

infos lädt ein zum **infos-Kolloquium**
am Donnerstag, den 23. April 2015, 17:30 – 18:30
Universitätsstr. 38, V 38.02

Secure Coding

Robert C. Seacord
CERT, Software Engineering Institute (SEI), Pittsburgh, USA

Abstract

Increasingly, secure coding is of interest to a variety of domains beyond internet-connected systems. CERT has developed secure coding standards for ubiquitous programming languages such as C, C++, and Java and a conformance testing process (SCALE) for evaluating source code conformance to these standards. This presentation will provide an overview of these products and services and a detailed analysis of dangerous optimizations enabled by undefined behaviors in the C and C++ programming languages. Frequently, these optimizations are interfering with the ability of developers to perform cause-effect analysis on their source code, that is, analyzing the dependence of downstream results on prior results. Consequently, these optimizations are eliminating causality in software and are increasing the probability of software faults, defects, and vulnerabilities.

About Robert Seacord

Robert C. Seacord ist the technical manager of the Secure Coding Initiative of the CERT Division of Carnegie Mellon University's Software Engineering Institute (SEI). The CERT Program is a trusted provider of operationally relevant cybersecurity research and innovative and timely responses to cybersecurity challenges. The Secure Coding Initiative works with software developers and software development organizations to eliminate vulnerabilities resulting from coding errors before they are deployed. Robert Seacord is also an adjunct professor at Carnegie Mellon University. He is the author of eight books, including The CERT C Secure Coding Standard, Secure Coding in C and C++, Java Coding Guidelines: 75 Recommendations for Reliable and Secure Programs and The CERT Oracle Secure Coding Standard for Java.

Nach dem Vortrag lädt **infos** zu Wein und Brezeln ein.