REPORT SSA.md 4/24/2020

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## Report

Benchmark	Orig. # Inst.	Opt. Time	Opt. # Inst.
Arrayparam	841	0.296s	657
Bubble	4374	0.286s	3184
Check	140	0.251s	120
Dynamic	39155	0.351s	25782
Fib	274	0.262s	232
Gcd	103	0.251s	86
Newdyn	136919	0.294s	92795
QS	4574	0.296s	3782
While Array	377	0.247s	321

## **IOPT Bash Script Output**

Bash script found in root directory named iopt.

```
Program starting
----arrayparam-----
Parsed.
real
      0m0<sub>•</sub>372s
user 0m0.503s
sys 0m0.065s
21c21
< Total Instructions Executed = 657
> Total Instructions Executed = 841
-----bubble-----
Parsed.
real
      0m0.352s
user
       0m0.582s
sys 0m0.058s
16c16
< Total Instructions Executed = 3184
> Total Instructions Executed = 4374
  -----check-----
```

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```
Parsed.
real 0m0.280s user 0m0.389s
sys 0m0.052s
2c2
< Total Instructions Executed = 120
> Total Instructions Executed = 140
----dynamic-----
Parsed.
real 0m0.462s user 0m0.857s
sys 0m0.070s
2c2
< Total Instructions Executed = 25782
> Total Instructions Executed = 39155
-----fib-----
Parsed.
real 0m0.270s
user 0m0.375s
sys 0m0.050s
21c21
< Total Instructions Executed = 232
> Total Instructions Executed = 274
-----gcd-----
Parsed.
real 0m0.309s user 0m0.438s
sys 0m0.057s
2c2
< Total Instructions Executed = 86
> Total Instructions Executed = 103
----newdyn-----
Parsed.
real 0m0.346s
user 0m0.555s
sys 0m0.053s
2c2
< Total Instructions Executed = 92795
> Total Instructions Executed = 136919
```

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```
----qs-----
Parsed.
real 0m0.368s
user 0m0.619s
sys 0m0.062s
61c61
< Total Instructions Executed = 3782
> Total Instructions Executed = 4574
----while_array-----
Parsed.
real 0m0.298s
user 0m0.408s
sys 0m0.054s
11c11
< Total Instructions Executed = 321
> Total Instructions Executed = 377
Done.
```