s:SimulationEngine

:Bus

:Stop

calcSystemEfficiency()

Loop

[Buses]

getSpeed()

speed

getCapacity()

capacity

totalSpeed += speed

totalCapacity += capacity

busCost = coefficientSpeed * totSpeed + coefficientCapacity * totCapacity

Loop

[Stops]

getWaitingCount()

waitingCount

totalWaiting += waitingCount

systemEfficiency = coefficientWaiting * totalWaiting + coefficientBus * busCost + coefficientCombined * totalWaiting * busCost

systemEfficiency

Comments

I have modeled System Efficiency as an on-demand calculated value that client can request any time through UI

That said, this is a simple calculation and doesn't involve many methods. Its a two liner code

Hence I have expanded the sequence diagram with some of the math steps and where they are performed so that the diagram doesn't look sparse

totalWaiting and busCost are initially assumed to be 0