

Appendix A. Instabilities of the releases of open-source projects

Table A.1: Instabilities of Catroid releases

Open-source project	Instability of the complete project	Instability of removed classes and dependencies	Instability of new classes and dependencies	Numbers of classes (ARCADE)	Number of edges (ARCADE)
v-0.8.0	0.583446	0.019218	0.443996	1273	9483
v-0.8.1	0.583446	0.000000	0.000000	1273	9483
v-0.8.2	0.583446	0.000000	0.000000	1273	9483
v-0.8.3	0.574862	0.045065	0.000000	1185	8940
v-0.8.4	0.574862	0.000000	0.000000	1185	8940
v-0.8.5	0.574862	0.000000	0.000000	1185	8940
v-0.9.0	0.583432	0.001093	0.038825	1280	9910
v-0.9.1	0.583432	0.000000	0.000000	1280	9910
v-0.9.2	0.583432	0.000000	0.000000	1280	9910
v-0.9.3	0.583432	0.000000	0.000000	1280	9910
v-0.9.4	0.583432	0.000000	0.000000	1280	9910
v-0.9.5	0.584576	0.002431	0.011141	1293	10075
v-0.9.6	0.584576	0.000000	0.000000	1293	10075
v-0.9.7	0.584576	0.000000	0.000000	1293	10075
v-0.9.8	0.584576	0.000000	0.000000	1293	10075
v-0.9.9	0.572358	0.000000	0.057827	1428	10837
v-0.9.10	0.572358	0.000000	0.000000	1428	10837

Table A.2: Instabilities of SonarQube releases

Open-source project	Instability of the complete project	Instability of removed classes and dependencies	Instability of new classes and dependencies	Numbers of classes (ARCADE)	Number of edges (ARCADE)
v-3.5.1	0.728642	0.000000	0.000000	850	6706
v-3.6.3	0.697173	0.480047	0.486024	895	7761
v-4.0	0.678030	0.482271	0.619212	2603	24567
v-4.1.2	0.678030	0.000000	0.000000	2603	24567
v-4.2	0.678030	0.000000	0.000000	2603	24567
v-4.3.3	0.678030	0.000000	0.000000	2603	24567
v-4.4.1	0.689527	0.000000	0.151058	3139	31168
v-4.5.7	0.671354	0.450541	0.048888	1263	8987
v-5.0.1	0.671386	0.000000	0.000720	1264	8993
v-5.1.2	0.666268	0.000960	0.011650	1298	9259
v-5.2	0.662149	0.003558	0.010581	1316	9352
v-5.3	0.661456	0.000000	0.000000	1317	9354
v-5.4	0.661819	0.000890	0.004957	1335	9479
v-5.5	0.677134	0.020844	0.007809	1301	9143
v-5.6.7	0.676179	0.000000	0.000000	1303	9168
v-6.0	0.676201	0.000000	0.000000	1303	9168
v-6.1	0.676852	0.000990	0.000000	1301	9140

Table A.3: Instabilities of dex2jar releases

Open-source project	Instability of the complete project	Instability of removed classes and dependencies	Instability of new classes and dependencies	Numbers of classes (ARCADE)	Number of edges (ARCADE)
v-0.7.11	0.666050	0.000000	0.002854	487	3460
v-0.9.0	0.661154	0.069955	0.110580	522	3703
v-0.9.1	0.660097	0.004604	0.000000	520	3701
v-0.9.2	0.659782	0.000000	0.002424	521	3724
v-0.9.3	0.653877	0.059905	0.010646	496	3619
v-0.9.4	0.655405	0.007449	0.041372	514	3799
v-0.9.5	0.652549	0.002825	0.401039	1122	10732
v-0.9.6	0.652543	0.000000	0.000000	1122	10735
v-0.9.7	0.632887	0.097456	0.015328	1007	9839
v-0.9.8	0.635631	0.000000	0.021564	1030	10118
v-0.9.9	0.635815	0.000000	0.001138	1031	10146
v-0.9.10	0.637224	0.004219	0.010685	1038	10259
v-0.9.11	0.637337	0.001022	0.001095	1038	10274
v-0.9.12	0.637418	0.000000	0.002022	1043	10339
v-0.9.13	0.636851	0.001172	0.002499	1045	10359
v-0.9.14	0.635152	0.001291	0.003644	1050	10393
v-0.9.15	0.633606	0.017039	0.000000	1028	10199
v-2.0	0.629441	0.173259	0.211976	1132	11544

Table A.4: Instabilities of Hadoop releases

Open-source project	Instability of the complete project	Instability of removed classes and dependencies	Instability of new classes and dependencies	Numbers of classes (ARCADE)	Number of edges (ARCADE)
v-0.8.0	0.693054	0.000000	0.000000	1282	10968
v-0.9.0	0.693054	0.000000	0.000000	1282	10968
v-0.10.1	0.675264	0.001280	0.210366	1697	15776
v-0.11.0	0.675264	0.000000	0.000000	1697	15776
v-0.11.2	0.668423	0.118866	0.003067	1505	13495
v-0.12.0	0.678582	0.083486	0.000000	1394	12147
v-0.13.0	0.678582	0.000000	0.000000	1394	12147
v-0.14.0	0.678041	0.000000	0.010242	1409	12232
v-0.15.0	0.678687	0.000000	0.005233	1419	12282
v-0.16.0	0.678687	0.000000	0.000000	1419	12282
v-0.16.4	0.678687	0.000000	0.000000	1419	12282
v-0.17.0	0.678687	0.000000	0.000000	1419	12282
v-0.18.0	0.674294	0.001127	0.138945	1662	14030
v-0.18.3	0.675071	0.000000	0.002886	1669	14123
v-0.19.0	0.674504	0.001189	0.118946	1960	18007
v-0.19.2	0.674743	0.000000	0.000735	1961	18007
v-0.20.0	0.684535	0.514648	0.006231	628	4892