

JParsec

Aaron Karper

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What is Parsing?

- Converting a text into internal representation.
- Usually more complex than RegEx.

What is JParsec?

- A monadic parser combinator.
- Fitted for a top-down approach to parsing.
- Declarative, not imperative.

The Project

A turing machine description language

>even

:evenEnd

:oddEnd

even o \Rightarrow odd o R

odd o \Rightarrow even o R

even _ \Rightarrow evenEnd _ N

odd _ \Rightarrow oddEnd _ N

Parser<List<Expression>>

A TM description is a bunch of expressions separated by newlines

```
Parser<List<Expression>> expParser =  
    expression()  
        .sepBy(Scanners.string("\n"));
```

.map

In order to convert a `Parser<A>` to `Parser`, you have to `.map` it with a `Map<A,B>`.

```
Parser<TuringMachine> turingparser = expParser.map(  
    new org.codehaus.jparsec.functors.Map<List<  
        Expression>, TuringMachine>() {  
public TuringMachine map(List<Expression> arg0) {  
    return compileTuringMachine(arg0);  
}}});
```