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Summary: Parsing Expression Grammar (PEG) encodes a recursive-descent parser with limited backtracking. Its properties are useful in many applications, but it is not well understood as a language definition tool. In its appearance, PEG is almost identical to a grammar in the Extended Backus-Naur Form (EBNF), and one may expect it to define the same language. But, due to the limited backtracking, PEG may reject some strings defined by EBNF, which gives an impression of PEG being unpredictable. We note that for some grammars, the limited backtracking is “efficient”, in the sense that it exhausts all possibilities. A PEG with efficient backtracking should therefore be easy to understand. There is no general algorithm to check if the grammar has efficient backtracking, but it can be often checked by inspection. The paper outlines an interactive tool to facilitate such inspection.

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