



Software Engineering Seminar (SoSe 2016)

# Automated Repair of Deployed Software

– ASSURE –

## Description

Under certain circumstances, fixing errors in already deployed – or maybe even running – software systems can be necessary. Reasons could be, for example, that the sources of the system are not available to the user, or that the system is indefinitely running and must not be stopped. The applied techniques in this area vary greatly from approaches that deal with the debugging on source code level, obviously.

The goal of this topic is to examine the tool ASSURE which introduces so-called *rescue points* that provide points of safe return to a software system in case of an occurring error. That means that ASSURE does not try to actually repair existing error, but that it lets the software system recover from occurring faults that would otherwise harm the integrity of the system or lead to a crash.

## References

- [1] Stelios Sidiroglou, Oren Laadan, Carlos R Perez, Nicolas Viennot, Jason Nieh, and Angelos D Keromytis. ASSURE : Automatic Software Self-healing Using REscue points. *Architectural Support for Programming Languages and Operating Systems*, pages 37–48, 2009.

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