

Appendix A

Table 1 Software metrics in CC1 Metrics Program

Strategic Indicator	Process Factor	Software Process Metric	Description
Process Performance*	Tasks' Velocity	Resolved Tasks' Throughput	Density of tasks whose resolution didn't take longer than the defined duration threshold
		Task-Type in a Timeframe	Density of tasks of particular type within a defined timeframe
	Testing Performance	Bug Identification Performance	Density of bugs identified before release date
		Bug Correction Throughput	Density of bugs that were corrected within the defined duration threshold
		Bug Leakage	Density of bugs identified after the release
		Error Identification Performance	Density of errors identified in a given timeframe
		Fast Tests	Density of tests that are under the testing duration threshold
		Reopened Tickets	Density of tickets that have been reopened by testers
		Developer-Tester Communication cycle	Density of developer-tester communication on a given issue
	Delivery Performance	Timely feature specifications delivery	Density of feature specifications delivered internally on time during development cycle
		Timely feature delivery	Density of features delivered internally on time during development cycle
		Core component commits	Density of core component commits in a given period before the planned release
		Non-issue component commits	Density of commits that not related to an identified issue in a given period (1 month) before the planned release
		End User Feedback	Density of end user feedback related to an issue in a given period
Product Quality	Code Quality	Complexity	Density of files that do not exceed a defined average complexity per function
		Duplication Density	Density of files lying within a defined range of duplication density
		Comment Ratio	Density of files lying within a defined range of comment density
Blocking	Blocking Code	Non-blocking files	Density of files not having CRITICAL or BLOCKER issues
Product Readiness	Activity Completion	Development Task Completion	Density of project task which has been completed
	Product Stability	Critical Issues Ratio	Ratio of critical issues which have been closed
Quality Feedback Loop	Quality Requirement Relevance	Quality Requirement Acceptance	Density of quality requirement not rejected by project manager
	Quality Requirement Completion	Quality Requirement Derivation	Density of accepted quality requirement derived as concrete mitigation tasks
		Mitigation Task Completion	Density of mitigation action derived from quality requirement which has been completed

**Focus of the study*

Table 2 Software metrics in CC2 Metrics Program

Strategic Indicator	Process Factor	Software Metric	Description
Process Performance*	Issues' Velocity	Resolved issues throughput	Average time taken to resolve an issue
	Testing Performance	Bug density	Density of tickets of type 'non-bug' to total tickets on the board
		Pending ticket density	Density of tickets that are pending testing
		Estimated ticket density	Density of tickets of type 'estimated' to total tickets on the board that should be estimated
		Spent density	Density of tickets that are pending testing
Blocking	Blocking Code	Non-blocking files	Density of files not having CRITICAL or BLOCKER issues
Product Quality	Code Quality	Duplication density	Density of files lying within a defined range of duplication density
		Comments ratio	Density of files lying within a defined range of comment density

**Focus of the study*