

# Bart's blog

A blog about software development.

TUESDAY, MARCH 01, 2011

## Creating your own programming language with ANTLR.

Hi, and welcome to my blog. I am Bart Kiers, a software developer from Rotterdam, the Netherlands. I also do some freelance work now and then (my company: [Big O software](#)).

From time to time I answer questions about [ANTLR](#) on [Stackoverflow](#), and while doing so, I see many people using ANTLR up to a certain point and then ask themselves: *"Okay, how do I proceed from here on? What do I do after creating an **AST** from my source code?"*. I hope to answer those questions by creating a small programming language called *Tiny Language* (TL henceforth) that will be parsed by ANTLR and then interpreted using plain Java code.

Don't worry if certain things are (already) a bit vague: I'll write the coming blogs in such a way that people without prior ANTLR experience and without a Computer Science background can follow them. Or, better said: I hope they will! The only thing you need to know is Java.

This tutorial consists of the following parts:

1. [TL specification](#)
2. [Introduction to ANTLR](#)
3. [Lexical analysis of TL](#)
4. [Syntactic analysis of TL](#)
5. [Building an AST](#)
6. [Creating a \*tree grammar\*](#)
7. [Interpreting and evaluating TL I](#)
8. [Interpreting and evaluating TL II](#)
9. [Room for improvement & recommendations](#)

Posted by Bart Kiers at **2:21 PM**  
Labels: [antlr](#), [dsl](#), [java](#), [parsing](#)

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