SOFTWARE ENGINEERING ENVIRONMENTS: Automated Support for Software Engineering

Alan W. BROWN, 1962-. Carnegie-Mellon's Software Engineering Institute

Anthony N. EARL, Hewlett-Packard, Bristol

John A. MCDERMID. University of York


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- Computer-aided software engineering.
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DESCRIPTION:
This book crosses the boundary between database systems and software engineering, providing an introduction to the background use and likely direction of computer-aided support to software engineering. It describes a simple IPSE reference model, which acts as a focal point for discussing the principles of IPSE's and the yardstick for comparing existing IPSE systems. The book analyses the characteristics of a support environment for large-scale software development and work in detail at a number of example IPSE systems and examines the support they provide.

Written for all those involved in the subject area, whether software engineers, advanced undergraduate or postgraduate students, this book provides one of the first comprehensive analyses of Software Engineering Environments (SEEs)- discussing their requirements, components, and current and future issues crucial to their success. The central focus of the book is a SEE frameworks reference model, based on that of the influential European Computer Manufacturers Association (ECMA). Having described this model in detail, it is then used as the basis for a comprehensive analysis of a number of systems and standards – ECMA PCTE, Hewlett-Packard's SoftBench, IBM's AD/Cycle, and DEC's CIS. There are chapters providing a fresh look at SEE requirements, experience from past and current SEE use, and an examination of critical issues for the future of SEEs. The result is a book that provides information essential to today's software engineers on SEE technology, how to analyse, discuss and compare SEE products and provides technical details of the several SEEs in use today.

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