



Config
+ sim_name: str
+ initial_sim_speed: int
+ min_sim_speed: int
+ max_sim_speed: int
+ world_height: int
+ world_width: int

Location
- x: int
- y: int
+ get_x(): int
+ get_y(): int
+ set_x(int):
+ set_y(int):
+ print_location():

MarsGui
+ interaction_state : str
+ observers: list(Observer)
- add_environment_frame():
- add_legend_frame():
- add_spaceship_legend_label():
- add_rover_legend_label():
- add_rock_legend_label():
- add_spaceship_legend_text():
- add_rock_legend_text():
- add_rock_legend_text():
- add_grid_label(Mars)
- add_button_frame():
- add_start_button()
- start_button_clicked(event):
- add_stop_button():
- stop_button_clicked(event):
- add_step_button(int):
- step_button_clicked(event)
+ refresh(Mars, int):
+ add_observer(Observer):
+ notify_observer():

MarsConfig
+ SEED: int
+ ROVER_MAX_ENERGY: int
+ ROVER_MIN_ENERGY: int
+ ROCK_MAX_ENERGY: int
+ ROCK_MIN_ENERGY: int
+ ROCK_SPAWN_RATE: int
+ INITIAL_ROVERS: int

AllScannedEntities
- scanned_entities: List(ScannedEntity)
+ add_scanned_entity(ScannedEntity):
+ get_all_entities(): list(ScannedEntity)
+ remove_entity(ScannedEntity):
+ get_entity_list_of_type(type, Location): list([ScannedEntity, int])
+ get_entity list_of_none(Location): list([ScannedEntity, int])
+ print_all_scanned_entities():

ScannedEntity
- actor: Agent
- location: Location
+ get_entity(): Agent
+ get_location(): Location
+ update_location():

Contract
- master: Rover
- supply: Rover
- recharge_point: Rover
- status: str
- reached_rcp : bool
+ set_supply(Rover)
+ get_supply(): Rover
+ get_status() : str
+ get_master(): Rover
+ get_recharge_point(): Location
+ set_recharge_point(Location):
+ contract_complete():
+ get_reached_rcp(): bool
+ set_reached_rcp(bool):



