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Titolo	Concurrent Reactive Plans : Anticipating and Forestalling Execution Failures / / by Michael Beetz
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Nota di contenuto	Reactivity -- Planning -- Transparent Reactive Plans -- Representing Plan Revisions -- Forestalling Behavior Flaws -- Planning Ongoing Activities -- Evaluation -- Conclusion.
Sommario/riassunto	In this book, the author presents a new computational model of forestalling common flaws in autonomous robot behavior. To this end, robots are equipped with structured reactive plans (SRPs) which are concurrent control programs that can not only be interpreted but also be reasoned about and manipulated. The author develops a representation for SRPs in which declarative statements for goals, perceptions, and beliefs make the structure and purpose of SRPs explicit and thereby simplify and speed up reasoning about SRPs and their projections; furthermore a notation is introduced allowing for transforming and manipulating SRPs. Using this notation, a planning system can diagnose and forestall common flaws in robot plans that cannot be dealt with in other planning representations. Finally the language for writing SRPs is extended into a high-level language that can handle both planning and execution actions.