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Language Support for Event-Based Debugging

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Abstract: An event-based debugging framework provides high level facilities for debuggers that observe, monitor, control, and change the state and behavior of a buggy program. This paper introduces a set of additions to the Unicon programming language that enables debuggers to be written at a high level of abstraction. The extensions provide in-process debugging support with simple communication and no intrusion on the buggy program space. These language extensions have been tested and refined within a multi-agent debugging architecture called IDEA, and an extensible source-level debugger called UDB.