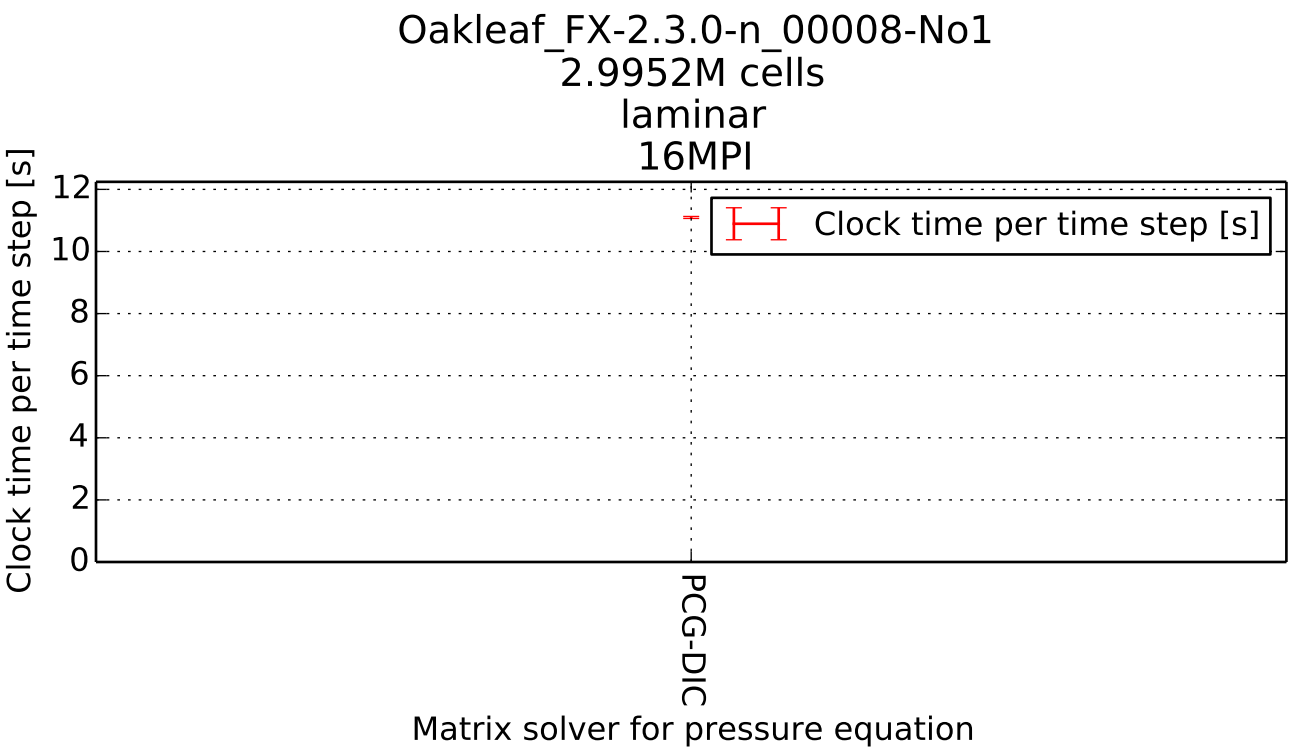
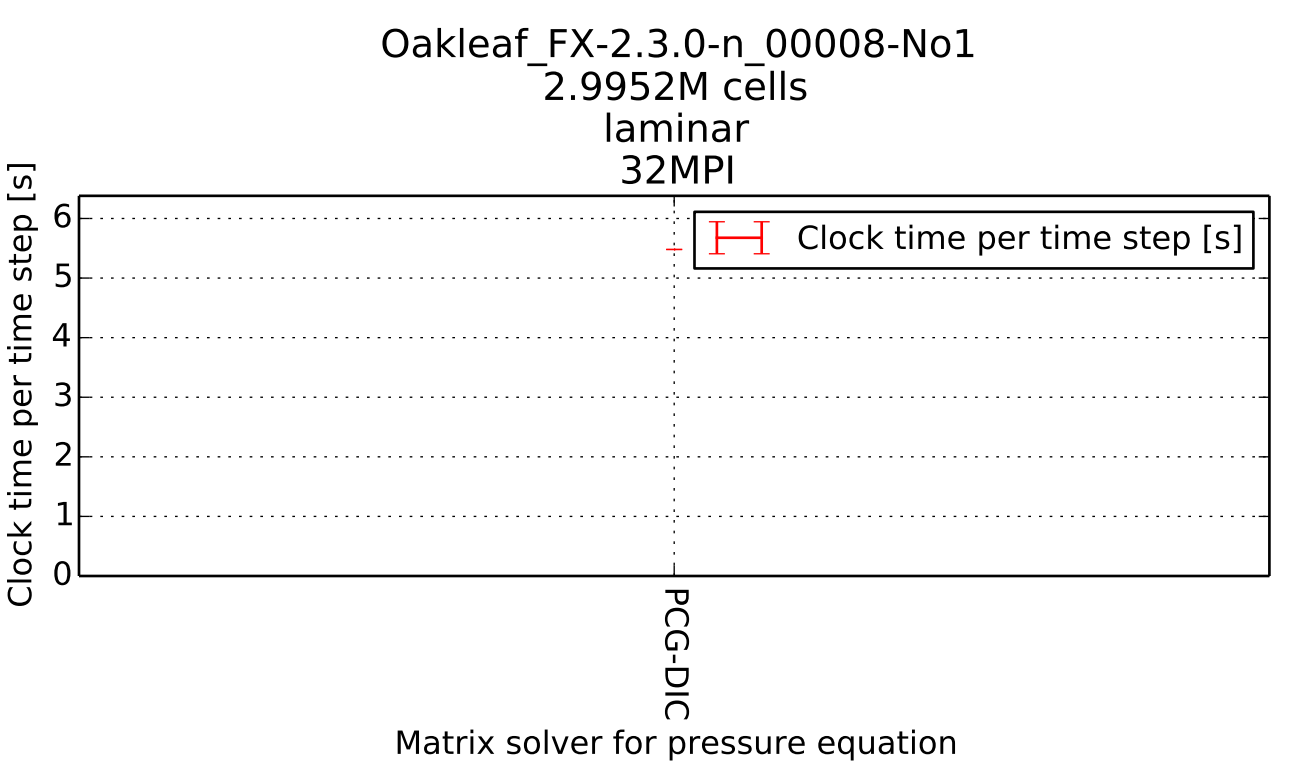
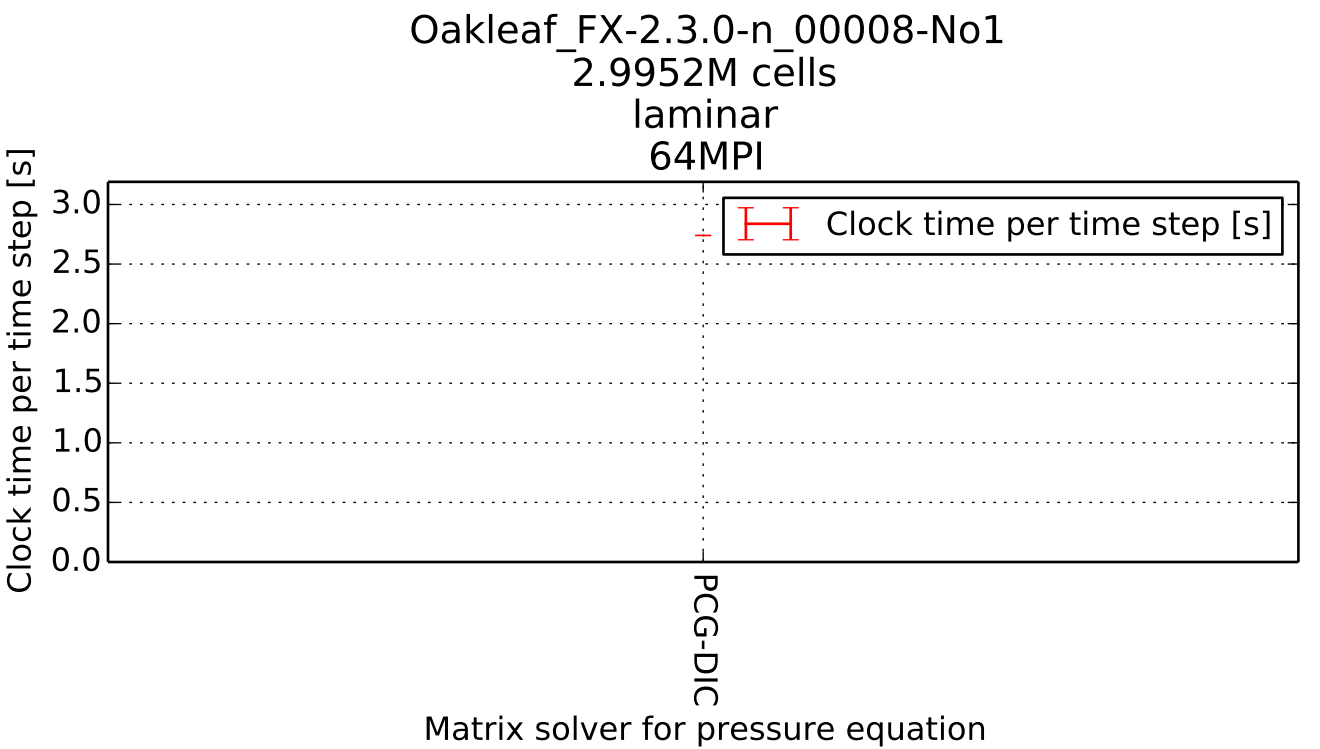
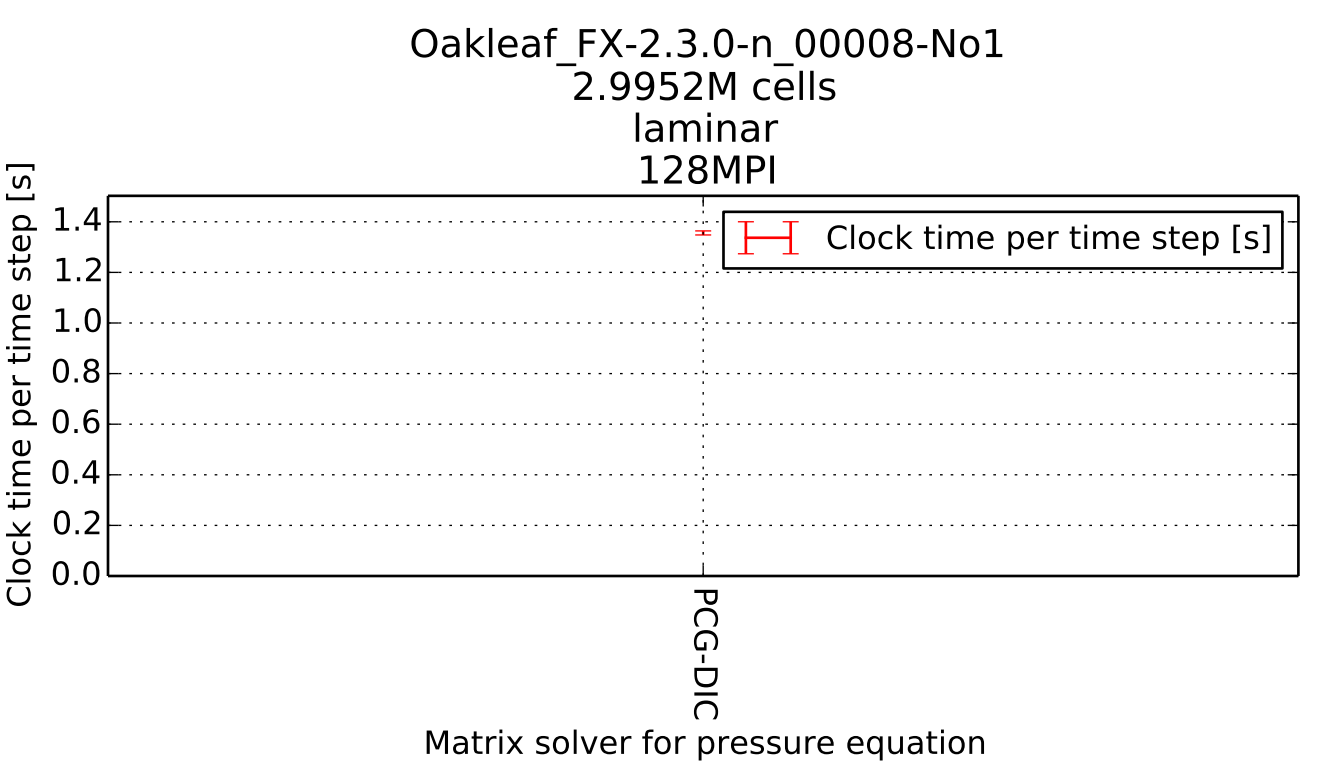
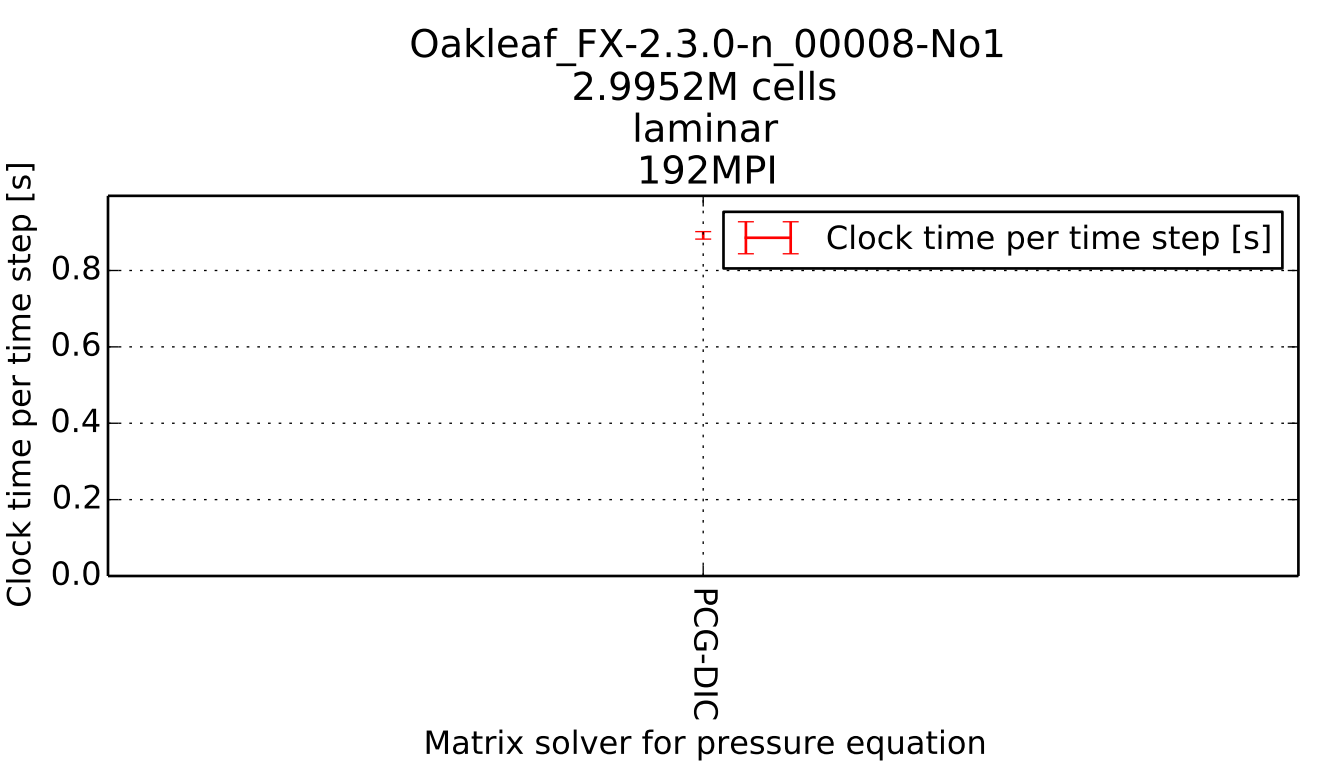
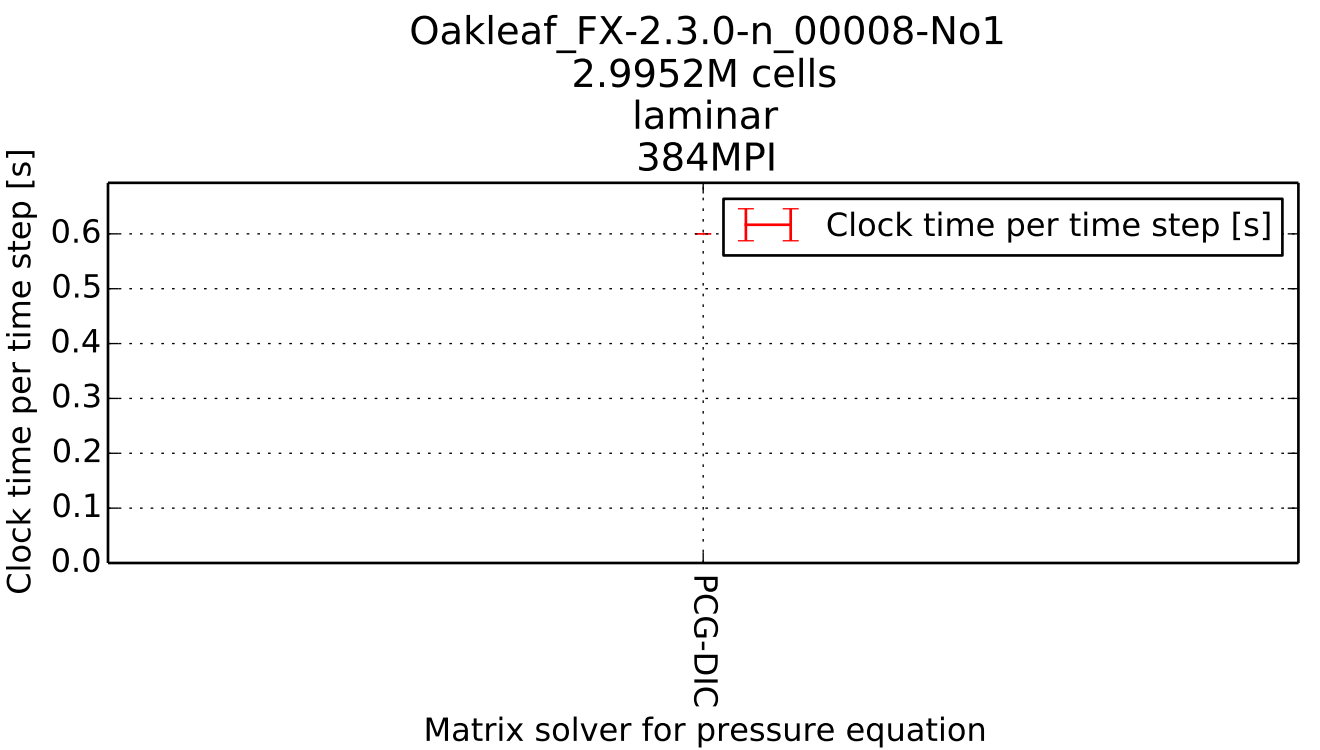

Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
16MPI
Clock time per time step [s]
12
10
8
6
4
2
0
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation

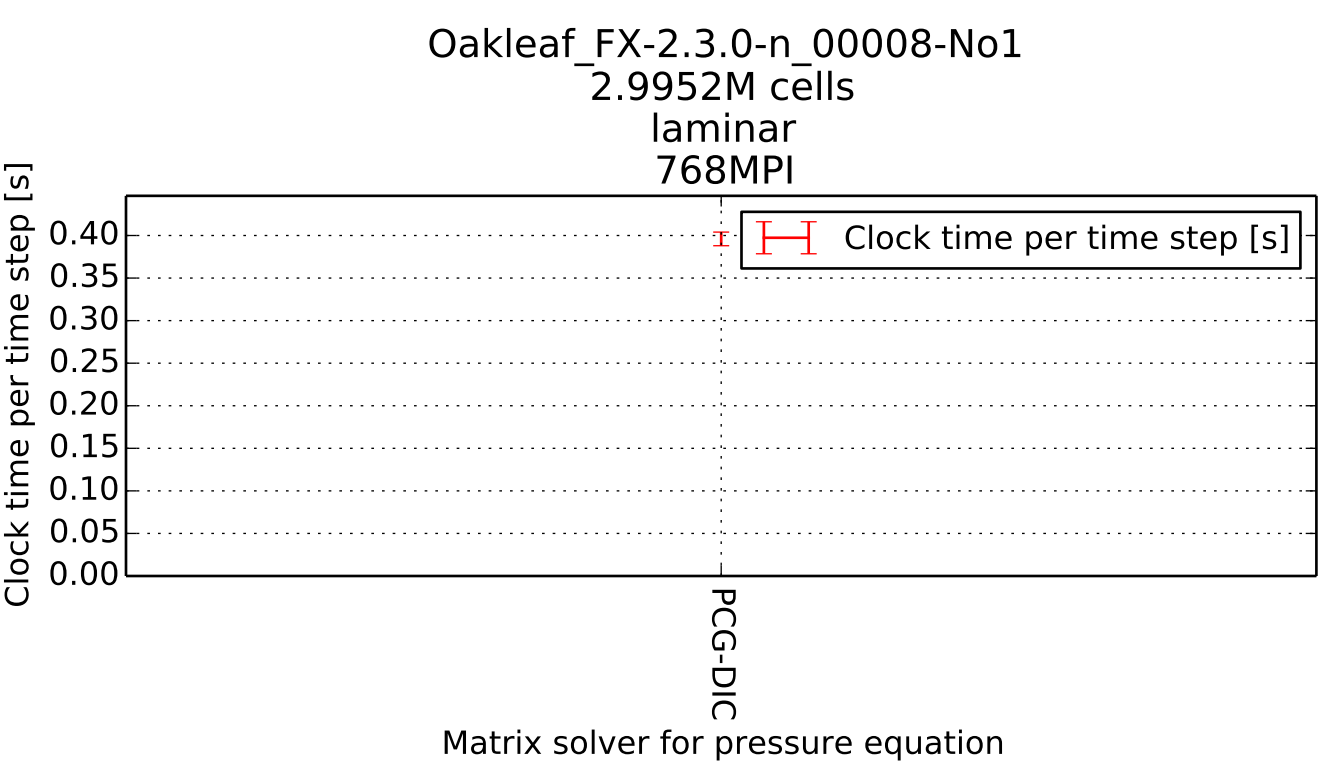

Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
32MPI
Clock time per time step [s]
0
1
2
3
4
5
6
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation

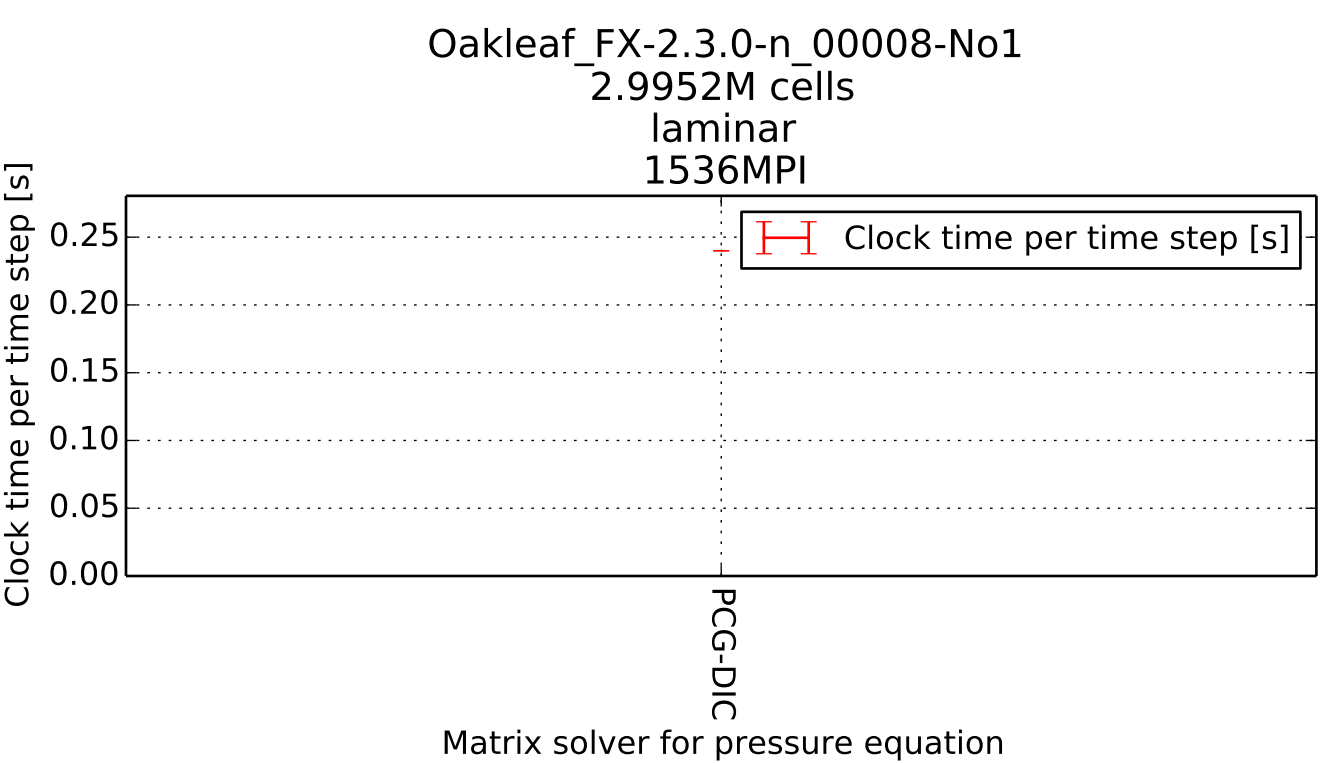

Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
64MPI
Clock time per time step [s]
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation

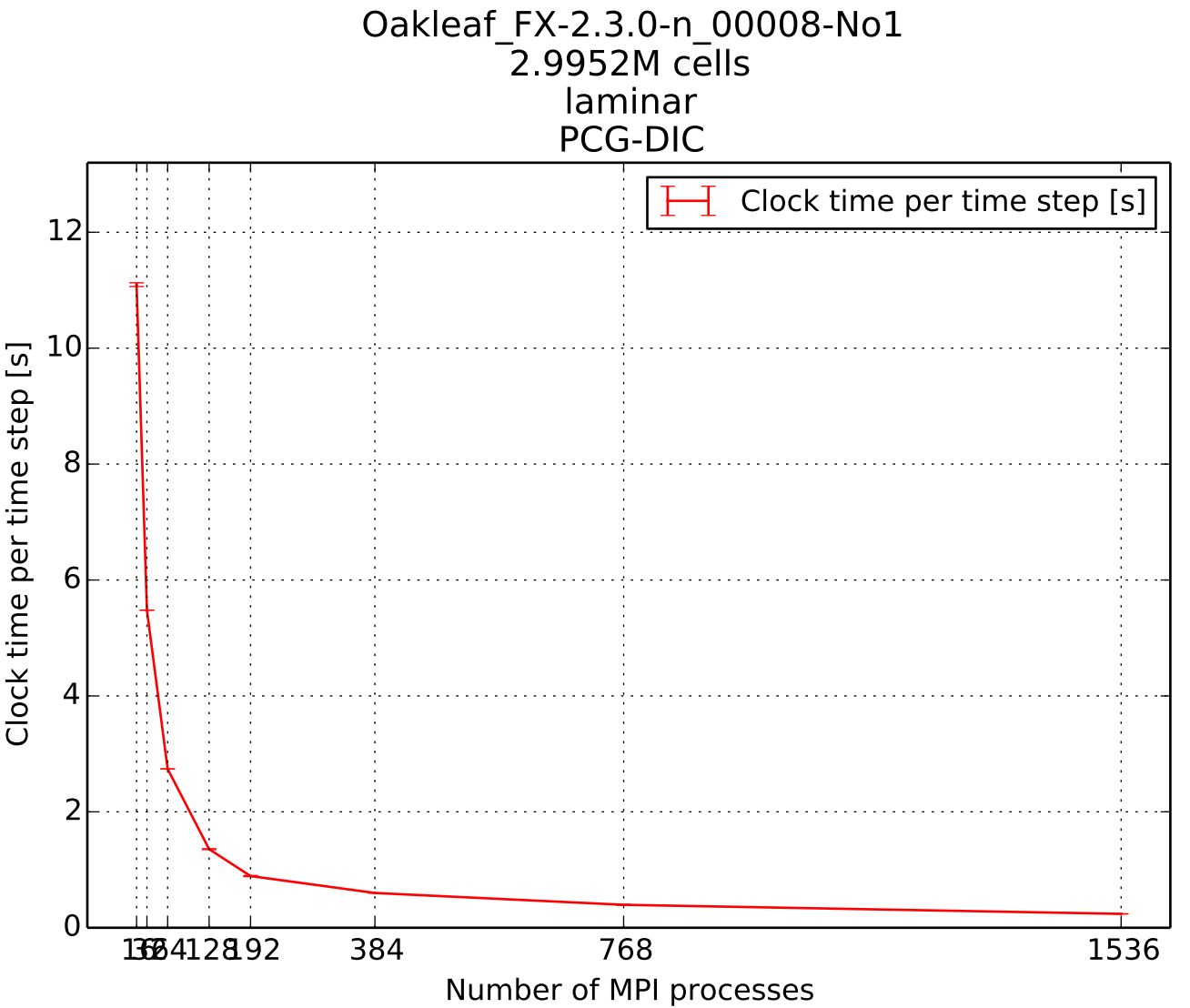

Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
128MPI
Clock time per time step [s]
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation

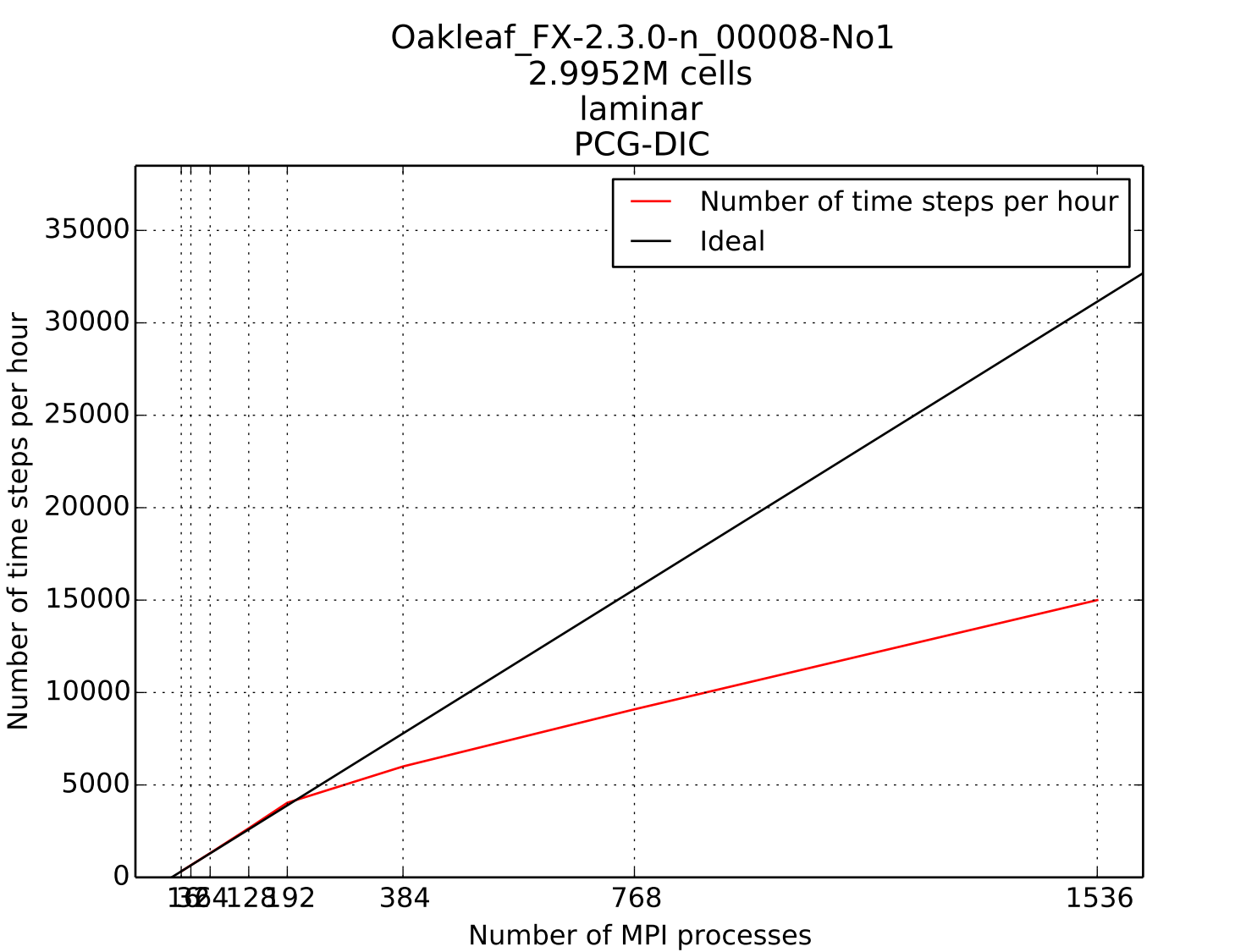

Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
192MPI
Clock time per time step [s]
0.0
0.2
0.4
0.6
0.8
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation

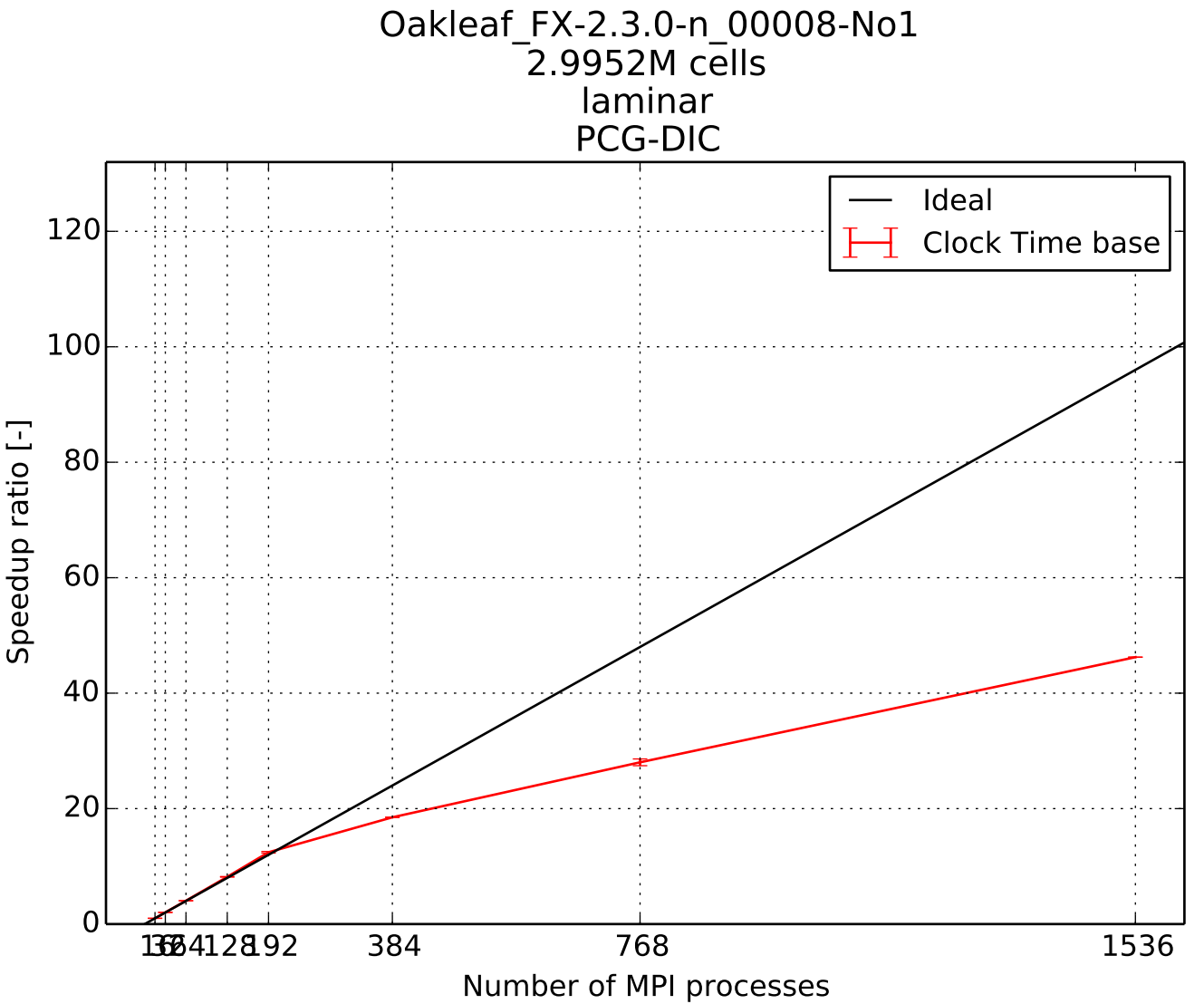

Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
384MPI
Clock time per time step [s]
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation

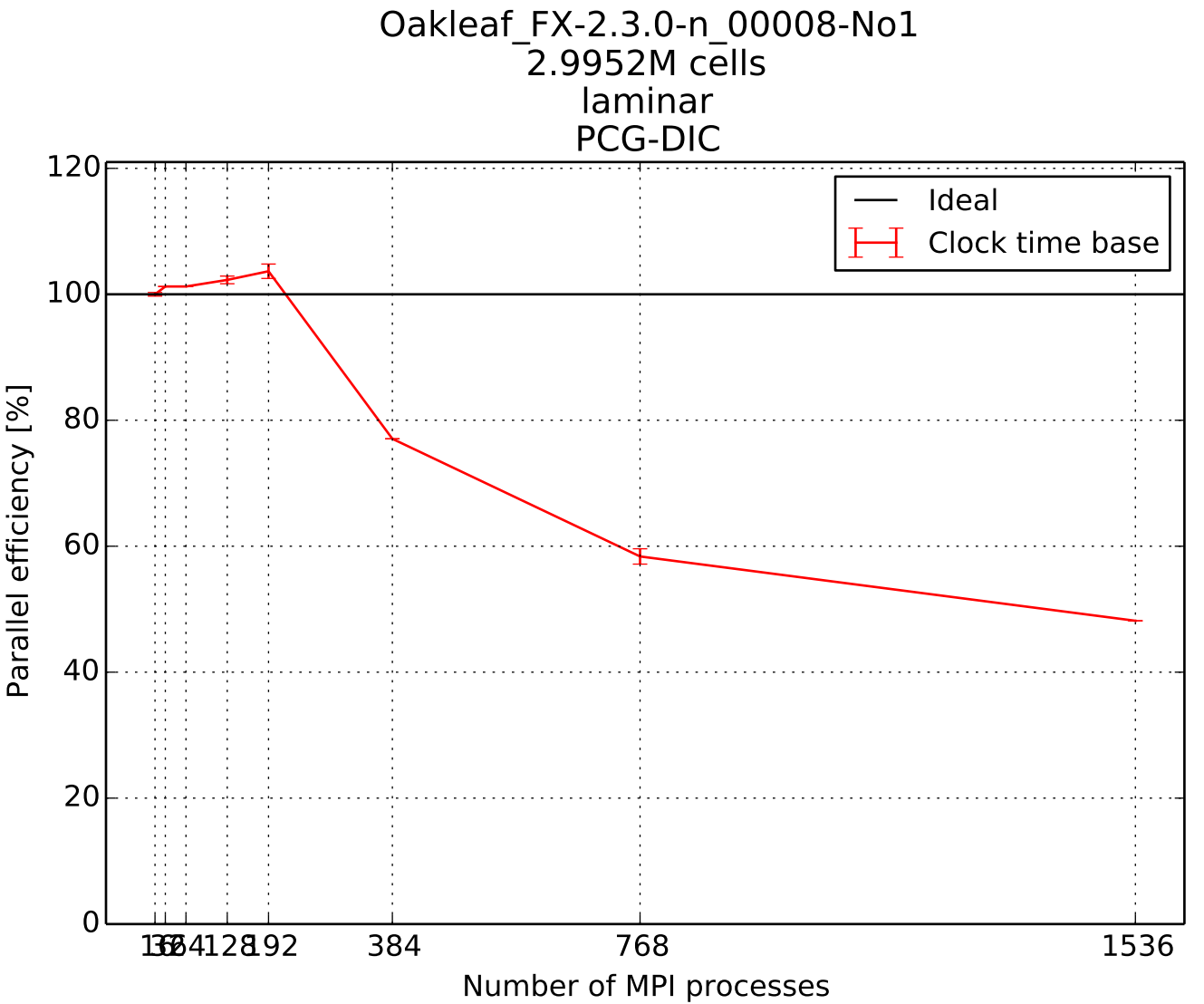

Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
768MPI
Clock time per time step [s]
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation


Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
1536MPI
Clock time per time step [s]
0.25
0.20
0.15
0.10
0.05
0.00
Clock time per time step [s]
PCG-DIC
Matrix solver for pressure equation


Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
PCG-DIC
Clock time per time step [s]
Clock time per time step [s]
0
2
4
6
8
10
12
1
6
8
64
128
192
384
768
1536
Number of MPI processes


Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
PCG-DIC
Number of time steps per hour
Ideal
Number of time steps per hour
0
5000
10000
15000
20000
25000
30000
35000
1
16
32
64
128
192
384
768
1536
Number of MPI processes


Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
PCG-DIC
Ideal
Clock Time base
Speedup ratio [-]
0
20
40
60
80
100
120
Number of MPI processes
384
768
1536


Oakleaf_FX-2.3.0-n_00008-No1
2.9952M cells
laminar
PCG-DIC
Ideal
Clock time base
Parallel efficiency [%]
120
100
80
60
40
20
0
1
6
12
24
48
96
192
384
768
1536
Number of MPI processes