

User Guide for COCOMON

1. Preparation

You will need FTP software and terminal emulator when use cluster system with remote access. In this guide we suggest Filezilla & PuTTY which are the opened sources.

- a. Download Filezilla and PuTTY, install them.

2. File Transfer

- a. Execute filezilla and input following things

Host : mipl.korea.ac.kr (COCOMON host address)

User : -----

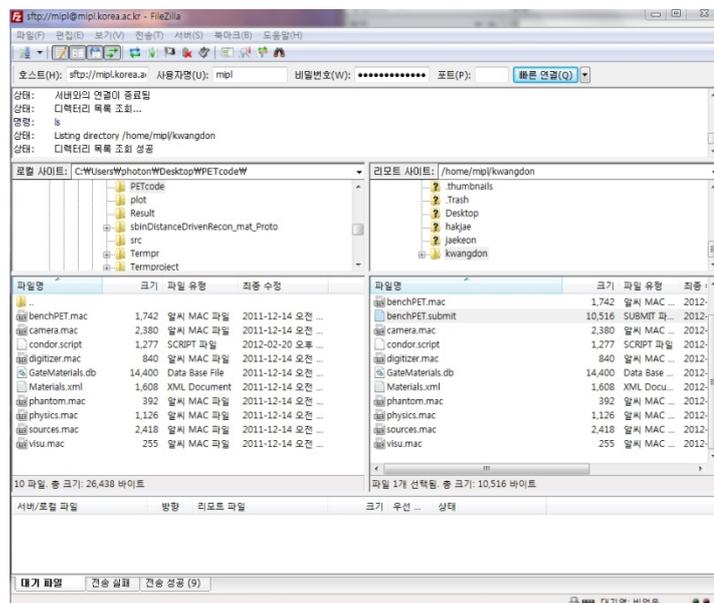
Password : *****

Ask Manager for your USER ID and Password.

port : 22(port number)

- b. Click 'Quick Connect' button.

This makes you to be able to copy your files to cluster or from cluster.



-written by Kwangdon KIM

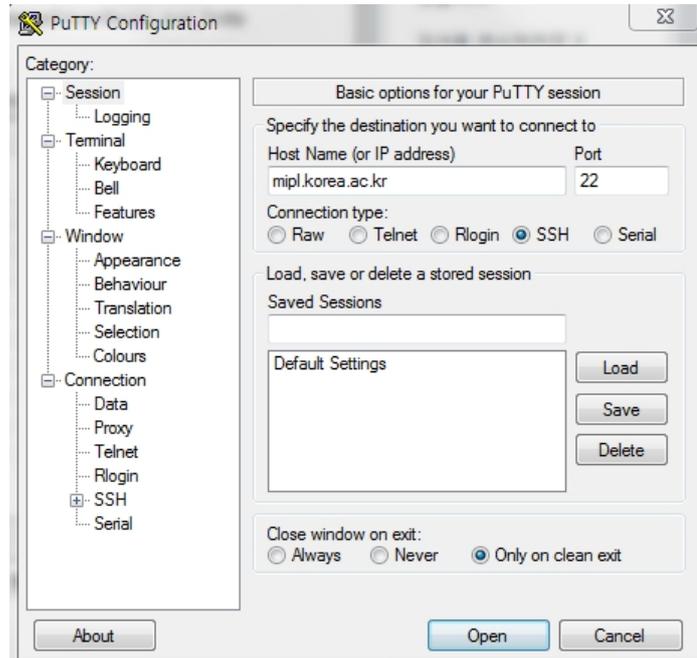
3. Access

- a. Execute PuTTY

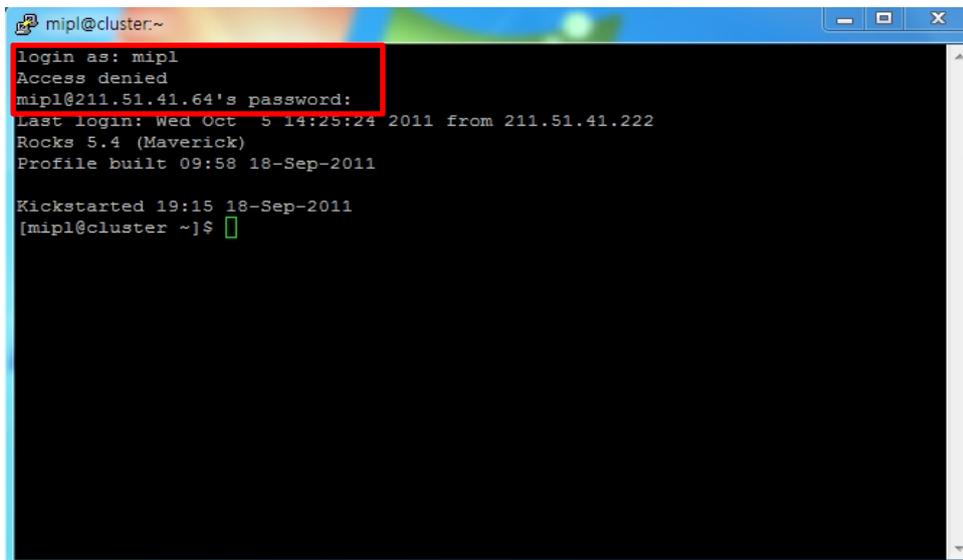
Host : mipl.korea.ac.kr

Port : 22

And click Open button



Login as : "ID that the manager provides you"



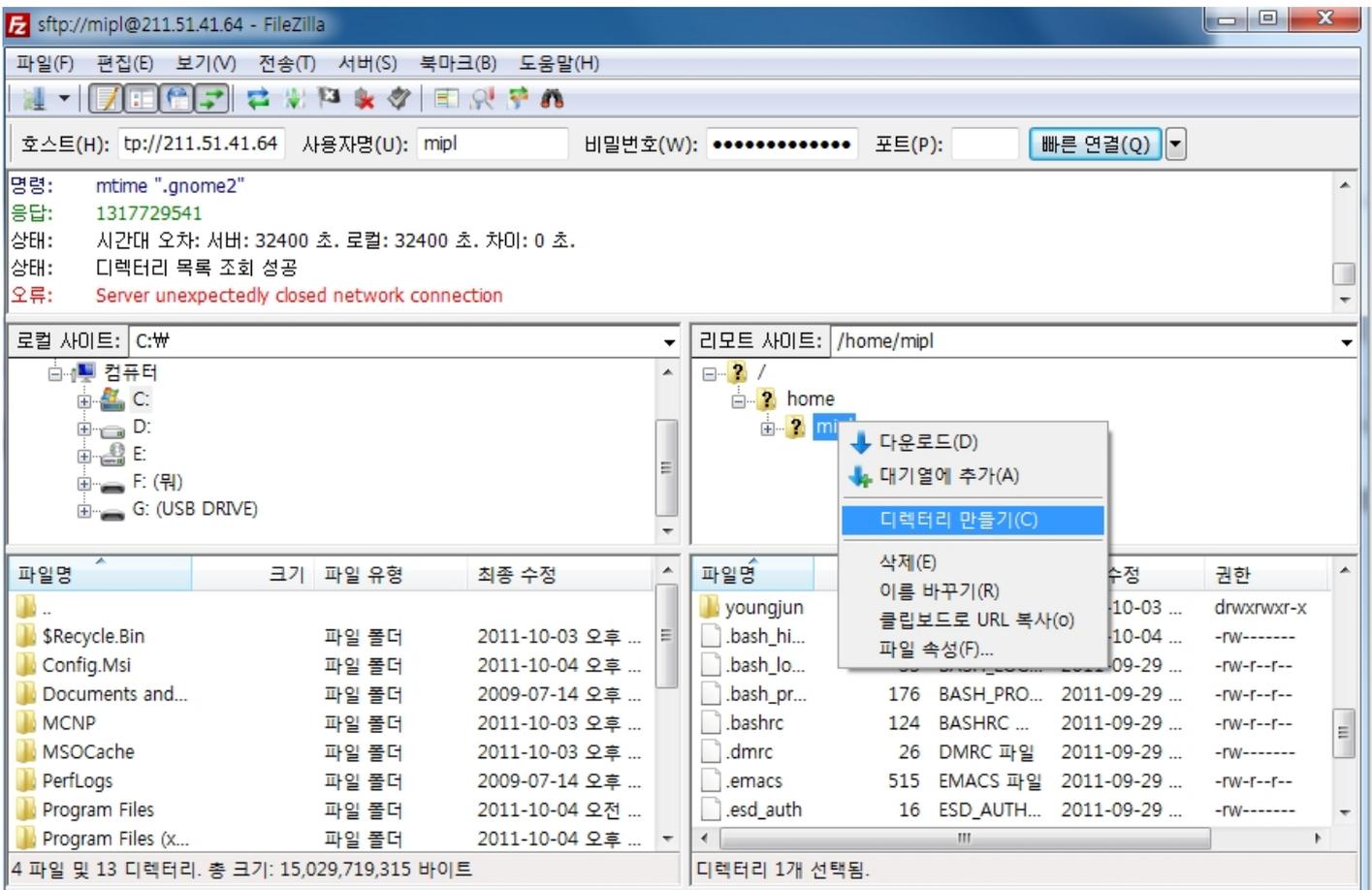
After these works are done, you can do the "Simulate with COCOMON" step.

4. Simulate with COCOMON(MIPL's cluster system)

There isn't function that visualizes your simulation in COCOMON. So you have to disable the visualization in your simulation code.

In this guide '**.mac' file is used as an example of the simulation code which is in GEANT simulation tool.

- a. Make your own directory (your name is best) in cluster system. - [Filezilla](#)



- b. Transfer your files into the new directory generated in previous step. - [Filezilla](#)

- c. Go into your own directory and splitting your simulation code. - [PuTTY](#)

```
"gjs -numberofsplits 48 -cs /share/apps/Simulation/condor.script YourMainFileName.mac"
```

This will separate your job into 48 jobs.

Do not use condor.script with copy & paste, just tell terminal the route of that file.

```

==> OK: /share/apps/cern/gate/gate_v6.1/bin/Linux-g++ added to your path variable
Checking your LD_LIBRARY_PATH variable...
==> OK: /share/apps/cern/gate/gate_v6.1/tmp/Linux-g++/Gate added to your path variable
G4VERSION9_3 is set: GATE is compatible with the GEANT4 version 9.3 and 9.4

Done

[mipl@cluster kwangdon]$ gjs -numberofsplits 48 -cs condor.script benchPET.mac
Summary of all outputs:
  ROOT      output is disabled but a filename is given (let it disable)
  ASCII     output is enabled
  ARF       output is disabled
  PROJECTION output is disabled
  ECAT7     output is disabled
  SINOGRAM  output is disabled
  SINOACCEL output is disabled
  LMF       output is disabled
  CT        output is disabled
Summary of all actors:
  ~~~
Number of enabled output: 1
Number of enabled actors: 0

```

This work shows the summary of all output type.

d. Getting start!

"condor_submit YourMainFileName.submit"

Do not write "YourMainFileName.mac".

```

Number of enabled output: 1
Number of enabled actors: 0
[mipl@cluster kwangdon]$ condor_submit benchPET.submit
Submitting job(s).....
Logging submit event(s).....
24 job(s) submitted to cluster 101.
[mipl@cluster kwangdon]$ █

```

e. I want to see that COCOMON is doing my job

You can see your job is running through this command : "condor_q"

```
[mipl@cluster kwangdon]$ condor_q

-- Submitter: cluster.mipl.korea.ac.kr : <211.51.41.64:45694> : cluster.mipl.kor
ea.ac.kr
ID      OWNER      SUBMITTED      RUN_TIME ST PRI SIZE CMD
101.0   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.1   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.2   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.3   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.4   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.5   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.6   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.7   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.8   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.9   mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.10  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.11  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.12  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.13  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.14  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.15  mipl       10/5  14:47      0+00:00:52 R  0  19.5 fGate ./Gate/benc
101.16  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.17  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.18  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.19  mipl       10/5  14:47      0+00:00:52 R  0  19.5 fGate ./Gate/benc
101.20  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.21  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.22  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc
101.23  mipl       10/5  14:47      0+00:00:53 R  0  19.5 fGate ./Gate/benc

24 jobs; 0 idle, 24 running, 0 held
[mipl@cluster kwangdon]$
```

f. How to quit in running.

"**condor_rm JobNumber or your ID**" In the above picture, JobNumber is 101.

```
24 jobs; 0 idle, 24 running, 0 held
[mipl@cluster kwangdon]$ condor_rm mipl
User mipl's job(s) have been marked for removal.
[mipl@cluster kwangdon]$
```

g. Where is your results?

Your results will be in your folder with #split files.

If your output type is root, you can merge those files in to one normal output.

: **Gjm YourJob.split(this file is in ./Gate/YourJob/)**

Thank you.

-written by Kwangdon KIM