

Socio-technical analysis result ( QEMU )

	range.date		devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links		st.congruence	communicability	global.turnover	code.turnover
1	2013-06 – 2013-09		365	230	11	124	0.6301	0.0301	0.3397	55	0.1507	9	0.0667	32	119	117	42	25	0	106	0	160		0.5887	0.9333	0.0000	0.0000
2	2013-09 – 2013-12		375	260	9	106	0.6933	0.0240	0.2827	49	0.1307	5	0.0435	32	121	122	26	6	2	149	1	40		0.6460	0.9768	0.4784	0.5200
3	2013-12 – 2014-03		371	226	15	130	0.6092	0.0404	0.3504	54	0.1456	6	0.0414	30	120	117	38	16	0	132	1	103		0.5863	0.9646	0.4960	0.3692
4	2014-03 – 2014-06		431	292	17	122	0.6775	0.0394	0.2831	50	0.1160	6	0.0432	32	129	128	38	9	0	111	1	78		0.6777	0.9717	0.4015	0.4859
5	2014-06 – 2014-09		411	243	23	145	0.5912	0.0560	0.3528	80	0.1946	13	0.0774	29	124	121	49	40	0	185	1	224		0.4343	0.9401	0.5392	0.4104
6	2014-09 – 2014-12		408	263	10	135	0.6446	0.0245	0.3309	72	0.1765	13	0.0897	31	136	136	41	28	4	178	3	142		0.5478	0.9484	0.5128	0.5367
7	2014-12 – 2015-03		387	255	18	114	0.6589	0.0465	0.2946	66	0.1705	16	0.1212	27	127	124	41	22	0	139	3	89		0.4914	0.9520	0.5107	0.4982
8	2015-03 – 2015-05		404	269	23	112	0.6658	0.0569	0.2772	58	0.1436	11	0.0815	32	122	122	36	39	0	104	1	126		0.5059	0.9514	0.4880	0.4794
9	2015-05 – 2015-08		401	244	23	134	0.6085	0.0574	0.3342	72	0.1796	8	0.0510	28	116	114	45	32	0	132	3	179		0.5214	0.9404	0.5043	0.3904
10	2015-08 – 2015-11		432	270	18	144	0.6250	0.0417	0.3333	77	0.1782	21	0.1296	31	135	135	53	18	0	165	4	216		0.5146	0.9485	0.4202	0.4451
11	2015-11 – 2016-02		394	254	13	127	0.6447	0.0330	0.3223	56	0.1421	14	0.1000	28	127	124	41	20	0	108	1	94		0.6594	0.9206	0.5303	0.5232
12	2016-02 – 2016-05		404	259	13	132	0.6411	0.0322	0.3267	68	0.1683	19	0.1310	31	137	136	46	37	2	96	1	194		0.4728	0.9054	0.4662	0.4000
		core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core					
1	0.0000	0.0000	0.0000	0.0000	0.4795	0.6740	0.6695	0.6889	0.0079	0.1913	0.4581	0.3663	0.2861	0.4756	0.0309	82	7	35	0.6613	0.0565	0.2823						
2	0.3583	0.3598	0.6765	0.4520	0.4640	0.6773	0.6667	0.7739	0.0144	0.2389	0.3930	0.3570	0.3539	0.5522	0.0215	98	2	24	0.7903	0.0161	0.1935						
3	0.3983	0.3933	0.1562	0.4865	0.4690	0.6765	0.6713	0.7379	0.0090	0.2014	0.3869	0.4239	0.4278	0.1861	0.0240	85	6	32	0.6911	0.0488	0.2602						
4	0.3213	0.3265	0.3158	0.4845	0.3573	0.7007	0.6908	0.7266	0.0068	0.2017	0.3737	0.4141	0.4206	0.5022	0.0240	94	4	34	0.7121	0.0303	0.2576						
5	0.3953	0.4016	0.3218	0.3172	0.6131	0.6983	0.6881	0.7083	0.0068	0.2704	0.4453	0.4184	0.3817	0.4638	0.0230	83	11	38	0.6288	0.0833	0.2879						
6	0.3231	0.3113	0.6444	0.5667	0.5466	0.6667	0.6583	0.7172	0.0088	0.2248	0.4034	0.5370	0.4534	0.4269	0.0241	99	4	37	0.7071	0.0286	0.2643						
7	0.4259	0.4385	0.5122	0.4828	0.4703	0.6718	0.6640	0.6894	0.0096	0.2386	0.3561	0.4616	0.4375	0.6162	0.0222	90	7	34	0.6870	0.0534	0.2595						
8	0.3614	0.3415	0.5714	0.3990	0.3886	0.6980	0.6798	0.7333	0.0059	0.2038	0.4089	0.4275	0.4395	0.6475	0.0228	95	9	27	0.7252	0.0687	0.2061						
9	0.3193	0.3220	0.4444	0.3498	0.4788	0.7107	0.6984	0.7134	0.0081	0.2106	0.3795	0.5173	0.5302	0.6197	0.0255	75	6	39	0.6250	0.0500	0.3250						
10	0.2629	0.2490	0.4898	0.4514	0.5440	0.6875	0.6739	0.6728	0.0096	0.2227	0.4061	0.4775	0.4480	0.5781	0.0255	91	9	44	0.6319	0.0625	0.3056						
11	0.4046	0.3938	0.6170	0.5160	0.3909	0.6777	0.6745	0.7071	0.0152	0.2539	0.3868	0.4834	0.4869	0.3963	0.0254	88	5	36	0.6822	0.0388	0.2791						
12	0.2727	0.2769	0.4368	0.3817	0.4208	0.6609	0.6522	0.6828	0.0107	0.2325	0.4138	0.4126	0.4717	0.4751	0.0254	100	10	36	0.6849	0.0685	0.2466						

Community smells: Pearson’s correlation ( QEMU )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.14	-0.23	0.51	0.37	-0.50	0.52	0.32	0.62	0.65	0.40	0.36	-0.19	0.04	0.00	0.49	-	0.02	0.00	-0.00	0.69	-0.80	-0.64	0.47	-0.36
prima.donnas	0.00	0.18	-0.61	-0.00	0.28	-0.64	-0.02	0.11	0.12	0.08	0.12	0.31	0.51	0.58	-0.23	0.02	-	0.30	0.09	-0.07	-0.00	-0.04	0.09	0.38
radio.silence	0.23	-0.06	0.09	0.46	-0.32	0.05	0.34	0.61	0.59	0.14	0.03	-0.17	0.16	0.17	0.24	0.00	0.30	-	0.47	0.28	-0.33	0.32	0.25	0.07
black.cloud	0.32	0.07	0.12	0.35	-0.21	0.08	0.20	0.60	0.56	0.46	0.41	-0.27	0.28	0.28	0.50	-0.00	0.09	0.47	-	0.36	-0.31	0.01	-0.12	0.07
missing.links	0.39	-0.21	0.41	0.83	-0.76	0.37	0.67	0.83	0.80	0.58	0.43	-0.08	0.24	0.20	0.89	0.69	-0.07	0.28	0.36	-	-0.74	-0.58	0.06	-0.57
	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core			
org.silo	-0.06	-0.08	-0.03	-0.60	0.27	0.12	0.05	-0.39	-0.46	0.18	0.47	0.23	0.23	0.21	0.12	-0.17	0.75	0.25	-0.47	0.77	0.19			
prima.donnas	-0.33	-0.33	0.48	0.38	0.20	-0.56	-0.62	0.20	0.25	0.14	0.05	0.20	0.04	-0.11	-0.17	0.65	-0.34	-0.12	0.44	-0.43	-0.33			
radio.silence	0.05	0.05	0.05	0.02	0.88	0.08	0.05	0.05	-0.07	0.46	0.10	0.33	-0.06	-0.03	-0.37	-0.05	0.01	0.31	-0.19	-0.01	0.24			
black.cloud	-0.35	-0.34	0.23	0.18	0.46	0.02	-0.04	-0.53	-0.12	-0.11	-0.24	0.70	0.39	0.38	0.28	-0.17	0.04	0.62	-0.45	0.01	0.56			
missing.links	-0.47	-0.46	-0.24	-0.58	0.59	0.16	0.12	-0.68	-0.41	0.13	0.59	0.25	0.14	0.10	0.39	-0.31	0.79	0.74	-0.81	0.77	0.62			

Community smells: Pearson's correlation - p-values ( QEMU )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.66	0.48	0.09	0.23	0.10	0.08	0.30	0.03	0.02	0.20	0.25	0.56	0.90	0.99	0.11	-	0.95	1.00	0.99	0.01	0.00	0.03	0.15	0.28
prima.donnas	0.99	0.58	0.03	0.99	0.38	0.02	0.94	0.73	0.71	0.80	0.71	0.33	0.09	0.05	0.47	0.95	-	0.34	0.79	0.82	1.00	0.91	0.80	0.24
radio.silence	0.47	0.86	0.79	0.13	0.30	0.87	0.28	0.04	0.04	0.67	0.92	0.59	0.61	0.60	0.45	1.00	0.34	-	0.15	0.38	0.30	0.31	0.46	0.84
black.cloud	0.34	0.83	0.73	0.29	0.53	0.80	0.55	0.05	0.07	0.15	0.21	0.41	0.41	0.40	0.12	0.99	0.79	0.15	-	0.28	0.36	0.98	0.73	0.84
missing.links	0.21	0.52	0.18	0.00	0.00	0.23	0.02	0.00	0.00	0.05	0.16	0.82	0.45	0.53	0.00	0.01	0.82	0.38	0.28	-	0.01	0.05	0.87	0.07

	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.cent	betweenness.cent	degree.cent	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core
org.silo	0.85	0.82	0.94	0.05	0.39	0.70	0.89	0.21	0.13	0.58	0.13	0.46	0.47	0.52	0.72	0.60	0.00	0.43	0.12	0.00	0.55
prima.donnas	0.32	0.32	0.13	0.25	0.54	0.06	0.03	0.53	0.44	0.66	0.88	0.54	0.89	0.74	0.59	0.02	0.27	0.70	0.15	0.16	0.30
radio.silence	0.89	0.88	0.87	0.95	0.00	0.81	0.89	0.87	0.83	0.13	0.77	0.30	0.85	0.94	0.24	0.89	0.98	0.33	0.56	0.98	0.45
black.cloud	0.30	0.30	0.50	0.61	0.16	0.96	0.91	0.10	0.73	0.75	0.48	0.02	0.24	0.25	0.41	0.61	0.91	0.04	0.16	0.98	0.07
missing.links	0.14	0.15	0.48	0.06	0.04	0.61	0.72	0.02	0.18	0.69	0.04	0.43	0.67	0.75	0.21	0.33	0.00	0.01	0.00	0.00	0.03

Community smells: Spearman’s correlation ( QEMU )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover
org.silo	0.22	-0.20	0.48	0.40	-0.44	0.45	0.26	0.68	0.60	0.40	0.39	-0.20	0.03	-0.08	0.46	-	-0.00	-0.12	0.01	0.69	-0.75	-0.64	0.46
prima.donnas	0.03	0.26	-0.68	0.02	0.29	-0.70	-0.22	-0.01	-0.04	0.01	0.20	0.27	0.44	0.53	-0.13	-0.00	-	0.14	-0.01	-0.07	-0.02	-0.03	-0.06
radio.silence	0.31	0.02	0.06	0.46	-0.26	0.03	0.33	0.42	0.50	0.02	-0.07	-0.28	0.08	0.03	0.20	-0.12	0.14	-	0.46	0.14	-0.15	0.30	0.36
black.cloud	0.27	0.19	0.19	0.41	-0.26	0.23	0.26	0.57	0.60	0.46	0.41	-0.33	0.20	0.23	0.49	0.01	-0.01	0.46	-	0.30	-0.18	-0.05	0.02
missing.links	0.40	-0.21	0.39	0.83	-0.81	0.34	0.67	0.83	0.81	0.52	0.41	-0.17	0.12	-0.02	0.87	0.69	-0.07	0.14	0.30	-	-0.66	-0.66	0.19
		core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core	
org.silo	0.00	0.01	-0.07	-0.58	0.31	0.01	0.08	-0.29	-0.44	0.17	0.52	0.21	0.29	0.13	0.13	-0.10	0.70	0.38	-0.41	0.73	0.23		
prima.donnas	-0.31	-0.40	0.48	0.20	0.09	-0.59	-0.70	0.15	0.37	0.29	0.18	-0.10	0.11	-0.23	-0.15	0.75	-0.31	-0.07	0.41	-0.39	-0.42		
radio.silence	0.04	0.12	0.15	0.00	0.71	0.12	0.02	0.11	0.02	0.42	-0.10	0.29	-0.17	-0.11	-0.25	-0.09	-0.13	0.35	-0.15	-0.19	0.36		
black.cloud	-0.32	-0.37	0.21	0.03	0.60	-0.03	-0.11	-0.48	0.03	-0.07	-0.22	0.68	0.39	0.36	0.42	-0.11	0.03	0.62	-0.38	-0.01	0.56		
missing.links	-0.43	-0.39	-0.29	-0.57	0.63	0.06	0.09	-0.59	-0.24	0.04	0.65	0.18	0.24	-0.03	0.55	-0.24	0.76	0.78	-0.75	0.72	0.64		

Community smells: Spearman's correlation - p-values ( QEMU )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.49	0.53	0.12	0.20	0.15	0.15	0.42	0.01	0.04	0.20	0.21	0.52	0.92	0.80	0.14	-	0.99	0.71	0.98	0.02	0.01	0.03	0.15	0.45
prima.donnas	0.92	0.41	0.02	0.94	0.37	0.01	0.49	0.98	0.90	0.97	0.54	0.40	0.15	0.08	0.68	0.99	-	0.67	0.98	0.83	0.95	0.92	0.85	0.25
radio.silence	0.33	0.94	0.86	0.14	0.41	0.92	0.30	0.17	0.09	0.94	0.82	0.38	0.81	0.92	0.53	0.71	0.67	-	0.15	0.66	0.63	0.34	0.28	0.58
black.cloud	0.43	0.57	0.57	0.22	0.45	0.49	0.45	0.07	0.05	0.16	0.22	0.32	0.56	0.51	0.13	0.98	0.98	0.15	-	0.37	0.59	0.88	0.95	0.80
missing.links	0.20	0.51	0.21	0.00	0.00	0.29	0.02	0.00	0.00	0.08	0.19	0.59	0.72	0.95	0.00	0.02	0.83	0.66	0.37	-	0.02	0.02	0.58	0.13

	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.cent	betweenness.cent	degree.cent	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core
org.silo	1.00	0.99	0.84	0.07	0.33	0.97	0.82	0.37	0.15	0.60	0.09	0.51	0.37	0.68	0.69	0.77	0.01	0.22	0.19	0.01	0.47
prima.donnas	0.36	0.22	0.14	0.55	0.79	0.04	0.01	0.65	0.23	0.37	0.57	0.75	0.73	0.48	0.65	0.01	0.33	0.84	0.18	0.21	0.17
radio.silence	0.92	0.73	0.67	0.99	0.01	0.70	0.95	0.73	0.94	0.18	0.76	0.36	0.59	0.73	0.43	0.77	0.68	0.26	0.64	0.55	0.24
black.cloud	0.34	0.26	0.53	0.93	0.05	0.93	0.76	0.14	0.93	0.83	0.51	0.02	0.23	0.27	0.20	0.76	0.94	0.04	0.24	0.98	0.07
missing.links	0.19	0.24	0.39	0.07	0.03	0.85	0.78	0.05	0.46	0.90	0.03	0.57	0.44	0.92	0.06	0.46	0.00	0.00	0.01	0.01	0.03