Software Change Impact Analysis. Practitioners

Description: As software systems become increasingly large and complex, the need increases to predict and control the effects of software changes. This book captures the latest information on the science and art of determining what software parts affect each other. It is a handy one-volume source of useful information about software change impact analysis techniques and technical results. The book frames the field, focuses attention, and tempers expectations.

The book provides a battery of ideas for doing impact analysis better. The reader will gain a healthy respect for the strengths and limitations of impact analysis technology and a solid background that will provide valuable for years to come. The book identifies key impact analysis definitions and themes and illustrates those themes through a collection of representative papers. It includes reports on software source code dependency analysis and software traceability analysis and proposes how results from both areas can more effectively support impact analysis in software engineering repositories. It also describes why impact representation and determination techniques are at the heart of both source dependency analysis and traceability analysis. The papers provide fundamental information of enduring value and were selected by how well they illustrate the important themes and how well they equip the reader with a solid understanding for tackling impact analysis problems.

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