodaverages.py today, and it ran fine for me.

I looked at the command that was issued in (/ami/data00/appion/10sep01b/recon/emanrecon4/eulers/refine4_10oct14o45) and noticed that
`--avgjump=0`. What that means is that the program will not process any particles, since it's virtually impossible to come across a particle whose Euler angles stay exactly the same from iteration to iteration.

The webpage defaults to setting this value as 0. What we can do is remove the issuing of a default value, so that the user has to make sure to set it, and issue a warning on the following page if this value is 0. Additionally, we can look at the python and make sure that it doesn't fail if `nprtcls<1` or provides adequate documentation on the issue.

**#2 - 10/19/2010 01:40 PM - Amber Herold**

Thanks for the update. Do you think we could chose a "smart" default value that would work well for newbies who don't know what they are doing?

I think we are missing documentation on this feature so far.

**#3 - 10/19/2010 02:21 PM - Dmitry Lyumkis**

Yes, we can choose a "smart" value. A good initial guess would be the average median Euler jump. This is reported in the reconsummary.php page.

The full statistics on the Euler jumpers are in eulergraph.php. See, for example, [http://cronus3.scripps.edu/~dlyumkis/myamiweb/processing/reconsummary.php?expId=1680](http://cronus3.scripps.edu/~dlyumkis/myamiweb/processing/reconsummary.php?expId=1680), and look at the last two reconstructions, where the average jumps are 22.3 and 17.0, respectively. We can set the value in the makegoodaverages.php page to the median value for the corresponding reconstruction. It might not be a bad idea to add checks / documentation to the python code though, if this error comes up again.
There is some explanation for this value in the pop-up menu, but you're right, we don't have full documentation on it.

#4 - 10/19/2010 02:38 PM - Amber Herold
- Priority changed from Urgent to Normal
- Target version changed from Appion/Leginon 2.1.0 to Appion/Leginon Future Version

I'm moving this to a future version (don't think it is worth holding up 2.1 release), however the documentation needs to be done asap. Will create a separate issue for that #950.

#5 - 10/19/2010 02:40 PM - Amber Herold
- Subject changed from makegoodaverage.php fails to makegoodaverage.php needs a better default value for avgjump and error checking

#6 - 11/17/2010 08:14 AM - Amber Herold
- Deliverable set to 2.2 Bug Reduction

#7 - 09/29/2014 02:27 PM - Amber Herold
- Status changed from Assigned to New
- Assignee deleted (Amber Herold)
- Affected Version changed from Appion/Leginon 2.0.2 to Appion/Leginon 2.2.0