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Service Change Notice 22-41
National Weather Service Headquarters Silver Spring MD
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From: Mike Farrar, Director
 National Centers for Environmental Prediction

Subject: Notification of Addition to the Directory Structure for Models
Hosted on NCEP Web Services: Effective May 5, 2022

The National Centers for Environmental Prediction (NCEP) is in the process of migrating the models and applications in the production suite from the Weather and Climate Operational Supercomputing System (WCOSS) to the second version of WCOSS. The new version of WCOSS encompasses new hardware in new physical locations, with expanded calculation capacity for future model upgrades, as advertised in this press release:

<https://www.noaa.gov/media-release/us-to-triple-operational-weather-and-climate-supercomputing-capacity>

To prepare for the migration, all models on NCEP web services (NOAA Operational Model Archive and Distribution System (NOMADS) and FTPPRD) will have an additional directory added to their existing structure that indicates the current version number of the model output being hosted. This change will be rolled out over a number of days beginning May 2 and will be fully in place on May 5, 2022.

All models will gain a new directory under the top level model directory which will indicate the current production version number for that model. This directory will contain all the same data underneath it as exists today. The "prod" directory will remain next to this new directory as a link to the version number directory, so current processes will not need modification if that is the users' preference.

For example:

com/gfs/
currently contains only the subdirectory "prod", such that the data is available in these directories:

com/gfs/prod/gfs.YYYYMMDD
com/gfs/prod/gdas.YYYYMMDD
com/gfs/prod/enkfgdas.YYYYMMDD

There will now be a new directory next to "prod" which will also contain the same data:

```
com/gfs/prod/gfs.YYYYYMMDD
com/gfs/prod/gdas.YYYYYMMDD
com/gfs/prod/enkfgdas.YYYYYMMDD
com/gfs/v16.1/gfs.YYYYYMMDD
com/gfs/v16.1/gdas.YYYYYMMDD
com/gfs/v16.1/enkfgdas.YYYYYMMDD
```

During a parallel before a model upgrade, the new data will be hosted alongside the production data, which will look like this:

```
com/gfs/prod/
com/gfs/v16.1/
com/gfs/para/
com/gfs/v17.0/
```

This change will have the following benefits:

- Users will still be able to use the "prod" directory structure and not have to make changes between versions with upgrades.
- Parallel data will be available alongside production data before a model upgrade.
- Parallel data will be available via File Transfer Protocol (FTP).
- Parallel data can be made available via the NOMADS applications (grib filter and opendap/GDS) if appropriate and resources are available.
- Users will be able to begin to transition to the new instance of a model before the go-live date, without having to do a day-of switch between the parallel data on para.nomads.ncep.noaa.gov and the data on our production web services. Note: NCEP does not advise a full switch until the model is declared fully operational.

NCEP encourages all users to ensure their decoders are flexible and are able to adequately handle changes in content order, parameter fields changing order, changes in the scaling factor component within the Product Definition Section (PDS) of the gridded binary (GRIB) files and also any volume changes which may be forthcoming. These elements may change with future NCEP model implementations. NCEP will make every attempt to alert users to these changes prior to any implementation.

Questions, comments or requests regarding this change should be directed to the contact below. We will review feedback and decide whether to proceed.

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National Service Change Notices are online at:

<https://www.weather.gov/notification/>

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