

DIVERGENT CHANGE								
Release	Technique	Affected Components	#Identified	# true positive	# false positive	Precision	Recall	F-Measure
cassandra 0.5	HIST	2	0	0	0	0	0	0
	SS Technique	2	7	1	0	14	50	22
cassandra 0.6	HIST	4	1	1	0	100	25	40
	SS Technique	4	8	1	7	13	25	17
cassandra 0.7	HIST	4	1	1	0	100	25	40
	SS Technique	4	9	1	8	11	25	15
cassandra 0.7.2	HIST	4	4	3	1	75	75	75
	SS Technique	4	9	1	8	11	25	15
cassandra 0.7.3	HIST	4	4	3	1	75	75	75
	SS Technique	4	9	1	8	11	25	15
cassandra 0.8	HIST	4	4	3	1	75	75	75
	SS Technique	4	9	1	8	11	25	15
cassandra 0.8.1	HIST	4	5	3	1	60	75	67
	SS Technique	4	11	1	10	9	25	13
cassandra 0.8.3	HIST	4	5	3	1	60	75	67
	SS Technique	4	11	1	10	9	25	13
cassandra 1.0	HIST	4	5	3	1	60	75	67
	SS Technique	4	11	1	10	9	25	13
cassandra 1.1	HIST	4	7	3	4	43	75	55
	SS Technique	4	11	1	10	9	25	13

FEATURE ENVY								
Release	Technique	Affected Components	#Identified	# true positive	# false positive	Precision	Recall	F-Measure
cassandra 0.5	HIST	12	9	3	6	34	25	25
	SS Technique	12	8	4	4	50	34	40
cassandra 0.6	HIST	12	9	3	6	34	25	29
	SS Technique	12	8	4	4	50	34	40
cassandra 0.7	HIST	16	18	13	5	72	81	76
	SS Technique	16	17	11	6	65	69	67
cassandra 0.7.2	HIST	16	18	13	5	72	81	76
	SS Technique	16	17	11	6	65	69	67
cassandra 0.7.3	HIST	16	16	9	7	56	56	56
	SS Technique	16	15	7	8	47	44	45
cassandra 0.8	HIST	28	28	28	0	100	100	100
	SS Technique	28	28	28	0	100	100	100
cassandra 0.8.1	HIST	28	28	28	0	100	100	100
	SS Technique	28	28	28	0	100	100	100
cassandra 0.8.3	HIST	28	32	28	4	88	100	94
	SS Technique	28	33	28	5	85	100	92
cassandra 1.0	HIST	28	35	28	7	80	100	89
	SS Technique	28	38	28	10	74	100	85
cassandra 1.1	HIST	28	35	28	7	80	100	89
	SS Technique	28	38	28	10	74	100	85

BLOB								
Release	Technique	Affected Components	#Identified	# true positive	# false positive	Precision	Recall	F-Measure
cassandra 0.5	HIST	3	2	1	1	50	34	40
	SS Technique	3	2	0	2	0	0	0
cassandra 0.6	HIST	3	2	1	1	50	34	40
	SS Technique	3	2	0	2	0	0	0
cassandra 0.7	HIST	6	5	4	0	80	67	73
	SS Technique	6	7	4	3	57	67	62
cassandra 0.7.2	HIST	6	5	4	0	80	67	73
	SS Technique	6	7	4	3	57	67	62
cassandra 0.7.3	HIST	6	5	4	0	80	67	73
	SS Technique	6	7	4	3	57	67	62
cassandra 0.8	HIST	7	5	4	0	80	57	67
	SS Technique	7	7	4	3	57	57	57
cassandra 0.8.1	HIST	7	5	4	0	80	57	67
	SS Technique	7	7	4	3	57	57	57
cassandra 0.8.3	HIST	7	5	4	0	80	57	67
	SS Technique	7	7	4	3	57	57	57
cassandra 1.0	HIST	7	5	4	0	80	57	67
	SS Technique	7	7	4	3	57	57	57
cassandra 1.1	HIST	7	5	4	0	80	57	67
	SS Technique	7	7	4	3	57	57	57

PARALLEL INHERITANCE								
Release	Technique	Affected Components	#Identified	# true positive	# false positive	Precision	Recall	F-Measure
cassandra 0.5	HIST	1	1	1	0	100	100	100
	SS Technique	1	23	1	22	4	100	8
cassandra 0.6	HIST	3	3	2	1	67	67	67
	SS Technique	3	24	1	23	4	34	7
cassandra 0.7	HIST	3	3	2	1	67	67	67
	SS Technique	3	24	1	23	4	34	7
cassandra 0.7.2	HIST	3	3	2	1	67	67	67
	SS Technique	3	24	1	23	4	34	7
cassandra 0.7.3	HIST	3	3	2	1	67	67	67
	SS Technique	3	24	1	23	4	34	7
cassandra 0.8	HIST	3	3	2	1	67	67	67
	SS Technique	3	24	1	23	4	34	7
cassandra 0.8.1	HIST	3	3	2	1	67	67	67
	SS Technique	3	24	1	23	4	34	7
cassandra 0.8.3	HIST	3	5	2	3	40	67	50
	SS Technique	3	34	1	33	3	34	6
cassandra 1.0	HIST	3	5	2	3	40	67	50
	SS Technique	3	34	1	33	3	34	6
cassandra 1.1	HIST	3	5	2	3	40	67	50
	SS Technique	3	34	1	33	3	34	6

SHOTGUN SURGERY								
Release	Technique	Affected Components	#Identified	# true positive	# false positive	Precision	Recall	F-Measure
cassandra 0.5	HIST	0	0	0	0	0	0	0
	SS Technique	0	0	0	0	0	0	0
cassandra 0.6	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 0.7	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 0.7.2	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 0.7.3	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 0.8	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 0.8.1	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 0.8.3	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 1.0	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0
cassandra 1.1	HIST	1	1	1	0	100	100	100
	SS Technique	1	0	0	0	0	0	0