

Class Diagram1

ElevatorImp

```
{final} +POWER_START_STOP : int = 2
{final} +POWER_CONTINUOUS : int = 1
{final} +SLEEP_START_STOP : long = 500
{final} +SLEEP_CONTINUOUS : long = 250
{final} -MAX_CAPACITY_PERSONS : double
{final} -delay : boolean
{final} -ID : int
-powerUsed : double
-currentFloor : int
-capacity : int
{final} -panel : ElevatorPanel
{volatile} -state : MovingState

+ElevatorImp(CAPACITY_PERSONS : double, panel : ElevatorPanel, ID : int, delay : boolean)
+ElevatorImp(CAPACITY_PERSONS : double, panel : ElevatorPanel, ID : int)
+moveTo(floor : int) : void
-processMovingState(floor : int) : void
+getFloor() : int
+id() : int
+isFull() : boolean
+isEmpty() : boolean
+getPowerConsumed() : double
+addPersons(persons : int) : void
+requestStop(floor : int) : void
+requestStops(floors : int) : void
+isIdle() : boolean
+hashCode() : int
+equals(obj : Object) : boolean
+getState() : MovingState
+getCapacity() : int
```

ElevatorSystemImp

```
{final} -REQUEST_LOCK : Object = new Object()
{final} -MAX_FLOOR : int
{final} -MIN_FLOOR : int
-stops : Map<Elevator, List<Integer>>
-service : ExecutorService
-shutdown : boolean = false
-run : Runnable = null
-callDirection : MovingState

+ElevatorSystemImp(MIN_FLOOR : int, MAX_FLOOR : int)
+start() : void
+requestStop(elevator : Elevator, floor : int) : void
+requestStops(elevator : Elevator, floors : int) : void
+callUp(floor : int) : Elevator
+callDown(floor : int) : Elevator
-call(floor : int, direction : MovingState) : Elevator
-getAvailableElevatorIndex(floor : int) : Elevator
-floorCheck(floor : int) : void
-checkForElevator() : void
+getPowerConsumed() : double
+getCurrentFloor() : int
+getMaxFloor() : int
+getMinFloor() : int
+getFloorCount() : int
+addElevator(elevator : Elevator) : void
+addObserver(observer : Observer) : void
+getElevatorCount() : int
+shutdown() : void
```