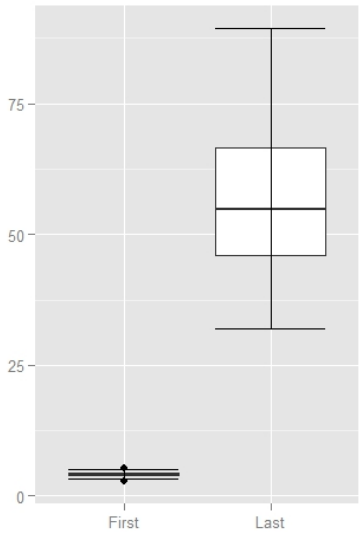


Fig. 1. Execution elapsed time measured in seconds for Agilefant. We compare average elapsed times of each transaction in first and last generations. The x-axis corresponds to the first and last generations, and y-axis corresponds to systems' average elapsed time. The experiments were repeated for 30 runs.

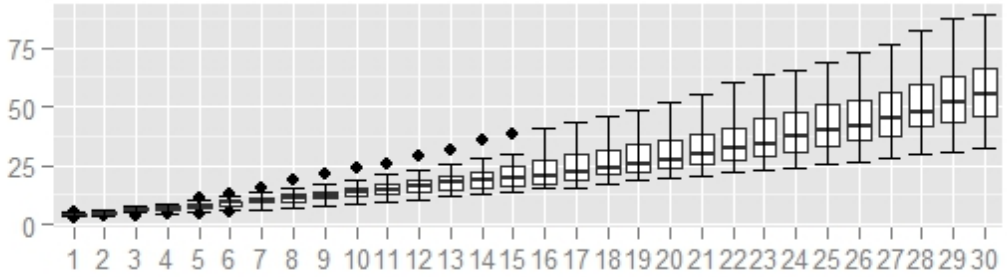


Fig. 2. The results for elapsed execution time across every generation for Agilefant, measured in seconds. The x-axis corresponds to generations, and y-axis corresponds to average elapsed time.

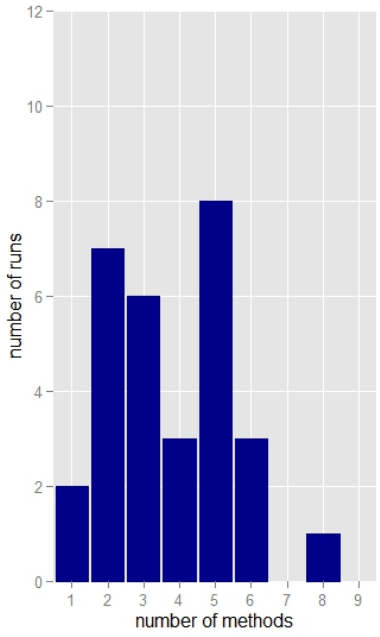
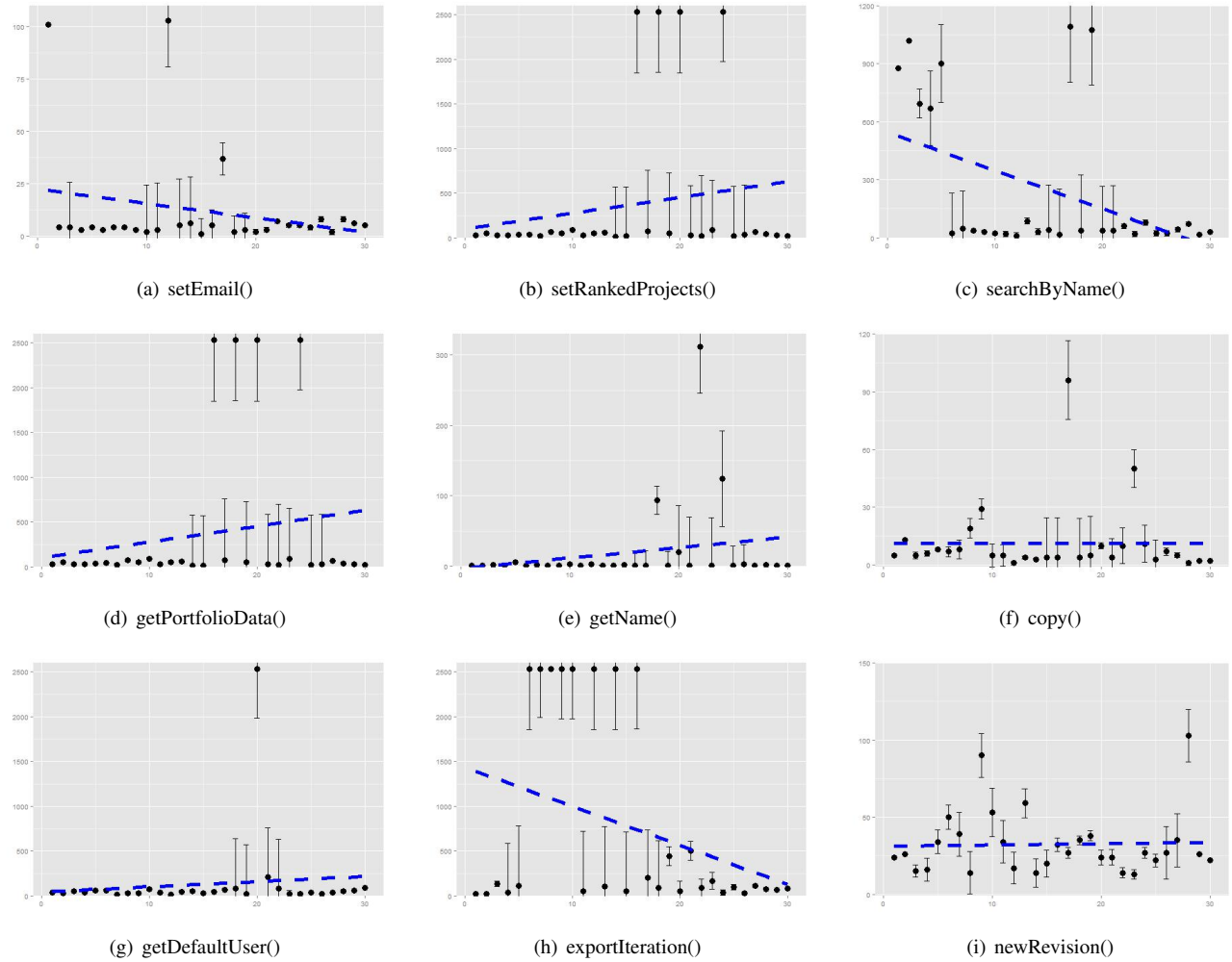


Fig. 3. Distribution of the quantity of captured injected bottlenecks. The x-axis corresponds to the number of injected bottlenecks that are captured by one certain `GA−Prof` run. The y-axis corresponds to the number of `GA−Prof` runs.

	Name	Container
m_1	setEmail()	/model/User
m_2	setRankedProjects()	/transfer/PortfolioTO
m_3	searchByName()	/db/hibernate/BacklogDAOHibernate
m_4	getPortfolioData()	/web/ProjectPortfolioAction
m_5	getName()	/model/WidgetCollection
m_6	copy()	/util/BeanCopier
m_7	getDefaultUser()	/web/DailyWorkAction
m_8	exportIteration()	/business/impl/ExportIterationBusinessImpl
m_9	newRevision()	/db/history/impl/AgilefantRevisionListener

TABLE I

THE LIST OF METHODS THAT ARE ARTIFICIAL DELAYS ARE INJECTED INTO. THE THREE COLUMNS INDICATE THE METHOD ID, THE METHOD NAME AND METHOD CONTAINER, RESPECTIVELY.



(a) setEmail() (b) setRankedProjects() (c) searchByName()

(d) getPortfolioData() (e) getName() (f) copy()

(g) getDefaultUser() (h) exportIteration() (i) newRevision()

Fig. 4. Understanding the trend of ranks of injected bottlenecks. These figures take one run for example The x-axis corresponds to generations, and y-axis corresponds to the rank of bottlenecks. In each subfigure, the rank of the method is shown in black circles. The standard deviation at each generations is shown in black vertical lines and whiskers. The fit straight line is shown is blue dashed lines.