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A reliability assessment tool for distributed software development environment based on Java and J/Link. (English) [Zbl 1137.90459](#)

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Summary: We propose a software reliability assessment tool based on software reliability growth models for distributed development environment by using Java programming language and J/Link technology in Mathematica. Java is an object-oriented and platform-free programming language which has several advantages such as modularization and reusability of the existing code. Especially J/Link can use and control the Mathematica kernel from a Java program. By using this J/Link technology, we can reduce some efforts to develop the tool because of reusing the existing Mathematica code used for the research. Our tool proposed here is useful for software developers in terms of the management of the system-testing process in distributed development environment.

MSC:

[90B25](#) Reliability, availability, maintenance, inspection in operations research

[90-08](#) Computational methods for problems pertaining to operations research and mathematical programming

Keywords:

[reliability](#); [stochastic processes](#); [software reliability assessment tool](#); [distributed development environment](#); [Java](#)

Software:

[Mathematica](#); [JLink](#)

Full Text: [DOI](#)

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