

# **FeatureList xText EBNF Version 2.0**

- **Core Features:**

1. BNF front-end (Parser, Lexer, Linker, etc.)
2. translates a textual representation into an Ecore model
3. Editor - provides IDE features, e.g. auto-completion, syntax highlighting, etc.

- **Validation Rules:** these rules will give warnings in the editor if they find inconsistencies in the code

1. *checkUpdateGrammarConsistency*: checks, if the grammar is an updated grammar, for consistencies between the originals and the new grammar

status: not migrated

2. *!CheckReferencedOnlyOnce*: this should warn if there is a rule that is only referenced once, this is an inlining hint e.g.:

status: migrated

3. *checkPassthroughRule*: e.g.:this tests if a rule gets just passed through  $a ::= b \mid b ::= \text{"literal"} \Leftrightarrow a ::= \text{"literal"}$ , which is better for EBNF

status: migrated

4. *checkEqualAlternative*: this tests if a rule got equal alternatives e.g.:  $a ::= d \mid d$  status: still some problems

status: migrated

5. *checkDuplicateRules*: checks if there is another rule in the EtsiBnf?, that got the same behaviour e.g.:  $a ::= \text{"literal"} \mid b \mid c ::= \text{"literal"} \mid b$

status: migrated

6. *checkSubruleDuplicates*:

status: not migrated

7. *check unused rule*: it checks if a rule is used (except for the rule with the number 1)

status: migrated

8. *checkNameIsUnique*: checks if the name of a rule is already in use e.g.:  $a ::= \text{"end"}$   $a ::= \text{"fin"}$

status: migrated

- **Generation:**

xsl-fo file for all bnf grammars (not for merge or delta grammars) this can be Rendered to Pdf using

apache-fop

- **Formatting:**

*old:* had some but they are got commented out in the main project

*new:* Line-break after every rule, white-spaces after all literals, possible update  
linebreak and double tab after all >|< bars

- **Refactoring & Quickfixing:**

1. *auto Numbering of rules*  
-not migrated
2. *remove unused rules*  
-migrated
3. *replacement of passthroughRules*  
-not migrated
4. *refactor uppercasetokenRules*  
-not migrated
5. *find references* , this one is standard in xtext2.\* -renaming, this is standard in xtext2.\*

\*Grammar composition:

-3 grammartypes:

grammar: normal grammar  
deltagrammar: different notation for a  
extension grammar,

adds new rules to a grammar (regular rules)and  
adds changes to rules of the extended  
grammar(extension rules) -can be automaticly  
created

mergegrammar: for merging extensions

-old version had an automatic composition Process, for merge grammars, with a  
small pop-up-menu.

- at the moment no support in the new version

- **Deploying:**

export project as Plugin: Plug-in Development/deployable plug-ins and fragments  
-rcp project with a minimal eclipse editor