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Nota di contenuto	Cover; Mastering Statistical Process Control: A Handbook for Performance Improvement Using Cases; Copyright; Contents; List of Figures; List of Charts; List of Case Studies and Examples; Reference of Charts; Preface; Acknowledgements; Introduction; The aim of the book; The structure of the book; How to use this book; PART 1 An Introduction to the Theory of SPC; 1 Statistical process control; A word on processes ...; ... And a word on variation; Some statistical measures; Why is understanding variation important to management?; Summary of the implications of process variation Tampering (over-control) and its effect on performanceControl charts: the tool for understanding process performance; Dispelling some myths of SPC; Are there situations where SPC is not appropriate?; The relationship between SPC and Six Sigma; Summary; PART 2 Exploding Data Analysis Myths; 2 Problems with monthly report tables, goals and quartiles; Introduction; Comparing pairs of numbers: a trap for the unwary; Death by numbers: the Saga of the monthly report; Who wins the prize? How not to compare regional performance statistics Falsifying the data (and how to spot it): one result of setting

targets Querying the top quartile: Does it mean anything?; Summary; 3 Exploring the mis-information in moving average charts: How they fail to respond to process changes, out-of-control points, trends and seasonality; Introduction; Analysis; Coping with seasonality and trends; What moving averages actually monitor; Summary; 4 The problems with year-to-date figures; Introduction; Analysing YTD against plan; Analysing this year's YTD against last year's YTD; Why YTD charts do not work
Comparing YTD and YTD average charts with control charts Summary; PART 3 Putting SPC into Practice - The Cases; The sources of the case studies; Control charts in the real worlds are not always so clear; A word on chart formats; Layout of and information in the case studies; How to use the case studies?; 5 Investigating variation in chemical concentration: How control charts were used to identify, investigate and prove the cause of fluctuations in results; 6 Improving examination results by analysing past performance and changing teaching methods
7 Demonstration that moving averages are poor indicators of true process performance: Monitoring the frequency of incidents
8 Monitoring rare events: How a sudden but uncertain change in safety record was shown to be significant; 9 Comparing surgical complication rates between hospitals; 10 Comparing the frequency of rare medical errors between medical centres; 11 Metrics proposal for a training administration process; 12 Reducing problems during borehole drilling: An example of monitoring two metrics on one chart; 13 Applying control charts to benchmarking in the drilling industry
14 Comparing the results of using different charts to analyse a set of data: An application to a batch production process

Sommario/riassunto

Mastering Statistical Process Control shows how to understand business or process performance more clearly and more effectively. This practical book is based on a rich and varied selection of case studies from across industry and commerce, including material from the manufacturing, extractive and service sectors. It will enable readers to understand how SPC can be used to maximum effect, and will deliver more effective monitoring, control and improvement in systems, processes and management. The common obstacle to successful use of SPC is getting bogged down with
