Docs » APIs

APIs

```
• Base Classes
```

```
Agent
Agent.step()

Model
Model.run_model()
Model.step()
Model.next_id()
Model.reset_randomizer()
```

- Mesa Time Module
- BaseScheduler
 - O BaseScheduler.add()
 - BaseScheduler.remove()
 - O BaseScheduler.step()
 - BaseScheduler.get_agent_count()
 - O BaseScheduler.agent_buffer()
- RandomActivation
 - PandomActivation.step()
 - RandomActivation.add()
 - RandomActivation.agent_buffer()
 - RandomActivation.get_agent_count()
 - PandomActivation.remove()
- SimultaneousActivation
 - SimultaneousActivation.step()
 - SimultaneousActivation.add()
 - SimultaneousActivation.agent_buffer()
 - SimultaneousActivation.get_agent_count()
 - SimultaneousActivation.remove()
- StagedActivation
 - StagedActivation.step()
 - StagedActivation.add()
 - StagedActivation.agent_buffer()

1 of 5 5/15/23, 17:14

APIs — Mesa .1 documentation

- StagedActivation.get_agent_count()
- StagedActivation.remove()
- RandomActivationByType
 - RandomActivationByType.add()

 - RandomActivationByType.remove()
 - RandomActivationByType.step()
 - RandomActivationByType.step_type()
 - RandomActivationByType.get_type_count()
 - RandomActivationByType.agent_buffer()
 - RandomActivationByType.get_agent_count()
- Mesa Space Module
- accept_tuple_argument()
- SingleGrid
 - SingleGrid.position_agent()
 - SingleGrid.place_agent()
 - SingleGrid.remove_agent()
 - SingleGrid.coord_iter()
 - SingleGrid.default_val()
 - SingleGrid.exists_empty_cells()
 - SingleGrid.find_empty()
 - SingleGrid.get_neighborhood()
 - SingleGrid.get_neighbors()
 - SingleGrid.is_cell_empty()
 - SingleGrid.iter_neighborhood()
 - SingleGrid.iter_neighbors()
 - SingleGrid.move_agent()
 - SingleGrid.move_to_empty()
 - SingleGrid.neighbor_iter()
 - SingleGrid.out_of_bounds()
 - SingleGrid.swap_pos()
 - SingleGrid.torus_adj()
- MultiGrid
 - MultiGrid.default_val()
 - MultiGrid.place_agent()
 - MultiGrid.remove_agent()
 - MultiGrid.coord_iter()
 - MultiGrid.exists_empty_cells()

5/15/23, 17:14 2 of 5

- MultiGrid.find_empty()
 - MultiGrid.get_neighborhood()
- MultiGrid.get_neighbors()
- MultiGrid.is_cell_empty()
- MultiGrid.iter_neighborhood()
- MultiGrid.iter_neighbors()
- MultiGrid.move_agent()
- MultiGrid.move_to_empty()
- MultiGrid.neighbor_iter()
- O MultiGrid.out_of_bounds()
- O MultiGrid.swap_pos()
- MultiGrid.torus_adj()
- HexGrid
 - HexGrid.get_neighborhood()
 - HexGrid.neighbor_iter()
 - HexGrid.iter_neighborhood()
 - HexGrid.iter_neighbors()
 - HexGrid.get_neighbors()
 - HexGrid.coord_iter()
 - O HexGrid.default_val()
 - O HexGrid.exists_empty_cells()
 - HexGrid.find_empty()
 - HexGrid.is_cell_empty()
 - HexGrid.move_agent()
 - HexGrid.move_to_empty()
 - HexGrid.out_of_bounds()
 - O HexGrid.place_agent()
 - O HexGrid.position_agent()
 - O HexGrid.remove_agent()
 - O HexGrid.swap_pos()
 - HexGrid.torus_adj()
- ContinuousSpace
 - O ContinuousSpace.place_agent()
 - ContinuousSpace.move_agent()
 - O ContinuousSpace.remove_agent()
 - ContinuousSpace.get_neighbors()
 - ContinuousSpace.get_heading()

3 of 5 5/15/23, 17:14

```
APIs — Mesa .1 documentation
                ContinuousSpace.get_distance()
                ContinuousSpace.torus_adj()
                ContinuousSpace.out_of_bounds()
            NetworkGrid
                NetworkGrid.default_val()
               NetworkGrid.place_agent()
             NetworkGrid.get_neighbors()
             NetworkGrid.move_agent()
             NetworkGrid.remove_agent()
             NetworkGrid.is_cell_empty()
                NetworkGrid.get_cell_list_contents()
                NetworkGrid.get_all_cell_contents()
             O NetworkGrid.iter_cell_list_contents()

    Mesa Data Collection Module

             DataCollector
                DataCollector.collect()
                DataCollector.add_table_row()
             DataCollector.get_model_vars_dataframe()
               DataCollector.get_agent_vars_dataframe()
               DataCollector.get_table_dataframe()

    Batchrunner

             batch_run()
             ParameterError
             VariableParameterError
            FixedBatchRunner
             FixedBatchRunner.run_all()
             FixedBatchRunner.run_model()
```

FixedBatchRunner.collect_model_vars()

FixedBatchRunner.collect_agent_vars()

FixedBatchRunner.get_model_vars_dataframe()

• FixedBatchRunner.get_agent_vars_dataframe()

FixedBatchRunner.get_collector_model()

FixedBatchRunner.get_collector_agents()

BatchRunner

BatchRunnerMP

• BatchRunnerMP.run_all()

Visualization

5/15/23, 17:14 4 of 5

- Mesa Visualization Module
- ModularServer
- VisualizationElement
 - VisualizationElement.render()
- TextElement
- PageHandler
- SocketHandler
 - SocketHandler.open()
 - SocketHandler.check_origin()
 - SocketHandler.on_message()
- ModularServer
 - ModularServer.settings
 - ModularServer.reset_model()
 - ModularServer.render_model()
 - ModularServer.launch()
- Text Visualization
- TextVisualization
 - TextVisualization.render()
 - TextVisualization.step()
- ASCIIElement
 - ASCIIElement.render()
- TextData
 - TextData.render()
- TextGrid
 - TextGrid.render()
- Modules
 - Modular Canvas Rendering
 - CanvasGrid
 - Chart Module
 - ChartModule

5 of 5 5/15/23, 17:14