Implementation Instructions for NLDAS\_V1.0.0:

1. Check out the whole package from <https://svnemc.ncep.noaa.gov/projects/nldas/branches/Yuqiu.Zhu/nldas.v1.0.0>
2. Compile the codes using the makefiles provided within each source code directory.

cpc\_precip\_convert.fd: make clean; make

nldas\_prep.fd: compile.sh

nldas\_noah\_ldas.fd: make clean; make

nldas\_mosaic\_ldas.fd: cd make; make clean; make

nldas\_sac\_ldas.fd: make clean; make

nldas\_vic\_ldas.cd: make clean; make

nldas\_vic\_prep.cd: compile.sh

nldas\_vic\_post.fd: compile.sh

nldas\_rout.fd: make clean; make

1. Build the "ecflow" files according to my examples in the "lsf" directory.
2. The system only runs once per day (12Z). The prep job could start once the operational jrcdas\_post job is complete.
3. Please set up the triggers according to the job dependency chart provided along with the RFC. As mentioned in 4), the jnldas\_prep job should be the first one to run, and it should be triggered off the completion of the jrcdas\_post.
4. Since the models need the RCDAS data to generate the forcing, and the RCDAS runs 3 days behind the current day, the NLDAS models usually run 3-4 days behind the current PDY. For each job, we have a log file that contains the date for which it is last processed, and this file is to be saved in the /com/nldas/${envir}/logdir area. You will need to give a date for each log file (depending on the date of the restart file you get from EMC) before starting the testing. Here are the sample log files that I have when running the models, you can copy them over to your directory and modify the dates in the files accordingly:

[Yuqiu.Zhu@g14a2 logdir]$ pwd

/meso/noscrub/Yuqiu.Zhu/com/nldas/dev/logdir

[Yuqiu.Zhu@g14a2 logdir]$ ls

nldas\_mosaic\_lastprocessed.log nldas\_sac\_lastprocessed.log

nldas\_mosaic\_routing.log nldas\_sac\_routing.log

nldas\_noah\_lastprocessed.log nldas\_vic\_lastprocessed.log

nldas\_noah\_routing.log nldas\_vic\_routing.log

nldas\_prep\_lastprocessed.log

Resource Usage:

All the jobs in this NLDAS system will be running in serial mode (i.e. using only one task, can be shared with other jobs). Total runtime is around 50-60 minutes:

jnldas\_prep: 20 minutes

jnldas\_noah: < 5 minutes

jnldas\_mosaic: < 5 minutes

jnldas\_vic: 35 minutes

jnldas\_sac: < 5 minutes

jnldas\_rout\_noah: < 5 minutes

jnldas\_rout\_mosaic: < 5 minutes

jnldas\_rout\_vic: < 5 minutes

jnldas\_rout\_sac: < 5 minutes

Disk Usage:

Total disk usage is about 700 Mb per day. We would like to keep the NLDAS data in /com area for up to 10 days. And all the data in /com should be archived to HPSS.