```
Reading Profile files in profile.*

NODE 0;CONTEXT 0;THREAD 0:
---------------------------------------------------------------------------------------
%Time    Exclusive    Inclusive       #Call      #Subrs  Inclusive Name
              msec   total msec                          usec/call
---------------------------------------------------------------------------------------
100.0            1        8,176           1           7    8176112 int main(int, char **) C
 87.2           17        7,131           1        2003    7131562 double powerMethod(double *, double *, int, int) C
 86.5        6,989        7,071        1000        4000       7072 void matVec(double *, double *, double *, int) C
 12.6        1,026        1,026           1           0    1026792 MPI_Init()
  0.6           45           45        1000           0         45 MPI_Gather()
  0.5           41           41        1001           0         42 double norm2(double *, int) C
  0.4           35           35        1000           0         36 MPI_Bcast()
  0.2           12           12           1           2      12734 void generatematrix(double *, int) C
  0.0            3            3           1           0       3186 MPI_Finalize()
  0.0        0.631        0.631        1003           0          1 MPI_Comm_size()
  0.0        0.163        0.163        1003           0          0 MPI_Comm_rank()
  0.0        0.004        0.004           1           0          4 void generatevec(double *, int) C

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USER EVENTS Profile :NODE 0, CONTEXT 0, THREAD 0
---------------------------------------------------
---------------------------------------
NumSamples   MaxValue   MinValue  MeanValue  Std. D
ev.  Event Name
---------------------------------------------------
---------------------------------------
      1000      2E+04      2E+04      2E+04
  0  Message size for broadcast
      1000       5000       5000       5000
  0  Message size for gather
---------------------------------------------------
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NODE 1;CONTEXT 0;THREAD 0:
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---------------------------------------
%Time    Exclusive    Inclusive       #Call      #S
ubrs  Inclusive Name
              msec   total msec
      usec/call
---------------------------------------------------
---------------------------------------
100.0             1        8,175           1
    7    8175072 int main(int, char **) C
 87.2            17        7,131           1
 2003    7131349 double powerMethod(double *, doub
le *, int, int) C
 86.5         6,872        7,072        1000
 4000        7072 void matVec(double *, double *, d
ouble *, int) C
 12.5         1,025        1,025           1
   0    1025739 MPI_Init()
  1.8           143          143        1000
   0         143 MPI_Gather()
  0.7            55           55        1000
   0          55 MPI_Bcast()
  0.5            41           41        1001
    0          41 double norm2(double *, int) C
  0.2            12           12           1
    2       12988 void generatematrix(double *, int
) C
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  0.0            3            3           1
    0       3055 MPI_Finalize()
  0.0          0.437        0.437        1003
    0            0 MPI_Comm_size()
  0.0          0.187        0.187        1003
    0            0 MPI_Comm_rank()
  0.0          0.004        0.004           1
    0            4 void generatevec(double *, int) C

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USER EVENTS Profile :NODE 1, CONTEXT 0, THREAD 0
---------------------------------------------------
-----------------------------------
NumSamples   MaxValue   MinValue  MeanValue  Std. D
ev.  Event Name
---------------------------------------------------
-----------------------------------
      1000      2E+04      2E+04      2E+04
  0  Message size for broadcast
         0          0          0          0
  0  Message size for gather
---------------------------------------------------
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NODE 2;CONTEXT 0;THREAD 0:
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-----------------------------------
%Time    Exclusive    Inclusive       #Call      #S
ubrs  Inclusive Name
              msec   total msec
      usec/call
---------------------------------------------------
-----------------------------------
100.0            1        8,171           1
    7    8171816 int main(int, char **) C
 87.3           17        7,131           1
 2003    7131136 double powerMethod(double *, doub
le *, int, int) C
 86.5        6,894        7,071        1000
 4000       7072 void matVec(double *, double *, d
```

```
ouble *, int) C
 12.5         1,022         1,022           1
   0    1022514 MPI_Init()
  1.6          127           127        1000
   0          127 MPI_Gather()
  0.6           49            49        1000
   0           49 MPI_Bcast()
  0.5           41            41        1001
    0          42 double norm2(double *, int) C
  0.2           13            13           1
    2        13203 void generatematrix(double *, int
) C
  0.0            3             3           1
   0        3338 MPI_Finalize()
  0.0        0.236         0.236        1003
   0          0 MPI_Comm_size()
  0.0        0.182         0.182        1003
   0          0 MPI_Comm_rank()
  0.0        0.005         0.005           1
    0          5 void generatevec(double *, int) C

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USER EVENTS Profile :NODE 2, CONTEXT 0, THREAD 0
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-----------------------------------
NumSamples   MaxValue   MinValue  MeanValue  Std. D
ev.  Event Name
---------------------------------------------------
-----------------------------------
      1000      2E+04      2E+04      2E+04
  0  Message size for broadcast
         0          0          0          0
  0  Message size for gather
---------------------------------------------------
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NODE 3;CONTEXT 0;THREAD 0:
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%Time    Exclusive    Inclusive       #Call      #S
```

```
ubrs  Inclusive Name
                msec   total msec
      usec/call
-------------------------------------------------------
-------------------------------------
100.0            1        8,173           1
    7    8173505 int main(int, char **) C
 87.2           17        7,129           1
 2003    7129186 double powerMethod(double *, doub
le *, int, int) C
 86.5        6,875        7,069        1000
 4000        7070 void matVec(double *, double *, d
ouble *, int) C
 12.5        1,025        1,025           1
   0    1025587 MPI_Init()
  1.9          156          156        1000
   0          156 MPI_Gather()
  0.5           41           41        1001
    0          42 double norm2(double *, int) C
  0.5           37           37        1000
   0          37 MPI_Bcast()
  0.2           13           13           1
    2        13538 void generatematrix(double *, int
) C
  0.0            3            3           1
   0        3257 MPI_Finalize()
  0.0        0.464        0.464        1003
   0          0 MPI_Comm_size()
  0.0        0.217        0.217        1003
   0          0 MPI_Comm_rank()
  0.0        0.004        0.004           1
    0          4 void generatevec(double *, int) C

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USER EVENTS Profile :NODE 3, CONTEXT 0, THREAD 0
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-------------------------------------
NumSamples   MaxValue   MinValue  MeanValue  Std. D
ev.  Event Name
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-----------------------------------
      1000      2E+04      2E+04      2E+04
  0  Message size for broadcast
         0          0          0          0
  0  Message size for gather
-------------------------------------------------
-----------------------------------

FUNCTION SUMMARY (total):
-------------------------------------------------
-----------------------------------
%Time    Exclusive    Inclusive       #Call      #S
ubrs  Inclusive Name
              msec   total msec
      usec/call
-------------------------------------------------
-----------------------------------
100.0             7       32,696           4
   28    8174126 int main(int, char **) C
 87.2            70       28,523           4
 8012    7130808 double powerMethod(double *, doub
le *, int, int) C
 86.5        27,633       28,285        4000
16000        7071 void matVec(double *, double *, d
ouble *, int) C
 12.5         4,100        4,100           4
   0    1025158 MPI_Init()
  1.4           472          472        4000
   0         118 MPI_Gather()
  0.5           177          177        4000
   0          44 MPI_Bcast()
  0.5           166          166        4004
    0          42 double norm2(double *, int) C
  0.2            52           52           4
    8      13116 void generatematrix(double *, int
) C
  0.0            12           12           4
   0       3209 MPI_Finalize()
  0.0             1            1        4012
   0          0 MPI_Comm_size()
  0.0         0.749        0.749        4012
   0          0 MPI_Comm_rank()
```

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  0.0        0.017        0.017           4
    0          4 void generatevec(double *, int) C


FUNCTION SUMMARY (mean):
---------------------------------------------------
-----------------------------------
%Time    Exclusive    Inclusive       #Call      #S
ubrs  Inclusive Name
              msec   total msec
      usec/call
---------------------------------------------------
-----------------------------------
100.0            1        8,174           1
    7    8174126 int main(int, char **) C
 87.2           17        7,130           1
 2003    7130808 double powerMethod(double *, doub
le *, int, int) C
 86.5        6,908        7,071        1000
 4000       7071 void matVec(double *, double *, d
ouble *, int) C
 12.5        1,025        1,025           1
   0    1025158 MPI_Init()
  1.4          118          118        1000
   0        118 MPI_Gather()
  0.5           44           44        1000
   0         44 MPI_Bcast()
  0.5           41           41        1001
    0         42 double norm2(double *, int) C
  0.2           13           13           1
    2      13116 void generatematrix(double *, int
) C
  0.0            3            3           1
   0       3209 MPI_Finalize()
  0.0        0.442        0.442        1003
   0          0 MPI_Comm_size()
  0.0        0.187        0.187        1003
   0          0 MPI_Comm_rank()
  0.0      0.00425      0.00425           1
    0          4 void generatevec(double *, int) C
```