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regularity theory in variational analysis. It presents new developments alongside classical results and demonstrates the power of the theory through applications to various problems in analysis and optimization theory. The origins of metric regularity theory can be traced back to a series of fundamental ideas and results of nonlinear functional analysis and global analysis centered around problems of existence and stability of solutions of nonlinear equations. In variational analysis, regularity theory goes far beyond the classical setting and is also concerned with non-differentiable and multi-valued operators. The present volume explores all basic aspects of the theory, from the most general problems for mappings between metric spaces to those connected with fairly concrete and important classes of operators acting in Banach and finite dimensional spaces. Written by a leading expert in the field, the book covers new and powerful techniques, which have proven to be highly efficient even in classical settings, and outlines the theory's predominantly quantitative character, leading to a variety of new and unexpected applications. Variational Analysis of Regular Mappings is aimed at graduate students and researchers in nonlinear and functional analysis, especially those working in areas close to optimization and optimal control, and will be suitable to anyone interested in applying new concepts and ideas to operations research, control engineering and numerical analysis.