Model::Main

«interface» Visitable

«interface» Visitor

SimErgy
- -ed: ED
- -eventQueue: EventQueue
- -enabledEvents: EnabledEvent
- -maxTime: double
- +simTime: double
- -L1arrivalDist: ProbabilityDistribution
- -L2arrivalDist: ProbabilityDistribution
- -L3arrivalDist: ProbabilityDistribution
- -L3arrivalDist: ProbabilityDistribution
- -L4arrivalDist: ProbabilityDistribution
- -L5arrivalDist: ProbabilityDistribution

- +execute(): void
- +dequeue(): void
- +getNewEnabledQueue(ed: ED): void
- +stayLength(p: Patient): double
- +doorTime(p: Patient): double
- +main(args: String[]): void
- +visit(e: EventType): void

EnabledEvent
- -enabledQueue: ArrayList<EventType>
- -radioDist: ProbabilityDistribution
- -mRIDist: ProbabilityDistribution
- -bloodDist: ProbabilityDistribution
- -possibleQueue: ArrayList<EventType>

- +EnabledEvent(state: ED): EnabledEvent
- +visit(e: EventType): void

EventQueue
- -queue: ArrayList<Event>

- +sort(): void
- +toString(): String

Event
- -timestamp: int
- -eventType: EventType

ED

Ressource
- -id: int
- -name: String
- -last_id: int
- -disponibility: boolean

- +fill(): void
- +empty(): void

RessourceHR
- -surname: String
- -state: String
- -room: Room

RessourceNHR

ProbabilityDistribution
- -parameterOne: double
- -parameterTwo: double

- +generateSample(): double

DetDistribution

UnifDistribution

ExpDistribution

EventType
- -duration: int
- -patient: Patient
- -physician: Physician
- -Nurse: Nurse
- -transporter: Transporter
- -location: RessourceNHR
- -isBeginning: boolean
- #waitingRoom: WaitingRoom
- -cost: int
- -hs: HealthServce
- -type: String

- +getEndingEvent(): Event
- +messagePhysi(timestamp: double): void
- +accept(visitor: Visitor): void

Nurse

Patient
- -insurance: String
- -sLevel: int
- -arrivalTime: double
- -history: ArrayList<PatientMilestone>
- -lenghOfStay: double
- -dtodTime: double

- +updateHistory(milestone: PatientMilestone): void
- +toString(): String

Transporter

PatientMilestone

HealthSerivce

Physician
- -patients: ArrayList<Patient>
- -msgs: ArrayList<Message>
- -username: String

- +handleNewPatient(p: Patient): void
- +emitVerdict(p: Patient): void
- +genTest(p: Patient, e: Event): int
- +receiveMessage(Message m): void
- +displayBoxContent(): void
- +removeMessage(Message m): void
- +marlUnreadMessage(Message m): void
- +addPatient(Patient patient): void
- +storeMessage(): void

Message
- -id: int
- -str: String
- -unread: boolean
- -t: double
- -last_id: int

- +genId(): void

Room

ShockRoom

RadiographyRoom

WaitingRoom
- -spots: ArrayList<WaitingRoomSpot>

WaitingRoomSpot

BloodTestRoom

MRIRoom

BoxRoom

Corridor

HealthServiceWaitingRoom

Event subclasses:
- **PatientArrival**
- **Registration**
- **EndRegistration**
- **TransportationInstallation**
- **EndTransportationInstallation**
- **Consultation**
- **EndConsutlation**
- **Radiography**
- **EndRadiography**
- **Examination**
- **BloodTest**
- **EndBloodTest**
- **MRI**
- **EndMRI**
- **TransportationTest**
- **EndTransportationTest**
- **WaitingResult**
- **Verdict**
- **EndVerdict**

HealthSerivce subclasses:
- **RegistrationService**
- **TransportationInstallationService**
- **ConsultationService**
- **RadiographyService**
- **BloodTestService**
- **MRIService**
- **TransportationTestService**
- **VerdictService**