

How to use [LTL2Buchi \(slightly modified\)](#) for LTL parsing and retrieving predicates/events from LTL formulas

A code example on Github: <https://github.com/kicker10BOG/LTL-Example>

Example explained:

To parse the LTL formulas and get the predicates/events, the `Formula` class from the `LTL2buchi` library is used. The `Formula.parse(String)` method returns the formula as a `Formula` object if it is valid. If it is not valid, the method throws a `ParseException`.

To get the predicates/events from a formula, use the `Formula.getPredicates(String)` method. This method requires that the predicates conform to the following regular expression: `([a-z][a-zA-Z0-9]*)`. This method will return an array of strings containing the predicates/events in the order they appear in the formula.

lines 8-53: Creates a `String` array containing LTL formulas to be tested. Note that to have a `'\'` in a regular Java string, it must be escaped like `'\\'`.

line 54: The loop is started

line 55: The beginning of the `try` code block. The `Formula.parse(String)` method must be in a `try` block.

line 56: Just printing the formula so we know which formula is being parsed

line 57: The formula is parsed. If it is valid, a `Formula` object is returned. If it is not valid, a `ParseException` is thrown.

line 58: Gets the predicates in an array of `Strings`.

lines 59-61: Prints the predicates of the formula.

lines 63-66: Catch the `ParseException` if it is thrown.