
Cartesian grid generation inside computational domain

Initializing ...

Done

Reading parameters ...

cart_read_parameters ...

successfully opened file: Input.txt 2

the grid is external

nrefineRegion: 0

nattComp: 1

cart_read_parameters: done

successfully opened file: Input_Adv.txt 4

cart_hanging_node: F

Done

Reading input surface geometry (STL format)...

body_read_components ...

input_components_stl_binary ...

ss2-3.STL

1 1554 4662

total: 1554 4662

input_components_stl_binary: done

Input stl file is BINARY

body_read_components: done

Bounding box for surface geometry:

37862.00 0.0000000E+00 101.1250

53805.18 8346.759 6601.125

STL ファイルの領域サイズ

不自然に過大／過小であれば、STL
ファイルが壊れていないかチェッ
クしてください。

Done

Making computational domain ...

domain in integer space:

0 0 0

1073741824 1073741824 1073741824

domain in real space:

30000.00 -15000.00 101.1250

70000.00 25000.00 39898.88

ref_coord_of_comp_domain: 0.0000000E+00 0.0000000E+00 0.0000000E+00

WARNING in auto_correct_ref_coord_of_comp_domain: ref coord < domain: pushed in

WARNING in auto_correct_ref_coord_of_comp_domain: ref coord < domain: pushed in

ref_coord_of_comp_domain: 30000.00 0.0000000E+00 101.1250

Done

Preparing body surface ...

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body_filter_tri_outside_domain ...
  body surface min-max:
    37862.00      0.0000000E+00   101.1250
    53805.18      8346.759      6601.125
  domain:
    30000.00     -15000.00      101.1250
    70000.00      25000.00      39898.88
  body is fully inside domain
body_adt_store_int ...
body_adt_store_int: done
  Component, face, node count:          1          1554          4662
  Bounding box for surface geometry:
    37862.00      0.0000000E+00   101.1250
    53805.18      8346.759      6601.125
Done
Max memory set by user (MB)      :      80000
Memory used by body surface (MB):      0
Remaining memory (MB)           :      80000
Max cell count:      625000000
Successively dividing computational domain ...
  max cell count:      625000000
  max surface angle:      20.00000
refine_nregion:      0
  nlevelMax, bigAngleLevel, nlevelBasic:          10          10          8
initializing Cartesian grid ...
max_cell_count:      625000000
done
  Non-uniform refinement
  Max division level:          9
  Level and cell size in XYZ direction:
    0  40000.00      40000.00      39797.75
    1  20000.00      20000.00      19898.88
  cell count, refine, new cell count:          1          1          9
    2  10000.00      10000.00      9949.438
  cell count, refine, new cell count:          9          8          73
    3  5000.000      5000.000      4974.719
  cell count, refine, new cell count:          73          64          585
    4  2500.000      2500.000      2487.359
  cell count, refine, new cell count:          585          301          2993
    5  1250.000      1250.000      1243.680
  cell count, refine, new cell count:          2993          674          8385
    6  625.0000      625.0000      621.8398

```

cell count, refine, new cell count:	8385	1474	20177
7 312.5000	312.5000	310.9199	
cell count, refine, new cell count:	20177	3674	49569
8 156.2500	156.2500	155.4600	
cell count, refine, new cell count:	49569	10170	130929
9 78.12500	78.12500	77.72998	
cell count, refine, new cell count:	130929	28906	362177
Final number of Cartesian grid cells:	362177		

Done

time to refine grid: 5.130220

Classifying cells ...

classify_all_cells_in_out_default ...

NCell,cellList:	1	465
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cart grid status summary:

-40	293740
0	23165

propagate_cell_status ...

time: 9.5985889E-02

propagate_cell_status: done

cart grid status summary:

-35	261463
-30	32277
0	23165

external cells: 261463

internal cells: 32277

cut cells : 23165

classify_all_cells_in_out_default: done

grid status summary:

for the non parent:

cut	: 23165
uncut	: 0
fluid	: 261463
solid	: 32277
unknown	: 0

----- +

non parent:	316905
parent :	45272

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total :	362177
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cart3_prune_mark ...

identify_basic_computational_cells:

identify_basic_computational_cells: done

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identify_buffer_cells:
identify_buffer_cells: done
treat_sandwiched_cells ...
  loop, modified cells:      1      65      316
  loop, modified cells:      2       0       0
treat_sandwiched_cells: done
Identifying computational boundary cells ...
Done
Ensuring valid neighborhood topology ...
  cellComp:      20
  NButterfly:    0
Done
computational cell count:    239727
cart3_prune_mark: done
Done
time elapsed:    12.90504
```

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Converting Cartesian grid to unstructured grid ...
Construct unstructured grid ...
  Counting max unstructured grid cells ...
  Max unstructured grid cells:    708452
check_grid_connectivity ...
check_grid_connectivity: done
  uns ncell,nface,nnode:    514055    1382593    332173
Done
  Cell, face, node count:    514055    1382593    332173
Done
Writing domain data ...
Done
Writing unstructured grid ...
  grid_write_binary_int: post.bin
  ncell,nface,nnode:    514055    1382593    332173
  grid_write_binary_int: done
Done
Cartesian grid generation completed
Time elapsed:    17  seconds
```

現時点でのセル/フェイス/ノードの数

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