

ADL 4.0 Installation Memo

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1. ADL4.0 Download webpage:

<https://jpss-adl-wiki.ssec.wisc.edu/mediawiki/index.php/Downloads>

2. Set startup environment:

Add the following to .bashrc located in the home directory:

```
# CSPP_HOME should be the directory where you want to install ADL
export CSPP_HOME=<directory of your choice to install ADL4.0>
source ${CSPP_HOME}/ADL/build/envSetup.ksh
export PATH=${CSPP_HOME}/support:$PATH
```

Close and reopen the terminal to activate the ADL build environment. For now just ignore any errors generated by this .bashrc.

3. Download the support scripts and install the ADL4.0 COTs:

```
>mkdir -p ${CSPP_HOME}/support
>cd ${CSPP_HOME}/support
>wget -r -l1 -nH -nd --http-user=$MYUSER -A.sh --http-passwd=$MYPASSWRD
https://jpss.ssec.wisc.edu/adl/download/files/SSEC-Support/ADL3.1/scripts
>chmod a+rw *
```

where \$MYUSER and \$MYPASSWRD are the username and password that you created when you registered for this website.

We only need run the script that installs user COTs, since all other COTs that require root-access need to be installed by IT staff

Important Note: Before you run the COTs installation script, make sure to edit it to get the compilers set correctly. We need to use gcc 4.4 version to compile those COTs (especially lapack and slatec libraries) since our ADL was compiled using that version. It can be done by choosing the 'red_hat_5_gcc44' for the compilers set (comment the other choices including 'desired_gcc_in_usr_bin'). You also need to comment out the 'exit 1' right before the compiler selection part to allow the script to run to the end. Also, please make sure to unset the environment variable \$LD_RUN_PATH before installing the user COTs since it can interfere with shared library path:

```
>unset LD_RUN_PATH
>cd ${CSPP_HOME}/support
```

```
>./install_cots_4.0.sh
```

```
>./install_user_perl_for_ADL4.0.sh
```

These scripts will download and COTS and install them to the \$CSPP_HOME/common directory. It will also patch some COT automatically.

4. Use support script to download and extract ADL4.0 packages:

Note: Before you run the following script edit the installAdlData4.0.sh to comment the lines starting with "TILE_GRID=..." and "TILE_GLOBAL=..." because we can just use Terrain-Eco-Tiles from ADL3.1 and we don't need GridIP tiles.

```
>./installAdl4.0.sh
```

```
> ./installAdlData4.0.sh
```

These scripts will download the ADL4.0 package and extract them to the \$CSPP_HOME/ADL directory. It will also patch the ADL4.0 automatically.

After that move the ADL3.1/ADL/data/tiles/Terrain-Eco-ANC-Tile directory to ADL4.0/ADL/data/tiles.

5. Building ADL4.0

Edit the \${CSPP_HOME}/ADL/build/envSetup.ksh and change the compilers to 4.4 version set and then source this script. Also Make sure to unset the environment variable \$LD_RUN_PATH before building ADL. You can also customize the \$DPE_SITE_ID and \$DPE_DOMAIN which will appear in the names of h5 files generated by ADL4.0.

To build the ADL software just go to ADL/ and run the building script:

```
>buildAdl.ksh > buildAdl.log 2>&1 &
```

6. Testing ADL4.0 algorithms

Before running the test algorithms you need to edit \$ CSPP_HOME/ADL/build/envSetup.ksh to change the \$NPP_GRANULE_ID_BASETIME to the pre-launch testing value since the pre-launch test input data uses that value. runDemoAlgorithm also need some modification to change those algorithm input file names ended with "*LwFile1.xml" to "*LwFile.xml"

```
>runDemoAlgorithm -r > testrun.log 2>&1 &
```