VYPe – LR table construction
2011/2012

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13. listopadu 2011

Abstract

This presentation will address a construction of the LR table used to generate *Action* and *GoTo* tables that are utilized by LR-analyzers (**L**eft to right, **R**ight-most derivation) during the bottom-up syntactic analysis.

The presentation will describe the basic algorithm of this construction based on the rules of given context-free grammar – specifically, we will focus on the construction of Simple LR (SLR) table, that is relatively easy to build, however in terms of grammars for which this method is successful, this is the weakest method.

Other methods of the LR table construction are only extensions of this algorithm, therefore the SLR table construction is a great springboard for the study of canonical LR and $LALR$ tables.

The main advantage of the LR-analyzers compared to the LL-analyzers is that they are able to serve wider range of grammars and they are also better for implementation of the error handling mechanism. As a drawback of the LR-analyzers can be considered the complexity of the manual table construction and therefore it is usually performed automatically by a generator.