Production Models

2-3-2005

Opening Discussion

- Do you have any questions about the quiz?
- What did we talk about last class?

Code for Assignment #1

- Let's go look at code that I wrote in Java to solve the coding part of assignment #1.
- This code was designed to be flexible, but doesn't do anything more than was required.

Production Models

- By combining mathematical and logic operations with the superstates that we discussed last time, we can create formal state-based systems that are significantly more powerful and usable than an FSA.
- The reason for the extra usability in these systems is that we don't have to enumerate all states individually. We use patterns to match groups of states.
- To make it a formal simulation we need to attach time intervals to transitions.

Water Jug Example

- Your book goes through a nice example of this with a standard logic puzzle involving water jugs that is commonly used in AI.
- The normal problem is that given two jugs that hold 3 and 4 gallons, get exactly 2 gallons in the 4 gallon jug.
- Our system includes operations where we can fill or empty jugs as well as operations to move contents from one jug to another, either by pouring all of one or just enough to fill the other.

Logic Programming and Simulation

- We can to simulations in logic programming if we enhance it to do temporal logic. The text mentions a language called Tempura that extends Prolog style programming with temporal logic.
- In temporal logic, certain expressions can be said to be true at certain times. Standard logic would be like temporal logic with with only one time frame.

Minute Essay