C++ FSM frameworks comparison

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Abstract

Document presents comparison between C++ FSM frameworks:

- Boost Meta State Machine (msm)
- Boost State Chart (statechart)
- Quick Finite State Machine (QFsm)

Contents

0.0.1 Results from "dell" [df6407d], generated Sun Sep 25 23:06:58 CEST 2011

```
Test aspects:

    compilation:
        compilation time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    size:
        size of the binary measured by 'ls -k' call
        result is in kilobytes

    strip-size:
        size of the binary measured by 'ls -k' call after 'strip' call
        result is in kilobytes

    execution:
        execution time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    valgrind:
        test is executed with valgrind call
        result is as A/D (S), where
        A - allocations
        D - deallocations
        S - global allocated size in bytes

    test name:
        test_NAME[_NUMBER], where NAME is test case name and NUMBER is count of event calls during the test
```

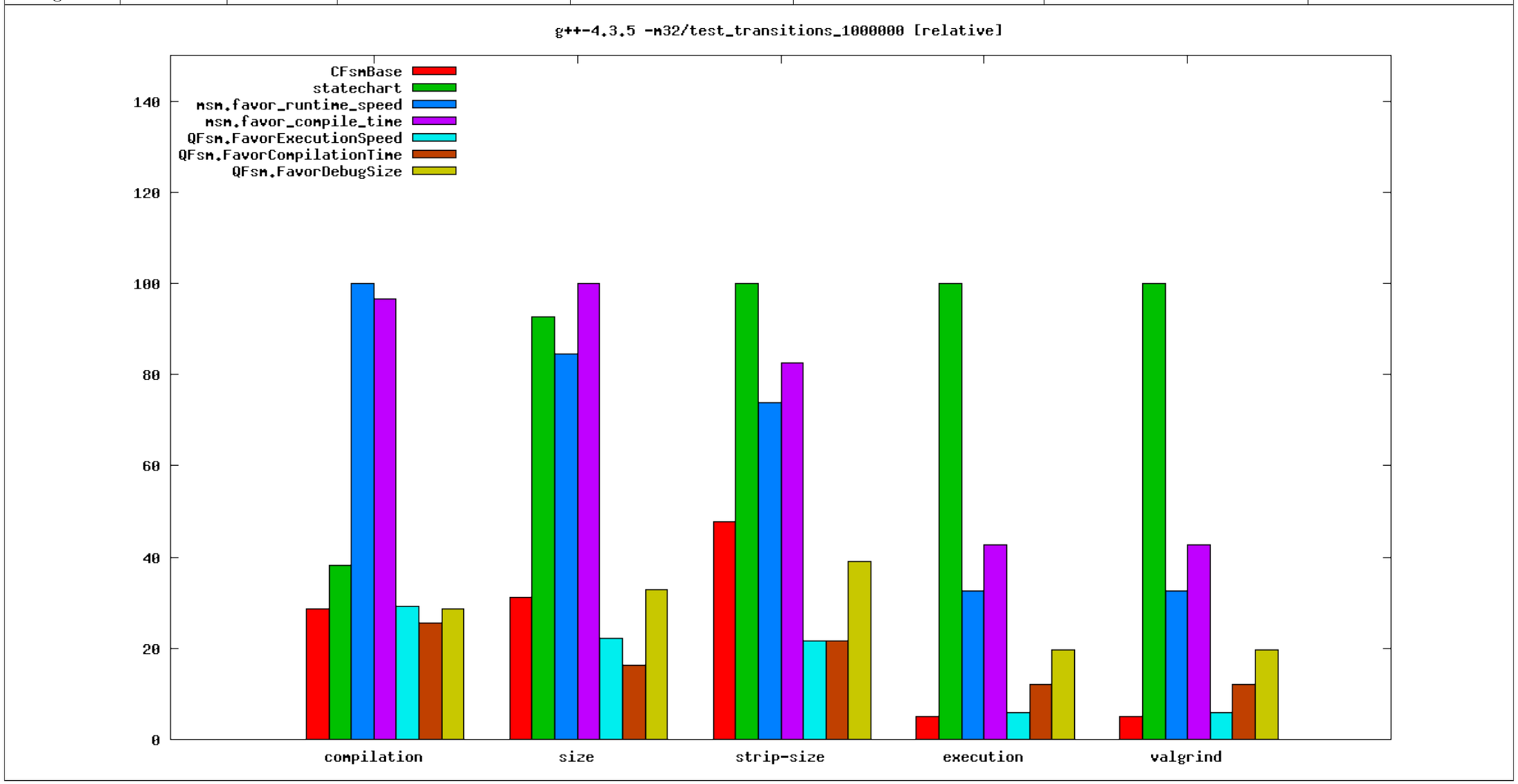
```
Environment statistics:

    generated: Sun Sep 25 23:06:58 CEST 2011
    code revision: df6407d
    hostname: "dell"
    operating system:  GNU/Linux
    processor: Intel(R) Core(TM)2 Duo CPU P8600 @ 2.40GHz
    free memory: 896Mb
    load average: 0.95 1.04 0.88 1/240 30884
```

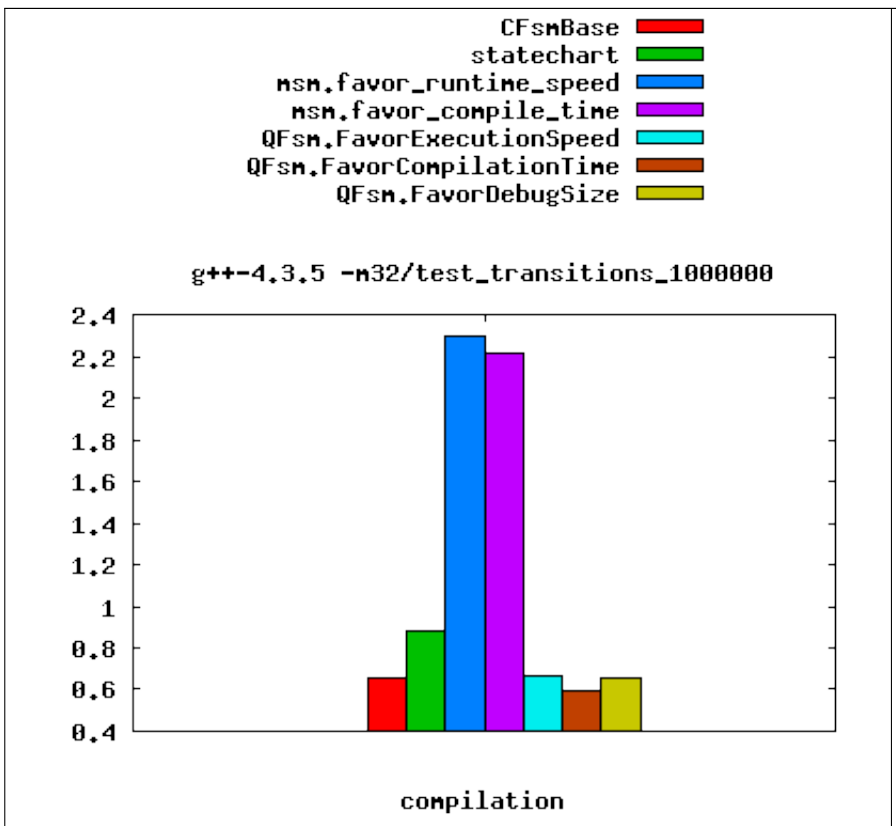
```
All tests summary:

    real: 1329.65s (22:09.65)
    user: 1283.62s
    sys: 18.77s
    cpu: 97%
    average memory usage: 0K
    maximum resident set size: 0K
    number of times the process was swapped out of main memory: 0
    number of file system input: 1472
    number of file system outputs: 1046512
```

```
Results are presented by using table and two types of charts:

    table: contains results for each tested aspect and framework
    first type of chart: presents relative (0-100%) differents between individual framework and aspect
    second type of chart: presents each aspect individually using exact values returned during the test
```

Table 1: "dell" [df6407d], g++-4.3.5 -m32/test transitions 1000000

	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.66s	0.88s	2.30s	2.22s	0.67s	0.59s	0.66s
size	38K	113K	103K	122K	27K	20K	40K
strip-size	22K	46K	34K	38K	10K	10K	18K
execution	0.06s	1.17s	0.38s	0.50s	0.07s	0.14s	0.23s
valgrind	0.06s	1.17s	0.38s	0.50s	0.07s	0.14s	0.23s

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statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_transitions_1000000
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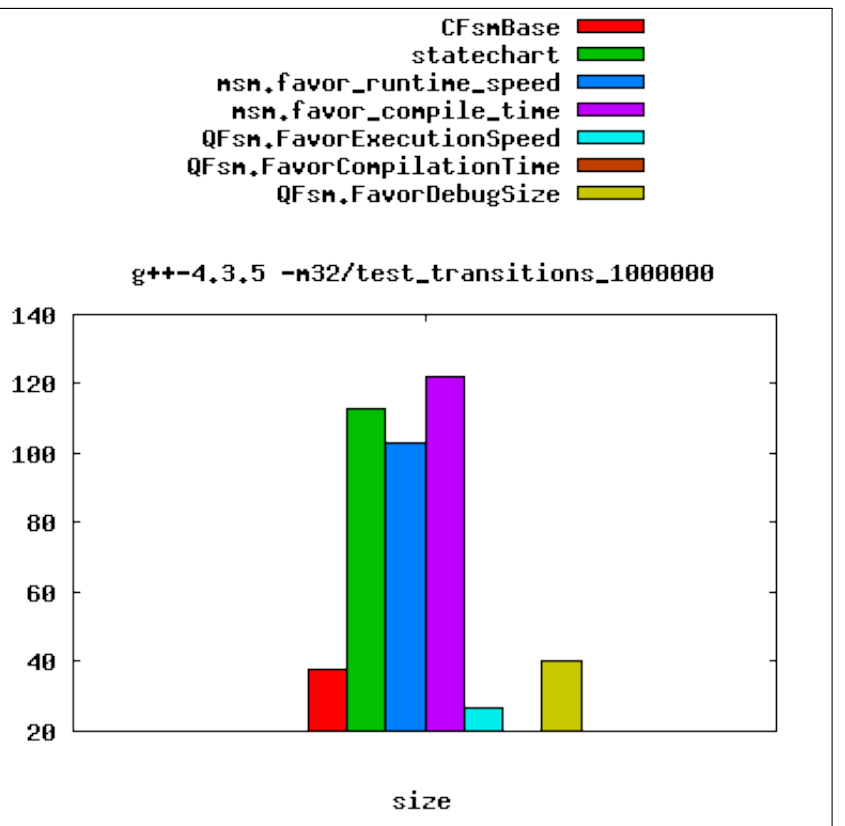
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
compilation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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_transitions_1000000
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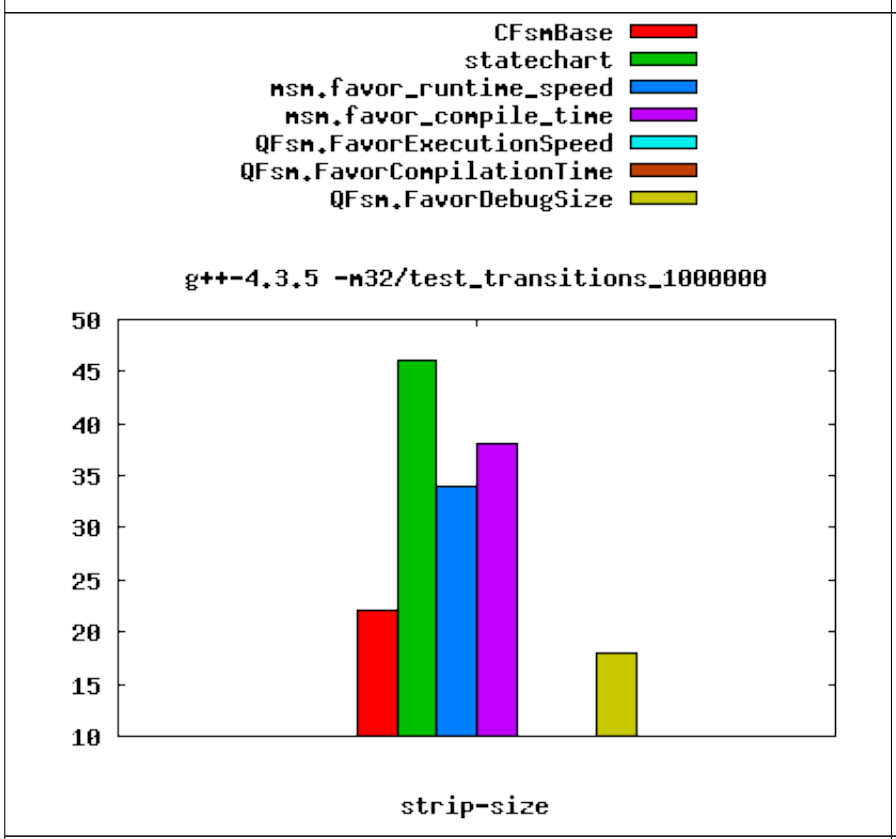
120
100
80
60
40
20
size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statechart
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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
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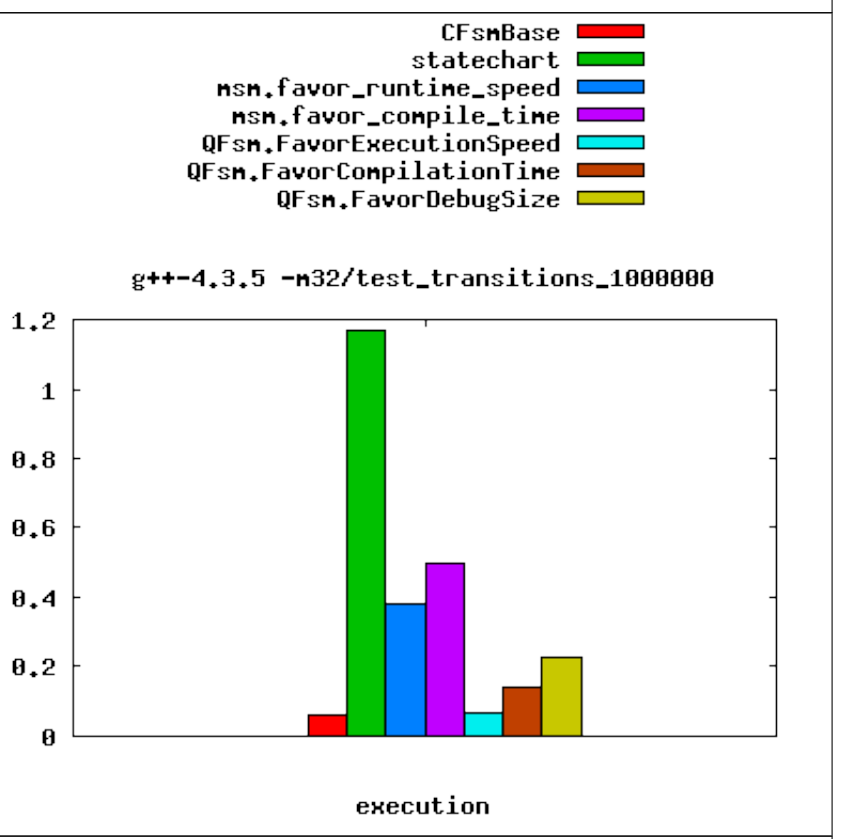
50
45
40
35
30
25
20
15
10
strip-size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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
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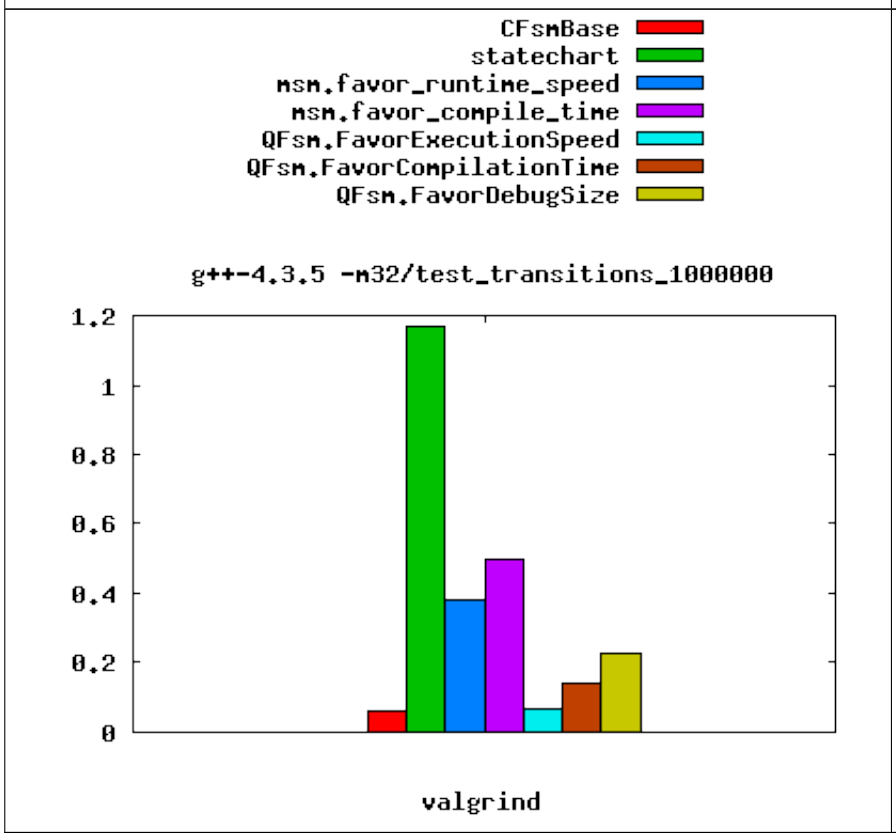
1
0.8
0.6
0.4
0.2
0
execution


CFsmBase
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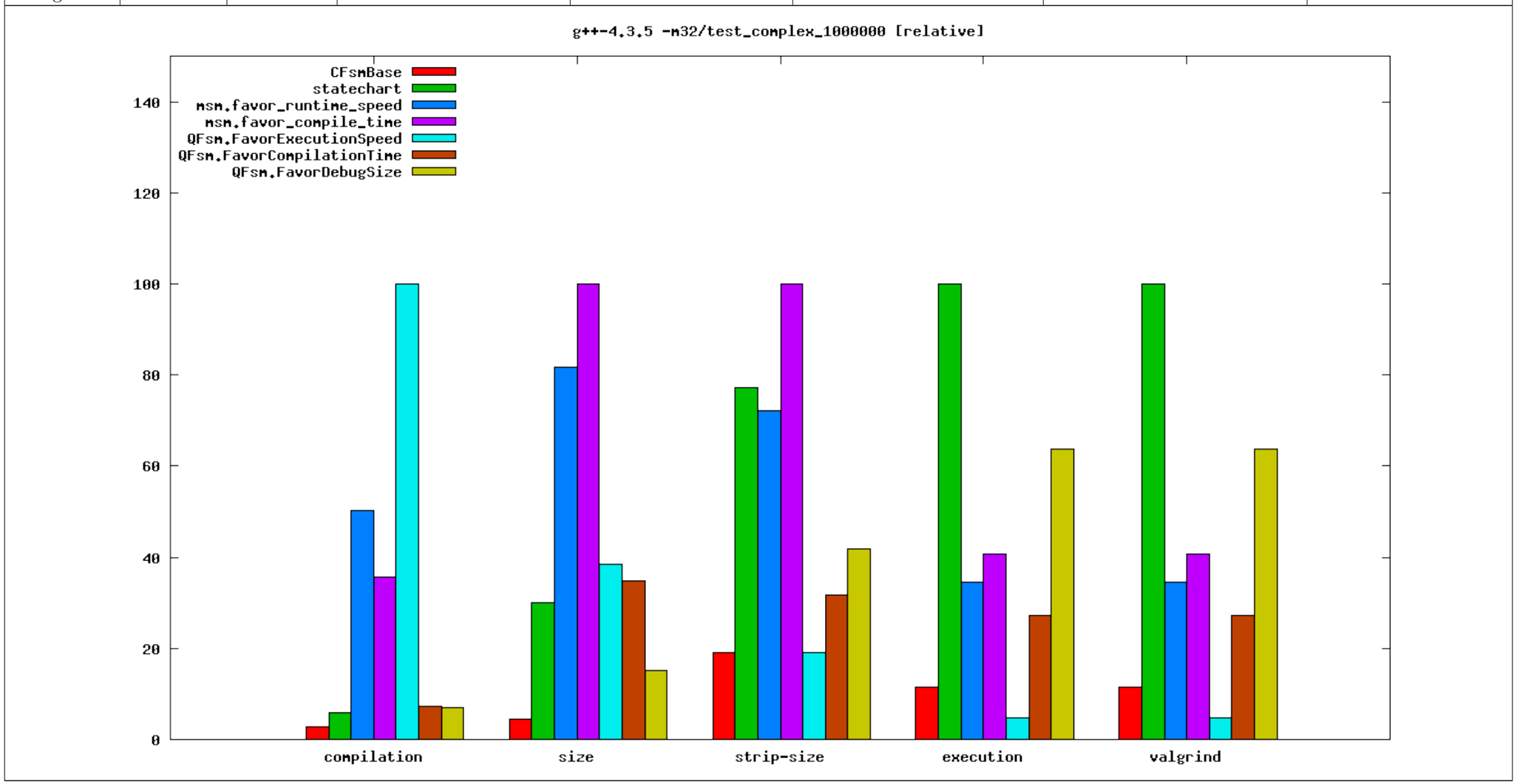
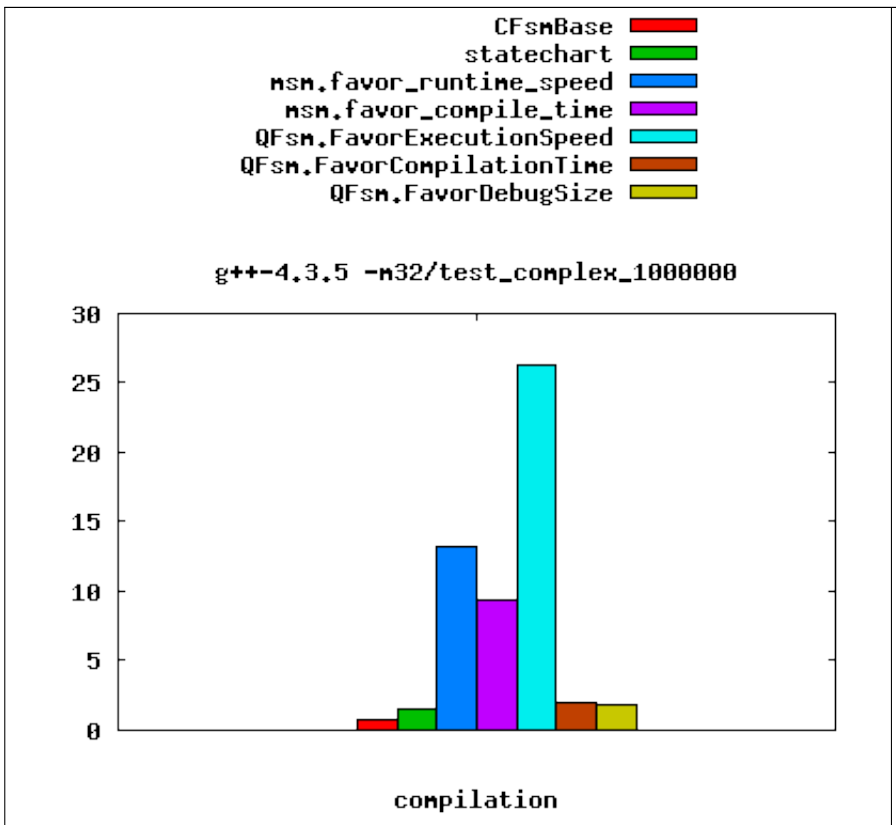
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_transitions_1000000
1.2
1
0.8
0.6
0.4
0.2
0
valgrind

Table 4: ”dell” [df6407d], g++-4.3.5 -m32/test complex 1000000

	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.74s	1.58s	13.19s	9.40s	26.27s	1.95s	1.83s
size	52K	353K	961K	1177K	453K	410K	177K
strip-size	30K	122K	114K	158K	30K	50K	66K
execution	0.19s	1.65s	0.57s	0.67s	0.08s	0.45s	1.05s
valgrind	0.19s	1.65s	0.57s	0.67s	0.08s	0.45s	1.05s

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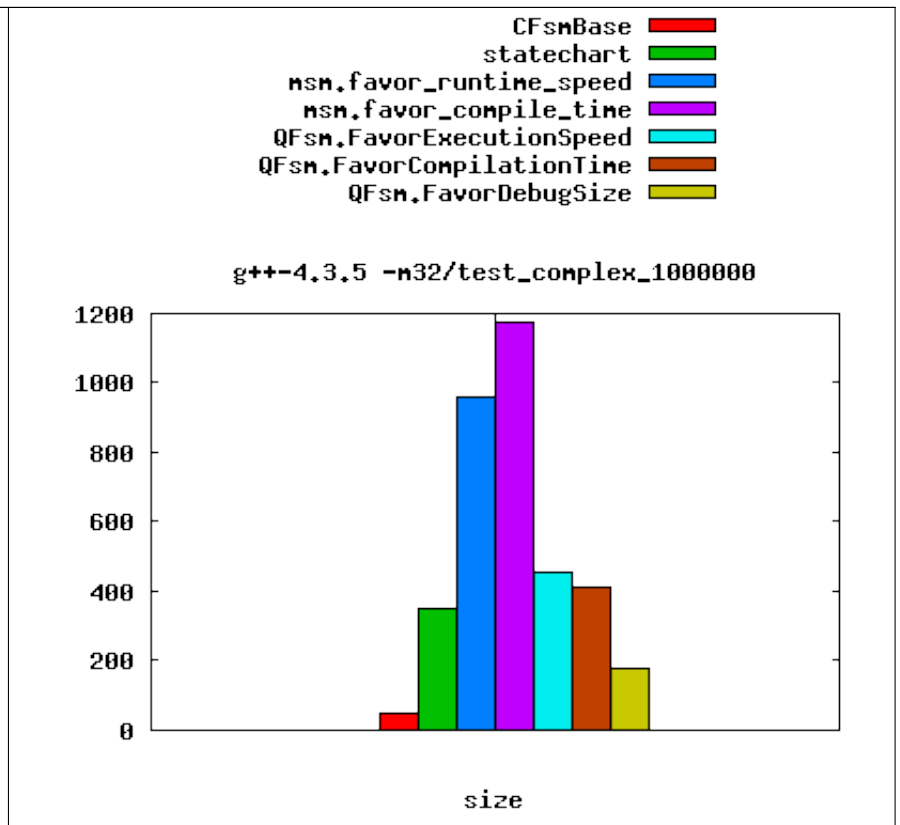
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_complex_1000000
30
25
20
15
10
5
0
compilation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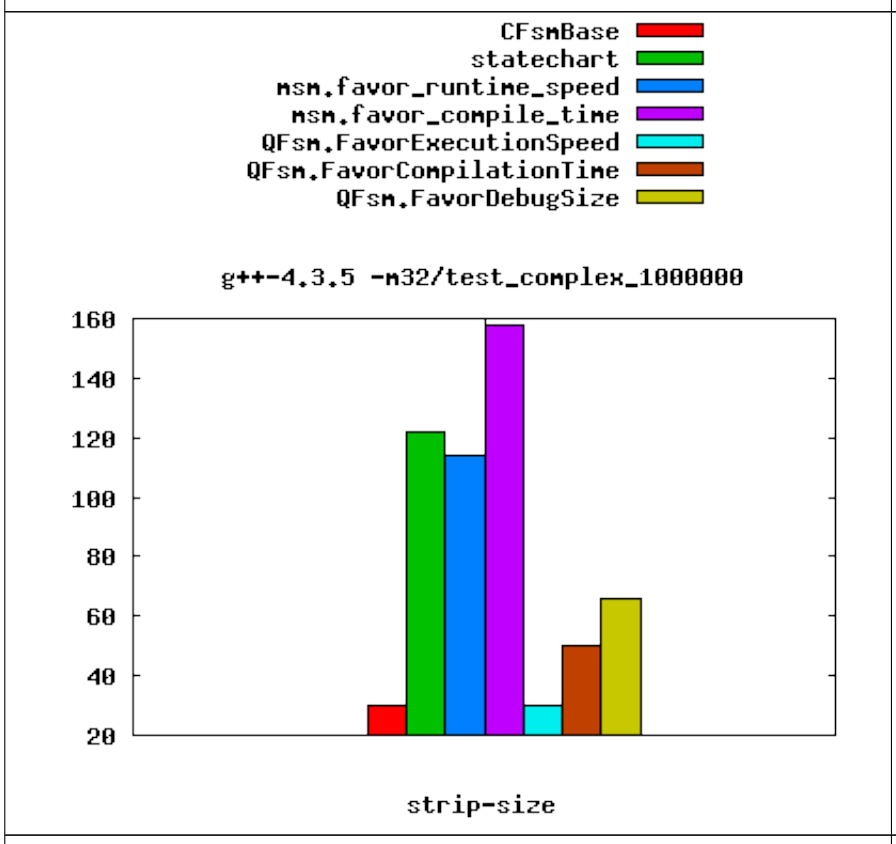
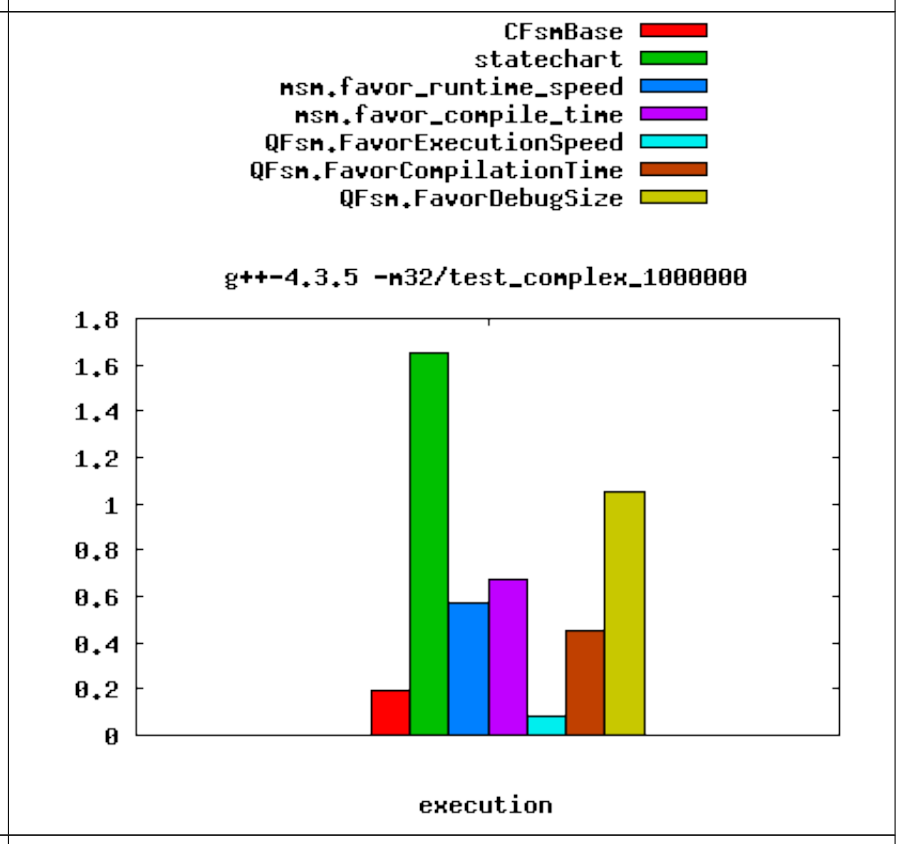
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_complex_1000000
1200
1000
800
600
400
200
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_complex_1000000
160
140
120
100
80
60
40
20
strip-size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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_complex_1000000
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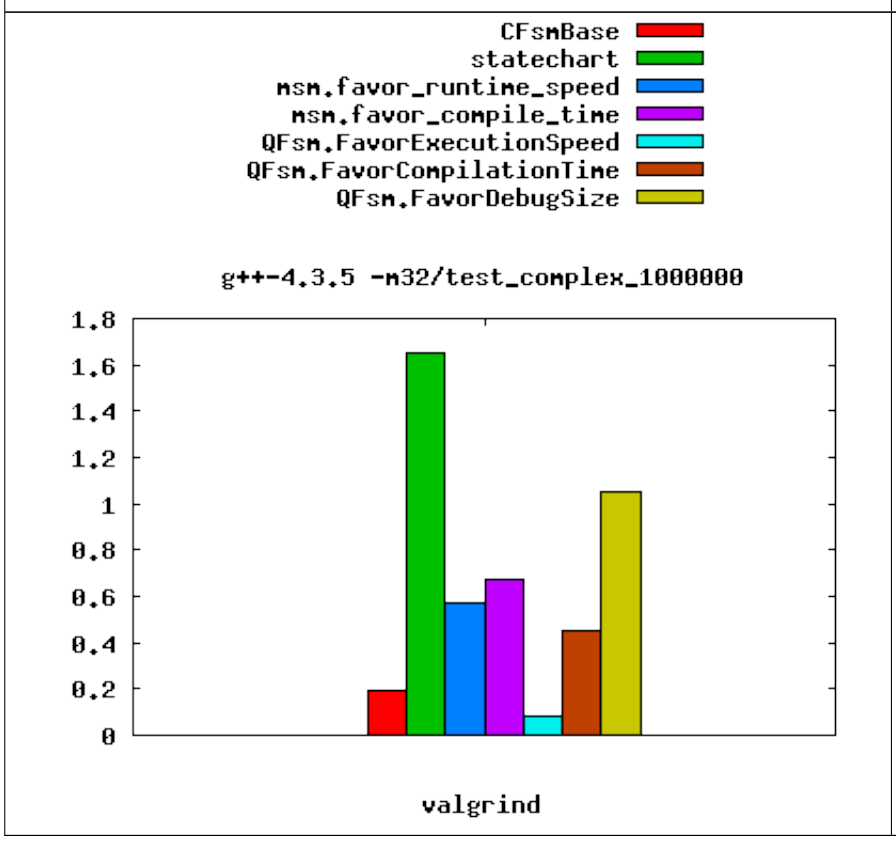
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
execution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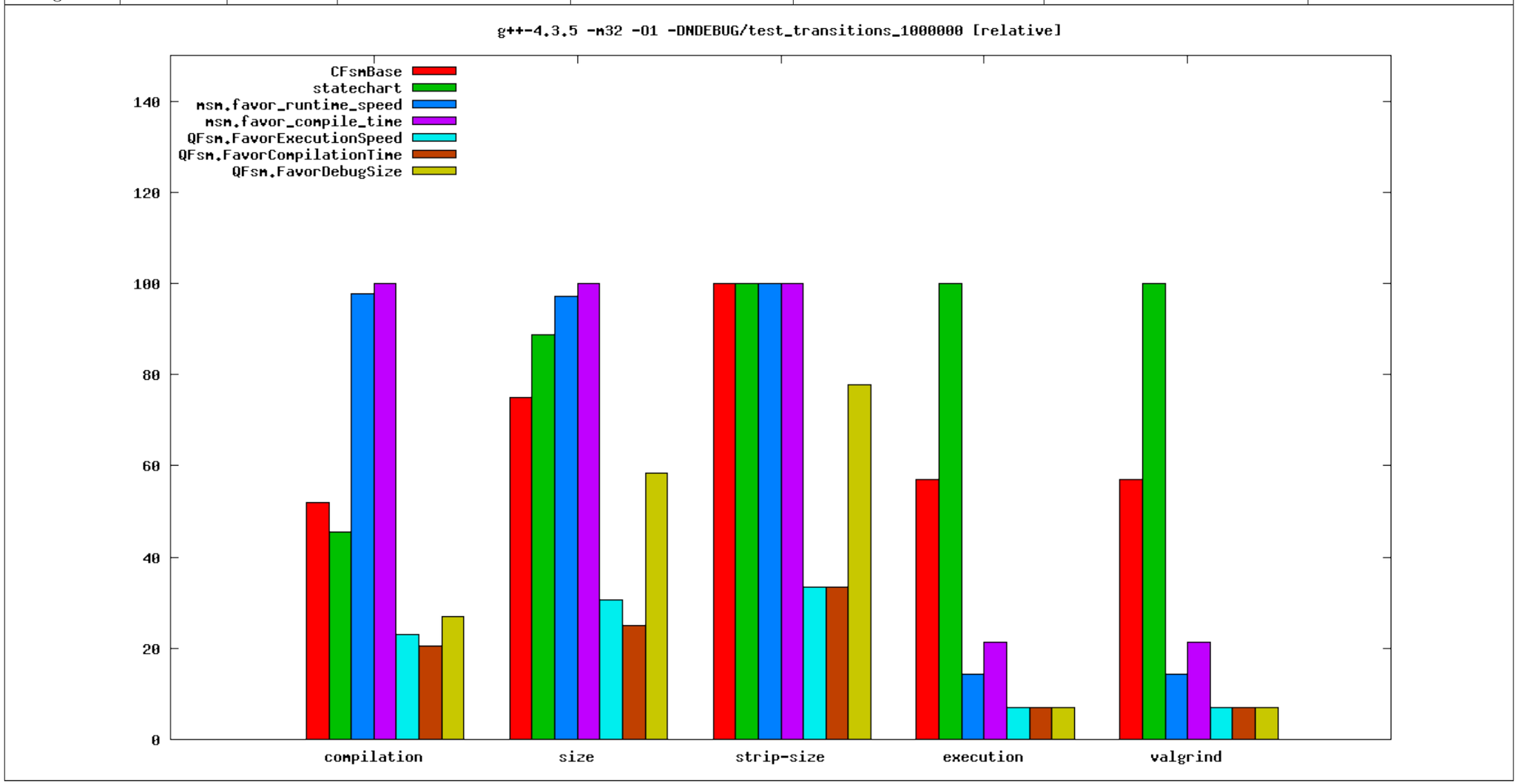
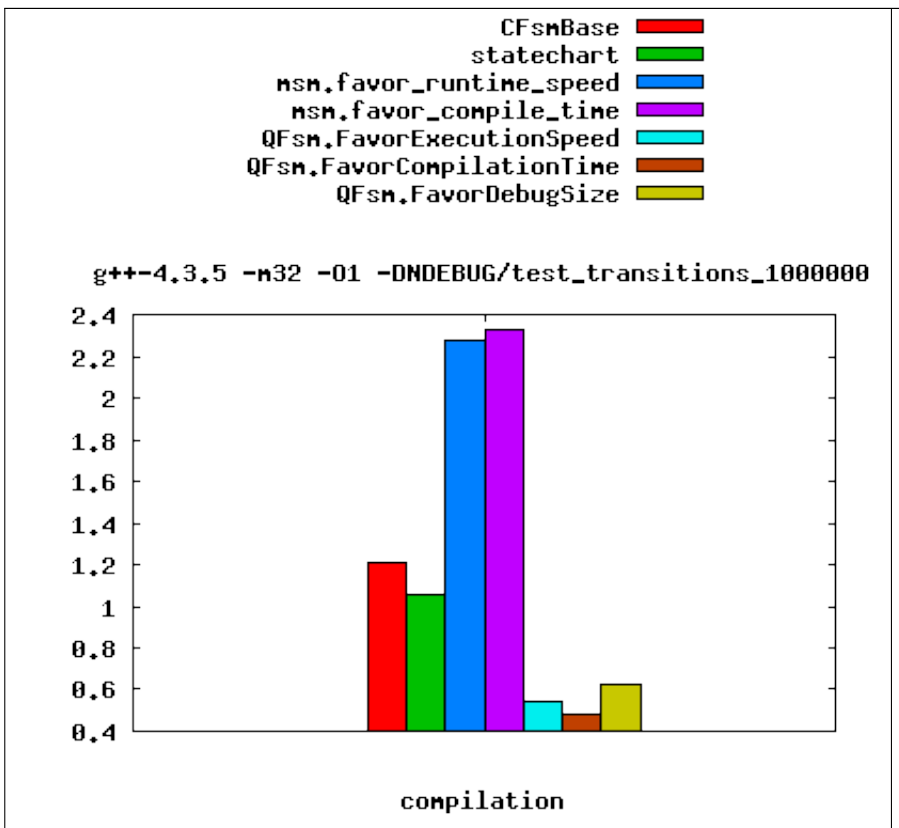
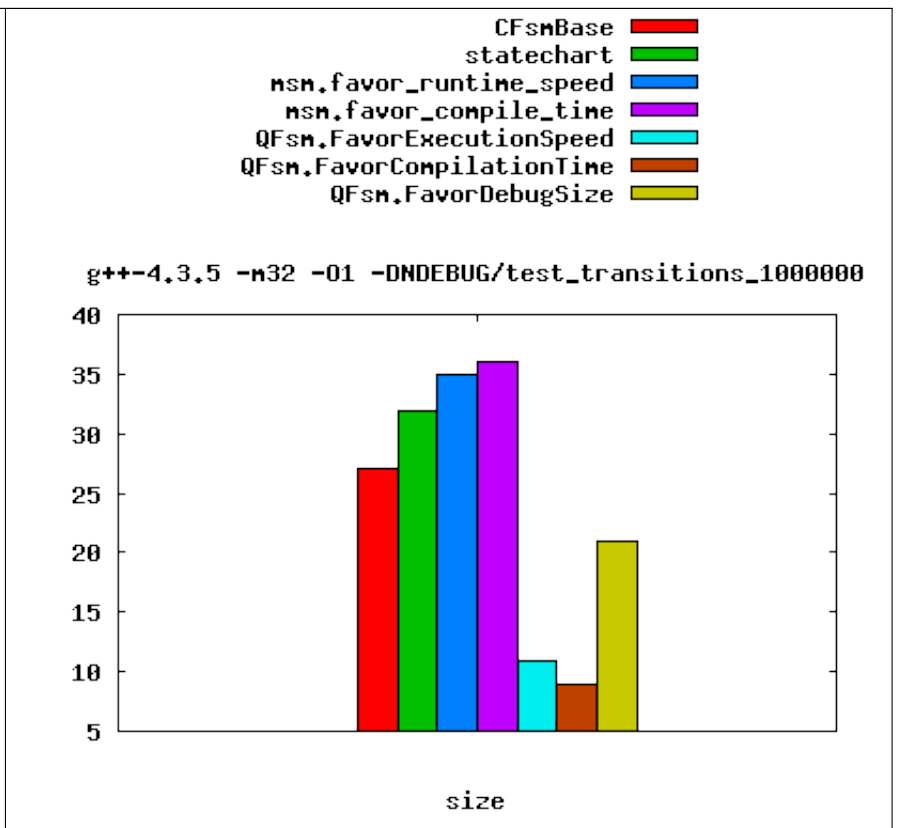
QFsm.FavorDebugSize
g++-4.3.5 -m32/test_complex_1000000
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
valgrind

Table 7: "dell" [df6407d], g++-4.3.5 -m32 -O1 -DNDEBUG/test transitions 1000000

	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.21s	1.06s	2.28s	2.33s	0.54s	0.48s	0.63s
size	27K	32K	35K	36K	11K	9K	21K
strip-size	18K	18K	18K	18K	6K	6K	14K
execution	0.08s	0.14s	0.02s	0.03s	0.01s	0.01s	0.01s
valgrind	0.08s	0.14s	0.02s	0.03s	0.01s	0.01s	0.01s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_transitions_1000000
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
compilation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statechart
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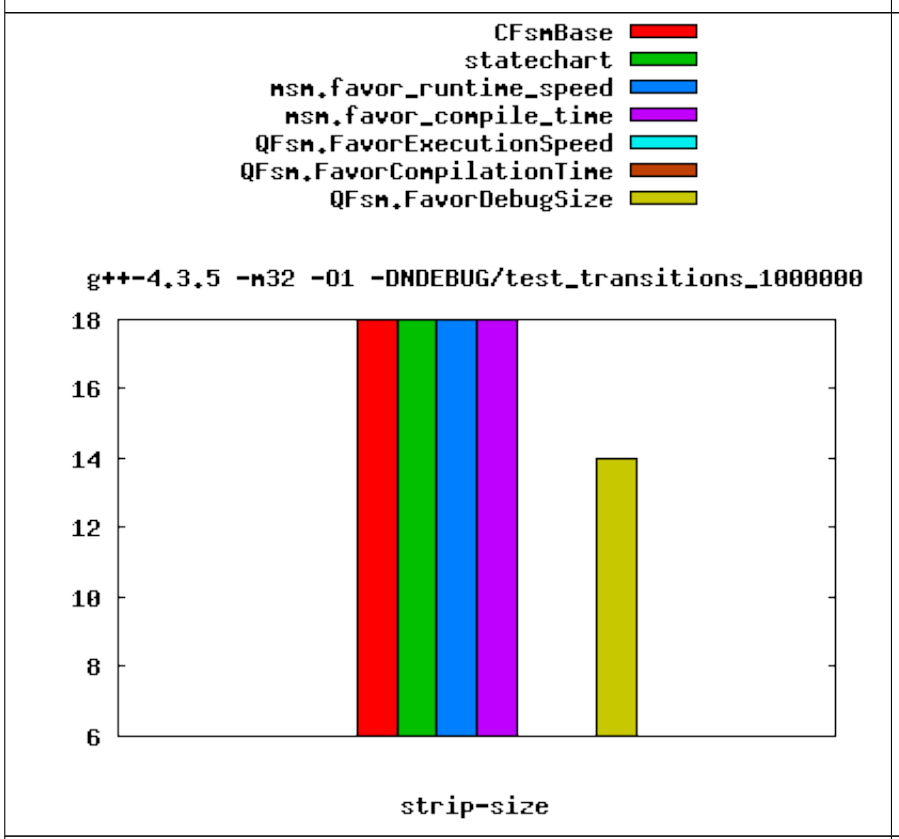
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_transitions_1000000
40
35
30
25
20
15
10
5
size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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_transitions_1000000
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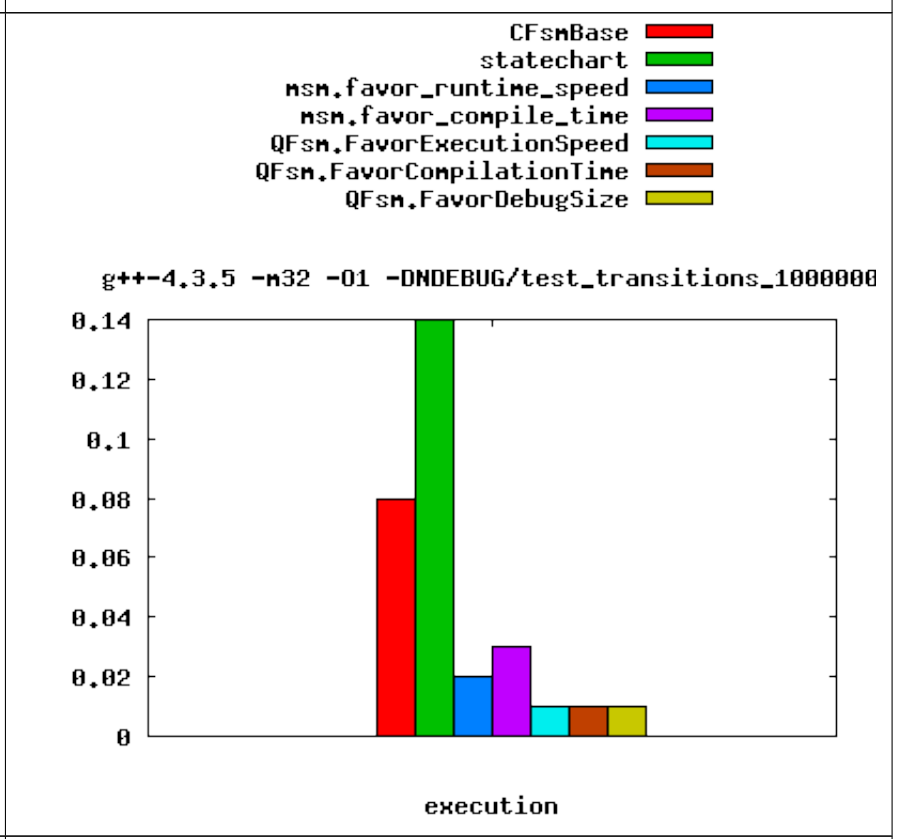
16
14
12
10
8
6
strip-size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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_transitions_1000000
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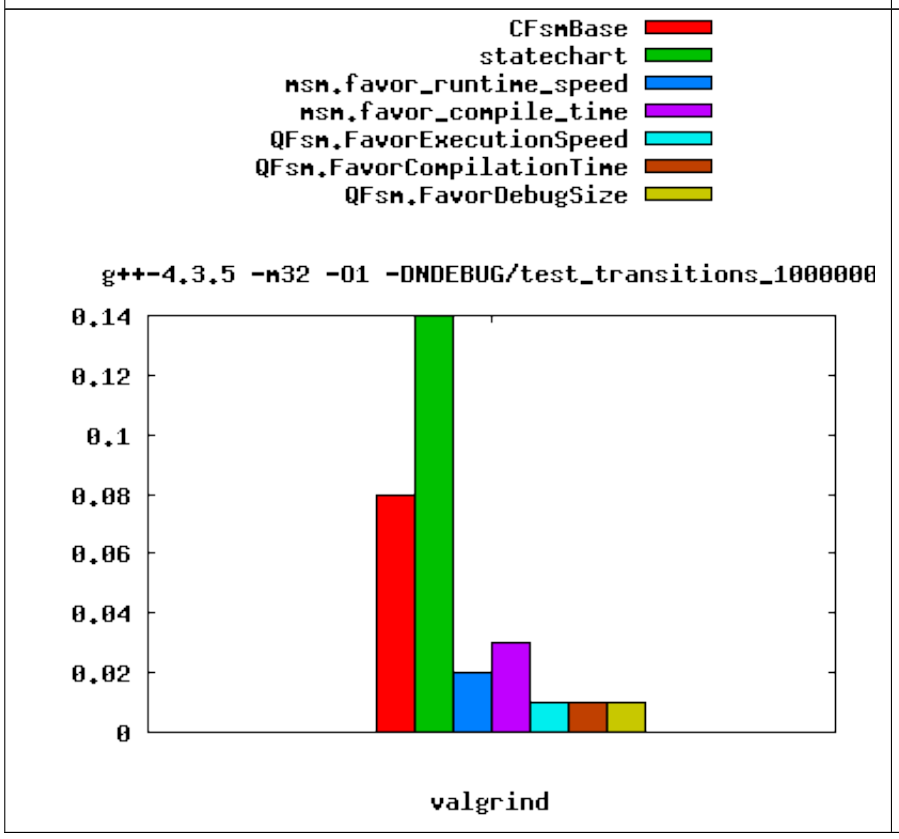
0.12
0.1
0.08
0.06
0.04
0.02
0
execution


CFsmBase
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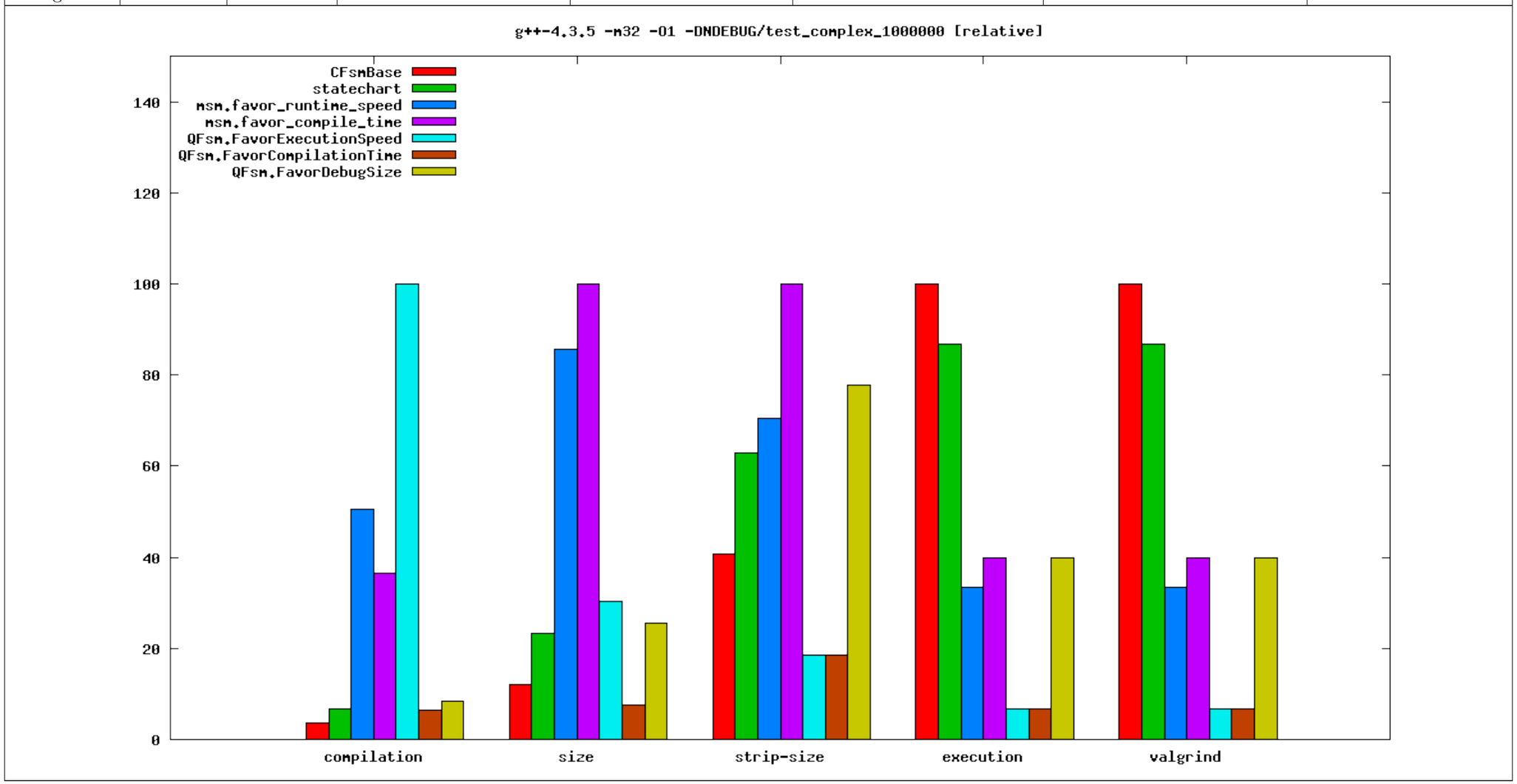
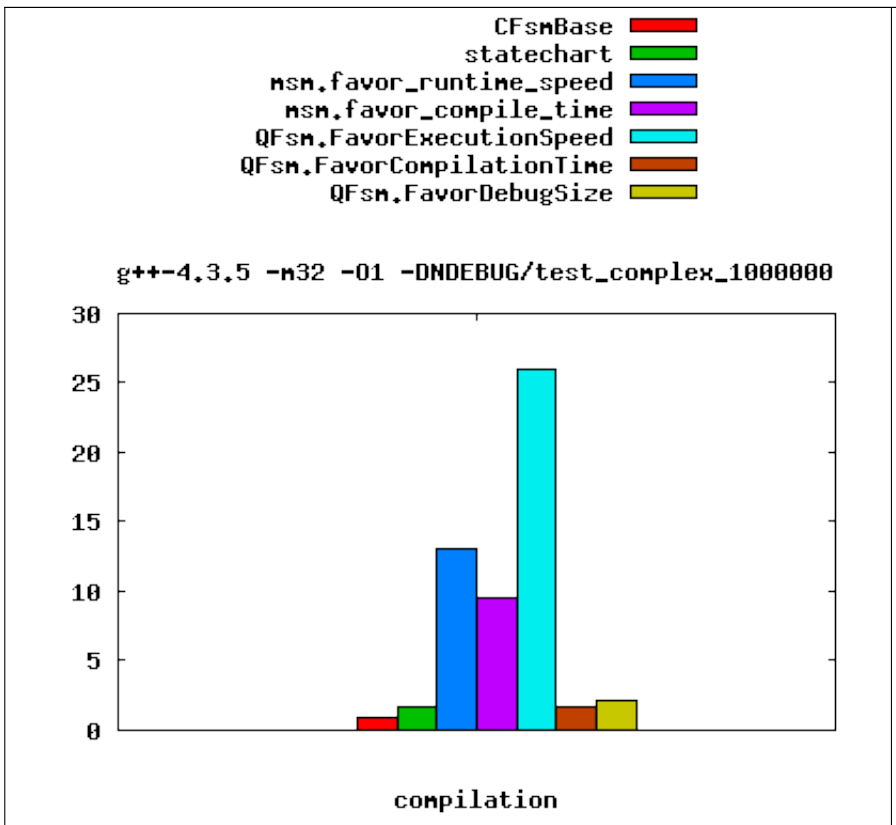
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_transitions_1000000
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
valgrind

Table 10: "dell" [df6407d], g++-4.3.5 -m32 -O1 -DNDEBUG/test complex 1000000

	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.97s	1.73s	13.14s	9.51s	26.02s	1.68s	2.20s
size	35K	67K	248K	289K	88K	22K	74K
strip-size	22K	34K	38K	54K	10K	10K	42K
execution	0.15s	0.13s	0.05s	0.06s	0.01s	0.01s	0.06s
valgrind	0.15s	0.13s	0.05s	0.06s	0.01s	0.01s	0.06s

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msm.favor_compile_time
QFsm.FavorExecutionSpeed
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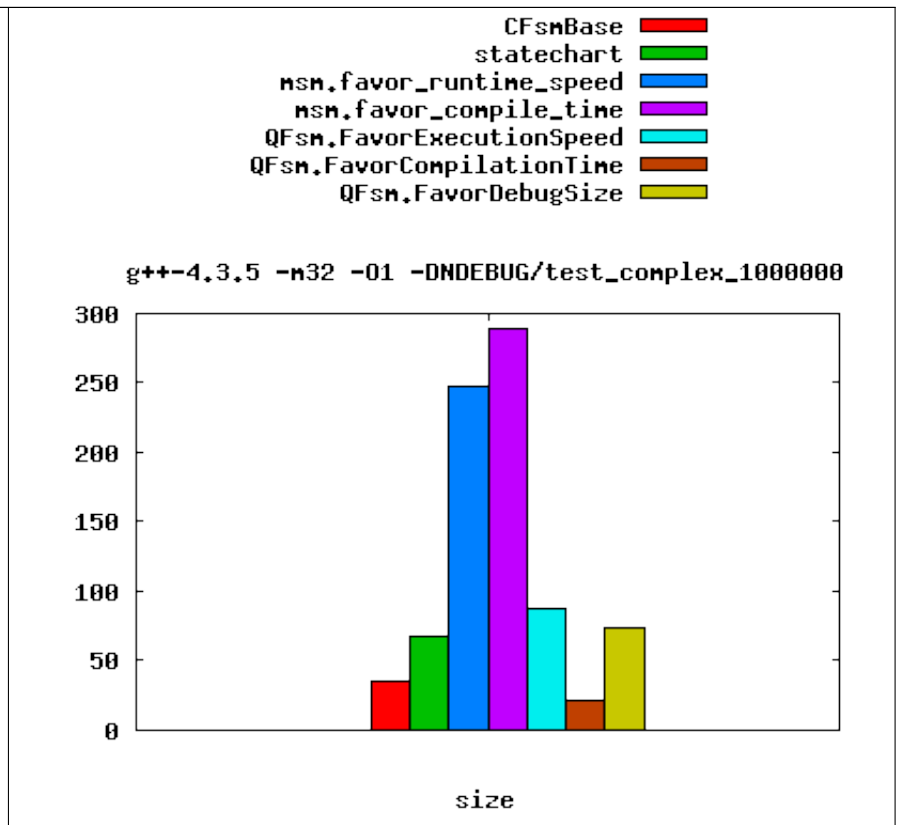
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_complex_1000000
30
25
20
15
10
5
0
compilation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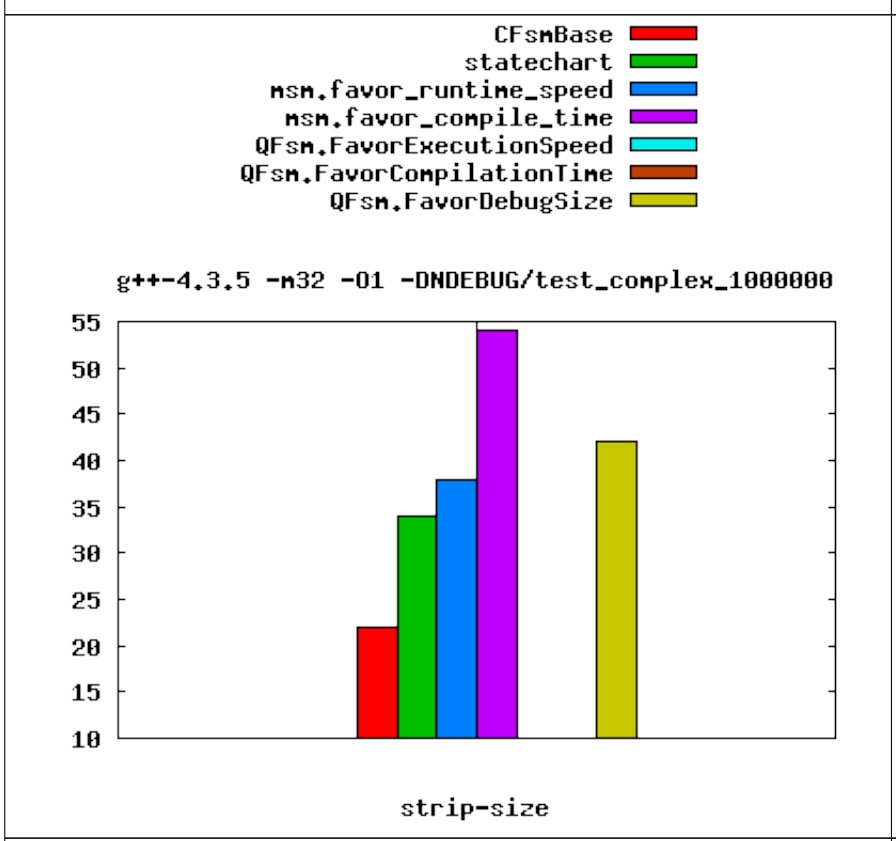
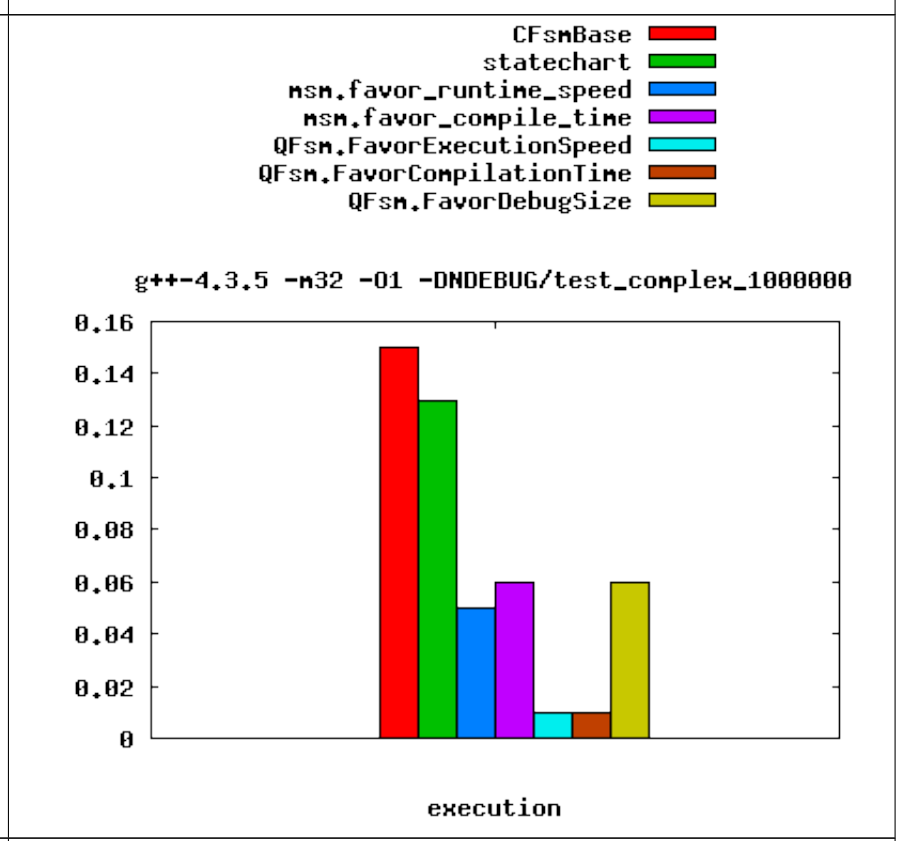
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_complex_1000000
300
250
200
150
100
50
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_complex_1000000
55
50
45
40
35
30
25
20
15
10
strip-size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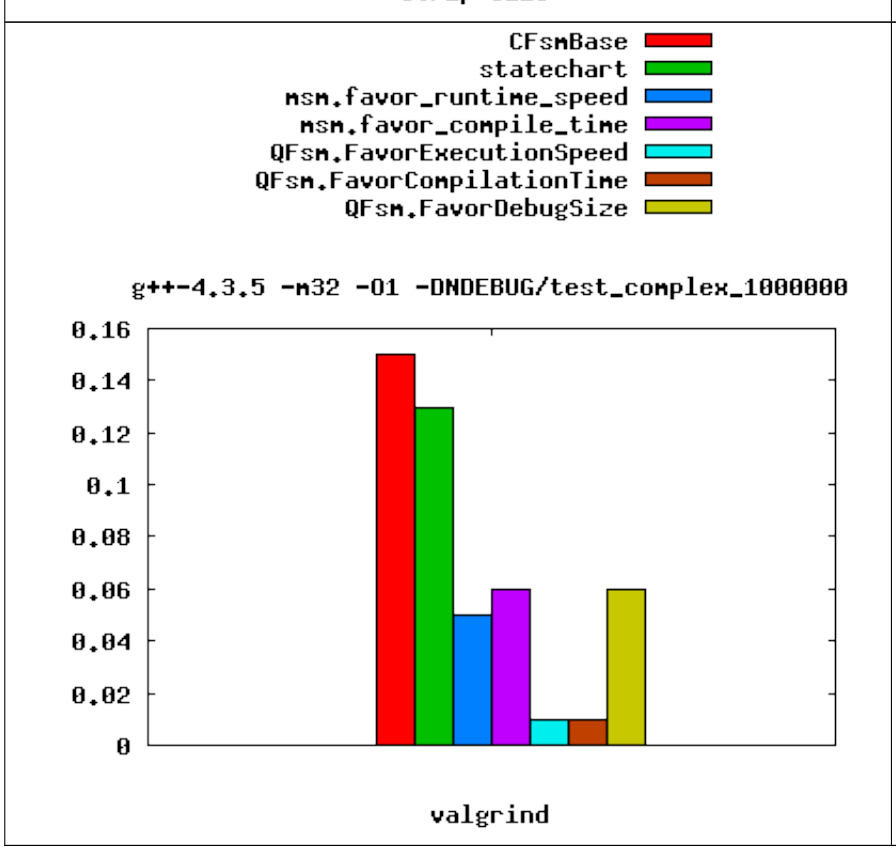
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_complex_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution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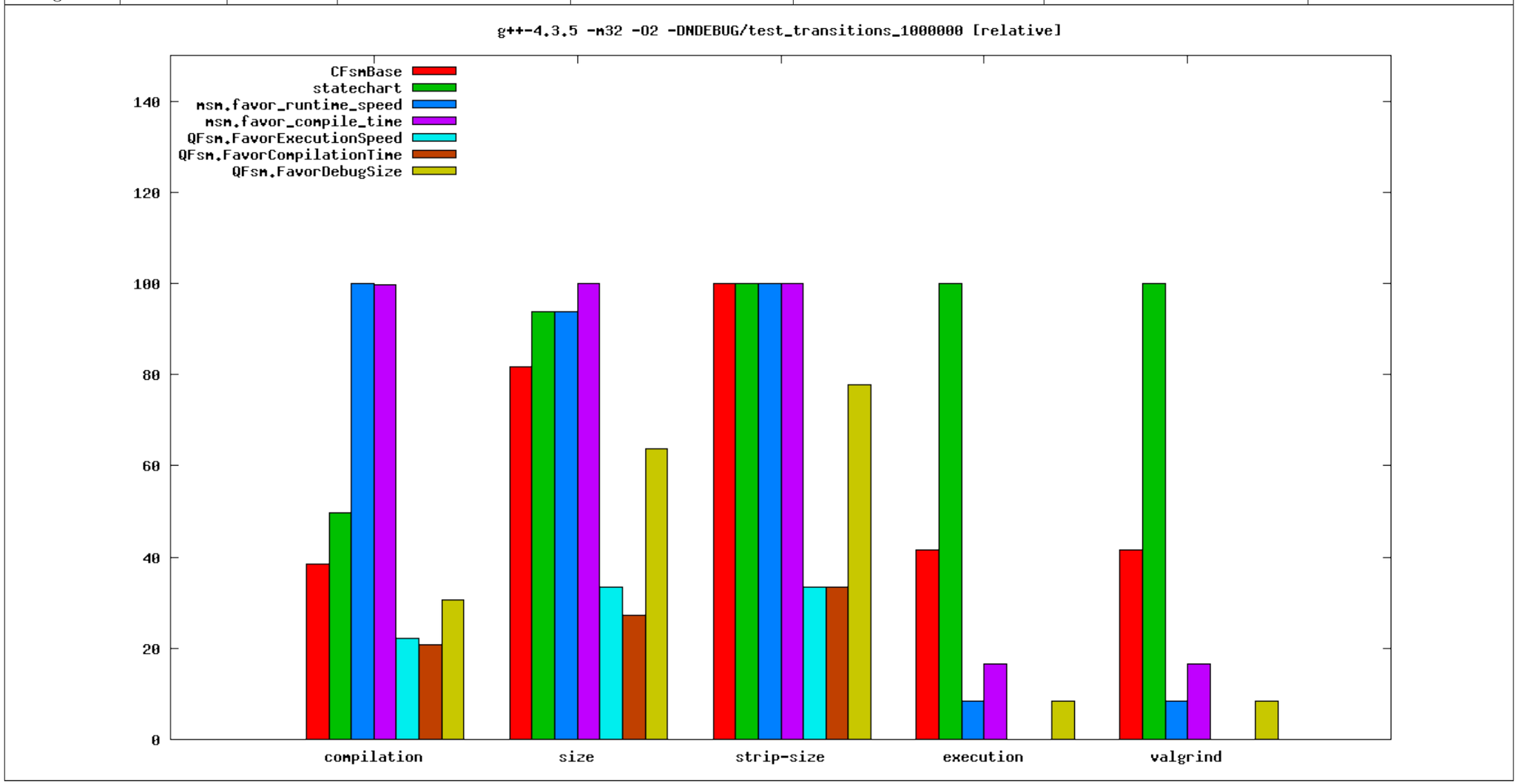
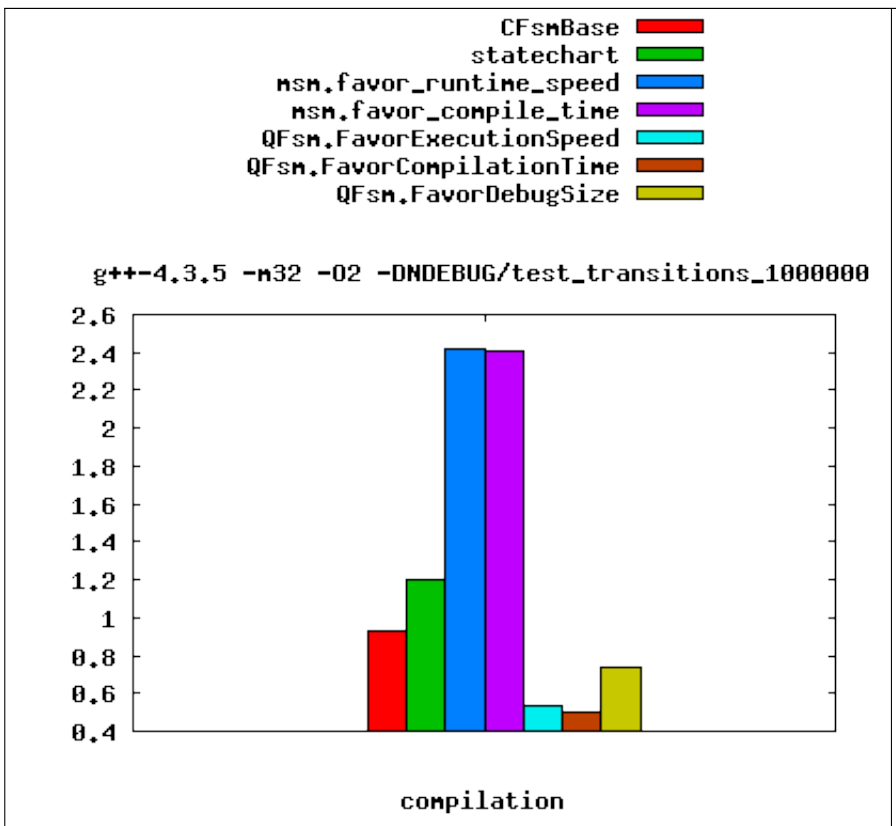
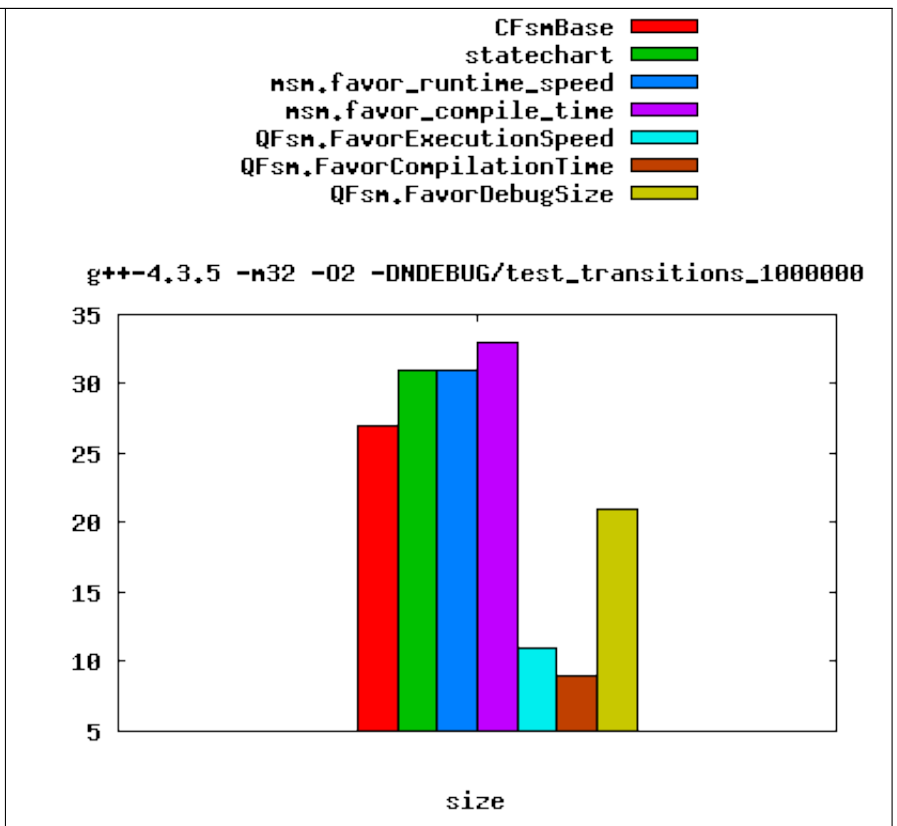
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O1 -DNDEBUG/test_complex_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
valgrind

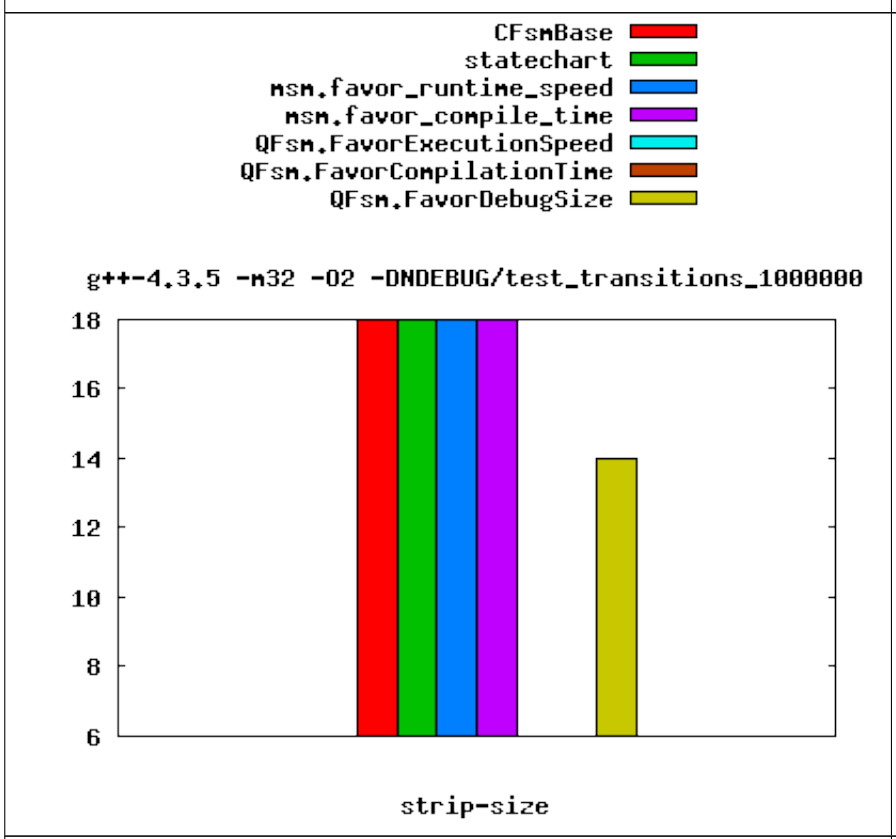
Table 13: "dell" [df6407d], g++-4.3.5 -m32 -O2 -DNDEBUG/test transitions 1000000

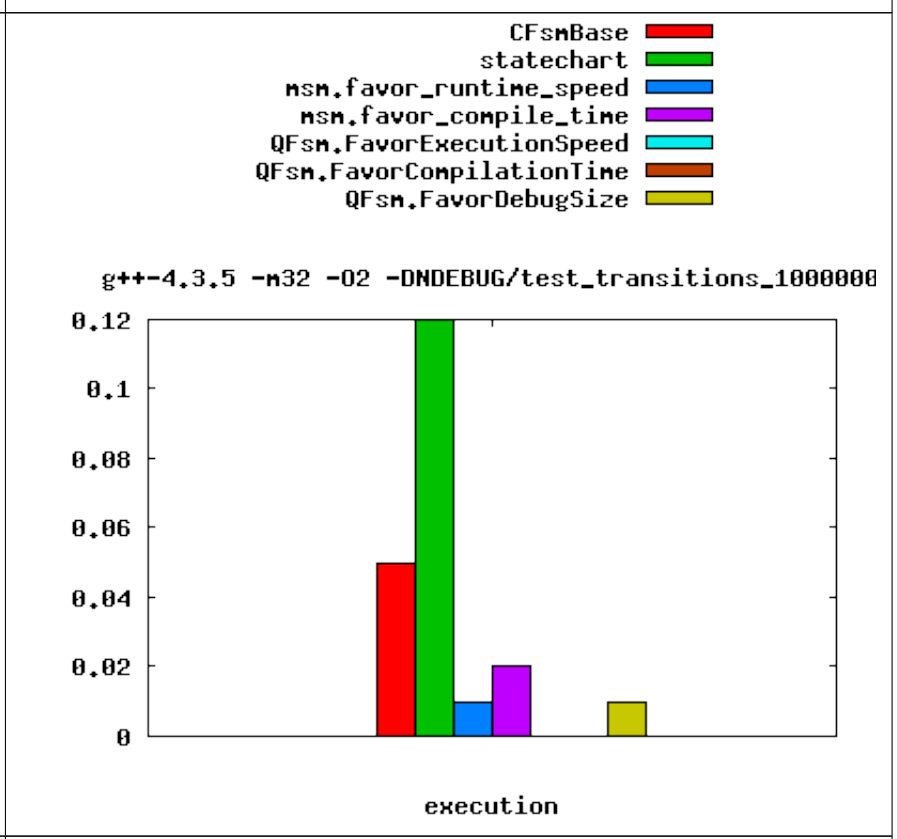
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.93s	1.20s	2.42s	2.41s	0.54s	0.50s	0.74s
size	27K	31K	31K	33K	11K	9K	21K
strip-size	18K	18K	18K	18K	6K	6K	14K
execution	0.05s	0.12s	0.01s	0.02s	0.00s	0.00s	0.01s
valgrind	0.05s	0.12s	0.01s	0.02s	0.00s	0.00s	0.01s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_transitions_1000000
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_transitions_1000000
35
30
25
20
15
10
5
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_transitions_1000000
18
16
14
12
10
8
6
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_transitions_1000000
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

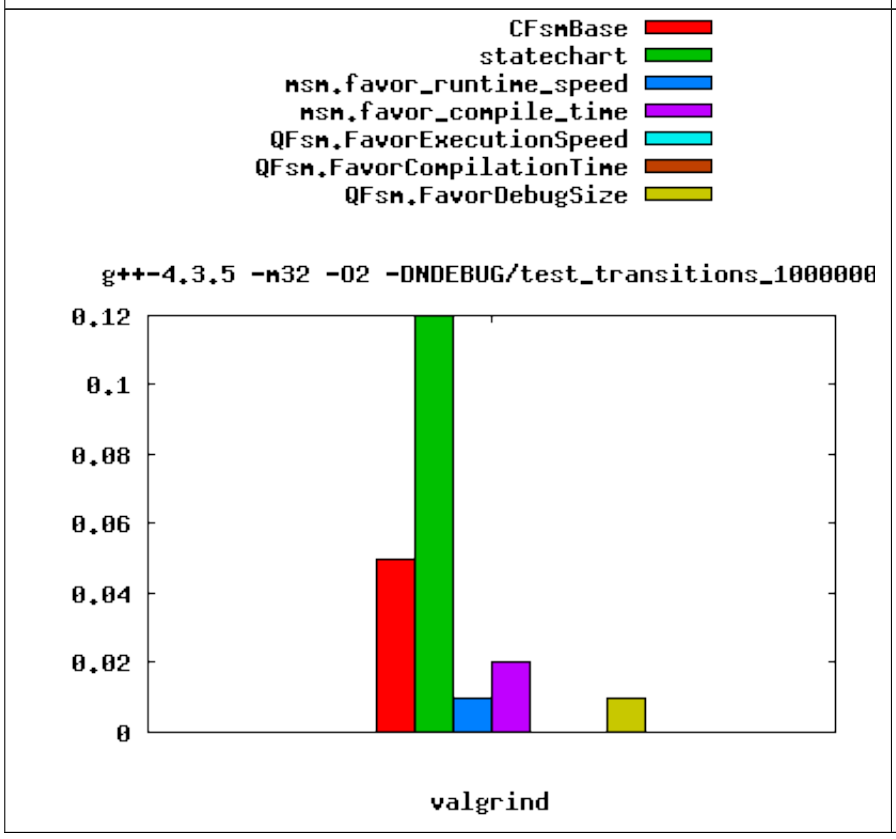
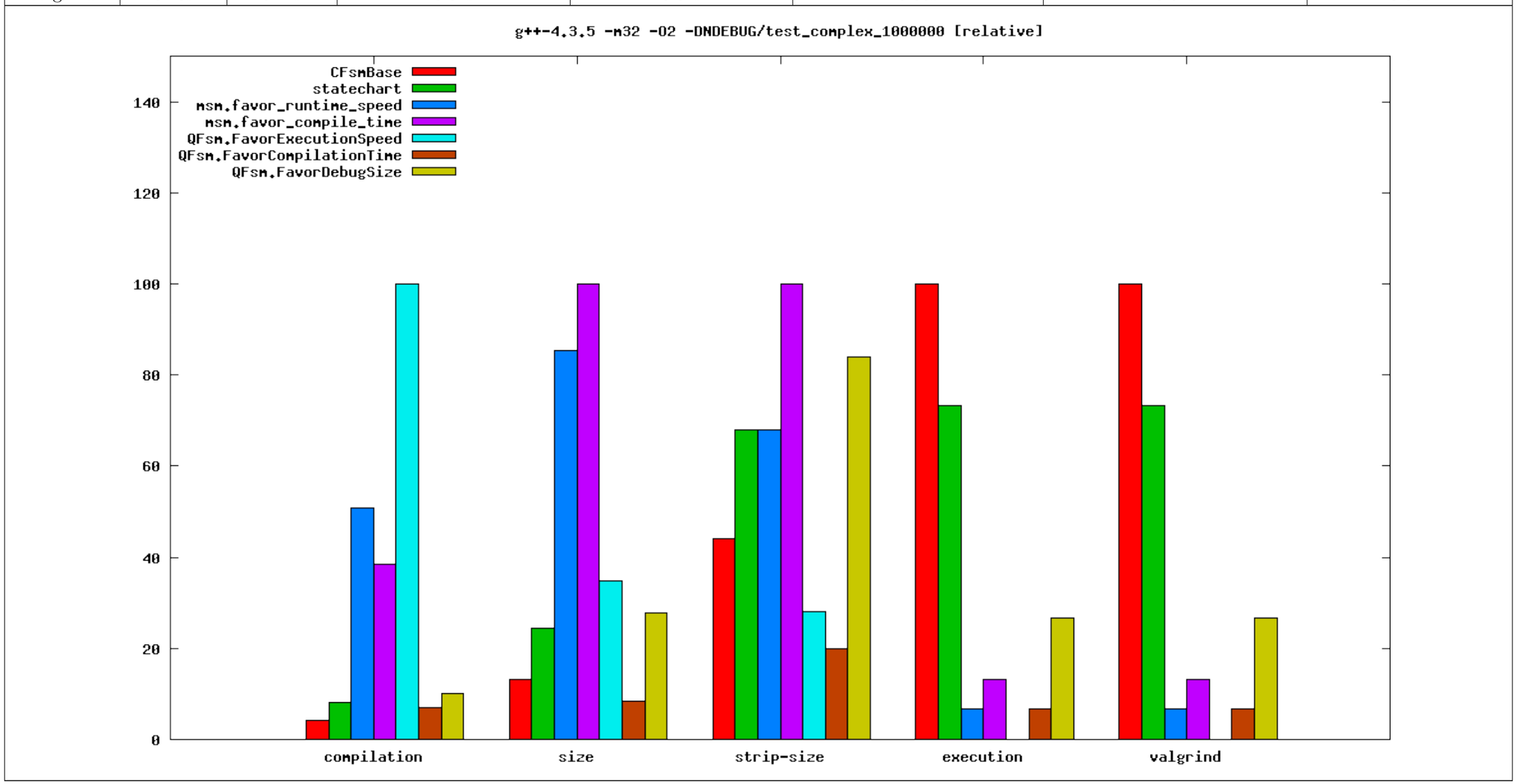
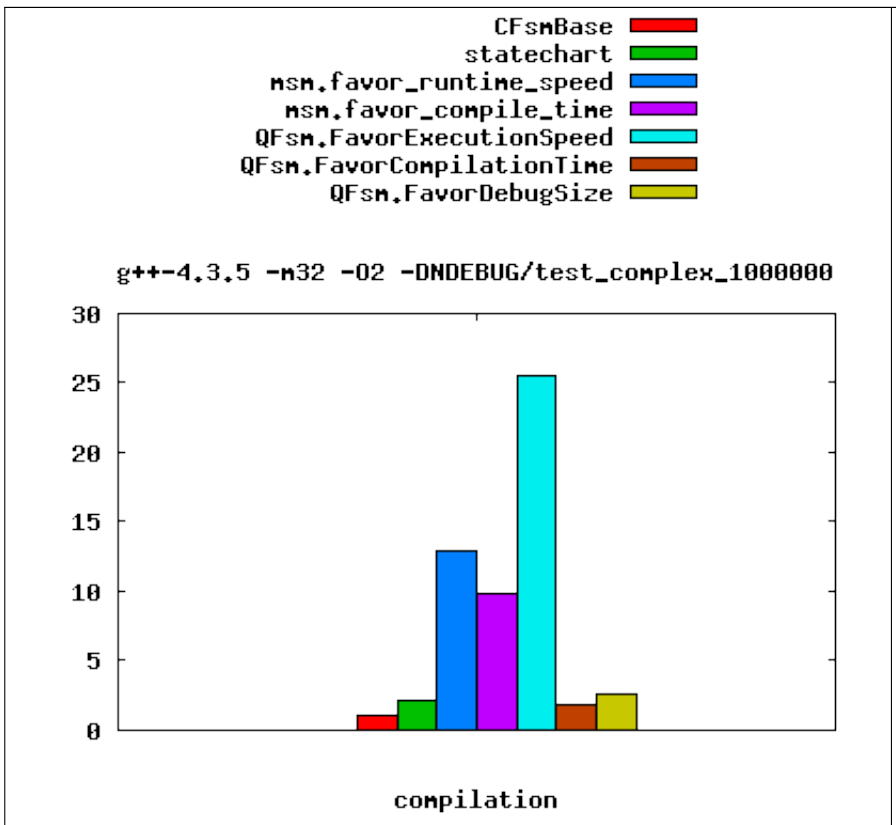
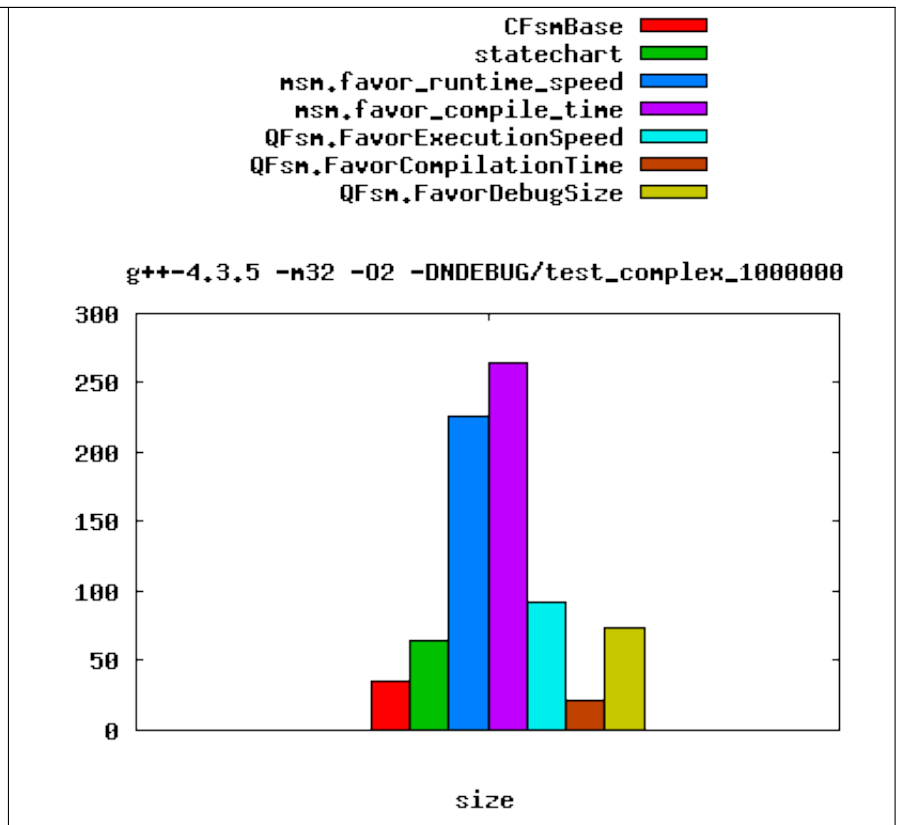

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_transitions_1000000
0.12
0.1
0.08
0.06
0.04
0.02
0
valgrind

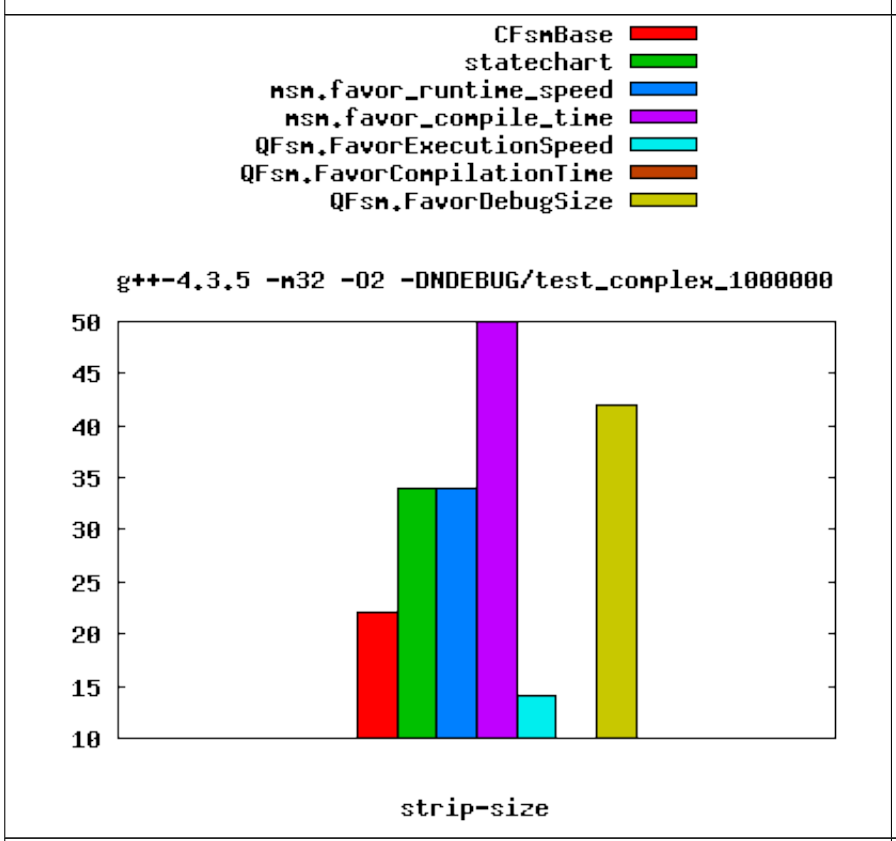
Table 16: "dell" [df6407d], g++-4.3.5 -m32 -O2 -DNDEBUG/test complex 1000000

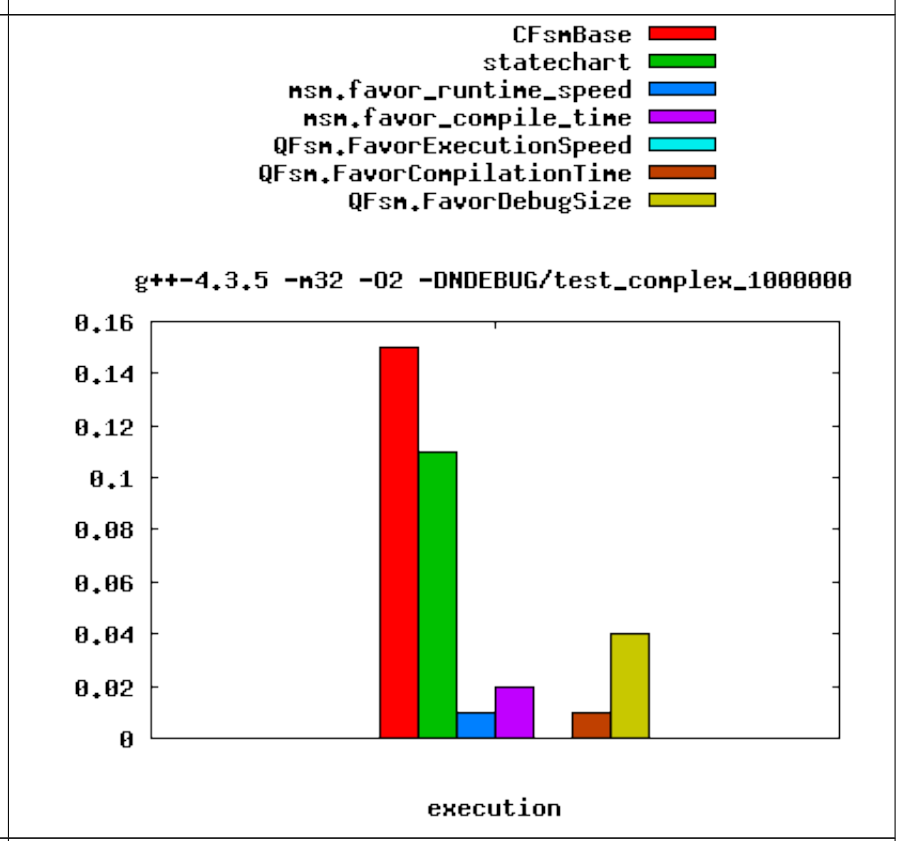
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.08s	2.09s	12.99s	9.84s	25.50s	1.78s	2.61s
size	35K	65K	226K	265K	92K	22K	74K
strip-size	22K	34K	34K	50K	14K	10K	42K
execution	0.15s	0.11s	0.01s	0.02s	0.00s	0.01s	0.04s
valgrind	0.15s	0.11s	0.01s	0.02s	0.00s	0.01s	0.04s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_complex_1000000
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_complex_1000000
300
250
200
150
100
50
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_complex_1000000
50
45
40
35
30
25
20
15
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_complex_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

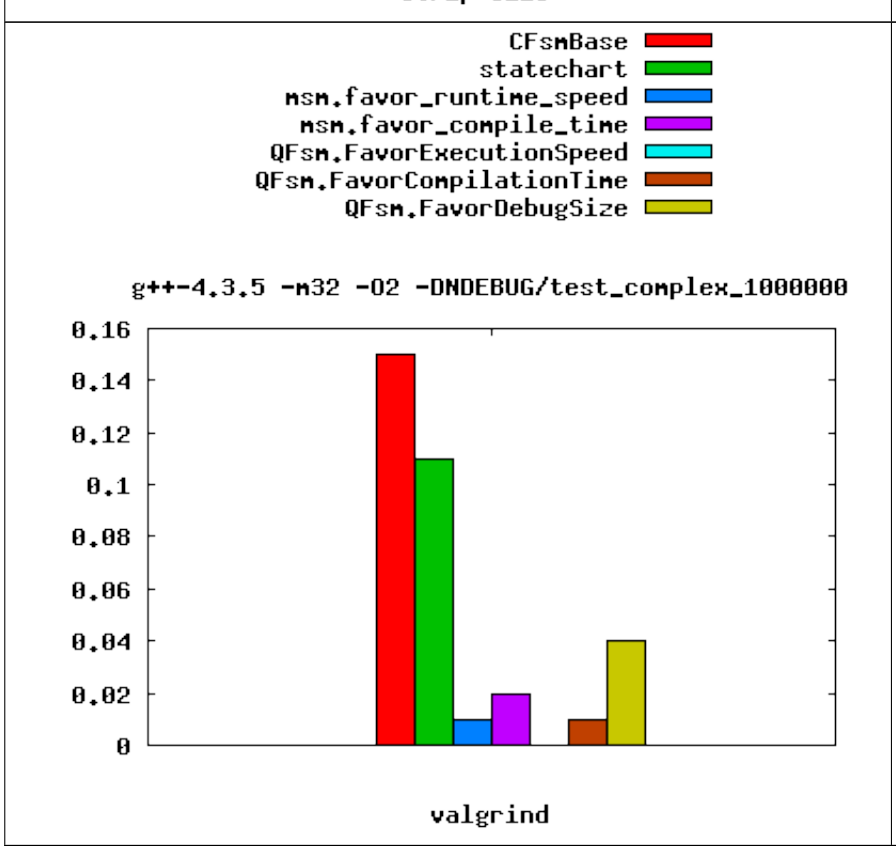
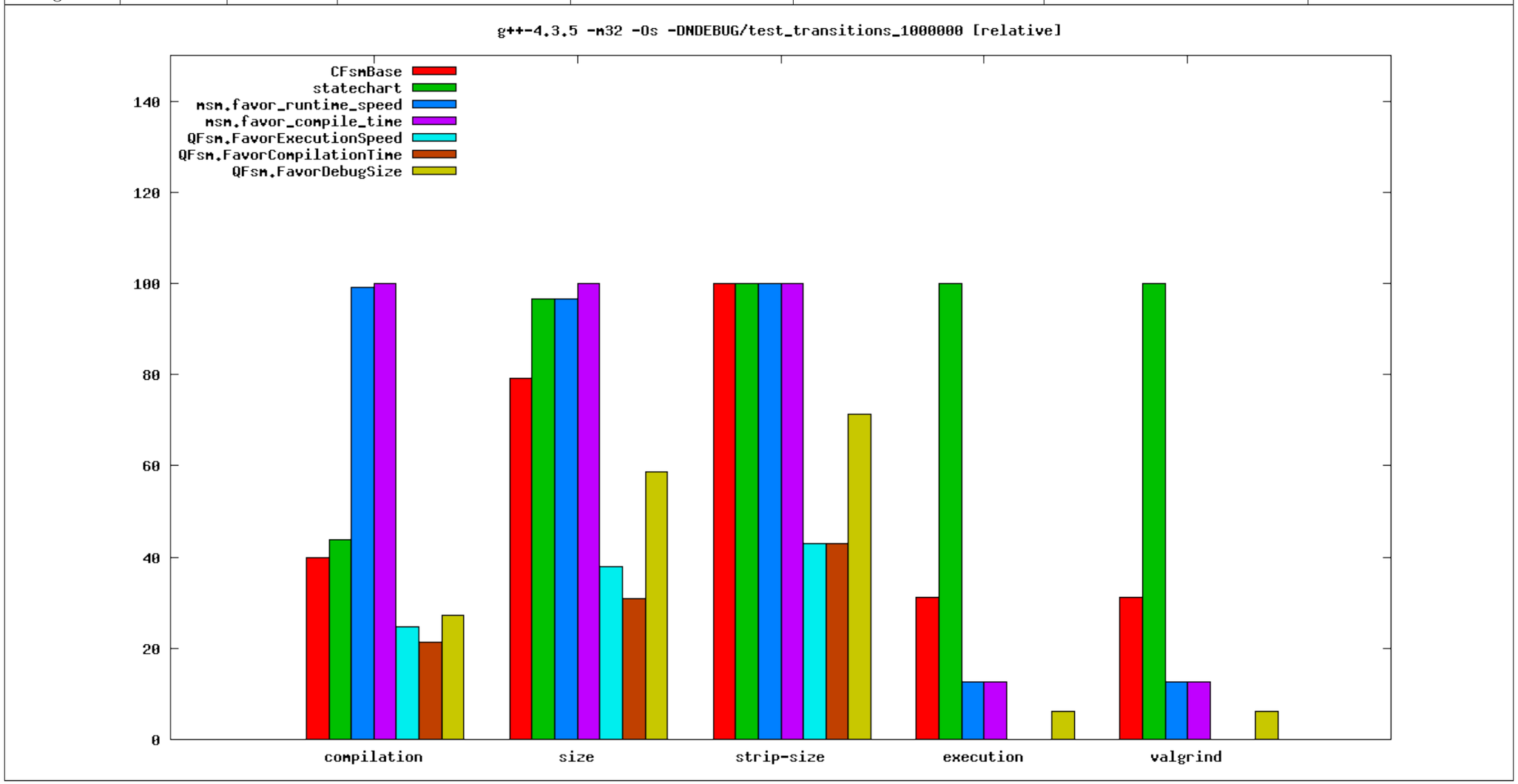
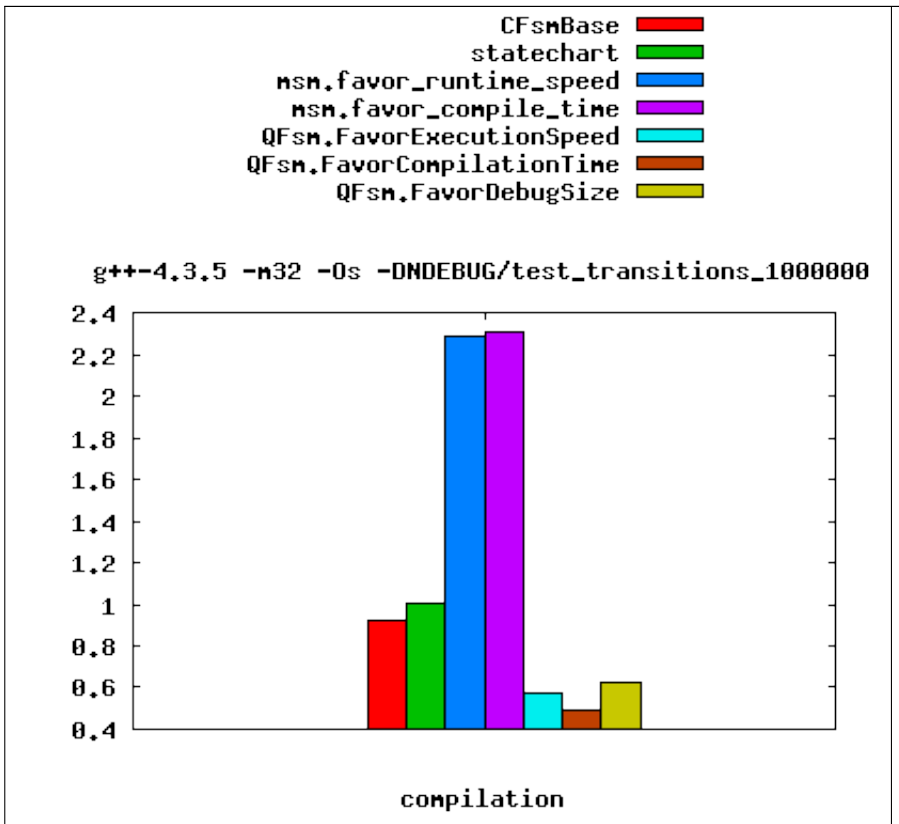
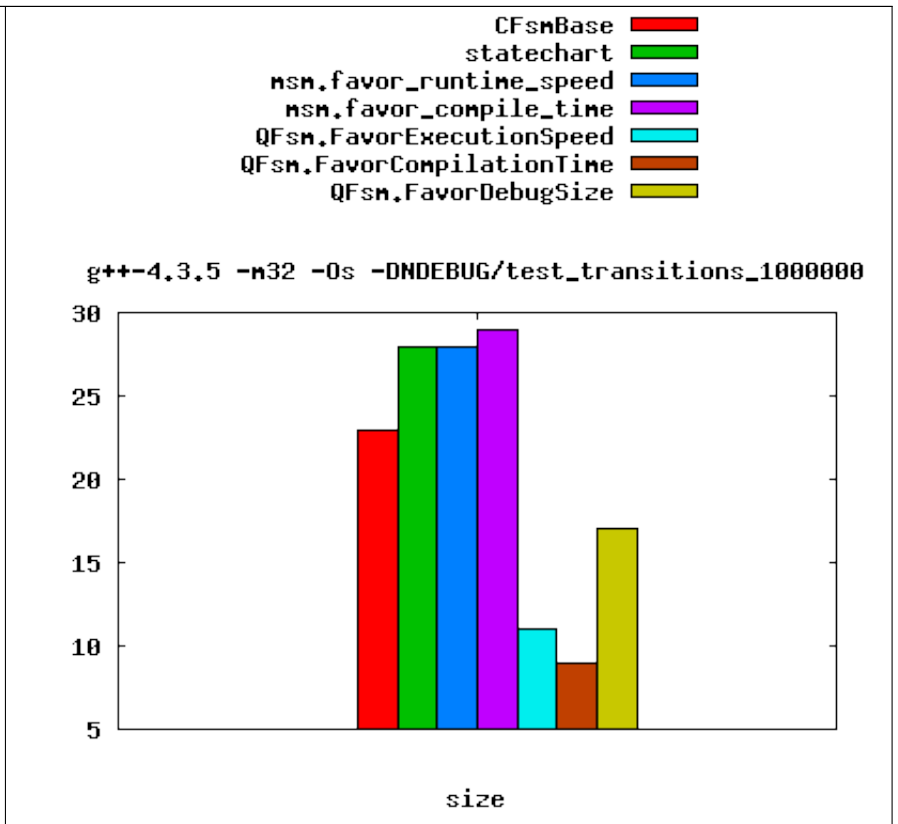

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -O2 -DNDEBUG/test_complex_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
valgrind

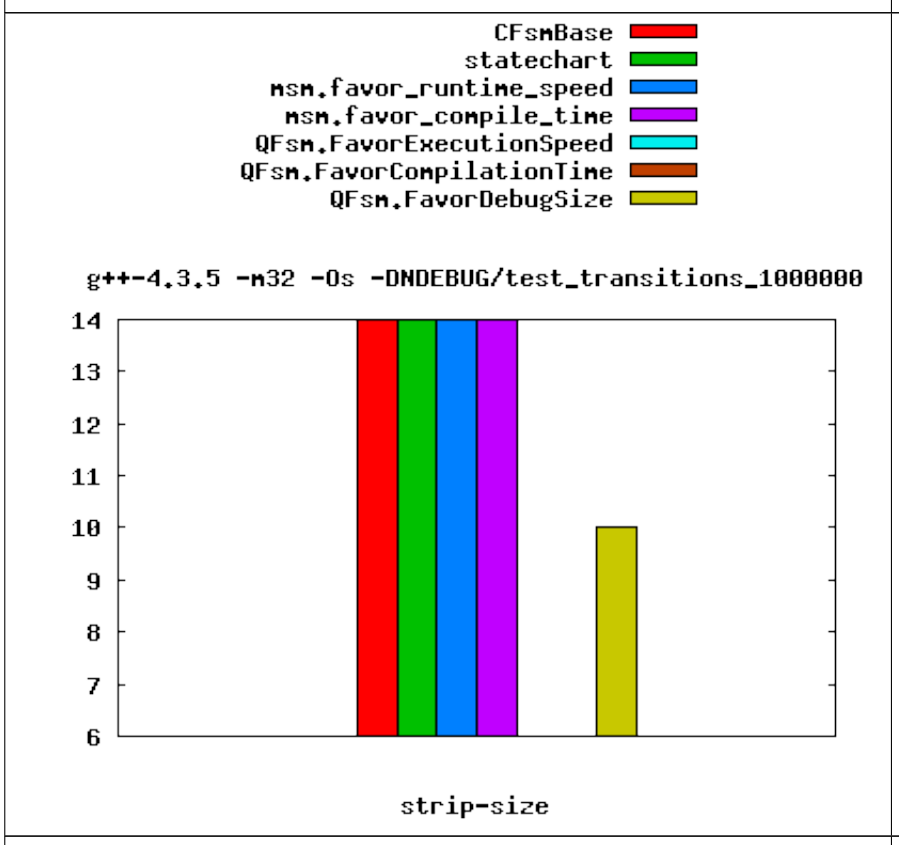
Table 19: ”dell” [df6407d], g++-4.3.5 -m32 -Os -DNDEBUG/test transitions 1000000

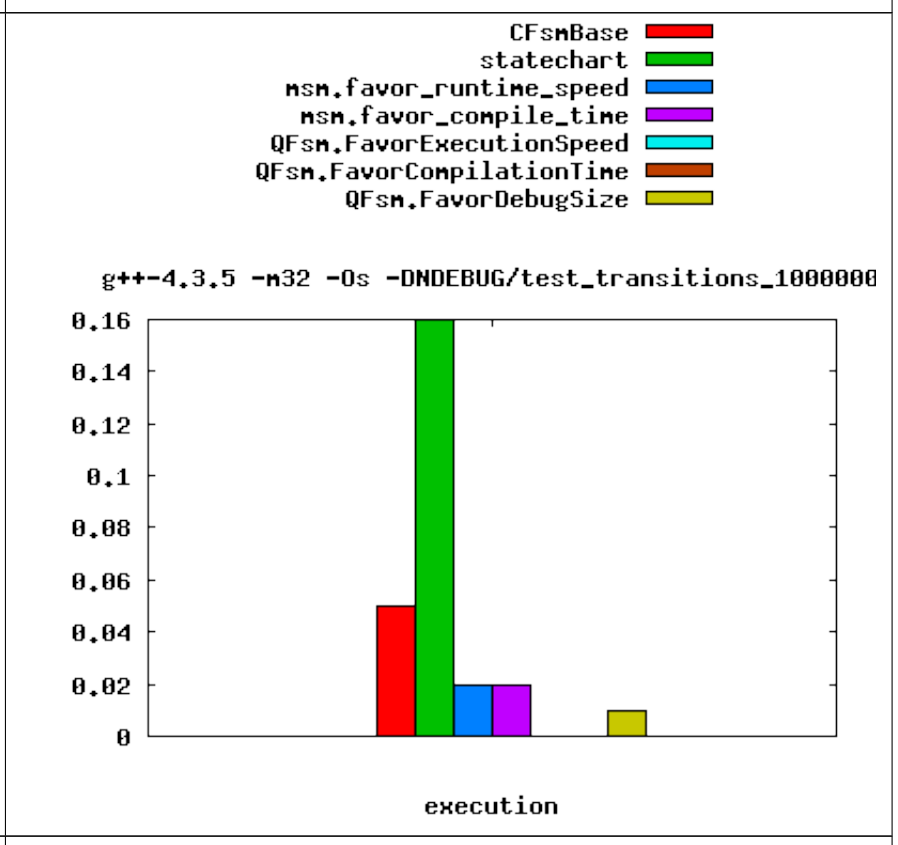
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.92s	1.01s	2.29s	2.31s	0.57s	0.49s	0.63s
size	23K	28K	28K	29K	11K	9K	17K
strip-size	14K	14K	14K	14K	6K	6K	10K
execution	0.05s	0.16s	0.02s	0.02s	0.00s	0.00s	0.01s
valgrind	0.05s	0.16s	0.02s	0.02s	0.00s	0.00s	0.01s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_transitions_1000000
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_transitions_1000000
30
25
20
15
10
5
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_transitions_1000000
14
13
12
11
10
9
8
7
6
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_transitions_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

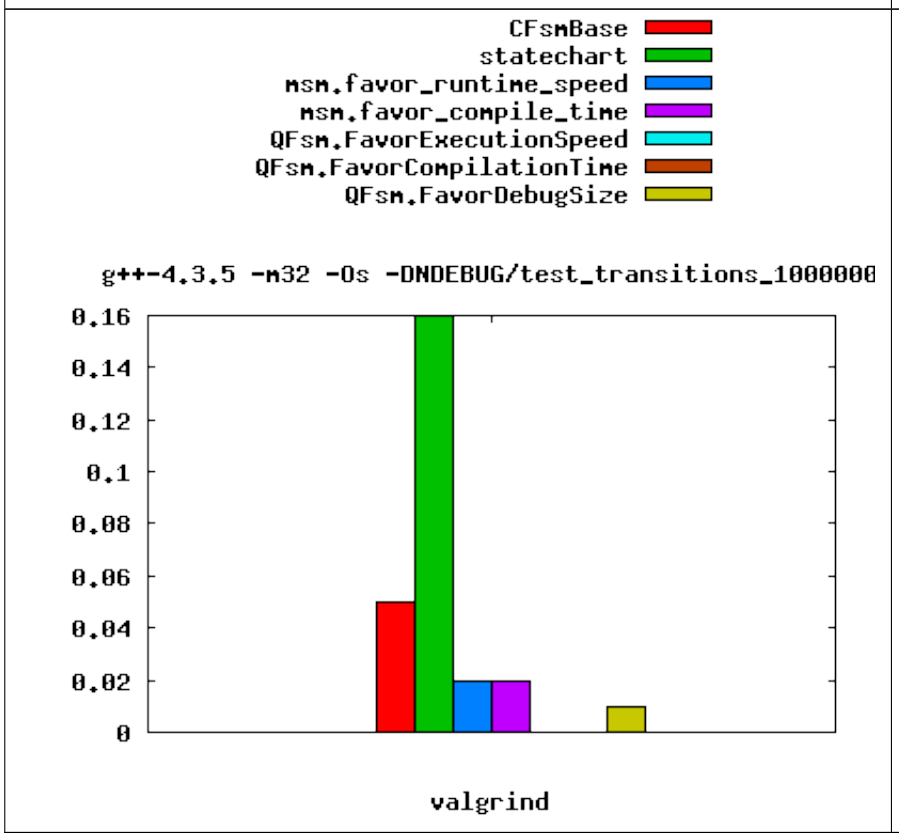
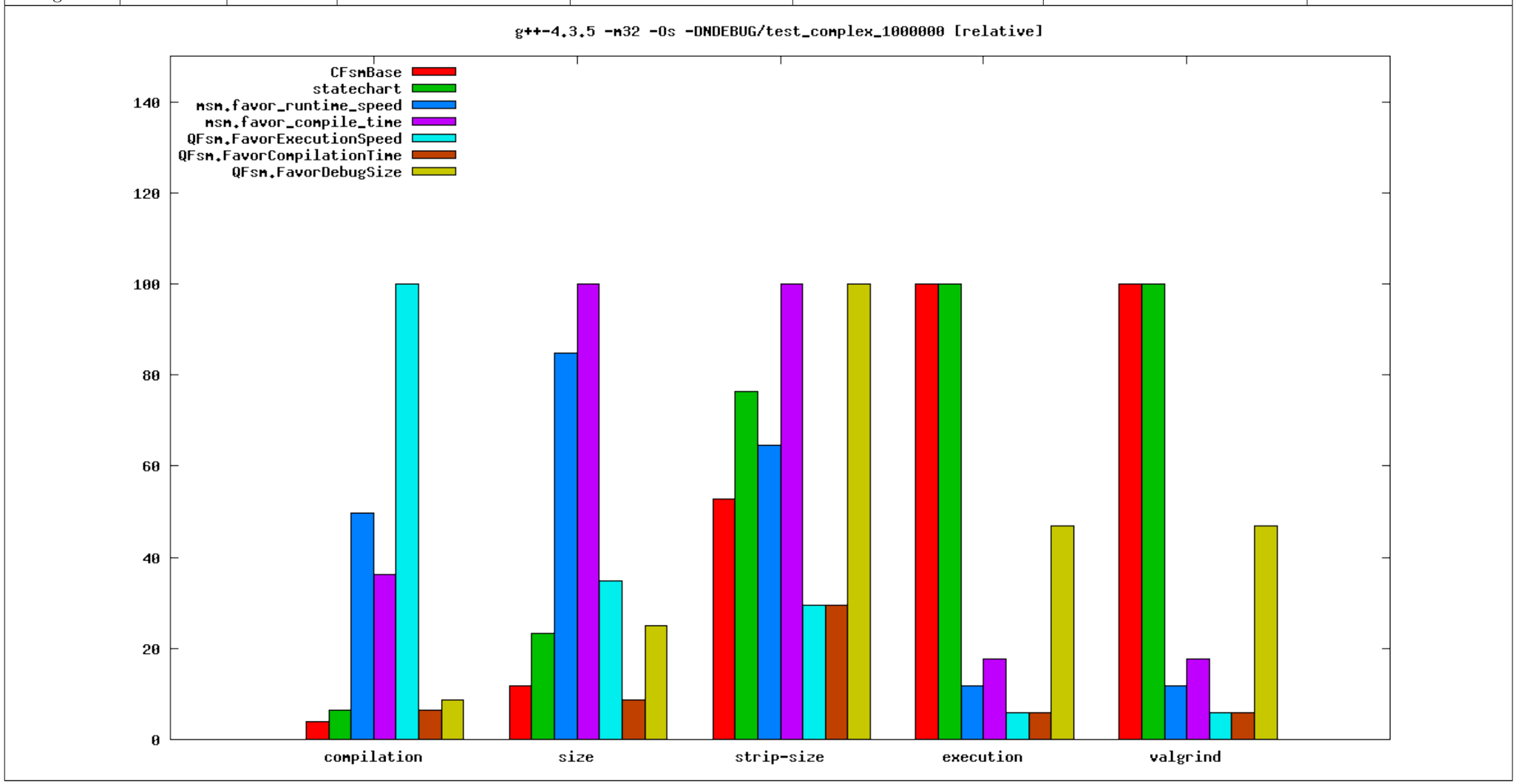
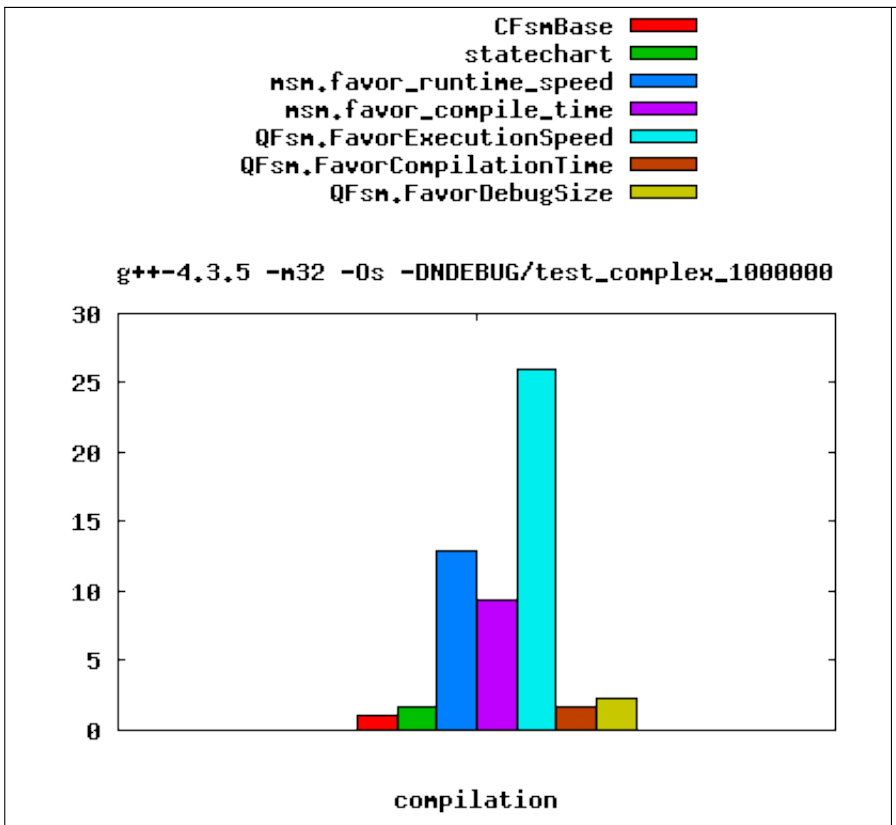
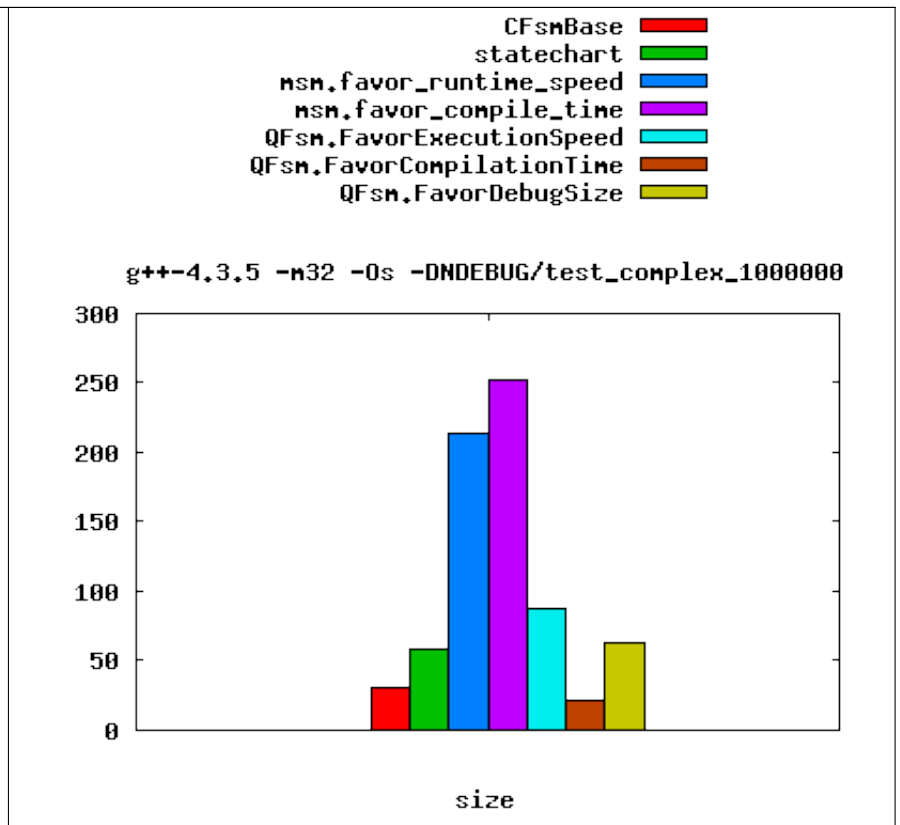

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_transitions_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
valgrind

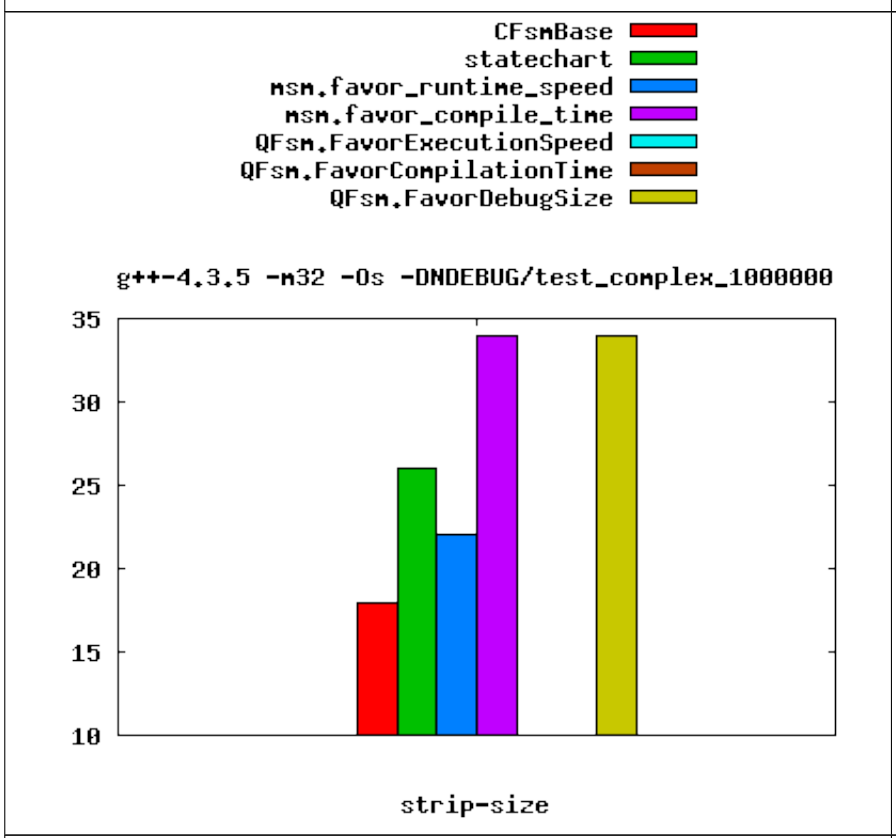
Table 22: "dell" [df6407d], g++-4.3.5 -m32 -Os -DNDEBUG/test complex 1000000

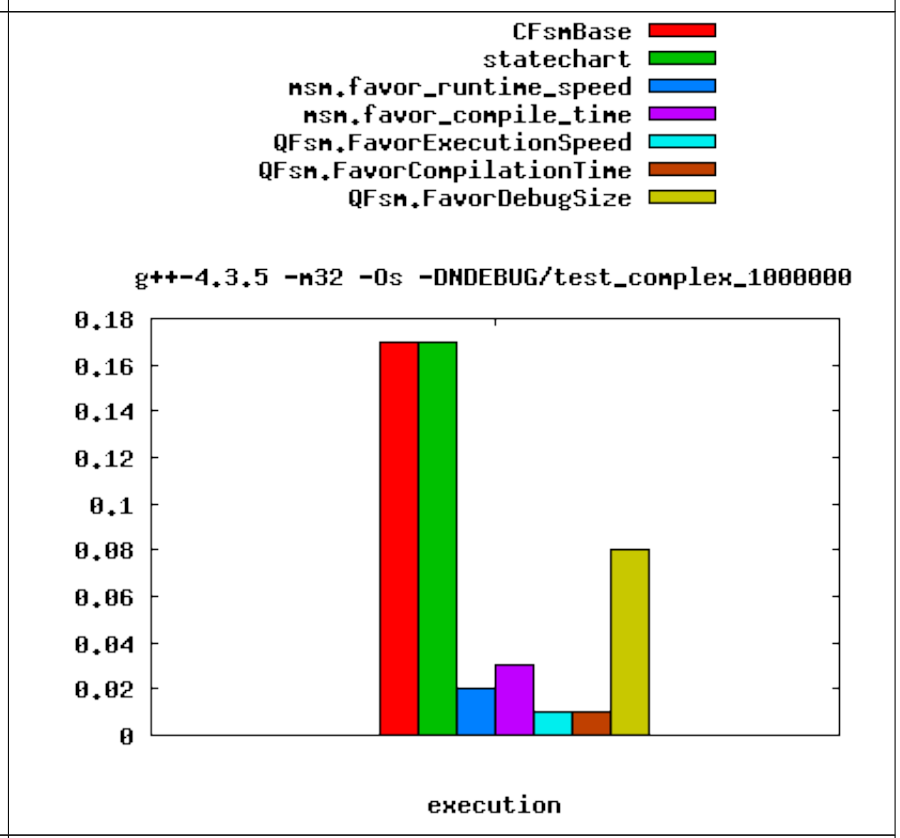
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.05s	1.68s	12.93s	9.45s	26.04s	1.71s	2.25s
size	30K	59K	214K	252K	88K	22K	63K
strip-size	18K	26K	22K	34K	10K	10K	34K
execution	0.17s	0.17s	0.02s	0.03s	0.01s	0.01s	0.08s
valgrind	0.17s	0.17s	0.02s	0.03s	0.01s	0.01s	0.08s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_complex_1000000
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_complex_1000000
300
250
200
150
100
50
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_complex_1000000
35
30
25
20
15
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_complex_1000000
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

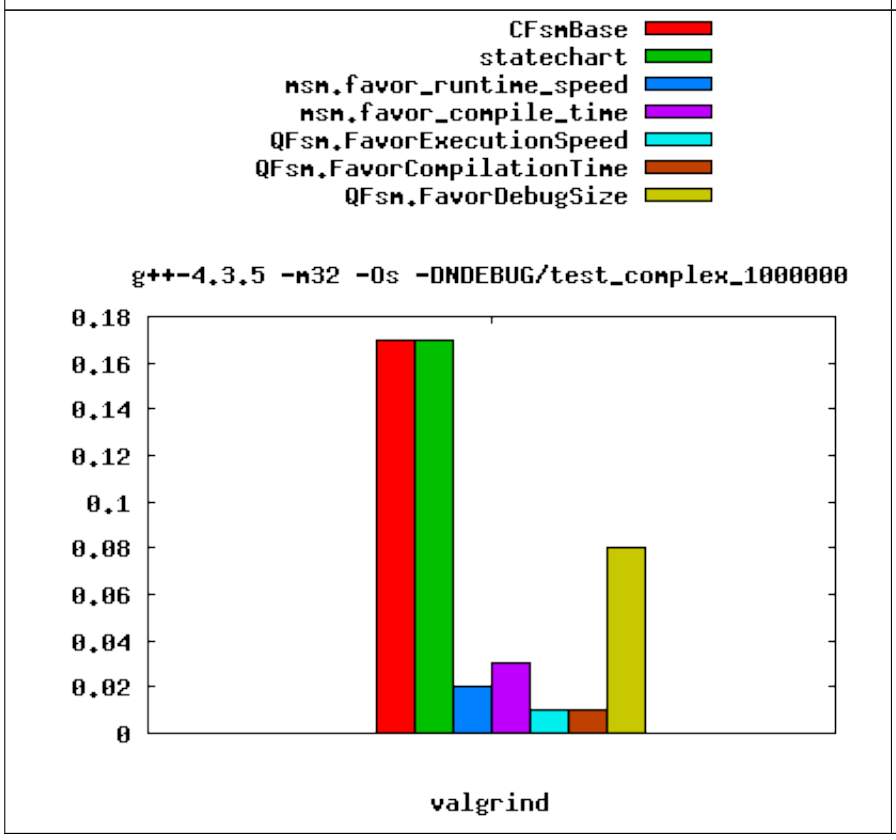
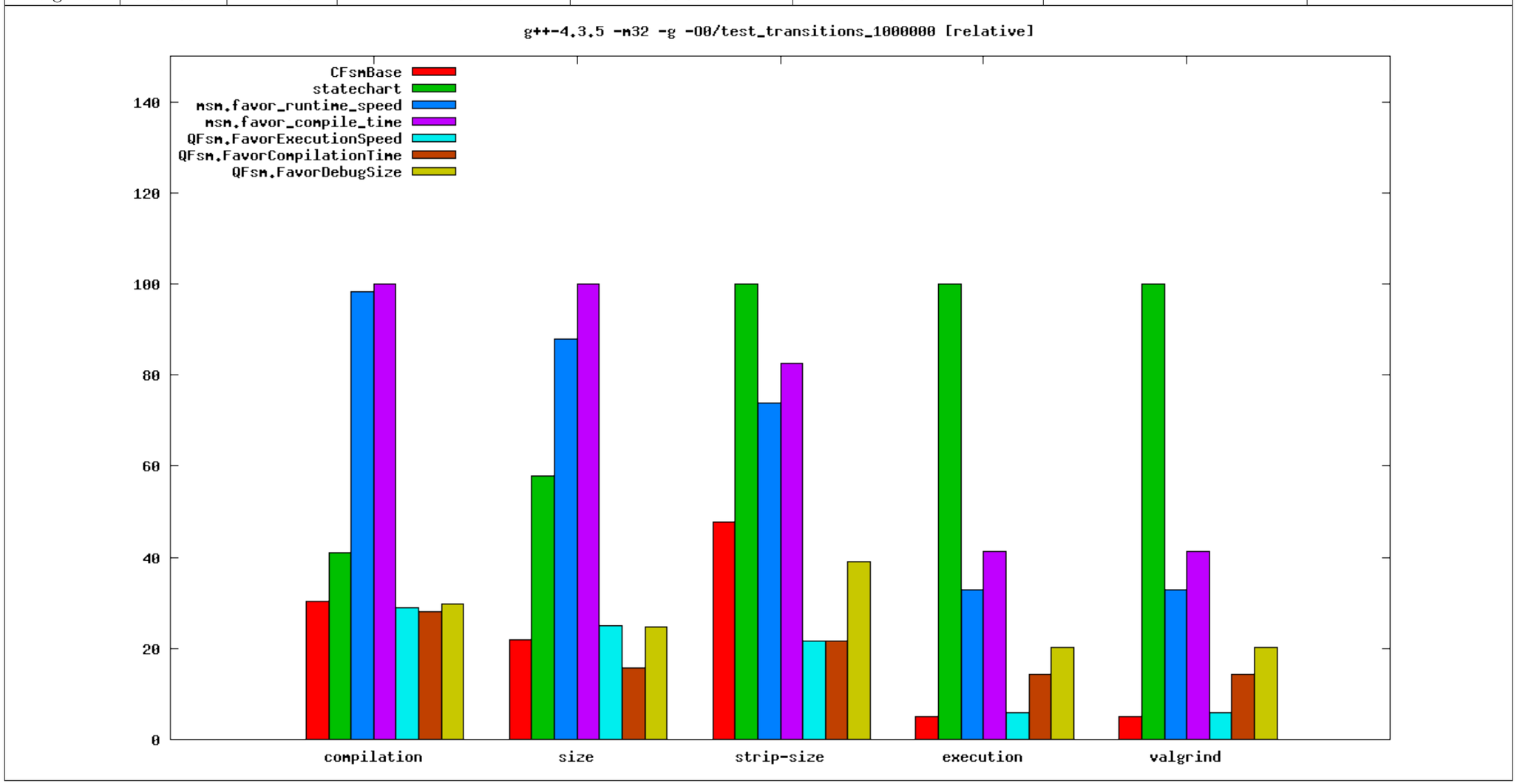
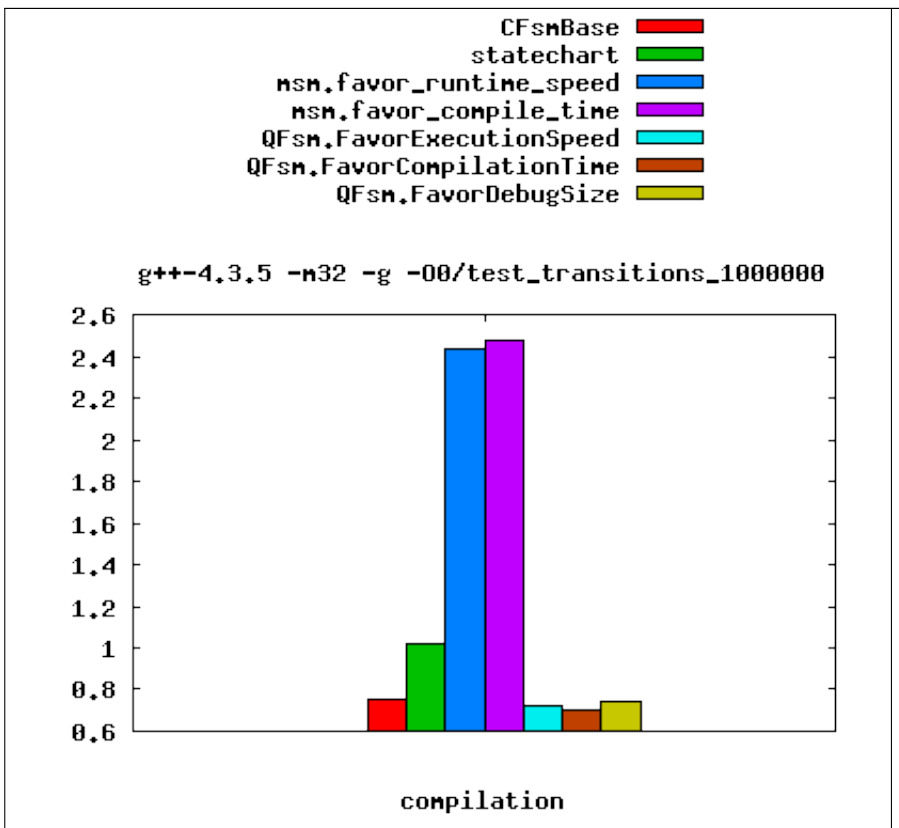
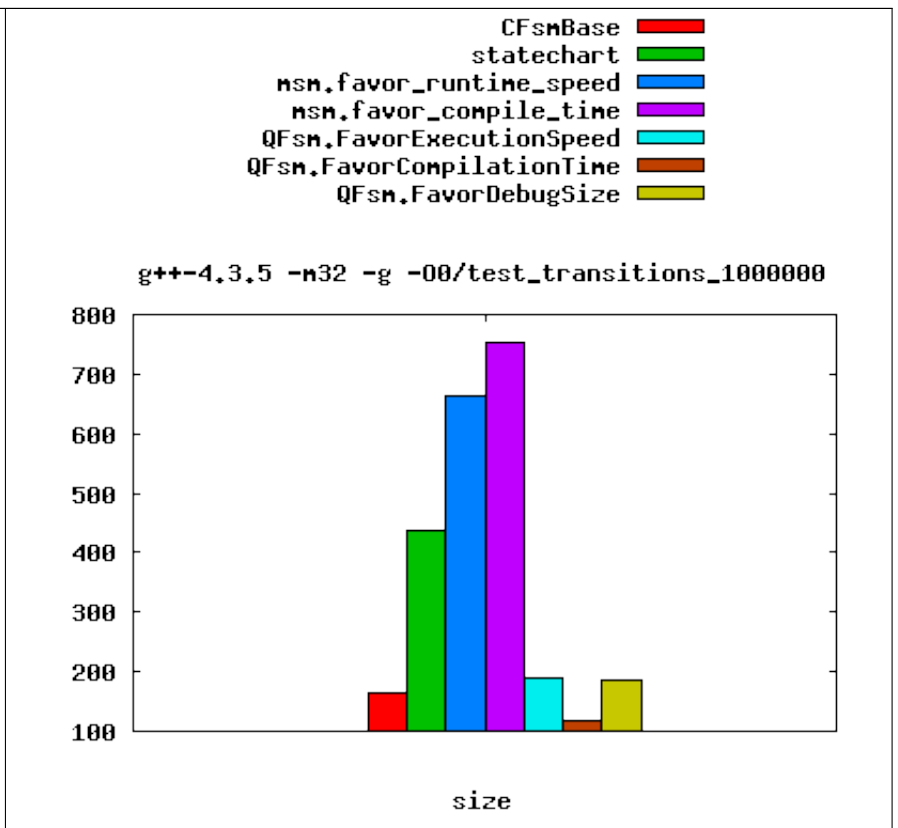

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -Os -DNDEBUG/test_complex_1000000
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
valgrind

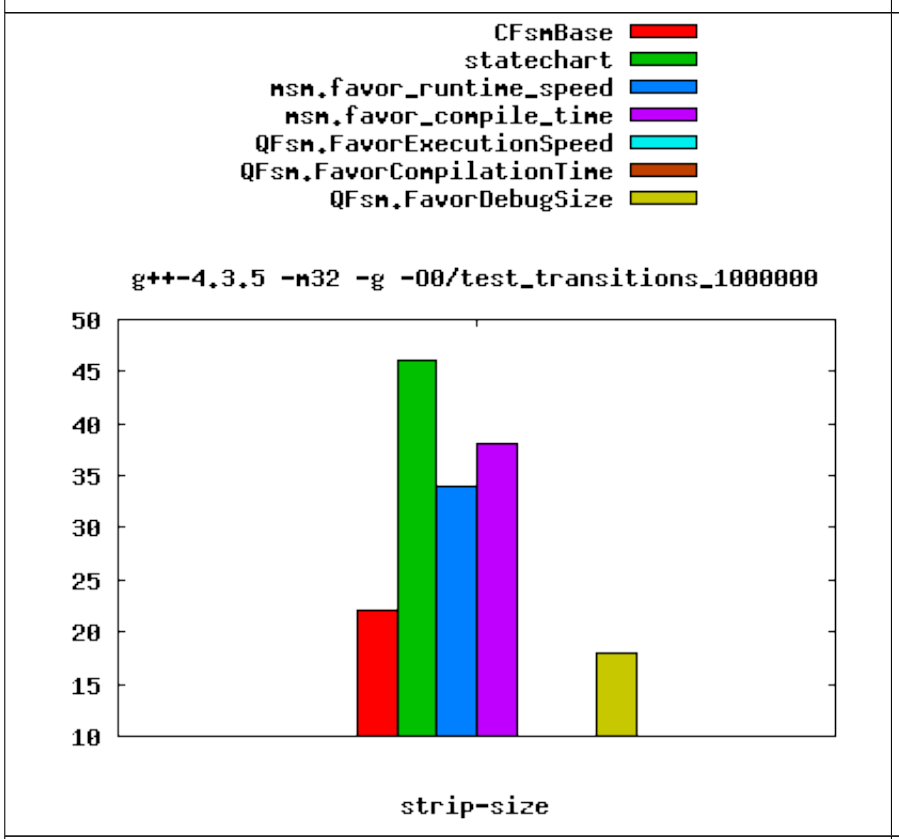
Table 25: "dell" [df6407d], g++-4.3.5 -m32 -g -O0/test transitions 1000000

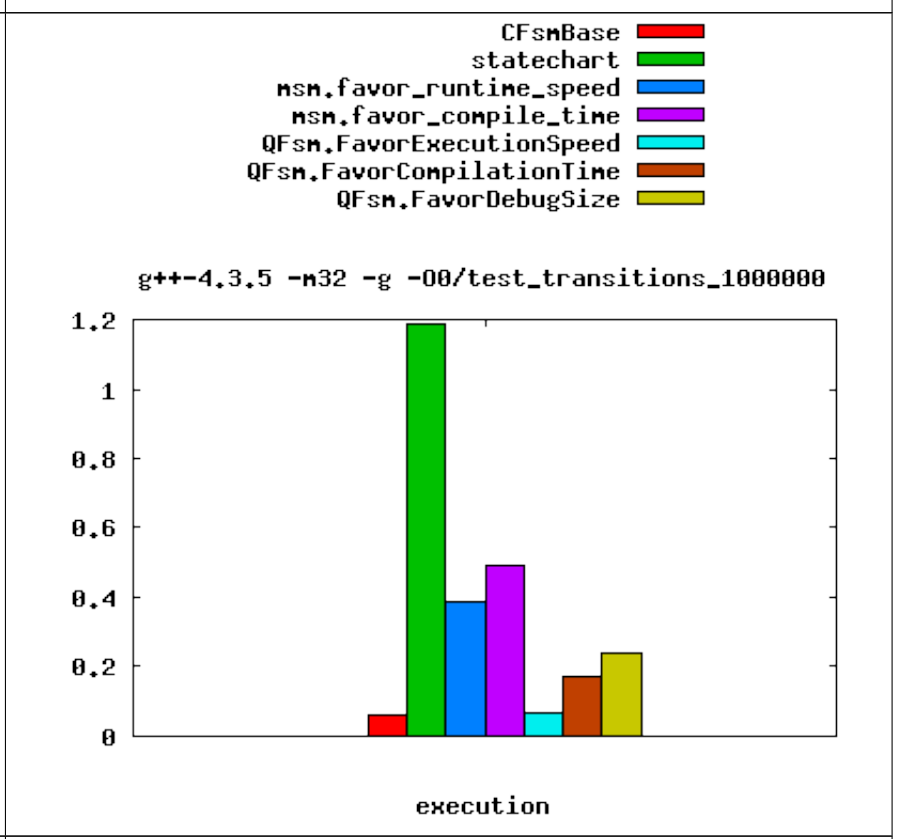
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.75s	1.02s	2.44s	2.48s	0.72s	0.70s	0.74s
size	165K	437K	664K	754K	189K	119K	187K
strip-size	22K	46K	34K	38K	10K	10K	18K
execution	0.06s	1.19s	0.39s	0.49s	0.07s	0.17s	0.24s
valgrind	0.06s	1.19s	0.39s	0.49s	0.07s	0.17s	0.24s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_transitions_1000000
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_transitions_1000000
800
700
600
500
400
300
200
100
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_transitions_1000000
50
45
40
35
30
25
20
15
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_transitions_1000000
1.2
1
0.8
0.6
0.4
0.2
0
execution

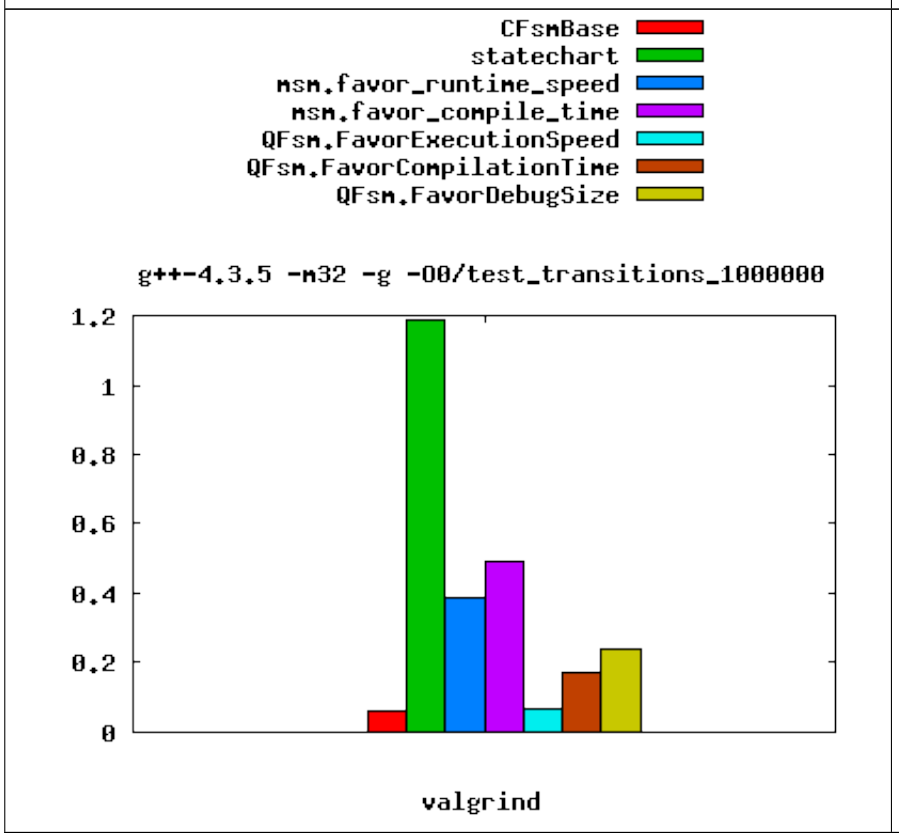
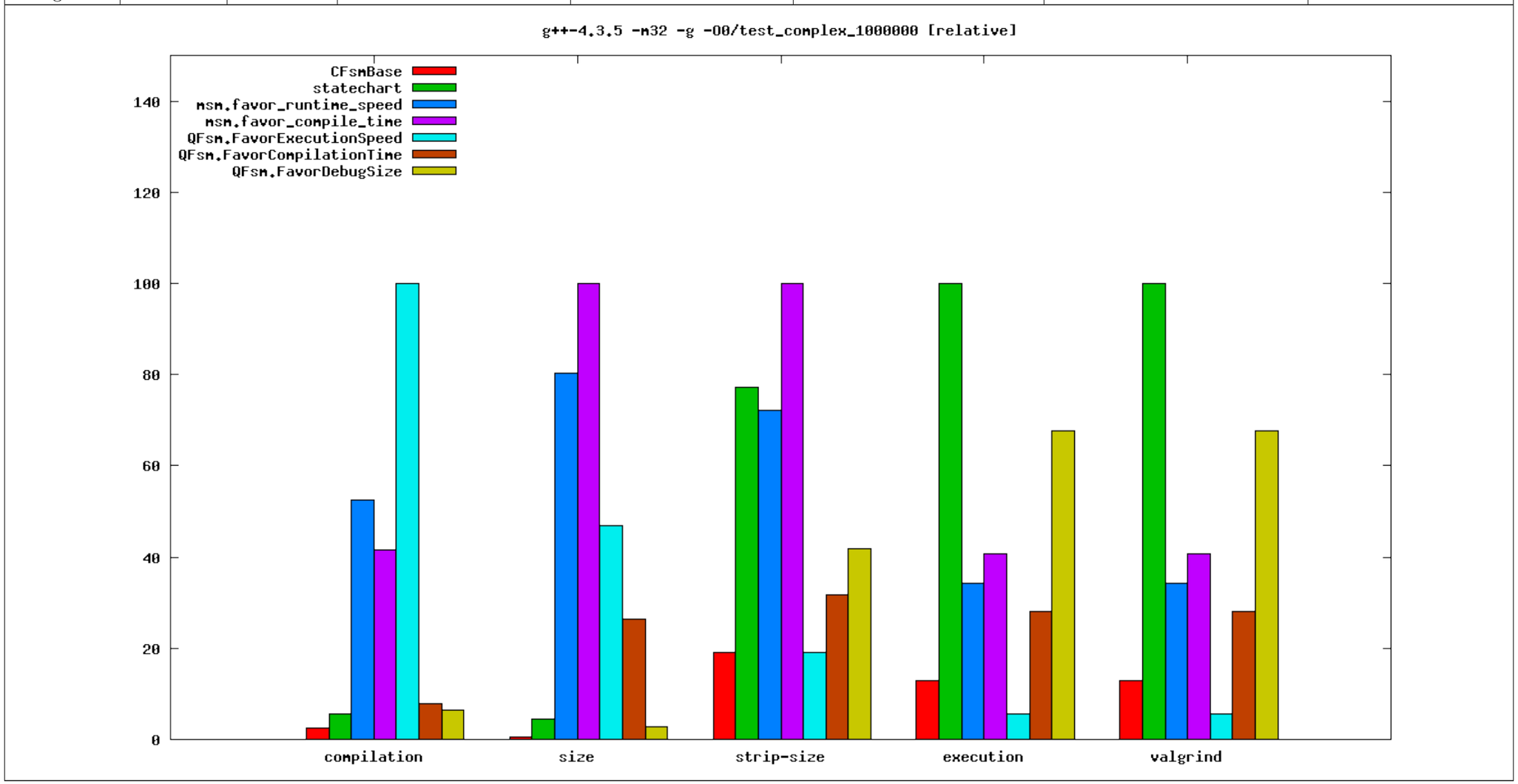
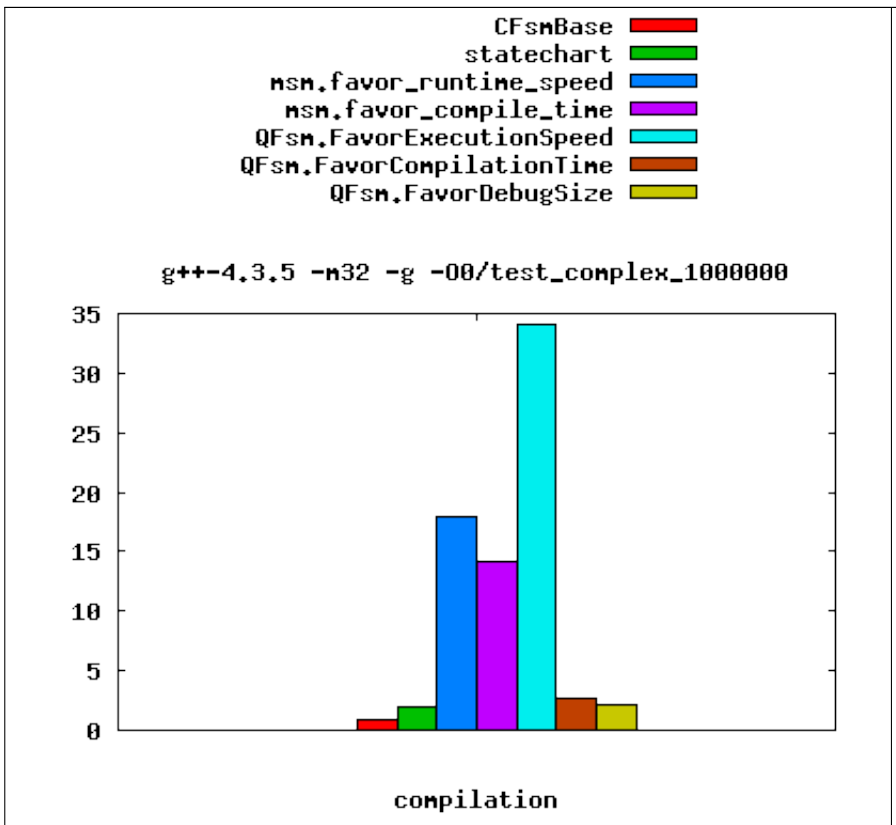
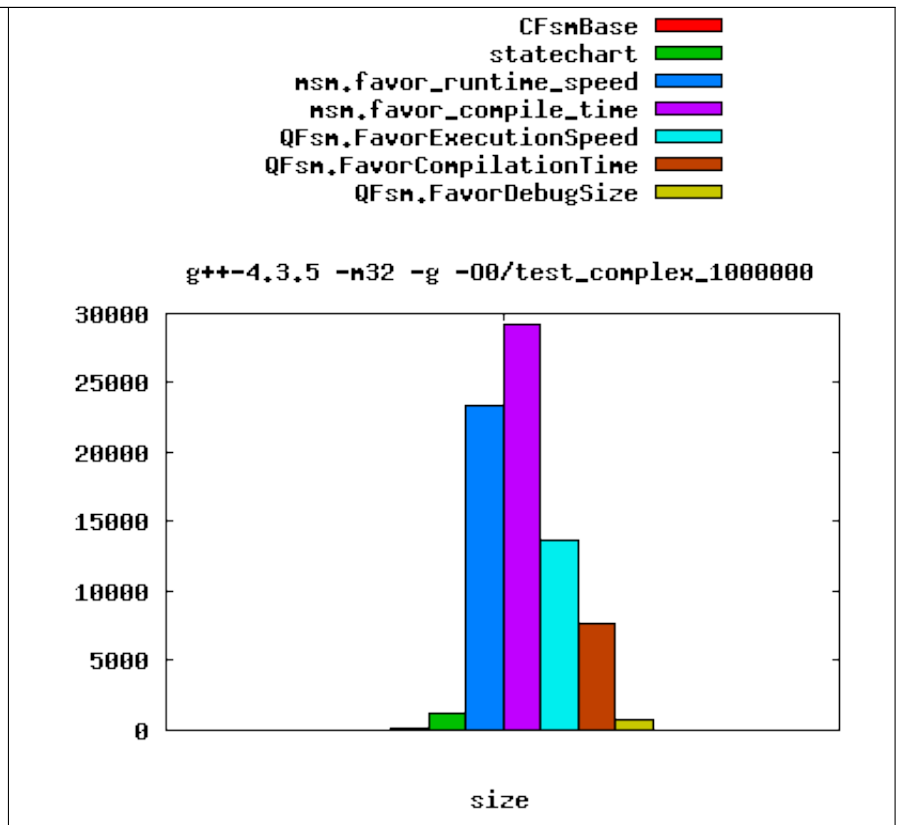

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_transitions_1000000
1.2
1
0.8
0.6
0.4
0.2
0
valgrind

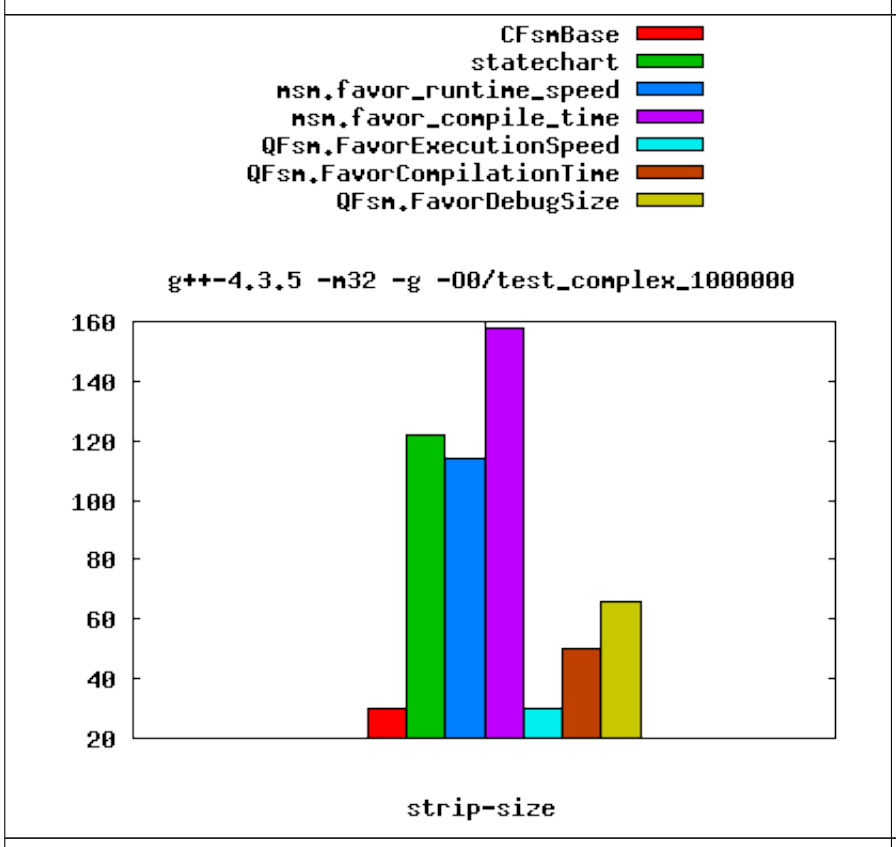
Table 28: ”dell” [df6407d], g++-4.3.5 -m32 -g -O0/test complex 1000000

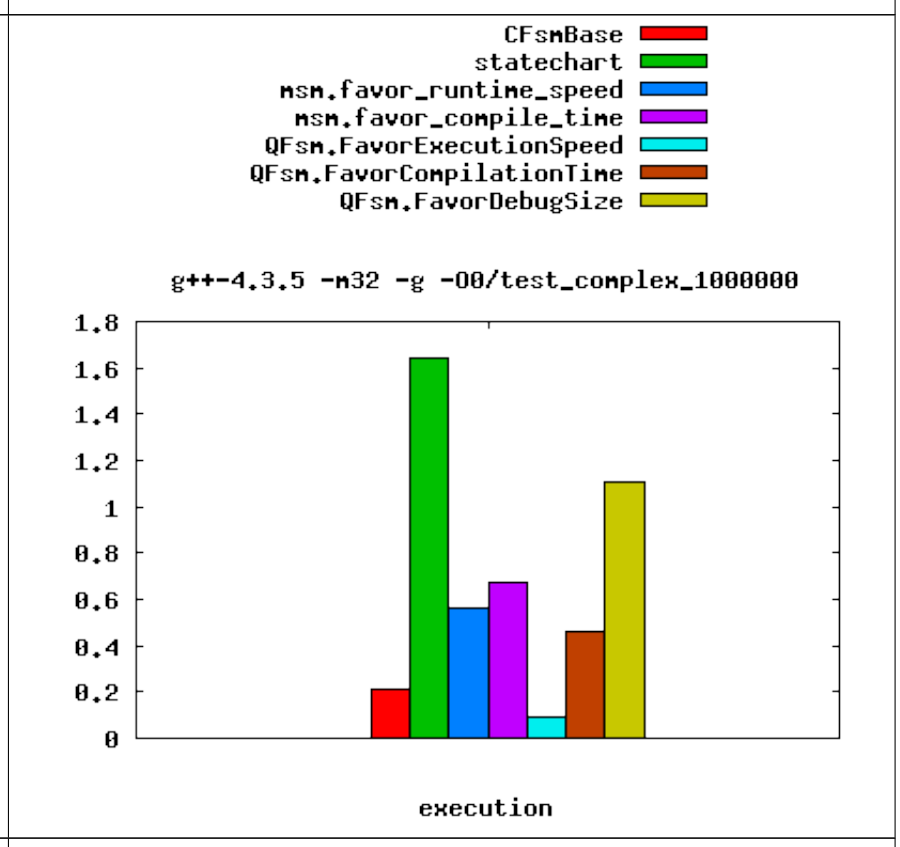
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.84s	1.92s	17.95s	14.25s	34.19s	2.71s	2.18s
size	206K	1298K	23458K	29225K	13678K	7709K	838K
strip-size	30K	122K	114K	158K	30K	50K	66K
execution	0.21s	1.64s	0.56s	0.67s	0.09s	0.46s	1.11s
valgrind	0.21s	1.64s	0.56s	0.67s	0.09s	0.46s	1.11s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_complex_1000000
35
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_complex_1000000
30000
25000
20000
15000
10000
5000
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_complex_1000000
160
140
120
100
80
60
40
20
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_complex_1000000
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
execution

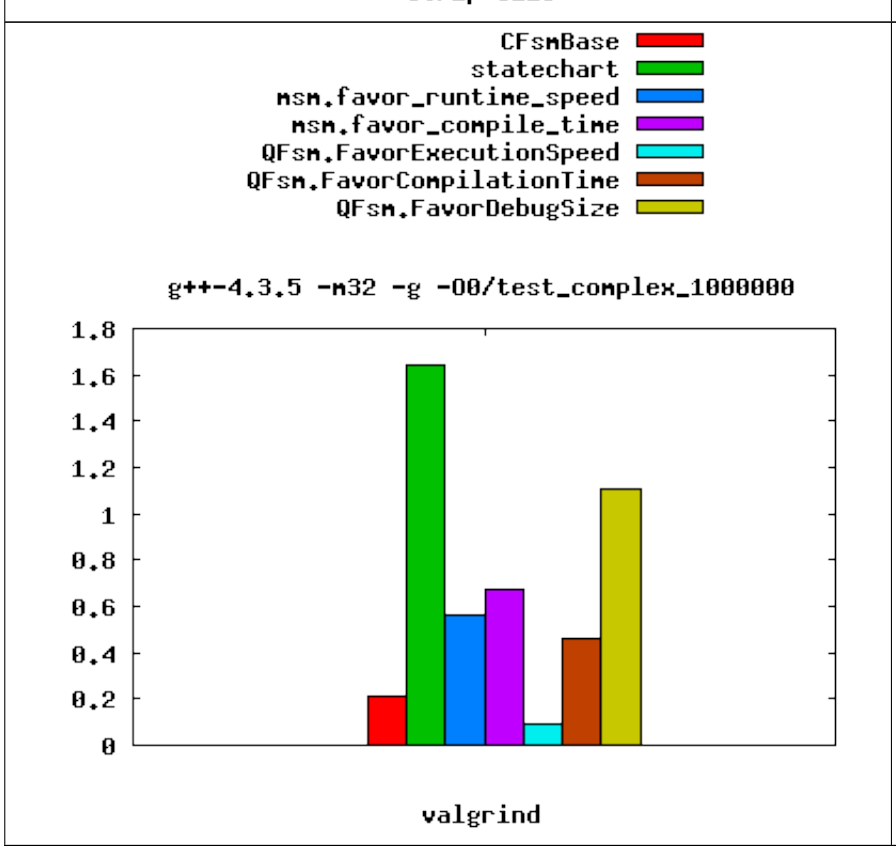
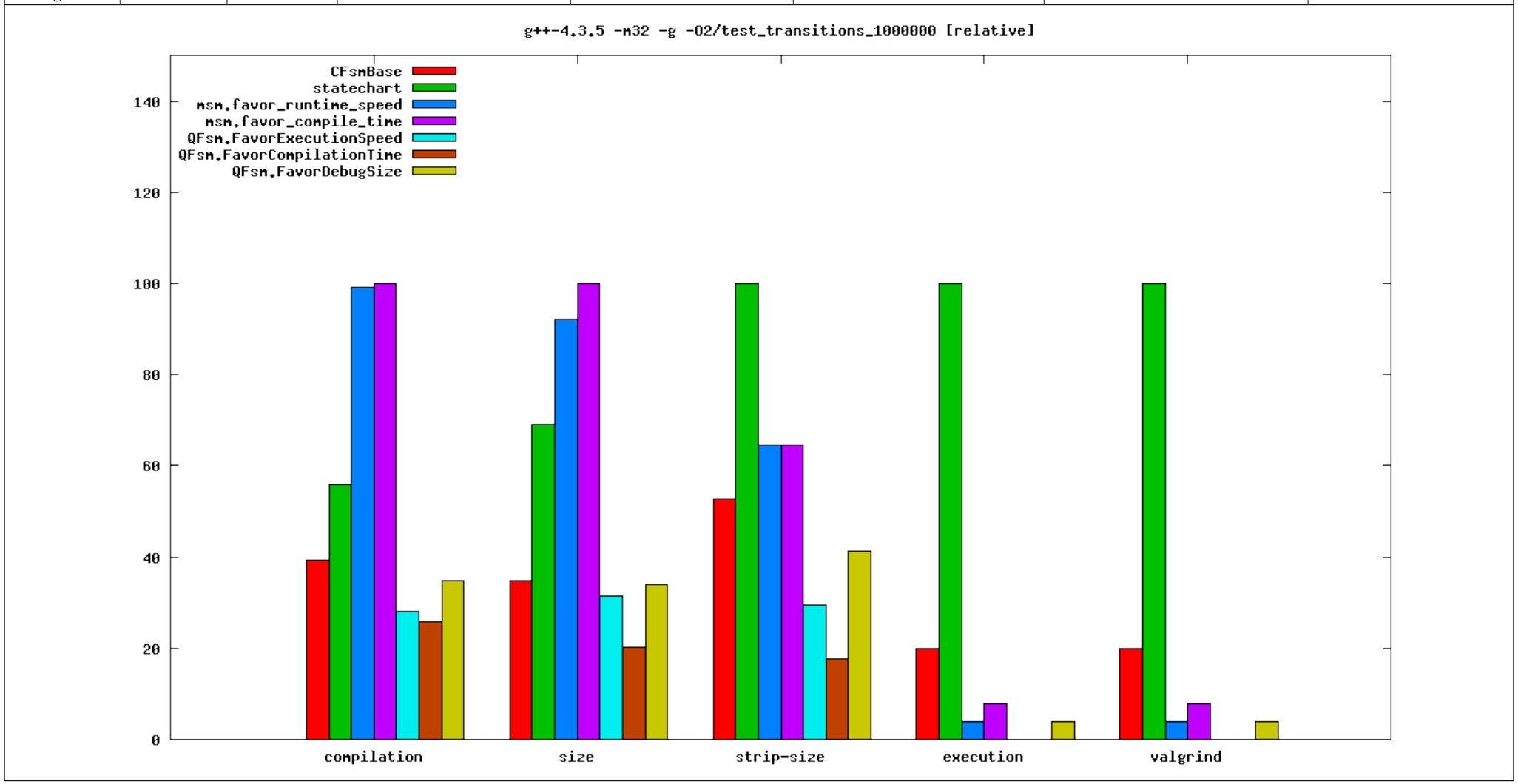
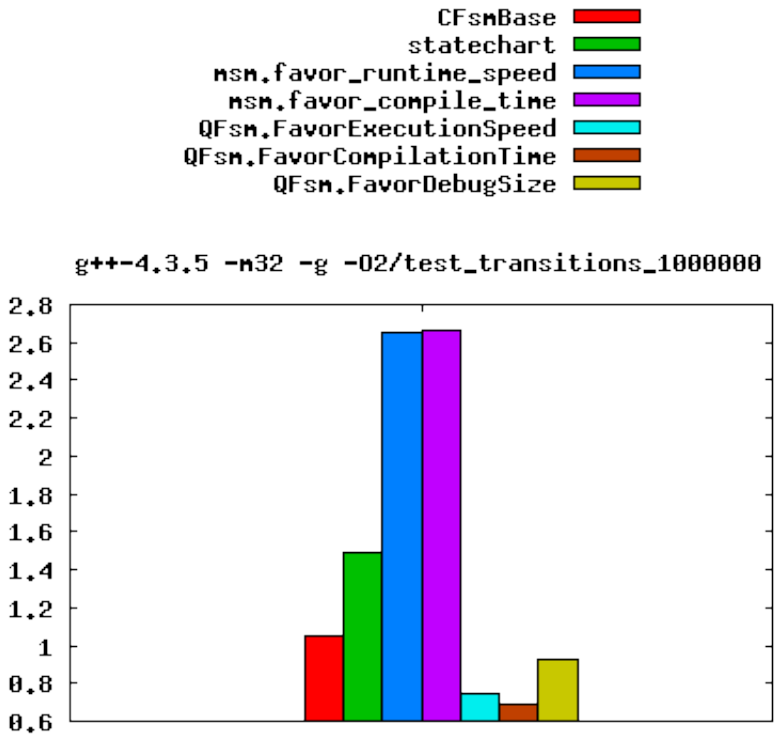
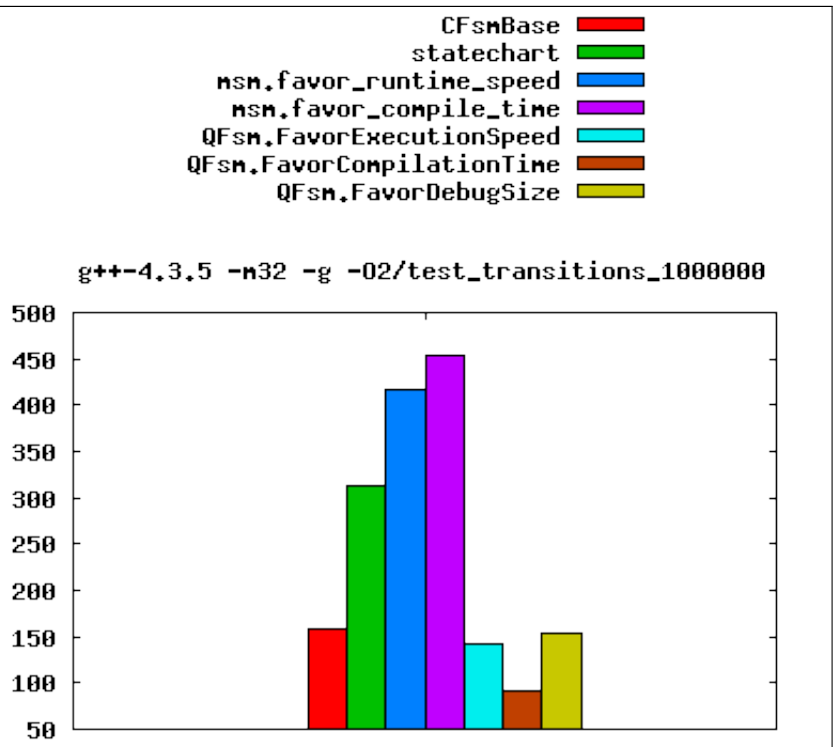

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O0/test_complex_1000000
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
valgrind

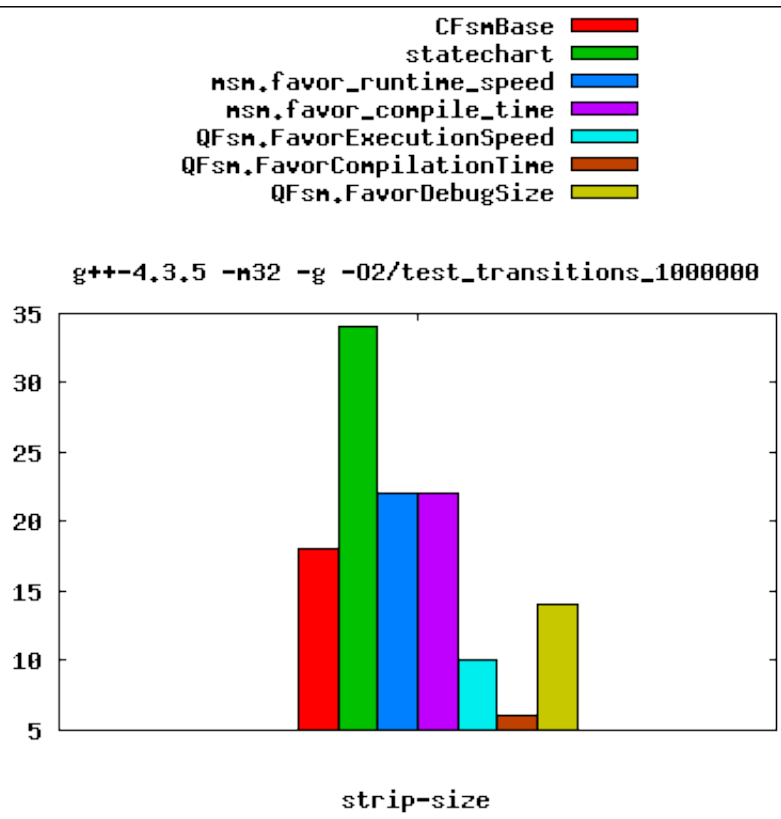
Table 31: "dell" [df6407d], g++-4.3.5 -m32 -g -O2/test transitions 1000000

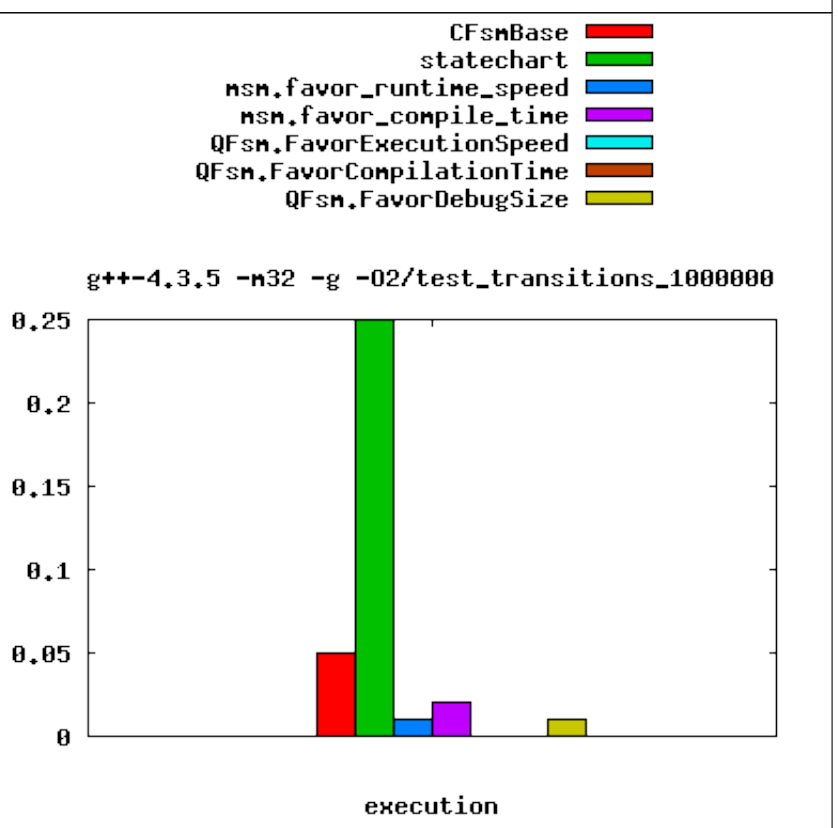
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.05s	1.49s	2.65s	2.67s	0.75s	0.69s	0.93s
size	158K	313K	417K	453K	142K	92K	154K
strip-size	18K	34K	22K	22K	10K	6K	14K
execution	0.05s	0.25s	0.01s	0.02s	0.00s	0.00s	0.01s
valgrind	0.05s	0.25s	0.01s	0.02s	0.00s	0.00s	0.01s




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_transitions_1000000
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_transitions_1000000
500
450
400
350
300
250
200
150
100
50
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_transitions_1000000
35
30
25
20
15
10
5
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_transitions_1000000
0.25
0.2
0.15
0.1
0.05
0
execution

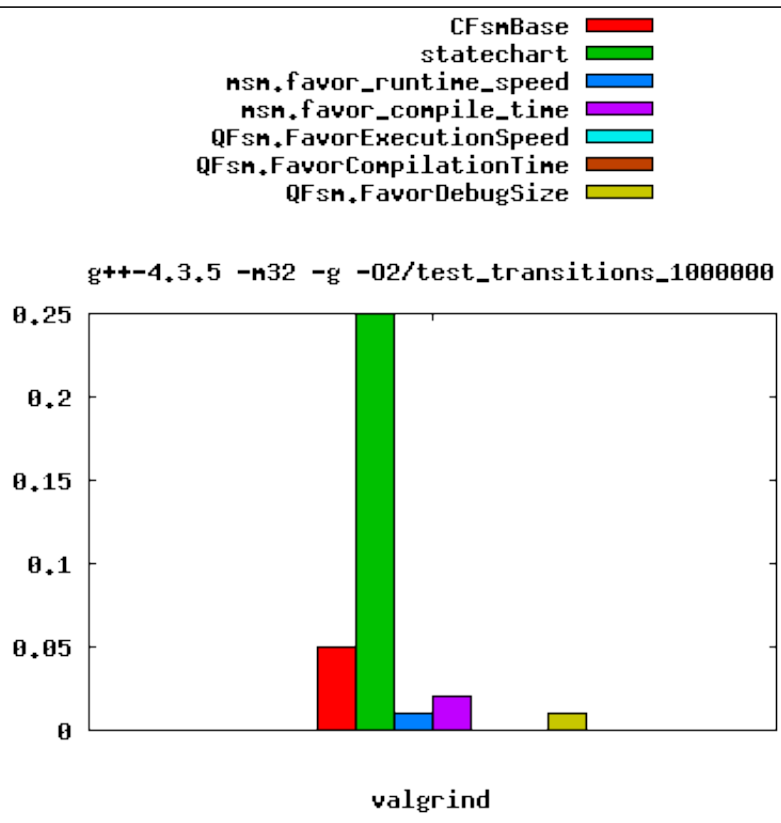
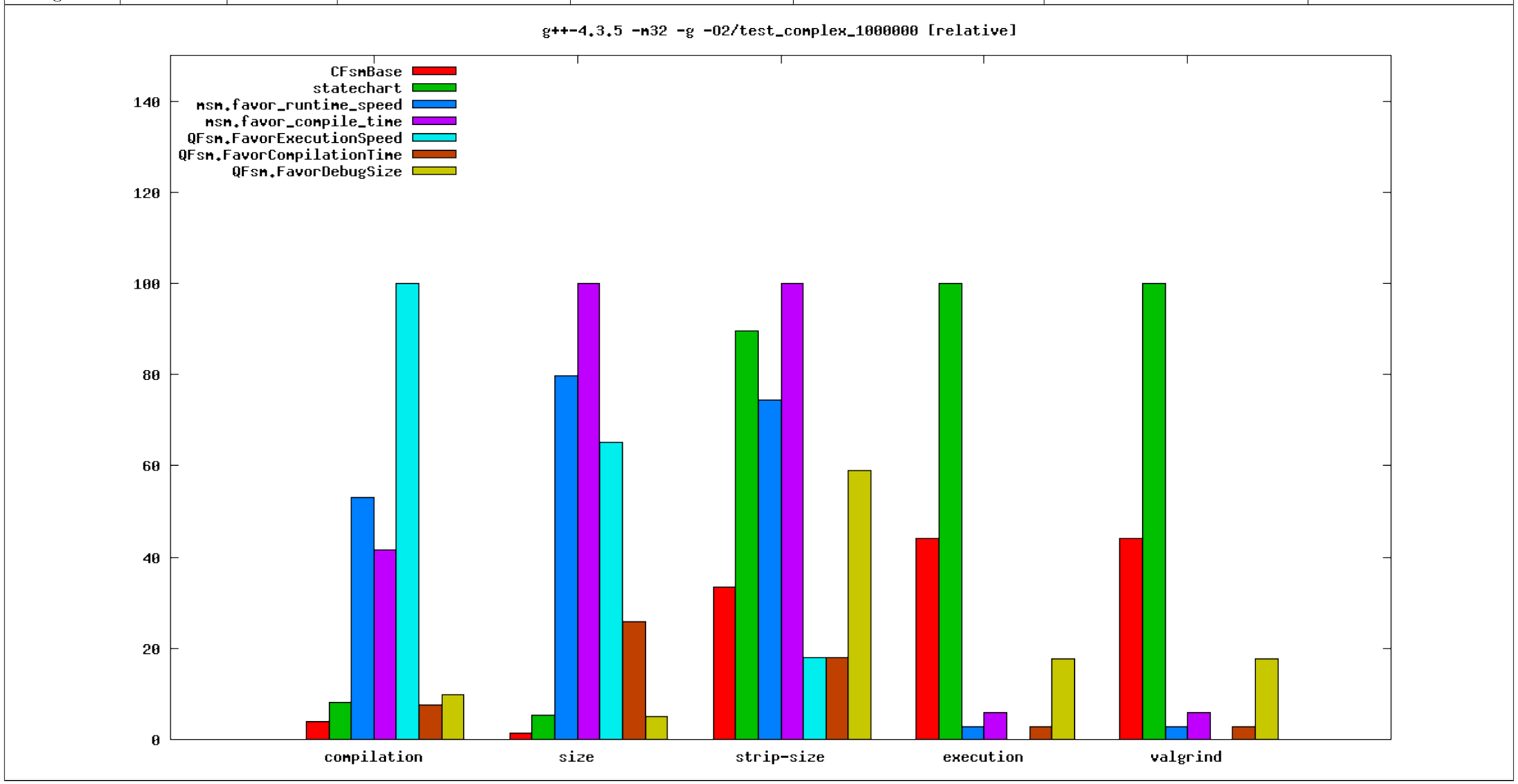
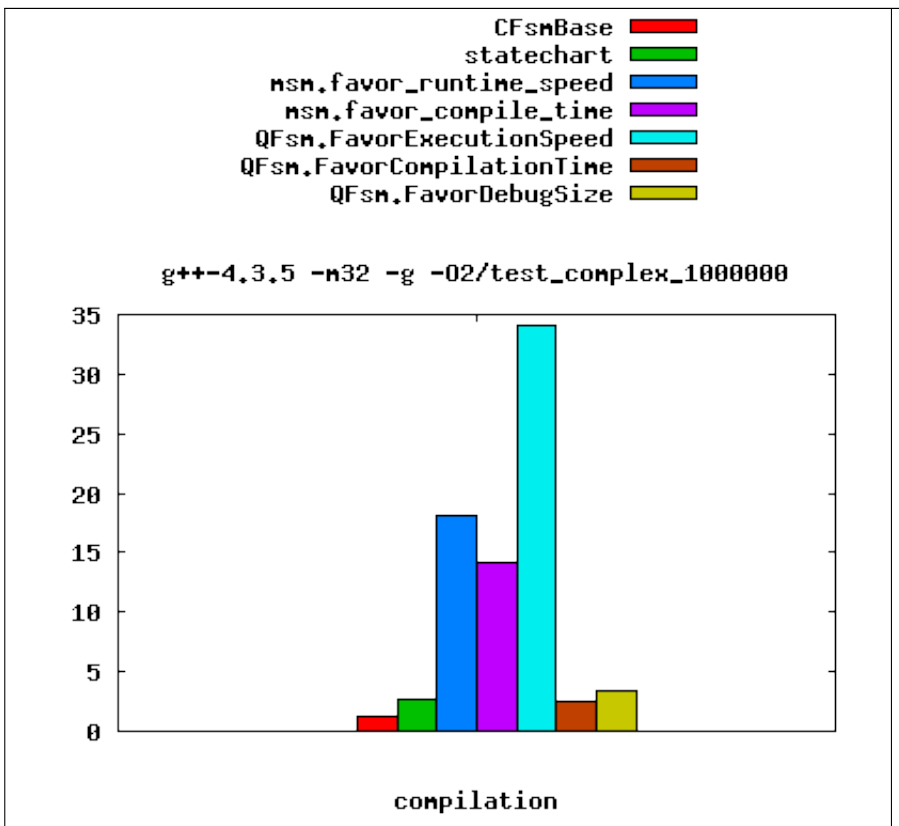
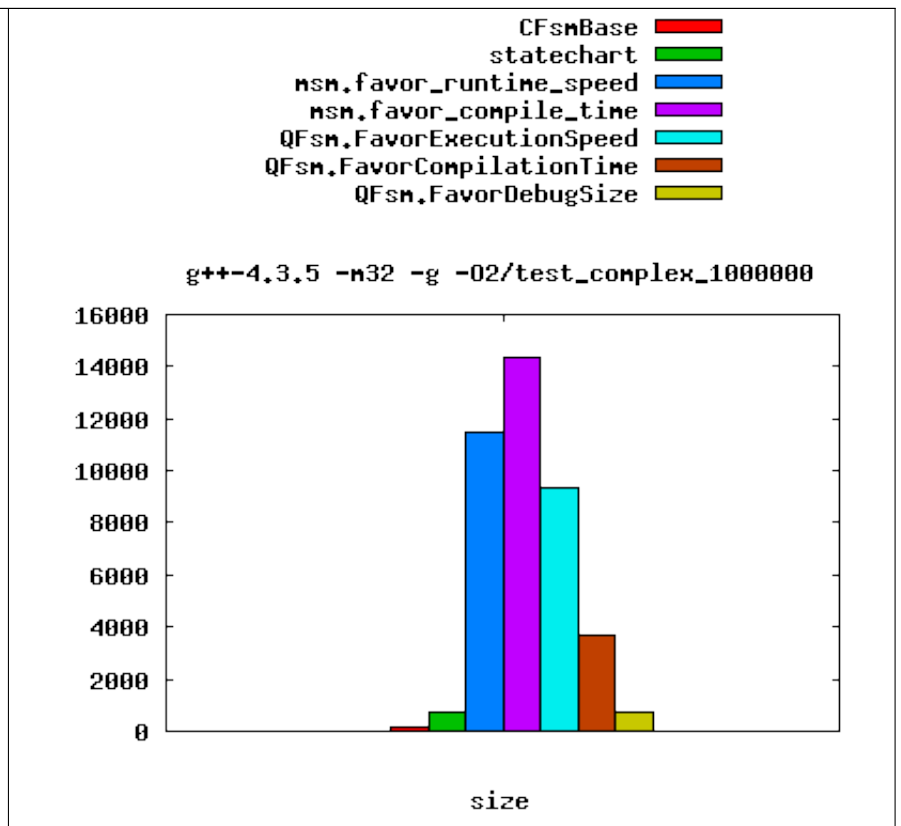

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_transitions_1000000
0.25
0.2
0.15
0.1
0.05
0
valgrind

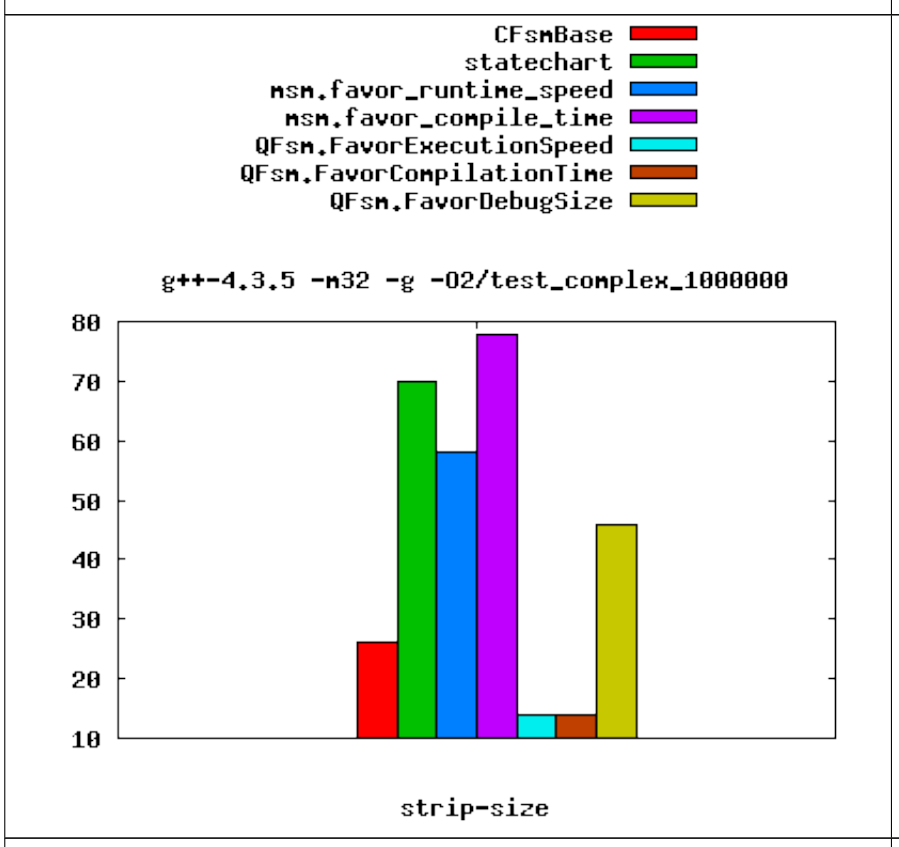
Table 34: ”dell” [df6407d], g++-4.3.5 -m32 -g -O2/test complex 1000000

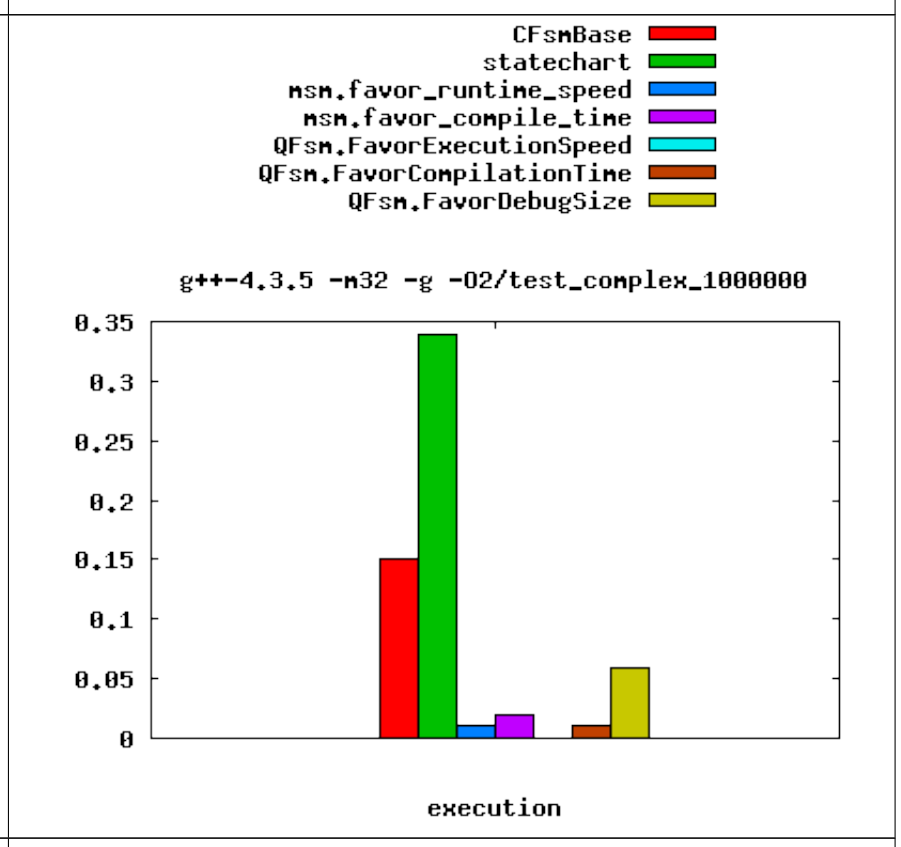
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.30s	2.76s	18.15s	14.20s	34.16s	2.55s	3.36s
size	199K	764K	11452K	14355K	9349K	3709K	738K
strip-size	26K	70K	58K	78K	14K	14K	46K
execution	0.15s	0.34s	0.01s	0.02s	0.00s	0.01s	0.06s
valgrind	0.15s	0.34s	0.01s	0.02s	0.00s	0.01s	0.06s

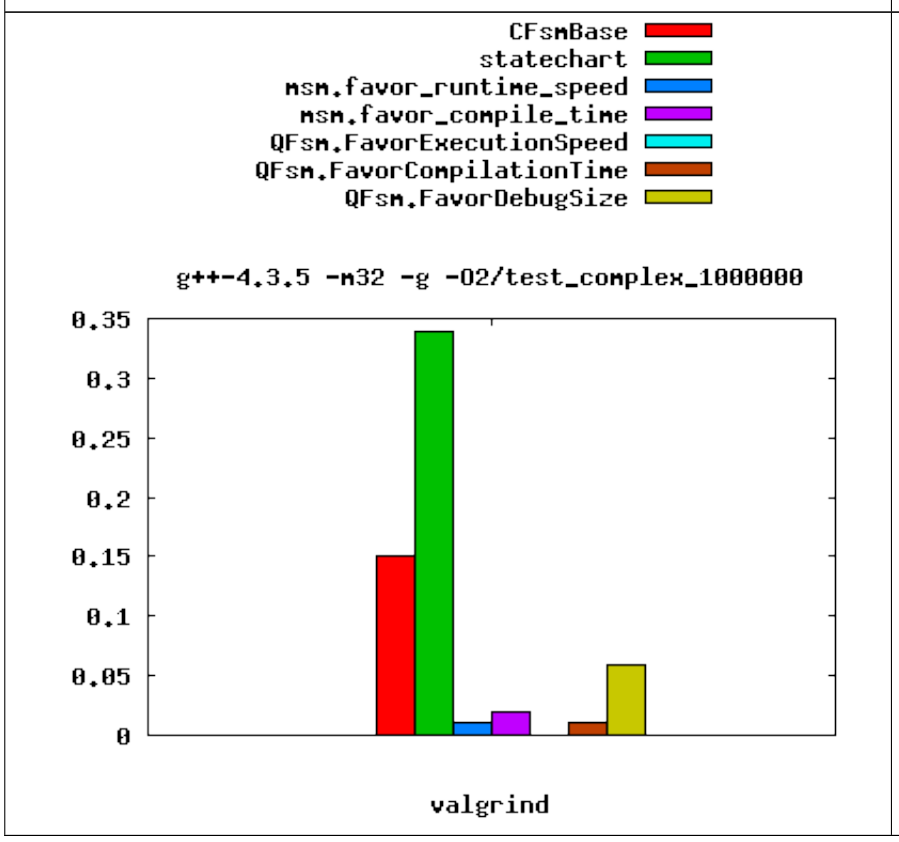



CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_complex_1000000
35
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_complex_1000000
16000
14000
12000
10000
8000
6000
4000
2000
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_complex_1000000
80
70
60
50
40
30
20
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_complex_1000000
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
execution


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.5 -m32 -g -O2/test_complex_1000000
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
valgrind

0.0.2 Results from "ibmt43" [df6407d], generated Sun Sep 25 23:16:47 CEST 2011

```
Test aspects:

    compilation:
        compilation time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    size:
        size of the binary measured by 'ls -k' call
        result is in kilobytes

    strip-size:
        size of the binary measured by 'ls -k' call after 'strip' call
        result is in kilobytes

    execution:
        execution time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    valgrind:
        test is executed with valgrind call
        result is as A/D (S), where
        A - allocations
        D - deallocations
        S - global allocated size in bytes

    test name:
        test_NAME[_NUMBER], where NAME is test case name and NUMBER is count of event calls during the test
```

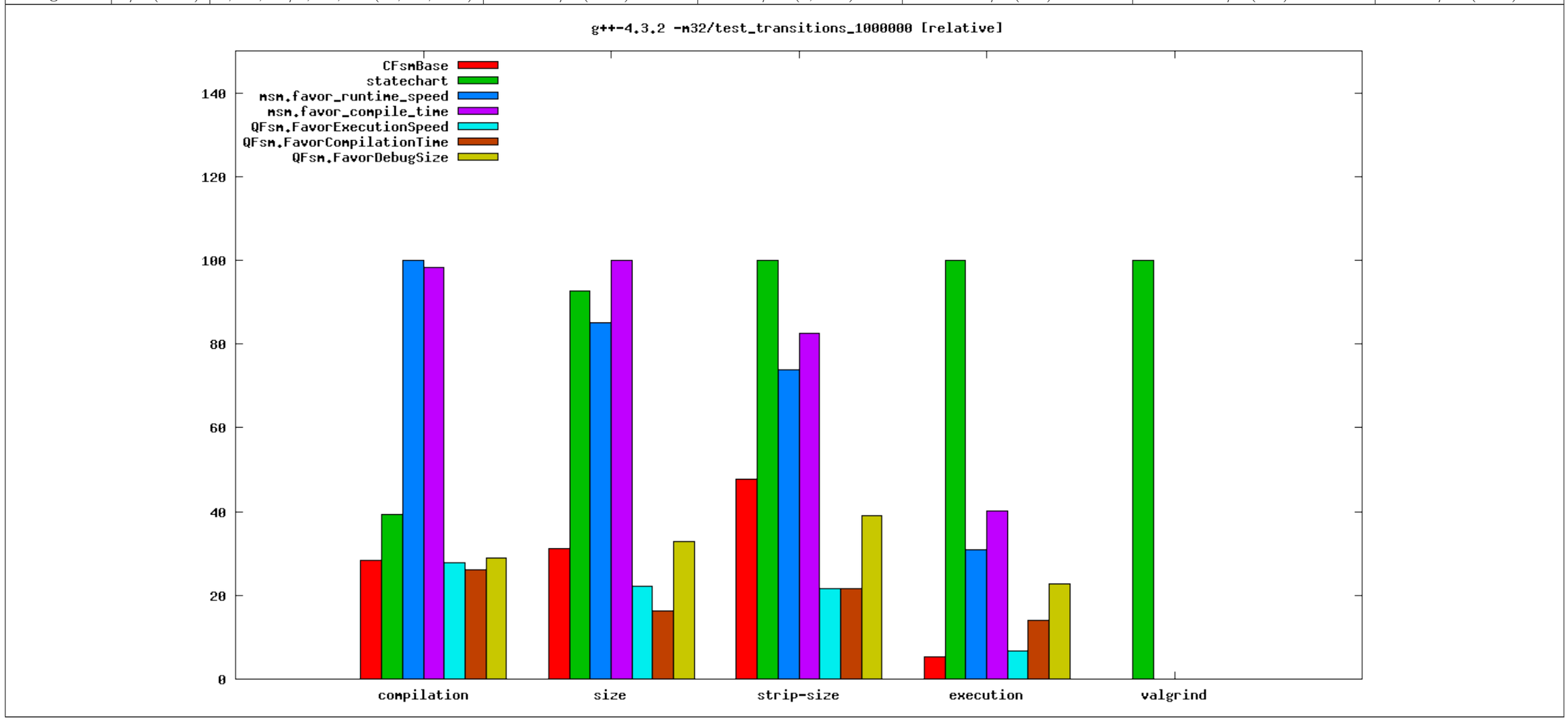
```
Environment statistics:

    generated: Sun Sep 25 23:16:47 CEST 2011
    code revision: df6407d
    hostname: "ibmt43"
    operating system:  GNU/Linux
    processor: Intel(R) Pentium(R) M processor 1.86GHz
    free memory: 495Mb
    load average: 0.97 0.97 0.87 2/108 14066
```

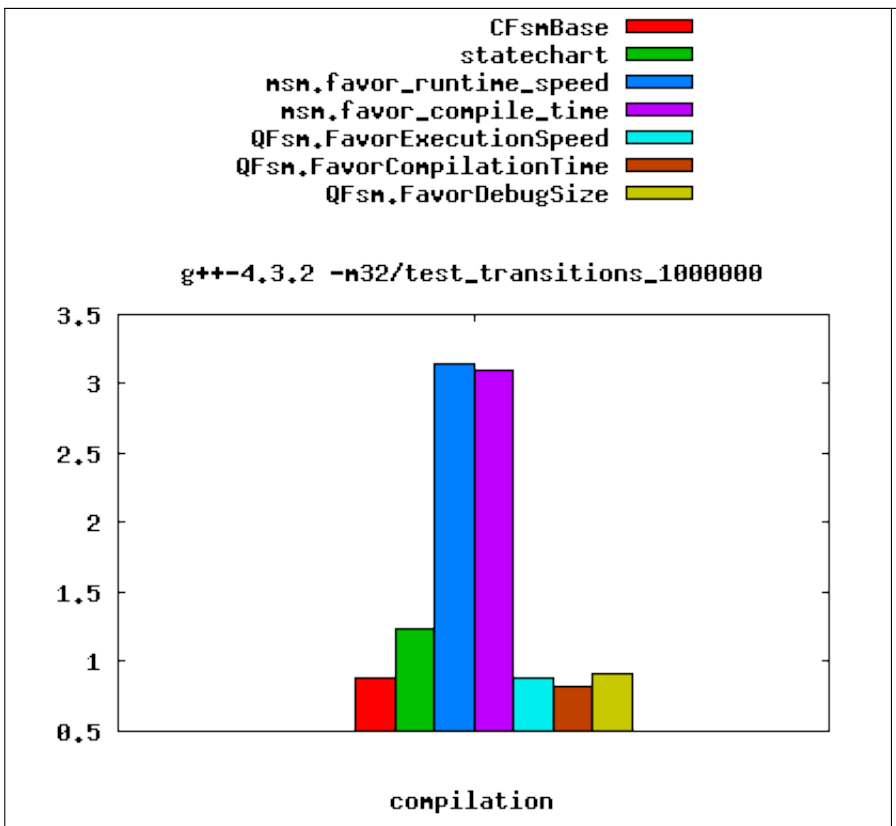
```
All tests summary:

    real: 1643.09s (27:23.09)
    user: 1578.01s
    sys: 16.30s
    cpu: 97%
    average memory usage: 0K
    maximum resident set size: 0K
    number of times the process was swapped out of main memory: 0
    number of file system input: 0
    number of file system outputs: 0
```

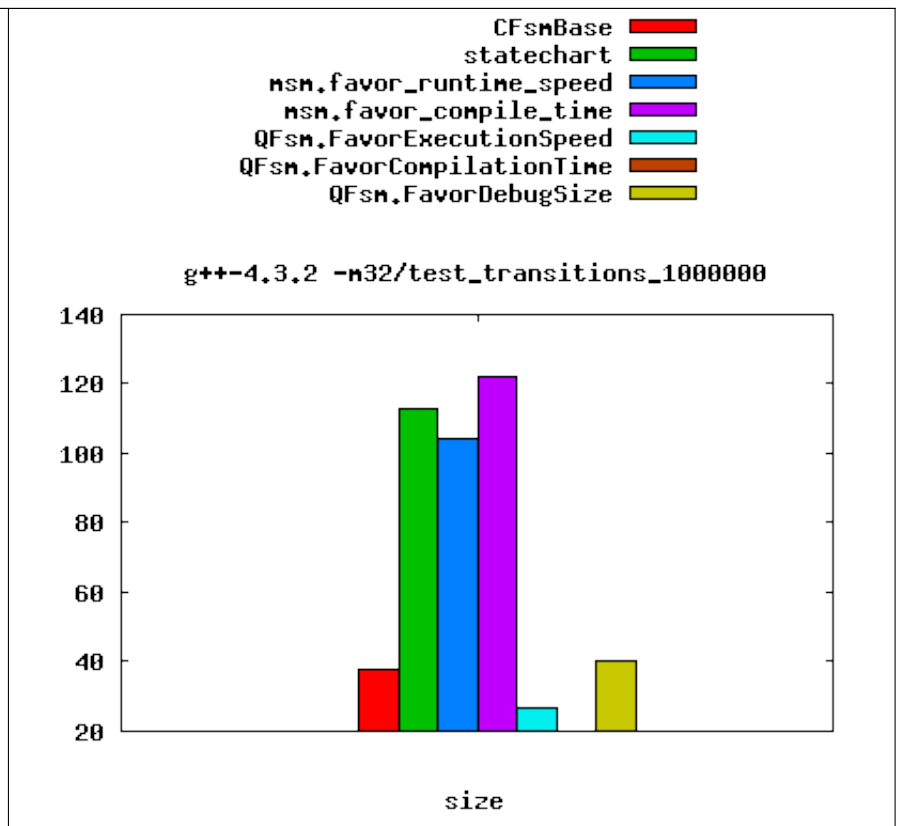
```
Results are presented by using table and two types of charts:

    table: contains results for each tested aspect and framework
    first type of chart: presents relative (0-100%) differents between individual framework and aspect
    second type of chart: presents each aspect individually using exact values returned during the test
```

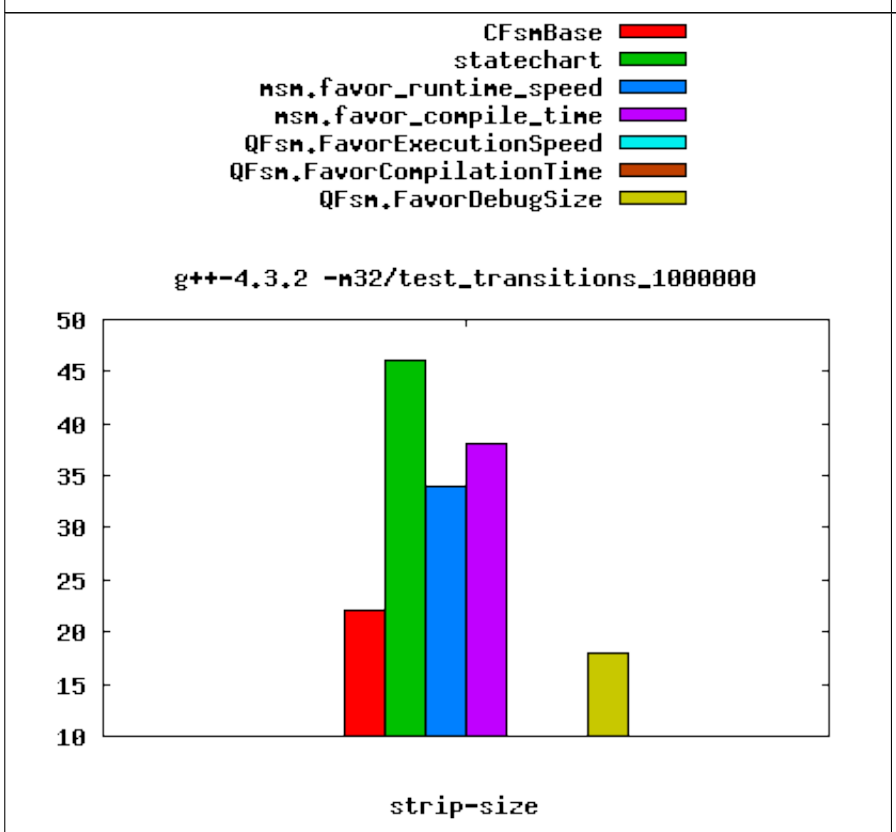
Table 37: "ibmt43" [df6407d], g++-4.3.2 -m32/test transitions 1000000

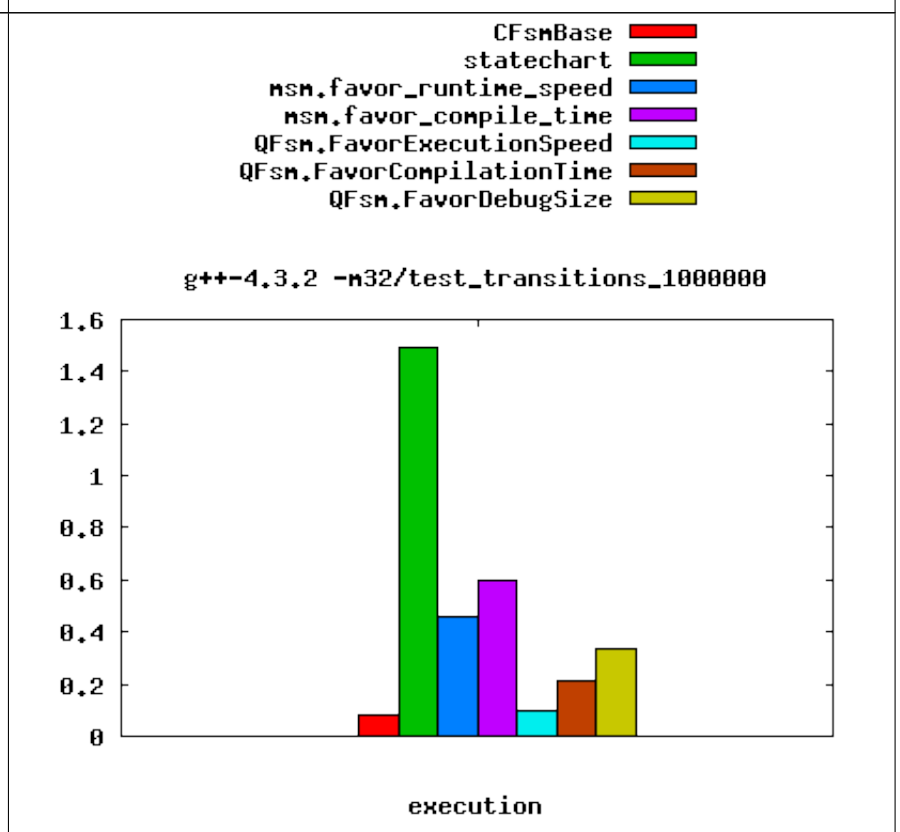
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.89s	1.24s	3.15s	3.10s	0.88s	0.82s	0.91s
size	38K	113K	104K	122K	27K	20K	40K
strip-size	22K	46K	34K	38K	10K	10K	18K
execution	0.08s	1.49s	0.46s	0.60s	0.10s	0.21s	0.34s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_transitions_1000000
3.5
3
2.5
2
1.5
1
0.5
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_transitions_1000000
140
120
100
80
60
40
20
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_transitions_1000000
50
45
40
35
30
25
20
15
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_transitions_1000000
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
execution

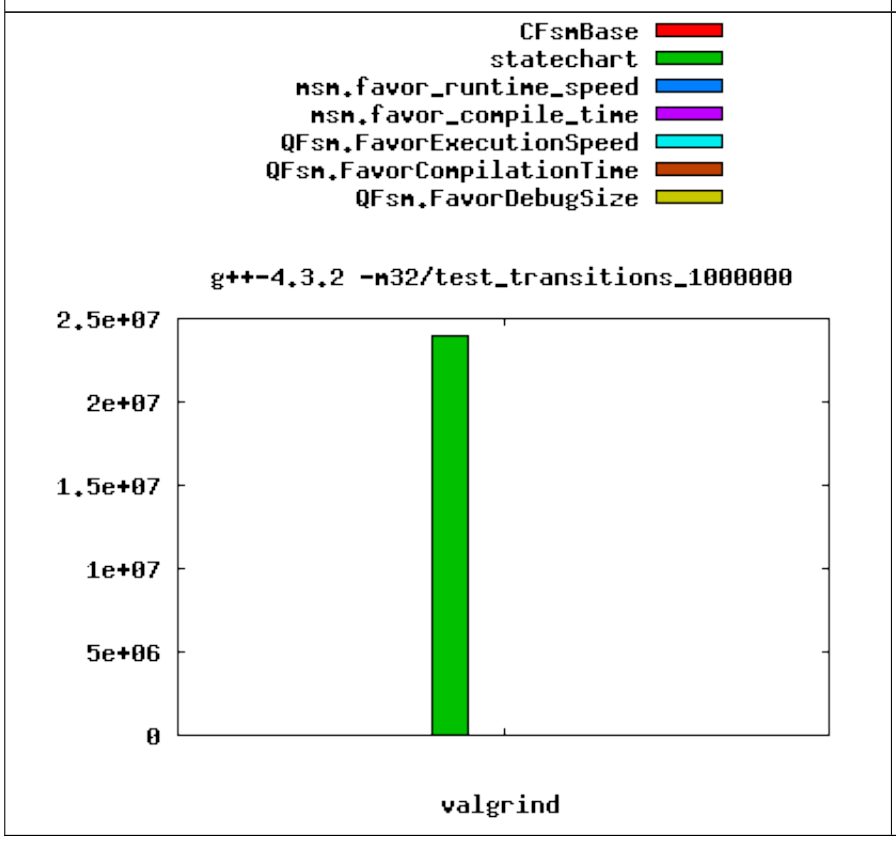
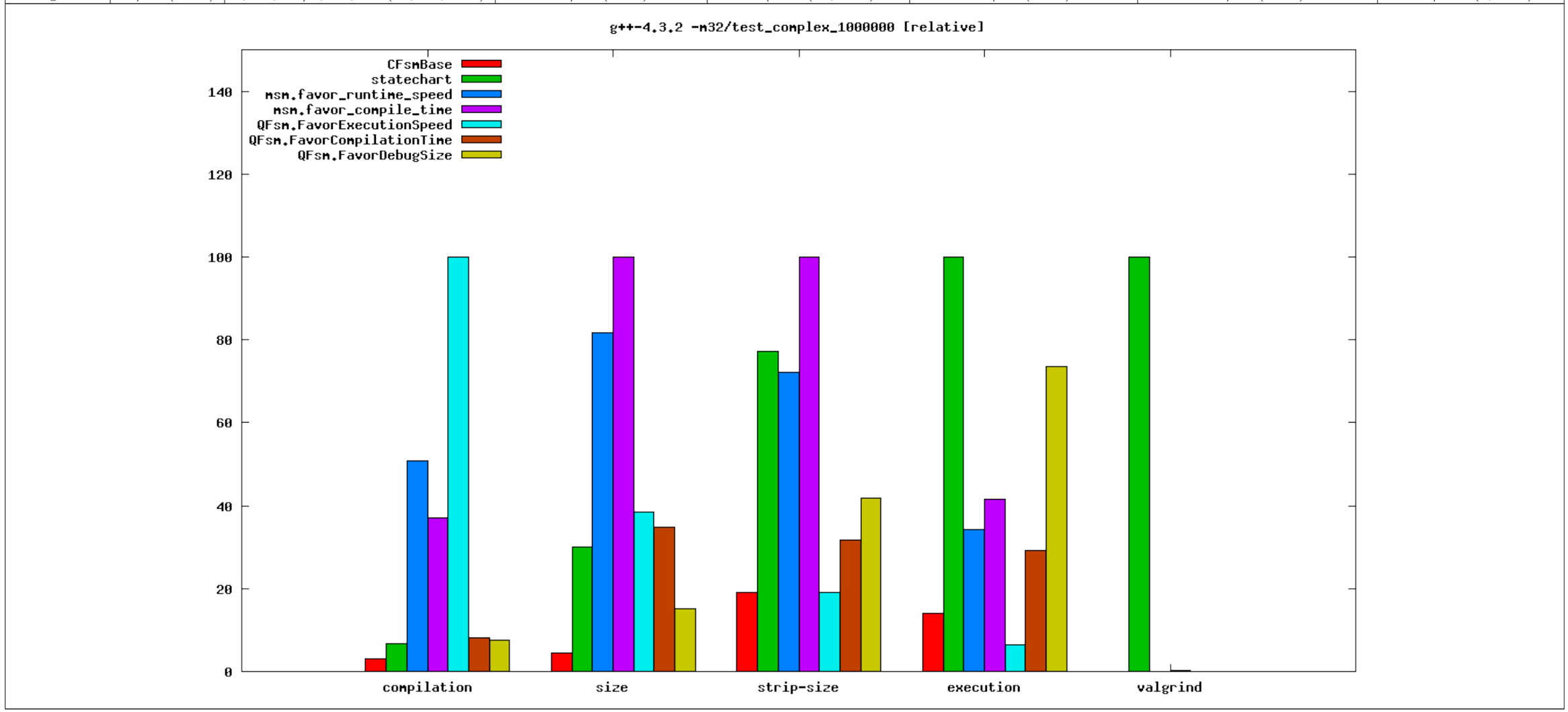
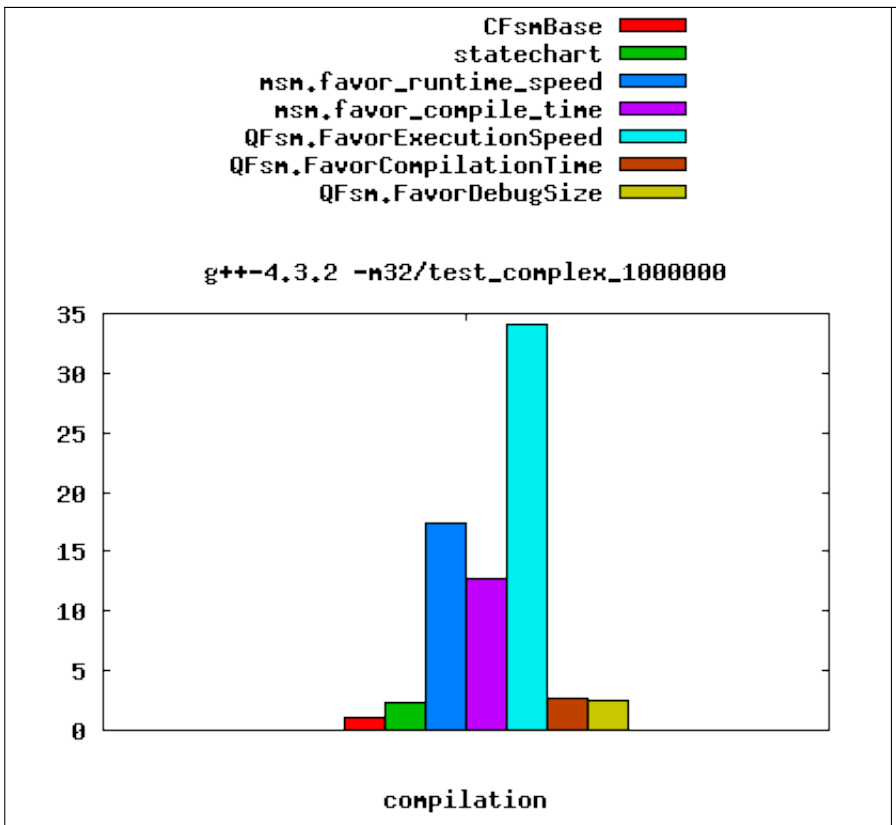
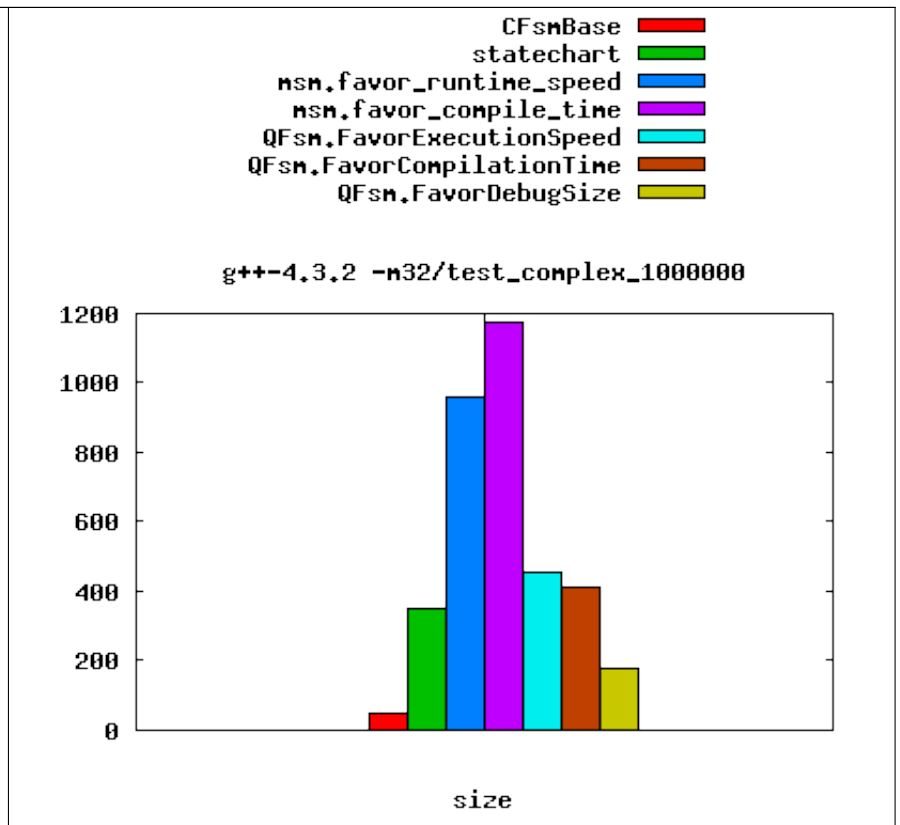

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_transitions_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

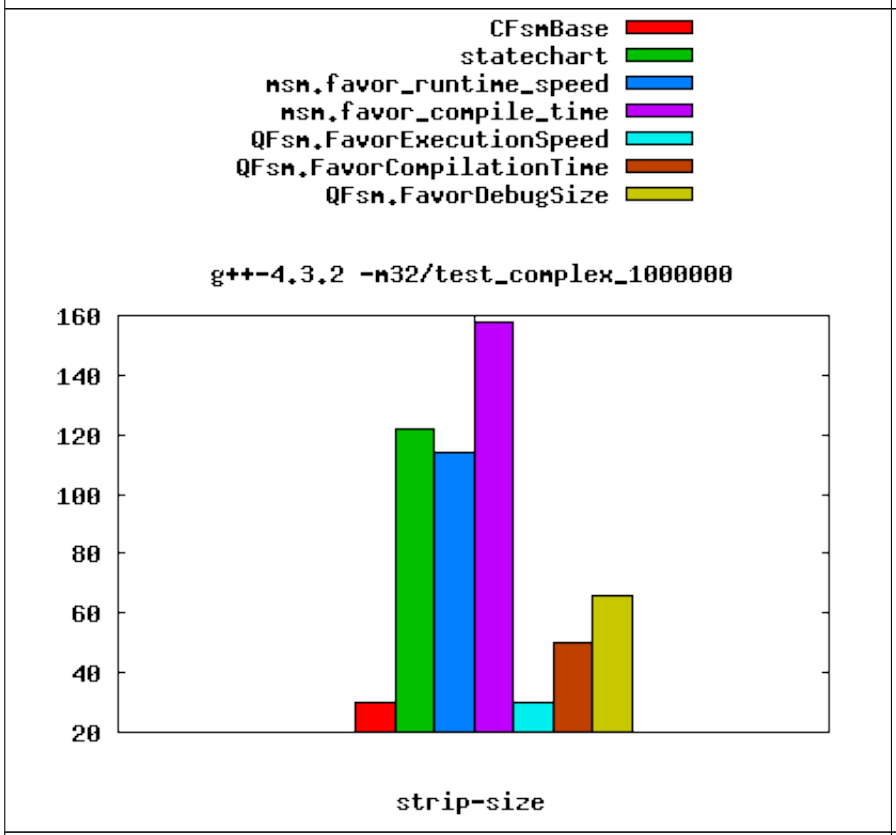
Table 40: "ibmt43" [df6407d], g++-4.3.2 -m32/test complex 1000000

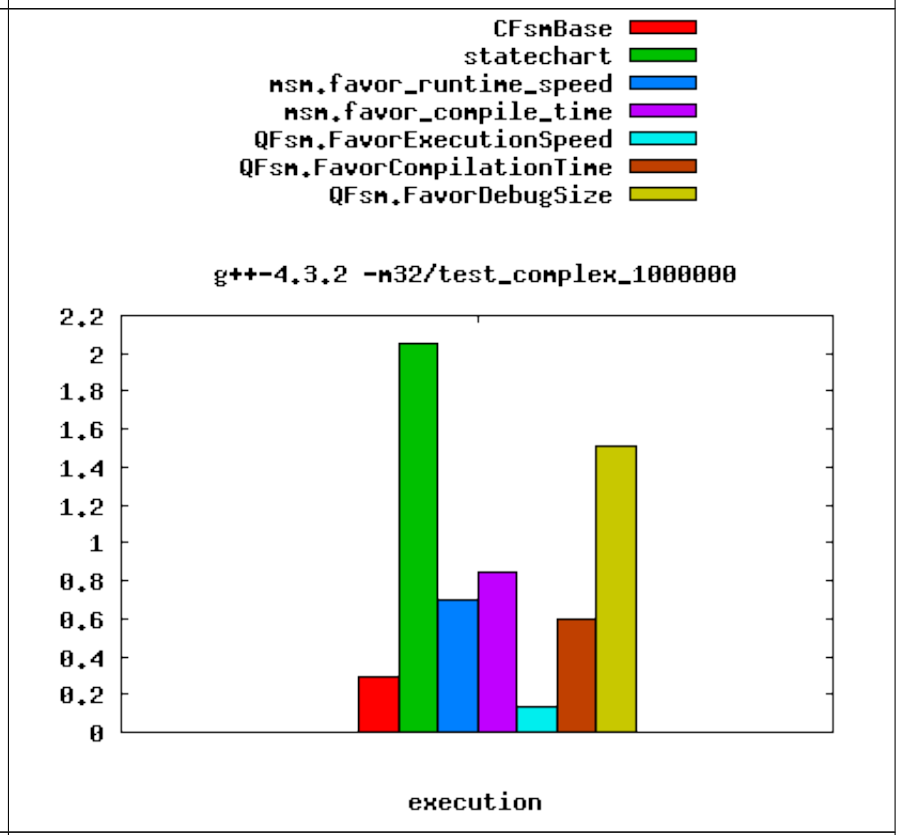
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.02s	2.28s	17.35s	12.66s	34.13s	2.77s	2.55s
size	52K	353K	961K	1177K	453K	410K	177K
strip-size	30K	122K	114K	158K	30K	50K	66K
execution	0.29s	2.05s	0.70s	0.85s	0.13s	0.60s	1.51s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_complex_1000000
35
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_complex_1000000
1200
1000
800
600
400
200
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_complex_1000000
160
140
120
100
80
60
40
20
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_complex_1000000
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
execution

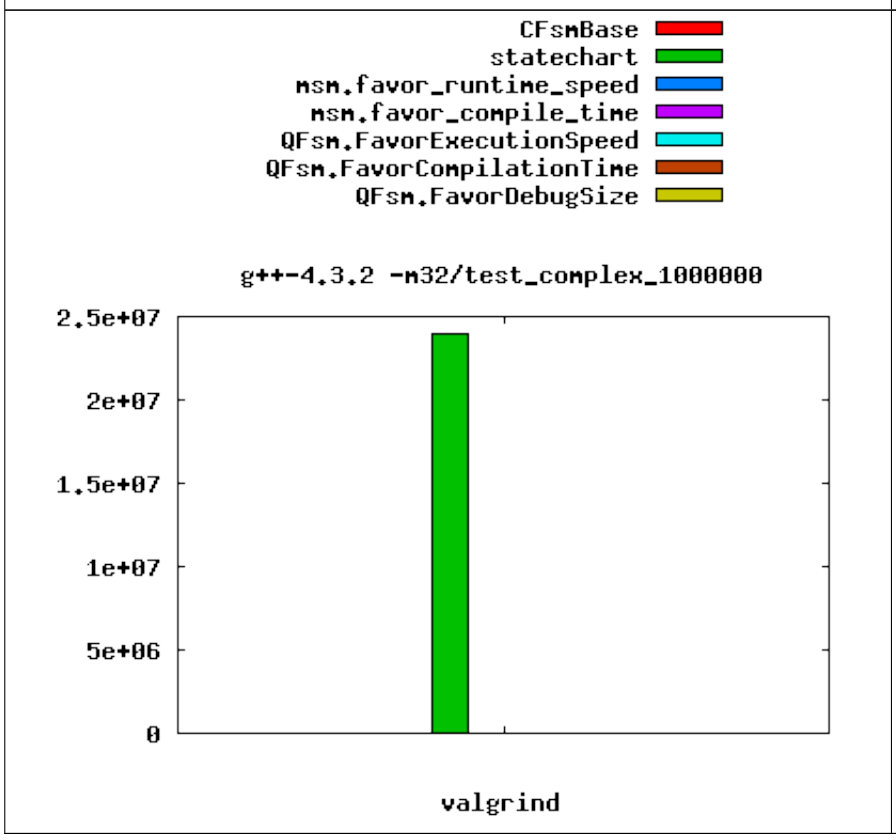
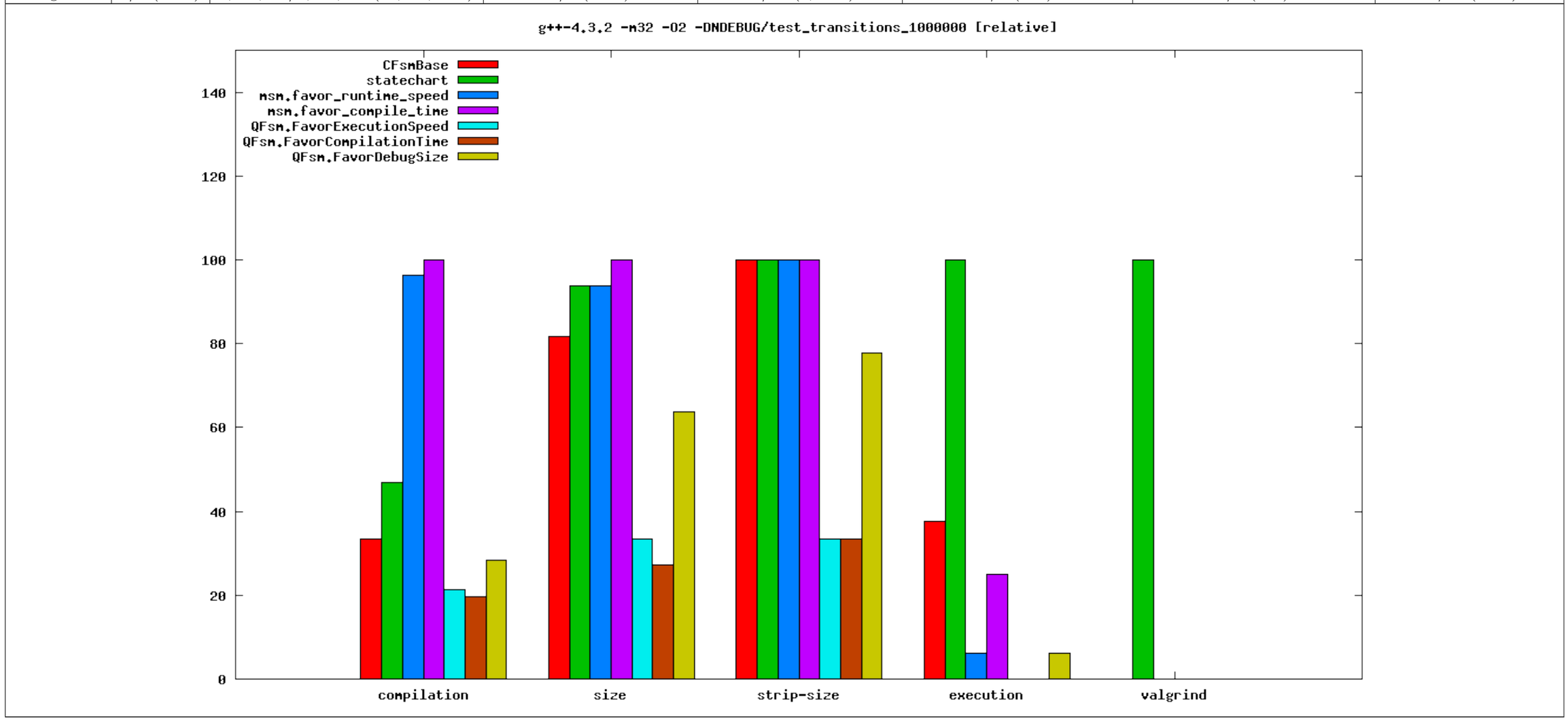
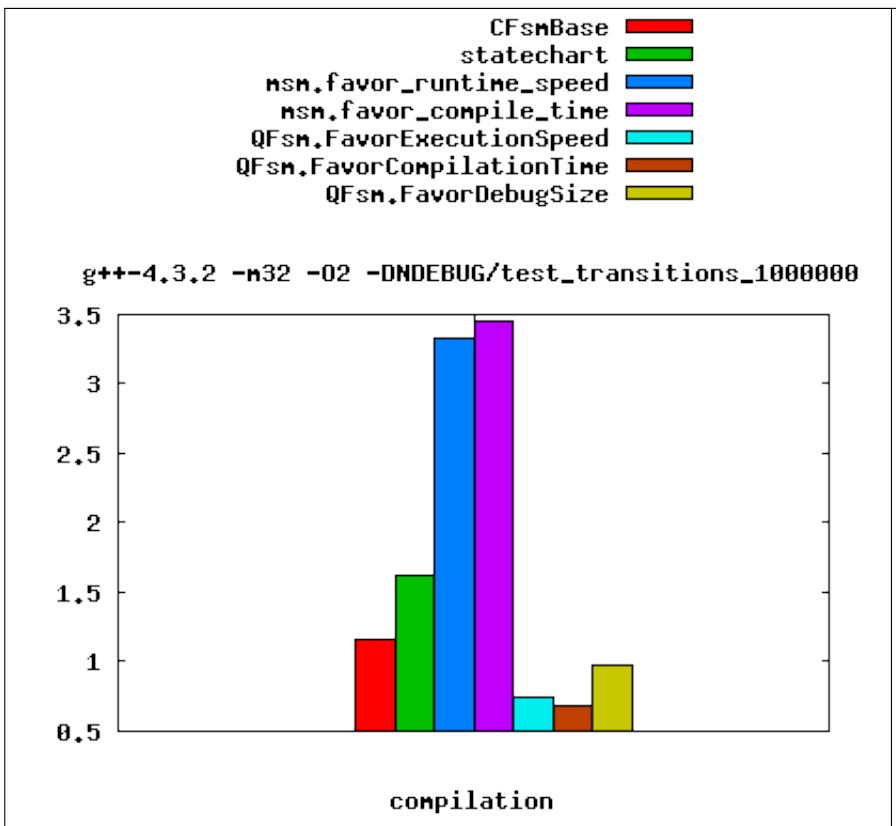
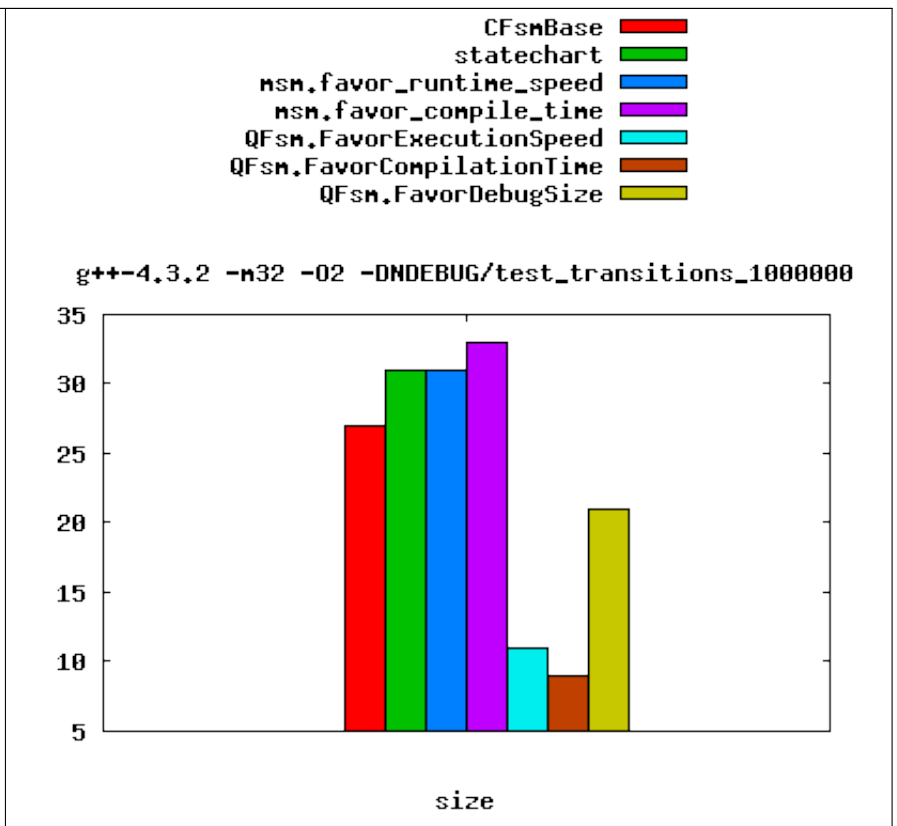

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

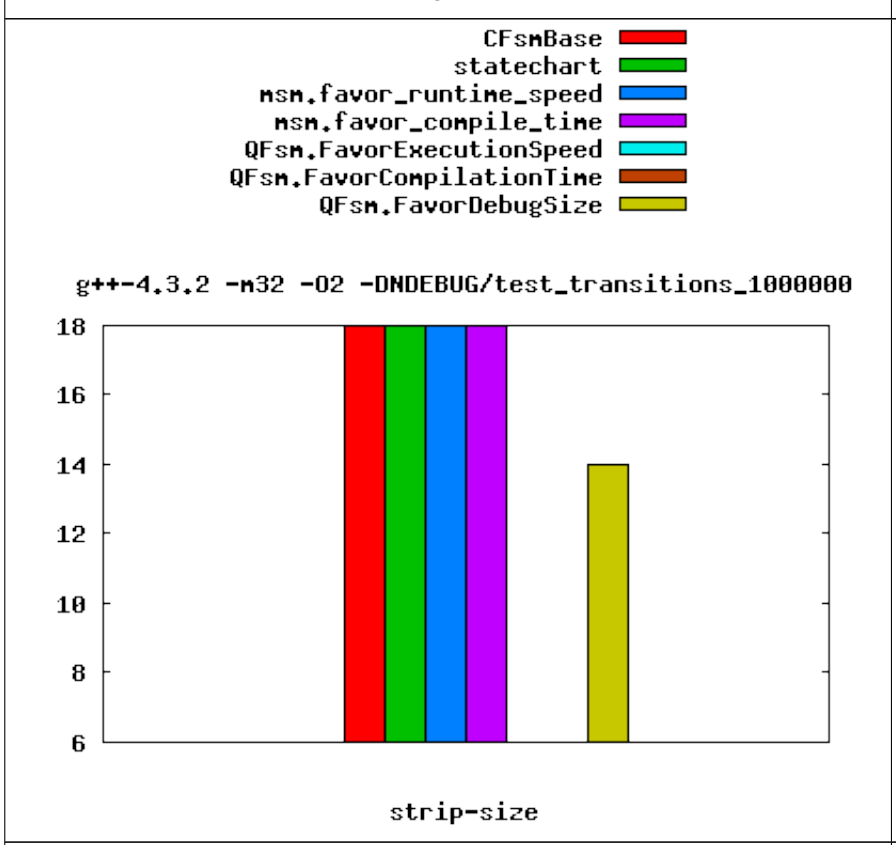
Table 43: "ibmt43" [df6407d], g++-4.3.2 -m32 -O2 -DNDEBUG/test transitions 1000000

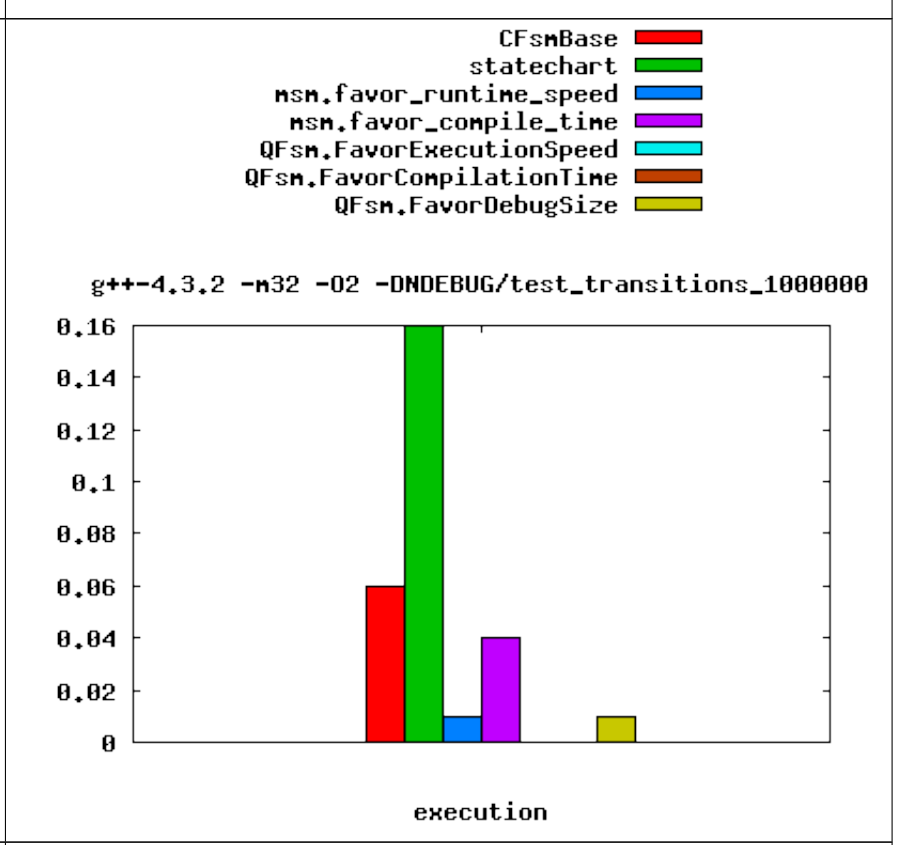
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.16s	1.62s	3.33s	3.46s	0.74s	0.68s	0.98s
size	27K	31K	31K	33K	11K	9K	21K
strip-size	18K	18K	18K	18K	6K	6K	14K
execution	0.06s	0.16s	0.01s	0.04s	0.00s	0.00s	0.01s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_transitions_1000000
3.5
3
2.5
2
1.5
1
0.5
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_transitions_1000000
35
30
25
20
15
10
5
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_transitions_1000000
18
16
14
12
10
8
6
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_transitions_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

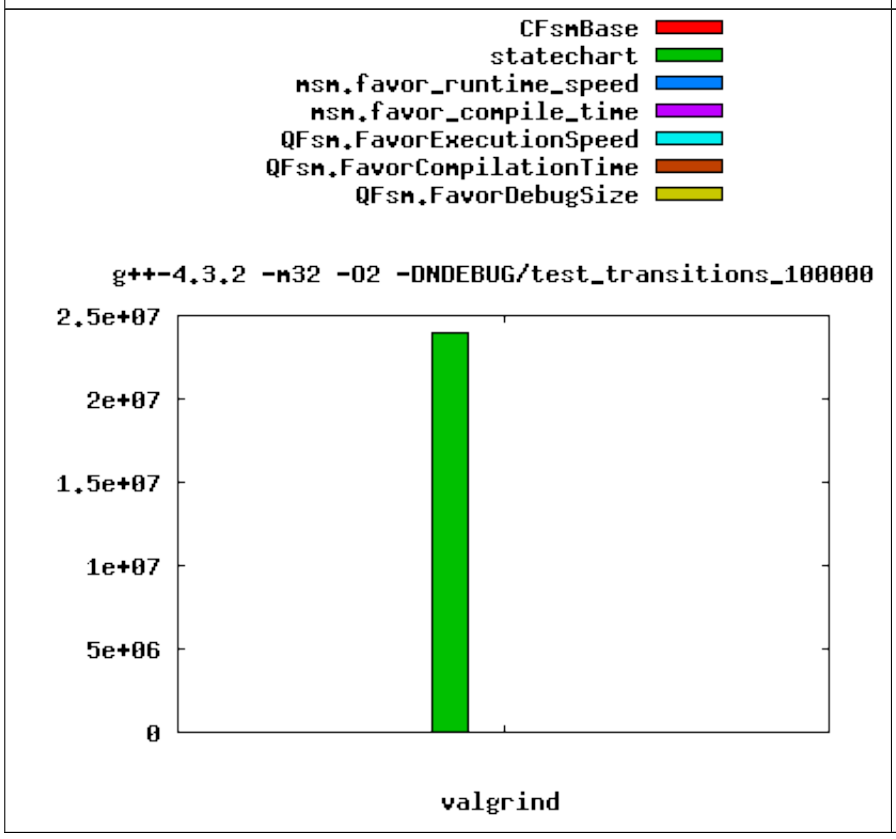
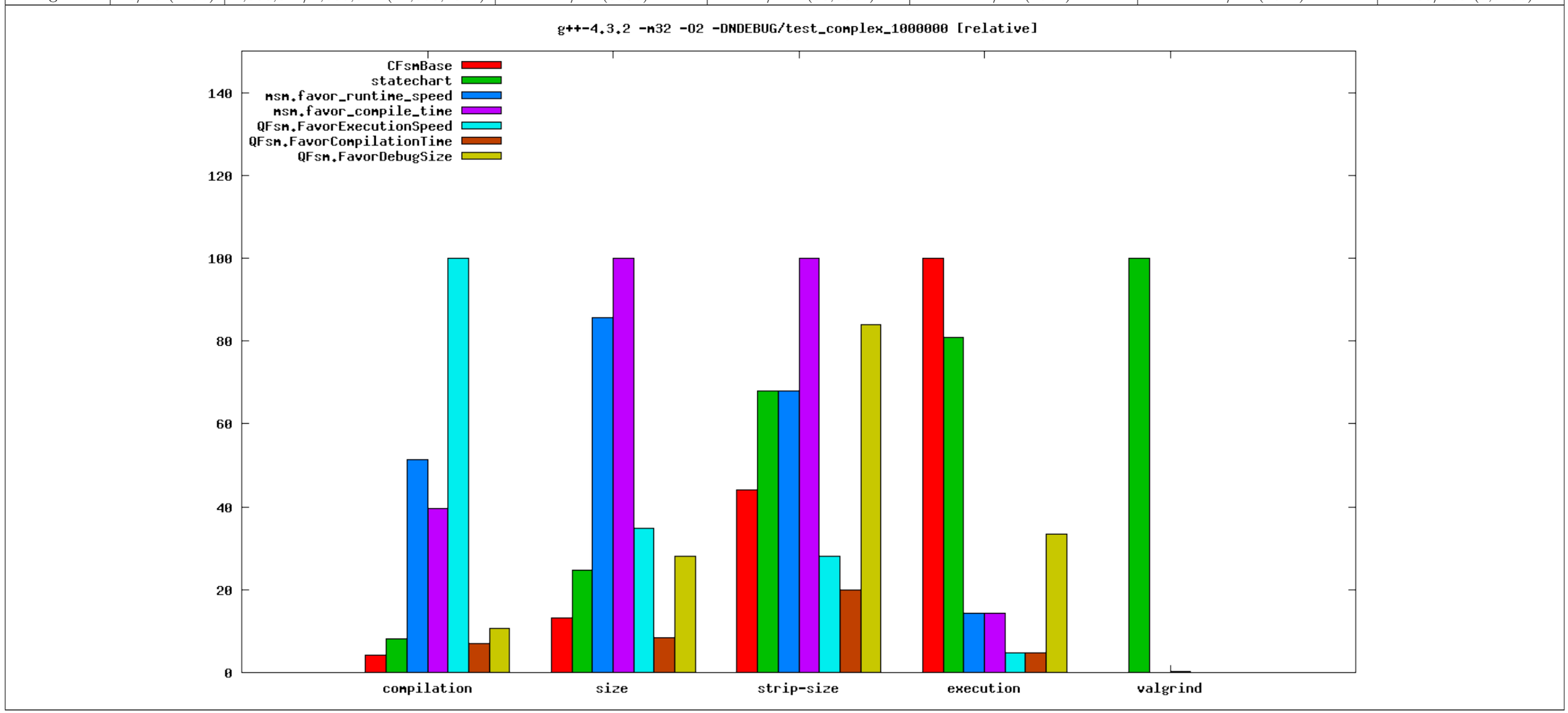
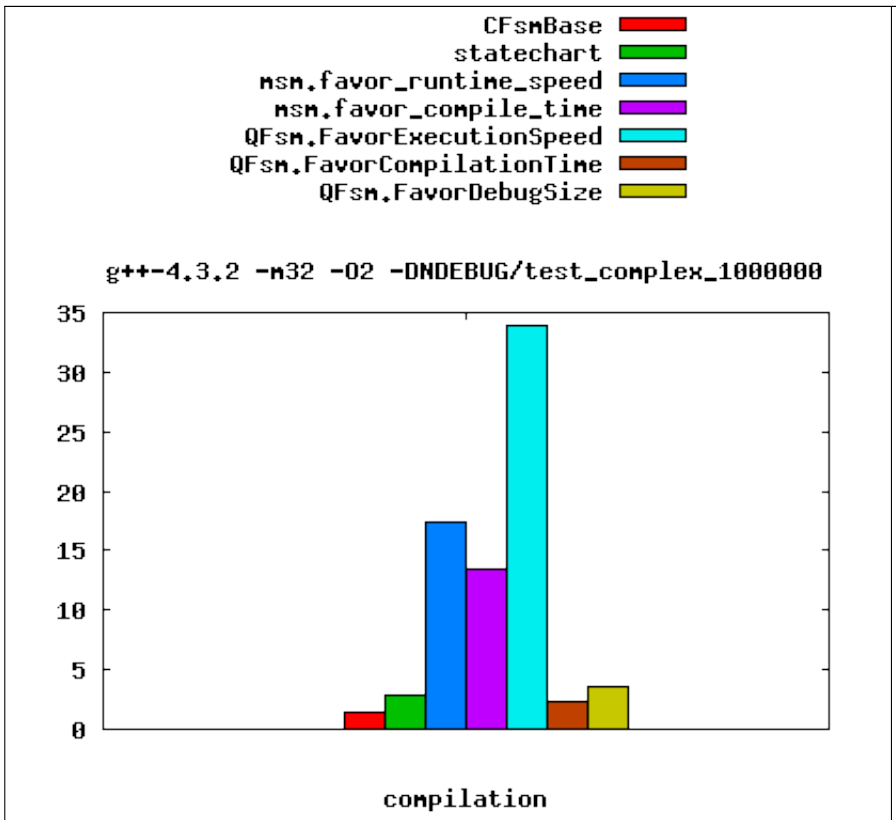
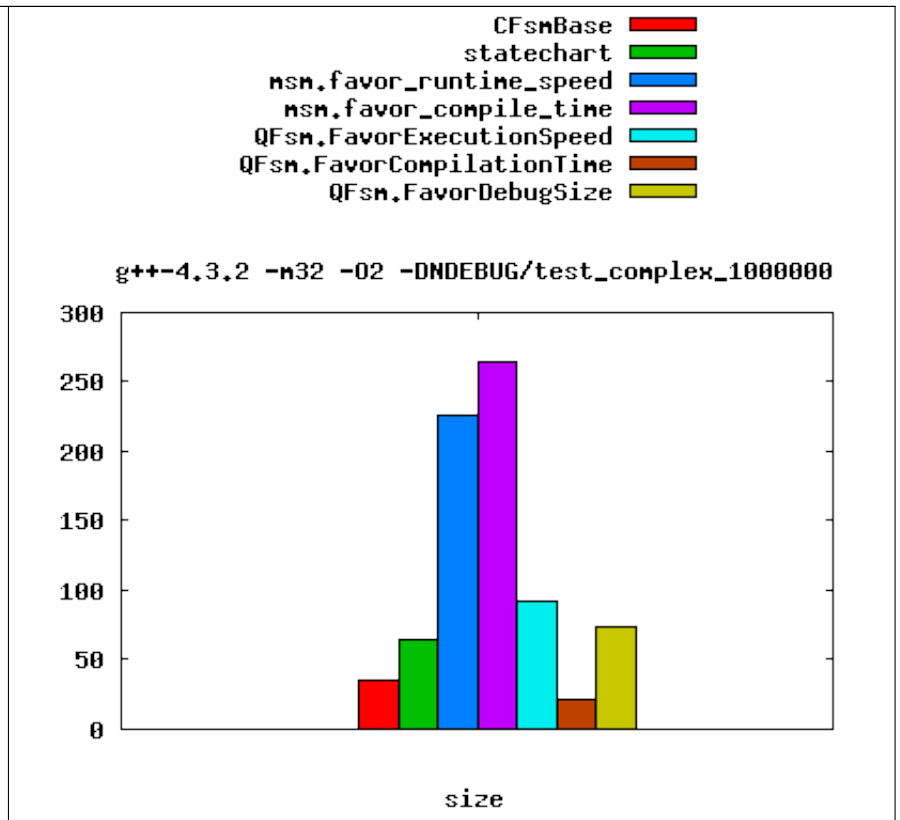

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_transitions_100000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

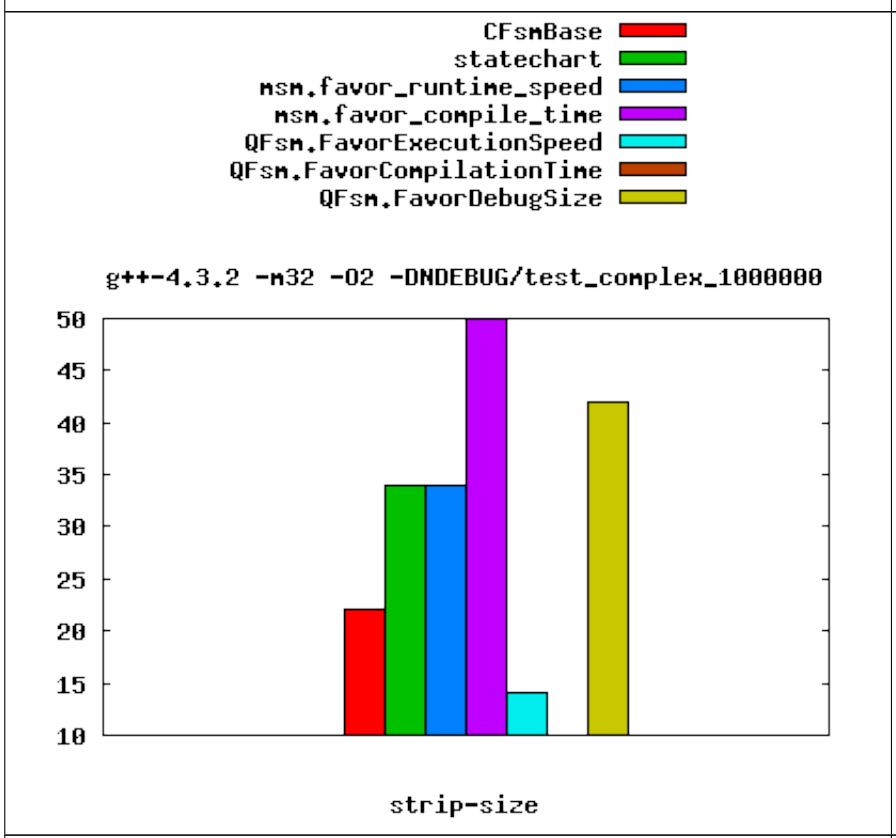
Table 46: ”ibmt43” [df6407d], g++-4.3.2 -m32 -O2 -DNDEBUG/test complex 1000000

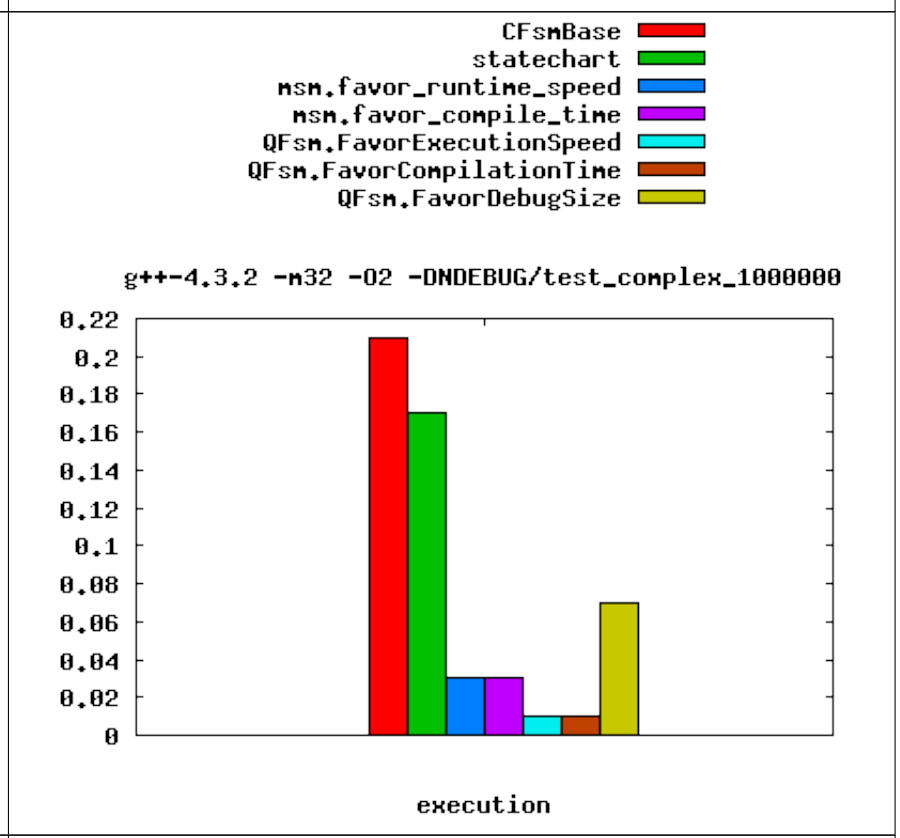
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.41s	2.80s	17.44s	13.40s	33.93s	2.40s	3.65s
size	35K	65K	226K	264K	92K	22K	74K
strip-size	22K	34K	34K	50K	14K	10K	42K
execution	0.21s	0.17s	0.03s	0.03s	0.01s	0.01s	0.07s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_complex_1000000
35
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_complex_1000000
300
250
200
150
100
50
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_complex_1000000
50
45
40
35
30
25
20
15
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_complex_1000000
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

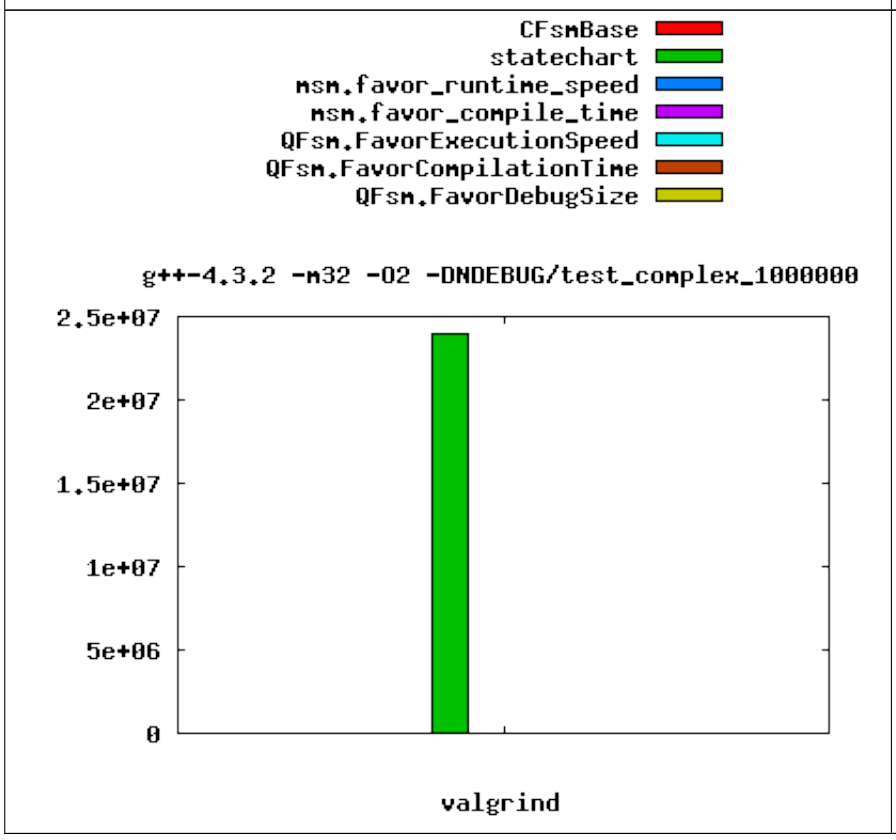
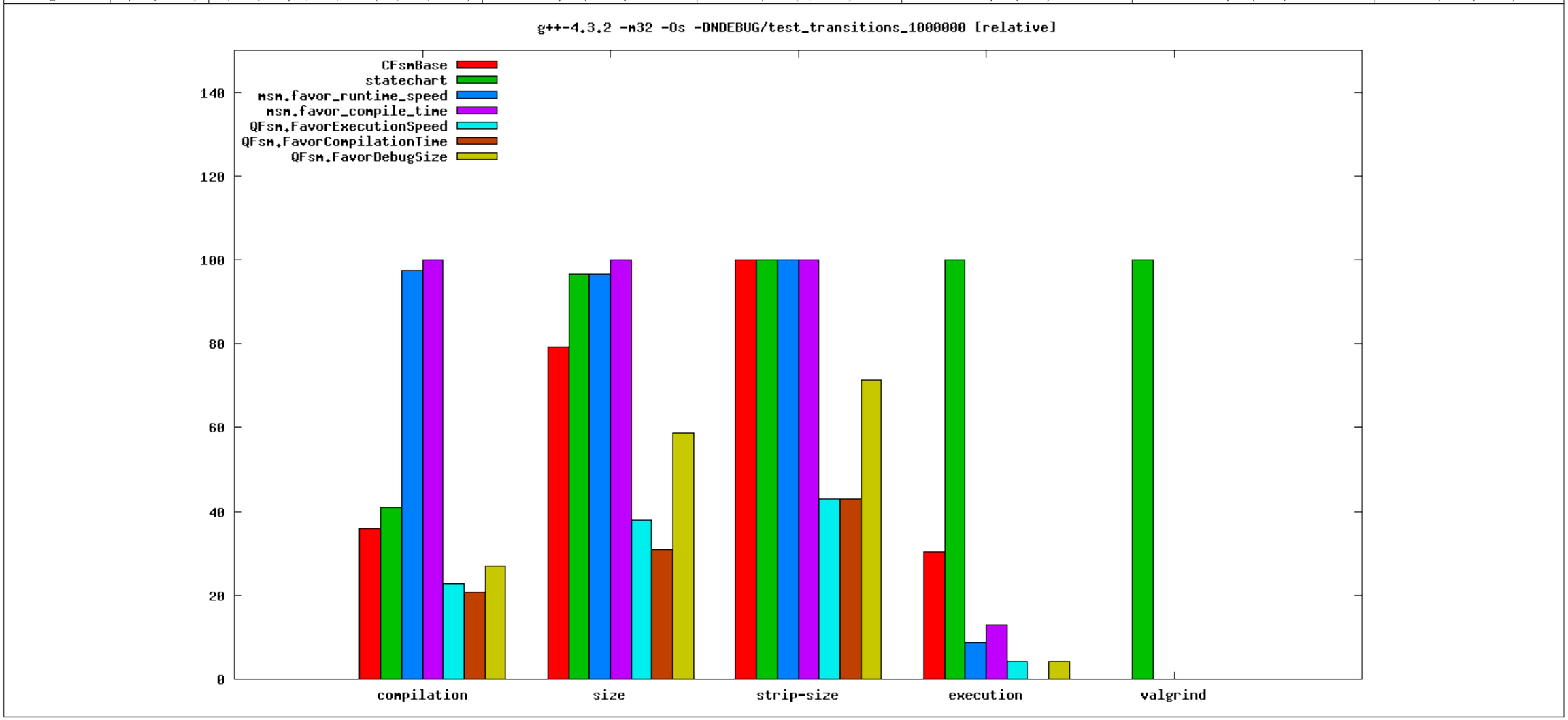
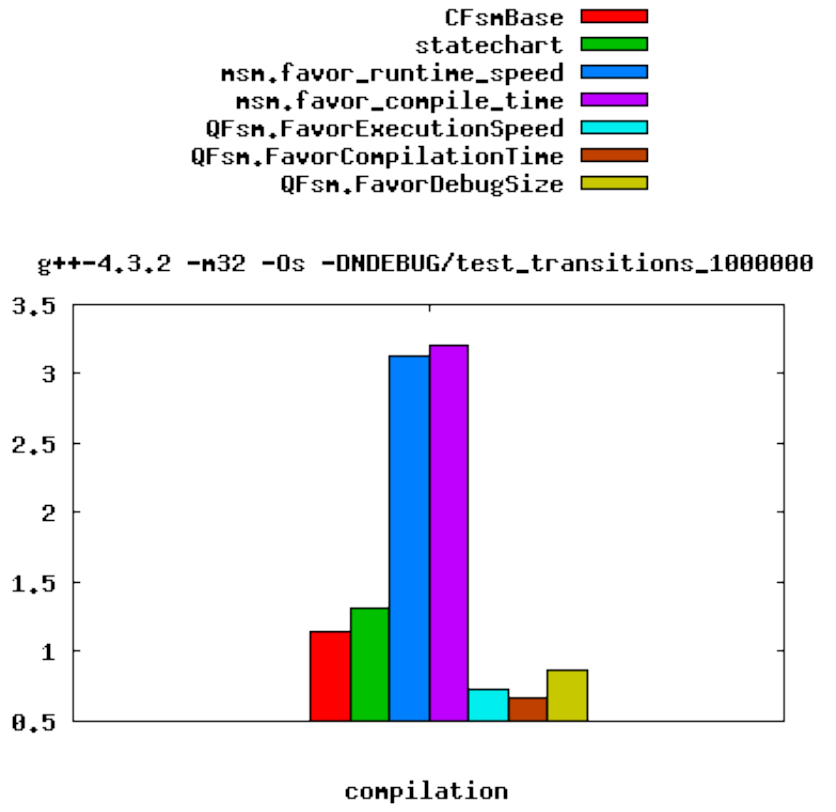
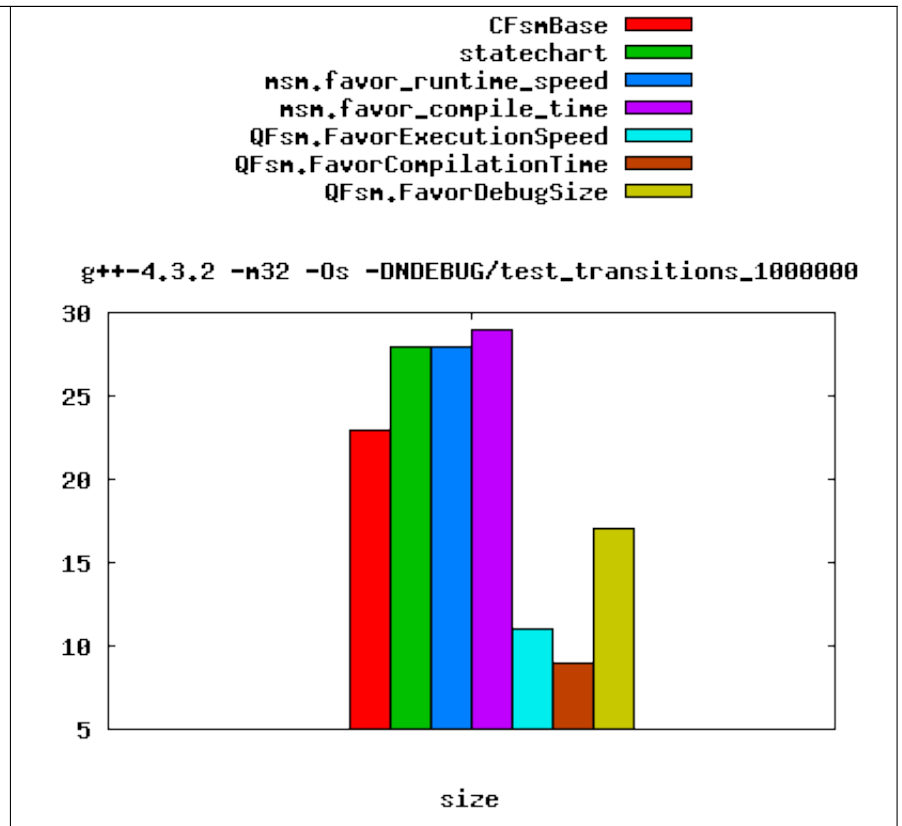

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -O2 -DNDEBUG/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

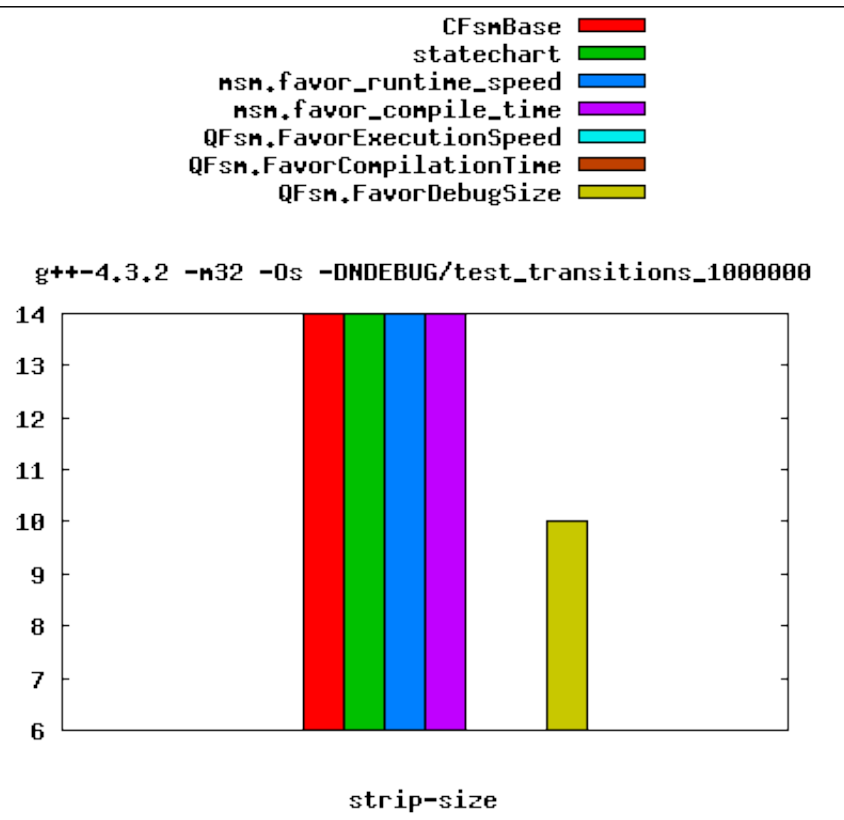
Table 49: "ibmt43" [df6407d], g++-4.3.2 -m32 -Os -DNDEBUG/test transitions 1000000

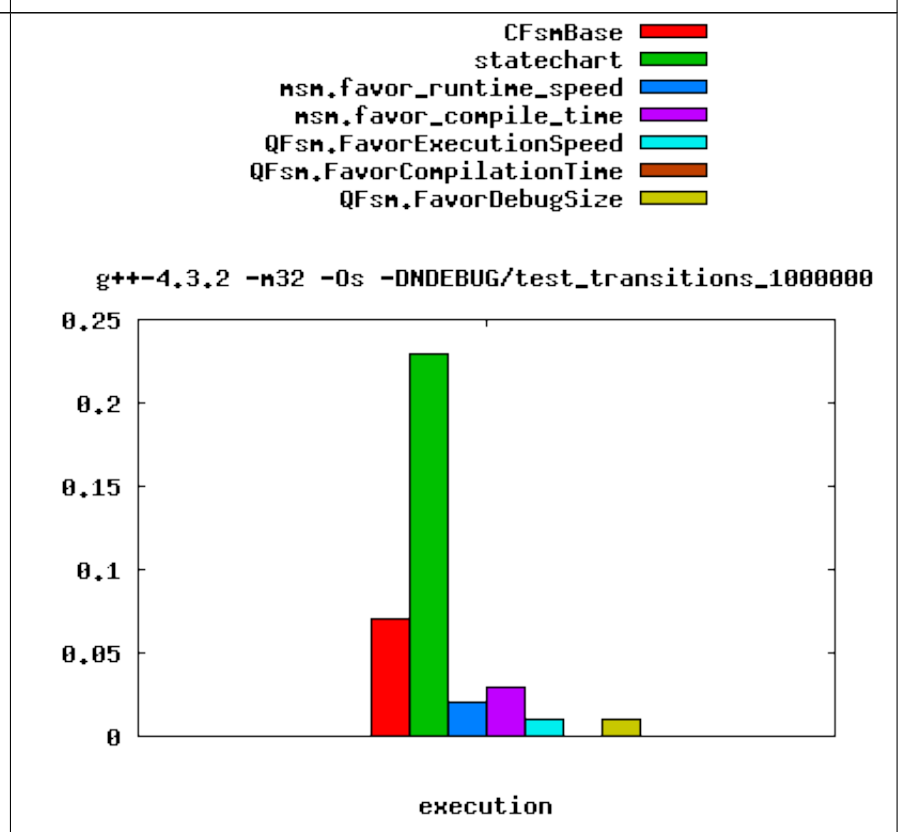
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.15s	1.32s	3.13s	3.21s	0.73s	0.67s	0.87s
size	23K	28K	28K	29K	11K	9K	17K
strip-size	14K	14K	14K	14K	6K	6K	10K
execution	0.07s	0.23s	0.02s	0.03s	0.01s	0.00s	0.01s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_transitions_1000000
3.5
3
2.5
2
1.5
1
0.5
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_transitions_1000000
30
25
20
15
10
5
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_transitions_1000000
14
13
12
11
10
9
8
7
6
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_transitions_1000000
0.25
0.2
0.15
0.1
0.05
0
execution

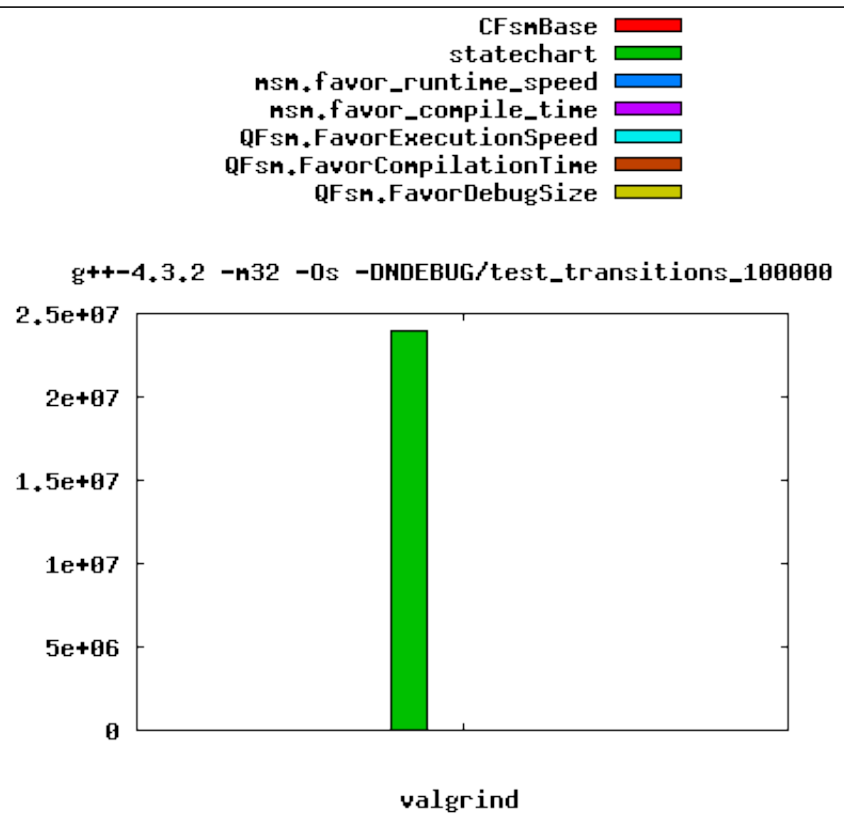
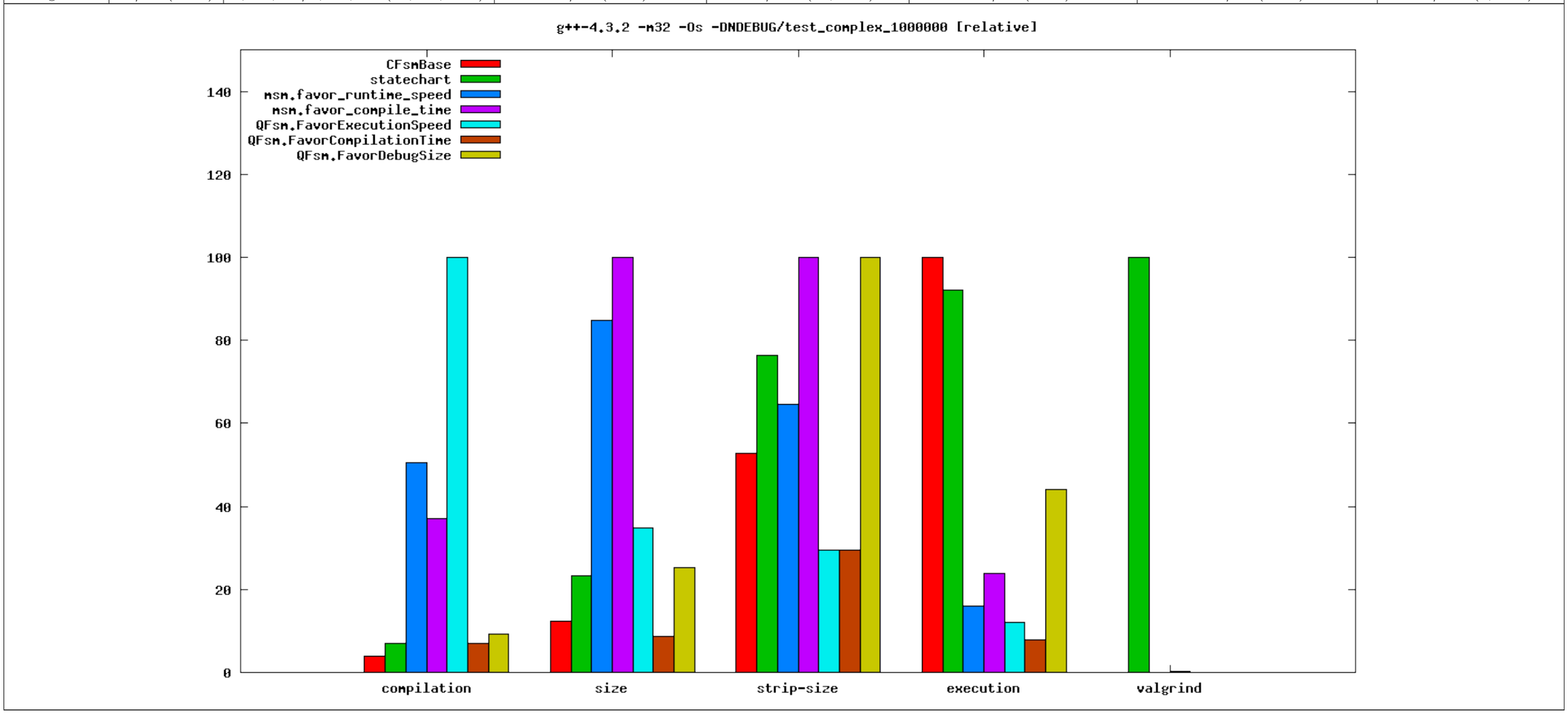
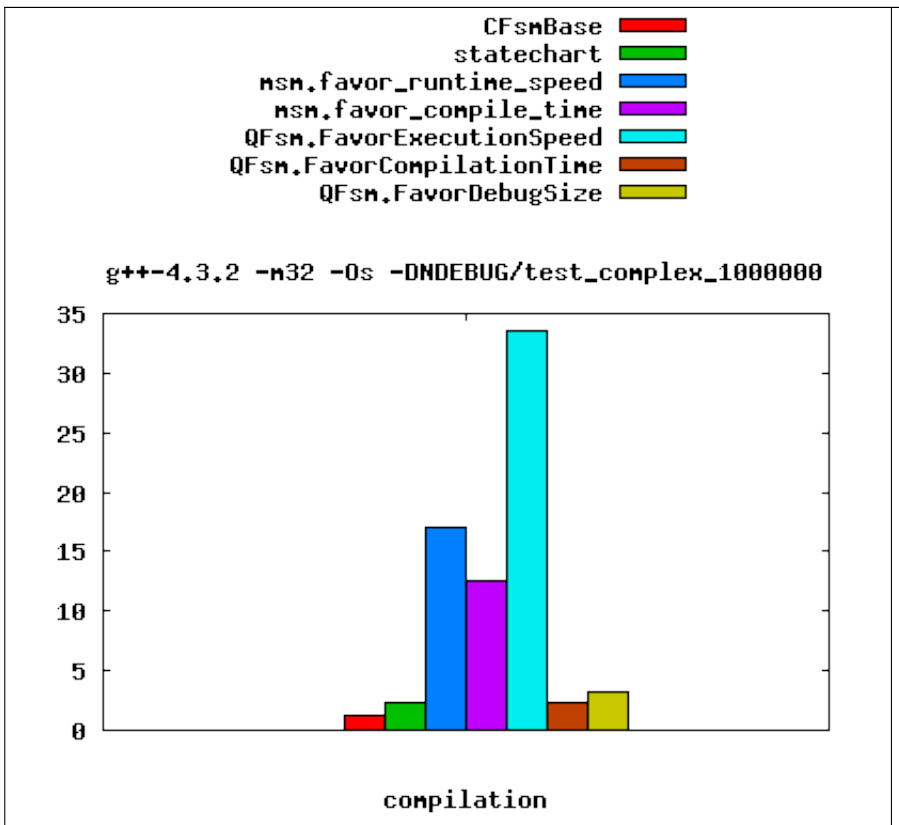
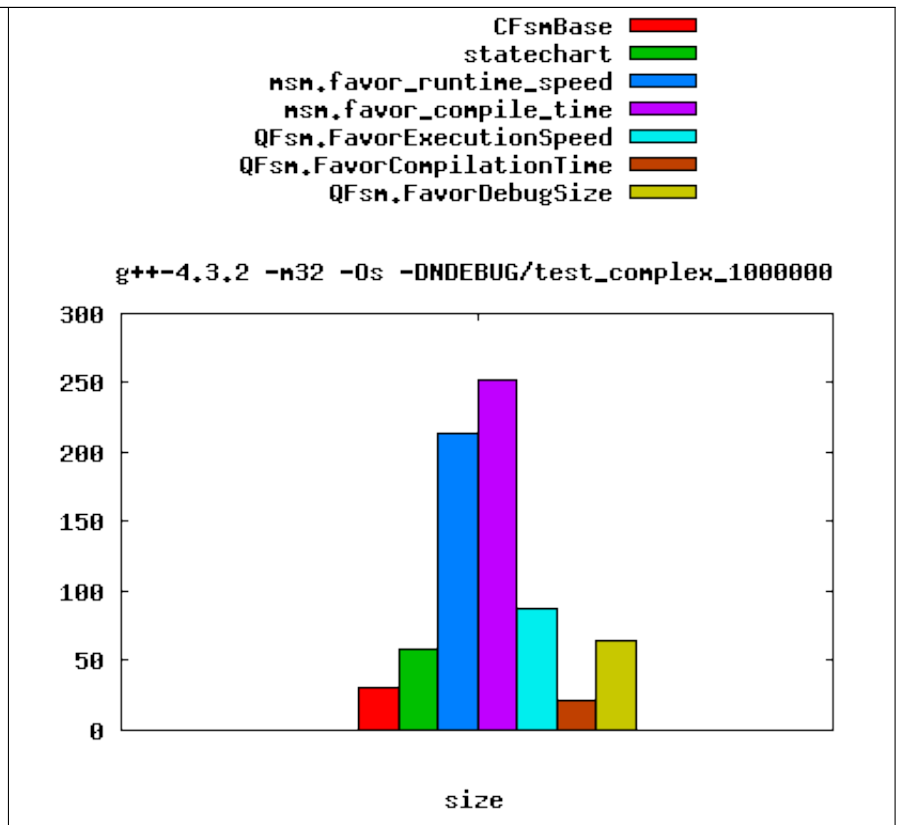

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_transitions_100000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

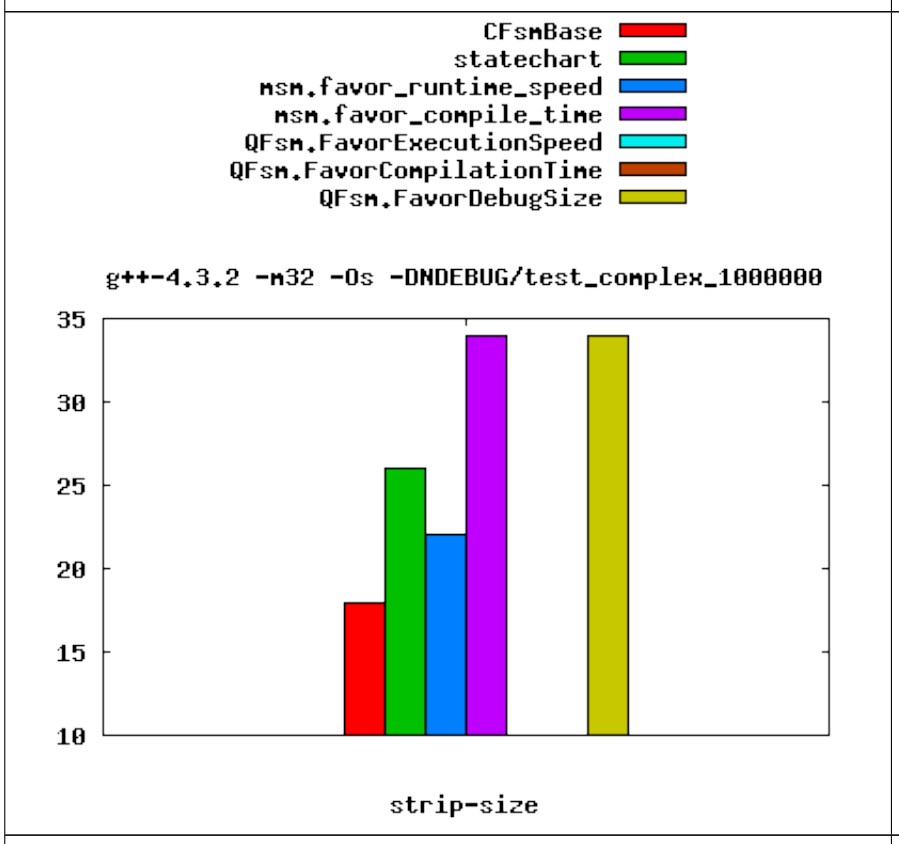
Table 52: "ibmt43" [df6407d], g++-4.3.2 -m32 -Os -DNDEBUG/test complex 1000000

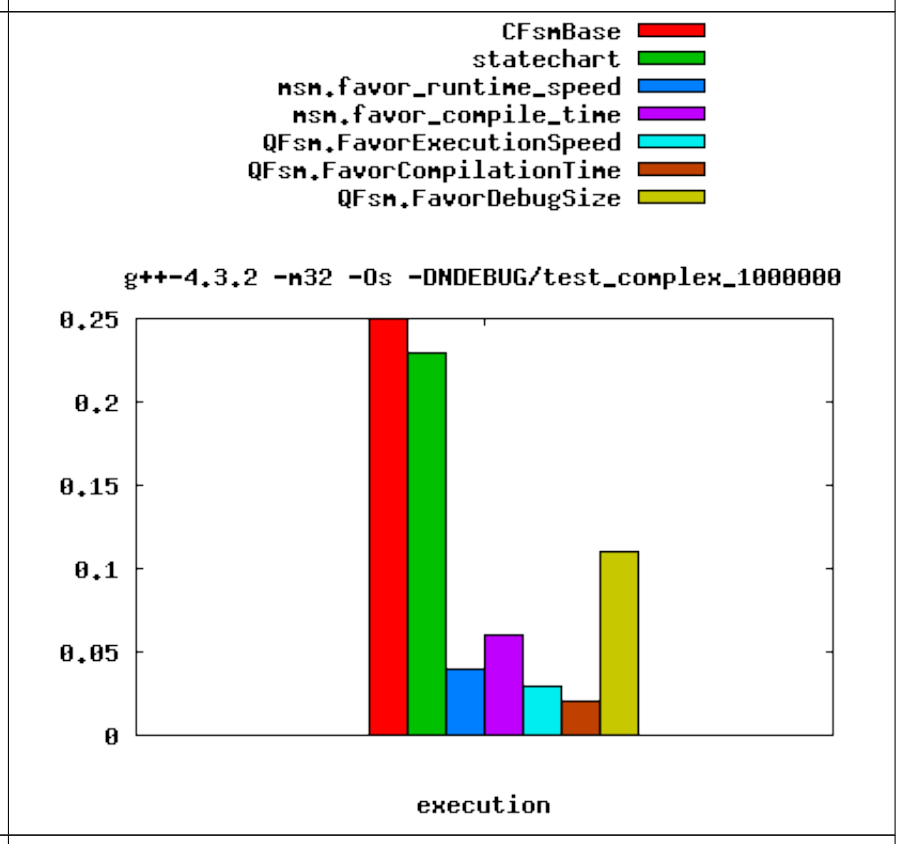
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.33s	2.33s	16.99s	12.48s	33.62s	2.39s	3.16s
size	31K	59K	214K	252K	88K	22K	64K
strip-size	18K	26K	22K	34K	10K	10K	34K
execution	0.25s	0.23s	0.04s	0.06s	0.03s	0.02s	0.11s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_complex_1000000
35
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_complex_1000000
300
250
200
150
100
50
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_complex_1000000
35
30
25
20
15
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_complex_1000000
0.25
0.2
0.15
0.1
0.05
0
execution

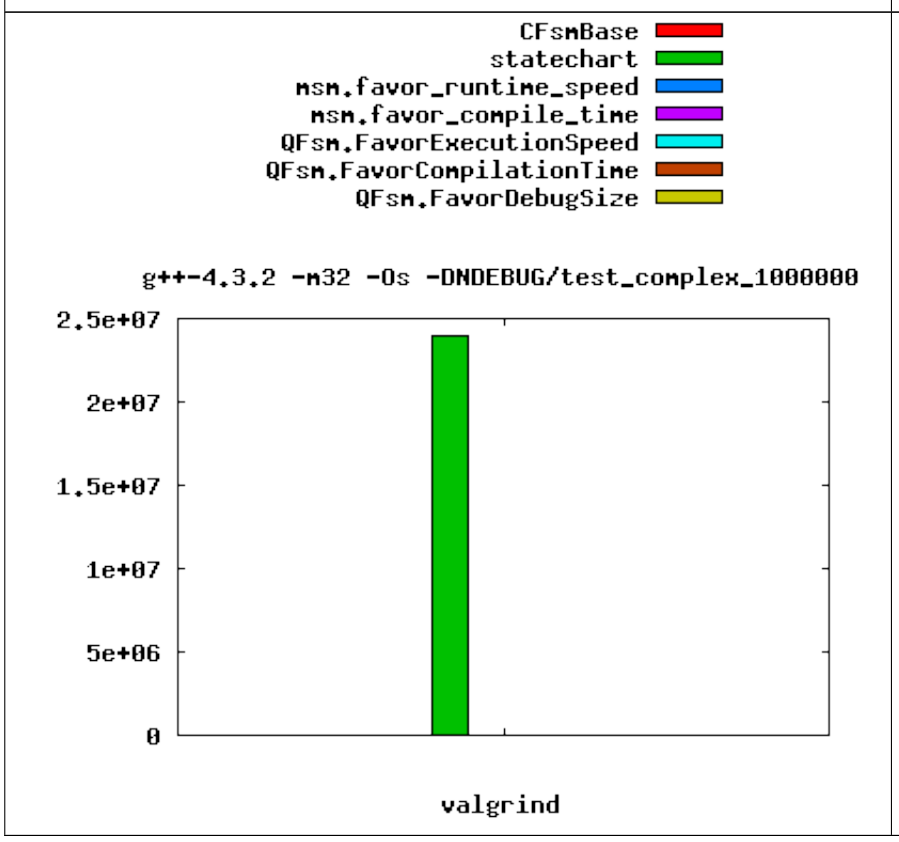
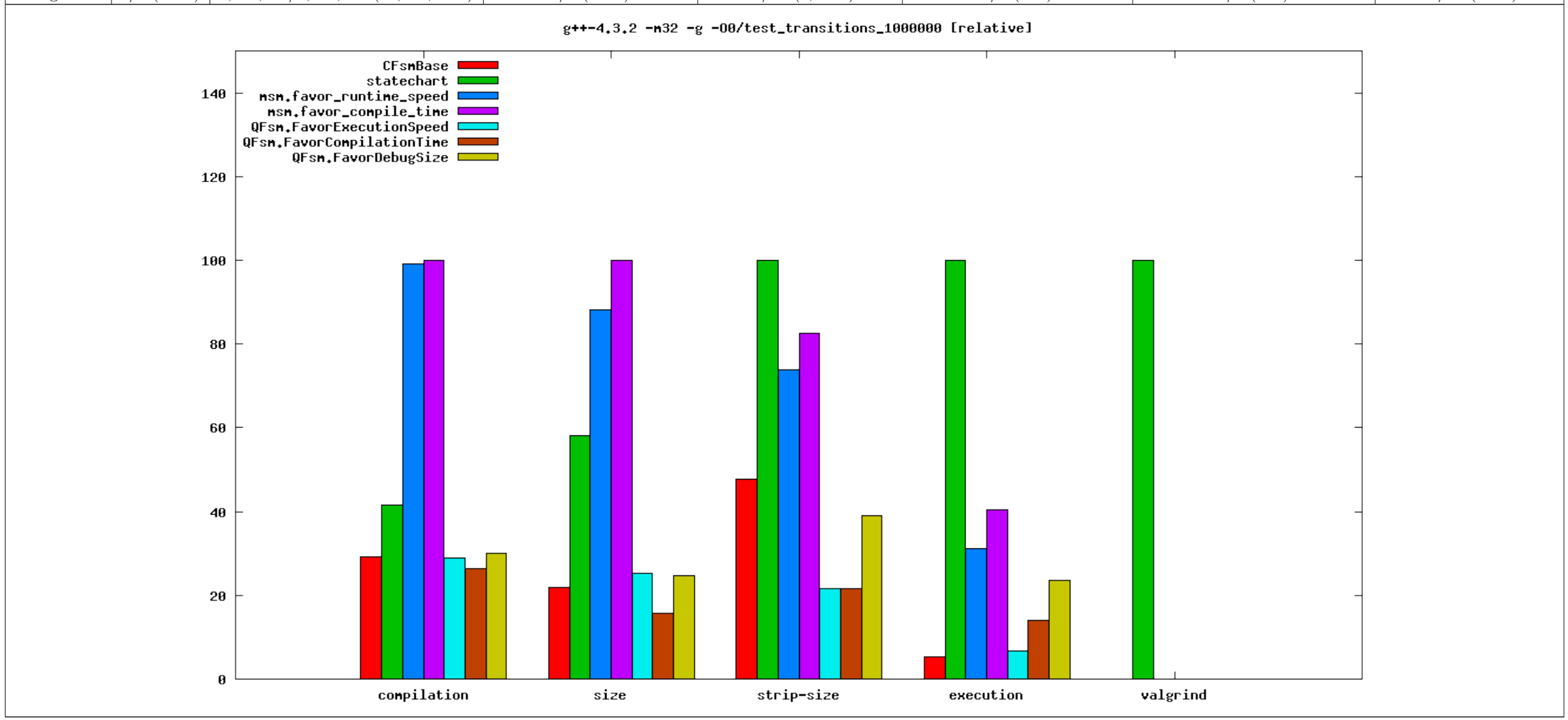
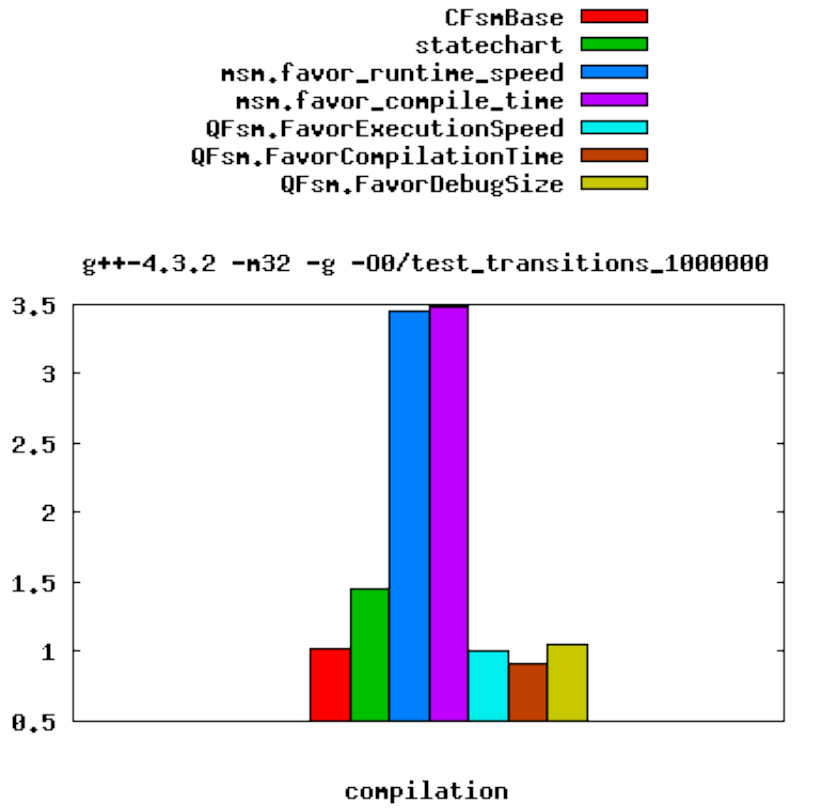
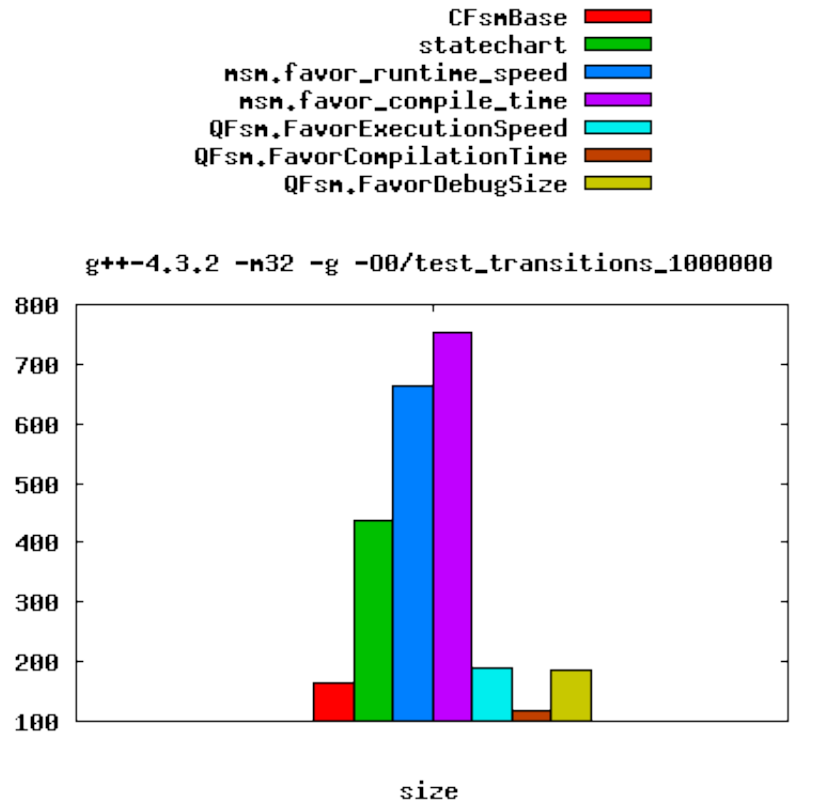

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -Os -DNDEBUG/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

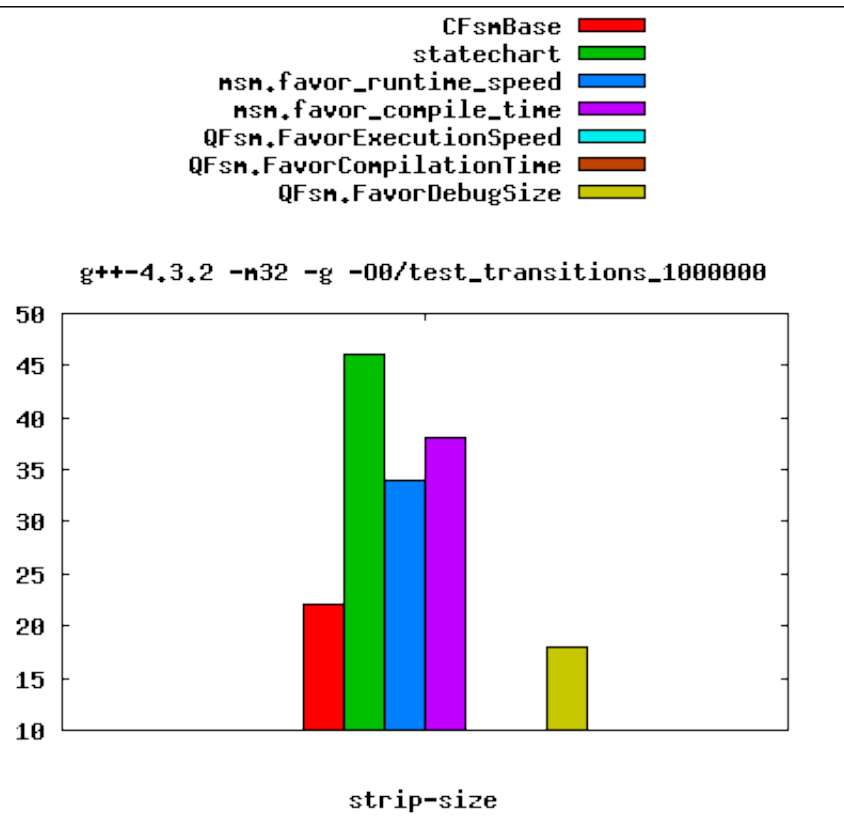
Table 55: ”ibmt43” [df6407d], g++-4.3.2 -m32 -g -O0/test transitions 1000000

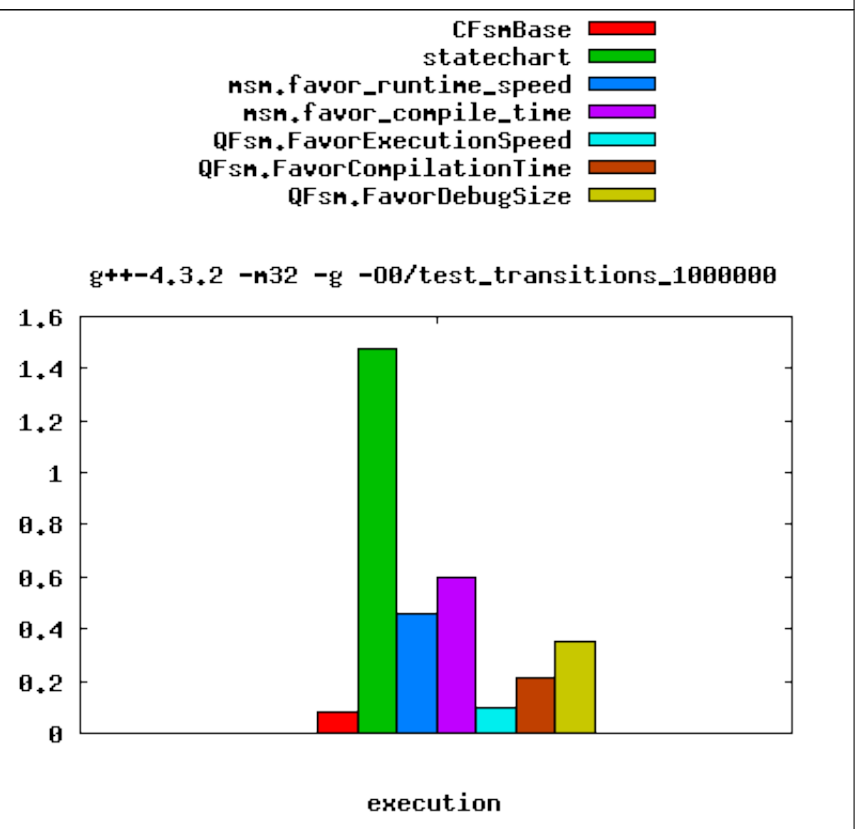
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.02s	1.45s	3.46s	3.49s	1.01s	0.92s	1.05s
size	165K	437K	664K	753K	190K	119K	187K
strip-size	22K	46K	34K	38K	10K	10K	18K
execution	0.08s	1.48s	0.46s	0.60s	0.10s	0.21s	0.35s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_transitions_1000000
3.5
3
2.5
2
1.5
1
0.5
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_transitions_1000000
800
700
600
500
400
300
200
100
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_transitions_1000000
50
45
40
35
30
25
20
15
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_transitions_1000000
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
execution

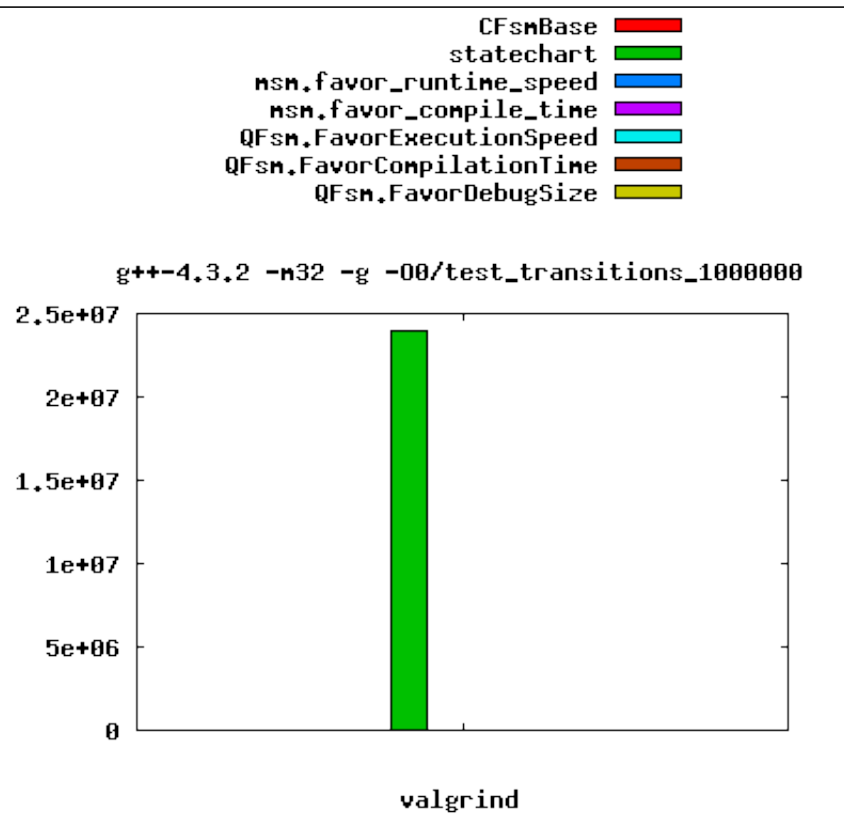
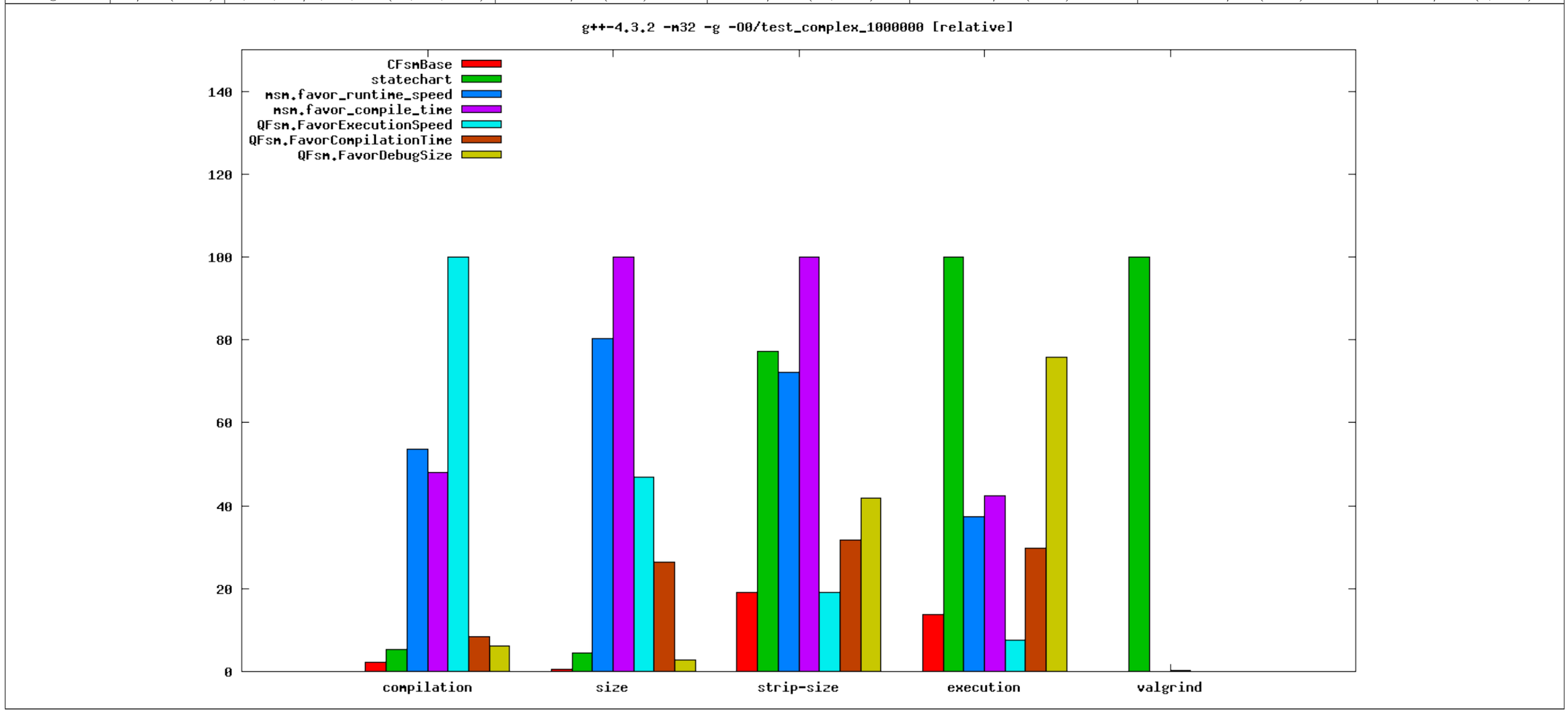
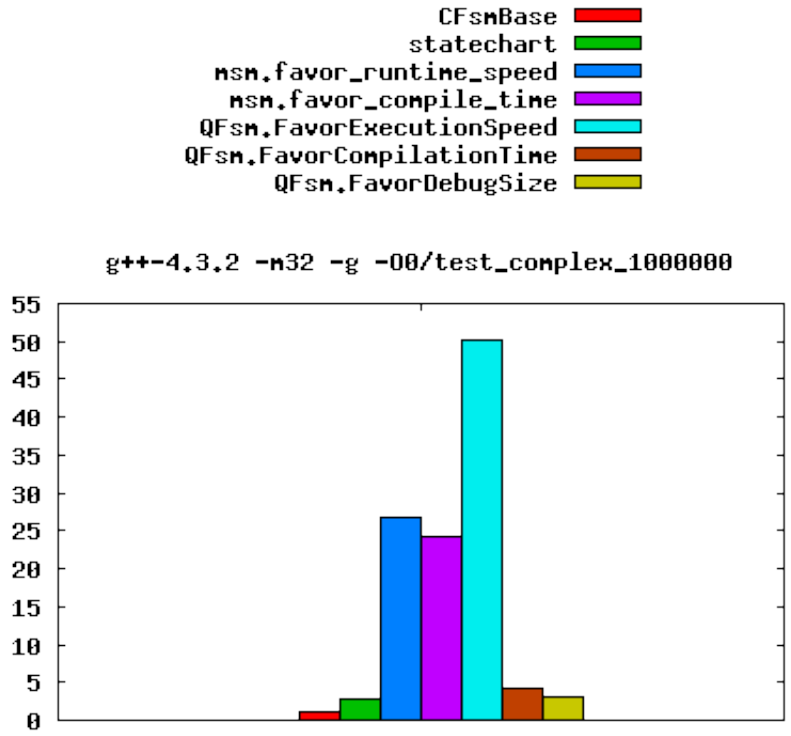
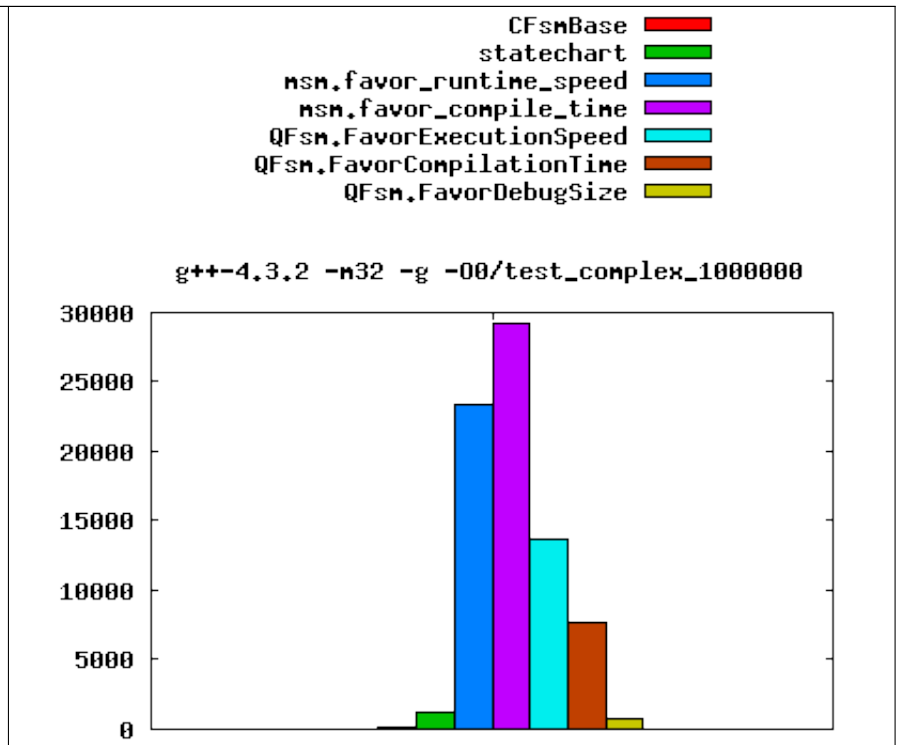

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_transitions_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

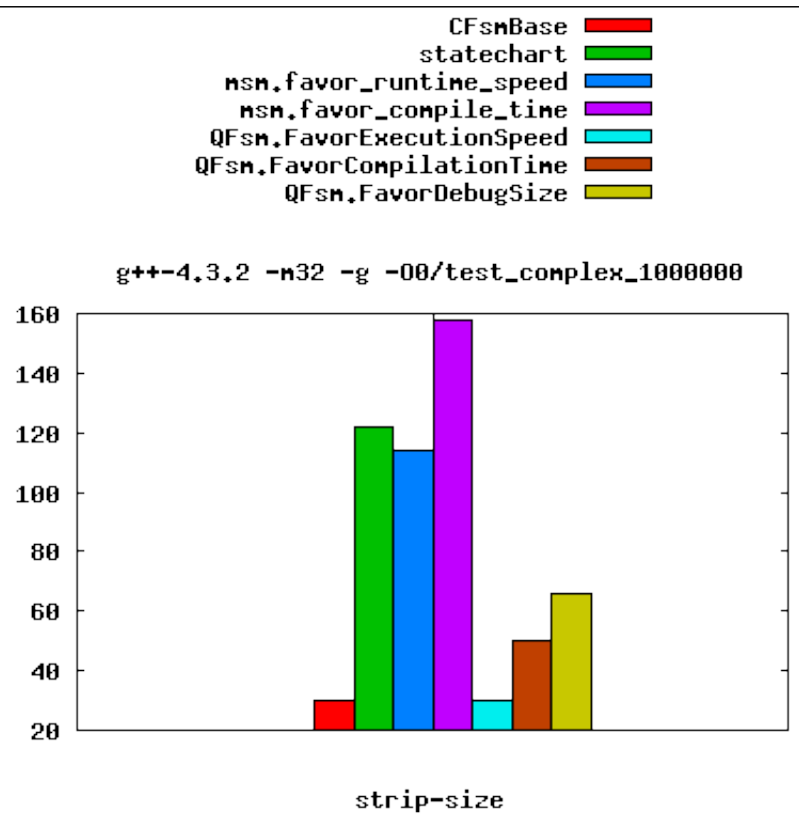
Table 58: ”ibmt43” [df6407d], g++-4.3.2 -m32 -g -O0/test complex 1000000

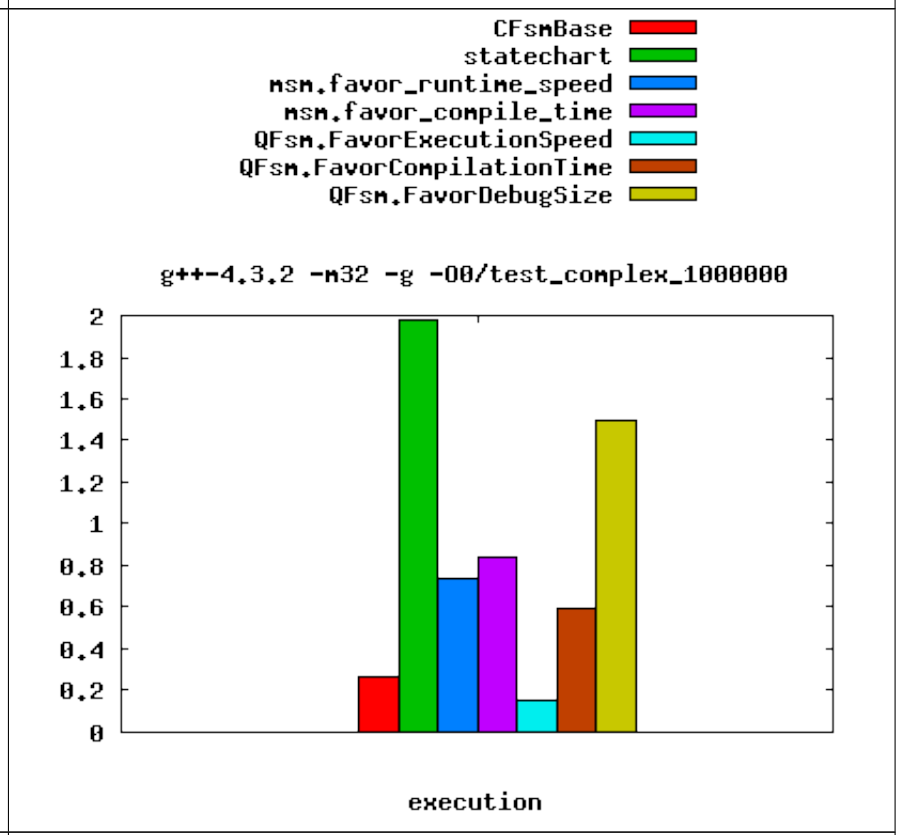
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.15s	2.74s	26.88s	24.16s	50.19s	4.19s	3.17s
size	206K	1297K	23457K	29219K	13678K	7709K	838K
strip-size	30K	122K	114K	158K	30K	50K	66K
execution	0.27s	1.98s	0.74s	0.84s	0.15s	0.59s	1.50s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_complex_1000000
55
50
45
40
35
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_complex_1000000
30000
25000
20000
15000
10000
5000
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_complex_1000000
160
140
120
100
80
60
40
20
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_complex_1000000
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
execution

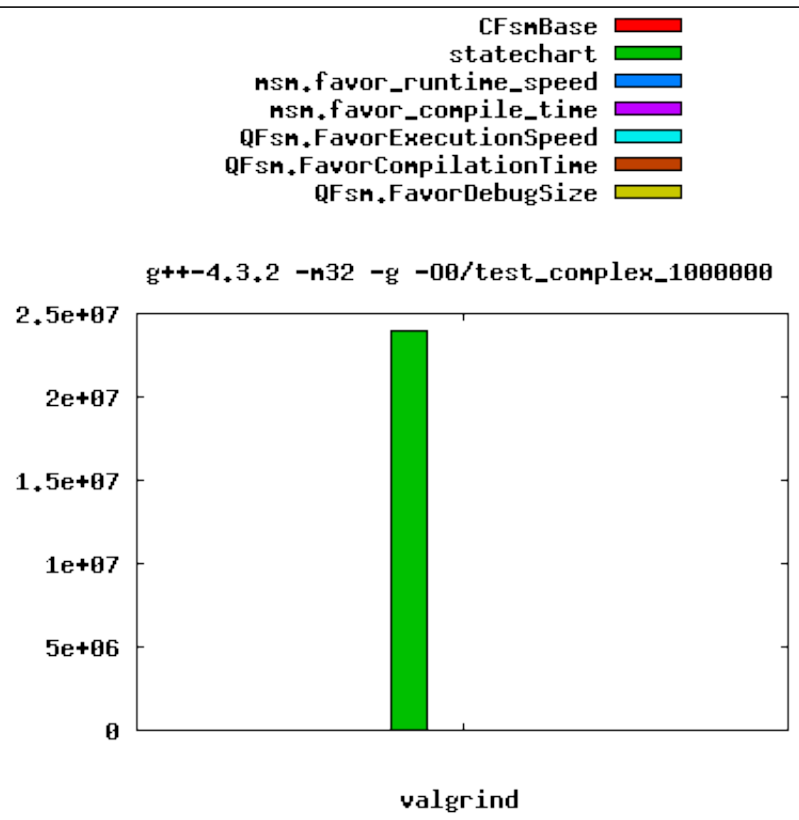
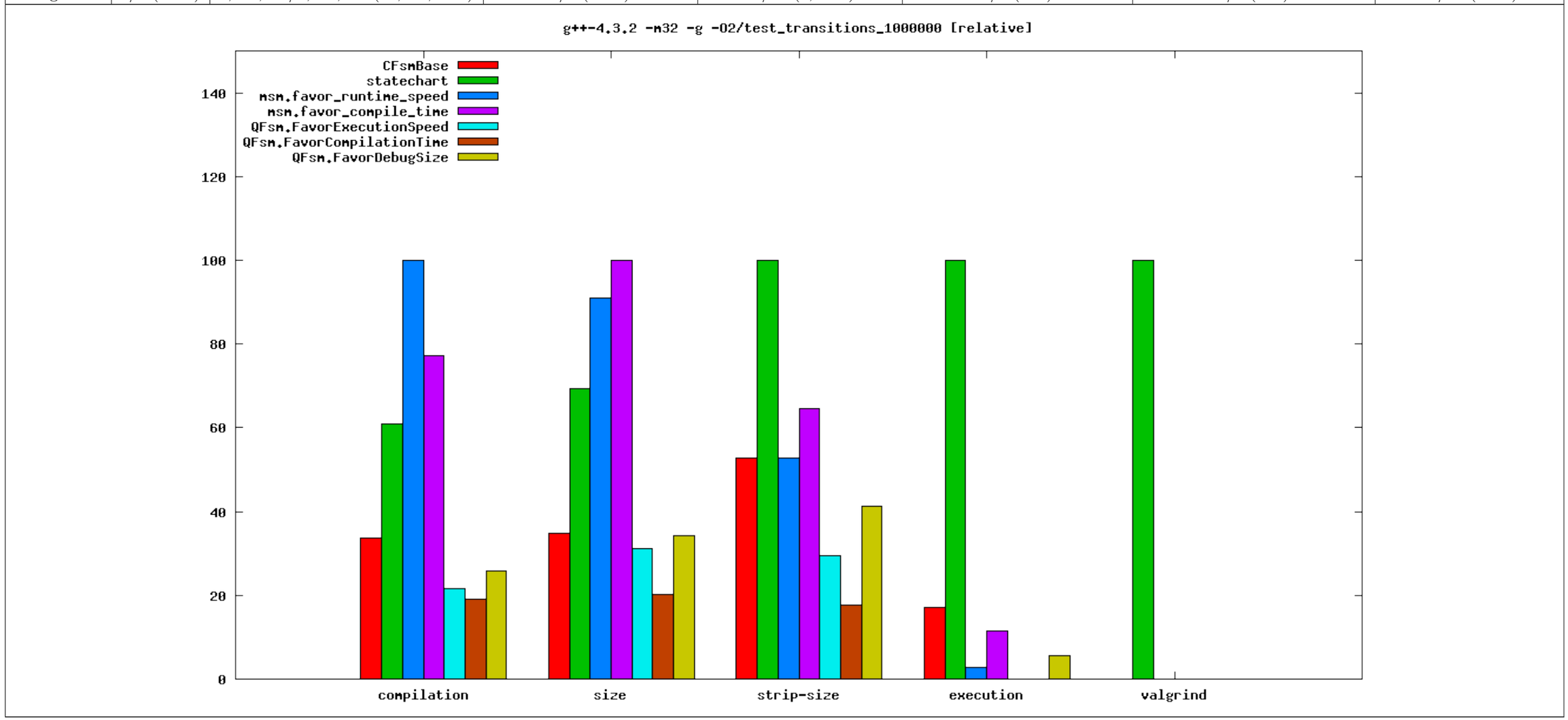
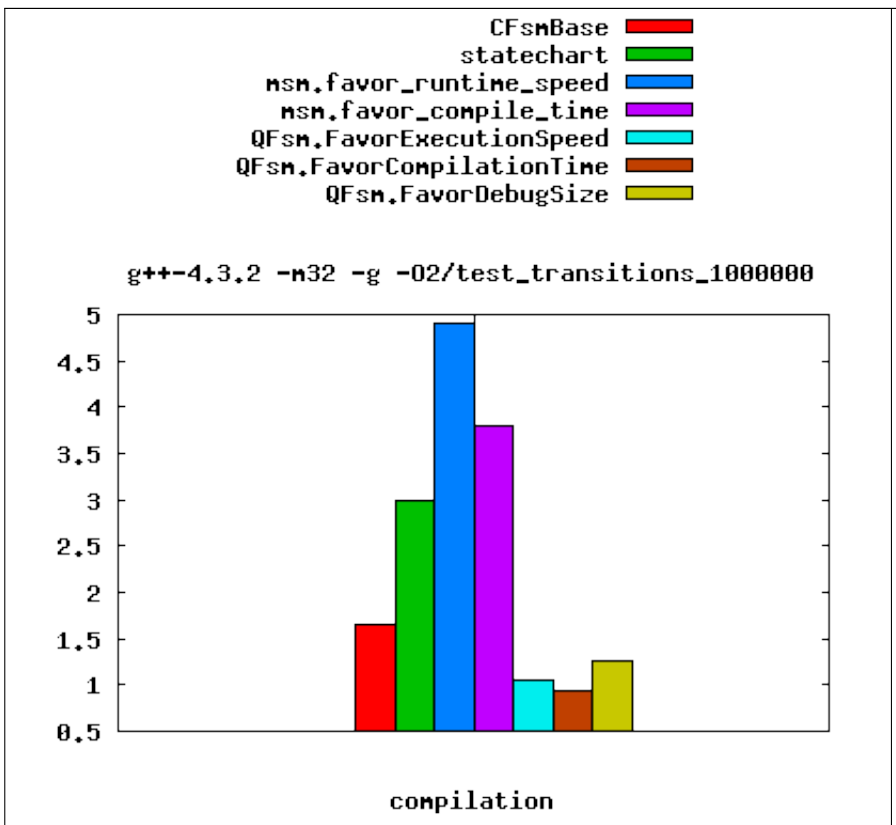
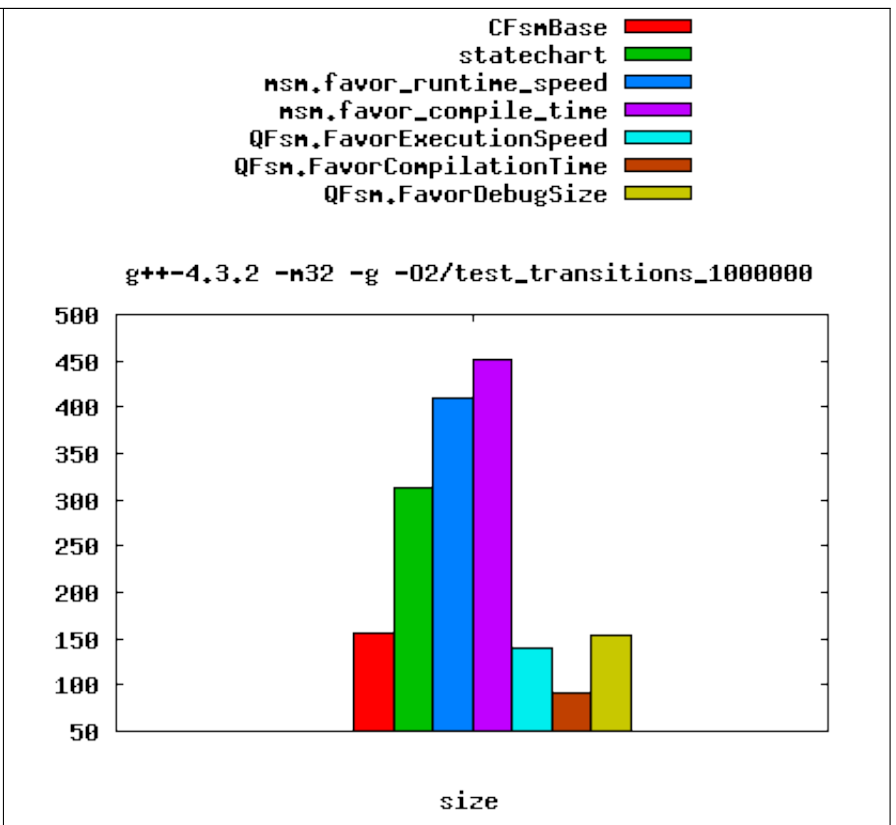

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O0/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

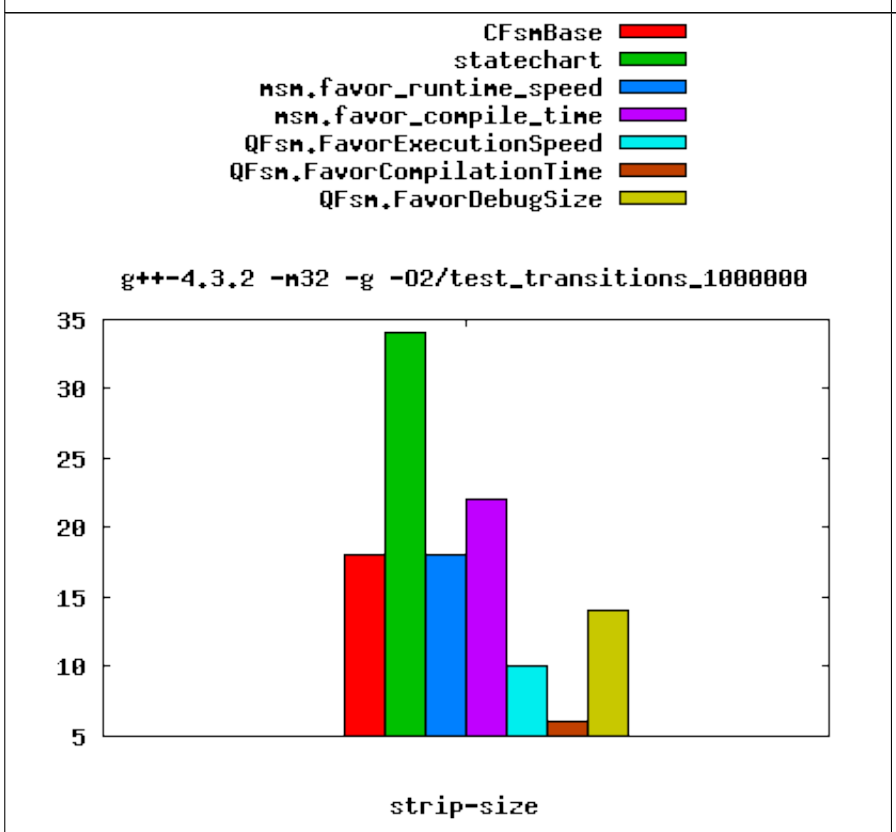
Table 61: ”ibmt43” [df6407d], g++-4.3.2 -m32 -g -O2/test transitions 1000000

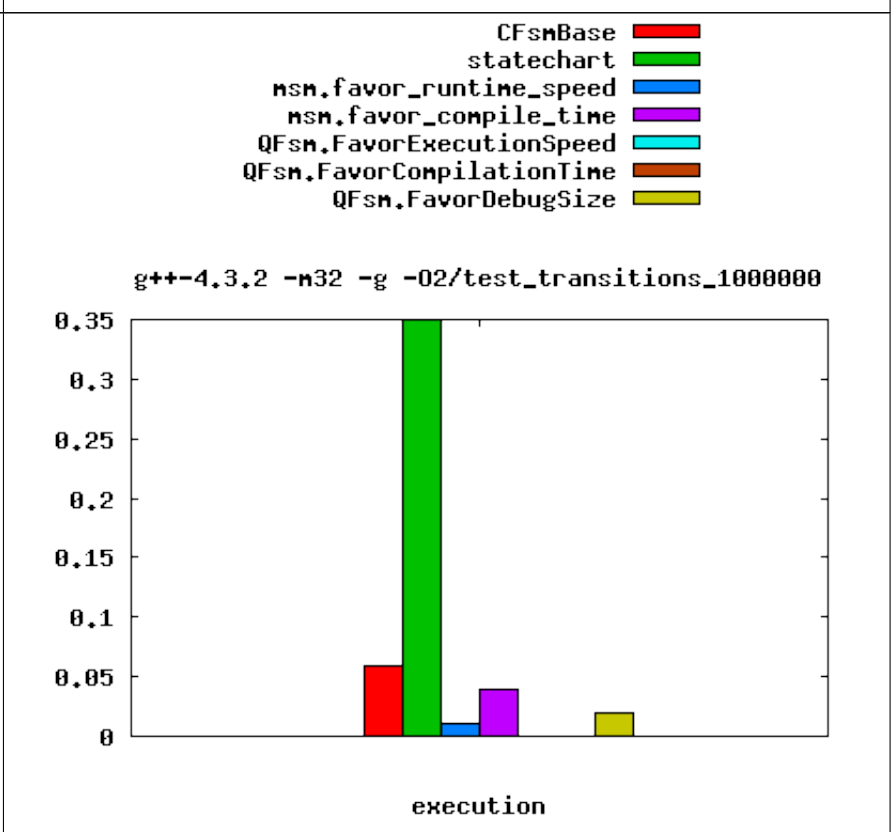
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.65s	2.99s	4.90s	3.79s	1.06s	0.93s	1.27s
size	157K	313K	411K	451K	141K	91K	154K
strip-size	18K	34K	18K	22K	10K	6K	14K
execution	0.06s	0.35s	0.01s	0.04s	0.00s	0.00s	0.02s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_transitions_1000000
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_transitions_1000000
500
450
400
350
300
250
200
150
100
50
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_transitions_1000000
35
30
25
20
15
10
5
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_transitions_1000000
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
execution

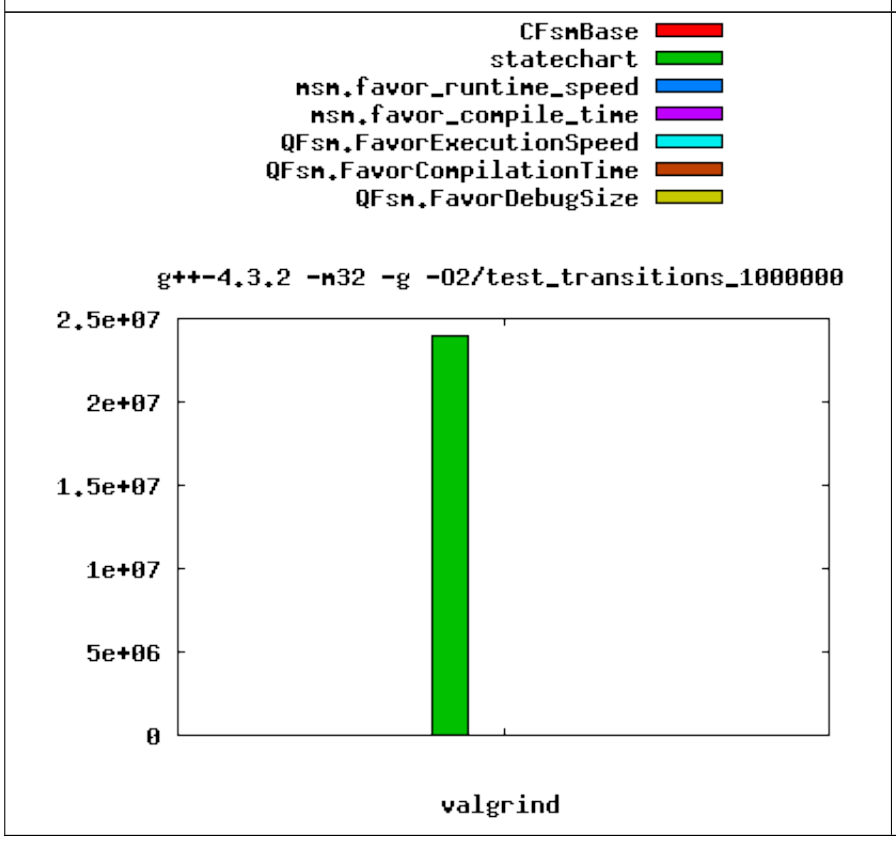
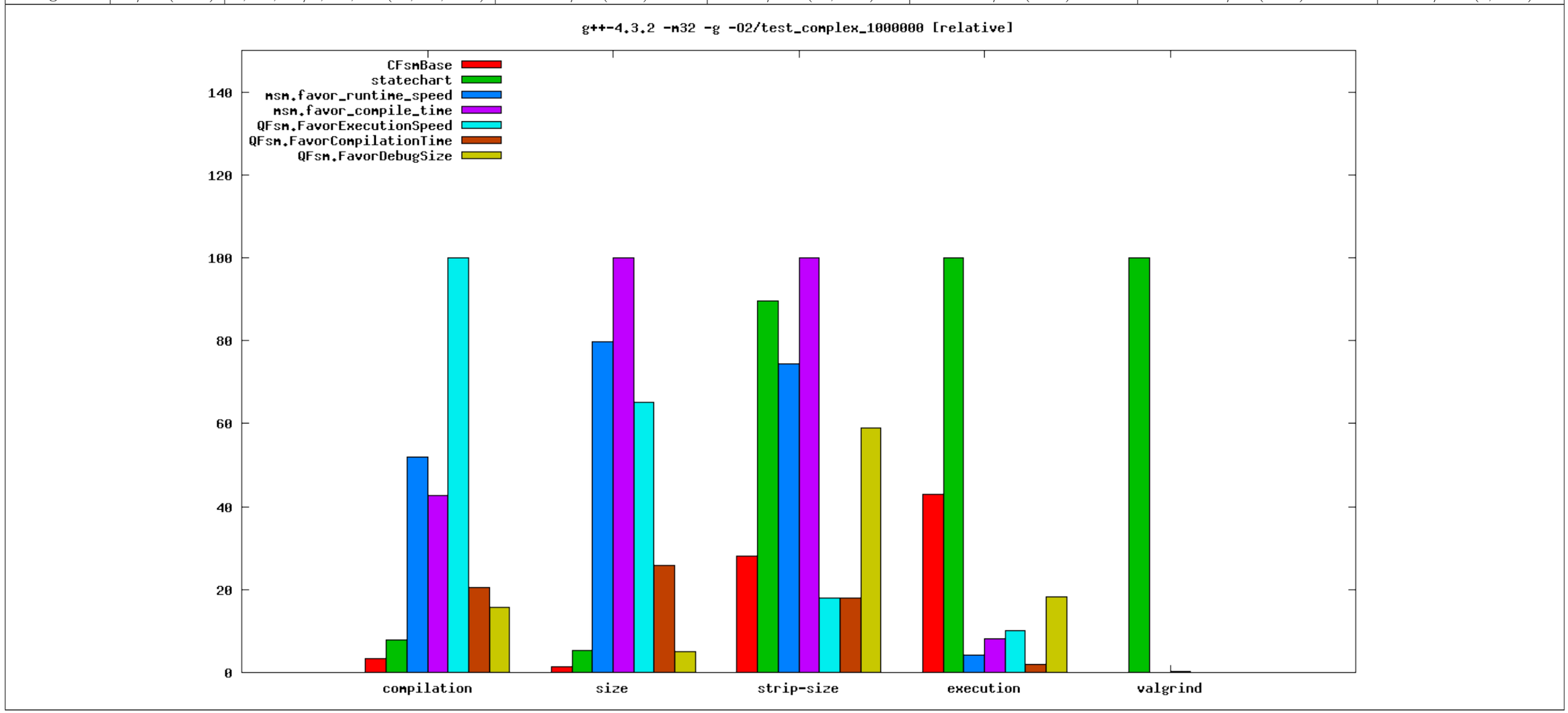
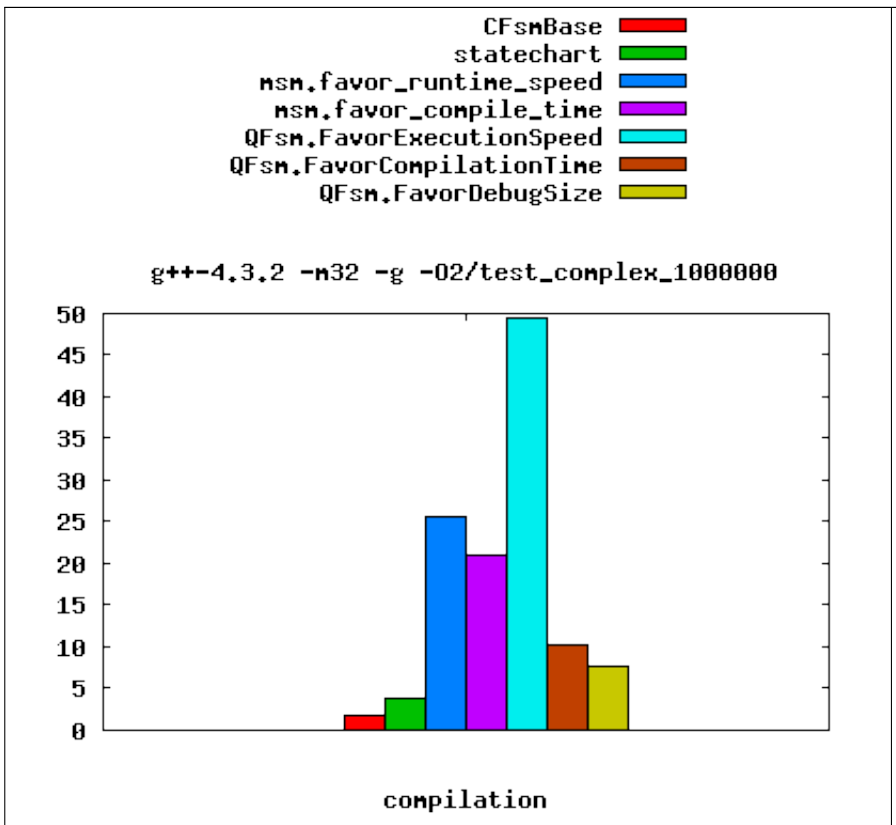
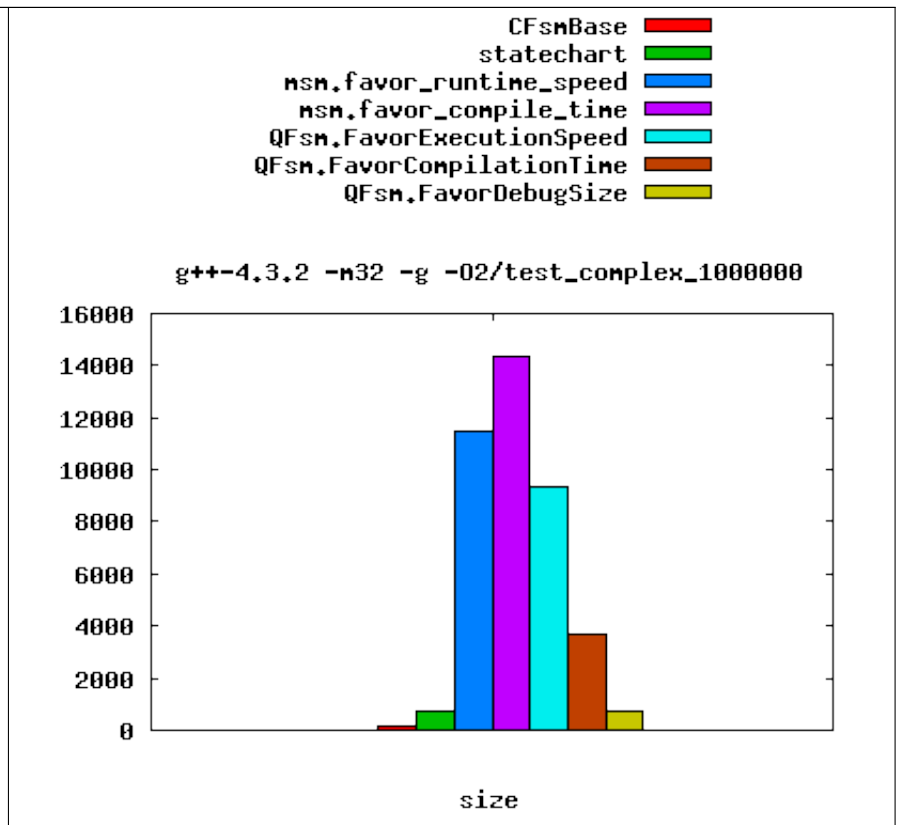

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_transitions_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

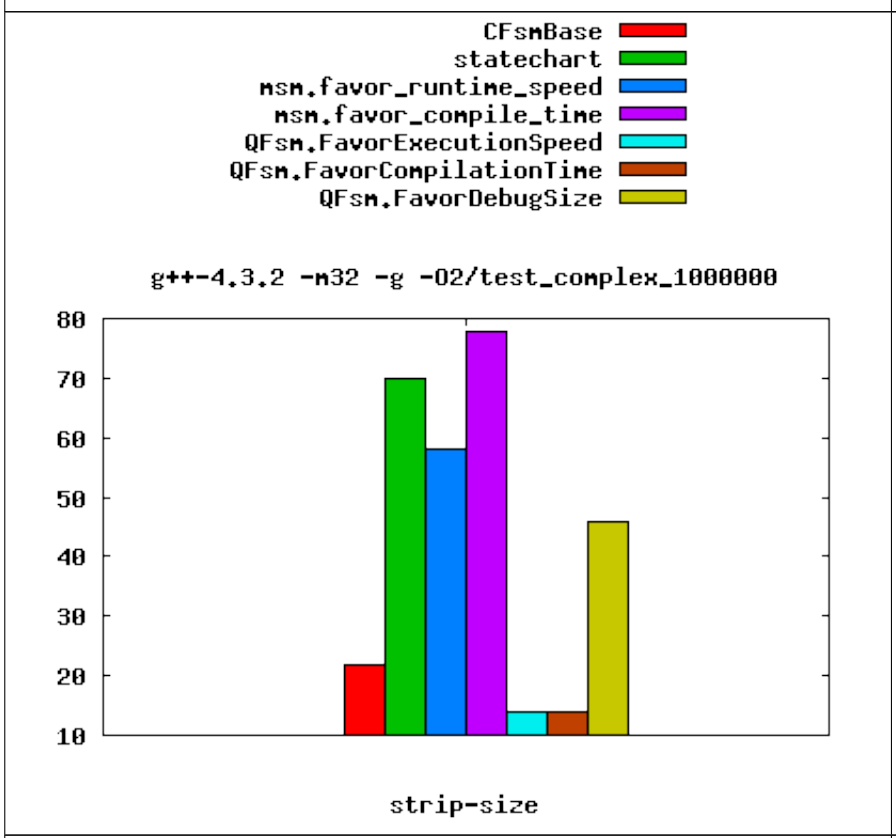
Table 64: ”ibmt43” [df6407d], g++-4.3.2 -m32 -g -O2/test complex 1000000

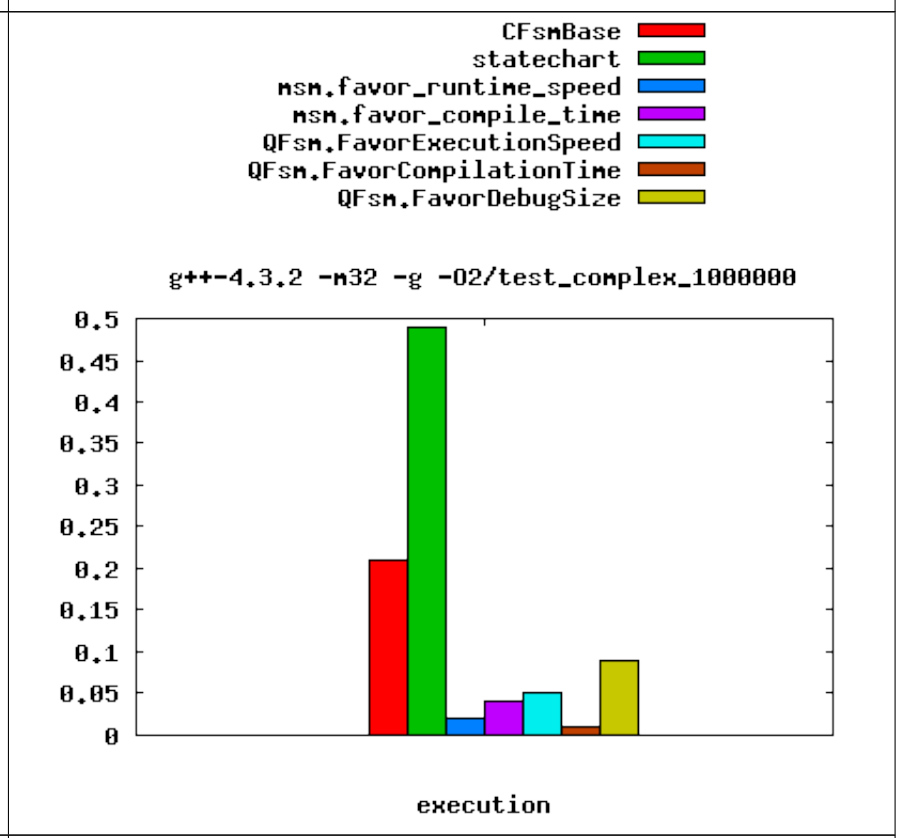
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.72s	3.85s	25.65s	21.08s	49.45s	10.17s	7.73s
size	194K	762K	11447K	14356K	9349K	3708K	736K
strip-size	22K	70K	58K	78K	14K	14K	46K
execution	0.21s	0.49s	0.02s	0.04s	0.05s	0.01s	0.09s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)

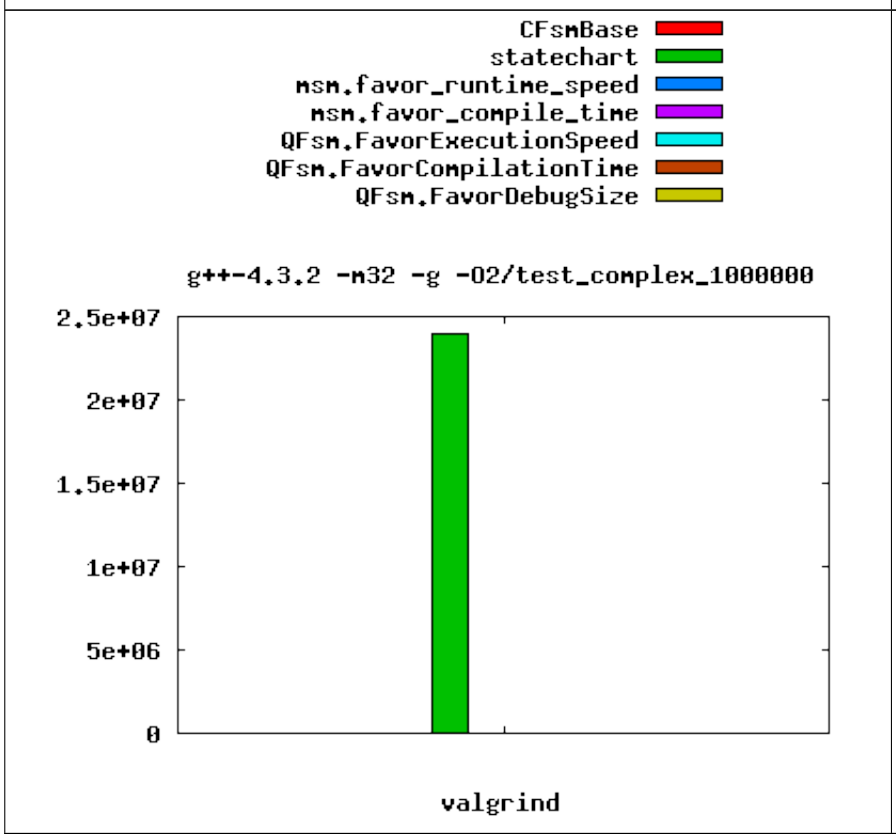



CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_complex_1000000
50
45
40
35
30
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_complex_1000000
16000
14000
12000
10000
8000
6000
4000
2000
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_complex_1000000
80
70
60
50
40
30
20
10
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_complex_1000000
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
execution


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++-4.3.2 -m32 -g -O2/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

0.0.3 Results from "server" [df6407d], generated Sun Sep 25 23:45:00 CEST 2011

```
Test aspects:

    compilation:
        compilation time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    size:
        size of the binary measured by 'ls -k' call
        result is in kilobytes

    strip-size:
        size of the binary measured by 'ls -k' call after 'strip' call
        result is in kilobytes

    execution:
        execution time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    valgrind:
        test is executed with valgrind call
        result is as A/D (S), where
        A - allocations
        D - deallocations
        S - global allocated size in bytes

    test name:
        test_NAME[_NUMBER], where NAME is test case name and NUMBER is count of event calls during the test
```

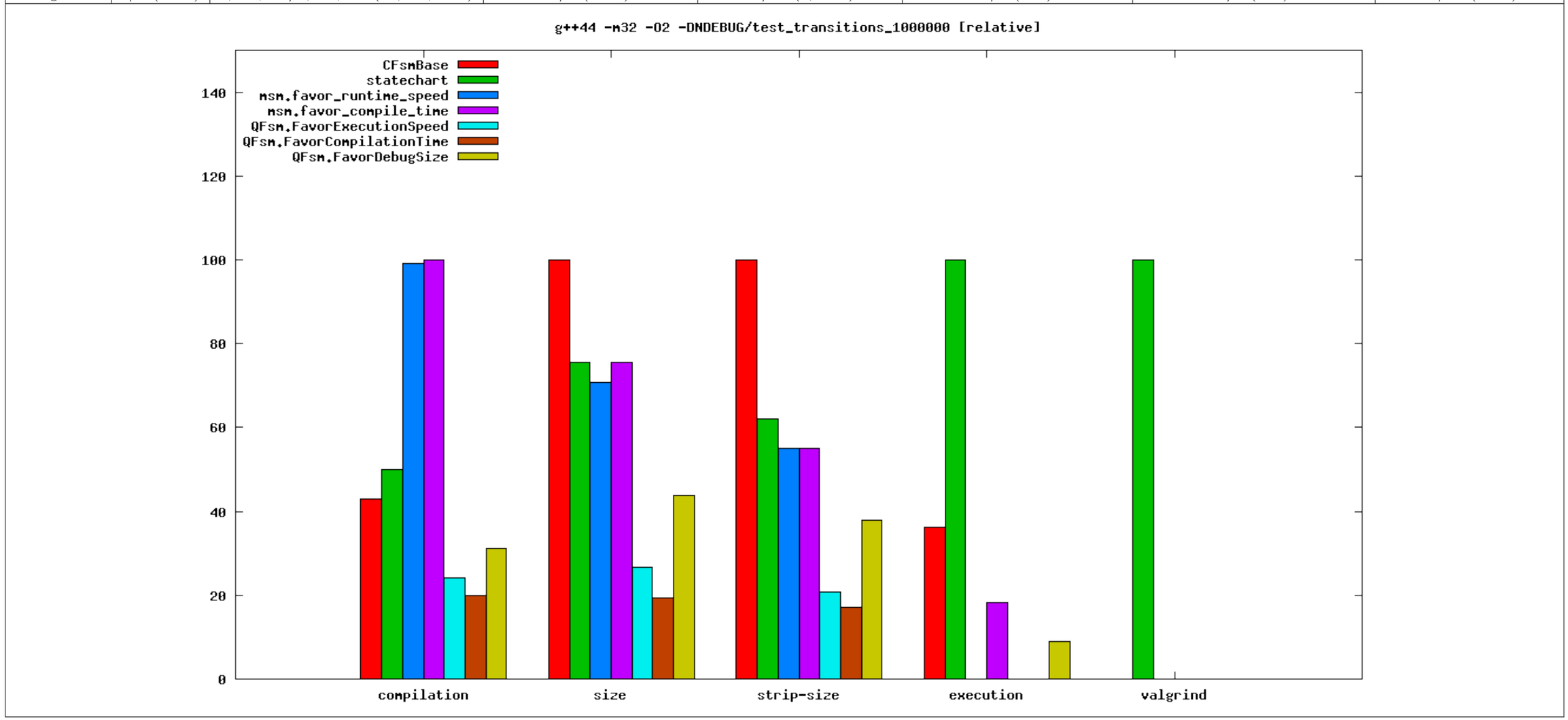
```
Environment statistics:

    generated: Sun Sep 25 23:45:00 CEST 2011
    code revision: df6407d
    hostname: "server"
    operating system:  GNU/Linux
    processor: x86_64
    free memory: 1748Mb
    load average: 1.30 1.39 1.28 1/626 16681
```

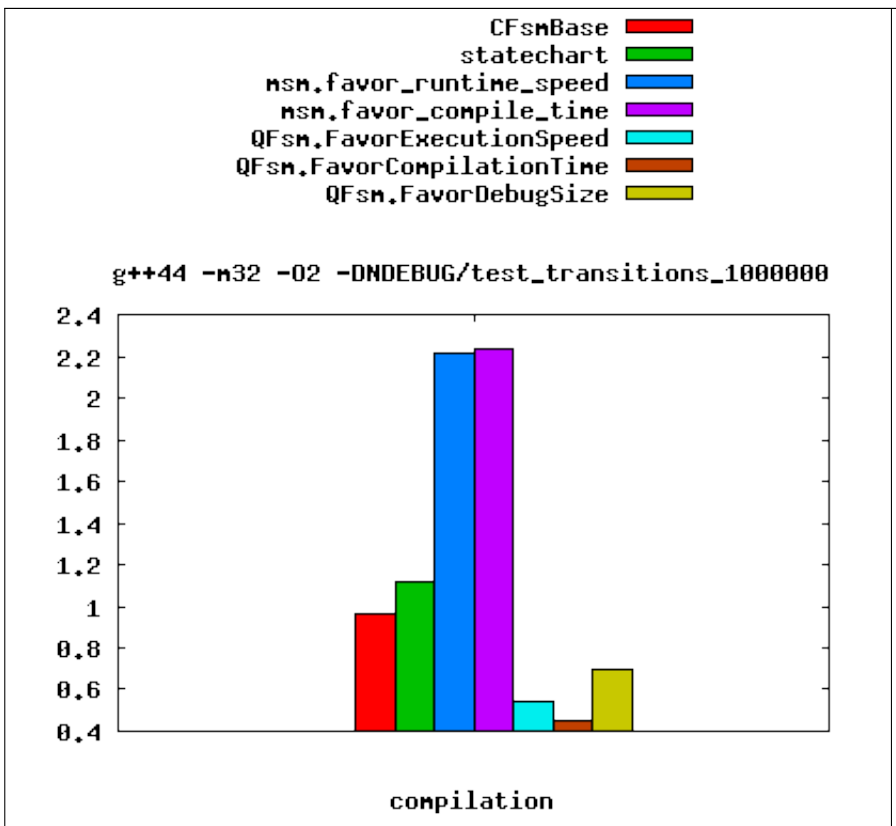
```
All tests summary:

    real: 593.18s (9:53.18)
    user: 579.98s
    sys: 10.70s
    cpu: 99%
    average memory usage: 0K
    maximum resident set size: 2866352K
    number of times the process was swapped out of main memory: 0
    number of file system input: 120
    number of file system outputs: 466288
```

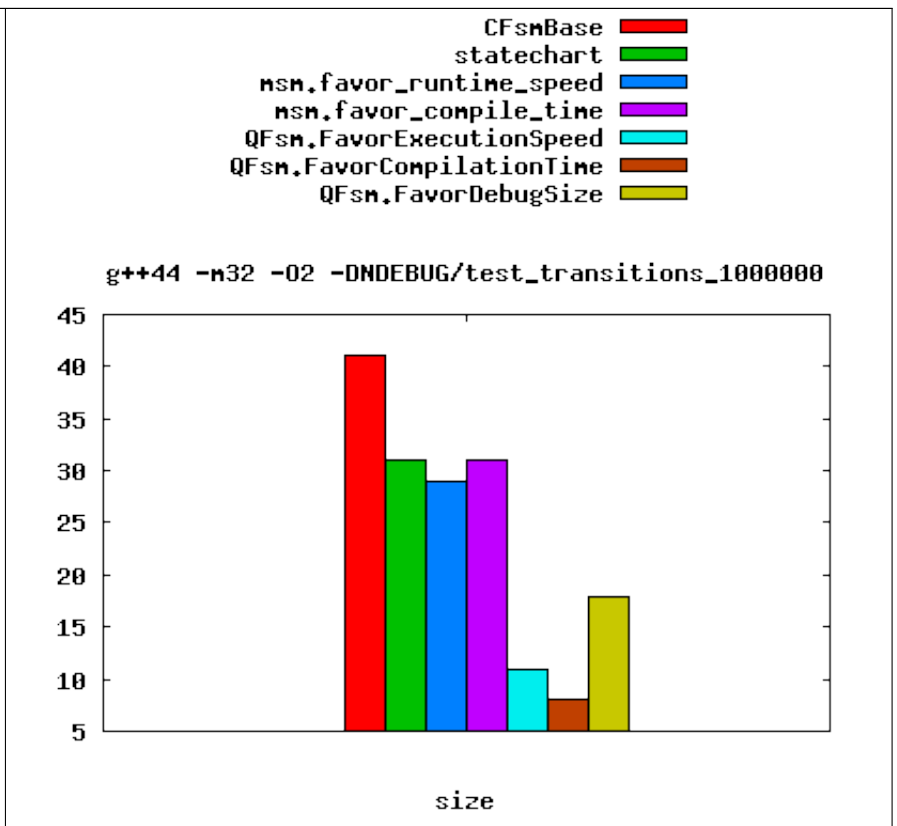
```
Results are presented by using table and two types of charts:

    table: contains results for each tested aspect and framework
    first type of chart: presents relative (0-100%) differents between individual framework and aspect
    second type of chart: presents each aspect individually using exact values returned during the test
```

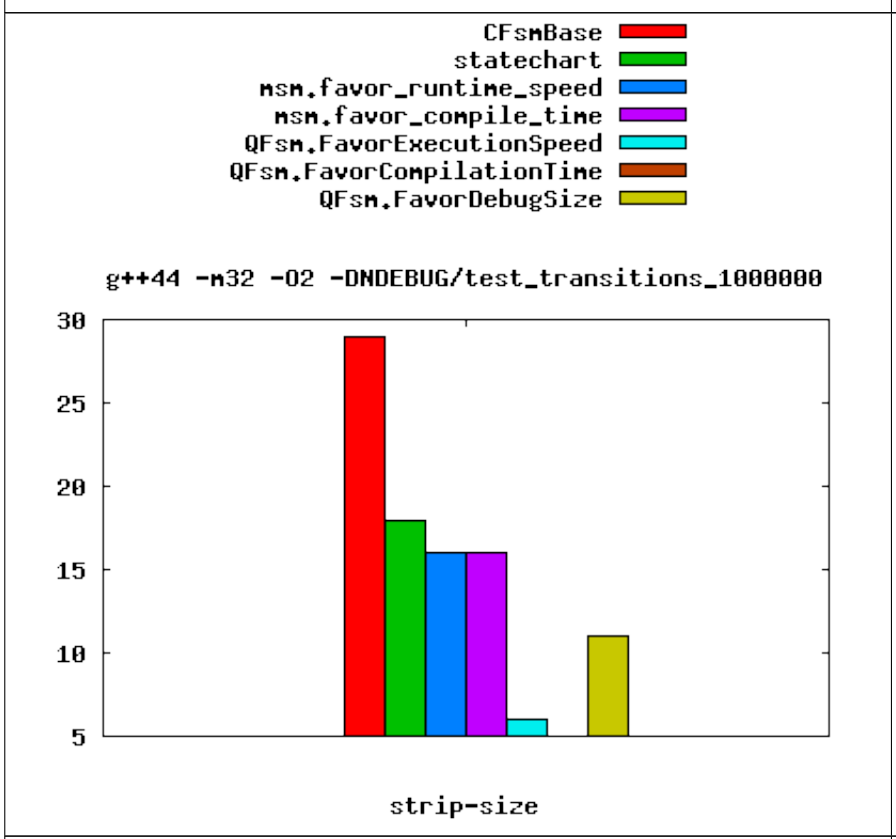
Table 67: "server" [54c084f], g++44 -m32 -O2 -DNDEBUG/test transitions 1000000

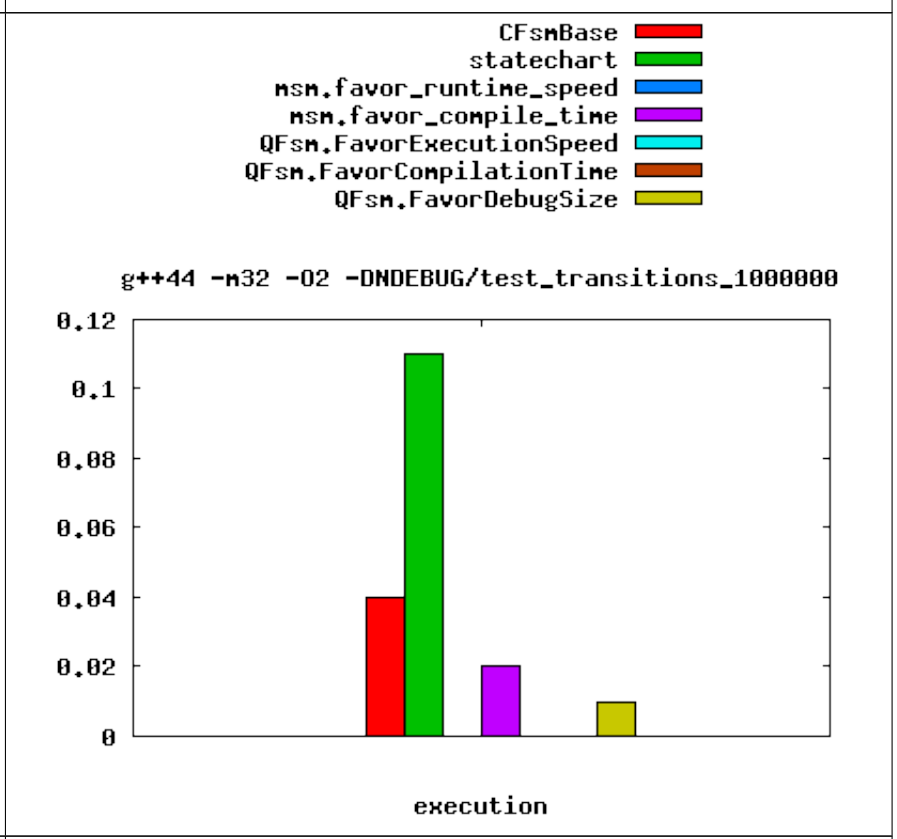
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.96s	1.12s	2.22s	2.24s	0.54s	0.45s	0.70s
size	41K	31K	29K	31K	11K	8K	18K
strip-size	29K	18K	16K	16K	6K	5K	11K
execution	0.04s	0.11s	0.00s	0.02s	0.00s	0.00s	0.01s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_transitions_1000000
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_transitions_1000000
45
40
35
30
25
20
15
10
5
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_transitions_1000000
30
25
20
15
10
5
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_transitions_1000000
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

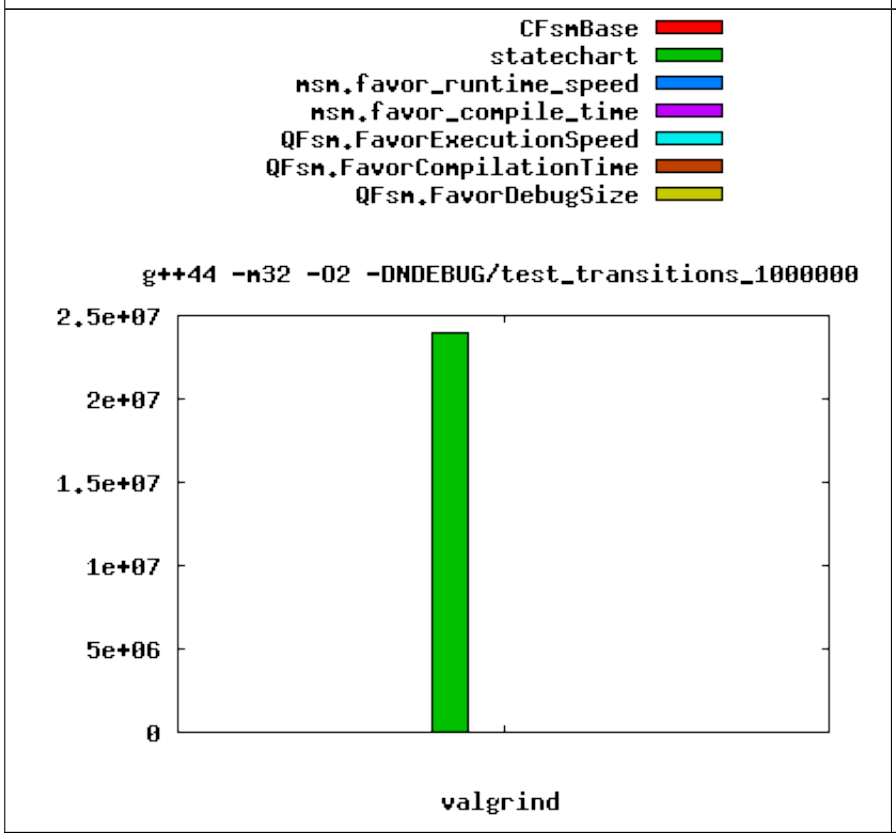
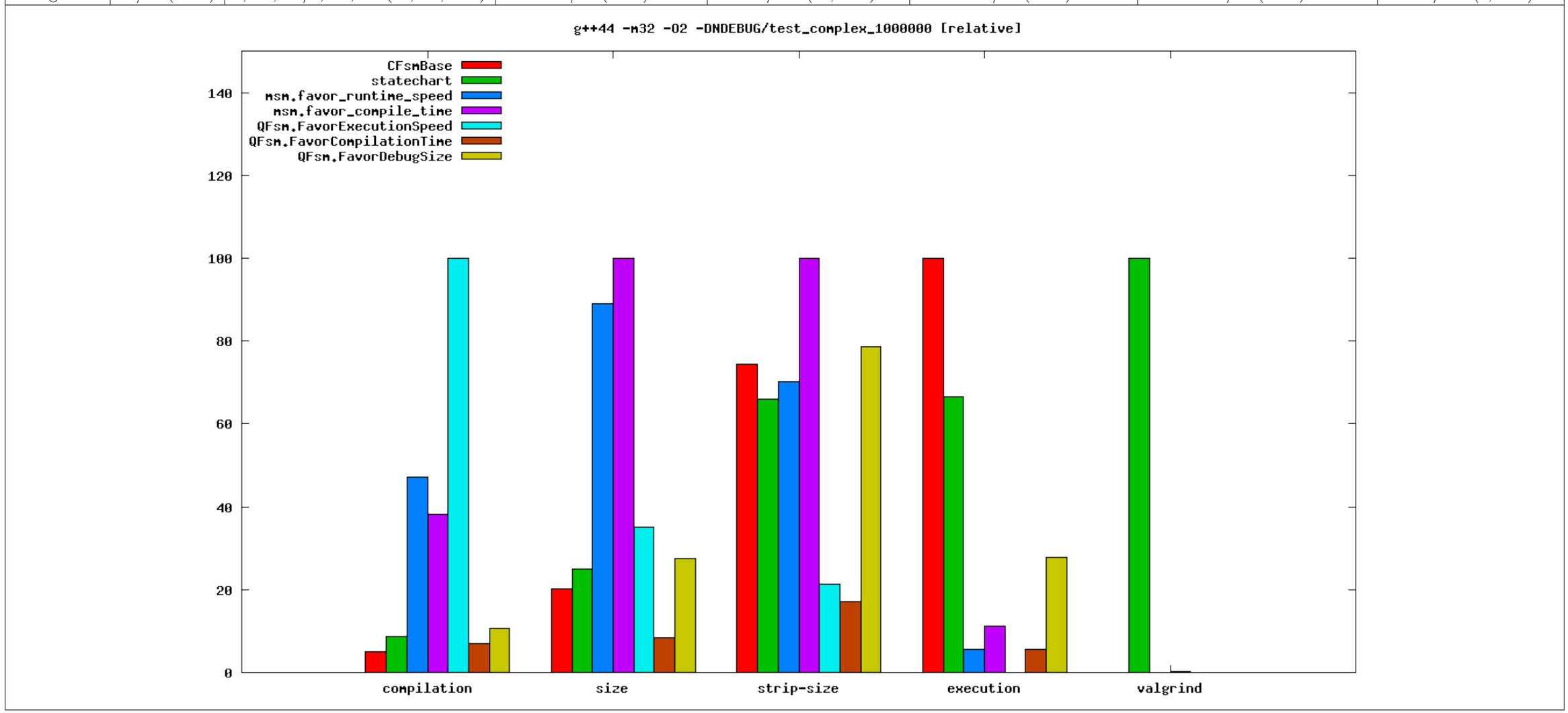
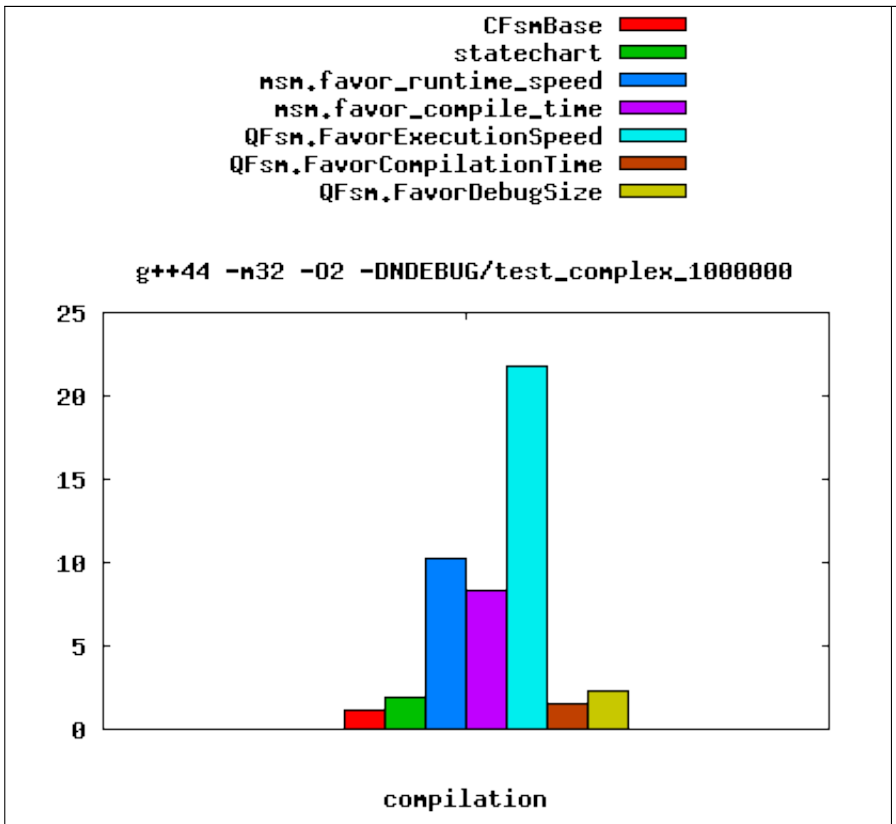
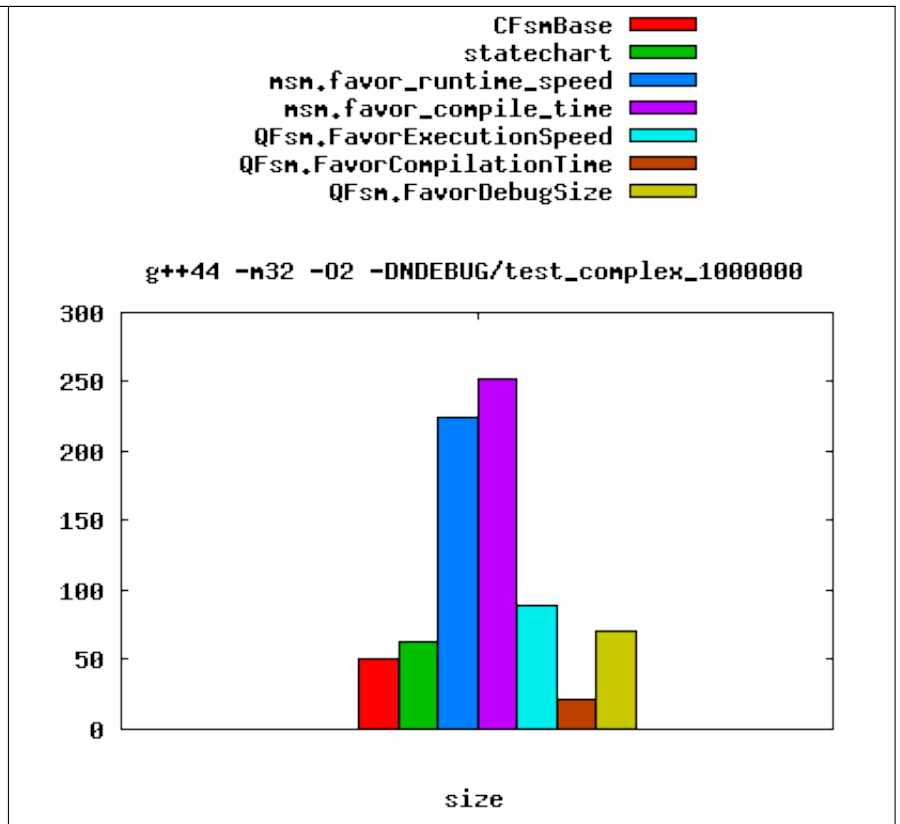

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_transitions_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

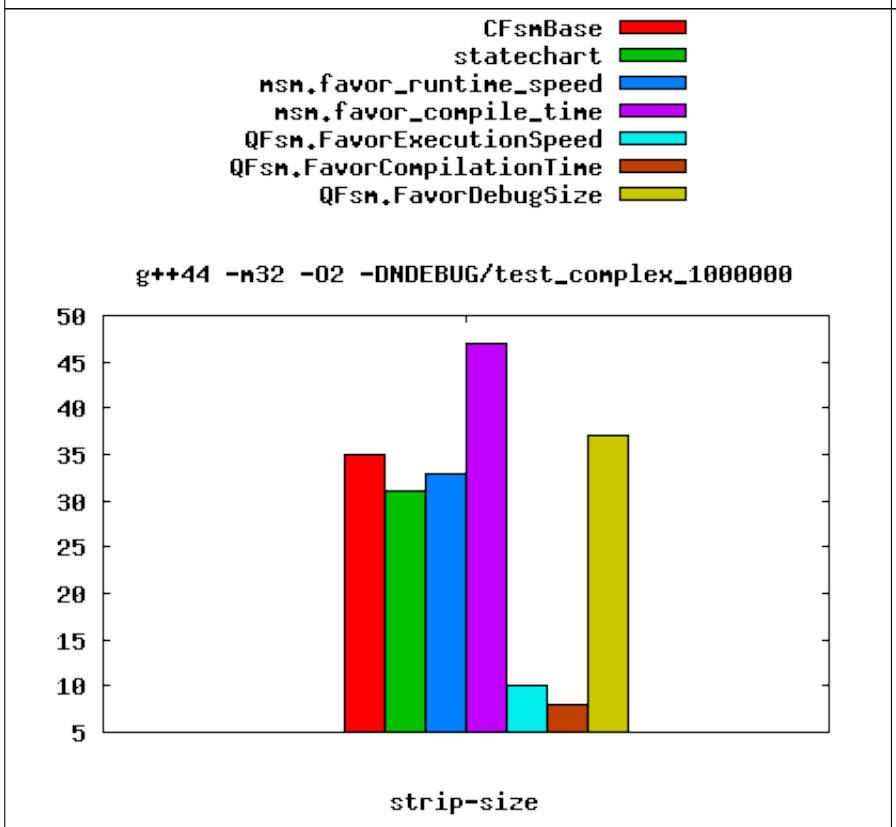
Table 70: ”server” [54c084f], g++44 -m32 -O2 -DNDEBUG/test complex 1000000

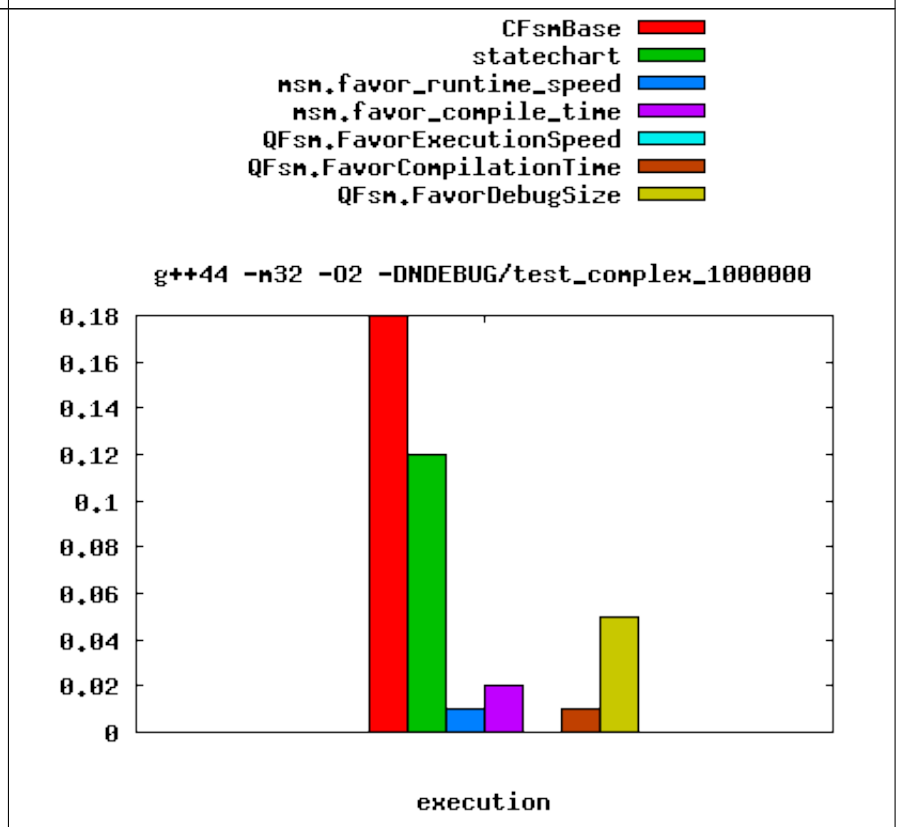
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	1.13s	1.90s	10.30s	8.32s	21.79s	1.52s	2.35s
size	51K	63K	225K	253K	89K	21K	70K
strip-size	35K	31K	33K	47K	10K	8K	37K
execution	0.18s	0.12s	0.01s	0.02s	0.00s	0.01s	0.05s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_complex_1000000
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_complex_1000000
300
250
200
150
100
50
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_complex_1000000
50
45
40
35
30
25
20
15
10
5
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_complex_1000000
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

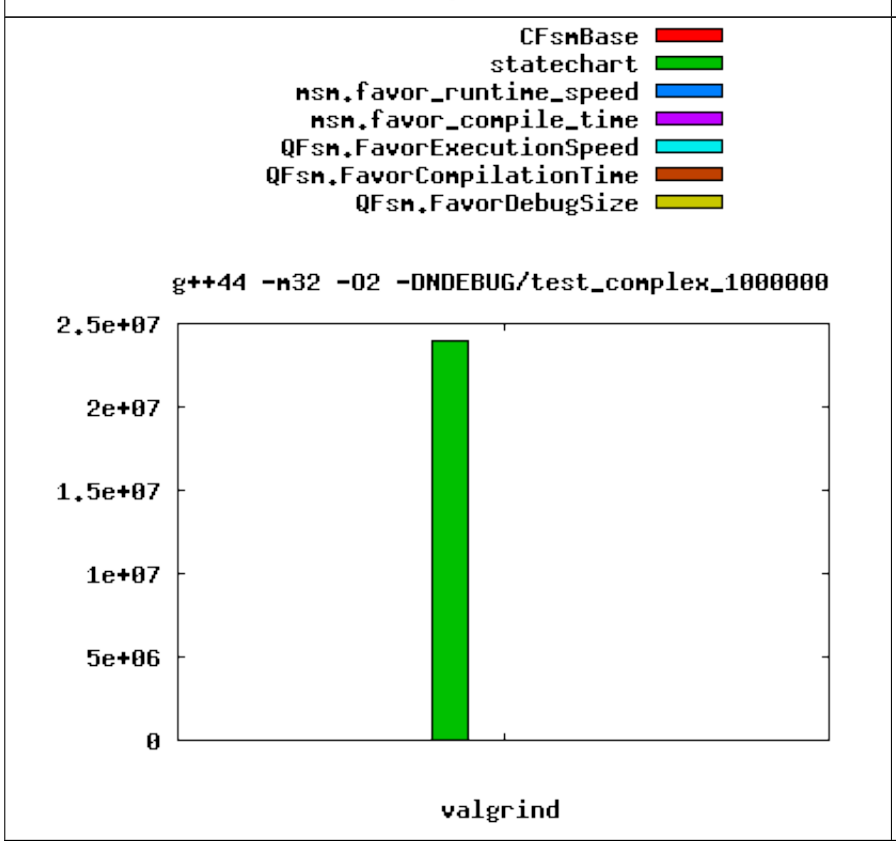
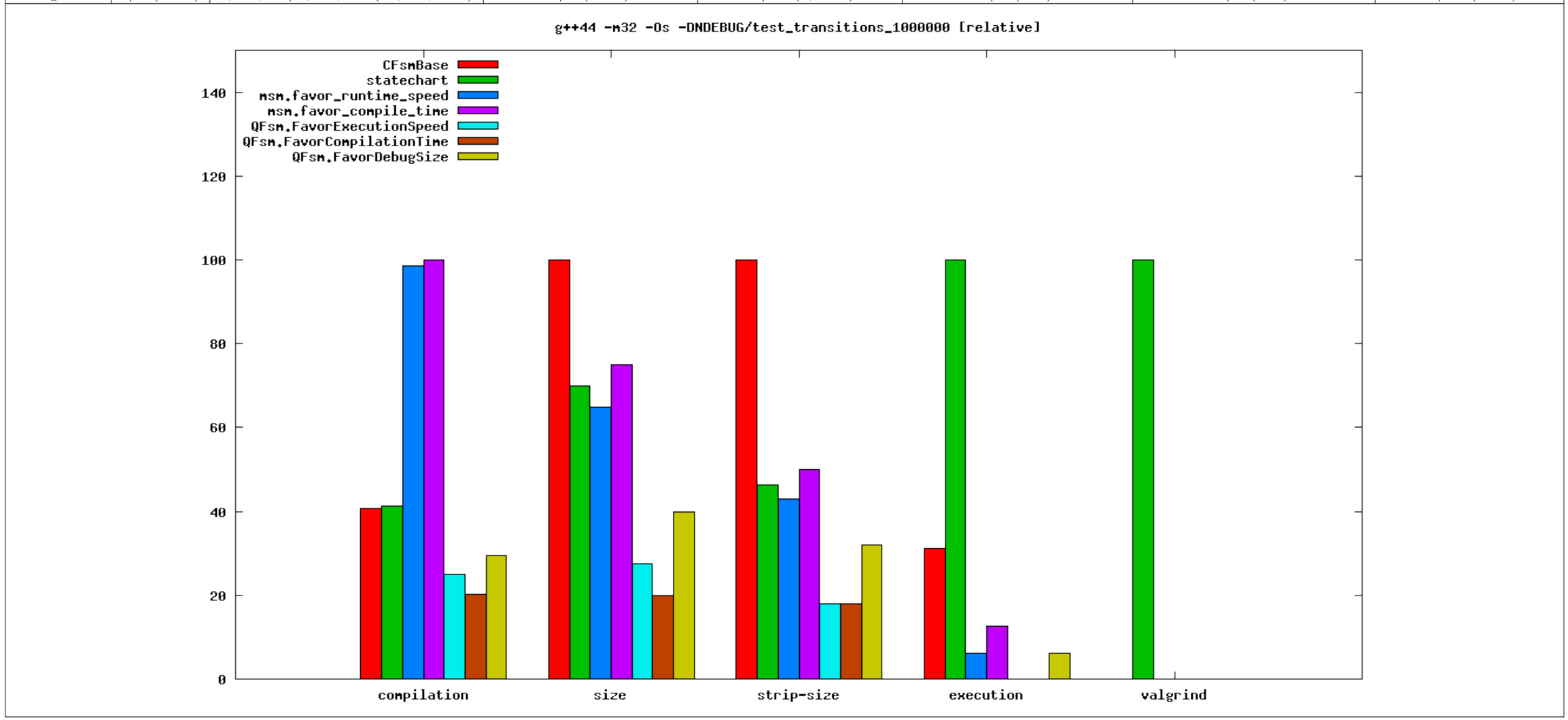
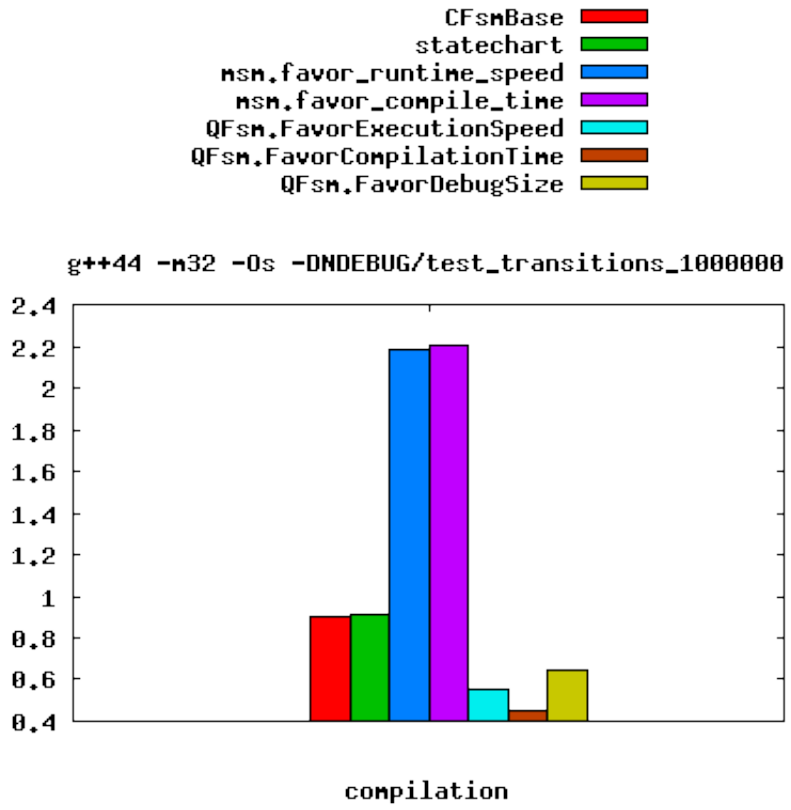
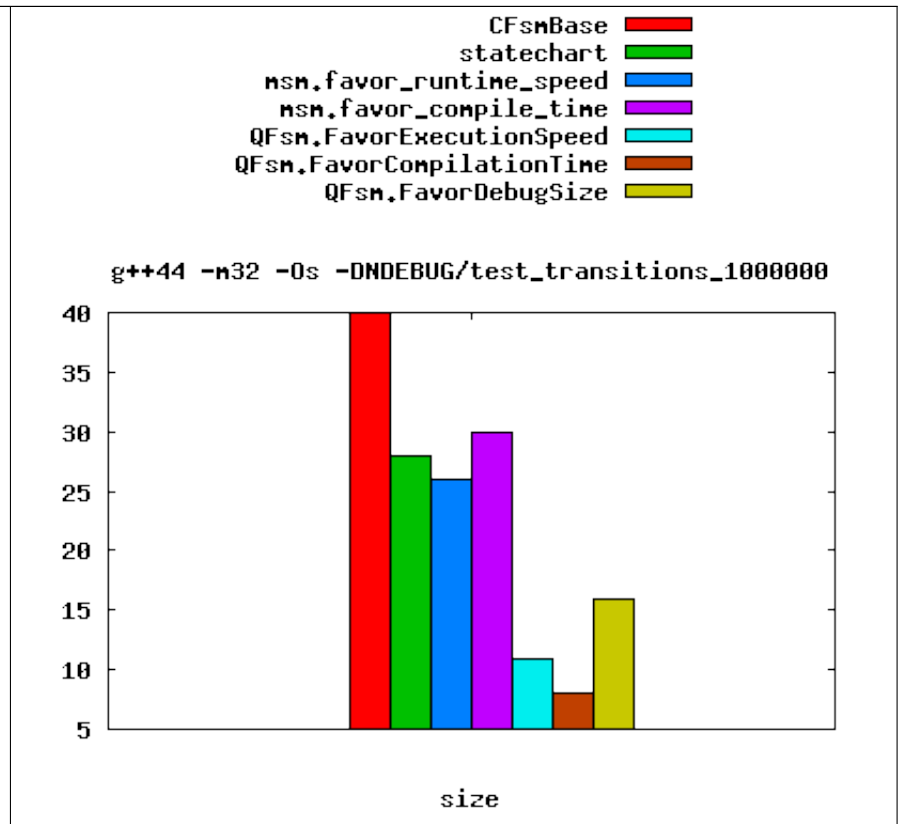

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -O2 -DNDEBUG/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

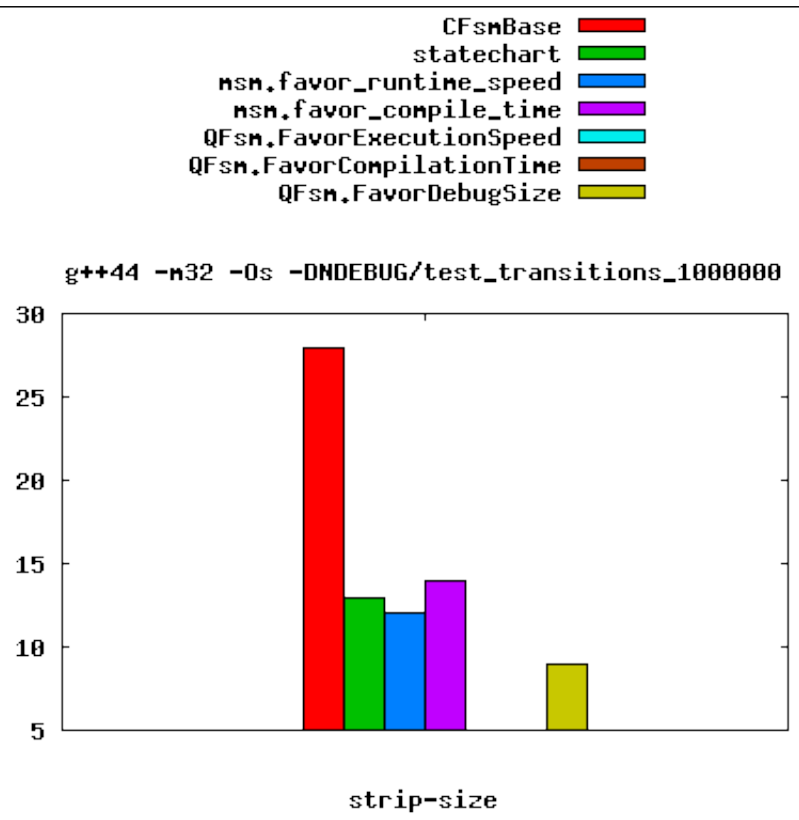
Table 73: "server" [54c084f], g++44 -m32 -Os -DNDEBUG/test transitions 1000000

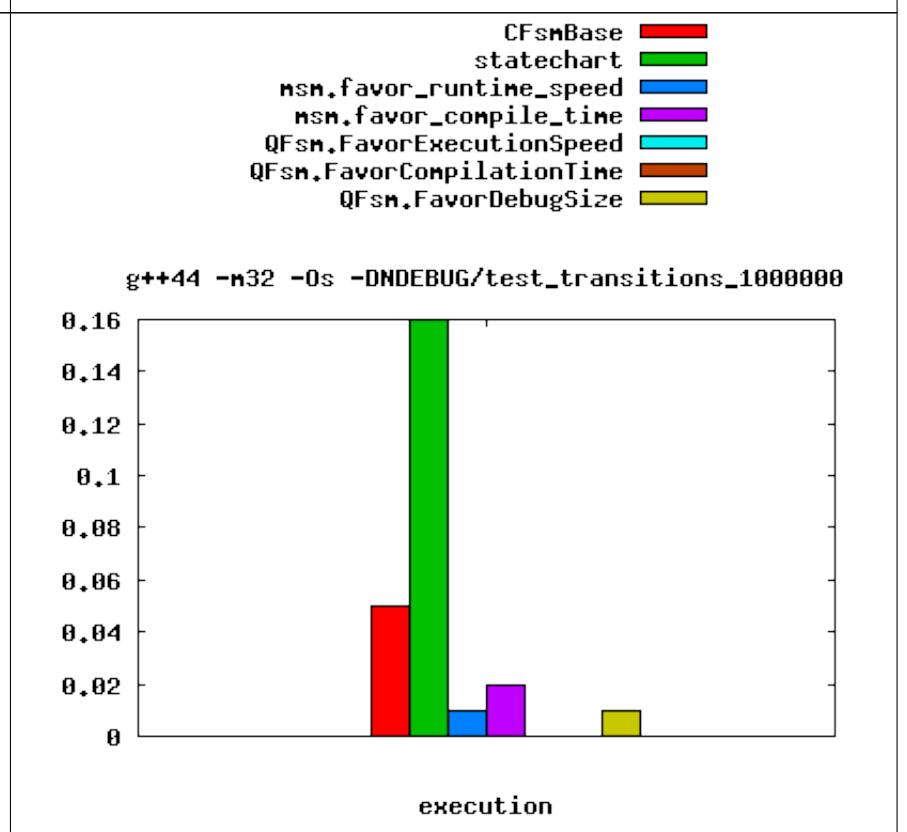
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.90s	0.91s	2.18s	2.21s	0.55s	0.45s	0.65s
size	40K	28K	26K	30K	11K	8K	16K
strip-size	28K	13K	12K	14K	5K	5K	9K
execution	0.05s	0.16s	0.01s	0.02s	0.00s	0.00s	0.01s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_transitions_1000000
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_transitions_1000000
40
35
30
25
20
15
10
5
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_transitions_1000000
30
25
20
15
10
5
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_transitions_1000000
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

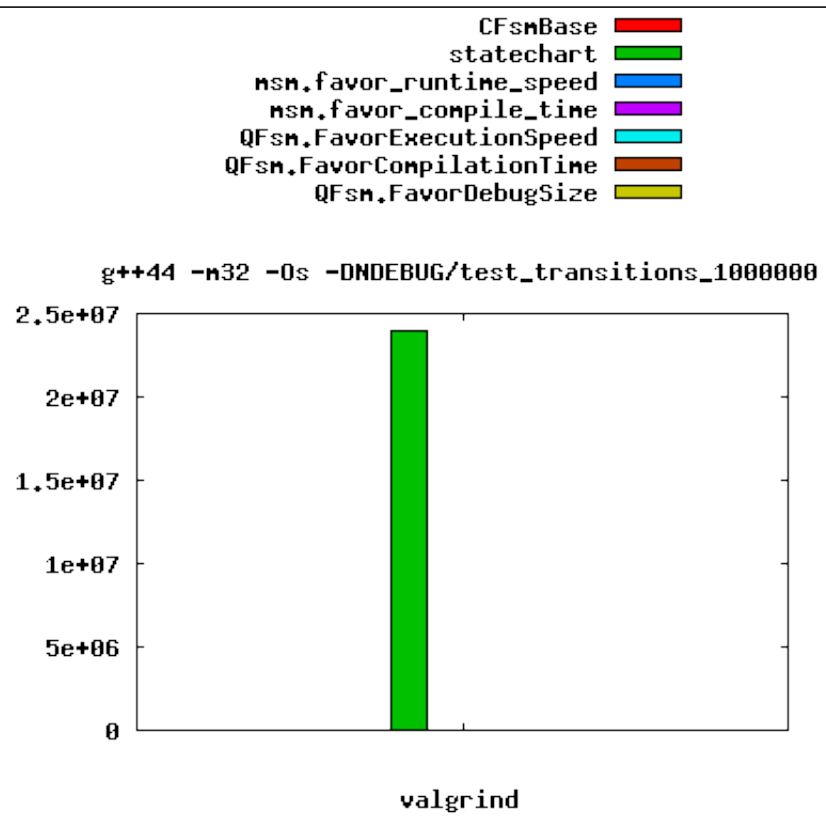
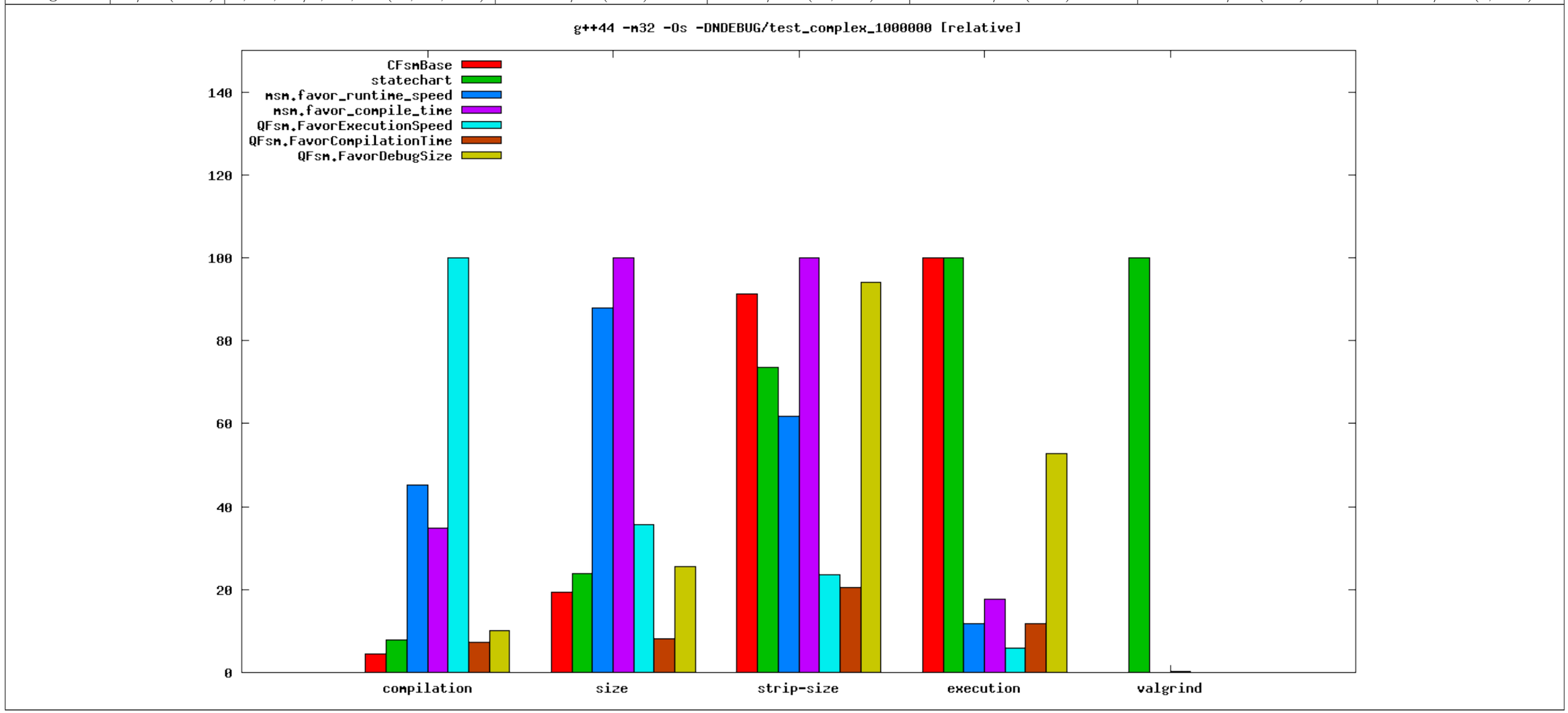
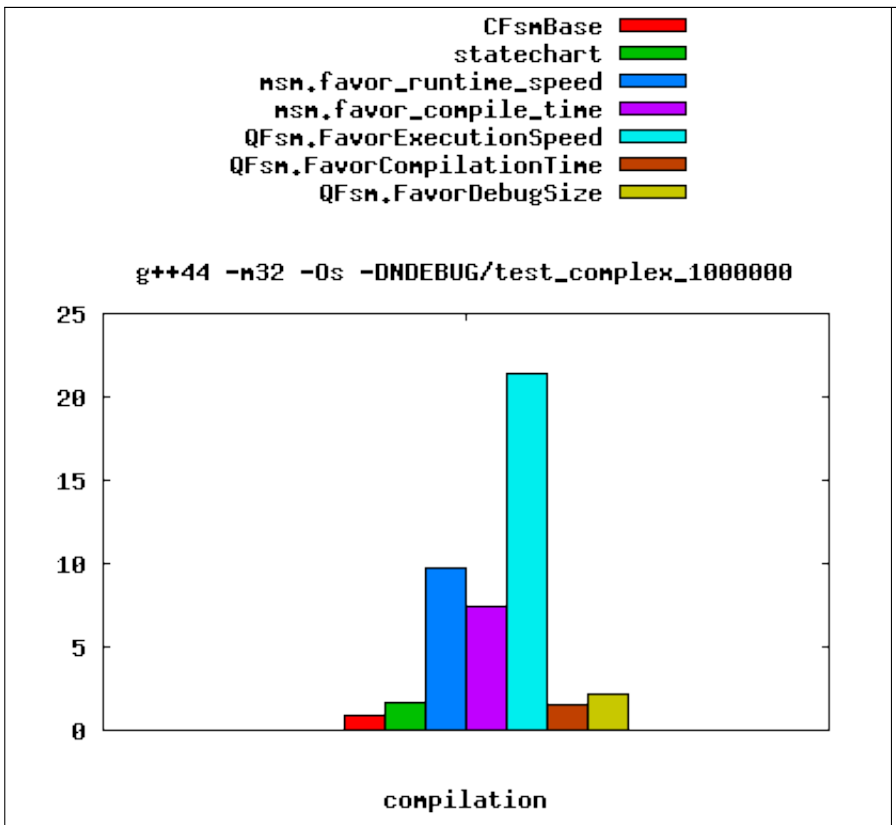
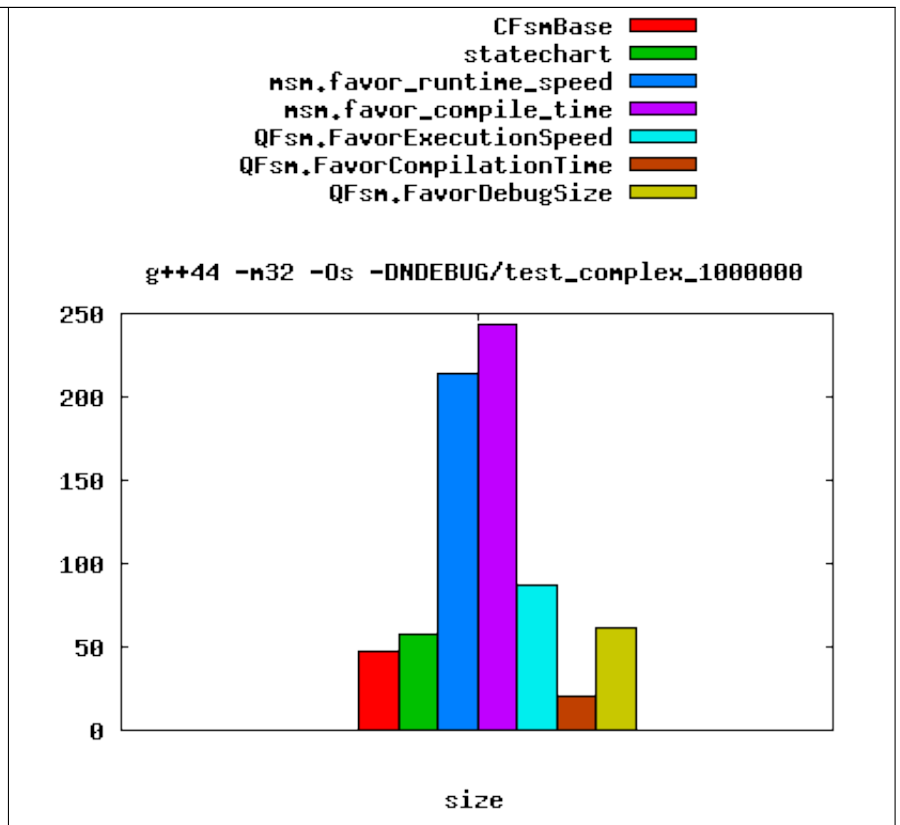

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_transitions_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

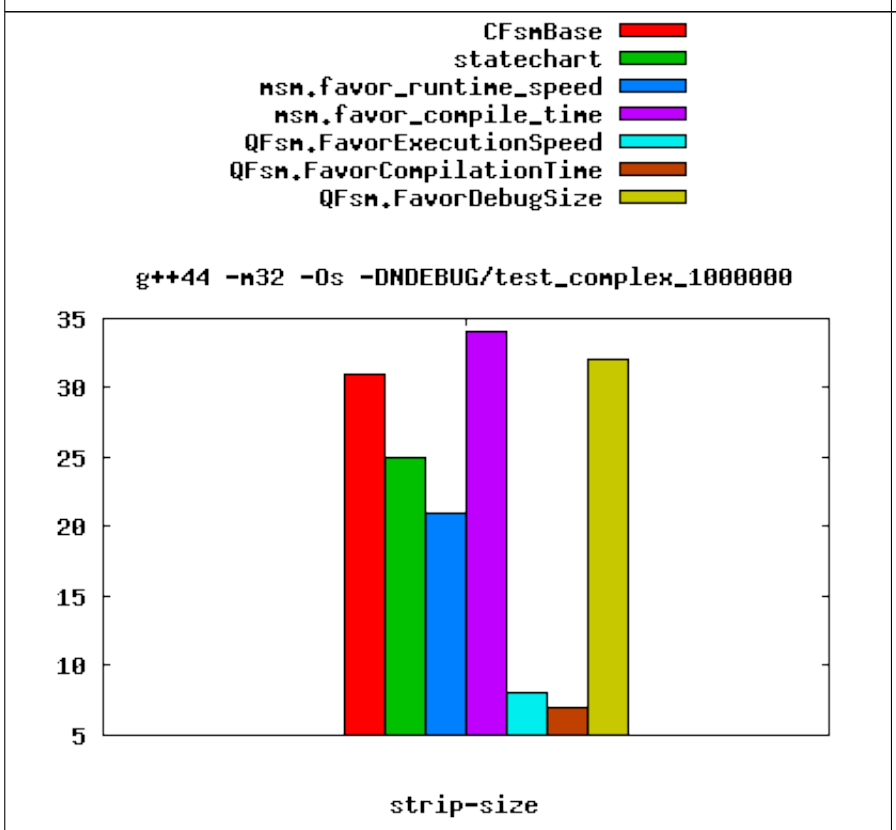
Table 76: ”server” [54c084f], g++44 -m32 -Os -DNDEBUG/test complex 1000000

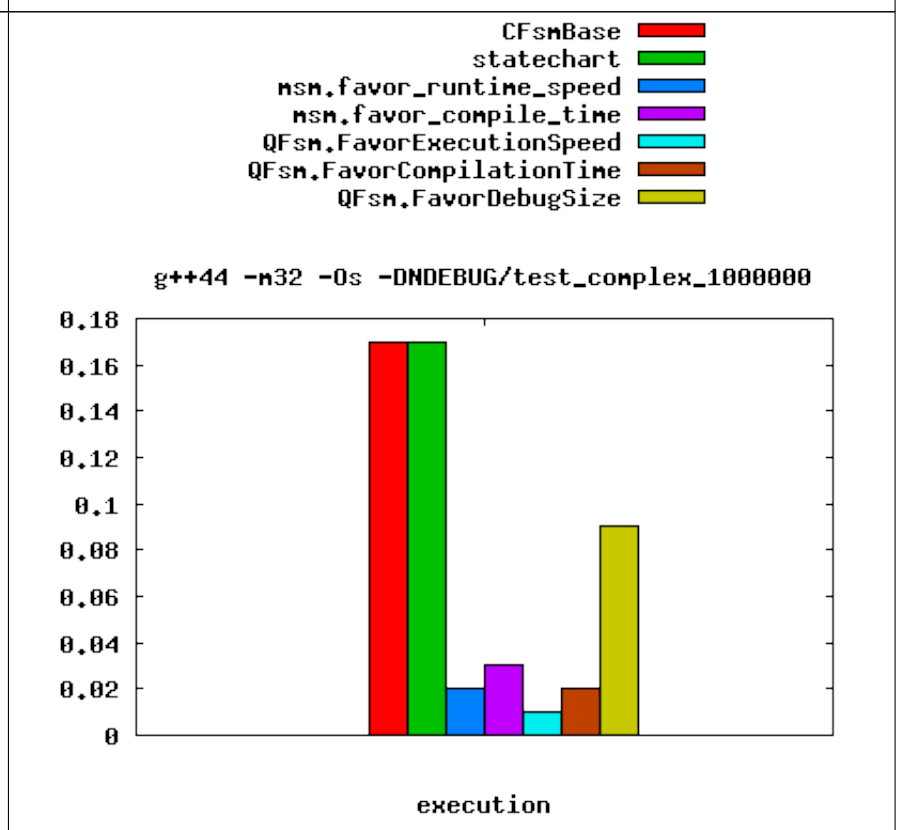
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.96s	1.66s	9.70s	7.49s	21.42s	1.58s	2.19s
size	47K	58K	214K	243K	87K	20K	62K
strip-size	31K	25K	21K	34K	8K	7K	32K
execution	0.17s	0.17s	0.02s	0.03s	0.01s	0.02s	0.09s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_complex_1000000
25
20
15
10
5
0
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_complex_1000000
250
200
150
100
50
0
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_complex_1000000
35
30
25
20
15
10
5
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_complex_1000000
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
execution

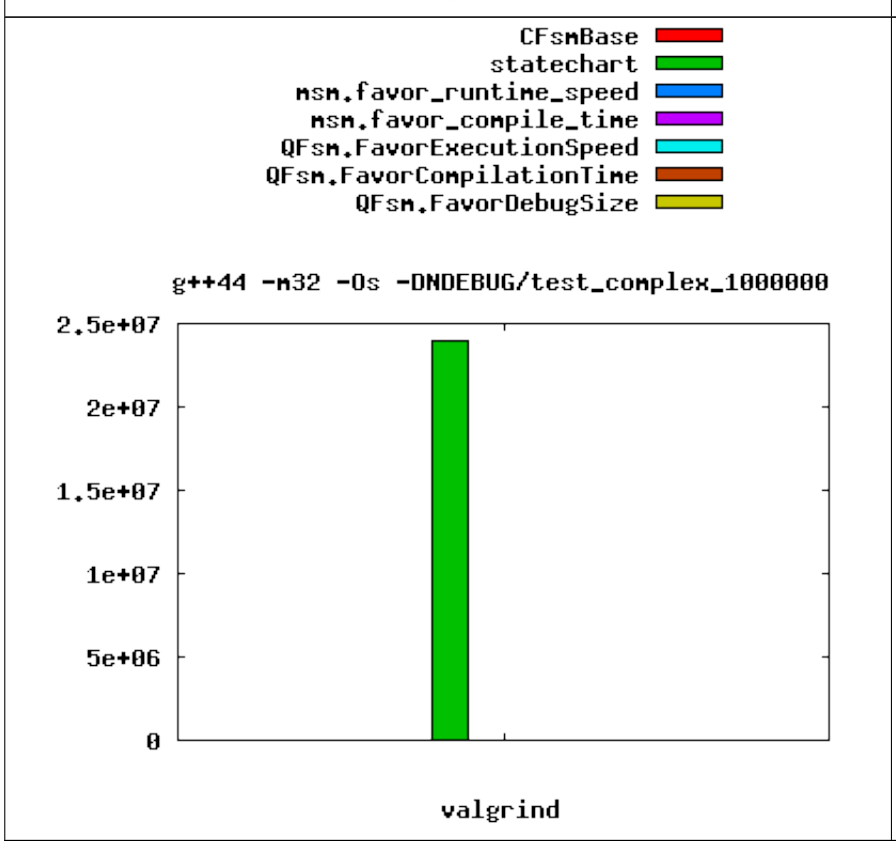
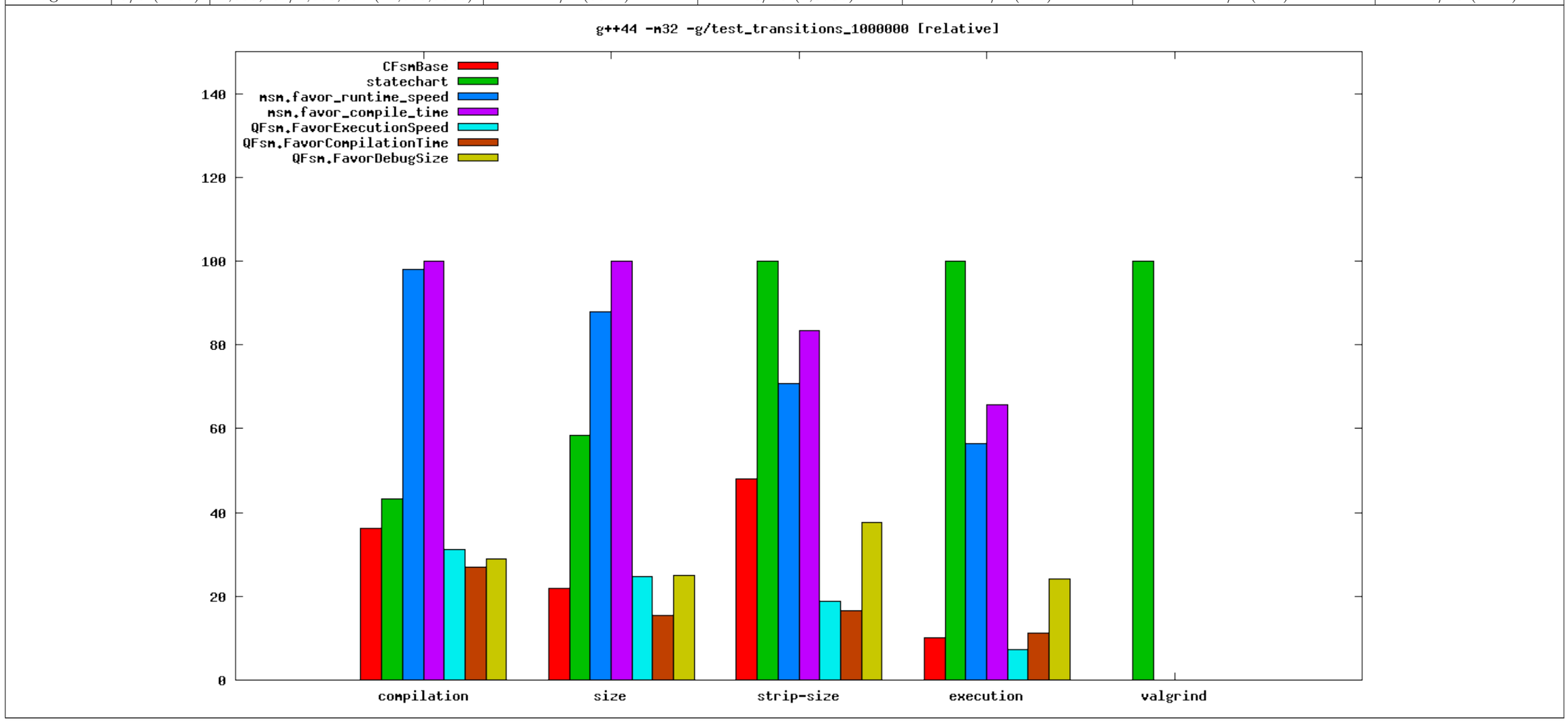
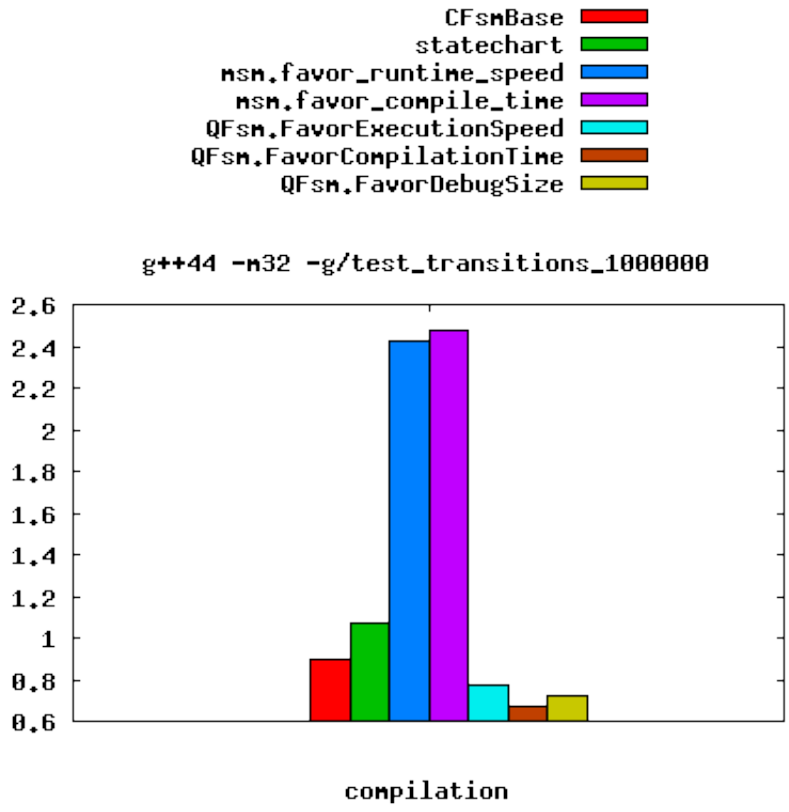
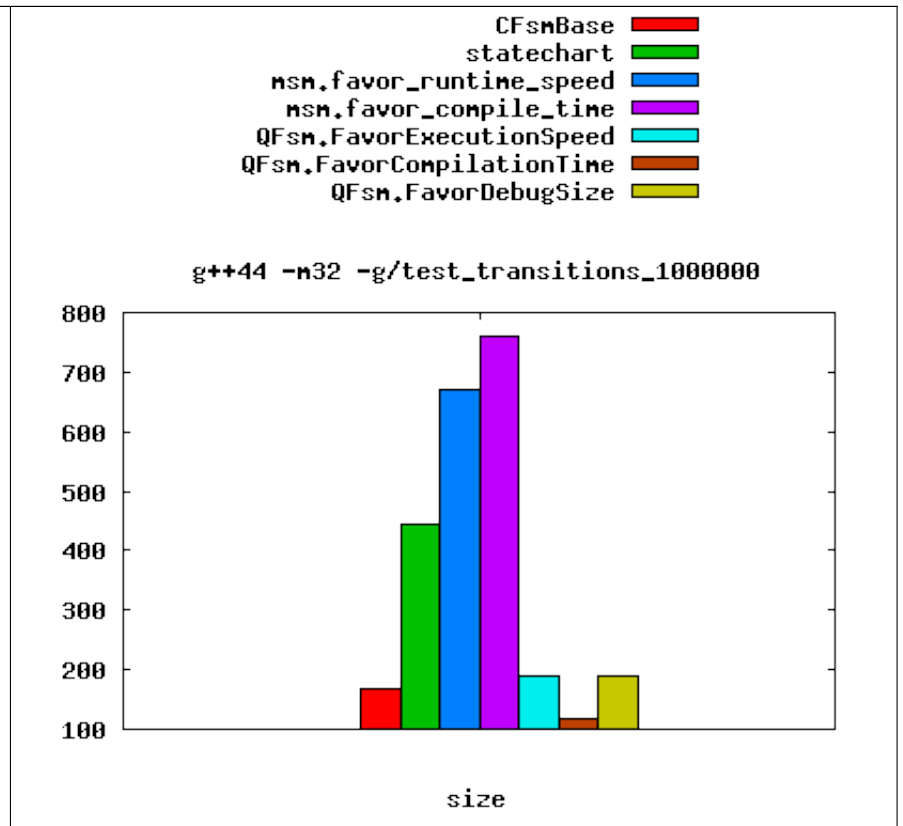

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -Os -DNDEBUG/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

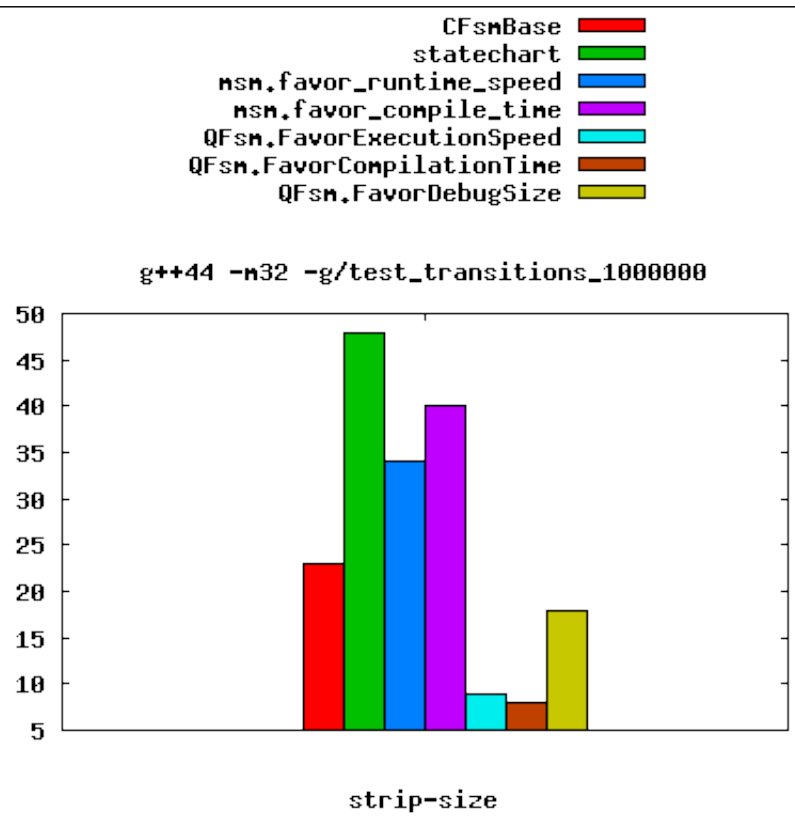
Table 79: "server" [54c084f], g++44 -m32 -g/test transitions 1000000

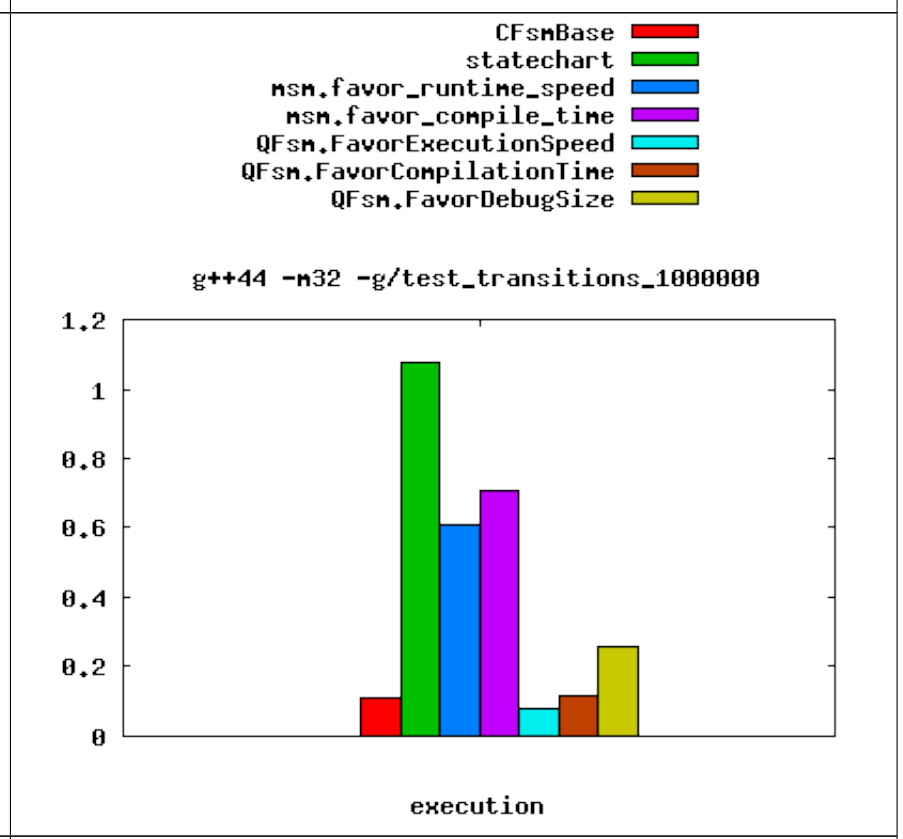
	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.90s	1.07s	2.43s	2.48s	0.77s	0.67s	0.72s
size	167K	445K	670K	762K	188K	117K	191K
strip-size	23K	48K	34K	40K	9K	8K	18K
execution	0.11s	1.08s	0.61s	0.71s	0.08s	0.12s	0.26s
valgrind	9/9 (138b)	1,000,004/1,000,004 (24,000,064b)	4/4 (561b)	10/10 (2,673b)	2/2 (17b)	2/2 (17b)	16/16 (241b)




CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -g/test_transitions_1000000
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
compilation


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -g/test_transitions_1000000
800
700
600
500
400
300
200
100
size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -g/test_transitions_1000000
50
45
40
35
30
25
20
15
10
5
strip-size


CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -g/test_transitions_1000000
1.2
1
0.8
0.6
0.4
0.2
0
execution

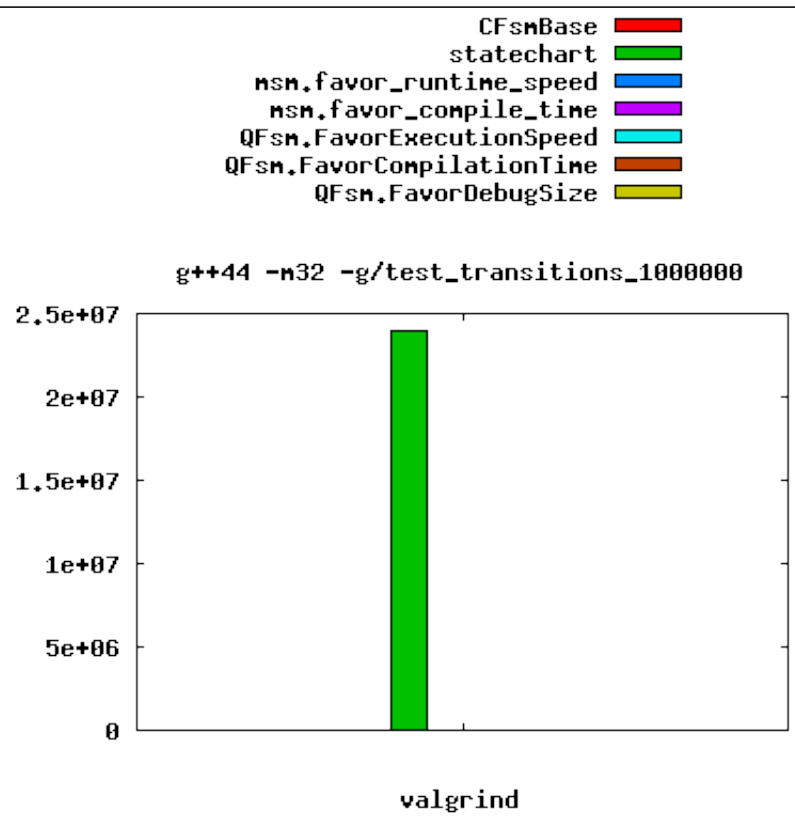
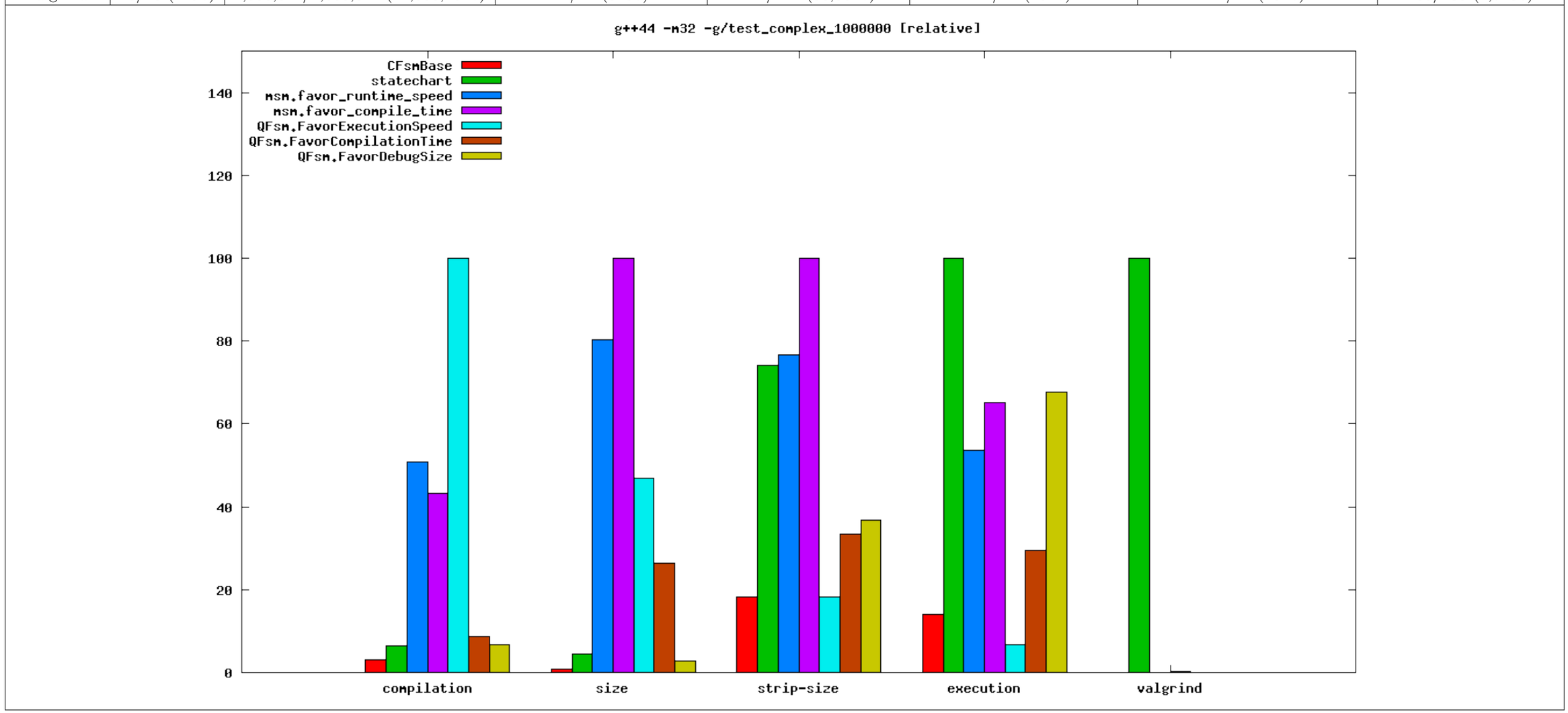
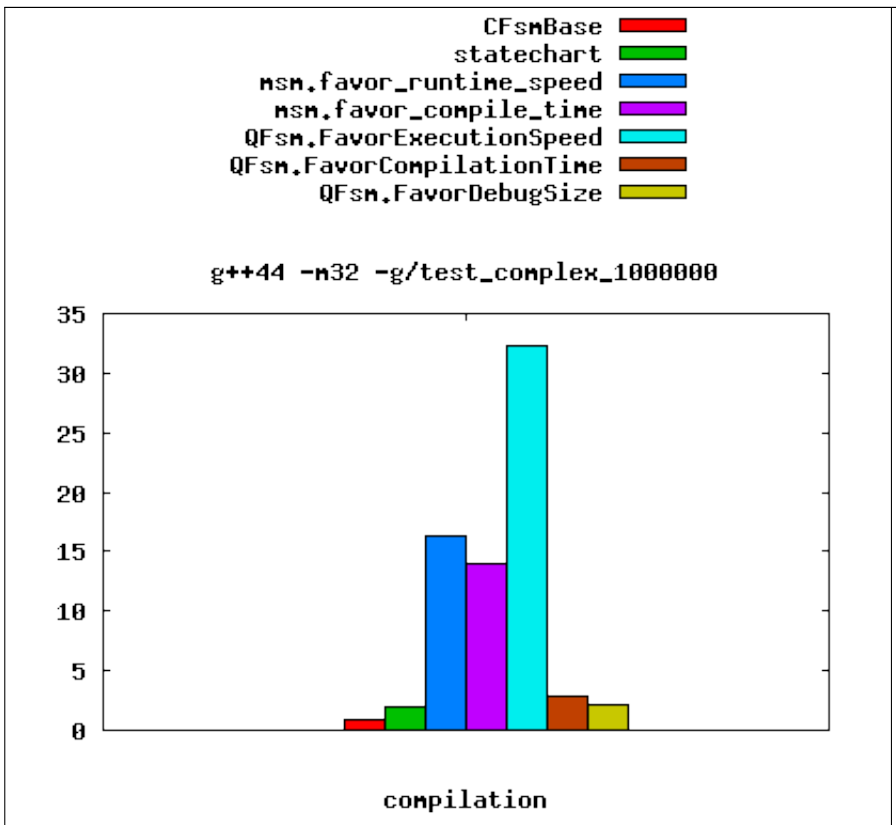

CFsmBase
statechart
msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -g/test_transitions_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

Table 82: ”server” [54c084f], g++44 -m32 -g/test complex 1000000

	CFsmBase	StateChart	MSM.favor_runtime_speed	MSM.favor_compile_time	QFsm.FavorExecutionSpeed	QFsm.FavorCompilationTime	QFsm.FavorDebugSize
compilation	0.98s	2.06s	16.37s	13.95s	32.26s	2.79s	2.22s
size	208K	1323K	23490K	29254K	13685K	7720K	843K
strip-size	31K	127K	131K	171K	31K	57K	63K
execution	0.21s	1.49s	0.80s	0.97s	0.10s	0.44s	1.01s
valgrind	26/26 (449b)	1,000,014/1,000,014 (24,000,204b)	14/14 (646b)	122/122 (38,662b)	12/12 (102b)	12/12 (102b)	235/235 (4,718b)

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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
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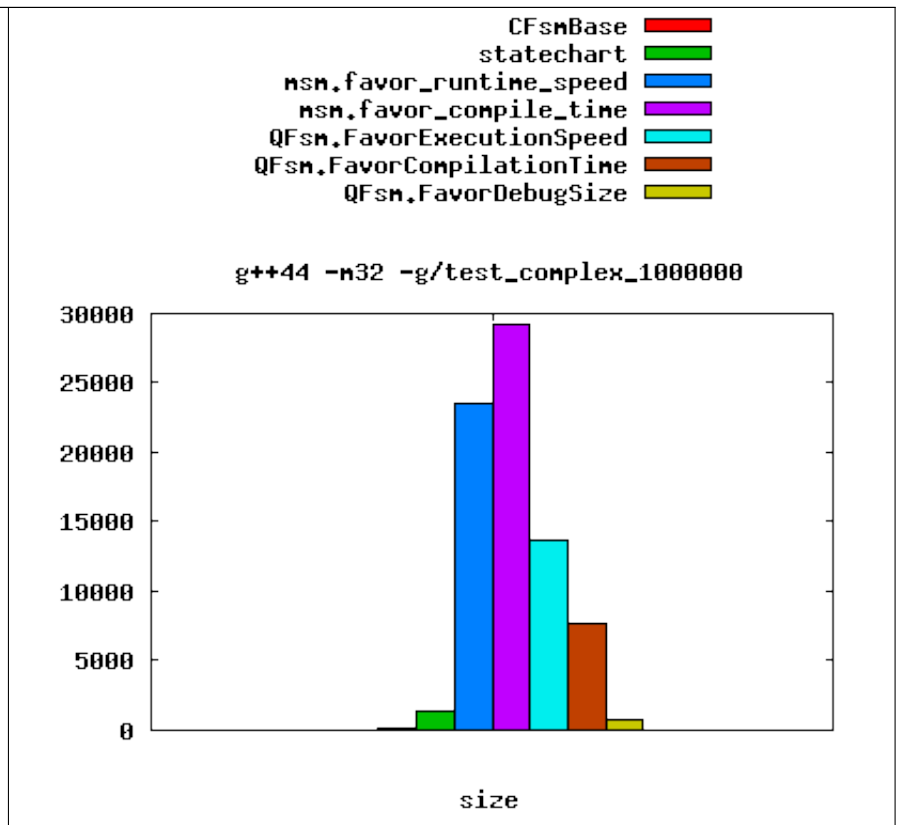
30
25
20
15
10
5
0
compilation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QFsm.FavorCompilationTime
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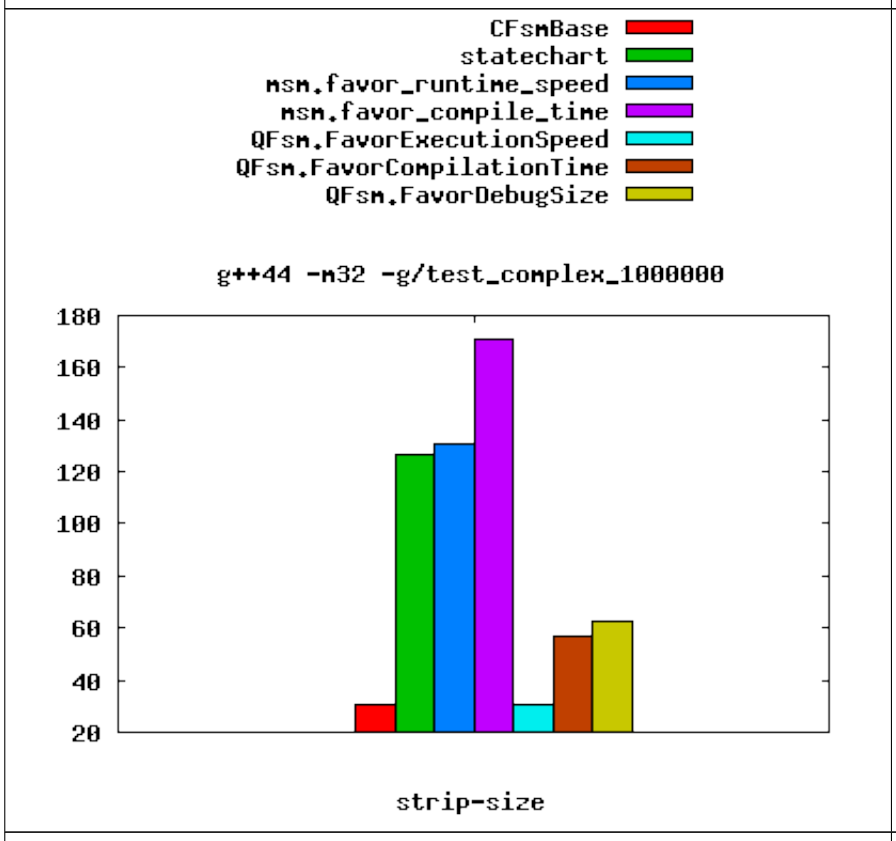
25000
20000
15000
10000
5000
0
size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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
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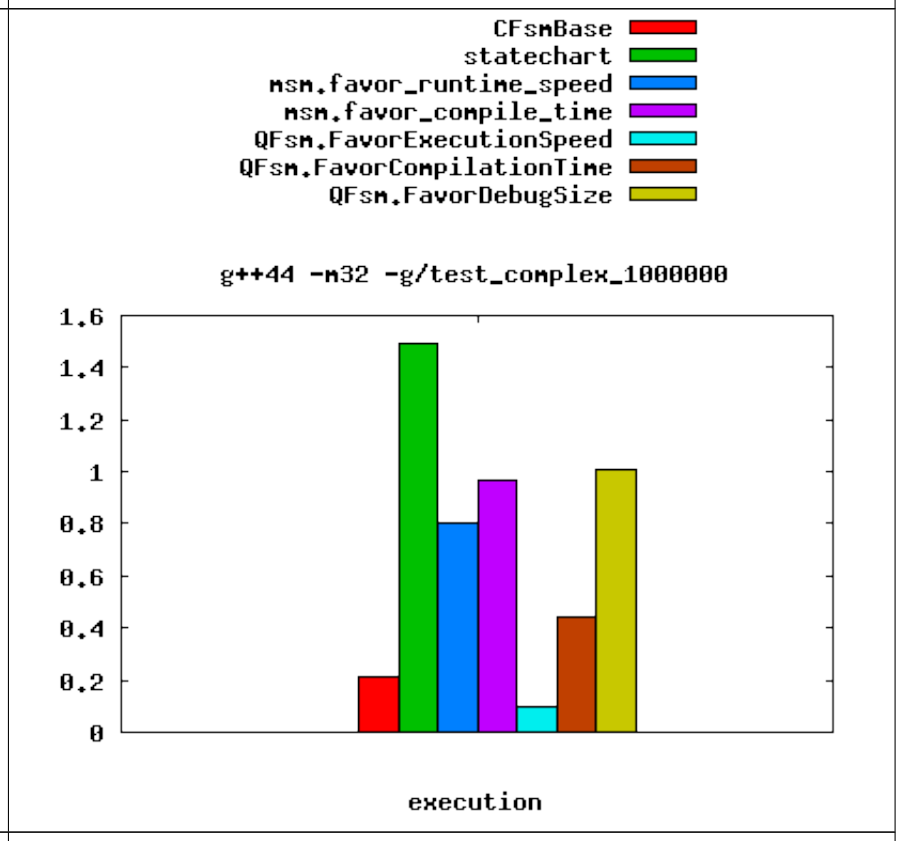
160
140
120
100
80
60
40
20
strip-size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msm.favor_runtime_speed
msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
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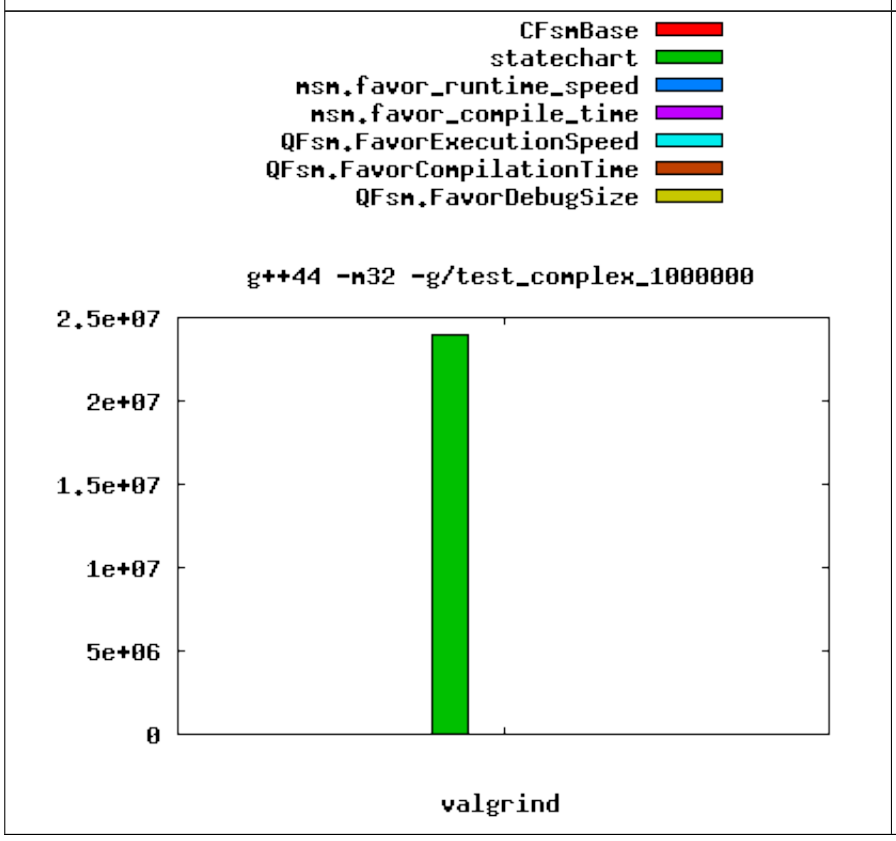
1.4
1.2
1
0.8
0.6
0.4
0.2
0
execution


CFsmBase
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msm.favor_compile_time
QFsm.FavorExecutionSpeed
QFsm.FavorCompilationTime
QFsm.FavorDebugSize
g++44 -m32 -g/test_complex_1000000
2.5e+07
2e+07
1.5e+07
1e+07
5e+06
0
valgrind

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