


Don't Panic! Better, Fewer, Syntax Errors for LR Parsers (Artifact)

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Abstract

This is the artefact accompanying the paper “Don't Panic! Better, Fewer, Syntax Errors for LR Parsers” by Diekmann and Tratt. It focusses on the experiment from that paper, which compares a number

of different error recovery algorithms on a large corpus of data, including all the software necessary to reproduce the experiment from the paper.

2012 ACM Subject Classification Theory of computation → Parsing; Software and its engineering → Compilers

Keywords and phrases Parsing, error recovery, programming languages

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Related Article Lukas Diekmann and Laurence Tratt, “Don't Panic! Better, Fewer, Syntax Errors for LR Parsers”, in 34th European Conference on Object-Oriented Programming (ECOOP 2020), LIPIcs, Vol. 166, pp. 6:1–6:32, 2020. <https://doi.org/10.4230/LIPIcs.ECOOP.2020.6>

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1 Scope

The artefact focusses on the experiment in Section 6 from the paper. It includes the software necessary to build and run the experiment. The experiment makes use of Java source code with syntax errors from Blackbox, which we are not allowed to distribute. Instead we include anonymised identifiers which allow those who register with Blackbox to precisely recreate the corpus we used. If you do not wish to register with Blackbox, you can use your own corpus of Java source code instead.

2 Content

The artefact package includes:

- The software necessary to build and run the experiment.
- The specific version of the *grmtools* parsing software (created for the paper) used in the experiment.



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3 Getting the artifact

The artifact endorsed by the Artifact Evaluation Committee is available free of charge on the Dagstuhl Research Online Publication Server (DROPS). In addition, the artefact is also available at: https://archive.org/download/error_recovery_experiment/0.4/

4 Tested platforms

The experiment is likely to work on any platform on which Rust 1.42 (or later) and Python 2.7 run. The artefact `README.md` includes further details about additional software dependencies.

5 License

The artefact is available under both the Apache License (Version 2.0) and the MIT License.

6 MD5 sum of the artifact

070d328911ec6e9b400f4d2db82b61f3

7 Size of the artifact

5.7 MiB