Modeling Module 1

August 12, 2020

Outline

- ▶ What's a Model?
- State-Transition Systems (Kripke Strctures)
- ▶ Behaviors, Properties, and the Model Checking Problem
- Modeling and Abstraction
- Modeling Examples

- ▶ Bounded Satisfaction of a path: $\pi \models_k \phi$
 - ▶ SAT of π requires inspecting only a k-long (or shorter) π -prefix
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 - $\blacktriangleright M \models_{\kappa} \phi \implies M \models \phi$
 - why should such a K exist at all?