The BioSim project

A modeling of the ecosystem on Rossumøya

Developed by
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&
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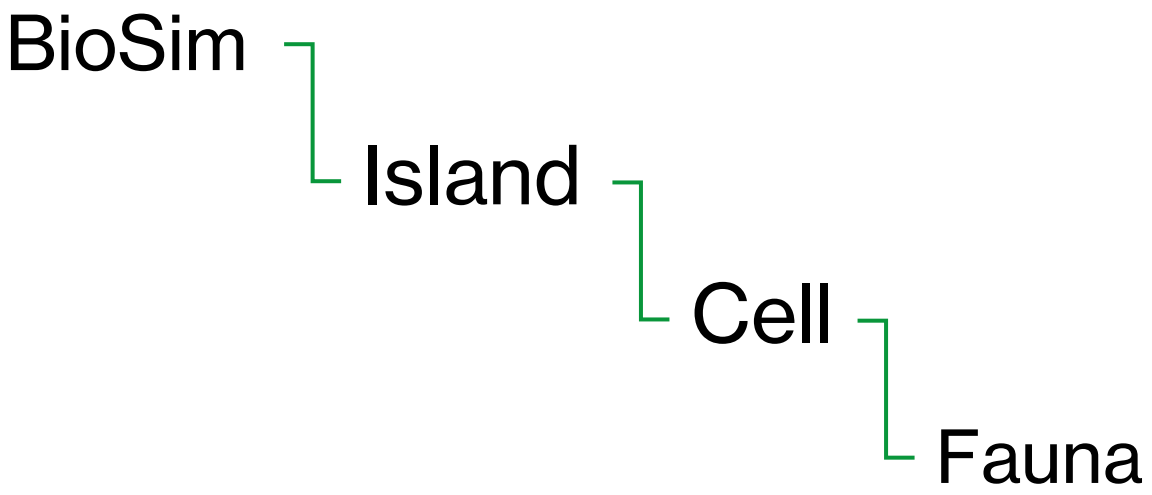
The process



Fauna

In common

- Age
- Weight
- Fitness
- Migration
- Birth
- Death

Different

- Eating habbits
- Parameters

Cell

In common

- Controls Fauna:
  - Births
  - Deaths
  - Migration
  - Eating

Different

- Landscapes
  - Water
  - Lowland
  - Highland
  - Desert

Island

Controls information across cells:

- Populations
- Migration
- Creates map

Annual cycle of island:

1. Feeding
2. Procreation
3. Migration
4. Aging
5. Loss of weight
6. Death

Pros

Cons

✓ Good tests and coverage

100% files, 94% lines covered in 'biosim'

Element	Statistics, %
__init__.py	100% lines covered
cell.py	98% lines covered
fauna.py	97% lines covered
island.py	97% lines covered
simulation.py	88% lines covered

✓ Good documentation

- All functions contains docstrings
- Well described HTML page

BioSim HTML

BioSim

Navigation

Contents:

biosim package with submodules
tests package with submodules

Quick search

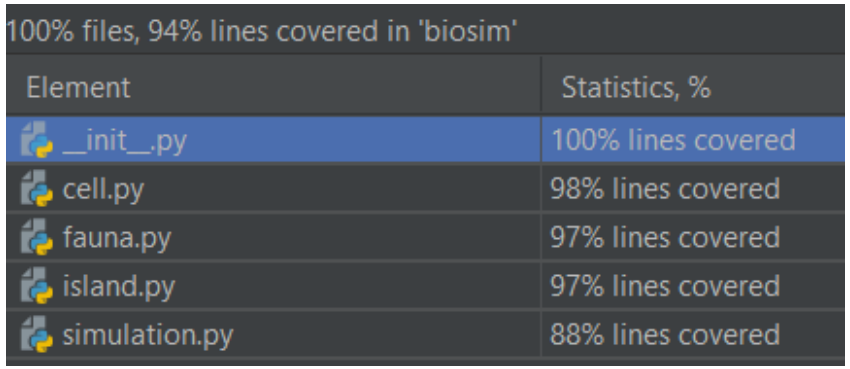
Go

Modelling the Ecosystem of Rossumoeya

BioSim is a simulation program for wildlife interaction on the fictional island of Rossumoeya. Through the modules in the biosim package, it allows the user to study

Pros

✓ Good tests and coverage



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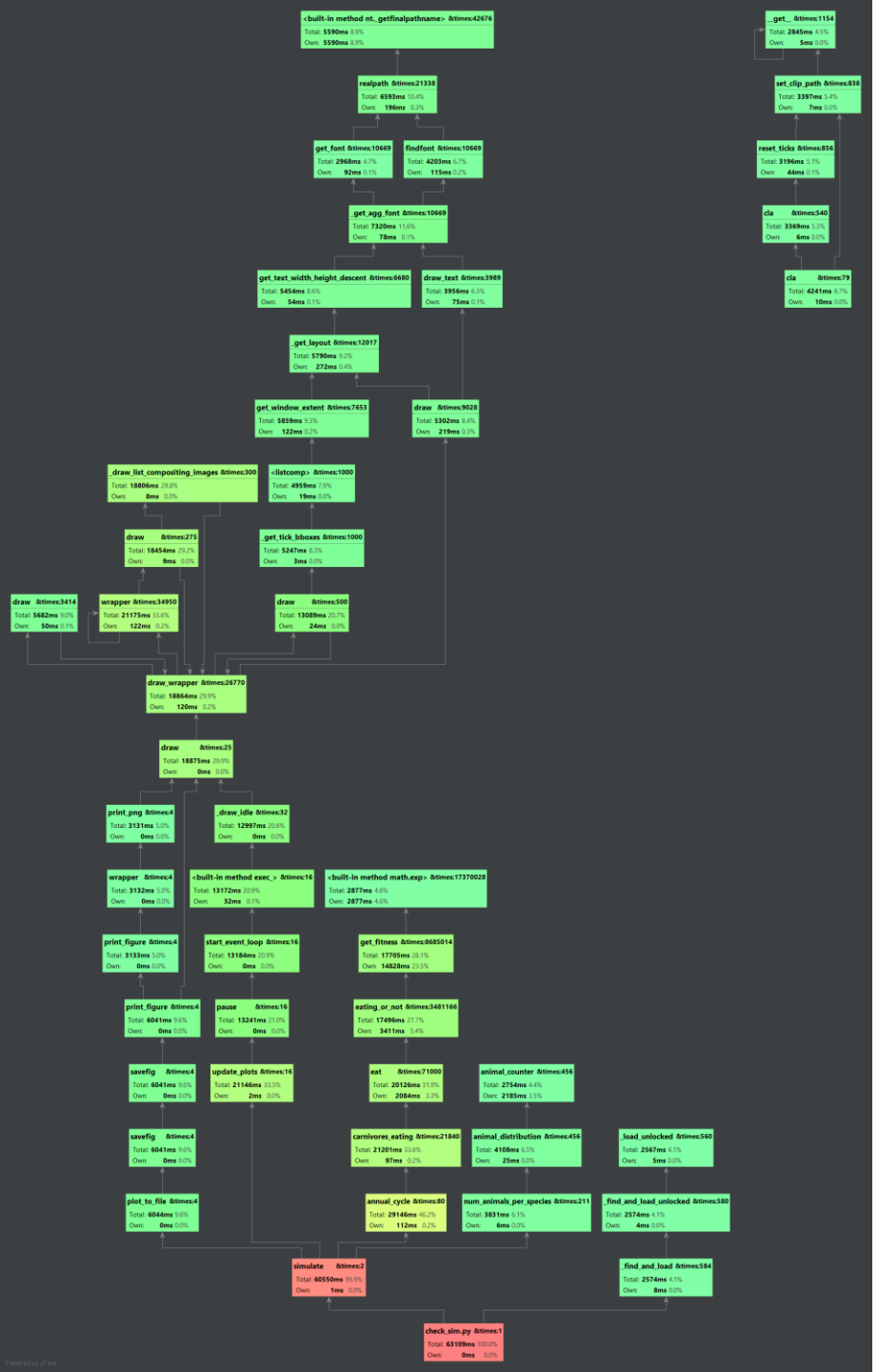
Cons

× Slow plotting when simulating

- Data are not updated correctly in birth / death

× Could used more *mockers* in fauna_test.py



Code optimization

- Room for optimization
- No major sinkholes