**runActiveState()**

**loadNetworkData()**
Loading flow and topology data from files

**executeAllEvents()**
at current epoch

**runAnalysis()**
for each iteration
    for each island do

**initMeasurements()**
**performMeasurements()**
measure

**runAnalysis()**

**runFlowAnalysis(FlowNetwork flowNetwork)**
execute the domain and backend specific flow analysis and return if it converged

**flowConvergenceAlgo(FlowNetwork flowNetwork)**
handle domain specific flow analysis requirements for the current island, e.g. at least one slack bus in power domain, and/or adjustments to make flow analysis converge. returns true if flow analysis finally converged.

optional

**mitigateOverload()**
prevent overloading

**linkOverloadAlgo()**
check overload and deactivate overloaded links
if new islands created, start next iteration

**SFINAAgent**
Handling general analysis.

↑ extends

**BenchmarkSFINAAgent**
Measuring System Metrics independent of current domain like nr. of iterations, time of computation, etc.

↑ extends

**CascadeAgent**
Iterating over all islands as long as overloads, i.e. topology changes happen.

↑ extends

**BenchmarkCascadeAgent**
Measuring domain specific metrics, like load loss, etc.