Elevator project TTK4145

API Documentation

April 20, 2016

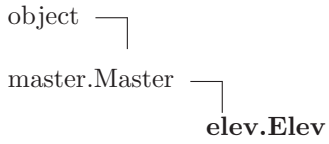
Contents

1 Module elev

1.1 Variables

Name	Description
BUTTON_CALL_DOWN	**Value:** `1`
BUTTON_CALL_UP	**Value:** `0`
BUTTON_COMMAND	**Value:** `2`
DIRN_DOWN	**Value:** `-1`
DIRN_STOP	**Value:** `0`
DIRN_UP	**Value:** `1`
ELEV_MODE	**Value:** `0`
IDLE	**Value:** `0`
MODEL	**Value:** `0`
N_BUTTONS	**Value:** `3`
N_ELEV	**Value:** `1`
N_FLOORS	**Value:** `4`
RUNNING	**Value:** `1`
SIMULATOR	**Value:** `1`
STOP_TIME	**Value:** `10`
TIME_BETWEEN_FLOORS	**Value:** `5`
__package__	**Value:** `None`

1.2 Class Elev



1.2.1 Methods

__init__(*self*, *mode*)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)

run(*self*)

Overrides: master.Master.run

__exit__(*self*)

Overrides: master.Master.__exit__

insert_task(*self*, *floor*)

next_dir(*self*)

movement_handler(*self*)

button_handler(*self*)

Inherited from master.Master(Section 3.1)

add_elevator(), best_elev(), broadcast(), cal_time(), closest_elev(), fastest_elev(), print_system(), print_task_stack(), run_server(), send_backup_ip()

Inherited from object

__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()

1.2.2 Properties

Name	Description
Inherited from object	
__class__	

2 Module main

2.1 Functions

main()

2.2 Variables

Name	Description
BUTTON_CALL_DOWN	**Value:** `1`
BUTTON_CALL_UP	**Value:** `0`
BUTTON_COMMAND	**Value:** `2`
DIRN_DOWN	**Value:** `-1`
DIRN_STOP	**Value:** `0`
DIRN_UP	**Value:** `1`
ELEV_MODE	**Value:** `0`
IDLE	**Value:** `0`
MODEL	**Value:** `0`
N_BUTTONS	**Value:** `3`
N_ELEV	**Value:** `1`
N_FLOORS	**Value:** `4`
RUNNING	**Value:** `1`
SIMULATOR	**Value:** `1`
STOP_TIME	**Value:** `10`
TIME_BETWEEN_FLOORS	**Value:** `5`
__package__	**Value:** `None`

3 Module master

3.1 Class Master

object
└ **master.Master**

Known Subclasses: elev.Elev

3.1.1 Methods

__init__(*self*)

x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)

run(*self*)

__exit__(*self*)

add_elevator(*self*, *ip*, *mode*)

best_elev(*self*, *floor*)

closest_elev(*self*, *floor*)

fastest_elev(*self*, *floor*)

cal_time(*self*, *elev_ip*, *floor*)

broadcast(*self*)

run_server(*self*)

print_task_stack(*elev*)

print_system(*self*)

send_backup_ip(*self*)

Inherited from object

__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()

3.1.2 Properties

Name	Description
Inherited from object	
__class__	

4 Module network

4.1 Functions

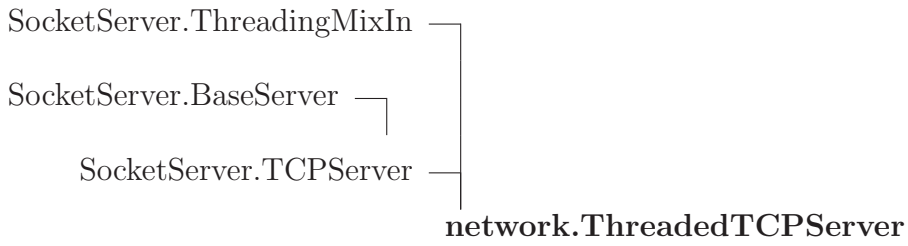
get_ip()

socket_setup(*port*)

4.2 Variables

Name	Description
BUTTON_CALL_DOWN	**Value:** `1`
BUTTON_CALL_UP	**Value:** `0`
BUTTON_COMMAND	**Value:** `2`
DIRN_DOWN	**Value:** `-1`
DIRN_STOP	**Value:** `0`
DIRN_UP	**Value:** `1`
ELEV_MODE	**Value:** `0`
IDLE	**Value:** `0`
MODEL	**Value:** `0`
N_BUTTONS	**Value:** `3`
N_ELEV	**Value:** `1`
N_FLOORS	**Value:** `4`
RUNNING	**Value:** `1`
SIMULATOR	**Value:** `1`
STOP_TIME	**Value:** `10`
TIME_BETWEEN_FLOORS	**Value:** `5`
__package__	**Value:** `None`

4.3 Class ThreadedTCPServer



4.3.1 Methods

Inherited from SocketServer.ThreadingMixIn

process_request(), process_request_thread()

Inherited from SocketServer.TCPServer

__init__(), close_request(), fileno(), get_request(), server_activate(), server_bind(), server_close(), shutdown_request()

Inherited from SocketServer.BaseServer

finish_request(), handle_error(), handle_request(), handle_timeout(), serve_forever(), shutdown(), verify_request()

4.3.2 Class Variables

Name	Description
allow_reuse_address	**Value:** `True`
daemon_threads	**Value:** `True`
Inherited from SocketServer.TCPServer address_family, request_queue_size, socket_type	
Inherited from SocketServer.BaseServer timeout	

4.4 Class ClientHandler

SocketServer.BaseRequestHandler
└ **network.ClientHandler**

4.4.1 Methods

setup(*self*)

Overrides: SocketServer.BaseRequestHandler.setup

handle(*self*)

Overrides: SocketServer.BaseRequestHandler.handle

finish(*self*)
Overrides: SocketServer.BaseRequestHandler.finish

send_msg(*self*, *msg_type*, *data*)

Inherited from SocketServer.BaseRequestHandler

__init__()

4.5 Class Client

4.5.1 Methods

__init__(*self*, *host*, *server_port*, *elev*)

run(*self*)

handle_msg(*self*, *msg*)

disconnect(*self*)

send_msg(*self*, *msg_type*, *data*, *ip*)

4.6 Class Msg_receiver

object
threading._Verbose
threading.Thread
network.Msg_receiver

4.6.1 Methods

__init__(*self*, *client*, *connection*)

This constructor should always be called with keyword arguments. Arguments are:

group should be None; reserved for future extension when a ThreadGroup class is implemented.

target is the callable object to be invoked by the run() method. Defaults to None, meaning nothing is called.

name is the thread name. By default, a unique name is constructed of the form "Thread-N" where N is a small decimal number.

args is the argument tuple for the target invocation. Defaults to ().

kwargs is a dictionary of keyword arguments for the target invocation. Defaults to {}.

If a subclass overrides the constructor, it must make sure to invoke the base class constructor (Thread.__init__()) before doing anything else to the thread.

Overrides: object.__init__ extit(inherited documentation)

run(*self*)

Method representing the thread's activity.

You may override this method in a subclass. The standard run() method invokes the callable object passed to the object's constructor as the target argument, if any, with sequential and keyword arguments taken from the args and kwargs arguments, respectively.

Overrides: threading.Thread.run extit(inherited documentation)

Inherited from threading.Thread

__repr__(), getName(), isAlive(), isDaemon(), is_alive(), join(), setDaemon(), setName(), start()

Inherited from object

__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()

4.6.2 Properties

Name	Description
Inherited from threading.Thread daemon, ident, name	
Inherited from object __class__	

4.7 Class Msg_parser

4.7.1 Methods

__init__(*self*, *master*, *client_handler*)

parse(*self*, *data*)

parse_external(*self*, *data*)

parse_queue_update(*self*, *data*)

parse_floor_update(*self*, *data*)

parse_request_backup(*self*, *data*)

5 Module states

5.1 Functions

master()

backup(*elev*, *backup*)

slave(*elev*)

5.2 Variables

Name	Description
__package__	**Value:** `None`

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