

SHIELDS: Detecting known security vulnerabilities from within design and development tools

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Frequent reports on security problems involving software and applications are becoming one of the most pressing issues in software engineering. According to the statistics, most software vulnerabilities arise from common causes and the same mistakes are repeated over and over again. The core reason for this is that information on vulnerabilities is not available to developers in a form conveniently accessible to them while they work on software design and development.

In this presentation, we give an overview of SHIELDS, which is an FP7 project concerned with model-based detection and elimination of software vulnerabilities. The fundamental concept behind SHIELDS is to provide a repository of security information to software security tools and methods in the form of models of security problems. Through repository, tools and developers have access to up-to-date information about security problems. This approach has the advantage that newly discovered vulnerabilities can be considered during the software development life cycle.

SHIELDS project is coordinated by Linköping University.