

PetitParser Compiler

Jan Kurš & Jan Vraný

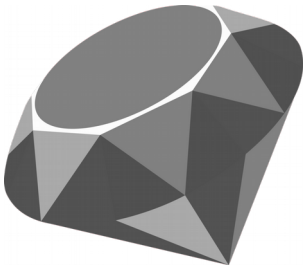
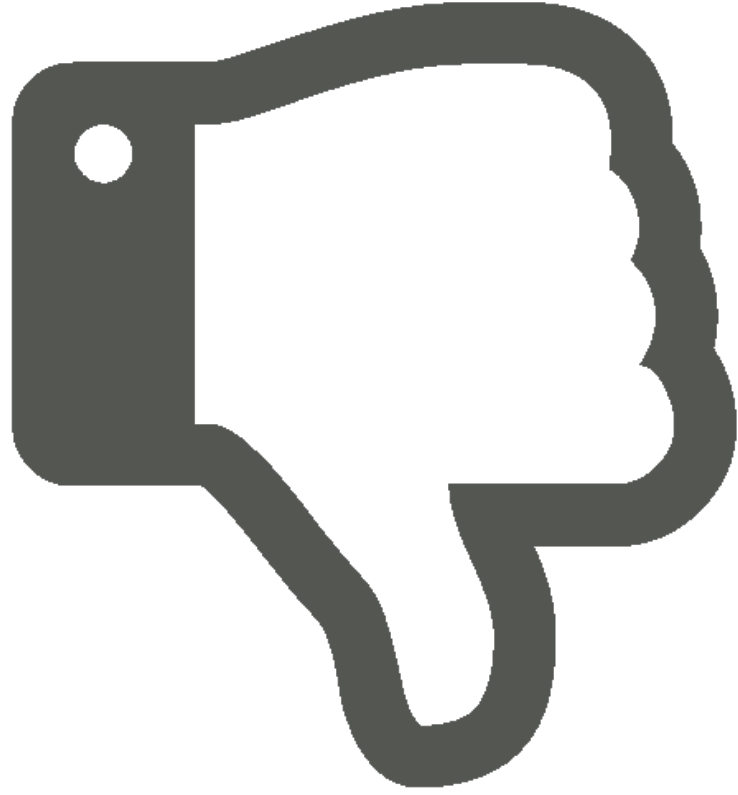
Mohammad Ghafari, Mircea Lungu and

Oscar Nierstrasz



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**UNIVERSITÄT
BERN**





Parsing
Contexts



Furthest
Failure

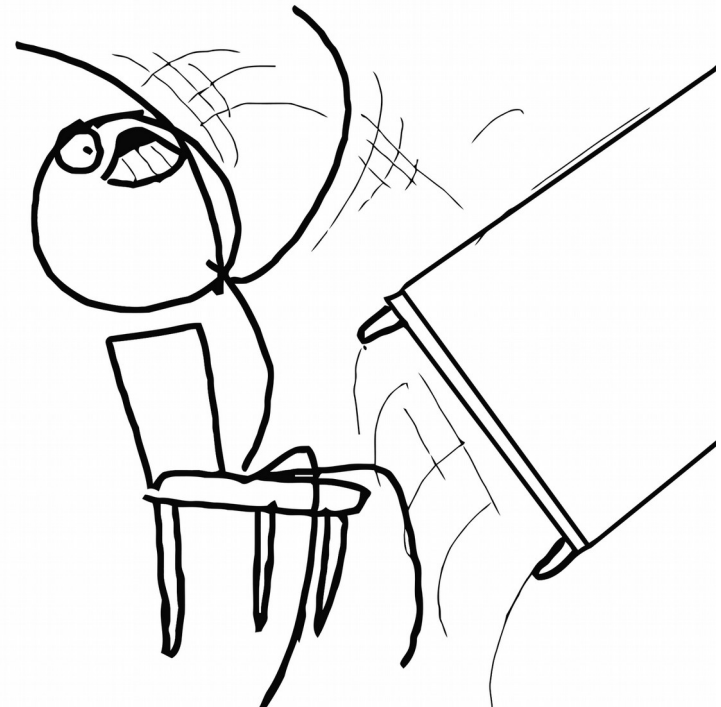
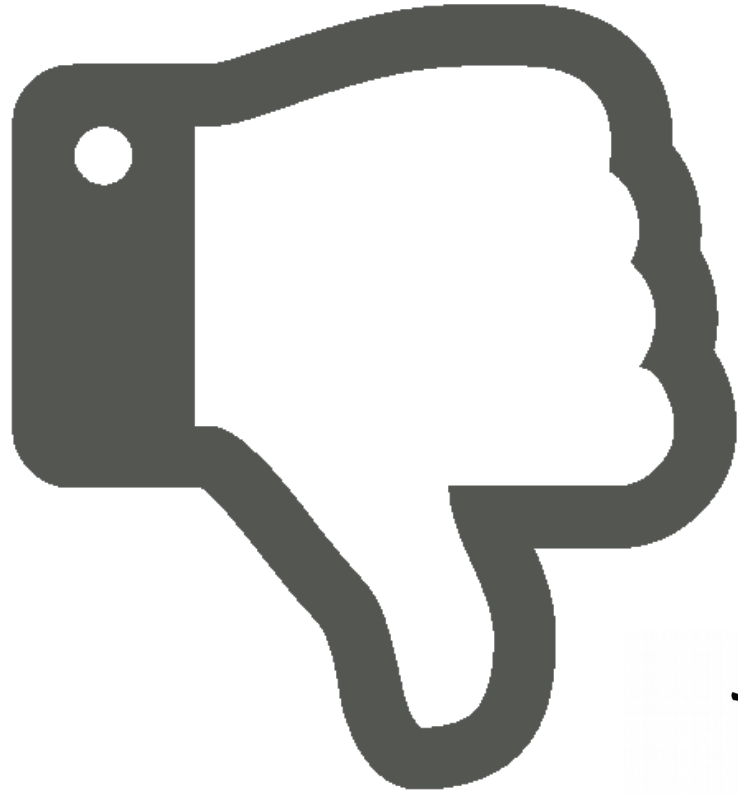


Layout-
sensitivity



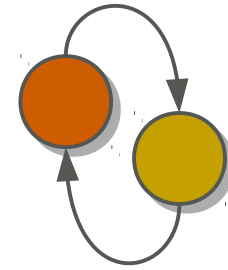
Bounded
Seas



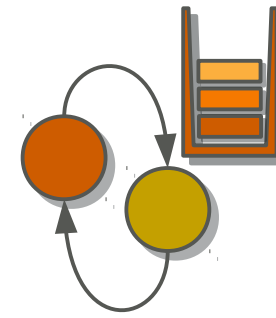




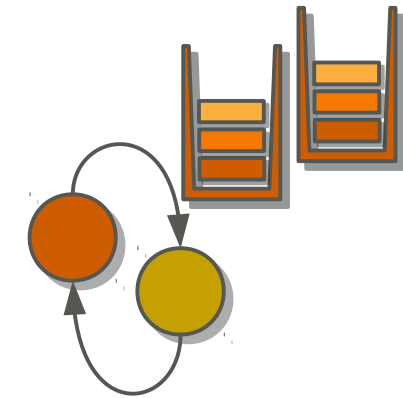
id ← #letter #word*



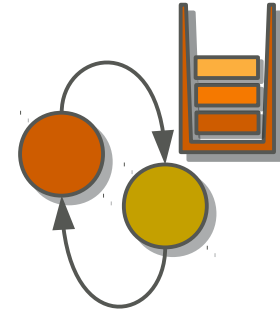
expr ← term /
 '(' expr ')' /
 ...



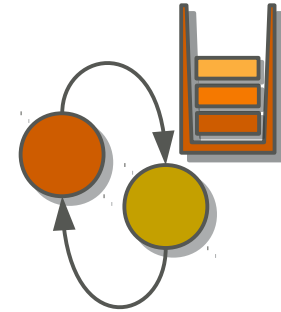
block ← #INDENT
 expr /
 block /
 ...
 #DEDENT



id ← #letter #word*



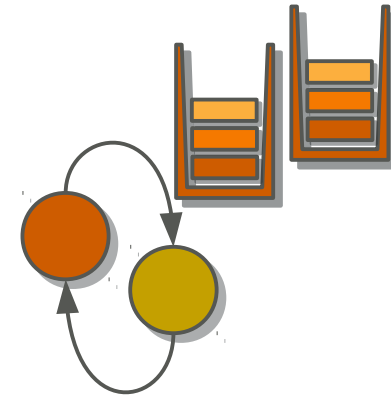
expr ← term /
 '(' expr ')' /
 ...



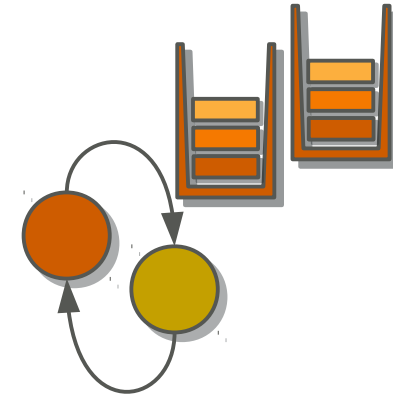
block ← #INDENT
 expr /
 block /
 ...
 #DEDENT



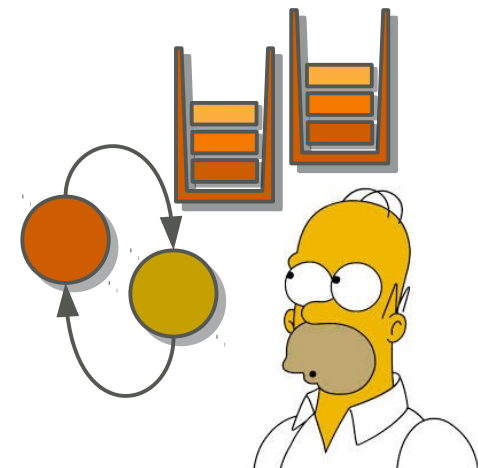
id ← #letter #word*



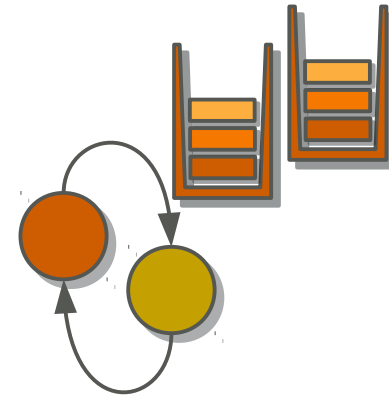
expr ← term /
 '(' expr ')' /
 ...



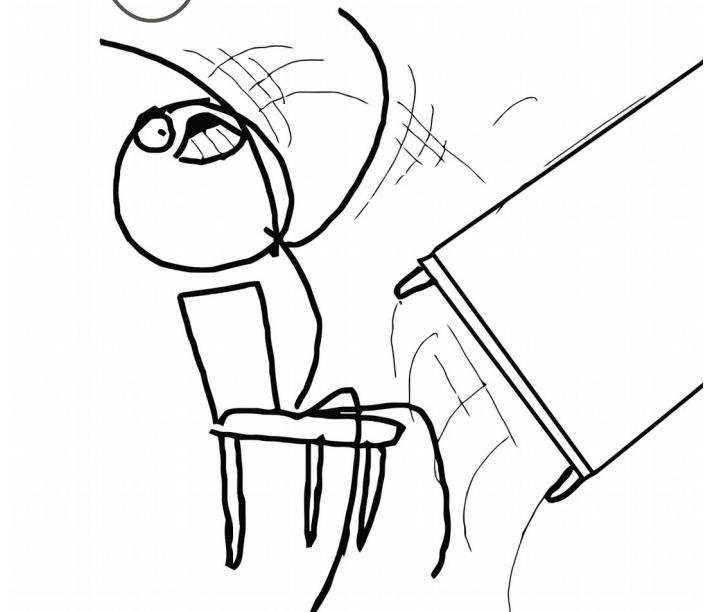
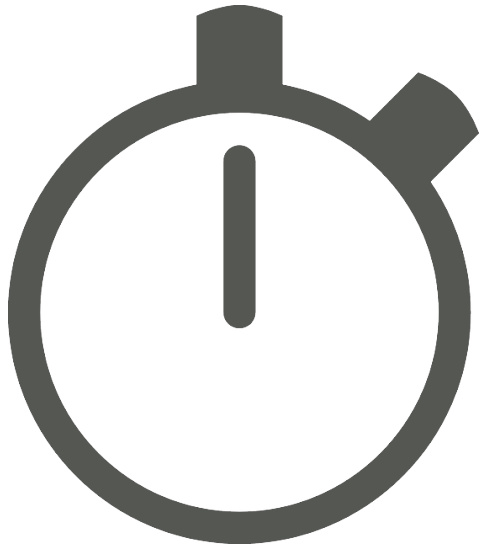
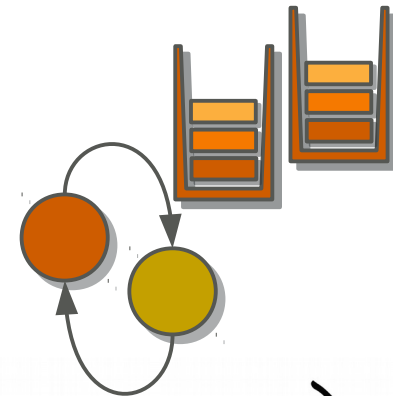
block ← #INDENT
 expr /
 block /
 ...
 #DEDENT



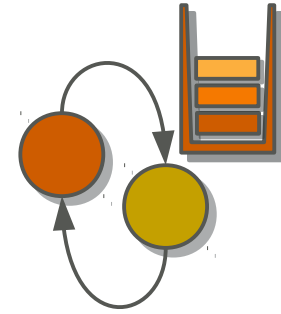
id ← #letter #word*



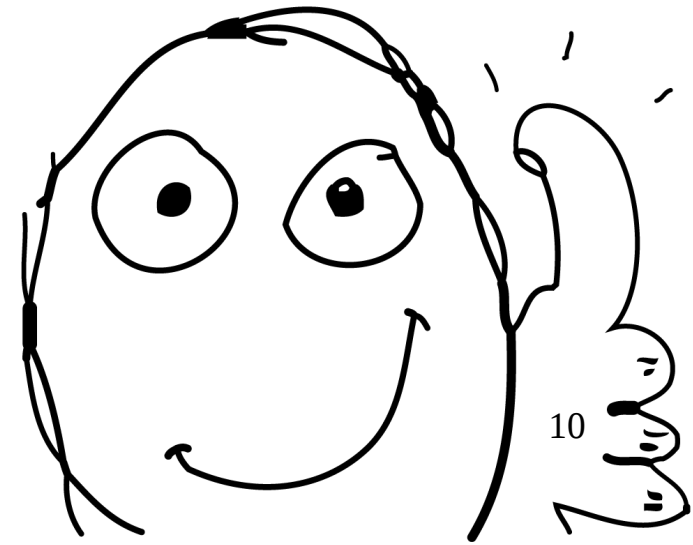
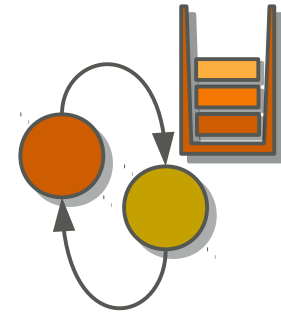
expr ← term /
 '(' expr ')' /
 ...



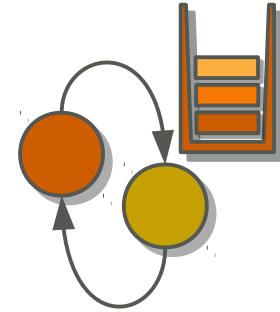
id ← #letter #word*



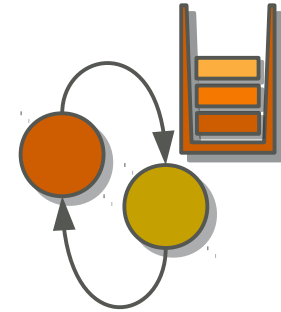
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 '(' expr ')' /
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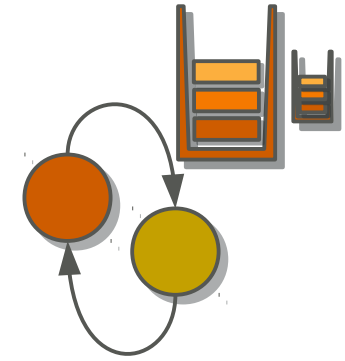
expr ← term /
 '(' expr ')' /
 ...



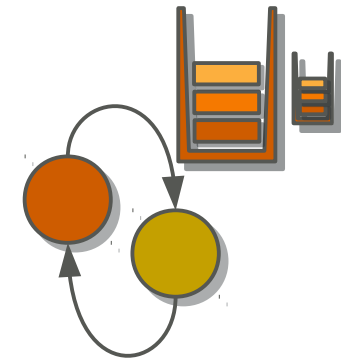
block ← #INDENT
 expr /
 block /
 ...
 #DEDENT



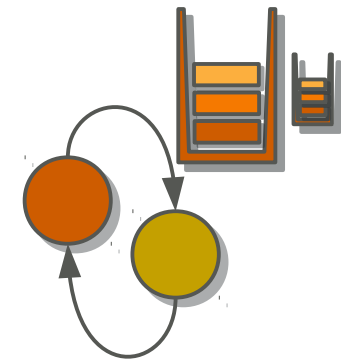
id ← #letter #word*



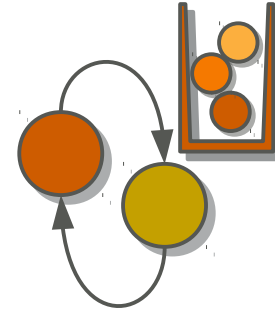
expr ← term /
 '(' expr ')' /
 ...



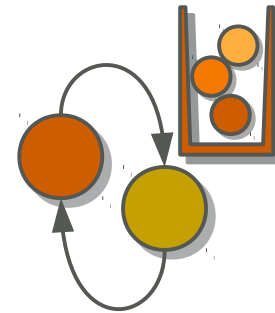
block ← #INDENT
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 block /
 ...
 #DEDENT



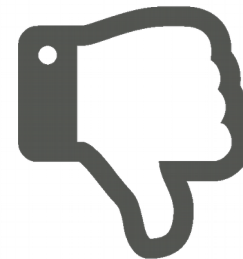
id ← #letter #word*



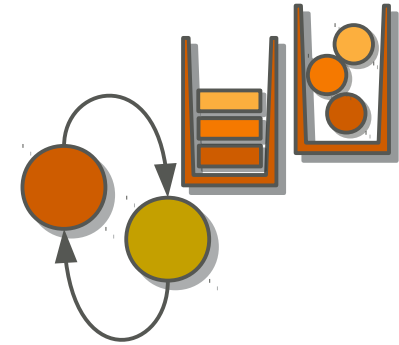
expr ← term /
 '(' expr ')' /
 ...



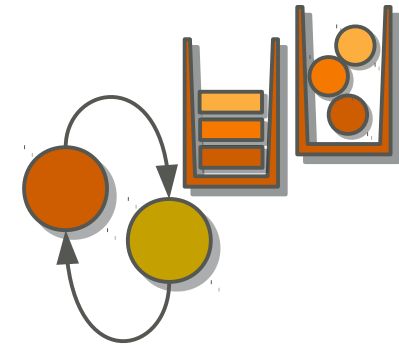
block ← #INDENT
 expr /
 block /
 ...
 #DEDENT



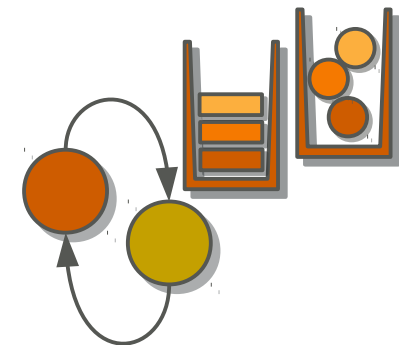
id ← #letter #word*



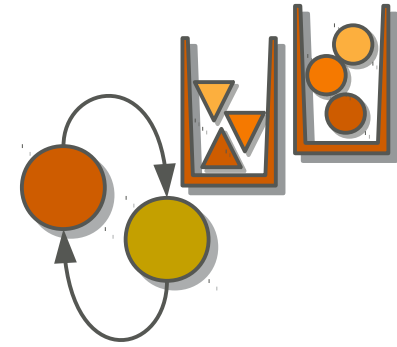
expr ← term /
 '(' expr ')' /
 ...



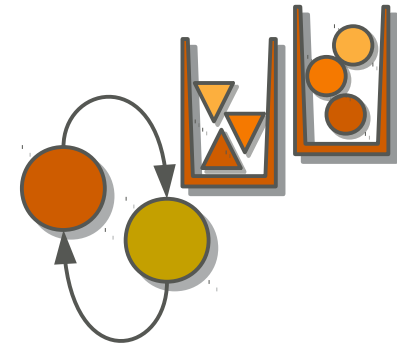
block ← #INDENT
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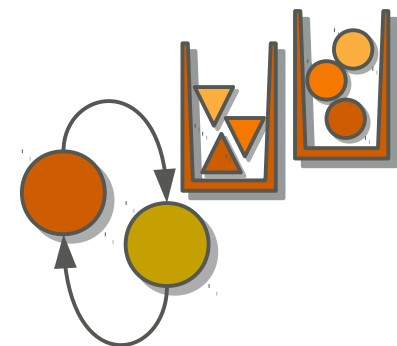
id ← #letter #word*

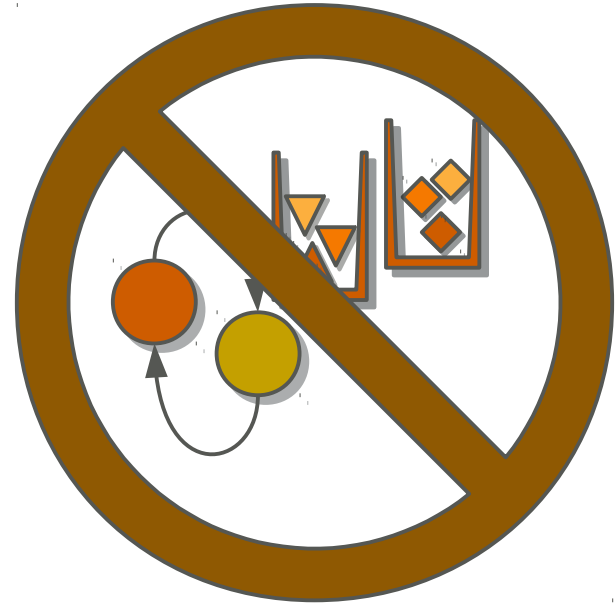


expr ← term /
 '(' expr ')' /
 ...



block ← #INDENT
 expr /
 block /
 ...
 #DEDENT

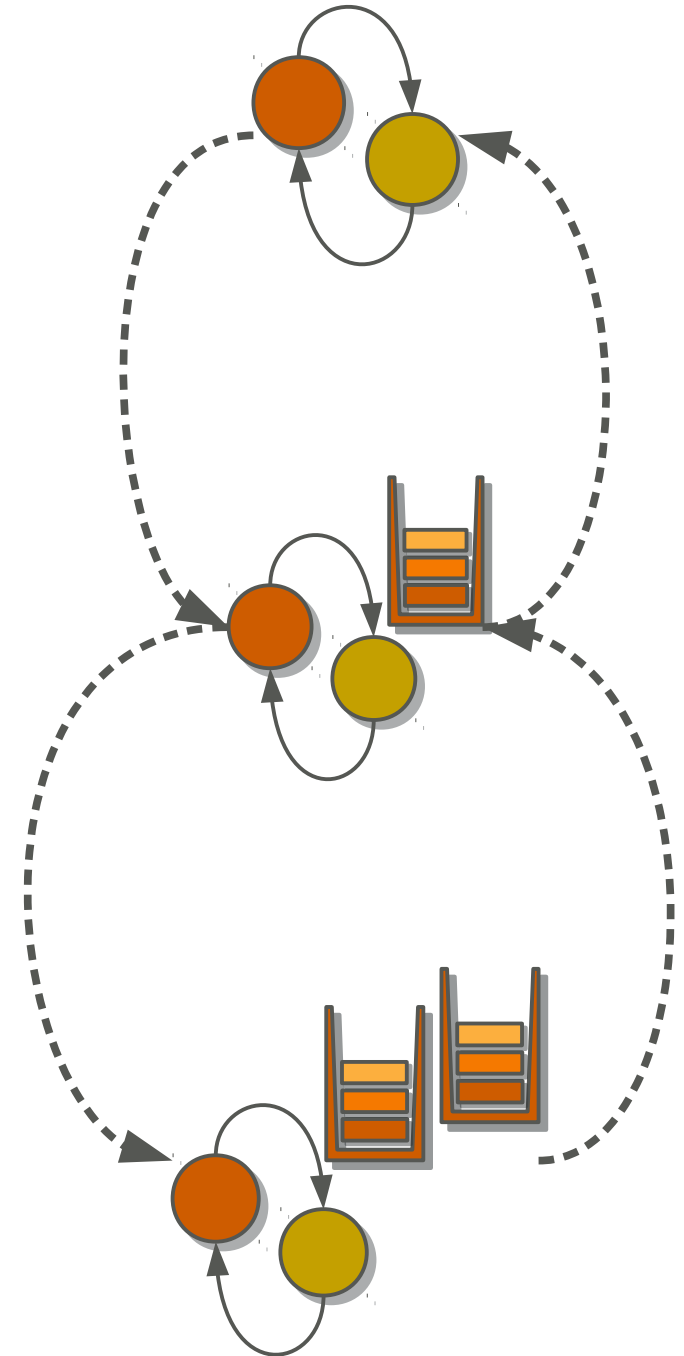


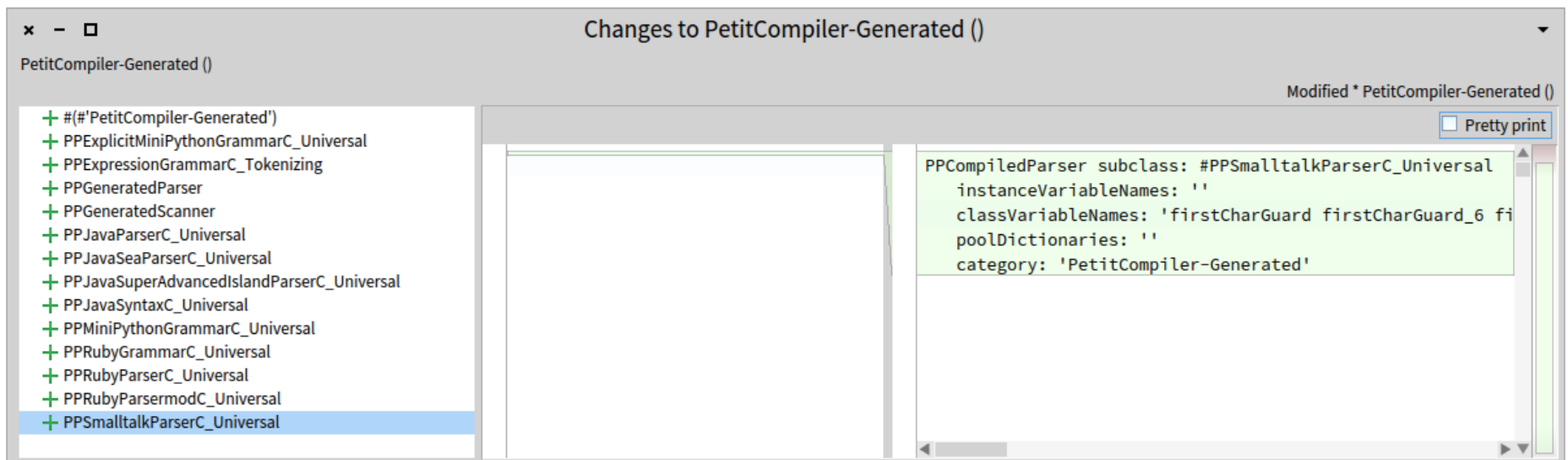
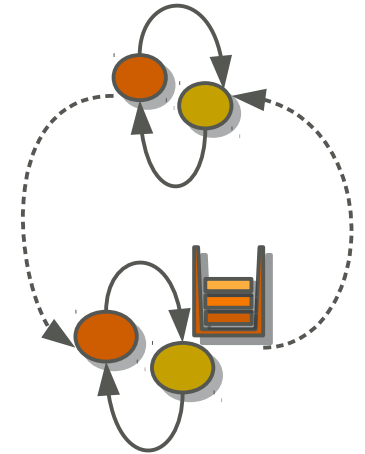
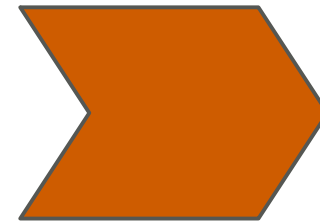
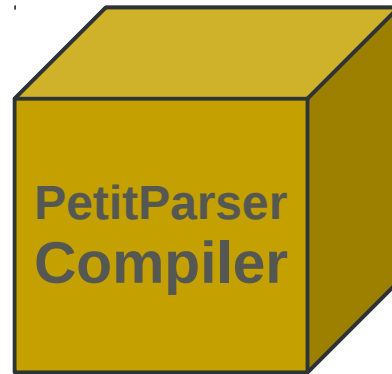
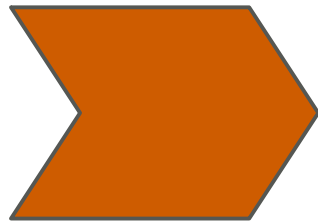


id ← #letter #word*

expr ← term /
 '(' expr ')' /
 ...

block ← #INDENT
 expr /
 block /
 ...
 #DEDENT





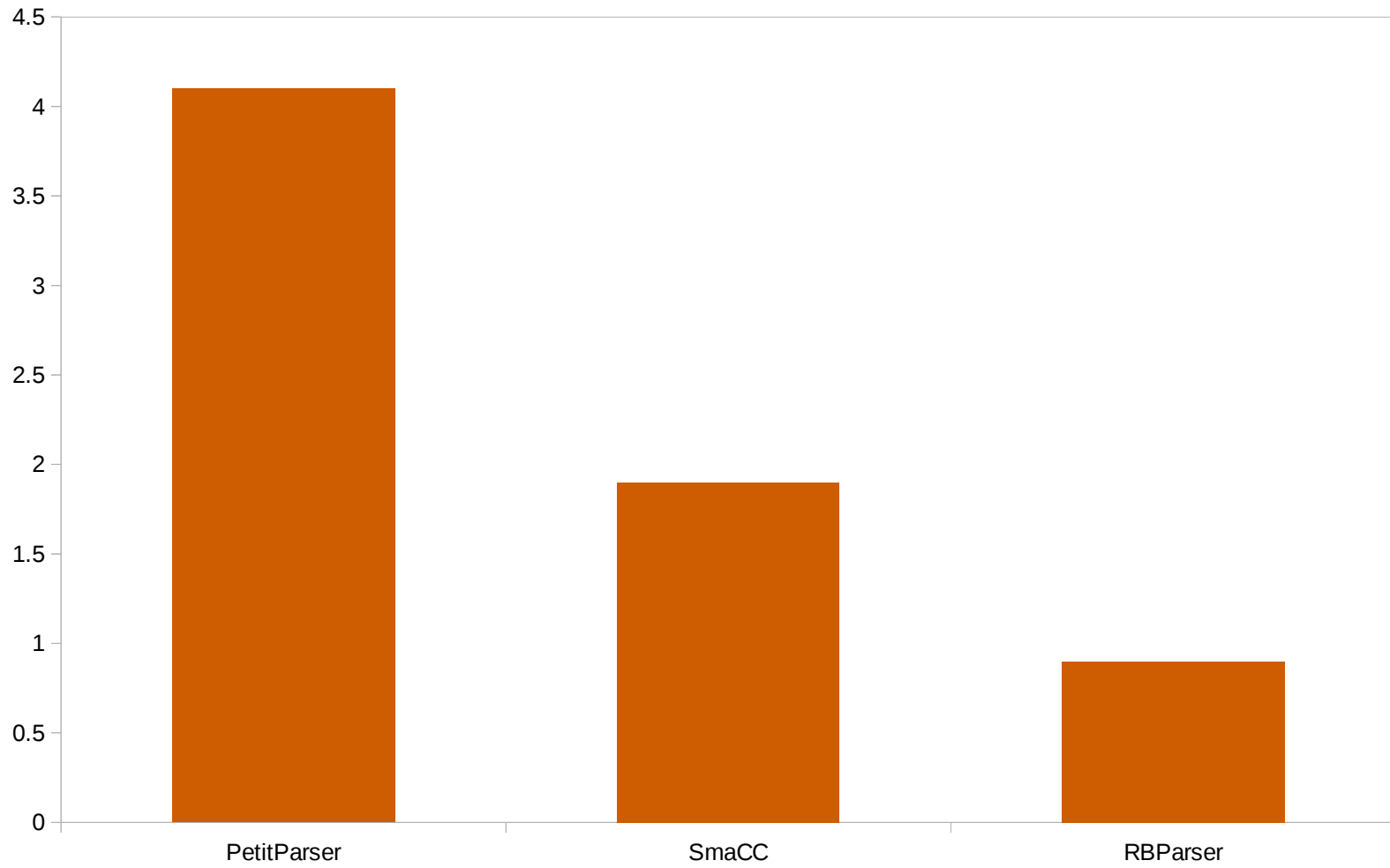


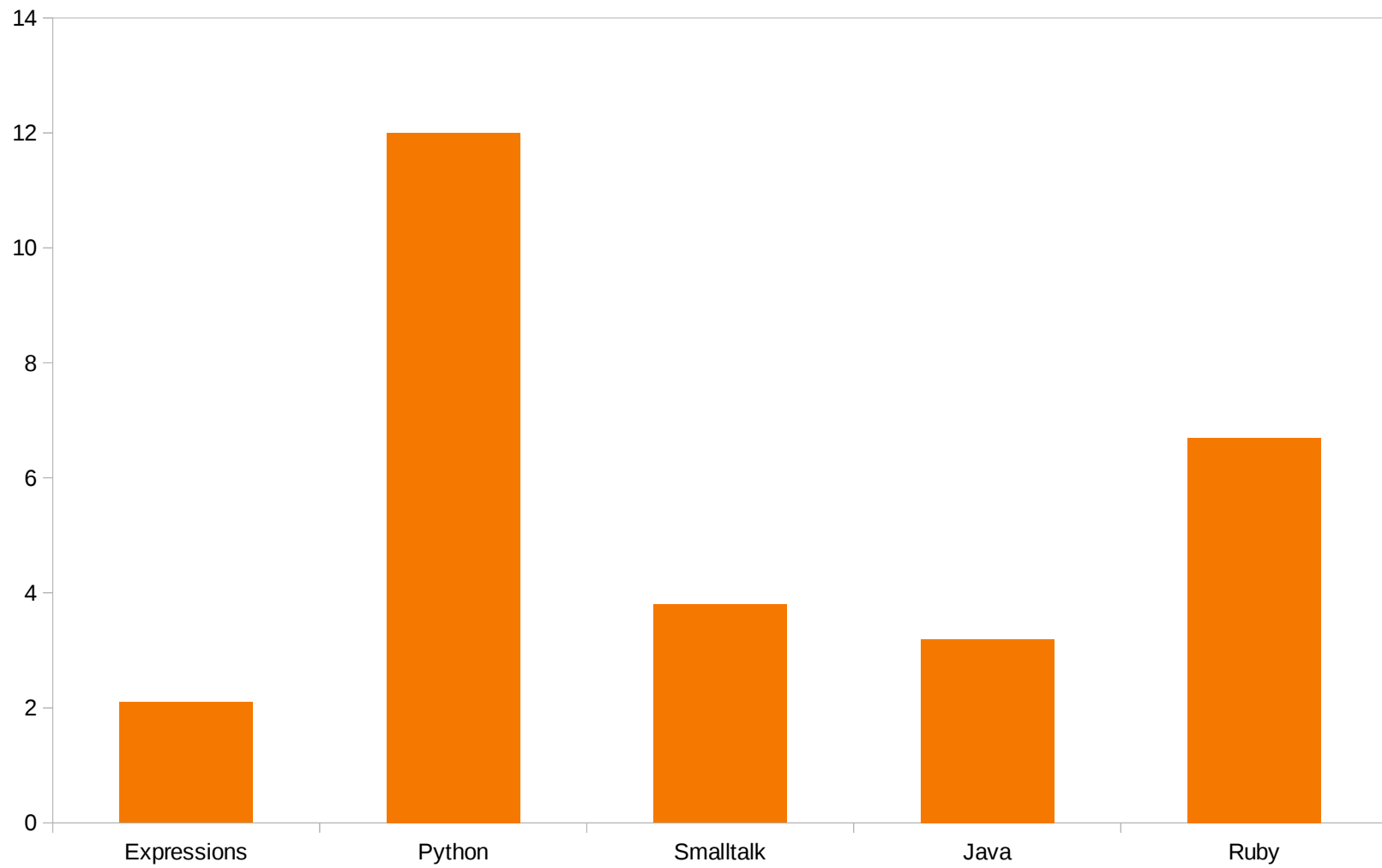
10k methods of Pharo code

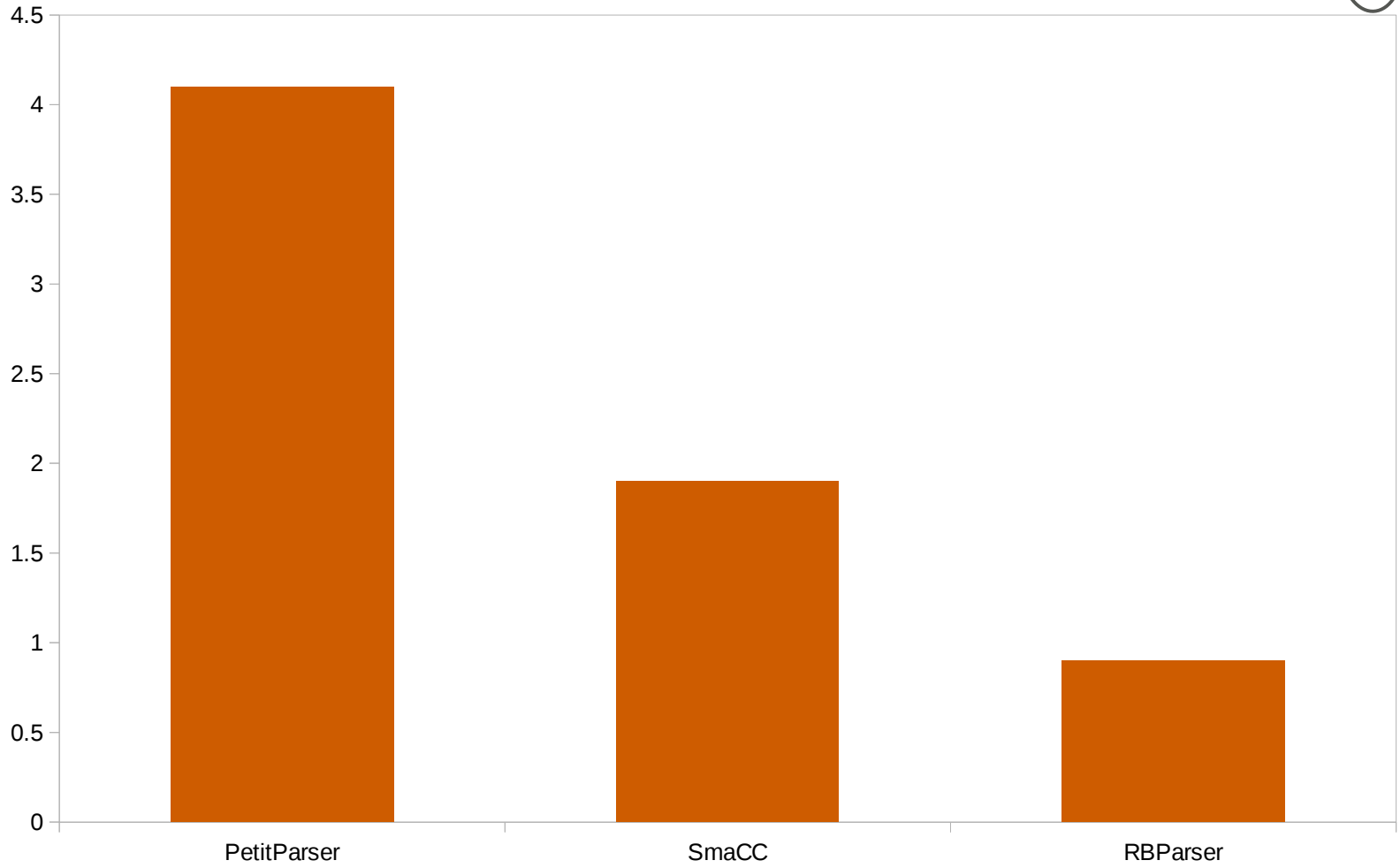
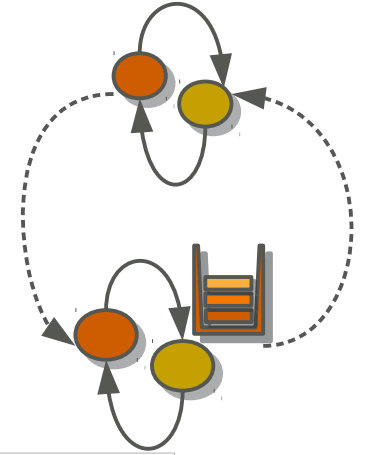
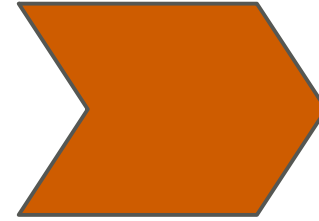
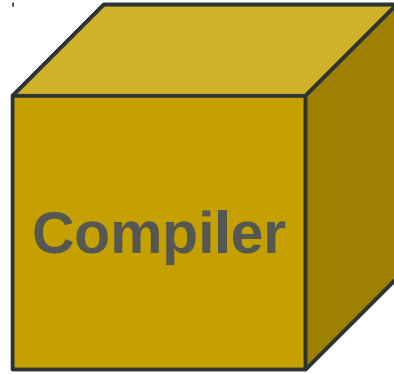
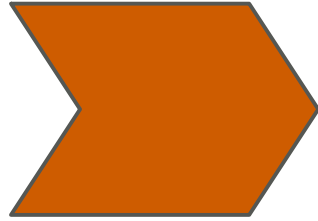
3 parsers

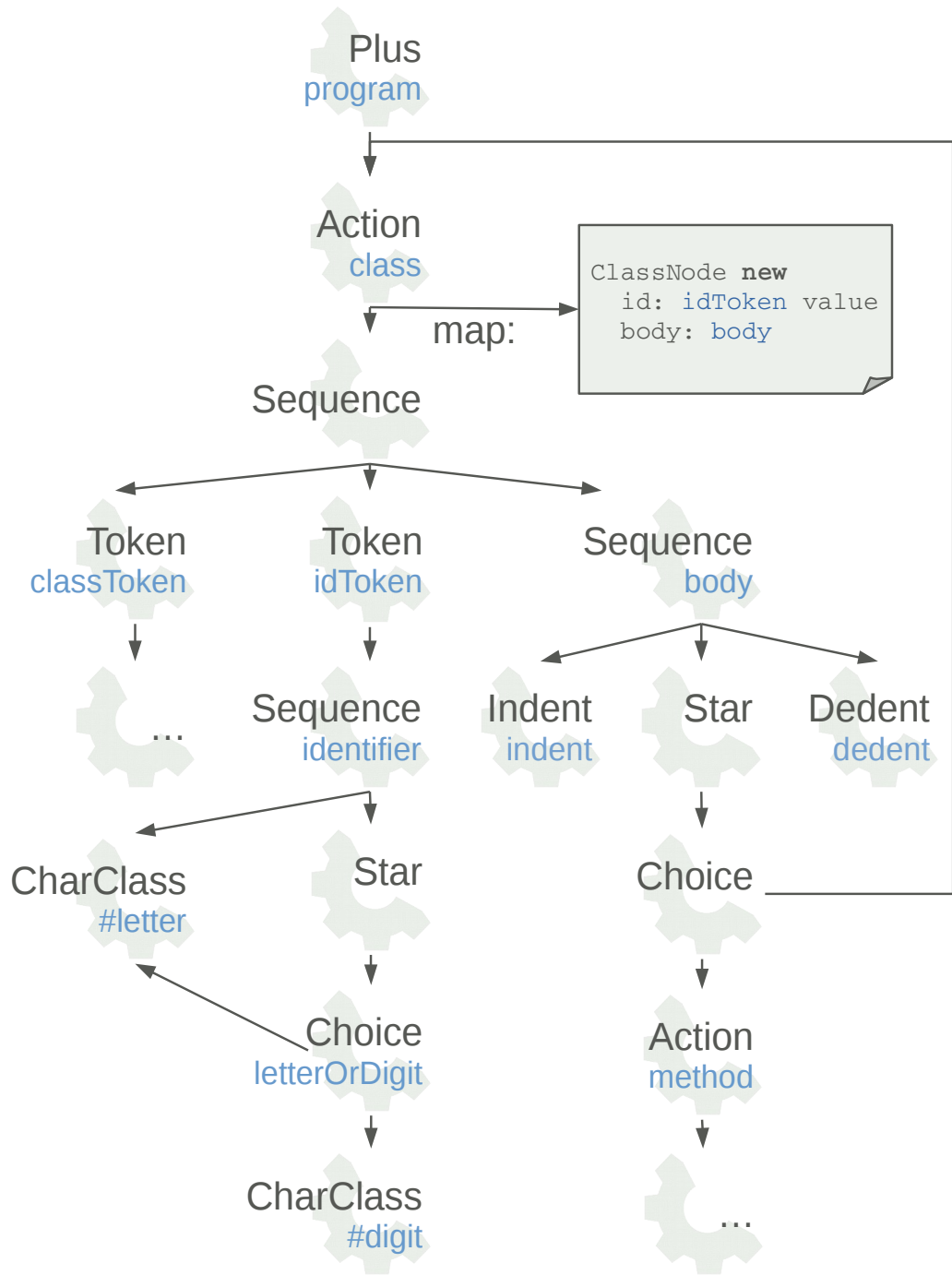
Compared to Compiled PetitParser

Speedup









Time per Character of Smalltalk

