



## Appendix: Model Checking Tool Configurations

This supplementary section provides executable configurations for formal verification tools referenced in Section 7 of Part 1 (Theoretical Foundations). These configurations implement the state space definitions, temporal properties, and safety invariants formally specified in Part 1.

***Cross-Reference:*** *For theoretical foundations including state space definitions (Definition 1, Section 4 of Part 1) and temporal property specifications (CTL/LTL formulas), see Part 1: Theoretical Foundations, Section 7.*

### NuSMV Configuration

NuSMV is a symbolic model checker supporting CTL and LTL specifications. The following configuration models the CIF trust dynamics and belief integrity properties.

```
MODULE main
VAR
  -- Agent states
  agents: array 0..N-1 of agent;
  -- Trust matrix
```