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 find consistencies 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 b ::= "literal" <=> a ::= "literal" , which is better for EBNF

   status: migrated

4. *checkEqualAlternative:* this tests if a rule got equal alternatives e.g.: a::= d | 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 ::= "literal" | b c ::= "literal" | b

   status: migrated

6. *checkSubruleDuplicates:*

      status: not migrated

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

      status: migrated

8. *checkNameIsUnique:* checks if the nam of a rule is already in use e.g.: a ::= "end" a ::= "fin"

      status: migrated

Generation:

Generating an intermediate xsl-fo representation for all BNF grammars (merge or delta grammars not supported). This can be rendered to PDF using apache-fop

> status: in progress

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 and Quick-fixing:

Automated restructuring support.

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* - provided by xtext2
6. *renaming* - provided by xtext2

Grammar Composition:

- 3 grammartypes:
    - ♦ grammar: normal grammar
    - ♦ delta grammar: 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 automatically created)
    - ♦ merge grammar: 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

Deployment:

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