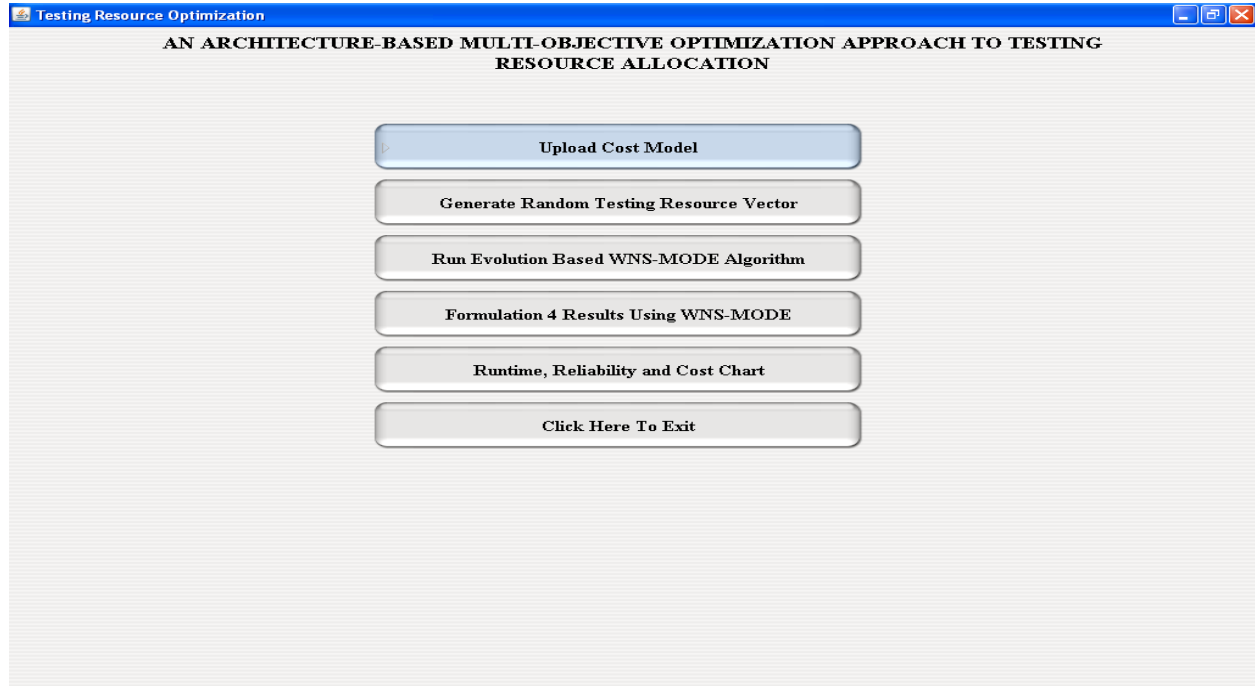


An Architecture-Based Multi-Objective Optimization Approach to Testing Resource Allocation

Screen shots



Now upload cost model

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Component	Cost1	Cost2	Cost3
1	1.85095	12.2522	0.52092
2	1.80524	9.88617	0.736893
3	1.13409	11.6095	0.398956
4	1.49542	5.3894	0.636551
5	1.91077	5.69397	0.560883
6	1.65082	6.45416	0.383377
7	1.00085	5.83954	0.261703
8	2.21655	8.16315	0.576416
9	1.98438	13.23	0.591431
10	1.6983	8.43658	0.701416

Cost model for all 10 components

Now generate 'Random Testing Resource Vector' and this vector will be consider as population for evolutionary algorithm

U1	U2	U3	U4	U5	U6	U7	U8	U9	U10
1.91077	1.80524	1.65082	17.004084	1.00085	1.65082	1.80524	1.98438	1.65082	1.6983
1.65082	1.13409	1.91077	7.329234	1.13409	1.00085	1.91077	23.378363	7.615025	1.6983
1.00085	19.141195	5.449403	1.13409	9.691547	6.000654	1.6983	2.21655	1.13409	1.00085
4.592532	1.00085	1.65082	19.691876	3.692786	1.85095	7.433593	1.80524	1.98438	1.98438
11.182299	2.21655	1.49542	8.413736	1.6983	6.943075	1.65082	1.49542	1.65082	1.49542
1.6983	16.218336	1.6983	5.800431	4.092008	1.98438	1.98438	5.034307	1.6983	1.65082
1.98438	1.65082	1.6983	1.91077	14.75363	3.054665	1.498837	1.13409	7.110912	16.747627
15.967103	1.65082	9.755434	1.80524	1.6983	9.204064	1.13409	1.98438	1.00085	1.85095
1.85095	1.6983	1.00085	22.18977	4.659329	6.102145	1.80524	1.6983	1.98438	4.810003
1.00085	2.101891	1.65082	4.031729	1.98438	1.98438	7.150962	1.98438	1.65082	1.49542

Now run evolution algorithm. This algorithm search best solution and if no solution found then value will be 0

```

Data Streaming
Solution found!
Generation: 0
Genes:
1.85095 1.6983 1.00085 22.18977 4.659329 6.102145 1.80524 1.6983 1.98438 4.810003

Solution found!
Generation: 42
Genes:
1.80524 2.101891 1.98438 4.031729 1.98438 1.98438 7.150962 1.80524 1.80524 4.592532

Solution found!
Generation: 7
Genes:
1.49542 2.21655 1.49542 22.18977 4.659329 6.943075 1.65082 1.65082 7.110912 1.65082

Solution found!
Generation: 0
Genes:
1.91077 1.80524 1.65082 17.004084 1.00085 1.65082 1.80524 1.98438 1.65082 1.6983

Solution found!
Generation: 0
Genes:
1.65082 1.13409 1.91077 7.329234 1.13409 1.00085 1.91077 23.378363 7.615025 1.6983

Solution found!
Generation: 0
Genes:
1.00085 2.101891 1.65082 4.031729 1.98438 1.98438 7.150962 1.98438 1.65082 1.49542

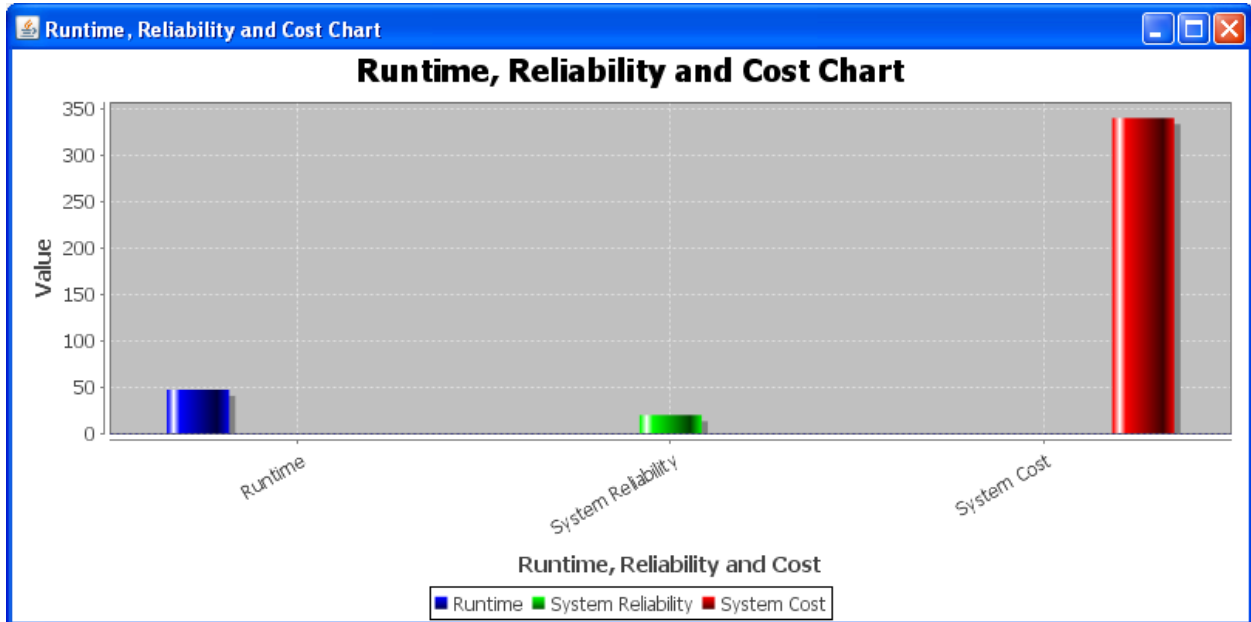
Solution found!
Generation: 0
Genes:
1.98438 1.65082 1.6983 1.91077 14.75363 3.054665 1.498837 1.13409 7.110912 16.747627

Solution found!
Generation: 0
Genes:
1.6983 16.218336 1.6983 5.800431 4.092008 1.98438 1.98438 5.034307 1.6983 1.65082
    
```

Now Click on 'Formulation 4 results' button to find sum of all resources, reliability and system cost

Component	TI
1	47.799267
2	29.245974
3	51.062936
4	32.161324
5	48.762312
6	25.035632
7	51.544031
8	41.859562
9	0
10	0
SUM(TI)	327.471038
System Reliability	19.55358
System Cost	340.535728

Now see same thing graph with runtime value



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