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Brief Description:

This file is the communication diagram of the the project.

It is seperate into two page.

The first page shows how myAutoController interact with other classes in the myController Folder when it is being created by the class World.

The second page shows how myAutoController interact with other classes in the myController Folder when it is being called function update( ) by the class World.

Impl : AstarStrategy

Find out a coordinate, Then use the Astar Algorithm to find the path reach that corrdinate

4.7.1: create()

4.7.2: end = getACoordinate(filteredTarget)

routeStrategy : NoTrapStrategy

4.7.3: create(carPos, end, Impl)
4.7.4: result=run()

4.7.4.1: create()
4.7.4.2: getRoute()

Astar : AStarAlgorithm

result : Result

1: getView= getView()

update()

carController : MyAutoController

3: hasNext = hasNext()
4: navigate()[hasNext!=ture]

4.7: newRoute = getRoute(carPos, filteredTarget)

exploreStrategy : ExploreStrategy

2: publish()

update the car view

4.1: carPos = getCoordinate()
4.2: numParcels = numParcels()
4.3: numParcelsFound= numParcelsFound()

4.6: filteredTarget = filterNotConnected(carPos, targets)

delete all the coordinates that is unreachable for the car

parcelStrategy : Parcelstrategy

4.5a.2: result2=getTargetList(carPos)

publisher : CarViewPublisher

Navigation

4.5a.1: result1 = getTargetList(carPos)

collectParcelStrategy : CollectParcelStrategy

4.5a: targets = getTargetList(carPos)[targetStrategy instanceof CollectParcelStrategy]

2.1: *:onReceiveCarView(getView)

4.5b: targets = getTargetList(carPos)[targetStrategy instanceof canExitStrategy]

canExitStrategy : CanExitStrategy

observers[i] : ObserverBase

Because the observers ArrayList is write for the future extension.

In this program, there is only a MapRecorder in the observers ArrayList.

So this class could equally treat as the MapRecorder Class

4.4a: targetStrategy = getStrategy(true)[numParcels==numParcelsFound]
4.4b: targetStrategy = getStrategy(false)[numParcels!=numParcelsFound]

get the coordinates according to the strategy

4.5b.1: result1 = getTargetList(carPos)

exitStrategy : ExitStrategy

4.5b.2: result2 = getTargetList(carPos)

exploreStrategy : ExploreStrategy

2.1.1: setCarView(getView)

targetFactory : TargetFactory

choose the strategy from the factory by checking whether the car picked enough parcel

carViewAdapter : CarViewAdapter