

CK Metrics

Metrics	CBO	DIT	RFC	WMC	NF	NSF
TaintBench						
min-sum	11	4	43	14	3	0
max-sum	19597	5533	32661	46251	10644	3354
geomean-sum	653.77	223.8	1528.58	1860.69	359.13	145.89
min-avg	2.53	1.25	7.28	3.57	0.75	0
max-avg	7.55	2.45	30	27.64	5.94	2.45
geomean-avg	4.52	1.55	10.56	12.85	2.48	0.92
DroidBench						
min-sum	2	2	4	1	0	0
max-sum	29	17	48	32	27	15
geomean-sum	6.77	5.26	11.01	4.07	5.12	5.99
min-avg	0.2	1.08	0.4	0.09	0	0
max-avg	10	2.67	25	16	11.5	3.25
geomean-avg	2.03	1.57	3.3	1.22	1.09	0.85

CBO: the number of dependencies a class has.

DIT: the depth of the class in the inheritance tree.

RFC: the number of unique method invocations in a class.

WMC: the number of declared methods per class.

NF: the total number of fields in a class.

NSF: the total number of static fields in a class.

min-sum: minimum for the sum of all classes of each benchmark app in the suite.

max-sum: maximum for the sum of all classes of each benchmark app in the suite.

geomean-sum: geometric mean for the sum of all classes of each benchmark app in the suite.

min-avg: minimum for the average of all classes of each benchmark app in the suite.

max-avg: maximum for the average of all classes of each benchmark app in the suite.

geomean-avg: geometric mean for the average of all classes of each benchmark app in the suite.

Usages of Sources and Sinks

Metrics	# Sources	# Usage Sources	# Sinks	# Usage Sinks
TaintBench				
min	4	9	6	13
max	514	4284	369	3486
avg	96	458.2	63.1	364.5
geomean	49	149	38.4	133.2
DroidBench				
min	0	0	1	1
max	8	27	13	22
avg	2.4	2.9	3.1	4.1
geomean	2.2	2.4	2.8	3.3

Sources/Sinks: Number of different source/sink APIs used in a benchmark app.

Usage Sources/Sinks: Number of different code locations where source/sink APIs are used in a benchmark app.

min: minimum of all apps in the suite.

max: maximum of all apps in the suite.

avg: arithmetic mean of all apps in the suite.

geomean: geometric mean of all apps in the suite.

Call-Graph Complexity

Metrics	CG Size	Max.CCL	LC Size
TaintBench			
min	112	1	0
max	83981	16	31
avg	8922.08	5.84	2.21
geomean	1895.68	4.79	-
DroidBench			
min	11	1	0
max	144	4	0
avg	29.92	1.53	0
geomean	27.28	1.4	-

CG Size: Number of edges in the call graph.

Max. CCL: Number of edges in the longest acyclic call chain.

LC Size: Number of edges in the longest cycle in the call graph.

min: minimum of all apps in the suite.

max: maximum of all apps in the suite.

avg: arithmetic mean of all apps in the suite.

geomean: geometric mean of all apps in the suite.

Common Metrics			
Metrics	# Classes	# Methods	LOC
TaintBench			
sum	22024	150450	1535071
avg	1120.77	7651.87	78184.03
DroidBench			
sum	944	657	13191
avg	10.36	7.19	144.56

Classes: number of classes

Methods: number of methods

LOC: line of decompiled source code

sum: all apps in the suite

avg: average of the apps in the suite