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An Extensible Source-Level Debugger

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Abstract: Standard debuggers are limited in the amount of analysis that they perform in order to assist with debugging. This paper presents UDB, a source-level debugger for the Unicon programming language with a novel architecture and capabilities. UDB combines classical debugging techniques such as those found in GDB with a growing set of automatic debugging extensions. UDB tests the hypotheses that a debugger built on top of a high-level framework enables better debugging capabilities as well as easier and more efficient extension than ordinary debuggers.