

## ctools - Bug #2291

### reading observations from list crashes when there is a blank line at end of a obsdef text file

12/13/2017 07:54 AM - Huetten M.

<b>Status:</b>	In Progress	<b>Start date:</b>	12/13/2017
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assigned To:</b>	Knödseder Jürgen	<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			
<b>Description</b>			
<p>Hi,</p> <p>I had a very annoying bug which costed my a lot of CPU time and circumvented all my tests: After going through a long list of observation definitions in a obsdef file according to</p> <pre>lgal,bgal,duration,caldb,irf -180.0000,-32.0900,154.5330,prod3b,South_z20_average_5h ....</pre> <p>the event simulation crashed at the very end when trying to read in the last entry of the file which was a blank line in my case (the I/O routine apparently does not recognize if a line is completely empty).</p> <p>I strongly recommend to fix this. I also recommend to comply with the standard to be allowed to mark comment lines with a leading hash, #. This also concerns reading in spectra from a file where it is not allowed to specify the columns in the file with a leading comment line (I did not test it with the newest gammalib version, though, maybe it has been already changed).</p> <p>Here my exact error message obtained with ctools/gammalib version 1.4.3. The error occured in ctools' obsutils, but I think it is a gammalib problem:</p> <pre>==&gt; simulate observation patch 2978 Number of observations in patch: 1 obsdeflist 0 : {'rad': 6.0, 'emin': 0.029999999999999999, 'emax': 0.070000000000000007, 'duration': nan, 'caldb': nan, 'instrument': 'CTA', 'ra': nan, 'deadc': 0.94999999999999996, 'dec': nan, 'irf': nan} File "/lustre/fs19/group/cta/users/mhuetten/workdata/IACT-anisotropy-simulation/17-12-12-DMandAstroSurvey500h_homExp_1deg/tauta u/Inputfiles/subhaloFluctResponse.sim.py", line 922, in &lt;module&gt; main(sys.argv[1:]) File "/lustre/fs19/group/cta/users/mhuetten/workdata/IACT-anisotropy-simulation/17-12-12-DMandAstroSurvey500h_homExp_1deg/tauta u/Inputfiles/subhaloFluctResponse.sim.py", line 319, in main observations = obsutils.set_obs_list(obsdeflist) File "/afs/ihf.de/group/cta/scratch/mhuetten/CTA/ctools/lib64/python2.6/site-packages/cscripts/obsutils.py", line 342, in set_obs_list obsid=obsid) File "/afs/ihf.de/group/cta/scratch/mhuetten/CTA/ctools/lib64/python2.6/site-packages/cscripts/obsutils.py", line 224, in set_obs if (gammalib.dir_exists(caldb)): File "/afs/ihf.de/group/cta/scratch/mhuetten/CTA/gammalib/lib64/python2.6/site-packages/gammalib/support.py", line 384, in dir_exists return _support.dir_exists(*args) TypeError: in method 'dir_exists', argument 1 of type 'std::string const &amp;'</pre>			

#### History

##### #1 - 12/13/2017 09:32 AM - Knödseder Jürgen

- Project changed from GammaLib to ctools
- Target version set to 1.5.0

##### #2 - 01/23/2018 09:21 AM - Knödseder Jürgen

- Status changed from New to In Progress
- Assigned To set to Knödseder Jürgen

I was not able to reproduce the problem with csobsdef. Could you post your script and pointing definition file that produced the problem?

Running csobsdef with

```
lgal,bgal,duration,caldb,irf  
-180.0000,-32.0900,154.5330,prod3b,South_z20_average_5h
```

(including some blank lines) should produce

```
Traceback (most recent call last):  
File "/usr/local/gamma/bin/csobsdef", line 405, in <module>  
    app.execute()  
File "/usr/local/gamma/lib/python2.7/site-packages/ctools/tools.py", line 1167, in _execute  
    self.run()  
File "/usr/local/gamma/bin/csobsdef", line 242, in run  
    raise RuntimeError('No (ra,dec) or (lon,lat) columns '  
RuntimeError: No (ra,dec) or (lon,lat) columns found in pointing definition file.
```

while running csobsdef with

```
lon,lat,duration,caldb,irf  
-180.0000,-32.0900,154.5330,prod2,South_0.5h
```

(including some blank lines) produces a valid output observation definition XML file.

**#3 - 01/25/2018 11:55 PM - Knödlseher Jürgen**

- Target version deleted (1.5.0)