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**Various utilizations of an open-source program visualization tool, Jeliot 3.**

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Summary: In this paper, we present an open-source program visualization tool, Jeliot 3. We discuss the design principles and philosophy that gave rise to this successful e-learning tool and to several other related environments. Beside Jeliot 3, we introduce three different environments, BlueJ, EJE, and JeCo that use Jeliot 3 as a plug-in to allow visualization of the program code. Another system, FADA, is a tool that was derived from Jeliot 3 but serves for different pedagogical goals. A community of users and developers of these projects has been created and supported, that allows for global and iterative improvements of the Jeliot 3 tool. This way, both academic research and feedback from the user community contribute to the development. We compare the presented approach of the tool development to some of the current tools and we discuss several instances evidencing a particular success.

*Classification:* R30 U70

*Keywords:* e-learnig; program visualization; open source development; GPL