

SmaCC: The Smalltalk Compiler-Compiler
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 (<http://www.refactory.com/Software/SmaCC>)

Tutorial

This is a walk-through tutorial to demonstrate many of the features of SmaCC, the Smalltalk Compiler Compiler. In this example, we will incrementally develop a simple calculator.

Our first calculator is going to be relatively simple. It is going to take two numbers and add them together. To start things off, we have to tell the scanner how to recognize a number. It starts with one or more digits, possibly followed by an decimal point with zero or more digits after it. The scanner definition for this token is:
`<number> : [0-9]+ (\.[0-9]*) ? ;`

Enter that line into the scanner tab on the interface. Let's go over each part:

`<number>`

Names the token. The name inside the `<>` must be a legal Smalltalk variable name.

`:`

Separates the name of the token from the token's definition.

`[0-9]`

Matches any single character in the range '0' to '9' (a digit).

`+`

Matches the previous expression one or more times. In this case, we are matching one or more digits.

`(...)`

Groups subexpressions.