

# A Framework for Adopting Software Process Simulation in CMMI Organizations

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**Abstract.** The Capability Maturity Model Integration (CMMI)<sup>1</sup> has become very influential as a basis for software process improvement. It is accepted that process maturity is associated with better project performance and organizational performance. Software process simulation is being applied to the management of software projects, product life cycles, and organizations. This paper argues that the successful adoption of one particular simulation paradigm to a large extent depends on an organization's capability maturity. We investigate four typical simulation paradigms and map them to their appropriate CMMI maturity levels. We believe that an understanding of these relationships helps researchers and practitioners in implementing and institutionalizing process simulation in software organizations.

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<sup>1</sup> CMM and CMMI are service marks of SEI, Carnegie-Mellon University