peng@pianosau:~/project$ g++ -std=c++11 -I$FF\_ROOT -O3 stateful\_test.cpp adaptivity.cpp -o stateful\_test -pthread

peng@pianosau:~/project$ ./stateful\_test

experiment no adaptivity with 0% stateful

hello world!

emitter finish send out tasks

on 1 thread:

elapsed wall clock time time: 147750ms.

elapsed CPU time: 441

hello world!

emitter finish send out tasks

on 2 thread:

elapsed wall clock time time: 74692.8ms.

elapsed CPU time: 296

hello world!

emitter finish send out tasks

on 4 thread:

elapsed wall clock time time: 39464.1ms.

elapsed CPU time: 233

hello world!

emitter finish send out tasks

on 8 thread:

elapsed wall clock time time: 20758.6ms.

elapsed CPU time: 199

hello world!

emitter finish send out tasks

on 16 thread:

elapsed wall clock time time: 12800.5ms.

elapsed CPU time: 200

experiment no adaptivity with 1% stateful

hello world!

emitter finish send out tasks

on 1 thread:

elapsed wall clock time time: 149484ms.

elapsed CPU time: 446

hello world!

emitter finish send out tasks

on 2 thread:

elapsed wall clock time time: 74914ms.

elapsed CPU time: 297

hello world!

emitter finish send out tasks

on 4 thread:

elapsed wall clock time time: 38922.7ms.

elapsed CPU time: 230

hello world!

emitter finish send out tasks

on 8 thread:

elapsed wall clock time time: 20913.1ms.

elapsed CPU time: 200

hello world!

emitter finish send out tasks

on 16 thread:

elapsed wall clock time time: 12704.5ms.

elapsed CPU time: 195

experiment no adaptivity with 10% stateful

hello world!

emitter finish send out tasks

on 1 thread:

elapsed wall clock time time: 151088ms.

elapsed CPU time: 450

hello world!

emitter finish send out tasks

on 2 thread:

elapsed wall clock time time: 87719ms.

elapsed CPU time: 348

hello world!

emitter finish send out tasks

on 4 thread:

elapsed wall clock time time: 59770.3ms.

elapsed CPU time: 352

hello world!

emitter finish send out tasks

on 8 thread:

elapsed wall clock time time: 45262ms.

elapsed CPU time: 440

hello world!

emitter finish send out tasks

on 16 thread:

elapsed wall clock time time: 37486.1ms.

elapsed CPU time: 598

experiment no adaptivity with 20% stateful

hello world!

emitter finish send out tasks

on 1 thread:

elapsed wall clock time time: 147454ms.

elapsed CPU time: 440

hello world!

emitter finish send out tasks

on 2 thread:

elapsed wall clock time time: 91735.7ms.

elapsed CPU time: 365

hello world!

emitter finish send out tasks

on 4 thread:

elapsed wall clock time time: 59483.1ms.

elapsed CPU time: 355

hello world!

emitter finish send out tasks

on 8 thread:

elapsed wall clock time time: 60466.5ms.

elapsed CPU time: 596

hello world!

emitter finish send out tasks

on 16 thread:

elapsed wall clock time time: 72470.7ms.

elapsed CPU time: 1156

no stateful:

|  |  |
| --- | --- |
| Thread | Running time |
| 1 | 147.8 |
| 2 | 74.7 |
| 4 | 39.5 |
| 8 | 20.8 |
| 16 | 12.8 |

|  |  |
| --- | --- |
| Thread | Speedup |
| 1 | 1 |
| 2 | 1.98 |
| 4 | 3.74 |
| 8 | 7.11 |
| 16 | 11.55 |

1% stateful:

|  |  |
| --- | --- |
| Thread | Running time |
| 1 | 149.5 |
| 2 | 74.9 |
| 4 | 38.9 |
| 8 | 20.9 |
| 16 | 12.7 |

|  |  |
| --- | --- |
| Thread | Speedup |
| 1 | 1 |
| 2 | 2 |
| 4 | 4 |
| 8 | 7.15 |
| 16 | 11.77 |

10% stateful:

|  |  |
| --- | --- |
| Thread | Running time |
| 1 | 151.1 |
| 2 | 87.7 |
| 4 | 59.8 |
| 8 | 45.3 |
| 16 | 37.5 |

|  |  |
| --- | --- |
| Thread | Speedup |
| 1 | 1 |
| 2 | 1.72 |
| 4 | 2.53 |
| 8 | 3.34 |
| 16 | 4.03 |

20% stateful:

|  |  |
| --- | --- |
| Thread | Running time |
| 1 | 147.5 |
| 2 | 91.7 |
| 4 | 59.5 |
| 8 | 60.5 |
| 16 | 72.5 |

speedup

|  |  |
| --- | --- |
| Thread | Speedup |
| 1 | 1 |
| 2 | 1.61 |
| 4 | 2.48 |
| 8 | 2.44 |
| 16 | 2.03 |