

# Land DA Workflow Demo

## Commands

**NOTE:** Commands are typed in Courier New font, while comments/additional information are typed in Georgia font and preceded by a # symbol.

### # SETUP (optional)

```
cd /work/noaa/epic/gpetro # Change this to the directory on your system where you
    will add your Land DA work.
```

```
pwd
```

```
mkdir landda
```

```
cd landda
```

```
pwd
```

# Wherever \$LANDDAROOT appears later in commands, users can substitute the path to the directory above their land-DA\_workflow clone.

```
export LANDDAROOT=`pwd`
```

```
echo $LANDDAROOT
```

### # CLONE & BUILD

```
git clone -b develop --recursive
```

```
    https://github.com/ufs-community/land-DA_workflow.git
```

```
cd $LANDDAROOT/land-DA_workflow/src
```

```
ls
```

```
./app_build.sh
```

```
cd ../exec
```

```
ls
```

### # CONFIGURE

```
cd $LANDDAROOT/land-DA_workflow
```

```
module use modulefiles
```

```
module load wflow_orion
```

```
conda activate land_da
```

```
cd parm
```

```
pwd
```

```
ls
```

```
cp land_analysis_orion.yaml land_analysis.yaml
```

```
vi land_analysis.yaml
```

```
i
```

```
esc key
```

```
:wq
uw rocoto realize --input-file land_analysis.yaml --output-file
    land_analysis.xml

# RUN
./launch_rocoto_wflow.sh add # On systems with cron only
# OR
rocotorun -w land_analysis.xml -d land_analysis.db

rocotostat -w land_analysis.xml -d land_analysis.db

# Several times until all workflow tasks are complete:
rocotorun -w land_analysis.xml -d land_analysis.db
rocotostat -w land_analysis.xml -d land_analysis.db

# Note that the land_analysis.db file is only updated after each rocotorun command.
# If the rocotorun command has not been issued (whether manually or via cron automation),
the rocotostat command will not show any progress, even though tasks that have been
running may have completed.

# VIEW PLOTS

# One possible way to run plots (will not work on every system)
# Uses XQuartz on Mac with imagemagick module (Xming is the Windows equivalent)
# Must be -X login enabled (e.g., login using ssh -X username@system...)
cd $LANDDAROOT/ptmp/test/com/landda/v1.2.1/landda.20000104/plot
ls
module load imagemagick
display hofx_oma_20000104_scatter.png
```