

# Jordan University of Science and Technology

## A Multi-Agent Debugging Extension Architecture

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**Abstract:** The Idaho Debugging Extension Architecture (IDEA) enables dynamic analysis agents, such as automatic debugging and visualization agents, to be loaded on the fly in a source-level debugger. IDEA is an event-driven debugging architecture that provides a simple interface to load API-compliant external dynamic analysis agents during a debugging session. Multiple standalone agents can be loaded and managed under the control of the source-level debugger. Successful agents can be migrated into the source code of the debugger core as permanent features with higher performance.