

Class: Template Generator

Super Class:

Sub Class:

Responsibility:

Combine Everything

Collaboration:

CP, Scope,
Pattern,
Operator,
Formula

Contract: Get input from user

Class: Formula

Super Class:

Sub Class:

Responsibility:

Contain hard coded formulas
Tables 1,3,4,5

Collaboration:

Contract:

Class: Scope

Super Class:

Sub Class:

Responsibility:

Know range of execution

Know the scope of property

Collaboration:

Formula

Contract: Determine table for pattern used

Class: Before R

Super Class: Scope

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Global

Super Class: Scope

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: After L until R

Super Class: Scope

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: After L

Super Class: Scope

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Between L and R

Super Class: Scope

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Pattern

Super Class:

Sub Class:

Responsibility:

Execution Time

LTL Formula

Table

Collaboration:

Formula

Scope

Contract: Gets "LTL formula from table

Class: Absence

Super Class: Pattern

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Existence

Super Class: Pattern

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Universality

Super Class: Pattern

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Precedence

Super Class: Pattern

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Response

Super Class: Pattern

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Strict Precedes

Super Class: Pattern

Sub Class:

Responsibility:

Collaboration:
Proposition

Contract:

Class: Proposition

Super Class: Pattern

Sub Class: Atomic Preposition, Composite Preposition

Responsibility:

Proposition Type

LTL Description

Collaboration:

Formula (Table 1)

Contract: Replace CPs with LTL description

Class: Atomic Proposition

Super Class: Proposition

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Composite Composition

Super Class: Proposition

Sub Class: At least one, Consecutive, Parallel, Eventual

Responsibility:

Collaboration:

Conditional

Event

Hold

Contract:

Class: Eventual

Super Class: Composite Proposition

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Parallel

Super Class: Composite Proposition

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: At Least One

Super Class: Composite Proposition

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: Consecutive

Super Class: Composite Proposition

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: And Operator

Super Class: Operator

Sub Class: New And R, New And Minus L, New And L

Responsibility:

LTL description
CPs

Collaboration:

Composite Preposition

Contract: Replace & with logic from section 4

Class: New And L

Super Class: And Operator

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: New And Minus L

Super Class: And Operator

Sub Class:

Responsibility:

Collaboration:

Contract:

Class: New And R

Super Class: And Operator

Sub Class:

Responsibility:

Collaboration:

Contract:

Useless Classes?

These are some of the classes we believed to not hold any responsibility or usage, however we are unsure if they might be needed later

- Proposition Type
- Event
- Conditional
- Hold
- Operator
- Imply
- Or (Disjunction)
- And (Conjunction)
- Not (Negation)
- Temporal Operator
- Until
- Eventually
- Always
- NextBoolean Operator