

Achieving Software Project Success: A Semi-quantitative Approach

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Abstract. Software process modeling and simulation hold out the promise of improving project planning and control. However, purely quantitative approaches require a very detailed understanding of the software project and process, including reliable and precise project data. Contemporary project management defines the success of project as a cube, rather than the traditional single point, which allows the management of software project semi-quantitatively with uncertainty-tolerance. This paper introduces semi-quantitative simulation into software project planning and control, and develops a practical approach to enhance the confidence of project success under uncertainty and contingency. We illustrate its value and flexibility by an example implementation with a simplified software process model.