This repository support the experiment result of Performance Analysis of Several Intelligent Algorithms for Class Integration Test Order Optimization.

There are two folders, namely systems for software systems under test and test data for data collection.

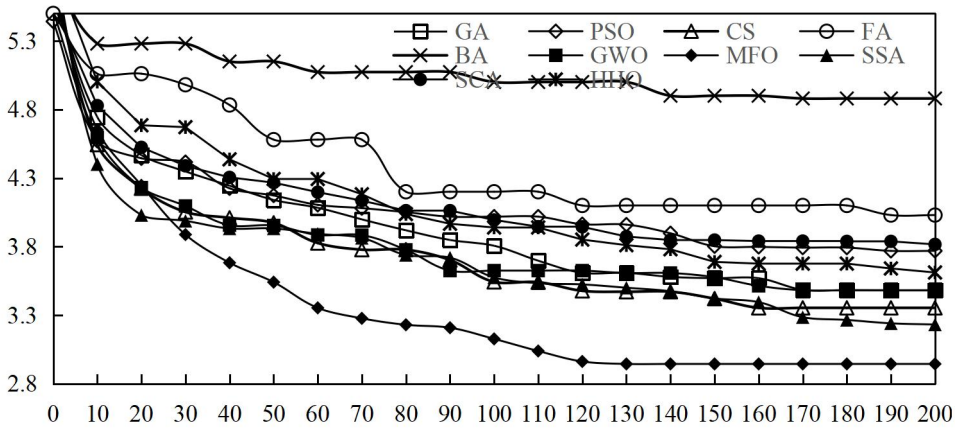
Integration testing is an essential and important activity in software testing. In the process of object-oriented software development. This study focuses on applicability and performance evaluation of ten typical widely used intelligent algorithms in software engineering, namely genetic algorithm(GA), particle swarm optimization (PSO), cuckoo search algorithm (CS), firefly algorithm (FA), bat algorithm (BA), grey wolf algorithm (GWO), moth flame optimization (MFO), since cosine algorithm (SCA), salp swarm algorithm (SSA) and harris hawk optimization (HHO).

Software systems under test are listed below.

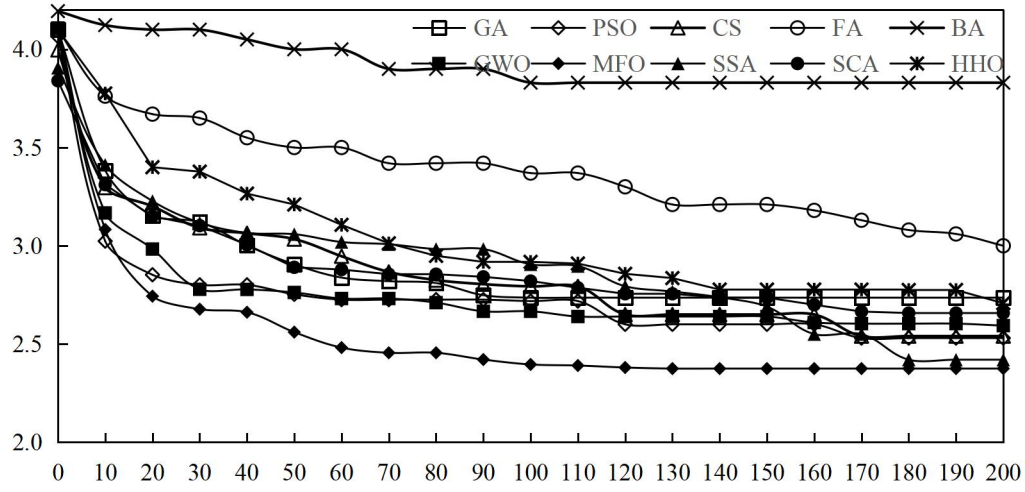
Table 1: Software systems under testing

System	Classes	Dependencies	Cycles	#LOC
Elevator	12	27	23	934
SPM	19	72	1178	1198
ATM	21	67	30	1390
Daisy	23	36	4	1148
ANT	25	83	654	4093
DEOS	25	73	520	2215
Email	39	61	38	2276
BCEL	45	294	416091	3033
DNS	61	276	16	6710
Notepad	65	141	227	2419

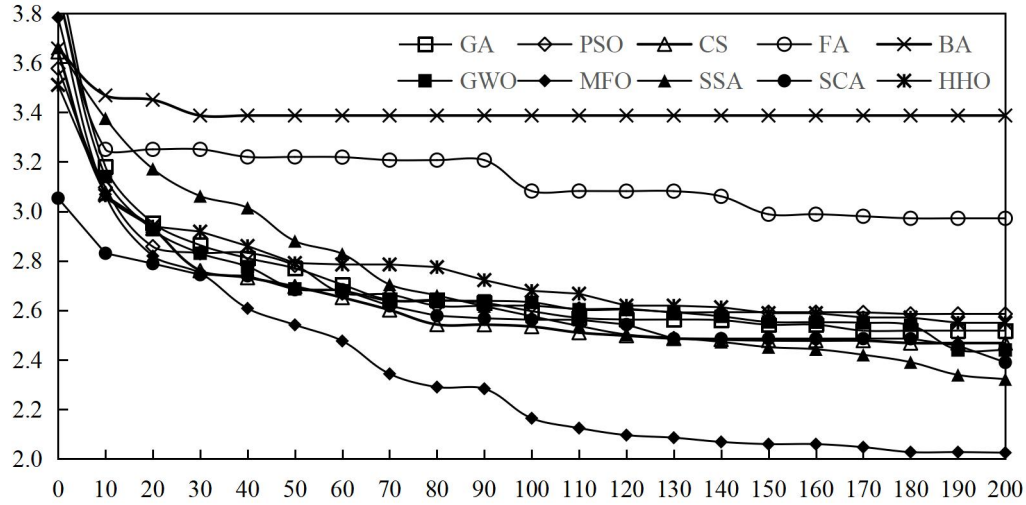
In order to observe the convergence behavior of these intelligent algorithms for CITO problem,we select software with a large number of classes and dependencies, such as SPM, ATM, ANT and BCEL, to collect their overall test stubbing complexity obtained



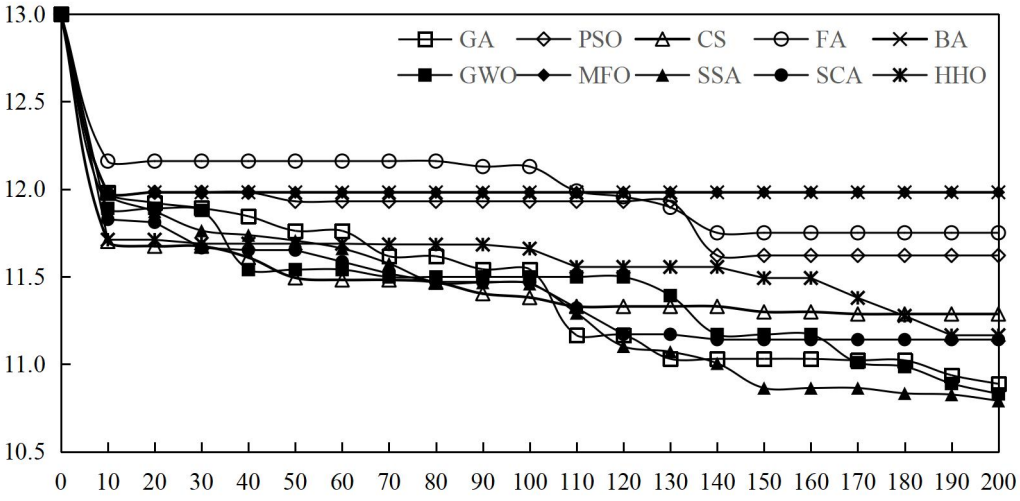
(*a*) SPM



(*b*) ATM



(*c*) ANT



(*d*) BCEL