

Simulation Pipeline - Bug #4769

fiber selection empty

10/07/2013 05:14 AM - Ben Hambrecht

Status:	New	Start date:	10/07/2013
Priority:	Urgent	Due date:	
Assignee:	Brian Nord	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			

Description

The fiber selection flag is empty. Please fix asap

```
***** starting TileSurvey *****
```

```
Loading common configuration...
```

```
Loading command line configuration...
```

```
Setting file mode creation mask to 0002...
```

```
Parallelization mode: []
```

```
Setting up logging system...
```

```
07-10-2013 12:07 INFO PAUdm_init Log file in ./Figures/DESpec.log
```

```
07-10-2013 12:07 INFO PAUdm_init Setting up local despecdb SQLite database...
```

```
07-10-2013 12:07 INFO PAUdm_init Creating a local sqlte DB...
```

```
07-10-2013 12:07 INFO PAUdm_init ...DB successfully created.
```

```
07-10-2013 12:07 INFO PAUdm_init PAUdm initialization complete.
```

```
Planning survey...
```

```
... plan mode in config! SELF
```

```
...done.
```

```
Scheduling survey...
```

```
...done.
```

```
Setting Tile ID to each galaxy
```

```
... Galaxy Field edges ...
```

```
... .. ra : 340.620635986 351.155822754
```

```
... .. dec: -22.0191631317 -14.0914735794
```

```
... Tile ranges ...
```

```
... .. ra : 337.074767149 353.993272801
```

```
... .. dec: -25.7220881317 -10.8720881317
```

```
== Allocating galaxies to tiles ==
```

```
... Tile Number and Position 0 303.673952355 -25.7220881317
```

```
... Tile Number and Position 0 307.965488748 -24.0720881317
```

```
... Tile Number and Position 0 315.549232965 -20.7720881317
```

```
... Tile Number and Position 0 322.061680181 -17.4720881317
```

```
... Tile Number and Position 0 327.48114518 -14.1720881317
```

```
... Tile Number and Position 0 331.789576046 -10.8720881317
```

```
... Tile Number and Position 0 305.579208244 -25.7220881317
```

```
... Tile Number and Position 0 313.70451318 -22.4220881317
```

```
... Tile Number and Position 0 309.870744636 -24.0720881317
```

```
... Tile Number and Position 0 320.770001391 -19.1220881317
```

```
... Tile Number and Position 0 317.454488853 -20.7720881317
```

```
... Tile Number and Position 0 326.75233395 -15.8220881317
```

```
... Tile Number and Position 0 323.966936069 -17.4720881317
```

```
... Tile Number and Position 0 331.631754211 -12.5220881317
```

```
... Tile Number and Position 0 329.386401068 -14.1720881317
```

```
... Tile Number and Position 0 333.694831935 -10.8720881317
```

```
... Tile Number and Position 0 307.484464132 -25.7220881317
```

```
... Tile Number and Position 0 315.609769068 -22.4220881317
```

```
... Tile Number and Position 0 311.776000525 -24.0720881317
```

```
... Tile Number and Position 0 322.675257279 -19.1220881317
```

```
... Tile Number and Position 0 319.359744742 -20.7720881317
```

```
... Tile Number and Position 0 328.657589838 -15.8220881317
```

```
... Tile Number and Position 0 325.872191957 -17.4720881317
```

```
... Tile Number and Position 0 333.537010099 -12.5220881317
```

```

... Tile Number and Position 0 331.291656957 -14.1720881317
... Tile Number and Position 0 335.600087823 -10.8720881317
... Tile Number and Position 0 309.38972002 -25.7220881317
... Tile Number and Position 0 317.515024957 -22.4220881317
... Tile Number and Position 0 324.580513168 -19.1220881317
... Tile Number and Position 0 313.681256413 -24.0720881317
... Tile Number and Position 0 330.562845727 -15.8220881317
... Tile Number and Position 0 321.26500063 -20.7720881317
... Tile Number and Position 0 335.442265988 -12.5220881317
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... Tile Number and Position 0 339.4105996 -10.8720881317
... Tile Number and Position 0 335.102168733 -14.1720881317
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... Tile Number and Position 0 323.170256518 -20.7720881317
... Tile Number and Position 0 315.586512301 -24.0720881317
... Tile Number and Position 0 339.252777764 -12.5220881317
... Tile Number and Position 0 334.373357503 -15.8220881317
... Tile Number and Position 0 341.315855488 -10.8720881317
... Tile Number and Position 0 328.391024944 -19.1220881317
... Tile Number and Position 0 337.007424622 -14.1720881317
... Tile Number and Position 0 321.325536733 -22.4220881317
... Tile Number and Position 0 331.587959622 -17.4720881317
... Tile Number and Position 0 313.200231797 -25.7220881317
... Tile Number and Position 0 325.075512407 -20.7720881317
... Tile Number and Position 0 317.49176819 -24.0720881317
... Tile Number and Position 0 341.158033653 -12.5220881317
... Tile Number and Position 0 343.221111376 -10.8720881317
... Tile Number and Position 0 336.278613392 -15.8220881317
... Tile Number and Position 0 338.91268051 -14.1720881317
... Tile Number and Position 0 330.296280833 -19.1220881317
... Tile Number and Position 0 333.493215511 -17.4720881317
... Tile Number and Position 0 323.230792622 -22.4220881317
... Tile Number and Position 0 326.980768295 -20.7720881317
... Tile Number and Position 0 315.105487685 -25.7220881317
... Tile Number and Position 0 319.397024078 -24.0720881317
... Tile Number and Position 0 343.063289541 -12.5220881317
... Tile Number and Position 0 345.126367265 -10.8720881317
... Tile Number and Position 0 338.18386928 -15.8220881317
... Tile Number and Position 0 340.817936398 -14.1720881317
... Tile Number and Position 0 332.201536721 -19.1220881317
... Tile Number and Position 0 335.398471399 -17.4720881317
... Tile Number and Position 0 325.13604851 -22.4220881317
... Tile Number and Position 0 328.886024183 -20.7720881317
... Tile Number and Position 0 317.010743573 -25.7220881317
... Tile Number and Position 0 321.302279966 -24.0720881317
... Tile Number and Position 0 344.968545429 -12.5220881317
... Tile Number and Position 0 340.089125168 -15.8220881317
... Tile Number and Position 0 334.106792609 -19.1220881317
... Tile Number and Position 0 327.041304398 -22.4220881317
... Tile Number and Position 0 318.915999462 -25.7220881317
== Diagnostics ==
... Galaxies survey selected: 234415
... Galaxies survey and target selected: 266705
== Plots ==
... plotting suvery + targ
== Compute survey areas ==
... Mean spatial density (via union of tiles):
... ... ELG: survey and target selected; only observed tiles: 17921.0795954 galaxies/deg2
... ... ... LRG: survey and target selected; only observed tiles: 56657.9426151 galaxies/deg2

```

```
... .. ELG: target only; all tiles; 10169.9534194 galaxies/deg^2
... .. LRG: target only; all tiles; 32255.907436 galaxies/deg^2

... .. ELG: survey+targ; all tiles; 8960.53979769 galaxies/deg^2
... .. LRG: survey+targ; all tiles; 28328.9713076 galaxies/deg^2
```

```
***** finished TileSurvey *****
TileSurvey runtime: 230.83 seconds
```

```
[1] SelectTargets          155.65s    40.3%    OMB
[2] TileSurvey            230.83s    59.7%    OMB
[3] AllocateFibers
[4] CalculateThroughput
[5] SimulateNoiseFreeGalaxySpectra
[6] SimulateObservedGalaxySpectra
[7] MeasureSpectroscopicRedshift
Total                   386.47s   100.0%
/Users/ben/Documents/DESpec/repo/despec/Wrapper
```

```
***** starting AllocateFibers *****
```

```
Started fiber allocation. Importing from data bank...
...done. []
```

```
There are 0 galaxies in tiles
Min-Max RA Tiles: 337.074767 353.993273
Min-Max DEC Tiles: -25.722088 -10.872088
Min-Max RA Galaxies: 340.642303 351.137390
Min-Max DEC Galaxies: -22.018183 -14.100120
My tile list length 81
proceeding
```

```
### next tile: ### ID: 0
Galaxies to allocate 234415
n_used_fibers: 0
   ngal: total, fib total, fib current 234415 0 234415 ; time: 26.3899371624 ; visit: 0
Galaxies to allocate 234415
n_used_fibers: 0
   ngal: total, fib total, fib current 234415 0 234415 ; time: 22.6342208385 ; visit: 1
```

```
### next tile: ### ID: 1
### next tile: ### ID: 2
### next tile: ### ID: 3
### next tile: ### ID: 4
### next tile: ### ID: 5
### next tile: ### ID: 6
### next tile: ### ID: 7
### next tile: ### ID: 8
### next tile: ### ID: 9
### next tile: ### ID: 10
### next tile: ### ID: 11
### next tile: ### ID: 12
### next tile: ### ID: 13
### next tile: ### ID: 14
```

next tile: ### ID: 15
next tile: ### ID: 16
next tile: ### ID: 17
next tile: ### ID: 18
next tile: ### ID: 19
next tile: ### ID: 20
next tile: ### ID: 21
next tile: ### ID: 22
next tile: ### ID: 23
next tile: ### ID: 24
next tile: ### ID: 25
next tile: ### ID: 26
next tile: ### ID: 27
next tile: ### ID: 28
next tile: ### ID: 29
next tile: ### ID: 30
next tile: ### ID: 31
next tile: ### ID: 32
next tile: ### ID: 33
next tile: ### ID: 34
next tile: ### ID: 35
next tile: ### ID: 36
next tile: ### ID: 37
next tile: ### ID: 38
next tile: ### ID: 39
next tile: ### ID: 40
next tile: ### ID: 41
next tile: ### ID: 42
next tile: ### ID: 43
next tile: ### ID: 44
next tile: ### ID: 45
next tile: ### ID: 46
next tile: ### ID: 47
next tile: ### ID: 48

```
### next tile: ### ID: 49
### next tile: ### ID: 50
### next tile: ### ID: 51
### next tile: ### ID: 52
### next tile: ### ID: 53
### next tile: ### ID: 54
### next tile: ### ID: 55
### next tile: ### ID: 56
### next tile: ### ID: 57
### next tile: ### ID: 58
### next tile: ### ID: 59
### next tile: ### ID: 60
### next tile: ### ID: 61
### next tile: ### ID: 62
### next tile: ### ID: 63
### next tile: ### ID: 64
### next tile: ### ID: 65
### next tile: ### ID: 66
### next tile: ### ID: 67
### next tile: ### ID: 68
### next tile: ### ID: 69
### next tile: ### ID: 70
### next tile: ### ID: 71
### next tile: ### ID: 72
### next tile: ### ID: 73
### next tile: ### ID: 74
### next tile: ### ID: 75
### next tile: ### ID: 76
### next tile: ### ID: 77
### next tile: ### ID: 78
### next tile: ### ID: 79
### next tile: ### ID: 80
final stats
n_total: 234415
n_alloc: 0
```

```

Allocation efficiency 0.0
Initial number of galaxies (after target selection) 234415
Initial number of galaxies (in tiles) 0
Galaxies that were allocated: 0
survey selection: (7154311,) 234415
inner fiber selection: (234415,) 0
fiber selection: (7154311,) 0
... diagnostic plots
./Figures/fiber_efficiency_fib.png

***** finished AllocateFibers *****
AllocateFibers runtime: 52.05 seconds

[1] SelectTargets          155.65s    35.5%    OMB
[2] TileSurvey            230.83s    52.6%    OMB
[3] AllocateFibers        52.05s    11.9%    OMB
[4] CalculateThroughput
[5] SimulateNoiseFreeGalaxySpectra
[6] SimulateObservedGalaxySpectra
[7] MeasureSpectroscopicRedshift
Total                    438.52s   100.0%
/Users/ben/Documents/DESpec/repo/despec/Wrapper

```

History

#1 - 10/07/2013 02:08 PM - Ben Hambrecht

- File report.pdf added

New run. Report attached.

```
public-docking-pat-hpx-0294:Wrapper ben$ sudo ipython-2.7 -- run_pipeline.py
```

```
***** Starting the spokes pipeline *****
```

Merging global param file

```
Importing sections: ['ConvertFormats', 'Instrument/Fibers', 'Instrument/Telescope', 'Instrument/Spectrograph',
 'Survey', 'Environment/Atmosphere', 'Analysis/TargetSelection', 'Analysis/RedshiftBinning', 'Analysis/Spectroscopy',
 'Analysis/SelectionFunction', 'Throughput', 'PhysicalConstants', 'Plotting'] from parameter file: ../Wrapper/param_all.ini
```

```
***** prerun modules *****
```

```
[1]: ConvertFormats
```

```
***** starting ConvertFormats *****
```

```

=====
          Convert
=====
== Importing BCC ==
Adding Base Catalog of Observed Properties
... Edges of full galaxy field ...
... .. ra: min, max  340.620635986 351.155822754
... .. dec: min, max -22.0191631317 -14.0914735794
... Selection: Random
... Edges of full galaxy field [Post-Selection] ...
... .. ra: min, max  340.635131836 351.138366699
... .. dec min, max -22.0174446106 -14.1047916412
Adding Viking H Magnitudes Catalog
Adding Galaxy Spectral Coefficients Catalog
Adding Truth Catalog of galaxies and halo information

```

```
== done [importing BCC] ==
```

```
== done [importing spectral templates] ==
```

```
== done [importing Sky] ==
```

```
== done [importing telescope throughput] ==
```

```
***** finished ConvertFormats *****
```

ConvertFormats runtime: 33.93 seconds

Merging global param file

Importing sections: ['ConvertFormats', 'Instrument/Fibers', 'Instrument/Telescope', 'Instrument/Spectrograph', 'Survey', 'Environment/Atmosphere', 'Analysis/TargetSelection', 'Analysis/RedshiftBinning', 'Analysis/Spectroscopy', 'Analysis/SelectionFunction', 'Throughput', 'PhysicalConstants', 'Plotting'] from parameter file: ../Wrapper/param_all.ini

cleaning old figures

cleaning figures in ../01-SelectTargets/SelectTargets_Hambrech/

cleaning figures in ../02-TileSurvey/TileSurvey_Serrano/

cleaning figures in ../03-AllocateFibers/AllocateFibers_Forero-Romero/

cleaning figures in ../04-Throughput/CalculateThroughput_Nord/

cleaning figures in ../05-SimulateNoiseFreeGalaxySpectra/SimulateNoiseFreeGalaxySpectra_Busha/

cleaning figures in ../06-SimulateObservedGalaxySpectra/SimulateObservedGalaxySpectra_Hambrech2/

cleaning figures in ../07-MeasureSpectroscopicRedshift/MeasureSpectroscopicRedshift_Hambrech5/

***** running modules *****

- [1]: SelectTargets
- [2]: TileSurvey
- [3]: AllocateFibers
- [4]: CalculateThroughput
- [5]: SimulateNoiseFreeGalaxySpectra
- [6]: SimulateObservedGalaxySpectra
- [7]: MeasureSpectroscopicRedshift

***** starting SelectTargets *****

=====

entered Target Selection

=====

... performed dummy cuts

ELG: 883

... performed ELG cuts

LRG: 2845

... performed LRG cuts

... computed target selection flag

... wrote target selection flag to disk

ELG selected: 883

ELG discarded: 99137

LRG selected: 2845

LRG discarded: 97175

total selected: 3727

total discarded: 96293

undefined: 0

=====

total: 100020

*** checksum passed ***

... plot saved to ../Figures/redshiftDistributionBeforeTargetSelection.pdf

... plot saved to ../Figures/redshiftDistributionWithTargetSelection.pdf

***** finished SelectTargets *****

SelectTargets runtime: 5.95 seconds

[1] SelectTargets 5.95s 100.0% OMB

[2] TileSurvey

[3] AllocateFibers

[4] CalculateThroughput

[5] SimulateNoiseFreeGalaxySpectra

[6] SimulateObservedGalaxySpectra

[7] MeasureSpectroscopicRedshift

Total 5.95s 100.0%

/Users/ben/Documents/DESpec/repo/despec/Wrapper

***** starting TileSurvey *****

Loading common configuration...
Loading command line configuration...
Setting file mode creation mask to 0002...
Parallelization mode: []
Setting up logging system...
07-10-2013 21:04 INFO PAUdm_init Log file in ./Figures/DESpec.log
07-10-2013 21:04 INFO PAUdm_init Setting up local despecdb SQLite database...
07-10-2013 21:04 INFO PAUdm_init Creating a local sqlte DB...
07-10-2013 21:04 INFO PAUdm_init ...DB successfully created.
07-10-2013 21:04 INFO PAUdm_init PAUdm initialization complete.

Planning survey...
... plan mode in config! SELF
...done.
Scheduling survey...
...done.
Setting Tile ID to each galaxy
... Galaxy Field edges ...
... .. ra : 340.635131836 351.138366699
... .. dec: -22.0174446106 -14.1047916412
... Tile ranges ...
... .. ra : 337.074767149 353.993272801
... .. dec: -25.7220881317 -10.8720881317

```
== Allocating galaxies to tiles ==  
... Tile Number and Position 0 303.673952355 -25.7220881317  
... Tile Number and Position 0 307.965488748 -24.0720881317  
... Tile Number and Position 0 315.549232965 -20.7720881317  
... Tile Number and Position 0 322.061680181 -17.4720881317  
... Tile Number and Position 0 327.48114518 -14.1720881317  
... Tile Number and Position 0 331.789576046 -10.8720881317  
... Tile Number and Position 0 305.579208244 -25.7220881317  
... Tile Number and Position 0 313.70451318 -22.4220881317  
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... Tile Number and Position 0 317.454488853 -20.7720881317  
... Tile Number and Position 0 326.75233395 -15.8220881317  
... Tile Number and Position 0 323.966936069 -17.4720881317  
... Tile Number and Position 0 331.631754211 -12.5220881317  
... Tile Number and Position 0 329.386401068 -14.1720881317  
... Tile Number and Position 0 333.694831935 -10.8720881317  
... Tile Number and Position 0 307.484464132 -25.7220881317  
... Tile Number and Position 0 315.609769068 -22.4220881317  
... Tile Number and Position 0 311.776000525 -24.0720881317  
... Tile Number and Position 0 322.675257279 -19.1220881317  
... Tile Number and Position 0 319.359744742 -20.7720881317  
... Tile Number and Position 0 328.657589838 -15.8220881317  
... Tile Number and Position 0 325.872191957 -17.4720881317  
... Tile Number and Position 0 333.537010099 -12.5220881317  
... Tile Number and Position 0 331.291656957 -14.1720881317  
... Tile Number and Position 0 335.600087823 -10.8720881317  
... Tile Number and Position 0 309.38972002 -25.7220881317  
... Tile Number and Position 0 317.515024957 -22.4220881317  
... Tile Number and Position 0 324.580513168 -19.1220881317  
... Tile Number and Position 0 313.681256413 -24.0720881317  
... Tile Number and Position 0 330.562845727 -15.8220881317  
... Tile Number and Position 0 321.26500063 -20.7720881317  
... Tile Number and Position 0 335.442265988 -12.5220881317  
... Tile Number and Position 0 327.777447846 -17.4720881317  
... Tile Number and Position 0 333.196912845 -14.1720881317  
... Tile Number and Position 0 337.505343711 -10.8720881317  
... Tile Number and Position 0 311.294975909 -25.7220881317  
... Tile Number and Position 0 319.420280845 -22.4220881317  
... Tile Number and Position 0 326.485769056 -19.1220881317  
... Tile Number and Position 0 332.468101615 -15.8220881317  
... Tile Number and Position 0 337.347521876 -12.5220881317  
... Tile Number and Position 0 339.4105996 -10.8720881317  
... Tile Number and Position 0 335.102168733 -14.1720881317  
... Tile Number and Position 0 329.682703734 -17.4720881317  
... Tile Number and Position 0 323.170256518 -20.7720881317  
... Tile Number and Position 0 315.586512301 -24.0720881317  
... Tile Number and Position 0 339.252777764 -12.5220881317  
... Tile Number and Position 0 334.373357503 -15.8220881317  
... Tile Number and Position 0 341.315855488 -10.8720881317
```

```

... Tile Number and Position 0 328.391024944 -19.1220881317
... Tile Number and Position 0 337.007424622 -14.1720881317
... Tile Number and Position 0 321.325536733 -22.4220881317
... Tile Number and Position 0 331.587959622 -17.4720881317
... Tile Number and Position 0 313.200231797 -25.7220881317
... Tile Number and Position 0 325.075512407 -20.7720881317
... Tile Number and Position 0 317.49176819 -24.0720881317
... Tile Number and Position 0 341.158033653 -12.5220881317
... Tile Number and Position 0 343.221111376 -10.8720881317
... Tile Number and Position 0 336.278613392 -15.8220881317
... Tile Number and Position 0 338.91268051 -14.1720881317
... Tile Number and Position 0 330.296280833 -19.1220881317
... Tile Number and Position 0 333.493215511 -17.4720881317
... Tile Number and Position 0 323.230792622 -22.4220881317
... Tile Number and Position 0 326.980768295 -20.7720881317
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... Tile Number and Position 0 343.063289541 -12.5220881317
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... Tile Number and Position 0 334.106792609 -19.1220881317
... Tile Number and Position 0 327.041304398 -22.4220881317
... Tile Number and Position 0 318.915999462 -25.7220881317
== Diagnostics ==
... Galaxies survey selected: 3247
... Galaxies survey and target selected: 3727
== Plots ==
... plotting suvery + targ
== Compute survey areas ==
... Mean spatial density (via union of tiles):
... ... ELG: survey and target selected; only observed tiles: 245.890775804 galaxies/deg2
... ... ... LRG: survey and target selected; only observed tiles: 787.295821622 galaxies/deg2

... ... ... ELG: target only; all tiles; 140.440850605 galaxies/deg^2
... ... ... LRG: target only; all tiles; 452.496285357 galaxies/deg^2

... ... ... ELG: survey+targ; all tiles; 122.945387902 galaxies/deg^2
... ... ... LRG: survey+targ; all tiles; 393.647910811 galaxies/deg^2

***** finished TileSurvey *****
TileSurvey runtime: 115.6 seconds

[1] SelectTargets          5.95s   4.9%   OMB
[2] TileSurvey            115.60s  95.1%   OMB
[3] AllocateFibers
[4] CalculateThroughput
[5] SimulateNoiseFreeGalaxySpectra
[6] SimulateObservedGalaxySpectra
[7] MeasureSpectroscopicRedshift
Total                121.55s  100.0%
/Users/ben/Documents/DESpec/repo/despec/Wrapper

***** starting AllocateFibers *****

Started fiber allocation. Importing from data bank...
...done. []
There are 0 galaxies in tiles
Min-Max RA Tiles: 337.074767 353.993273
Min-Max DEC Tiles: -25.722088 -10.872088
Min-Max RA Galaxies: 340.782379 351.073761
Min-Max DEC Galaxies: -22.014364 -14.106197
My tile list length 81
proceeding

### next tile: ### ID: 0
Galaxies to allocate 3247

```

```
n_used_fibers: 0
  ngal: total, fib total, fib current 3247 0 3247 ; time: 1.20801997185 ; visit: 0
Galaxies to allocate 3247
n_used_fibers: 0
  ngal: total, fib total, fib current 3247 0 3247 ; time: 1.10644197464 ; visit: 1

### next tile: ### ID: 1
### next tile: ### ID: 2
### next tile: ### ID: 3
### next tile: ### ID: 4
### next tile: ### ID: 5
### next tile: ### ID: 6
### next tile: ### ID: 7
### next tile: ### ID: 8
### next tile: ### ID: 9
### next tile: ### ID: 10
### next tile: ### ID: 11
### next tile: ### ID: 12
### next tile: ### ID: 13
### next tile: ### ID: 14
### next tile: ### ID: 15
### next tile: ### ID: 16
### next tile: ### ID: 17
### next tile: ### ID: 18
### next tile: ### ID: 19
### next tile: ### ID: 20
### next tile: ### ID: 21
### next tile: ### ID: 22
### next tile: ### ID: 23
### next tile: ### ID: 24
### next tile: ### ID: 25
### next tile: ### ID: 26
### next tile: ### ID: 27
### next tile: ### ID: 28
### next tile: ### ID: 29
### next tile: ### ID: 30
### next tile: ### ID: 31
### next tile: ### ID: 32
### next tile: ### ID: 33
### next tile: ### ID: 34
### next tile: ### ID: 35
```

next tile: ### ID: 36
next tile: ### ID: 37
next tile: ### ID: 38
next tile: ### ID: 39
next tile: ### ID: 40
next tile: ### ID: 41
next tile: ### ID: 42
next tile: ### ID: 43
next tile: ### ID: 44
next tile: ### ID: 45
next tile: ### ID: 46
next tile: ### ID: 47
next tile: ### ID: 48
next tile: ### ID: 49
next tile: ### ID: 50
next tile: ### ID: 51
next tile: ### ID: 52
next tile: ### ID: 53
next tile: ### ID: 54
next tile: ### ID: 55
next tile: ### ID: 56
next tile: ### ID: 57
next tile: ### ID: 58
next tile: ### ID: 59
next tile: ### ID: 60
next tile: ### ID: 61
next tile: ### ID: 62
next tile: ### ID: 63
next tile: ### ID: 64
next tile: ### ID: 65
next tile: ### ID: 66
next tile: ### ID: 67
next tile: ### ID: 68
next tile: ### ID: 69
next tile: ### ID: 70
next tile: ### ID: 71
next tile: ### ID: 72

```
### next tile: ### ID: 73
### next tile: ### ID: 74
### next tile: ### ID: 75
### next tile: ### ID: 76
### next tile: ### ID: 77
### next tile: ### ID: 78
### next tile: ### ID: 79
```

```
### next tile: ### ID: 80
final stats
n_total: 3247
n_alloc: 0
Allocation efficiency 0.0
Initial number of galaxies (after target selection) 3247
Initial number of galaxies (in tiles) 0
Galaxies that were allocated: 0
survey selection: (100020,) 3247
inner fiber selection: (3247,) 0
fiber selection: (100020,) 0
... diagnostic plots
./Figures/fiber_efficiency_fib.png
```

```
***** finished AllocateFibers *****
AllocateFibers runtime: 4.59 seconds
```

[1] SelectTargets	5.95s	4.7%	OMB
[2] TileSurvey	115.60s	91.6%	OMB
[3] AllocateFibers	4.59s	3.6%	OMB
[4] CalculateThroughput			
[5] SimulateNoiseFreeGalaxySpectra			
[6] SimulateObservedGalaxySpectra			
[7] MeasureSpectroscopicRedshift			
Total	126.14s	100.0%	

/Users/ben/Documents/DESpec/repo/despec/Wrapper

```
***** starting CalculateThroughput *****
```

```
=====
entering Throughput
=====
... imported data
... Combined minor optical elements
... Combined major optical elements with galaxy, including aperture losses
... computed final throughput
... exported data to databank
bad plot; throughput spectrum
```

```
***** finished CalculateThroughput *****
CalculateThroughput runtime: 1.23 seconds
```

[1] SelectTargets	5.95s	4.7%	OMB
[2] TileSurvey	115.60s	90.8%	OMB
[3] AllocateFibers	4.59s	3.6%	OMB
[4] CalculateThroughput	1.23s	1.0%	OMB
[5] SimulateNoiseFreeGalaxySpectra			
[6] SimulateObservedGalaxySpectra			
[7] MeasureSpectroscopicRedshift			
Total	127.37s	100.0%	

/Users/ben/Documents/DESpec/repo/despec/Wrapper

```
***** starting SimulateNoiseFreeGalaxySpectra *****
```

```
***** finished SimulateNoiseFreeGalaxySpectra *****
SimulateNoiseFreeGalaxySpectra runtime: 1.48 seconds
```

[1] SelectTargets	5.95s	4.6%	OMB
[2] TileSurvey	115.60s	89.7%	OMB
[3] AllocateFibers	4.59s	3.6%	OMB
[4] CalculateThroughput	1.23s	1.0%	OMB

```
[5] SimulateNoiseFreeGalaxySpectra          1.48s   1.1%   OMB
[6] SimulateObservedGalaxySpectra
[7] MeasureSpectroscopicRedshift
Total                128.85s   100.0%
/Users/ben/Documents/DESpec/repo/despec/Wrapper
```

```
***** starting SimulateObservedGalaxySpectra *****
```

```
=====
Entering Noise Generator
=====
```

```
telescope area 125663.706144
exposure_time 90
hpc 50341579.5659
1
tot: 3.61537155718e+18
sky check
... telescope area 125663.706144 cm
... fiber area 1.13097335529
... worsening 1
... exposure time 90
... sky spec phot rad [ 0.00000000e+00 0.00000000e+00 6.50600000e-06 ..., 2.52560000e-05
2.50060000e-05 2.81390000e-05]
... sky spec phot density [ 0. 0. 83.21829352 ..., 323.04968047 319.85192864
359.92615452]
```

```
=====
Reconstruct Pure Galaxy Spectrum
=====
```

```
... Import data and params
... finished importing data
*** Incoming QA checksum PASSED ***
```

```
***** finished SimulateObservedGalaxySpectra *****
SimulateObservedGalaxySpectra runtime: 5.41 seconds
```

```
[1] SelectTargets          5.95s   4.4%   OMB
[2] TileSurvey            115.60s  86.1%   OMB
[3] AllocateFibers        4.59s   3.4%   OMB
[4] CalculateThroughput    1.23s   0.9%   OMB
[5] SimulateNoiseFreeGalaxySpectra 1.48s   1.1%   OMB
[6] SimulateObservedGalaxySpectra 5.41s   4.0%   OMB
[7] MeasureSpectroscopicRedshift
Total                134.26s   100.0%
/Users/ben/Documents/DESpec/repo/despec/Wrapper
```

```
***** starting MeasureSpectroscopicRedshift *****
```

```
=====
Reconstruct Pure Galaxy Spectrum
=====
```

```
... Import data and params
... finished importing data
*** Incoming QA checksum PASSED ***
```

```
=====
entering Measure_Redshift
=====
```

```
ValueError                                Traceback (most recent call last)
/opt/local/Library/Frameworks/Python.framework/Versions/2.7/lib/python2.7/site-packages/IPython/utils/py3compa
t.pyc in execfile(fname, *where)
    202         else:
    203             filename = fname
--> 204         __builtin__.execfile(filename, *where)
```

```
/Users/ben/Documents/DESpec/repo/despec/07-MeasureSpectroscopicRedshift/MeasureSpectroscopicRedshift_Hambrech
t/MeasureSpectroscopicRedshift.py in <module>()
    576 # determine which galaxies are to be plotted in the report
    577 nb_galaxies_selected = numpy.sum(fiber_selection_flag)
--> 578 to_be_plotted_array_indices = numpy.random.randint(low = 0, high = nb_galaxies_selected, size = nb_gal
axies_plotted)
    579 galaxies_to_be_plotted = galaxy_id[fiber_selection_flag][to_be_plotted_array_indices]
    580
```

```
/opt/local/Library/Frameworks/Python.framework/Versions/2.7/lib/python2.7/site-packages/numpy/random/mtrand.so
```

```
in mtrand.RandomState.randint (numpy/random/mtrand/mtrand.c:6459) ()
```

```
ValueError: low >= high
```

```
***** finished MeasureSpectroscopicRedshift *****  
MeasureSpectroscopicRedshift runtime: 3.71 seconds
```

[1] SelectTargets	5.95s	4.3%	OMB
[2] TileSurvey	115.60s	83.8%	OMB
[3] AllocateFibers	4.59s	3.3%	OMB
[4] CalculateThroughput	1.23s	0.9%	OMB
[5] SimulateNoiseFreeGalaxySpectra	1.48s	1.1%	OMB
[6] SimulateObservedGalaxySpectra	5.41s	3.9%	OMB
[7] MeasureSpectroscopicRedshift	3.71s	2.7%	OMB
Total	137.97s	100.0%	

```
/Users/ben/Documents/DESpec/repo/despec/Wrapper  
/Users/ben/Documents/DESpec/repo/despec/Wrapper
```

[1] SelectTargets	5.95s	4.3%	OMB
[2] TileSurvey	115.60s	83.8%	OMB
[3] AllocateFibers	4.59s	3.3%	OMB
[4] CalculateThroughput	1.23s	0.9%	OMB
[5] SimulateNoiseFreeGalaxySpectra	1.48s	1.1%	OMB
[6] SimulateObservedGalaxySpectra	5.41s	3.9%	OMB
[7] MeasureSpectroscopicRedshift	3.71s	2.7%	OMB
Total	137.97s	100.0%	

```
... saving data for run  
../../data/run.h5
```

```
***** postrun modules *****
```

```
[1]: Generate_Report
```

```
***** starting Generate_Report *****
```

```
../01-SelectTargets/SelectTargets_Hambrechtt//Figures  
../02-TileSurvey/TileSurvey_Serrano//Figures  
../03-AllocateFibers/AllocateFibers_Forero-Romero//Figures  
../04-Throughput/CalculateThroughput_Nord//Figures  
../05-SimulateNoiseFreeGalaxySpectra/SimulateNoiseFreeGalaxySpectra_Busha//Figures  
../06-SimulateObservedGalaxySpectra/SimulateObservedGalaxySpectra_Hambrechtt2//Figures  
../07-MeasureSpectroscopicRedshift/MeasureSpectroscopicRedshift_Hambrechtt5//Figures  
sh: pdflatex: command not found
```

```
***** finished Generate_Report *****  
Generate_Report runtime: 1.36 seconds
```

[1] SelectTargets	5.95s	4.3%	OMB
[2] TileSurvey	115.60s	83.8%	OMB
[3] AllocateFibers	4.59s	3.3%	OMB
[4] CalculateThroughput	1.23s	0.9%	OMB
[5] SimulateNoiseFreeGalaxySpectra	1.48s	1.1%	OMB
[6] SimulateObservedGalaxySpectra	5.41s	3.9%	OMB
[7] MeasureSpectroscopicRedshift	3.71s	2.7%	OMB
Total	137.97s	100.0%	

```
extracted from catalog: 100020  
target selected: 3727  
survey selected: 3247  
fiber selected: 0  
public-docking-pat-hpx-0294:Wrapper ben$
```

Files

report.pdf	1.77 MB	10/07/2013	Ben Hambrechtt
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