

October 7, 2016

Generated Test Repositories



26 Generated Repositories				Merge Commits	
	Commits	Merge Commits	Named Branches	P	A
Total	32297	11897	215	100.0%	36.8%
Average	1468	541	10	100.0%	33.7%
Minimum	113	13	5	100.0%	11.5%
Maximum	4986	1986	20	100.0%	40.9%

Branch Head

P

A

100.0%

37.1%

100.0%

34.5%

100.0%

13.7%

100.0%

41.0%

Merge Parents

P

A

93.3%

78.4%

89.6%

71.3%

64.9%

25.1%

96.3%

84.4%

Ancestral

P

A

91.6%

95.4%

87.5%

92.0%

55.7%

66.9%

95.8%

98.9%

Majority Origin

P

A

91.2%

100.0%

87.0%

100.0%

57.1%

99.7%

95.7%

100.0%

- 100% accuracy
- 91% precision
- Generated repositories may not completely reflect actual systems

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26 Generated Repositories				Merge Commits		Branch Head		Merge Parents		Ancestral		Majority Origin	
	Commits	Merge Commits	Named Branches	P	A	P	A	P	A	P	A	P	A
Total	32297	11897	215	100.0%	36.8%	100.0%	37.1%	93.3%	78.4%	91.6%	95.4%	91.2%	100.0%
Average	1468	541	10	100.0%	33.7%	100.0%	34.5%	89.6%	71.3%	87.5%	92.0%	87.0%	100.0%
Minimum	113	13	5	100.0%	11.5%	100.0%	13.7%	64.9%	25.1%	55.7%	66.9%	57.1%	99.7%
Maximum	4986	1986	20	100.0%	40.9%	100.0%	41.0%	96.3%	84.4%	95.8%	98.9%	95.7%	100.0%

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Case Study: Accuracy Assessment

- 40 Git repositories
- Accuracy is measured as each rule is iteratively applied