

Gprof example on p9 , setsm code



GNU Operating System

IBM P9 gprof profiling

See also: <https://hpc.llnl.gov/software/development-environment-software/gprof> , https://ftp.gnu.org/old-gnu/Manuals/gprof-2.9.1/html_mono/gprof.html

```
[arnoldg@p9 SETSM-master]$ grep FLAG Makefile # -pg or -p added to compiler flags, this may increase runtime
CFLAGS=-qsmp=omp -O3 -qhot -pg
```

Run the code as usual. A "gmon.out" file containing profile information is created if the program terminates normally. Then run gprof on the program name in the directory with the gmon.out file.

```
[arnoldg@p9 SETSM-master]$ gprof setsm
Flat profile:

Each sample counts as 0.01 seconds.
 %   cumulative   self           self         total
time  seconds    seconds    calls   s/call   s/call  name
48.90  2062.62  2062.62   4039   0.51   0.54  __xl_VerticalLineLocus_17632_OL_41_OL_42
39.81  3741.67  1679.05    222   7.56   7.56  __xl_Orientation_17308_OL_37_OL_38
 2.81  3860.39  118.72 2862104292  0.00   0.00  GetObjectToImageRPC_single
 1.62  3928.64   68.25
 1.58  3995.45   66.81  119936   0.00   0.00  __xl_VerticalLineLocus_blunder_19182_OL_49_OL_50
 0.80  4029.08   33.63
 0.73  4059.67   30.59 4596050   0.00   0.00  postNCC
 0.55  4082.88   23.21   4555   0.01   0.01  __xl_CreateImagePyramid_17183_OL_33_OL_34
 0.48  4103.19   20.31   447   0.05   0.05  __xl_CreateImagePyramid_ortho_116404_OL_71_OL_72
 0.37  4118.69   15.50  10396   0.00   0.00  voronoi
 0.37  4134.11  15.42 220802807  0.00   0.00  ps2wgs_single
 0.35  4148.86   14.75
 0.31  4162.08   13.22
 0.24  4172.31   10.23
 0.22  4181.48   9.17  27042   0.00   0.00  __xl_VerticalLineLocus_blunder_19110_OL_47_OL_48
 0.21  4190.45   8.97   328   0.03   0.03  __xl_MakeSobelMagnitudeImage_17247_OL_35_OL_36
 0.12  4195.50   5.05
 0.09  4199.28   3.78  133956   0.00   0.00  __xl_blunder_detection_TIN_111441_OL_51_OL_52
 0.07  4202.28   3.00  1137   0.00   0.01  __xl_VerticalLineLocus_17483_OL_39_OL_40
 0.06  4204.70   2.42   160   0.02   0.13  TINgeneration
 0.05  4206.99   2.29
 0.04  4208.73   1.74 117350664  0.00   0.00  ELleftbnd
 0.03  4210.04   1.31   56   0.02   0.02  LoadPyramidMagImages
 0.03  4211.23   1.19   608   0.00   0.00  blunder_detection_TIN
 0.02  4212.14   0.91   401   0.00   0.00  SetHeightRange_blunder
 0.02  4213.04   0.90 514512345  0.00   0.00  __xl_Readtiff_ortho_116823_OL_77_OL_78
 0.02  4213.83   0.79  974513   0.00   0.00  __xl_Readtiff_14574_OL_5_OL_6
 0.01  4214.36   0.53   31   0.02   0.02  SetHeightRange
 0.01  4214.87   0.51  376813   0.00   0.00  VerticalLineLocus_Ortho
 0.01  4215.32   0.45 350478669  0.00   0.00  bisect
 0.01  4215.77   0.45
 0.01  4216.12   0.35
 0.01  4216.39   0.27   33   0.01   0.01  SelectMPs
 0.01  4216.61   0.22 117371456  0.00   0.00  nexttone
 0.00  4216.79   0.18
 0.00  4216.96   0.17  9506452   0.00   0.00  check_image_boundary
 0.00  4217.09   0.13   44   0.00   0.51  DecisionMPs
 0.00  4217.22   0.13
 0.00  4217.32   0.10   272   0.00   0.00  __xl_SetHeightRange_112546_OL_53
 0.00  4217.32   0.10   272   0.00   0.00  __xl_SetHeightRange_112633_OL_55_OL_56
```

0.00	4217.38	0.06	881	0.00	0.00	FindNebPts_F_M_IDW
0.00	4217.43	0.05	129293502	0.00	0.00	right_of
0.00	4217.47	0.04	348905357	0.00	0.00	out_ep
0.00	4217.51	0.04	3419	0.00	0.00	__xl_ps2wgs_l6381_OL_21_OL_22
0.00	4217.55	0.04	1392	0.00	0.00	__xl_SetDEMGrid_l4788_OL_11_OL_12
0.00	4217.58	0.03	10396	0.00	0.00	readsites
0.00	4217.61	0.03	11	0.00	0.34	Ortho_blunder
0.00	4217.63	0.02	2	0.01	14.74	Matching_SETSM
0.00	4217.65	0.02				__xl_Readtiff_l4574_OL_5
0.00	4217.66	0.01	2612	0.00	0.00	__xl_ps2wgs_3D_l6601_OL_25_OL_26
0.00	4217.67	0.01	1	0.01	0.01	ResizeGirdPT3_RA
0.00	4217.67	0.00	124610	0.00	0.00	GetObjectToImageRPC_single_ortho
0.00	4217.67	0.00	10396	0.00	0.00	ELinitialize
0.00	4217.67	0.00	401	0.00	0.00	VerticalLineLocus_blunder
0.00	4217.67	0.00	269	0.00	0.00	__xl_NNA_M_l14538_OL_67_OL_68
0.00	4217.67	0.00	132	0.00	0.00	__xl_MergeTiles_l13931_OL_61_OL_62
0.00	4217.67	0.00	73	0.00	0.00	__xl_CreateImagePyramid_l7174_OL_31_OL_32
0.00	4217.67	0.00	33	0.00	0.00	VerticalLineLocus
0.00	4217.67	0.00	32	0.00	0.00	TINCreate
0.00	4217.67	0.00	28	0.00	0.00	MakeSobelMagnitudeImage
0.00	4217.67	0.00	28	0.00	0.00	Orientation
0.00	4217.67	0.00	26	0.00	0.00	__xl_CreateImagePyramid_ortho_l16395_OL_69_OL_70
0.00	4217.67	0.00	23	0.00	0.00	__xl_SetGrid3PT_l4161_OL_1_OL_2
0.00	4217.67	0.00	22	0.00	0.00	CreateImagePyramid
0.00	4217.67	0.00	22	0.00	0.00	__xl_GetObjectToImageRPC_l6699_OL_29_OL_30
0.00	4217.67	0.00	19	0.00	0.00	ps2wgs_3D
0.00	4217.67	0.00	14	0.00	0.00	GetImageSize
0.00	4217.67	0.00	14	0.00	0.00	SetDEMGrid
0.00	4217.67	0.00	14	0.00	0.00	ps2wgs
0.00	4217.67	0.00	11	0.00	0.00	AdjustParam
0.00	4217.67	0.00	11	0.00	0.00	DecisionMPs_setheight
0.00	4217.67	0.00	11	0.00	0.00	ResizeGirdPT3
0.00	4217.67	0.00	11	0.00	0.00	SetttingFlagOfGrid
0.00	4217.67	0.00	7	0.00	0.00	SetGrids
0.00	4217.67	0.00	7	0.00	0.00	__xl_MergeTiles_l13951_OL_65_OL_66
0.00	4217.67	0.00	6	0.00	0.00	GetObjectToImageRPC
0.00	4217.67	0.00	6	0.00	0.00	GetsubareaImage
0.00	4217.67	0.00	6	0.00	0.00	Readtiff
0.00	4217.67	0.00	5	0.00	0.00	SetTransParam
0.00	4217.67	0.00	5	0.00	0.00	__xl_wgs2ps_l6107_OL_13_OL_14
0.00	4217.67	0.00	4	0.00	0.00	Envihdr_reader_DEM_ortho
0.00	4217.67	0.00	4	0.00	0.00	Envihdr_writer
0.00	4217.67	0.00	4	0.00	0.00	GetImageSize_ortho
0.00	4217.67	0.00	4	0.00	0.00	__xl_GetObjectToImageRPC_ortho_l16643_OL_73_OL_74
0.00	4217.67	0.00	4	0.00	0.00	__xl_MergeTiles_l13845_OL_59_OL_60
0.00	4217.67	0.00	4	0.00	0.00	wgs2ps
0.00	4217.67	0.00	3	0.00	0.00	Preprocessing
0.00	4217.67	0.00	3	0.00	0.00	RemoveFiles
0.00	4217.67	0.00	3	0.00	0.00	subsetImage
0.00	4217.67	0.00	2	0.00	0.00	CreateImagePyramid_ortho
0.00	4217.67	0.00	2	0.00	0.00	GetObjectToImageRPC_ortho
0.00	4217.67	0.00	2	0.00	0.00	GetsubareaImage_ortho
0.00	4217.67	0.00	2	0.00	0.00	OpenXMLFile
0.00	4217.67	0.00	2	0.00	0.00	OpenXMLFile_orientation
0.00	4217.67	0.00	2	0.00	0.00	OpenXMLFile_ortho
0.00	4217.67	0.00	2	0.00	0.00	Readtiff_ortho
0.00	4217.67	0.00	2	0.00	0.00	SetDEMBoundary
0.00	4217.67	0.00	2	0.00	0.00	SetGrid3PT
0.00	4217.67	0.00	2	0.00	0.00	SetOrthoBoundary_ortho
0.00	4217.67	0.00	2	0.00	0.00	SetTiles_RA
0.00	4217.67	0.00	2	0.00	0.00	orthogeneration
0.00	4217.67	0.00	1	0.00	0.00	Envihdr_reader_seedDEM
0.00	4217.67	0.00	1	0.00	0.00	MergeTiles
0.00	4217.67	0.00	1	0.00	0.00	NNA_M
0.00	4217.67	0.00	1	0.00	0.00	OpenProject
0.00	4217.67	0.00	1	0.00	29.48	SETSMmainfunction
0.00	4217.67	0.00	1	0.00	0.00	SetOutpathName

% the percentage of the total running time of the
time program used by this function.

cumulative a running sum of the number of seconds accounted

seconds for by this function and those listed above it.

self the number of seconds accounted for by this
seconds function alone. This is the major sort for this
listing.

calls the number of times this function was invoked, if
this function is profiled, else blank.

self the average number of milliseconds spent in this
ms/call function per call, if this function is profiled,
else blank.

total the average number of milliseconds spent in this
ms/call function and its descendents per call, if this
function is profiled, else blank.

name the name of the function. This is the minor sort
for this listing. The index shows the location of
the function in the gprof listing. If the index is
in parenthesis it shows where it would appear in
the gprof listing if it were to be printed.

Copyright (C) 2012-2016 Free Software Foundation, Inc.

Copying and distribution of this file, with or without modification,
are permitted in any medium without royalty provided the copyright
notice and this notice are preserved.

Call graph (explanation follows)

granularity: each sample hit covers 4 byte(s) for 0.00% of 4217.67 seconds

```

index % time  self children  called  name
2062.62 101.09 4039/4039  __xl_VerticalLineLocus_17632_OL_41 [2]
[1] 51.3 2062.62 101.09 4039  __xl_VerticalLineLocus_17632_OL_41_OL_42 [1]
    99.29 0.00 2393730232/2862104292  GetObjectToImageRPC_single [5]
    0.17 1.63 9506452/9506452  check_image_boundary [38]
-----
                                <spontaneous>
[2] 51.3 0.00 2163.71  __xl_VerticalLineLocus_17632_OL_41 [2]
    2062.62 101.09 4039/4039  __xl_VerticalLineLocus_17632_OL_41_OL_42 [1]
-----
    1679.05 0.00 222/222  __xl_Orientation_17308_OL_37 [4]
[3] 39.8 1679.05 0.00 222  __xl_Orientation_17308_OL_37_OL_38 [3]
-----
                                <spontaneous>
[4] 39.8 0.00 1679.05  __xl_Orientation_17308_OL_37 [4]
    1679.05 0.00 222/222  __xl_Orientation_17308_OL_37_OL_38 [3]
-----
    1.63 0.00 39317748/2862104292  check_image_boundary [38]
    1.75 0.00 42116066/2862104292  VerticalLineLocus_Ortho [36]
    3.23 0.00 77981058/2862104292  __xl_VerticalLineLocus_17483_OL_39_OL_40 [28]
    12.82 0.00 308959188/2862104292  __xl_VerticalLineLocus_blunder_19110_OL_47_OL_48 [10]
    99.29 0.00 2393730232/2862104292  __xl_VerticalLineLocus_17632_OL_41_OL_42 [1]
[5] 2.8 118.72 0.00 2862104292  GetObjectToImageRPC_single [5]
-----
                                <spontaneous>
[6] 1.6 68.25 0.00  __xl_pow_finite [6]
-----
    66.81 0.00 119936/119936  __xl_VerticalLineLocus_blunder_19182_OL_49 [8]
[7] 1.6 66.81 0.00 119936  __xl_VerticalLineLocus_blunder_19182_OL_49_OL_50 [7]
-----
                                <spontaneous>
[8] 1.6 0.00 66.81  __xl_VerticalLineLocus_blunder_19182_OL_49 [8]
    66.81 0.00 119936/119936  __xl_VerticalLineLocus_blunder_19182_OL_49_OL_50 [7]
-----
                                <spontaneous>
[9] 0.8 33.63 0.00  __xl_sin [9]

```

```

-----
    9.17 23.87 27042/27042    __xl_VerticalLineLocus_blunder_19110_OL_47 [11]
[10]   0.8 9.17 23.87 27042    __xl_VerticalLineLocus_blunder_19110_OL_47_OL_48 [10]
      12.82 0.00 308959188/2862104292  GetObjectToImageRPC_single [5]
      11.06 0.00 158309441/220802807  ps2wgs_single [24]
-----
                                <spontaneous>
[11]   0.8 0.00 33.04          __xl_VerticalLineLocus_blunder_19110_OL_47 [11]
      9.17 23.87 27042/27042    __xl_VerticalLineLocus_blunder_19110_OL_47_OL_48 [10]
-----
                                120    __xl_AdjustParam_113266_OL_57 [12]
[12]   0.7 0.35 30.59  0+120  __xl_AdjustParam_113266_OL_57 [12]
      30.59 0.00 4596050/4596050  postNCC [13]
                                120    __xl_AdjustParam_113266_OL_57 [12]
-----
                                30.59 0.00 4596050/4596050  __xl_AdjustParam_113266_OL_57 [12]
[13]   0.7 30.59 0.00 4596050  postNCC [13]
-----
                                <spontaneous>
[14]   0.7 0.00 29.49          main [14]
      0.00 29.48  1/1    SETSMmainfunction [16]
      0.00 0.01  2/2    orthogeneration [70]
      0.00 0.00  1/1    SetOutpathName [113]
-----
                                0.02 29.46  2/2    SETSMmainfunction [16]
[15]   0.7 0.02 29.46  2    Matching_SETSM [15]
      0.13 22.09  44/44  DecisionMPs [19]
      0.03 3.73  11/11  Ortho_blunder [35]
      1.31 0.00  56/56  LoadPyramidMagImages [40]
      0.15 1.12  10/160  TINgeneration [20]
      0.53 0.00  31/31  SetHeightRange [46]
      0.27 0.00  33/33  SelectMPs [49]
      0.05 0.01  32/10396  voronoi [23]
      0.00 0.02  11/11  DecisionMPs_setheight [66]
      0.01 0.00  1/1    ResizeGirdPT3_RA [67]
      0.00 0.00  32/10396  readsites [65]
      0.00 0.00  33/33  VerticalLineLocus [75]
      0.00 0.00  14/14  ps2wgs [82]
      0.00 0.00  11/11  ResizeGirdPT3 [84]
      0.00 0.00  11/11  SetttingFlagOfGrid [85]
      0.00 0.00  11/11  AdjustParam [83]
      0.00 0.00  7/7    SetGrids [86]
      0.00 0.00  7/14  SetDEMGrid [81]
      0.00 0.00  3/3    subsetImage [97]
      0.00 0.00  3/3    RemoveFiles [96]
      0.00 0.00  3/3    Preprocessing [95]
      0.00 0.00  2/2    SetGrid3PT [106]
-----
                                0.00 29.48  1/1    main [14]
[16]   0.7 0.00 29.48  1    SETSMmainfunction [16]
      0.02 29.46  2/2    Matching_SETSM [15]
      0.00 0.00  2/2    SetDEMBoundary [105]
      0.00 0.00  2/14  GetImageSize [80]
      0.00 0.00  2/2    SetTiles_RA [108]
      0.00 0.00  2/2    OpenXMLFile [101]
      0.00 0.00  2/2    OpenXMLFile_orientation [102]
      0.00 0.00  1/1    OpenProject [112]
      0.00 0.00  1/5    SetTransParam [90]
      0.00 0.00  1/1    Envihdr_reader_seedDEM [109]
      0.00 0.00  1/1    MergeTiles [110]
      0.00 0.00  1/1    NNA_M [111]
-----
                                23.21 0.00 4555/4555  __xl_CreateImagePyramid_17183_OL_33 [18]
[17]   0.6 23.21 0.00 4555    __xl_CreateImagePyramid_17183_OL_33_OL_34 [17]
-----
                                <spontaneous>
[18]   0.6 0.00 23.21          __xl_CreateImagePyramid_17183_OL_33 [18]
      23.21 0.00 4555/4555  __xl_CreateImagePyramid_17183_OL_33_OL_34 [17]
-----
                                0.13 22.09  44/44  Matching_SETSM [15]
[19]   0.5 0.13 22.09  44  DecisionMPs [19]
      2.27 16.84  150/160  TINgeneration [20]

```

```

1.19 0.00 608/608 blunder_detection_TIN [41]
0.89 0.00 390/401 SetHeightRange_blunder [42]
0.70 0.15 468/10396 voronoi [23]
0.00 0.06 32/32 TINCreate [58]
0.00 0.00 468/10396 readsites [65]
0.00 0.00 390/401 VerticalLineLocus_blunder [74]
-----
0.15 1.12 10/160 Matching_SETSM [15]
2.27 16.84 150/160 DecisionMPs [19]
[20] 0.5 2.42 17.96 160 TINgeneration [20]
14.71 3.23 9864/10396 voronoi [23]
0.03 0.00 9864/10396 readsites [65]
-----
20.31 0.00 447/447 __xl_CreateImagePyramid_ortho_l16404_OL_71 [22]
[21] 0.5 20.31 0.00 447 __xl_CreateImagePyramid_ortho_l16404_OL_71_OL_72 [21]
-----
<spontaneous>
[22] 0.5 0.00 20.31 __xl_CreateImagePyramid_ortho_l16404_OL_71 [22]
20.31 0.00 447/447 __xl_CreateImagePyramid_ortho_l16404_OL_71_OL_72 [21]
-----
0.05 0.01 32/10396 Matching_SETSM [15]
0.05 0.01 32/10396 TINCreate [58]
0.70 0.15 468/10396 DecisionMPs [19]
14.71 3.23 9864/10396 TINgeneration [20]
[23] 0.4 15.50 3.40 10396 voronoi [23]
1.74 0.05 117350664/117350664 ELleftbnd [39]
0.90 0.00 514351273/514512345 __xl_Readtiff_ortho_l16823_OL_77_OL_78 [43]
0.45 0.00 350478669/350478669 bisect [47]
0.22 0.00 117371456/117371456 nextone [50]
0.04 0.00 348905357/348905357 out_ep [60]
0.00 0.00 10396/10396 ELinitialize [72]
-----
0.01 0.00 124610/220802807 orthogeneration [70]
1.47 0.00 21058033/220802807 VerticalLineLocus_Ortho [36]
2.88 0.00 41310723/220802807 __xl_VerticalLineLocus_l7483_OL_39_OL_40 [28]
11.06 0.00 158309441/220802807 __xl_VerticalLineLocus_blunder_l9110_OL_47_OL_48 [10]
[24] 0.4 15.42 0.00 220802807 ps2wgs_single [24]
-----
<spontaneous>
[25] 0.3 14.75 0.00 __xl_atan2 [25]
-----
<spontaneous>
[26] 0.3 13.22 0.00 __xl_cos [26]
-----
<spontaneous>
[27] 0.2 10.23 0.00 __vsqrtnc_P8 [27]
-----
3.00 6.12 1137/1137 __xl_VerticalLineLocus_l7483_OL_39 [29]
[28] 0.2 3.00 6.12 1137 __xl_VerticalLineLocus_l7483_OL_39_OL_40 [28]
3.23 0.00 77981058/2862104292 GetObjectToImageRPC_single [5]
2.88 0.00 41310723/220802807 ps2wgs_single [24]
-----
<spontaneous>
[29] 0.2 0.00 9.12 __xl_VerticalLineLocus_l7483_OL_39 [29]
3.00 6.12 1137/1137 __xl_VerticalLineLocus_l7483_OL_39_OL_40 [28]
-----
8.97 0.00 328/328 __xl_MakeSobelMagnitudeImage_l7247_OL_35 [31]
[30] 0.2 8.97 0.00 328 __xl_MakeSobelMagnitudeImage_l7247_OL_35_OL_36 [30]
-----
<spontaneous>
[31] 0.2 0.00 8.97 __xl_MakeSobelMagnitudeImage_l7247_OL_35 [31]
8.97 0.00 328/328 __xl_MakeSobelMagnitudeImage_l7247_OL_35_OL_36 [30]
-----
<spontaneous>
[32] 0.1 5.05 0.00 __xl_atan [32]
-----
3.78 0.00 133956/133956 __xl_blunder_detection_TIN_l11441_OL_51 [34]
[33] 0.1 3.78 0.00 133956 __xl_blunder_detection_TIN_l11441_OL_51_OL_52 [33]
-----
<spontaneous>
[34] 0.1 0.00 3.78 __xl_blunder_detection_TIN_l11441_OL_51 [34]
3.78 0.00 133956/133956 __xl_blunder_detection_TIN_l11441_OL_51_OL_52 [33]

```

```

-----
0.03 3.73 11/11 Matching_SETSM [15]
[35] 0.1 0.03 3.73 11 Ortho_blunder [35]
0.51 3.22 376813/376813 VerticalLineLocus_Ortho [36]
-----
0.51 3.22 376813/376813 Ortho_blunder [35]
[36] 0.1 0.51 3.22 376813 VerticalLineLocus_Ortho [36]
1.75 0.00 42116066/2862104292 GetObjectToImageRPC_single [5]
1.47 0.00 21058033/220802807 ps2wgs_single [24]
-----
<spontaneous>
[37] 0.1 2.29 0.00 ___xl_acos_finite [37]
-----
0.17 1.63 9506452/9506452 ___xl_VerticalLineLocus_17632_OL_41_OL_42 [1]
[38] 0.0 0.17 1.63 9506452 check_image_boundary [38]
1.63 0.00 39317748/2862104292 GetObjectToImageRPC_single [5]
-----
1.74 0.05 117350664/117350664 voronoi [23]
[39] 0.0 1.74 0.05 117350664 ELleftbnd [39]
0.05 0.00 129293502/129293502 right_of [59]
-----
1.31 0.00 56/56 Matching_SETSM [15]
[40] 0.0 1.31 0.00 56 LoadPyramidMagImages [40]
-----
1.19 0.00 608/608 DecisionMPs [19]
[41] 0.0 1.19 0.00 608 blunder_detection_TIN [41]
-----
0.02 0.00 11/401 DecisionMPs_setheight [66]
0.89 0.00 390/401 DecisionMPs [19]
[42] 0.0 0.91 0.00 401 SetHeightRange_blunder [42]
-----
778533 ___xl_Readtiff_ortho_116823_OL_77_OL_78 [43]
0.00 0.00 10396/514512345 ELinitialize [72]
0.00 0.00 27901/514512345 bisect [47]
0.00 0.00 122775/514512345 ___xl_Readtiff_ortho_116823_OL_77 [71]
0.90 0.00 514351273/514512345 voronoi [23]
[43] 0.0 0.90 0.00 514512345+778533 ___xl_Readtiff_ortho_116823_OL_77_OL_78 [43]
778533 ___xl_Readtiff_ortho_116823_OL_77_OL_78 [43]
-----
<spontaneous>
[44] 0.0 0.02 0.79 ___xl_Readtiff_14574_OL_5 [44]
0.79 0.00 974513/974513 ___xl_Readtiff_14574_OL_5_OL_6 [45]
-----
0.79 0.00 974513/974513 ___xl_Readtiff_14574_OL_5 [44]
[45] 0.0 0.79 0.00 974513 ___xl_Readtiff_14574_OL_5_OL_6 [45]
-----
0.53 0.00 31/31 Matching_SETSM [15]
[46] 0.0 0.53 0.00 31 SetHeightRange [46]
-----
0.45 0.00 350478669/350478669 voronoi [23]
[47] 0.0 0.45 0.00 350478669 bisect [47]
0.00 0.00 27901/514512345 ___xl_Readtiff_ortho_116823_OL_77_OL_78 [43]
-----
<spontaneous>
[48] 0.0 0.45 0.00 scomp [48]
-----
0.27 0.00 33/33 Matching_SETSM [15]
[49] 0.0 0.27 0.00 33 SelectMPs [49]
-----
0.22 0.00 117371456/117371456 voronoi [23]
[50] 0.0 0.22 0.00 117371456 nextone [50]
-----
<spontaneous>
[51] 0.0 0.18 0.00 ___powd2_P8_ [51]
-----
363 ___xl_SetHeightRange_112546_OL_53 [52]
[52] 0.0 0.13 0.00 0+363 ___xl_SetHeightRange_112546_OL_53 [52]
363 ___xl_SetHeightRange_112546_OL_53 [52]
-----
0.10 0.00 272/272 ___xl_SetHeightRange_112633_OL_55 [54]
[53] 0.0 0.10 0.00 272 ___xl_SetHeightRange_112633_OL_55_OL_56 [53]
-----

```

```

                                <spontaneous>
[54]    0.0  0.00  0.10      __xl_SetHeightRange_112633_OL_55 [54]
        0.10  0.00  272/272  __xl_SetHeightRange_112633_OL_55_OL_56 [53]
-----
        0.06  0.00  881/881  __xl_NNA_M_114538_OL_67_OL_68 [56]
[55]    0.0  0.06  0.00  881  FindNebPts_F_M_IDW [55]
-----
        0.00  0.06  269/269  __xl_NNA_M_114538_OL_67 [57]
[56]    0.0  0.00  0.06  269  __xl_NNA_M_114538_OL_67_OL_68 [56]
        0.06  0.00  881/881  FindNebPts_F_M_IDW [55]
-----
                                <spontaneous>
[57]    0.0  0.00  0.06      __xl_NNA_M_114538_OL_67 [57]
        0.00  0.06  269/269  __xl_NNA_M_114538_OL_67_OL_68 [56]
-----
        0.00  0.06  32/32  DecisionMPs [19]
[58]    0.0  0.00  0.06  32  TINCreate [58]
        0.05  0.01  32/10396  voronoi [23]
        0.00  0.00  32/10396  readsites [65]
-----
        0.05  0.00  129293502/129293502  ELleftbnd [39]
[59]    0.0  0.05  0.00  129293502  right_of [59]
-----
        0.04  0.00  348905357/348905357  voronoi [23]
[60]    0.0  0.04  0.00  348905357  out_ep [60]
-----
        0.04  0.00  3419/3419  __xl_ps2wgs_16381_OL_21 [64]
[61]    0.0  0.04  0.00  3419  __xl_ps2wgs_16381_OL_21_OL_22 [61]
-----
        0.04  0.00  1392/1392  __xl_SetDEMGrid_14788_OL_11 [63]
[62]    0.0  0.04  0.00  1392  __xl_SetDEMGrid_14788_OL_11_OL_12 [62]
-----
                                <spontaneous>
[63]    0.0  0.00  0.04      __xl_SetDEMGrid_14788_OL_11 [63]
        0.04  0.00  1392/1392  __xl_SetDEMGrid_14788_OL_11_OL_12 [62]
-----
                                <spontaneous>
[64]    0.0  0.00  0.04      __xl_ps2wgs_16381_OL_21 [64]
        0.04  0.00  3419/3419  __xl_ps2wgs_16381_OL_21_OL_22 [61]
-----
        0.00  0.00  32/10396  Matching_SETSM [15]
        0.00  0.00  32/10396  TINCreate [58]
        0.00  0.00  468/10396  DecisionMPs [19]
        0.03  0.00  9864/10396  TINgeneration [20]
[65]    0.0  0.03  0.00  10396  readsites [65]
-----
        0.00  0.02  11/11  Matching_SETSM [15]
[66]    0.0  0.00  0.02  11  DecisionMPs_setheight [66]
        0.02  0.00  11/401  SetHeightRange_blunder [42]
        0.00  0.00  11/401  VerticalLineLocus_blunder [74]
-----
        0.01  0.00  1/1  Matching_SETSM [15]
[67]    0.0  0.01  0.00  1  ResizeGirdPT3_RA [67]
-----
        0.01  0.00  2612/2612  __xl_ps2wgs_3D_16601_OL_25 [69]
[68]    0.0  0.01  0.00  2612  __xl_ps2wgs_3D_16601_OL_25_OL_26 [68]
-----
                                <spontaneous>
[69]    0.0  0.00  0.01      __xl_ps2wgs_3D_16601_OL_25 [69]
        0.01  0.00  2612/2612  __xl_ps2wgs_3D_16601_OL_25_OL_26 [68]
-----
        0.00  0.01  2/2  main [14]
[70]    0.0  0.00  0.01  2  orthogeneration [70]
        0.01  0.00  124610/220802807  ps2wgs_single [24]
        0.00  0.00  124610/124610  GetObjectToImageRPC_single_ortho [73]
        0.00  0.00  4/5  SetTransParam [90]
        0.00  0.00  4/4  Envihdr_reader_DEM_ortho [91]
        0.00  0.00  2/2  OpenXMLFile_ortho [103]
        0.00  0.00  2/2  SetOrthoBoundary_ortho [107]
        0.00  0.00  2/4  GetImageSize_ortho [93]
        0.00  0.00  2/2  CreateImagePyramid_ortho [98]
        0.00  0.00  2/4  Envihdr_writer [92]

```

```

0.00 0.00 2/2 GetsubareaImage_ortho [100]
0.00 0.00 2/2 Readtiff_ortho [104]
-----
                                <spontaneous>
[71]  0.0 0.00 0.00    __xl_Readtiff_ortho_l16823_OL_77 [71]
      0.00 0.00 122775/514512345 __xl_Readtiff_ortho_l16823_OL_77_OL_78 [43]
-----
      0.00 0.00 10396/10396 voronoi [23]
[72]  0.0 0.00 0.00 10396 EInitialize [72]
      0.00 0.00 10396/514512345 __xl_Readtiff_ortho_l16823_OL_77_OL_78 [43]
-----
      0.00 0.00 124610/124610 orthogeneration [70]
[73]  0.0 0.00 0.00 124610 GetObjectToImageRPC_single_ortho [73]
-----
      0.00 0.00 11/401 DecisionMPs_setheight [66]
      0.00 0.00 390/401 DecisionMPs [19]
[74]  0.0 0.00 0.00 401 VerticalLineLocus_blunder [74]
-----
      0.00 0.00 33/33 Matching_SETSM [15]
[75]  0.0 0.00 0.00 33 VerticalLineLocus [75]
-----
      0.00 0.00 28/28 Preprocessing [95]
[76]  0.0 0.00 0.00 28 MakeSobelMagnitudeImage [76]
-----
      0.00 0.00 28/28 Preprocessing [95]
[77]  0.0 0.00 0.00 28 Orientation [77]
-----
      0.00 0.00 22/22 Preprocessing [95]
[78]  0.0 0.00 0.00 22 CreateImagePyramid [78]
-----
      0.00 0.00 2/19 GetsubareaImage_ortho [100]
      0.00 0.00 6/19 GetsubareaImage [88]
      0.00 0.00 11/19 AdjustParam [83]
[79]  0.0 0.00 0.00 19 ps2wgs_3D [79]
-----
      0.00 0.00 2/14 SETSMmainfunction [16]
      0.00 0.00 6/14 subsetImage [97]
      0.00 0.00 6/14 GetsubareaImage [88]
[80]  0.0 0.00 0.00 14 GetImageSize [80]
-----
      0.00 0.00 7/14 Matching_SETSM [15]
      0.00 0.00 7/14 SetGrids [86]
[81]  0.0 0.00 0.00 14 SetDEMGrid [81]
-----
      0.00 0.00 14/14 Matching_SETSM [15]
[82]  0.0 0.00 0.00 14 ps2wgs [82]
-----
      0.00 0.00 11/11 Matching_SETSM [15]
[83]  0.0 0.00 0.00 11 AdjustParam [83]
      0.00 0.00 11/19 ps2wgs_3D [79]
-----
      0.00 0.00 11/11 Matching_SETSM [15]
[84]  0.0 0.00 0.00 11 ResizeGirdPT3 [84]
-----
      0.00 0.00 11/11 Matching_SETSM [15]
[85]  0.0 0.00 0.00 11 SetttingFlagOfGrid [85]
-----
      0.00 0.00 7/7 Matching_SETSM [15]
[86]  0.0 0.00 0.00 7 SetGrids [86]
      0.00 0.00 7/14 SetDEMGrid [81]
-----
      0.00 0.00 6/6 GetsubareaImage [88]
[87]  0.0 0.00 0.00 6 GetObjectToImageRPC [87]
-----
      0.00 0.00 6/6 subsetImage [97]
[88]  0.0 0.00 0.00 6 GetsubareaImage [88]
      0.00 0.00 6/14 GetImageSize [80]
      0.00 0.00 6/19 ps2wgs_3D [79]
      0.00 0.00 6/6 GetObjectToImageRPC [87]
-----
      0.00 0.00 6/6 subsetImage [97]
[89]  0.0 0.00 0.00 6 Readtiff [89]

```



```

-----
          0.00 0.00 1/5   SETSMmainfunction [16]
          0.00 0.00 4/5   orthogeneration [70]
[90]    0.0 0.00 0.00 5   SetTransParam [90]
-----
          0.00 0.00 4/4   orthogeneration [70]
[91]    0.0 0.00 0.00 4   Envihdr_reader_DEM_ortho [91]
-----
          0.00 0.00 2/4   orthogeneration [70]
          0.00 0.00 2/4   NNA_M [111]
[92]    0.0 0.00 0.00 4   Envihdr_writer [92]
-----
          0.00 0.00 2/4   orthogeneration [70]
          0.00 0.00 2/4   GetsubareaImage_ortho [100]
[93]    0.0 0.00 0.00 4   GetImageSize_ortho [93]
-----
          0.00 0.00 2/4   SetDEMBoundary [105]
          0.00 0.00 2/4   SetOrthoBoundary_ortho [107]
[94]    0.0 0.00 0.00 4   wgs2ps [94]
-----
          0.00 0.00 3/3   Matching_SETSM [15]
[95]    0.0 0.00 0.00 3   Preprocessing [95]
          0.00 0.00 28/28  MakeSobelMagnitudeImage [76]
          0.00 0.00 28/28  Orientation [77]
          0.00 0.00 22/22  CreateImagePyramid [78]
-----
          0.00 0.00 3/3   Matching_SETSM [15]
[96]    0.0 0.00 0.00 3   RemoveFiles [96]
-----
          0.00 0.00 3/3   Matching_SETSM [15]
[97]    0.0 0.00 0.00 3   subsetImage [97]
          0.00 0.00 6/14   GetImageSize [80]
          0.00 0.00 6/6   GetsubareaImage [88]
          0.00 0.00 6/6   Readtiff [89]
-----
          0.00 0.00 2/2   orthogeneration [70]
[98]    0.0 0.00 0.00 2   CreateImagePyramid_ortho [98]
-----
          0.00 0.00 2/2   GetsubareaImage_ortho [100]
[99]    0.0 0.00 0.00 2   GetObjectToImageRPC_ortho [99]
-----
          0.00 0.00 2/2   orthogeneration [70]
[100]   0.0 0.00 0.00 2   GetsubareaImage_ortho [100]
          0.00 0.00 2/4   GetImageSize_ortho [93]
          0.00 0.00 2/19   ps2wgs_3D [79]
          0.00 0.00 2/2   GetObjectToImageRPC_ortho [99]
-----
          0.00 0.00 2/2   SETSMmainfunction [16]
[101]   0.0 0.00 0.00 2   OpenXMLFile [101]
-----
          0.00 0.00 2/2   SETSMmainfunction [16]
[102]   0.0 0.00 0.00 2   OpenXMLFile_orientation [102]
-----
          0.00 0.00 2/2   orthogeneration [70]
[103]   0.0 0.00 0.00 2   OpenXMLFile_ortho [103]
-----
          0.00 0.00 2/2   orthogeneration [70]
[104]   0.0 0.00 0.00 2   Readtiff_ortho [104]
-----
          0.00 0.00 2/2   SETSMmainfunction [16]
[105]   0.0 0.00 0.00 2   SetDEMBoundary [105]
          0.00 0.00 2/4   wgs2ps [94]
-----
          0.00 0.00 2/2   Matching_SETSM [15]
[106]   0.0 0.00 0.00 2   SetGrid3PT [106]
-----
          0.00 0.00 2/2   orthogeneration [70]
[107]   0.0 0.00 0.00 2   SetOrthoBoundary_ortho [107]
          0.00 0.00 2/4   wgs2ps [94]
-----
          0.00 0.00 2/2   SETSMmainfunction [16]
[108]   0.0 0.00 0.00 2   SetTiles_RA [108]

```

```

-----
          0.00 0.00 1/1 SETSMmainfunction [16]
[109] 0.0 0.00 0.00 1 Envihdr_reader_seedDEM [109]
-----
          0.00 0.00 1/1 SETSMmainfunction [16]
[110] 0.0 0.00 0.00 1 MergeTiles [110]
-----
          0.00 0.00 1/1 SETSMmainfunction [16]
[111] 0.0 0.00 0.00 1 NNA_M [111]
          0.00 0.00 2/4 Envihdr_writer [92]
-----
          0.00 0.00 1/1 SETSMmainfunction [16]
[112] 0.0 0.00 0.00 1 OpenProject [112]
-----
          0.00 0.00 1/1 main [14]
[113] 0.0 0.00 0.00 1 SetOutpathName [113]
-----
          0.00 0.00 132/132 __xl_MergeTiles_l13931_OL_61 [218]
[192] 0.0 0.00 0.00 132 __xl_MergeTiles_l13931_OL_61_OL_62 [192]
-----
          0.00 0.00 73/73 __xl_CreateImagePyramid_l7174_OL_31 [213]
[193] 0.0 0.00 0.00 73 __xl_CreateImagePyramid_l7174_OL_31_OL_32 [193]
-----
          0.00 0.00 26/26 __xl_CreateImagePyramid_ortho_l16395_OL_69 [214]
[194] 0.0 0.00 0.00 26 __xl_CreateImagePyramid_ortho_l16395_OL_69_OL_70 [194]
-----
          0.00 0.00 23/23 __xl_SetGrid3PT_l4161_OL_1 [230]
[195] 0.0 0.00 0.00 23 __xl_SetGrid3PT_l4161_OL_1_OL_2 [195]
-----
          0.00 0.00 22/22 __xl_GetObjectToImageRPC_l6699_OL_29 [215]
[196] 0.0 0.00 0.00 22 __xl_GetObjectToImageRPC_l6699_OL_29_OL_30 [196]
-----
          0.00 0.00 7/7 __xl_MergeTiles_l13951_OL_65 [221]
[197] 0.0 0.00 0.00 7 __xl_MergeTiles_l13951_OL_65_OL_66 [197]
-----
          0.00 0.00 5/5 __xl_wgs2ps_l6107_OL_13 [242]
[198] 0.0 0.00 0.00 5 __xl_wgs2ps_l6107_OL_13_OL_14 [198]
-----
          0.00 0.00 4/4 __xl_GetObjectToImageRPC_ortho_l16643_OL_73 [216]
[199] 0.0 0.00 0.00 4 __xl_GetObjectToImageRPC_ortho_l16643_OL_73_OL_74 [199]
-----
          0.00 0.00 4/4 __xl_MergeTiles_l13845_OL_59 [217]
[200] 0.0 0.00 0.00 4 __xl_MergeTiles_l13845_OL_59_OL_60 [200]
-----

```

This table describes the call tree of the program, and was sorted by the total amount of time spent in each function and its children.

Each entry in this table consists of several lines. The line with the index number at the left hand margin lists the current function. The lines above it list the functions that called this function, and the lines below it list the functions this one called.

This line lists:

index A unique number given to each element of the table.

Index numbers are sorted numerically.

The index number is printed next to every function name so it is easier to look up where the function is in the table.

% time This is the percentage of the 'total' time that was spent in this function and its children. Note that due to different viewpoints, functions excluded by options, etc, these numbers will NOT add up to 100%.

self This is the total amount of time spent in this function.

children This is the total amount of time propagated into this function by its children.

called This is the number of times the function was called.

If the function called itself recursively, the number only includes non-recursive calls, and is followed by a '+' and the number of recursive calls.

name The name of the current function. The index number is printed after it. If the function is a member of a cycle, the cycle number is printed between the function's name and the index number.

For the function's parents, the fields have the following meanings:

self This is the amount of time that was propagated directly from the function into this parent.

children This is the amount of time that was propagated from the function's children into this parent.

called This is the number of times this parent called the function '/' the total number of times the function was called. Recursive calls to the function are not included in the number after the '/'.

name This is the name of the parent. The parent's index number is printed after it. If the parent is a member of a cycle, the cycle number is printed between the name and the index number.

If the parents of the function cannot be determined, the word '<spontaneous>' is printed in the 'name' field, and all the other fields are blank.

For the function's children, the fields have the following meanings:

self This is the amount of time that was propagated directly from the child into the function.

children This is the amount of time that was propagated from the child's children to the function.

called This is the number of times the function called this child '/' the total number of times the child was called. Recursive calls by the child are not listed in the number after the '/'.

name This is the name of the child. The child's index number is printed after it. If the child is a member of a cycle, the cycle number is printed between the name and the index number.

If there are any cycles (circles) in the call graph, there is an entry for the cycle-as-a-whole. This entry shows who called the cycle (as parents) and the members of the cycle (as children.) The '+' recursive calls entry shows the number of function calls that were internal to the cycle, and the calls entry for each member shows, for that member, how many times it was called from other members of the cycle.

Copyright (C) 2012-2016 Free Software Foundation, Inc.

Copying and distribution of this file, with or without modification, are permitted in any medium without royalty provided the copyright notice and this notice are preserved.

Index by function name

[83] AdjustParam	[16] SETSMmainfunction	[197] __xl_MergeTiles_113951_OL_65_OL_66
[78] CreateImagePyramid	[49] SelectMPs	[56] __xl_NNA_M_114538_OL_67_OL_68
[98] CreateImagePyramid_ortho	[105] SetDEMBoundary	[3] __xl_Orientation_17308_OL_37_OL_38
[19] DecisionMPs	[81] SetDEMGrid	[44] __xl_Readtiff_14574_OL_5
[66] DecisionMPs_setheight	[106] SetGrid3PT	[45] __xl_Readtiff_14574_OL_5_OL_6
[72] ELinitialize	[86] SetGrids	[43] __xl_Readtiff_ortho_116823_OL_77_OL_78
[39] ELleftbnd	[46] SetHeightRange	[62] __xl_SetDEMGrid_14788_OL_11_OL_12
[91] Envihdr_reader_DEM_ortho	[42] SetHeightRange_blunder	[195] __xl_SetGrid3PT_14161_OL_1_OL_2

```

[109] Envihdr_reader_seedDEM [107] SetOrthoBoundary_ortho [52] __xl_SetHeightRange_l12546_OL_53
[92] Envihdr_writer [113] SetOutpathName [53] __xl_SetHeightRange_l12633_OL_55_OL_56
[55] FindNebPts_F_M_IDW [108] SetTiles_RA [10]
__xl_VerticalLineLocus_blunder_l9110_OL_47_OL_48
[80] GetImageSize [90] SetTransParam [7]
__xl_VerticalLineLocus_blunder_l9182_OL_49_OL_50
[93] GetImageSize_ortho [85] SettttingFlagOfGrid [28] __xl_VerticalLineLocus_l7483_OL_39_OL_40
[87] GetObjectToImageRPC [58] TINCreate [1] __xl_VerticalLineLocus_l7632_OL_41_OL_42
[99] GetObjectToImageRPC_ortho [20] TINgeneration [33]
__xl_blunder_detection_TIN_l11441_OL_51_OL_52
[5] GetObjectToImageRPC_single [75] VerticalLineLocus [68] __xl_ps2wgs_3D_l6601_OL_25_OL_26
[73] GetObjectToImageRPC_single_ortho [36] VerticalLineLocus_Ortho [61] __xl_ps2wgs_l6381_OL_21_OL_22
[88] GetsubareaImage [74] VerticalLineLocus_blunder [198] __xl_wgs2ps_l6107_OL_13_OL_14
[100] GetsubareaImage_ortho [37] __xl_acos_finite [47] bisect
[40] LoadPyramidMagImages [6] __xl_pow_finite [41] blunder_detection_TIN
[76] MakeSobelMagnitudeImage [32] __xl_atan [38] check_image_boundary
[15] Matching_SETSM [25] __xl_atan2 [50] nexttone
[110] MergeTiles [26] __xl_cos [70] orthogeneration
[111] NNA_M [9] __xl_sin [60] out_ep
[112] OpenProject [51] __powd2_P8_ [13] postNCC
[101] OpenXMLFile [27] __vsqrtnc_P8 [82] ps2wgs
[102] OpenXMLFile_orientation [12] __xl_AdjustParam_l13266_OL_57 [79] ps2wgs_3D
[103] OpenXMLFile_ortho [193] __xl_CreateImagePyramid_l7174_OL_31_OL_32 [24] ps2wgs_single
[77] Orientation [17] __xl_CreateImagePyramid_l7183_OL_33_OL_34 [65] readsites
[35] Ortho_blunder [194] __xl_CreateImagePyramid_ortho_l16395_OL_69_OL_70 [59] right_of
[95] Preprocessing [21] __xl_CreateImagePyramid_ortho_l16404_OL_71_OL_72 [48] scomp
[89] Readtiff [196] __xl_GetObjectToImageRPC_l6699_OL_29_OL_30 [97] subsetImage
[104] Readtiff_ortho [199] __xl_GetObjectToImageRPC_ortho_l16643_OL_73_OL_74 [23] voronoi
[96] RemoveFiles [30] __xl_MakeSobelMagnitudeImage_l7247_OL_35_OL_36 [94] wgs2ps
[84] ResizeGirdPT3 [200] __xl_MergeTiles_l13845_OL_59_OL_60
[67] ResizeGirdPT3_RA [192] __xl_MergeTiles_l13931_OL_61_OL_62
[arnoldg@p9 SETSM-master]$

```