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A review of the principles of the safety of software-based equipment, this book begins by presenting the definition principles of safety objectives. It then moves on to show how it is possible to define a safety architecture (including redundancy, diversification, errordetection techniques) on the basis of safety objectives and how to identify objectives related to software programs. From software objectives, the authors present the different safety techniques (fault detection, redundancy and quality control). "Certifiable system" aspects are taken into account throughout the book. C