

Property Description

- Behavior of a system depends on its sequencing and branching structure
 - ⇒ Need a logic to capture sequencing/branching properties
- 0-order (prop.) / 1st-order (predicate) logic capture properties of a state, and not their sequencing/branching structure.
 - ⇒ Need to endow 0-order/1st-order logic with Temporal operators to capture sequencing
Path operators to capture branching.
- Temporal operators:
 - X (next): specifies property of next state
 - F (Future): specifies property of future state
 - G (Globally): specifies global property of all current/future states
 - U (Until): specifies some property until some point in future where another property may hold
- Path operators:
 - A (forAll): specifies property of all paths
 - E (Exists): specifies property of some path.