

The SEI process agenda: Improving the state of practice in software engineering.

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Abstract

The Software Engineering Institute was established to provide leadership in improving the state of practice of software engineering. From that perspective, the SEI has been a catalyst for improving software processes. Initially, the SEI focused on characterizing existing the attributes of best practices. The software CMM and successors focus on the characteristics of software engineering practices at the time they were published. The SEI has also been a catalyst for capturing and maturing emergent software engineering practices, such as software architecture, software product lines, security management operational resiliency, rate monotonic analysis for real-time systems, and more recently systems of systems for service oriented architectures.

Although the SEI originally approached “process” as a practical mechanism for achieving its mission, it has also contributed to the process community understanding of process definition, measurement and enactment. Most recently, the SEI has also provided leadership to the process community's identification of a process research framework through the International Process Research Consortium. That framework offers four themes: Process and Quality Relationships, Process Engineering, Managing Project Processes and Process Deployment.