TABLE II

LIST OF METRICS OBTAINED FROM DIFFERENT TOOLS AND THE AGGREGATION METHODS.

Understand (product)	Jasome (product + complexity)	SonarQube (quality)	Centrality
CountDeclFile	Raw Total Lines of Code	Sqale rating (Avg, Max)	Degree centrality
CountLine	Total Lines of Code	Reliablity rating (Avg, Max)	In-degree centrality
CountLineBlank	Number of Attributes (Avg)	Security rating (Avg, Max)	Out-degree centrality
CountLineCode	Number of Static Attributes (Avg)	Reliability remediation effort	Eigenvector centrality
CountLineComment	Number of Public Attributes (Avg)	Security remediation effort	Closeness centrality
CountStmt	Number of Methods (Avg)	Number of Methods	Betweenness centrality
CountStmtDecl	Number of Static Methods (Avg)	Software quality reliability remediation	Load centrality
CountStmtExe	Number of Public Methods (Avg)	Software quality security remediation	Harmonic centrality
CountDeclClass	Number of Classes	Bugs	Information centrality
CountDeclClassMethod	Depth of Inheritance Tree (Avg, Max)	Code smells	Current flow centrality
CountDeclClassVariable	Number of Overridden Methods (Avg)	Cognitive complexity	Subgraph centrality
CountDeclFunction	Number of Inherited Methods (Avg)	Violations	
CountDeclInstanceMethod	Number of Methods Added to Inheritance (Avg)	Critical violations	
CountDeclInstanceVariable	Specialization Index (Avg)	Info violations	
CountDeclMethod	Number of Methods Inherited Total (Avg)	Major violations	
CountDeclMethodDefault	Number of Methods Inherited (Avg)	Minor violations	
CountDeclMethodPrivate	Number of Methods Defined (Avg)	Duplicated blocks	
CountDeclMethodProtected	Number of Methods Overidden (Avg)	Security hotspots	
CountDeclMethodPublic	Number of Methods (All) (Avg)	Effort to reach quality rating A	
CountLineCodeDecl	Method Inheritance Factor (Avg only)		
CountLineCodeExe	Number of Public Methods Defined (Avg)		
CountSemicolon	Number of Public Methods Inherited (Avg)		
SumCyclomatic	Public Methods Ratio (Avg only)		
	Number of Hidden Methods Defined (Avg)		
	Number of Hidden Methods Inherited (Avg)		
	Method Hiding Factor (Avg)		
	Number of Methods Inherited Ratio (Avg only)		
	Coupling Factor (Avg, Max)		
	Polymorphism Factor (Avg, Max)		
	Number of Attributes Inherited Total (Avg)		
	Number of Attributes Inherited (Avg)		
	Number of Attributes Defined (Avg)		
	Number of Attributes Overidden (Avg)		
	Number of Attributes (All) (Avg)		
	Attribute Inheritance Factor (Avg only)		
	Number of Public Attributes Defined (Avg)		
	Number of Hidden Attributes Defined (Avg)		
	Method Hiding Factor (Avg only)		
	McCabe Cyclomatic Complexity (Avg, Max)		
	Weighed Methods per Class (Max)		
	Lack of Cohesion Methods (Avg, Max)		
	Number of Interfaces		
	Afferent Coupling		
	Efferent Coupling		
	Instability		
	Abstractness		
	Normalized Distance from Main Sequence		
	Nested Block Depth (Avg, Max)		
	Number of Children (Avg)		
	Number of Parents (Avg)		
	Number of Descendants (Avg)		
	Number of Ancestors (Avg)		
	Number of Links (Avg)		
	Number of Dependants (Avg)		
	Number of Dependencies (Avg)		
	Class Category Relational Cohesion		
	McClure's Complexity Metric (Avg, Max)		
	Fan-out (Avg, Max)		
	Fan-in (Avg, Max)		
	Structural Complexity (Avg, Max)		
	Input/Output Variables (Avg, Max)		
	Data Complexity (Avg, Max)		
	Package Total System Complexity		
	Package Relative System Complexity		