Model-Based Design of Game AI

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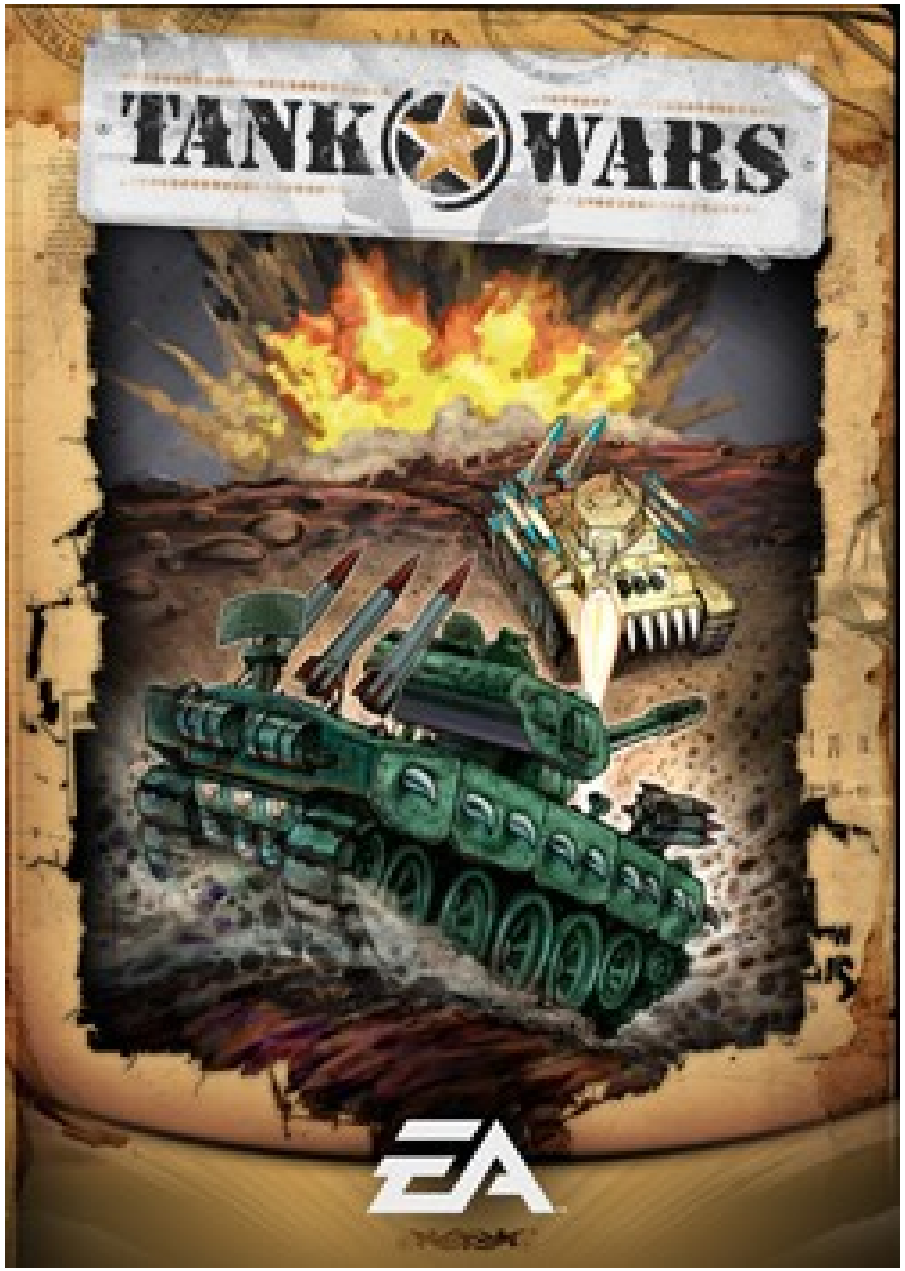
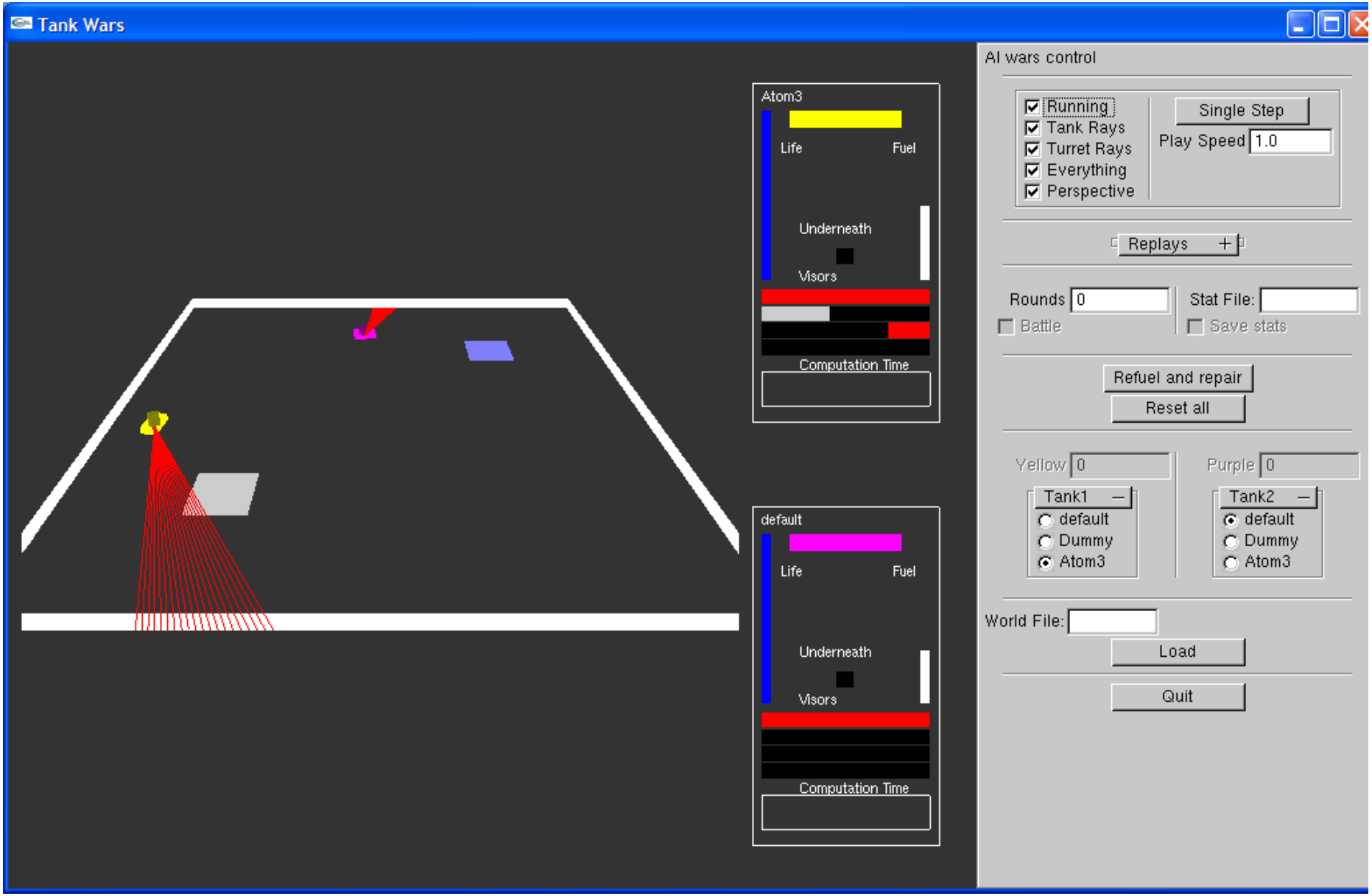
EA TankWars



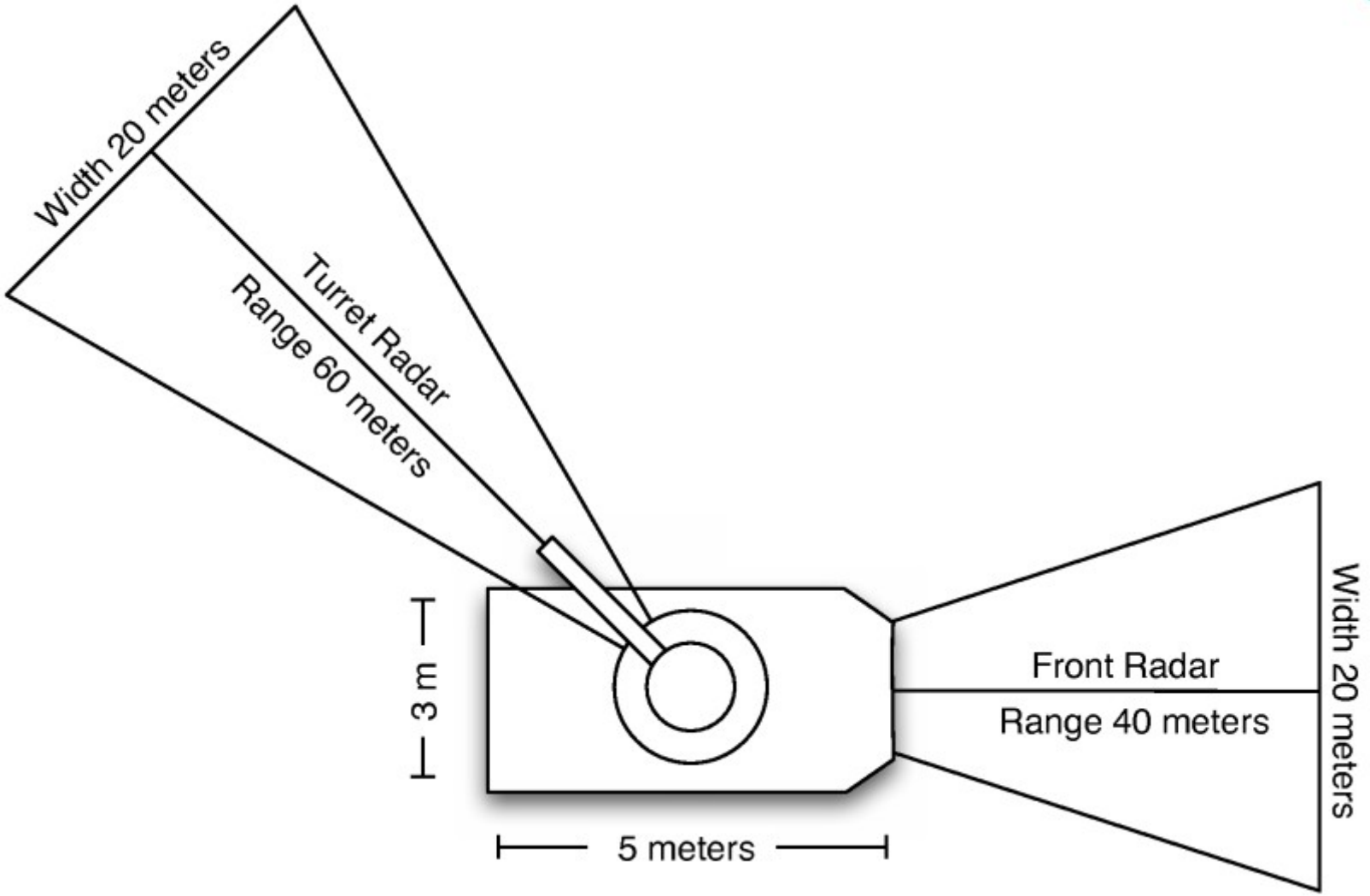
Develop an AI for a tank that

- lives in a 2D world
- manage the internal resources for the tank
- find the enemy tank
- map out the world
- destroy the enemy tank

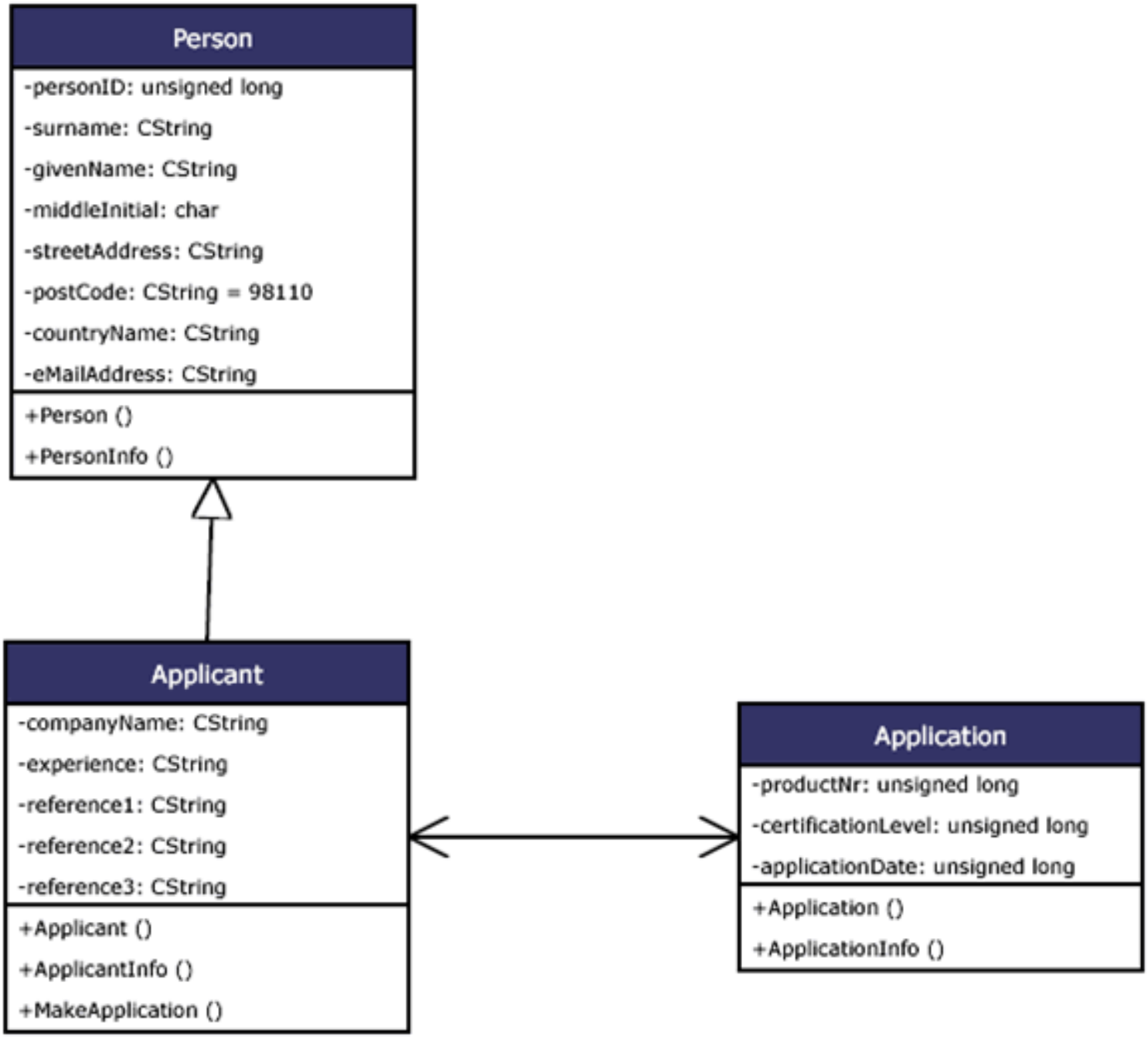
The Arena


Tank Wars
AI wars control
Running
Tank Rays
Turret Rays
Everything
Perspective
Single Step
Play Speed 1.0
Replays
Rounds 0
Stat File:
Battle
Save stats
Refuel and repair
Reset all
Yellow 0
Purple 0
Tank1
default
Dummy
Atom3
Tank2
default
Dummy
Atom3
World File:
Load
Quit
Atom3
Life
Fuel
Underneath
Visors
Computation Time
default
Life
Fuel
Underneath
Visors
Computation Time

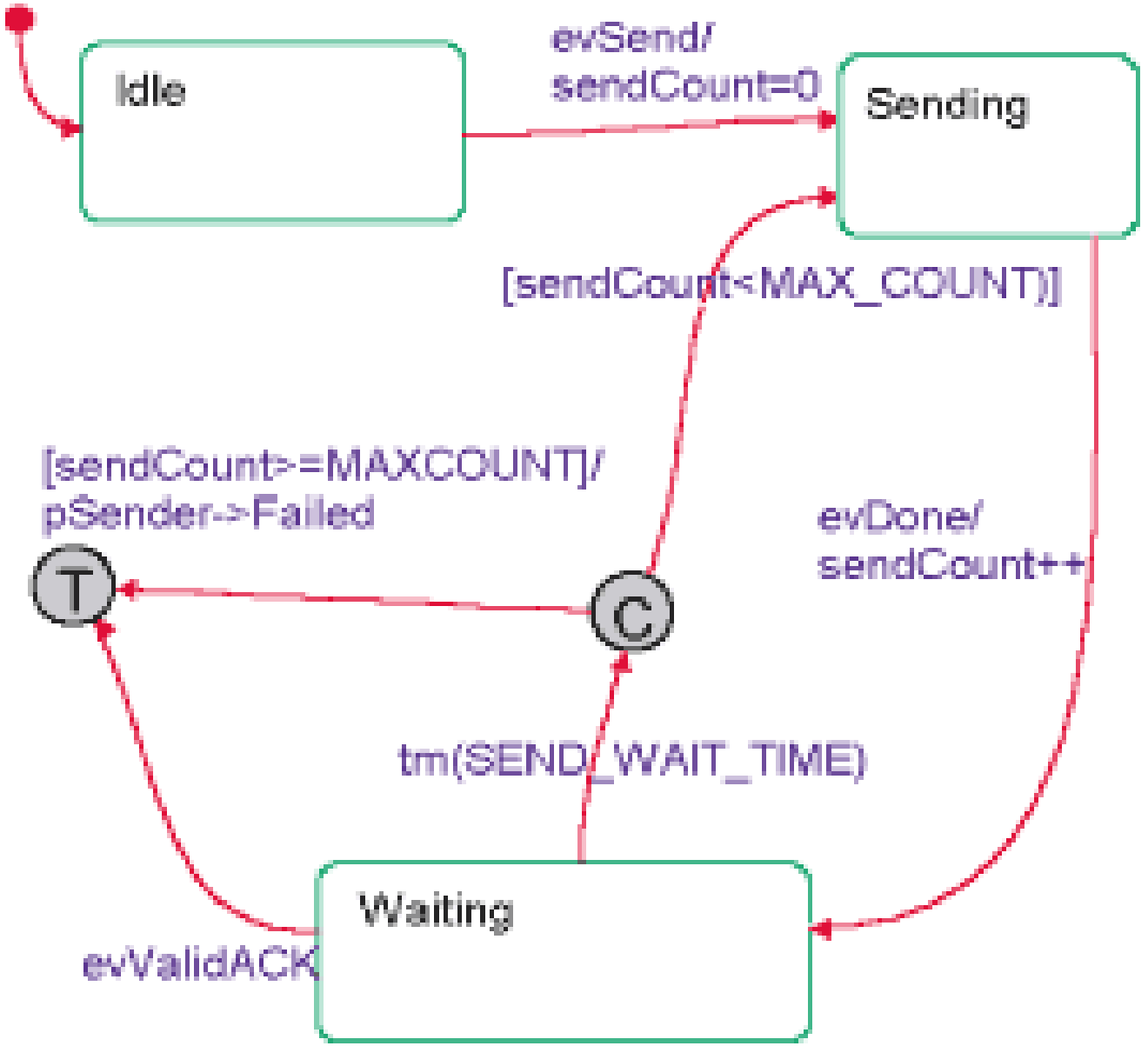
Tank


Width 20 meters
Turret Radar
Range 60 meters
3 m
Front Radar
Range 40 meters
Width 20 meters
5 meters

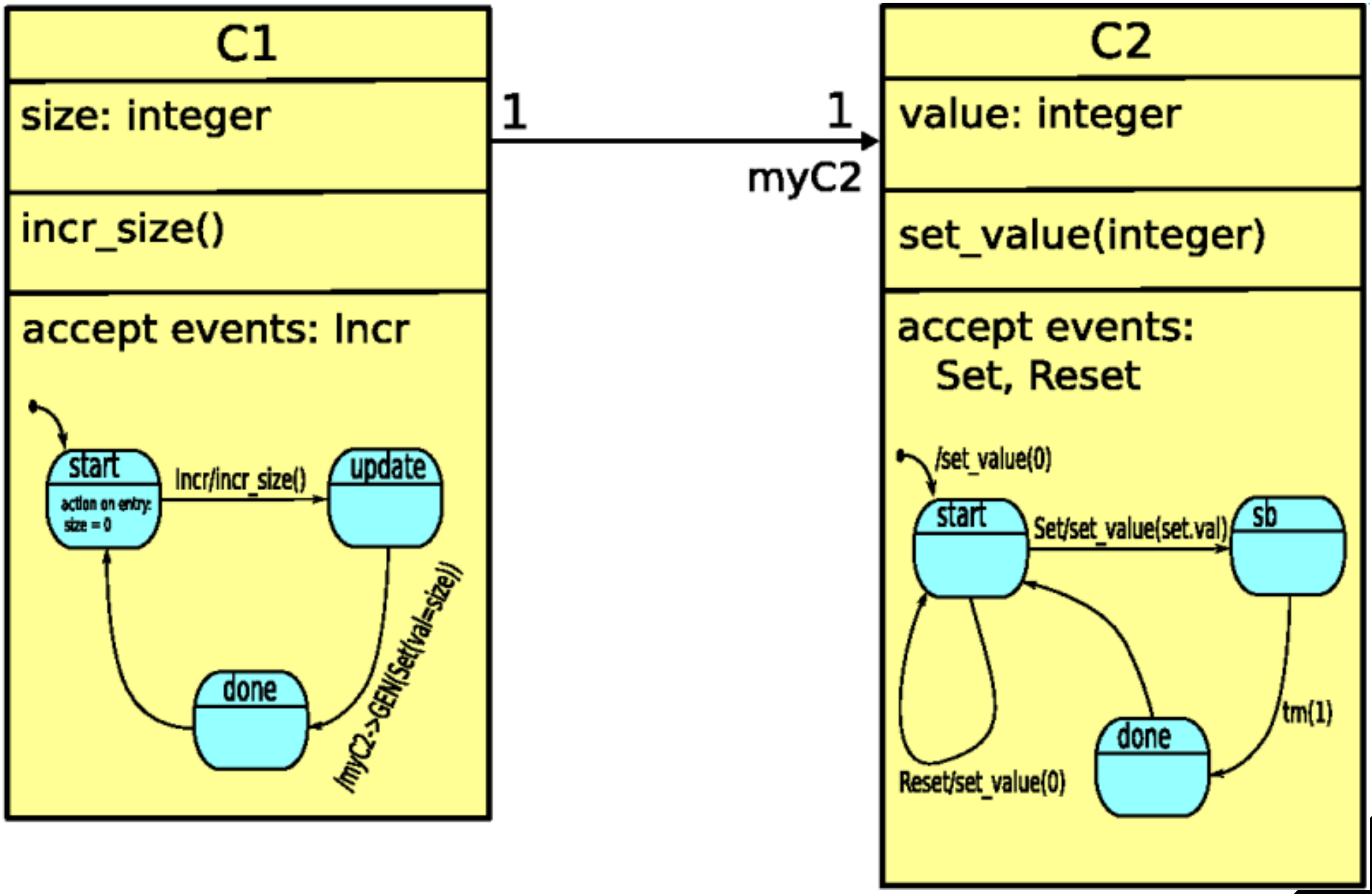
UML Class Diagram



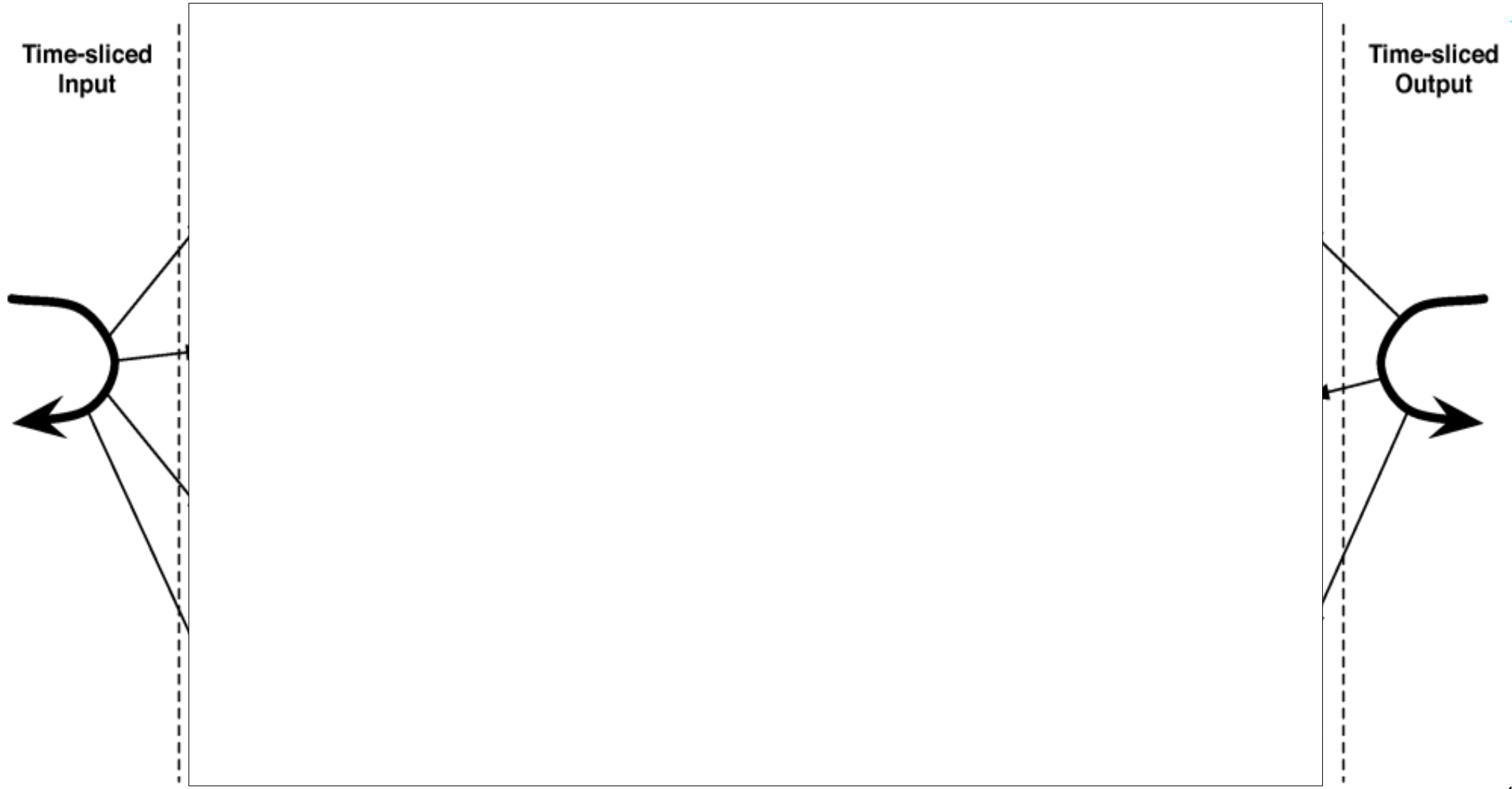
UML Statecharts



Class Diagrams and Statecharts



Decision Process Breakdown



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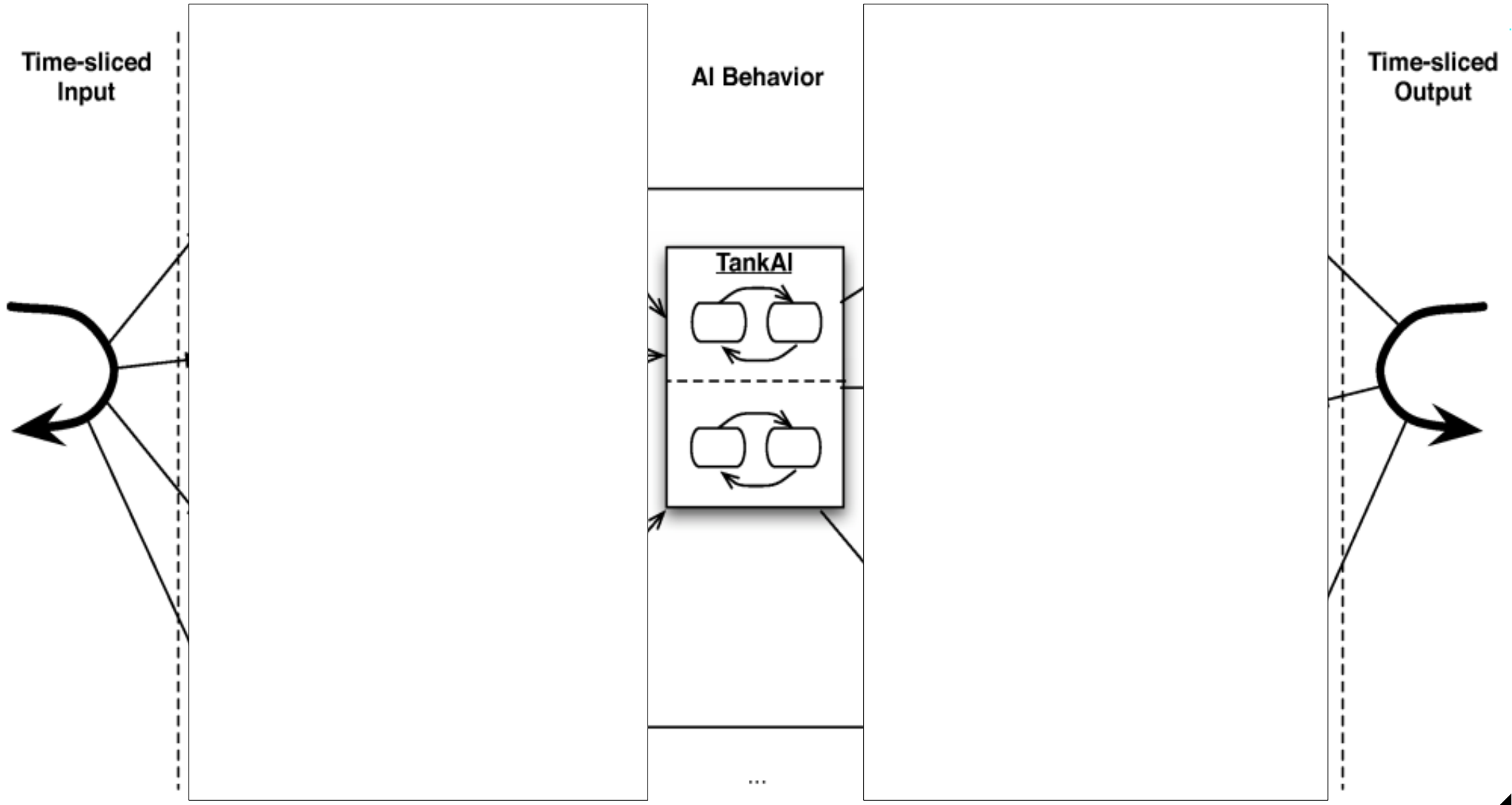

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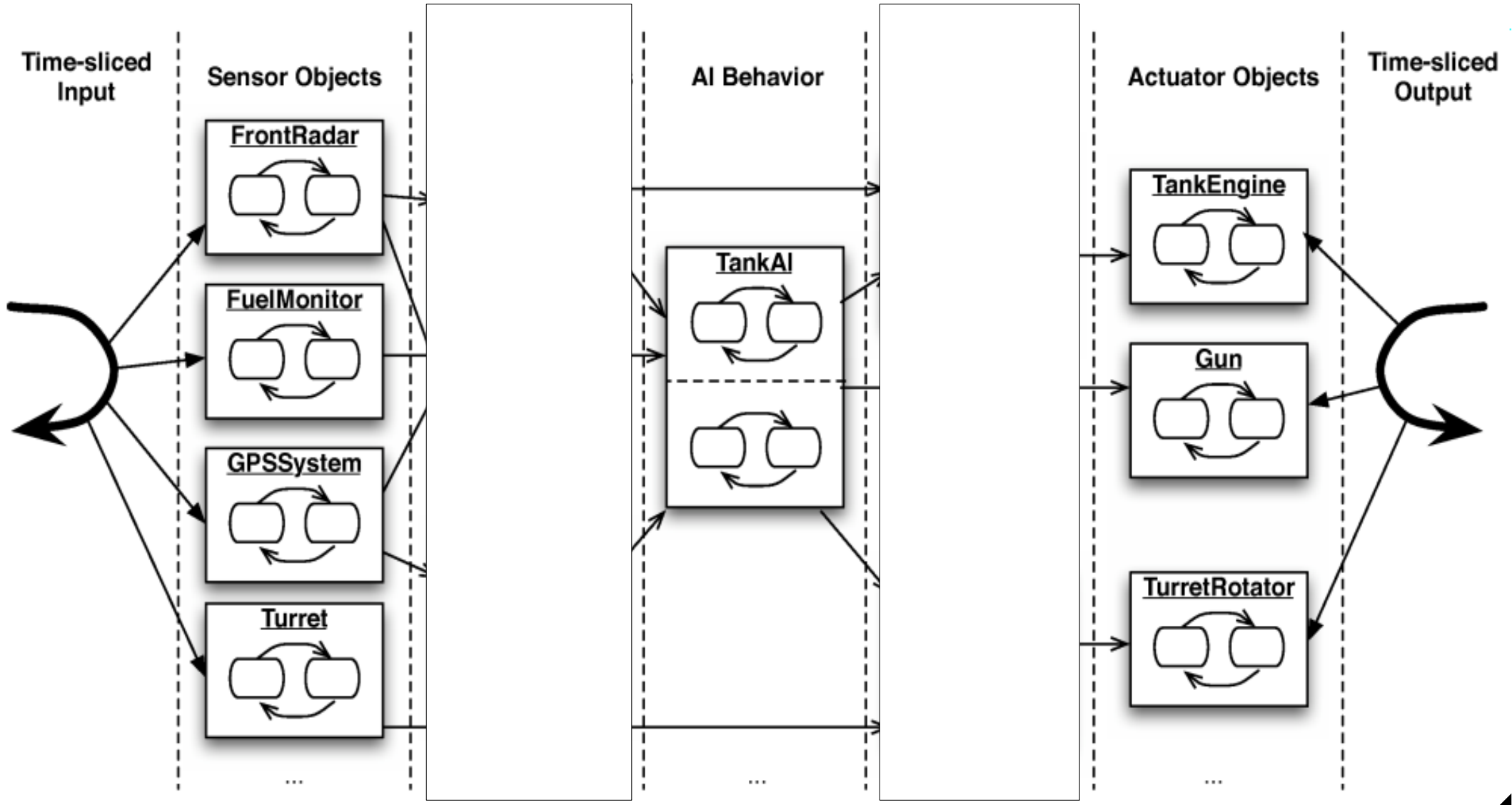

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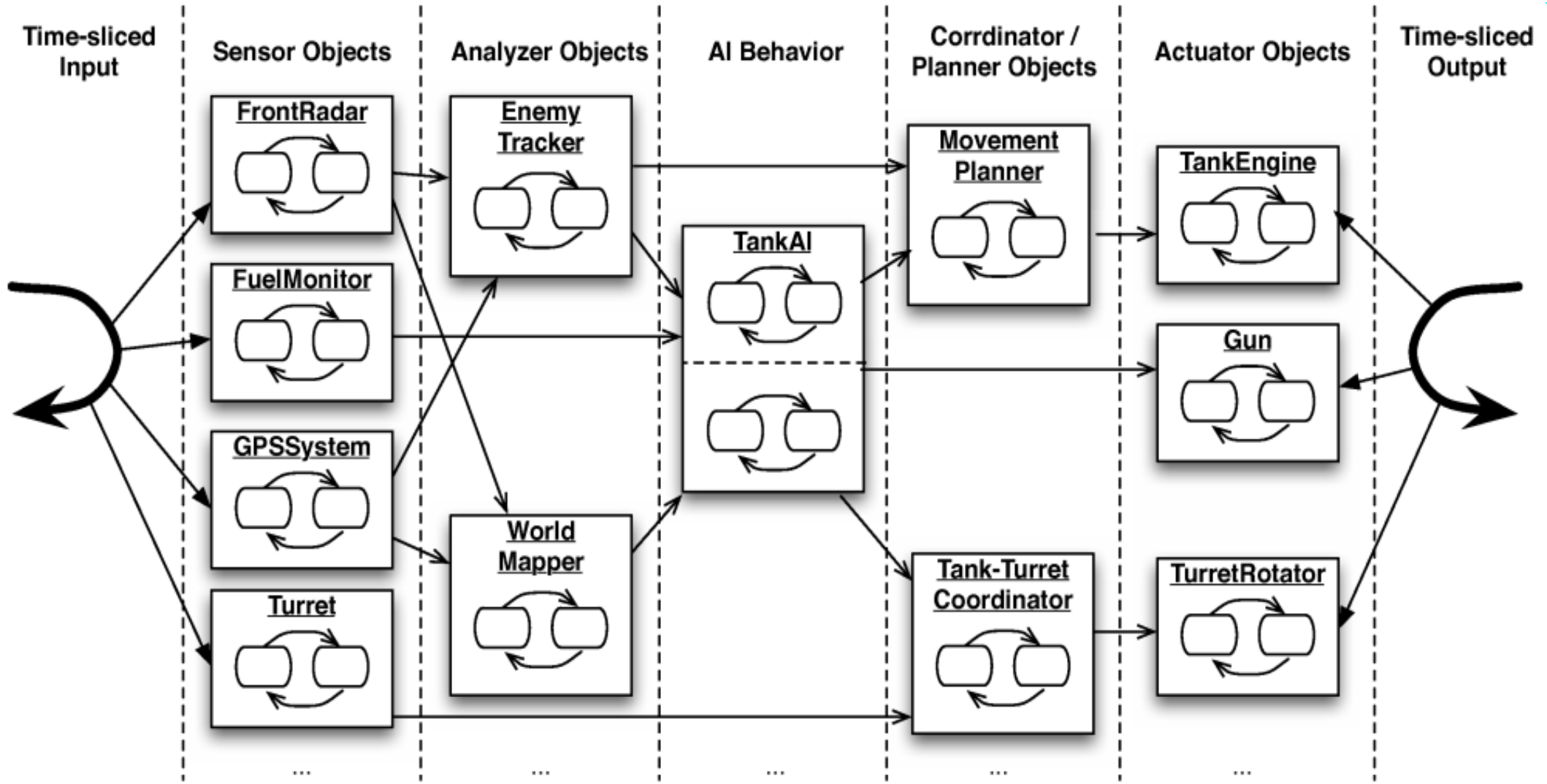
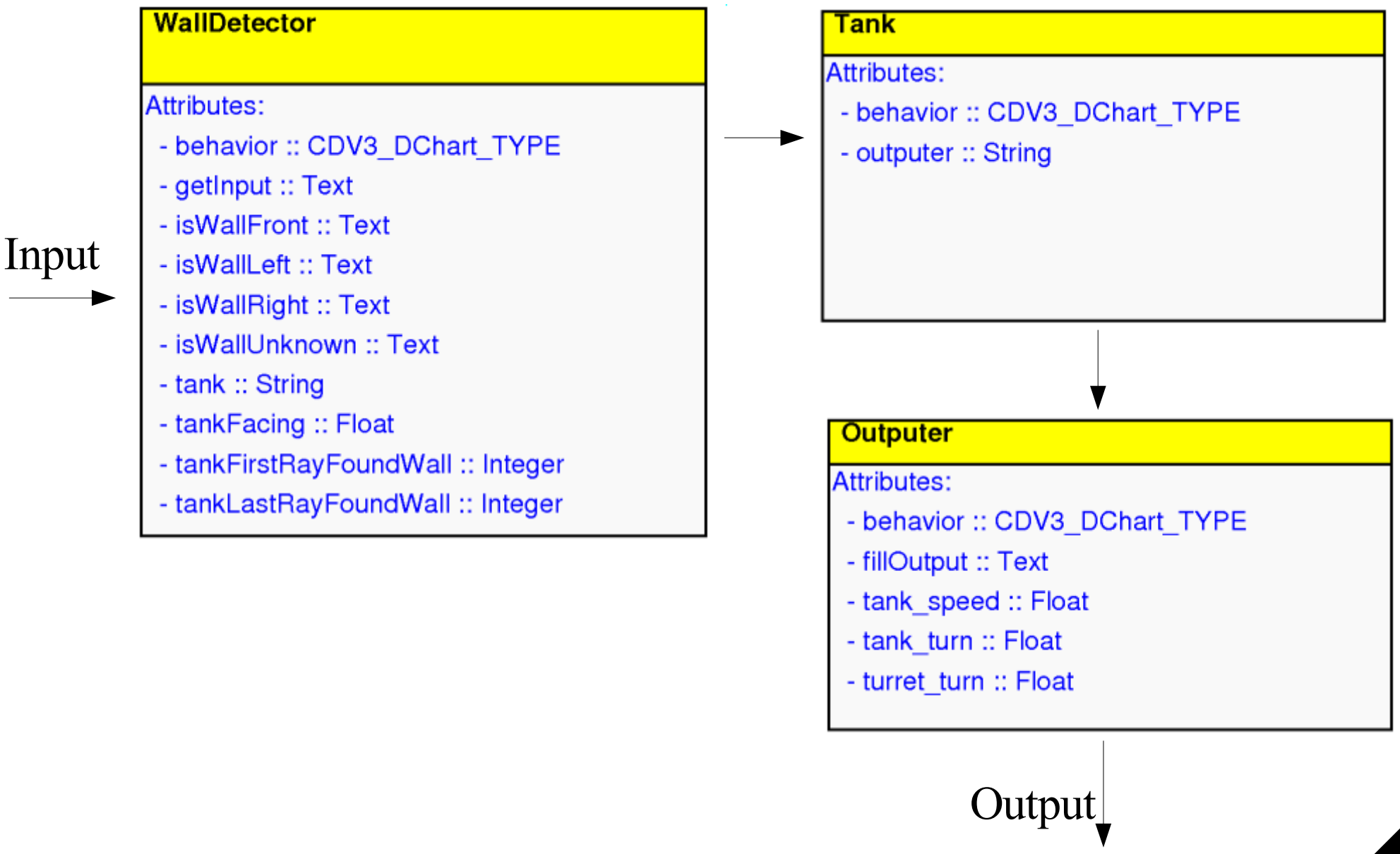
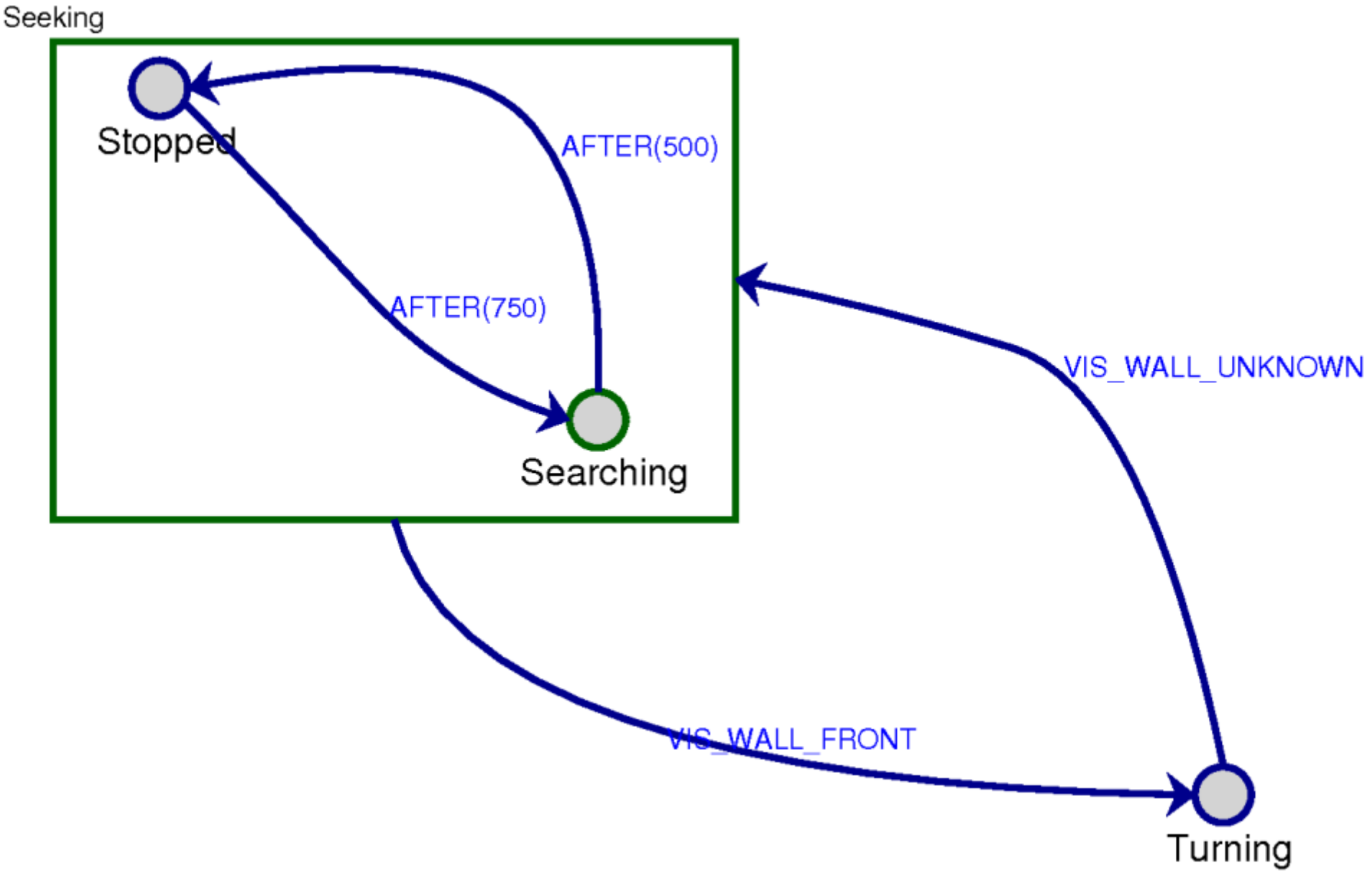


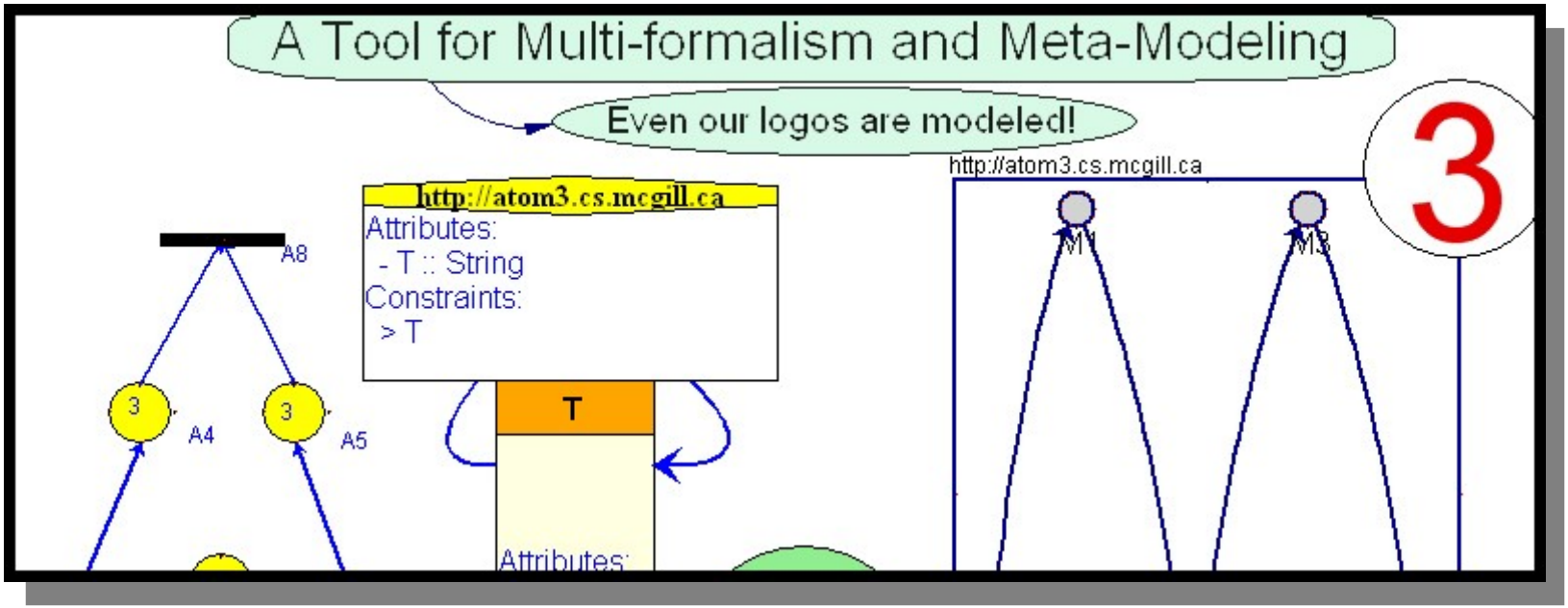
Class Diagram of Demo AI



Statechart of Tank



Demonstration



Questions?