



Software Engineering Seminar

# Delta Debugging

– JINSI –

## Description

In *delta debugging*, one tries to isolate a minimal root cause of an occurring error by removing all elements that are not relevant to the failure. JINSI is a tool to capture and replay interactions between Java components and their environment. It is also able to apply delta debugging to automatically isolate a subset of interactions that is relevant for the failure.

The goal of this topic is to examine the merits of delta debugging in general and the mechanics of the tool JINSI in particular.

## References

- [1] Alessandro Orso, Shrinivas Joshi, Martin Burger, and Andreas Zeller. Isolating relevant component interactions with jinsi. In *WODA '06: Proceedings of the 2006 international workshop on Dynamic systems analysis*, pages 3–10, New York, NY, USA, February 2006. ACM.
- [2] A. Zeller and R. Hildebrandt. Simplifying and isolating failure-inducing input. *IEEE Transactions on Software Engineering*, 28(2):183–200, Feb 2002.

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