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graph TD; Loop(( )) --> RunActiveState[runActiveState()]; RunActiveState --> InitActiveState[initActiveState()]; InitActiveState --> InitStateOps[initialStateOperations()]; InitStateOps --> ExecuteAllEvents[executeAllEvents()]; ExecuteAllEvents --> RunFlowAnalysis[runFlowAnalysis()]; RunFlowAnalysis --> FinalStateOps[finalStateOperations()]; FinalStateOps --> Loop;
```

runActiveState()

initActiveState()

if event for this time in queue: iteration++
else: reset iteration to 1 and load data

initialStateOperations()

measurements and adjustments at the start of the simulation

executeAllEvents()

perform scheduled changes for current time step

runFlowAnalysis()

the actual flow analysis algorithms are implemented here

finalStateOperations()

measure at the end of the simulation