
Coccinelle: Empowering developers to make large-scale changes to their software

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Résumé

Coccinelle is a program matching and transformation tool for C code that has been under development since 2004. It allows developers to write “semantic patches” that express code matches and changes in a generic way, while remaining close to the program source code. Coccinelle allows developers to address issues that are specific to their code base, and supports a flexible development process, where Coccinelle can be used for frequently occurring issues, coupled by manual analysis or the use of more heavyweight tools for analyzing specific instances. We illustrate the use of Coccinelle with the ongoing effort of the Linux Kernel Self-Protection Project to address a security concern in the Linux kernel, the use and misuse of flexible arrays.

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