

The Language XLE_CONFIG

BNF-converter

October 25, 2016

This document was automatically generated by the *BNF-Converter*. It was generated together with the lexer, the parser, and the abstract syntax module, which guarantees that the document matches with the implementation of the language (provided no hand-hacking has taken place).

The lexical structure of XLE_CONFIG

Literals

MyIdent literals are recognized by the regular expression $(\langle letter \rangle \mid \langle digit \rangle \mid \text{'_'})(\langle letter \rangle \mid \langle digit \rangle \mid \text{'_'} \mid \text{'-'})^*$

FileName literals are recognized by the regular expression $(\langle letter \rangle \mid \langle digit \rangle \mid \text{'_'})(\text{'.'}(\langle letter \rangle \mid \langle digit \rangle \mid \text{'_'} \mid \text{'-'}) \mid \langle letter \rangle \mid \langle digit \rangle \mid \text{'_'} \mid \text{'-'})^*$

Reserved words and symbols

The set of reserved words is the set of terminals appearing in the grammar. Those reserved words that consist of non-letter characters are called symbols, and they are treated in a different way from those that are similar to identifiers. The lexer follows rules familiar from languages like Haskell, C, and Java, including longest match and spacing conventions.

The reserved words used in XLE_CONFIG are the following :

BASECONFIGFILE	EPSILON	FEATURES
FILES	GENOPTIMALITYORDER	GOVERNABLERELATIONS
GRAMMARVERSION	LEXENTRIES	MORPHOLOGY
NOGOOD	NONDISTRIBUTIVES	OPTIMALITYORDER
OTHERFILES	PERFORMANCEVARSFILE	REPARSECAT
ROOTCAT	RULES	SEMANTICFUNCTIONS
TEMPLATES		

The symbols used in XLE_CONFIG are the following :

+ - (
) ? *
 .

Comments

There are no single-line comments in the grammar.
 Multiple-line comments are enclosed with " and ".

The syntactic structure of XLE_CONFIG

Non-terminals are enclosed between \langle and \rangle . The symbols $::=$ (production), $|$ (union) and ϵ (empty rule) belong to the BNF notation. All other symbols are terminals.

```

 $\langle SETTING \rangle ::= \langle ListAV \rangle$ 

 $\langle AV \rangle ::=$ 
  ROOTCAT  $\langle MyIdent \rangle$ 
  |
  FILES  $\langle ListFNAMES \rangle$ 
  |
  OTHERFILES  $\langle ListFNAMES \rangle$ 
  |
  BASECONFIGFILE  $\langle FNAMES \rangle$ 
  |
  PERFORMANCEVARSFILE  $\langle FNAMES \rangle$ 
  |
  GRAMMARVERSION  $\langle GRAMVERSION \rangle$ 
  |
  LEXENTRIES  $\langle ListENTRIES \rangle$ 
  |
  RULES  $\langle ListENTRIES \rangle$ 
  |
  TEMPLATES  $\langle ListENTRIES \rangle$ 
  |
  MORPHOLOGY  $\langle ListENTRIES \rangle$ 
  |
  FEATURES  $\langle ListENTRIES \rangle$ 
  |
  GOVERNABLERELATIONS  $\langle ListCATS \rangle$ 
  |
  SEMANTICFUNCTIONS  $\langle ListCATS \rangle$ 
  |
  NONDISTRIBUTIVES  $\langle ListCATS \rangle$ 
  |
  EPSILON  $\langle MyIdent \rangle$ 
  |
  OPTIMALITYORDER  $\langle ListOPTTOKS \rangle$ 
  |
  GENOPTIMALITYORDER  $\langle ListOPTTOKS \rangle$ 
  |
  REPARSECAT  $\langle MyIdent \rangle$ 

 $\langle FNAMES \rangle ::=$ 
   $\langle FileName \rangle$ 
  |
   $\langle MyIdent \rangle$ 
  |
  +  $\langle FileName \rangle$ 
  |
  +  $\langle MyIdent \rangle$ 
  |
  -  $\langle FileName \rangle$ 
  |
  -  $\langle MyIdent \rangle$ 

```

$$\begin{aligned}
\langle ListFNAMES \rangle & ::= \epsilon \\
& | \quad \langle FNAMES \rangle \langle ListFNAMES \rangle \\
\langle GRAMVERSION \rangle & ::= \langle MyIdent \rangle \\
\langle ENTRIES \rangle & ::= (\langle MyIdent \rangle \langle MyIdent \rangle) \\
\langle ListENTRIES \rangle & ::= \epsilon \\
& | \quad \langle ENTRIES \rangle \langle ListENTRIES \rangle \\
\langle CATS \rangle & ::= \langle MyIdent \rangle \\
& | \quad \langle MyIdent \rangle ? + \\
\langle ListCATS \rangle & ::= \epsilon \\
& | \quad \langle CATS \rangle \langle ListCATS \rangle \\
\langle OPTTOKS \rangle & ::= NOGOOD \\
& | \quad \langle MyIdent \rangle \\
& | \quad * \langle MyIdent \rangle \\
& | \quad + \langle MyIdent \rangle \\
\langle ListOPTTOKS \rangle & ::= \epsilon \\
& | \quad \langle OPTTOKS \rangle \langle ListOPTTOKS \rangle \\
\langle ListAV \rangle & ::= \epsilon \\
& | \quad \langle AV \rangle . \langle ListAV \rangle
\end{aligned}$$