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Outline

A DEVS
Model of an
Ecosystem

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Biological Simulation

A DEVS
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Ecosystem

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Intention

Biological systems are usually modeled in Agent based systems. Having independent actors creating a natural feedback loop is in keeping with complexity theory and observation.

Can we present a DEVS model that realistically models a biological system, without using an agent-oriented model?

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- **Model of Bone Marrow**
 - 20 species of cell
 - Very Complex life cycles
 - Too many models
- **Ecosystem Model**
 - Can be make arbitrarily simple
 - Builds on previous work

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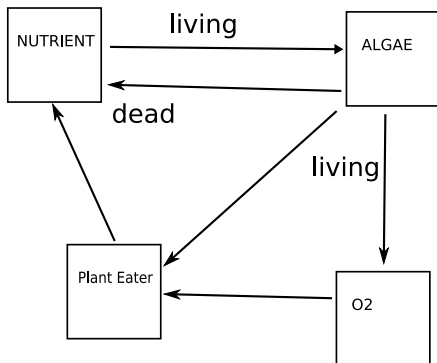
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Previous Model

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- Automated Life Ecosystem Simulator
- Agent Based
- Unpredictable behavior

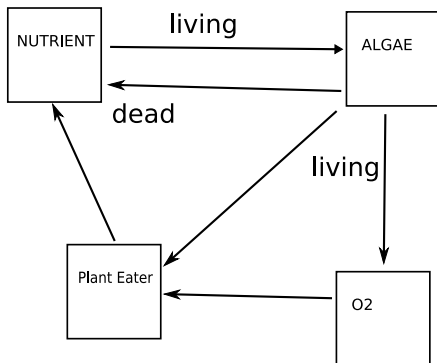


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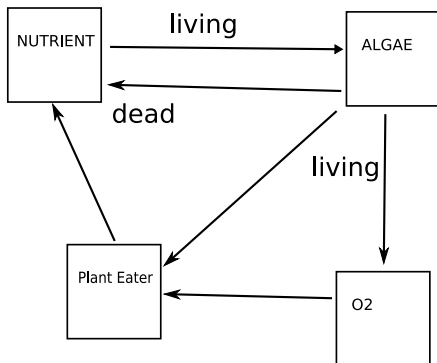


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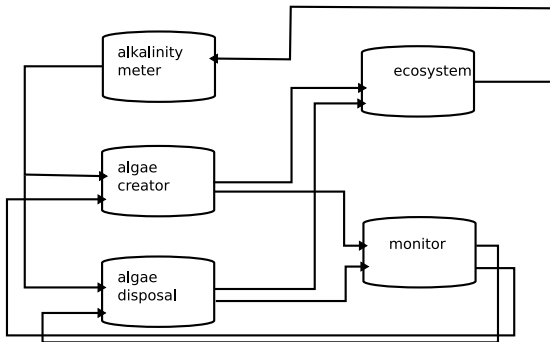
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Simplified Ecosystem

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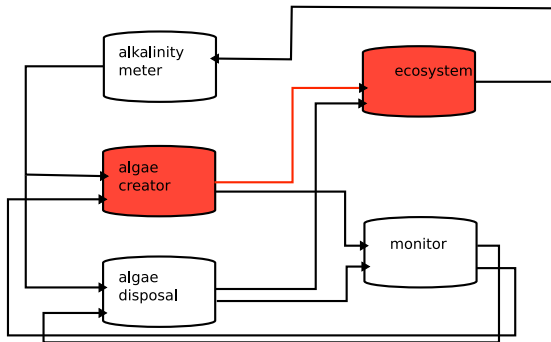
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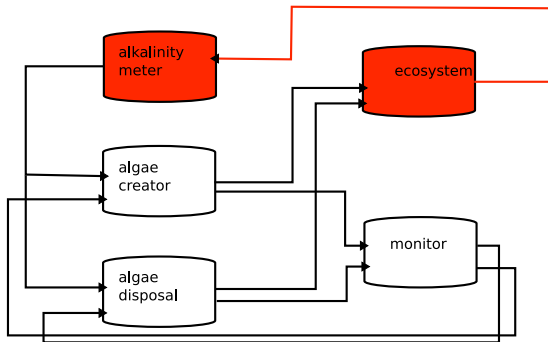
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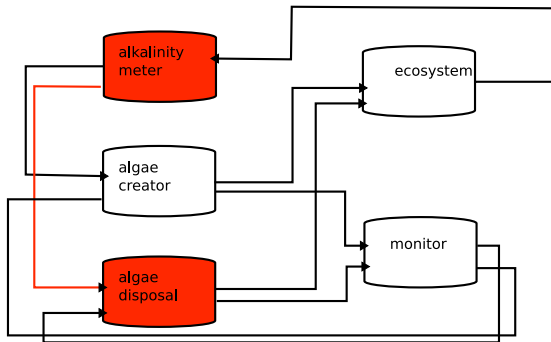
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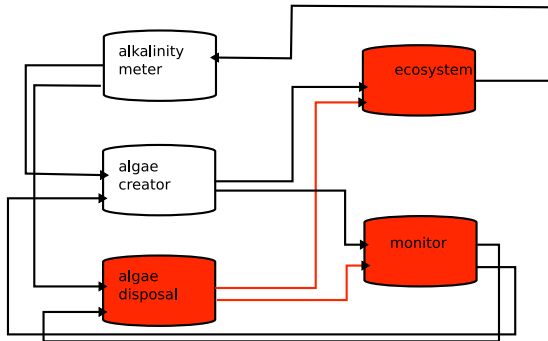
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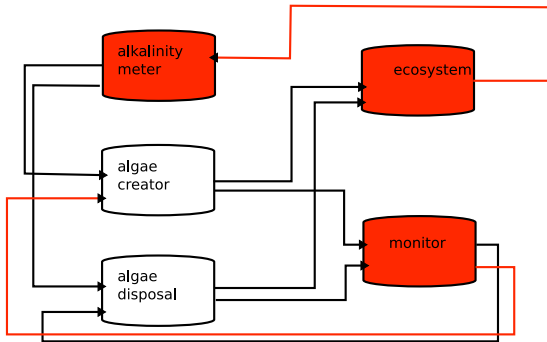
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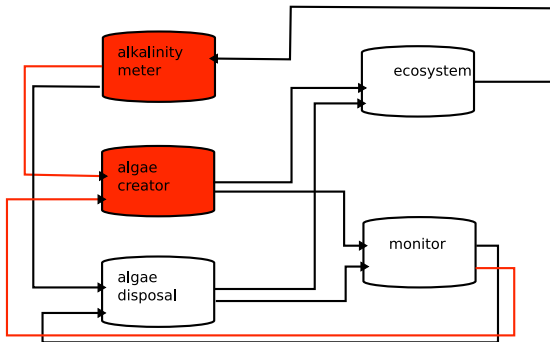
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