

Proposed 10/22/08

D&V: Sandboxing Native Code



Motivation

Java programs are secure. Native code is not. Consequently, Java programs that use native code are not secure either. We'd like to put the native code in a separate process, impose type checking on the interface, and forbid system calls.

Project description – Goals & Tasks

- Familiarize with problem
 - Read papers
 - Write some Java programs that violate the type system
- Find solutions
 - Gather ideas
 - Develop algorithm
- Implement
 - Implement a native code sandbox
- Documentation/Presentation

Deliverables

- Source code (commit to svn repository)
- Documentation (~10-15 pages)
- Presentation (~10 slides)

Project schedule

- Start Immediately
- Month 1 Reading, gathering ideas/solutions
- Month 2 Implement best solution
- Month 3 Final Deliverables

Master Project

Studies: INF SEW TEL MATH

Prerequisites

- Interest in security and Java

Advisor / contact

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