

Special Topics on Basic EECS I Design Technology Co-Optimization

Lecture 4

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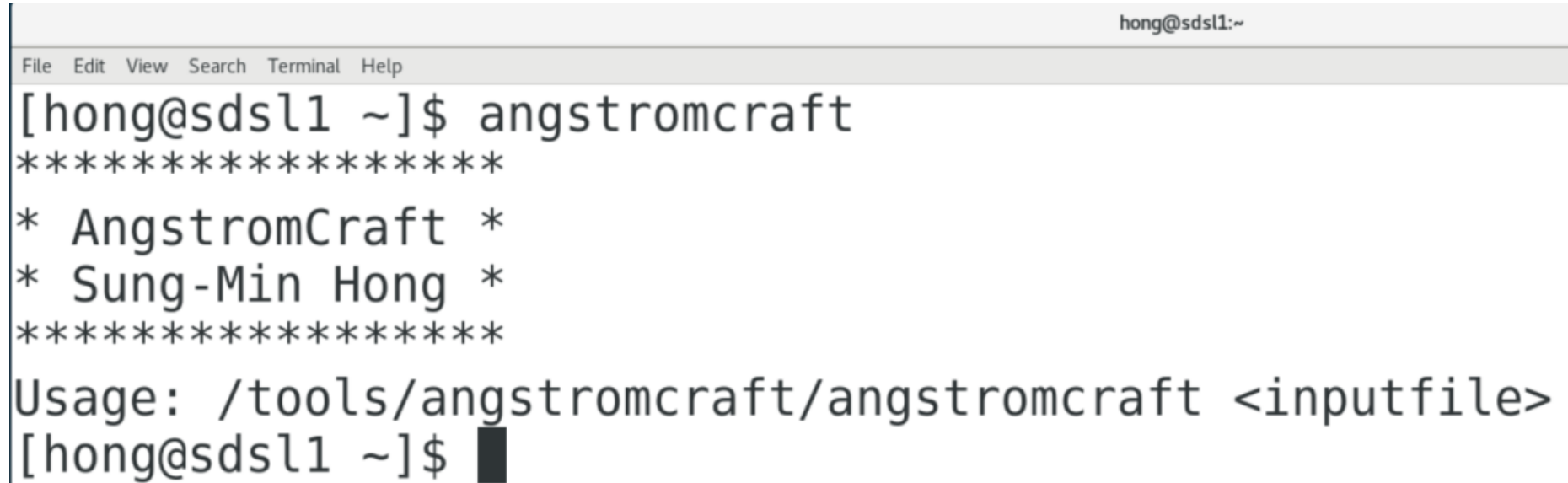
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Gwangju Institute of Science and Technology (GIST)

L4

Your achievements

- Now you can:
 - Log-in into our exercise workstation.
 - Start some useful programs: `vi`, `emacs`, `angstromcraft`, `gdevice`

A terminal window with a title bar 'hong@sds1:~'. The menu bar includes 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal shows the command '[hong@sds1 ~]\$ angstromcraft' being executed. The output consists of a line of asterisks, followed by two lines: '* AngstromCraft *' and '* Sung-Min Hong *', followed by another line of asterisks. Below this is the usage text 'Usage: /tools/angstromcraft/angstromcraft <inputfile>'. The prompt '[hong@sds1 ~]\$' is shown again with a black cursor block.

```
hong@sds1:~  
File Edit View Search Terminal Help  
[hong@sds1 ~]$ angstromcraft  
*****  
* AngstromCraft *  
* Sung-Min Hong *  
*****  
Usage: /tools/angstromcraft/angstromcraft <inputfile>  
[hong@sds1 ~]$ █
```

Today's goal

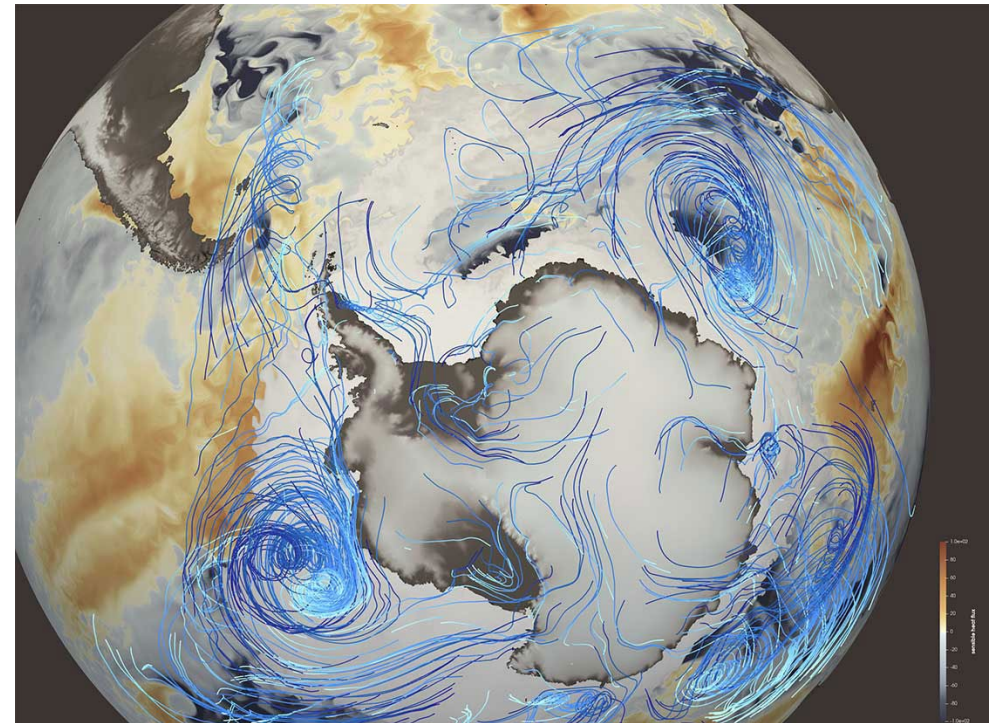
- For both `angstromcraft` and `gdevice`,
 - The simulation results are saved in the CGNS (CFD General Notation System) file format.
 - Today, we learn how to visualize a CGNS file.



Type paraview in the terminal.

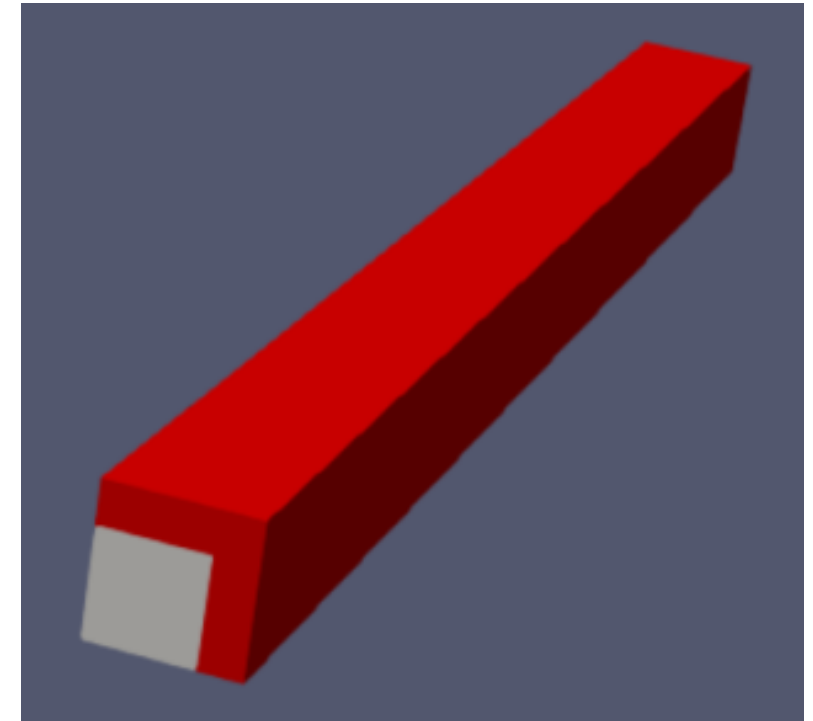
- Paraview is a visualization program.
 - It supports the CGNS file format.

A finalist in the SC21 Visualization Showcase (paraview.org)



An example of a nanowire transistor

- An example by Dr. Kwang-Woon Lee
- A quarter of the entire structure (symmetry)
 - Selecting/unselecting a file
 - Selecting/unselecting regions
 - Rotating, viewpoint, 3D/2D
 - Zoom-in/zoom-out
 - Visualizing a physical quantity
 - Plot over line
 - Clip/slice
 - Ruler



A quarter of the entire structure

Homework#4

- Due: 08:00 on Sep. 15
- Submit a report through the GIST LMS system.
 - A new CGNS will be given. (Our TA will share it.)
 - Take screenshots of its various regions.
 - Describe this structure. What is it?

Thank you!