

ARL and PR2, reversible languages

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Abstract

This paper is devoted to the description of the languages ARL and PR2. ARL can be viewed as a cross-fertilization of term rewriting systems and functional languages. The key concept in the language is reversibility, which means informally, that under certain circumstances, we can reconstruct the question from the answer. PR2 is an extension to ARL to make it more suitable for our domain of application: the translation between programming languages.

Keywords:

reversibility, analysis, generation, controlled continued analysis, pairing, rules, strategy, driver, matching, interlingua.

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