

Instructions for HW3:

For students who have cs account:

You can find the solver and related files under the following directory. Please copy the solver and the files you need to your own directory, and run the program on the cluster.

```
/usr/project/cwd/fall17/compsci570
```

What I did was the following:

```
cd /usr/project/cwd/fall17/compsci570
cp ff *.pddl ~/temp/
cd ~/temp/
./ff -o family-domain.pddl -f family-1.pddl
```

For students without cs account:

If you want to work on your local machines:

You can download and compile the solver by yourselves (the followings are two versions of the solver):

1. Original FF-v2.3:

<https://fai.cs.uni-saarland.de/hoffmann/ff/FF-v2.3.tgz>

I did not manage to compile it on my computer (mac 10.12.6)

2. A patched version of FF-v2.3 whose parser is supposed to be able to parse larger inputs:

<https://fai.cs.uni-saarland.de/hoffmann/ff/FF-v2.3-big-parse-suda.tgz>

I compiled the code just by typing make (instructions written in the readme file). It run well on the 3 examples. (However, you may have difficulty in compiling it under Linux. In this case, you can either try to compile the original FF-v2.3 or use the compiled ff solver from [this link](#) directly)

If you want to work on the OIT clusters:

1. Firstly, you need to know how to access the OIT cluster. It is quite straightforward, and you can find a good explanation from

https://users.cs.duke.edu/~alvy/courses/Remote_Access.pdf

2. After you login to your OIT clusters, you may find nothing but a folder named public_html. Thus, next step is to upload the ff solver and related files to the cluster.

For mac and linux user, you can use scp (secure copy, learned from [here](#)):

```
scp [source file] [username]@[destination server]:.
```

e.g. scp pathToSolver/ff pathToPDDLFiles/*.pddl yourNetID@login.oit.duke.edu:.

Note that you need to do the secure copy when you are local (e.g. log out of OIT cluster, or open a new terminal window).

For windows user, you may use WinSCP (I did not try this, but I am willing to assist you if you have questions).

Note: Filezilla is also recommended for file uploading to remote server, which is very easy to use. In addition, any software supporting sftp protocol will work.

3. login to OIT clusters again following step 1.

4. After login, by typing `ls`, you will find the `ff` solver and related files there. Then you can use the solver to run the `ppdl` files. For example,
`./ff -o family-domain.pddl -f family-1.pddl`

The following was what I did (on Mac) to run the `ff` solver on the OIT clusters:

Step 1: Download the related `ppdl` files (the links can be found in homework3) to directory `dir1` (`dir1` is the absolute path). **Note that** the “.`ppdl`” files cannot be the type of plain text. When you download the files from the links, it may add “.`txt`” extension to the file names and you may not be aware.

Step 2: Download the compiled `ff` solver from [this link](#) to `dir2` (`dir2` is the absolute path).

Step 3: `scp dir2/ff dir1/*ppdl myNetID@login.oit.duke.edu:.` (for mac and linux)
It will ask your password. The output should be something like the followings:

```
ff                100% 410KB 409.5KB/s 00:01
family-1.pddl     100% 176  4.5KB/s 00:00
family-2.pddl     100% 202  5.8KB/s 00:00
family-3.pddl     100% 195  5.5KB/s 00:00
family-domain.pddl 100% 1693 43.6KB/s 00:00
```

Step 4: `ssh -X myNetID@login.oit.duke.edu`

Step 5: `./ff -o family-domain.pddl -f family-1.pddl`
Then you will get the solver solving the problem.

Permission Denied Solution:

Step 1: Go to (`cd`) the folder of compiled `ff` source.

Step 2: Enter “`chmod 777 ff`” and there will be no permission denied.