#### Node nodeID: int name: String state: String neighbors: List<Node> agentList: List<MobileAgent> x: int agent: MobileAgent y: int nodeID: int fireCountDownStarted: boolean level: int baseStation: boolean queue: BlockingQueue<Message> setNodeIDForAgent(int x) getMessages() analyzeMessage(Message x) getName() setLevel() printOutName() getLevel() sendMessage(Message x) getNeighbors() getX() getY() isBaseStation() setBaseStation() getState() setState() setAgent(MobileAgent x) getAgent()

mobileAgents() getNodeID()

### MobileAgent

```
queue: BlockingQueue<Message>
id: long
currentNode: Node
walker: boolean
alive: boolean

setCurrentNode(Node x)
getId()
analyzeMessage(Message x)
sendMessage(Message x)
getMessages()
toString()
printOutName()
run()
MobileAgent(BlockingQueue<Message> queue, long id,
```

Node currentNode, boolean walker ,boolean alive)

### Message

```
sender: SensorObject
receiver: SensorObject
clonedAgent: MobileAgent
detailedMessage: String
```

lowerRankedNodes: LinkedList<Node>

```
getLowerRankedNodes()
setLowerRankedNodes()
getDetailedMessaged()
getSender()
getReceiver()
getClonedAgent()
toString()
Message(SensorObject sender,SensorObject
receiver,MobileAgent clonedAgent,String detailedMessage)
```

### Coordinator

fileChooser: FileChooser threads: ArrayList<Thread>

file: File

gr: GraphReader

map: HashMap<Node,ArrayList<Node>>

start: Button display: Display started: boolean

start() stop()

## Display

root: AnchorPane

pane: Pane

agentList: ListView<String>

child: ScrollPane
nodes: Set<Node>

bs: Node flag: boolean

timeLine: TimeLine

createGUI(Stage x, Button y)

start()

# GraphReader

fireStarted: boolean

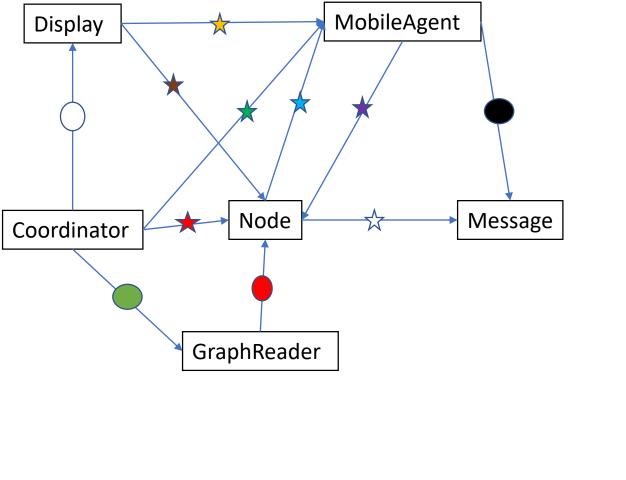
baseStationAssigned: boolean

file: File

graph: HashMap<Node,ArrayList<Node>>

beginNode: LinkedList<String>
endNode: LinkedList<String>

getGraph()
greatestX()
greatestY()





toString()



mobileAgents()
retrieveName()
getState()
isBaseStation()
getNeighbors()



sendMessage()
getState()
getName()



getDetailedMessage()



setCurrentNode()
sendMessage()



getSender()
getLowestRankedNodes()
getClonedAgent()
getDetailedMessage()
setLowerRankedNodes()
getReceiver()



getNodeID();
isBaseStation()
setAgent()



getGraph()
greatestX()
greatestY()



setCurrentNode()



createGUI()
Start()



retrieveName()
getNeighbors()
getLevel()
isBaseStation()
setLevel()