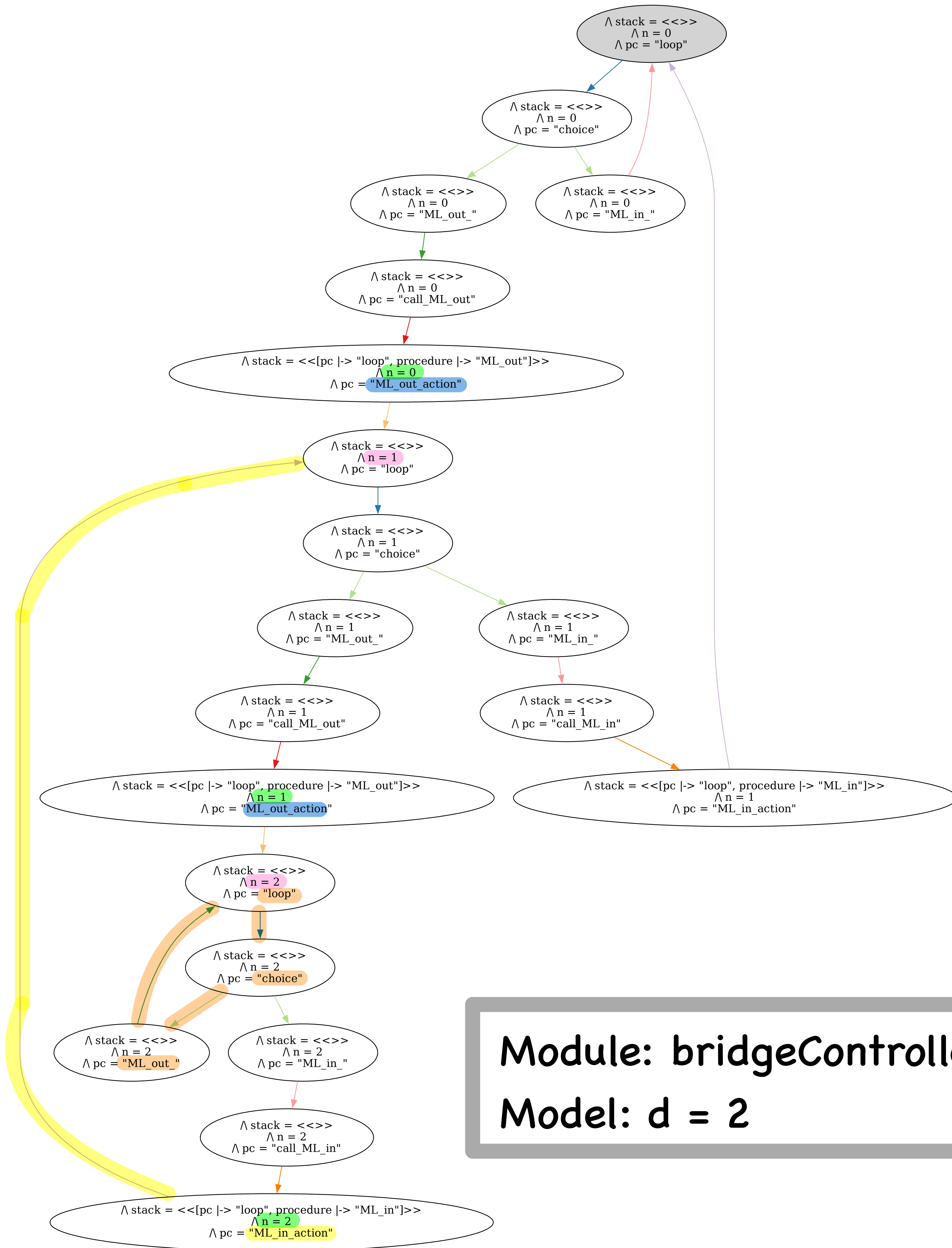


Lab 1 Solution Discussion: Roadmap

- Finite Reachability Graph from Unbounded Event Inerleavings
- Atomic vs. Non-Atomic Updates
- Encoding System Variant

Next State Actions							
ML_out_	ML_out_action	call ML_out	choice	ML_in_	ML_in_action	call ML_in	loop



Module: bridgeController_m0_unbounded_interleaving.tla
Model: d = 2

Lab 1 Solution Discussion: Atomic vs. Non-Atomic Updates

Multiple Labels for Procedure Actions

```
--algorithm bridgeController_m1 {
  variable n = 0, a = 0, b = 0, c = 0;

  procedure ML_out() {
    ML_out_action_abstract: n := n + 1;
    ML_out_action_concrete: a := a + 1;
    return;
  }
}
```

Single Labels for Procedure Actions

```
--algorithm bridgeController_m1 {
  variable n = 0, a = 0, b = 0, c = 0;

  procedure ML_out() {
    ML_out_action_abstract: n := n + 1;
                                a := a + 1;
                                return;
  }
}
```