

MODE and MODE Time Domain Use Cases

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Set Up Personal Environment

- Creating directories for data
- Obtaining data
- Configuring METplus for you and your environment
- Running METplus

Creating Directories for Data

- Ensure you have enough disk space
- Create separate directories for input and output
 - Data may be shared or owned by someone else
 - Don't want to accidentally wipe out input data when erasing output data to rerun

Obtaining Data - From GitHub

- Sample data tarballs available on METplus GitHub webpage under Releases
- <https://github.com/NCAR/METplus/releases>

METplus-2.0.4

 georgemccabe released this a minute ago

▼ Assets 9

 [METplus_Users_Guide.pdf](#)

 [sample_data-cyclone_track_feature.tgz](#)

 [sample_data-ensemble.tgz](#)

 [sample_data-grid_to_grid.tgz](#)

 [sample_data-grid_to_obs.tgz](#)

 [sample_data-mode.tgz](#)

 [sample_data-qpf.tgz](#)

 [Source code \(zip\)](#)

 [Source code \(tar.gz\)](#)

Obtaining Data - Organization

- Tarballs are organized by use case corresponding to parm directory in GitHub repository

```
mccabe@eyewall:~/METplus/parm/use_cases$ ls
cyclone_plotter  feature_relative  grid_to_obs  hwt  qpf
ensemble         grid_to_grid     hmt          mode  track_and_intensity
```

- `sample_data-mode.tgz ->`
`parm/use_cases/mode/examples`

```
mccabe@eyewall:~/METplus/parm/use_cases/mode/examples$ ls
hrefmean-vs-mrms-qpe.conf  phpt-vs-qpe.conf
```

Obtaining Data - Downloading

- Download tarball by clicking on the link
- Or use wget from the command line
- https://github.com/NCAR/METplus/releases/download/v2.0.4/sample_data-qpf.tgz
- Untar data into input data directory
 - cp `sample_data-mode.tgz` `</path/to>/input/`
 - cd `</path/to>/input`
 - tar xzf `sample_data-mode.tgz`

Configuring METplus Environment

- Override configurations from default METplus install to:
 - Match the system you are using
 - Where MET is installed
 - EXE paths (wgrib2, cut, tr, rm, etc.)
 - Set up personal data area
 - Where to read input data
 - Where to write output data

Configuring METplus

Best Practices

1) Copy parm directory to user location

- Users may work with a shared installation of METplus wrappers
 - Scripts are shared by all users
 - Changes to the parm (configuration) directory would affect all users – on installation, system settings should be set (location of MET version to use)
 - May not have permission to edit parm directory in shared location
- May want some settings to be static over all runs

2) Create user specific configuration files

- Used to override configuration settings for a given run
- Contains only the settings overridden from default in one place
- Preserves user settings when moving to new version of scripts

Configuring METplus Best Practices (continued)

- Review the configuration files and look for variables with a value containing the phrase “/path/to”
- These variables will need to be set. You can either:
 - Change them directly in the base configuration files
 - Copy them into a new file and modify the values (remember to use correct headers)

```
[dir]
# This is a comment.
# Use comments to help you remember important things.

TMP_DIR = /path/to
OUTPUT_BASE = /path/to
INPUT_BASE = /path/to
MET_INSTALL_DIR = /path/to
```

Configuring METplus

What to Override?

```
[dir]  
INPUT_BASE = /home/mccabe/data/input  
OUTPUT_BASE = /home/mccabe/data/output-mode  
MET_INSTALL_DIR = /usr/local/met-8.0  
TMP_DIR = /tmp
```

```
[config]
```

```
[exe]  
WGRIB2 = /usr/local/bin/wgrib2
```

CUT = cut

TR = tr

RM = rm

NCAP2 = /usr/local/nco/bin/ncap2

CONVERT = convert

NCUMP = ncdump

EGREP = egrep

Configuring METplus

Use Case Configuration Files

- Each use case directory

(i.e. parm/use_cases/**mode**)

has two directories:

- **met_config** - MET configuration files read by MET applications
- **examples** - METplus configuration files that are read by METplus

Configuring METplus MODE Use Case

- `examples/hrefmean-vs-mrms-qpe.conf`
- `met_config/MODEConfig_MEAN`
- HREF Mean - forecast data (NetCDF)
 - `pcp_combine` to build accumulation
- MRMS QPE observation data (NetCDF)
- MODE to compare model vs. obs

Running METplus Setup

Add METplus/ush to PATH to run
master_metplus.py from any directory

csh:

```
setenv PATH </path/to>/METplus/ush:$PATH
```

bash:

```
export PATH=</path/to>/METplus/ush:$PATH
```

Running METplus

hrefmean-vs-mrms-qpe.conf Use Case

```
master_metplus.py
```

```
-c ~/METplus/parm/use_cases/mode/  
examples/hrefmean-vs-mrms-qpe.conf
```

```
-C  
/d1/mccabe/system.conf.mccabe.eyewall
```

METplus Configuration Files

hrefmean-vs-mrms-qpe.conf: Time Information

```
[config]
```

```
# time looping - options are INIT, VALID, RETRO, and REALTIME
```

```
LOOP_BY = INIT
```

```
# Format of INIT_BEG and INIT_END
```

```
INIT_TIME_FMT = %Y%m%d%H
```

```
# Start time for METplus run
```

```
INIT_BEG=2017062100
```

```
INIT: 2017-06-21_00
```

```
LEAD = 24
```

```
# End time for METplus run
```

```
INIT_END=2017062100
```

```
# Increment between METplus runs in seconds. Must be >= 60
```

```
INIT_INCREMENT = 12H
```

```
# list of forecast leads to process
```

```
LEAD_SEQ = 24
```

METplus Configuration Files

hrefmean-vs-mrms-qpe.conf: Field Information

```
# List of applications to run
PROCESS_LIST = PcpCombine, Mode

# run pcp_combine on forecast data
FCST_PCP_COMBINE_RUN = True

# list of variables to compare
FCST_VAR1_NAME = APCP
FCST_VAR1_LEVELS = A06

OBS_VAR1_NAME = P06M_NONE
OBS_VAR1_LEVELS = "(0,*,*)"

# description of data to be processed
# used in output file path
```

```
MODEL = HREF_MEAN
```

```
OBTYPE = MRMS_QPE
```

METplus Configuration Files

hrefmean-vs-mrms-qpe.conf: Data Information

```
[dir]
# location of configuration files used by MET applications
CONFIG_DIR={PARM_BASE}/use_cases/mode/met_config

# input and output data directories for each application in PROCESS_LIST
OBS_MODE_INPUT_DIR = {INPUT_BASE}/mode/MRMS_QPE_Data

FCST_PCP_COMBINE_INPUT_DIR = {INPUT_BASE}/mode/uswrp/HREFv2_Mean/native
FCST_PCP_COMBINE_OUTPUT_DIR = {OUTPUT_BASE}/uswrp/HREFv2_Mean/bucket
FCST_MODE_INPUT_DIR = {OUTPUT_BASE}/uswrp/HREFv2_Mean/bucket

MODE_OUTPUT_DIR = {OUTPUT_BASE}/uswrp/met_out/{MODEL}

[filename_templates]
# format of filenames

# HREF Mean
FCST_PCP_COMBINE_INPUT_TEMPLATE = {init?fmt=%Y%m%d}/hrefmean_{init?fmt=%Y%m%d%H}f{lead?fmt=%HHH}.nc
FCST_PCP_COMBINE_OUTPUT_TEMPLATE = {valid?fmt=%Y%m%d}/hrefmean_{valid?fmt=%Y%m%d%H}_A{level?fmt=%HH}.nc
FCST_MODE_INPUT_TEMPLATE = {valid?fmt=%Y%m%d}/hrefmean_{valid?fmt=%Y%m%d%H}_A{level?fmt=%HH}.nc

# MRMS QPE
OBS_MODE_INPUT_TEMPLATE = {valid?fmt=%Y%m%d}/mrms_qpe_{valid?fmt=%Y%m%d%H}.nc
```

METplus Configuration Files

hrefmean-vs-mrms-qpe.conf: pcp_combine

```
# Data type of forecast data read by pcp_combine  
# valid options are GRIB, NETCDF, and GEMPAK  
FCST_PCP_COMBINE_INPUT_DATATYPE = NETCDF  
  
# field name of 1 hr accumulation in forecast files  
FCST_PCP_COMBINE_1_FIELD_NAME = P01M_NONE
```

METplus Configuration Files

hrefmean-vs-mrms-qpe.conf: pcp_combine

```
{MET_INSTALL_DIR}/bin/pcp_combine -name APCP_06 -add
```

```
{FCST_PCP_COMBINE_INPUT_DIR}/  
20170621/hrefmean_2017062100f024.nc
```

```
"name=\"P01M_NONE\"; level=\"(0,*,*)\";"
```

```
{FCST_PCP_COMBINE_INPUT_DIR}/  
20170621/hrefmean_2017062100f023.nc
```

```
"name=\"P01M_NONE\"; level=\"(0,*,*)\";"
```

```
{FCST_PCP_COMBINE_INPUT_DIR}/  
20170621/hrefmean_2017062100f022.nc
```

```
"name=\"P01M_NONE\"; level=\"(0,*,*)\";"
```

```
{FCST_PCP_COMBINE_INPUT_DIR}/  
20170621/hrefmean_2017062100f021.nc
```

```
"name=\"P01M_NONE\"; level=\"(0,*,*)\";"
```

```
{FCST_PCP_COMBINE_INPUT_DIR}/  
20170621/hrefmean_2017062100f020.nc
```

```
"name=\"P01M_NONE\"; level=\"(0,*,*)\";"
```

```
{FCST_PCP_COMBINE_INPUT_DIR}/  
20170621/hrefmean_2017062100f019.nc
```

```
"name=\"P01M_NONE\"; level=\"(0,*,*)\";"
```

```
{FCST_PCP_COMBINE_OUTPUT_DIR}/  
20170622/hrefmean_2017062200_A06.nc
```

METplus Configuration Files

hrefmean-vs-mrms-qpe.conf: MODE

```
# turn on quilting
MODE_QUILT = True

# convolution radius list
MODE_CONV_RADIUS = 15

# convolution threshold list
MODE_CONV_THRESH = >5, >10

# merge threshold list
MODE_MERGE_THRESH = >4, >8

# merge flag: options are NONE, THRESH, ENGINE, or BOTH
MODE_MERGE_FLAG = THRESH
```


METplus Configuration Files

hrefmean-vs-mrms-qpe.conf: MODE

What if I want to set different convolution radius values for forecast and observations?

Instead of:

```
# convolution radius list  
MODE_CONV_RADIUS = 15
```

use:

```
# forecast convolution radius list  
FCST_MODE_CONV_RADIUS = 15
```

```
# observation convolution radius list  
OBS_MODE_CONV_RADIUS = 10
```

same can be done for MODE_CONV_THRESH,
MODE MERGE THRESH, and MODE MERGE FLAG

MET Configuration Files

MODEConfig_MEAN

Uses environment variables set by METplus

```
////////////////////////////////////  
//  
// Run all permutations of radius and threshold  
//  
quilt = ${QUILT};  
  
//  
// Forecast and observation fields to be verified  
//  
fcst = {  
  
    field = ${FCST_FIELD};  
  
    conv_radius      = [${FCST_CONV_RADIUS}];  
    conv_thresh      = [${FCST_CONV_THRESH}];  
    vld_thresh       = 0.5;  
    area_thresh      = NA;  
    inten_perc_value = 100;  
    inten_perc_thresh = NA;  
    merge_thresh     = [${FCST_MERGE_THRESH}];  
    merge_flag       = ${FCST_MERGE_FLAG};  
}  
  
obs = fcst;  
  
obs = {  
    field = ${OBS_FIELD};  
  
    conv_radius      = [${OBS_CONV_RADIUS}];  
    conv_thresh      = [${OBS_CONV_THRESH}];  
    merge_thresh     = [${OBS_MERGE_THRESH}];  
    merge_flag       = ${OBS_MERGE_FLAG};  
}
```

```
////////////////////////////////////  
//  
// Run all permutations of radius and threshold  
//  
quilt = TRUE;  
  
//  
// Forecast and observation fields to be verified  
//  
fcst = {  
  
    field = { name="APCP_06"; level="(*,*)"; };  
  
    conv_radius      = [15];  
    conv_thresh      = [>5, >10];  
    vld_thresh       = 0.5;  
    area_thresh      = NA;  
    inten_perc_value = 100;  
    inten_perc_thresh = NA;  
    merge_thresh     = [>4, >8];  
    merge_flag       = THRESH;  
}  
  
obs = fcst;  
  
obs = {  
    field = { name="P06M_NONE"; level="(0,*,*)"; };  
  
    conv_radius      = [15];  
    conv_thresh      = [>5, >10];  
    merge_thresh     = [>4, >8];  
    merge_flag       = THRESH;  
}
```

Running METplus

Call MODE with environment set

- VALID = 2017062100, LEAD = 24

```
{MET_INSTALL_DIR}/bin/mode
```

```
{FCST_MODE_INPUT_DIR}/  
20170622/hrefmean_2017062200_A06.nc
```

```
{OBS_MODE_INPUT_DIR}/  
20170622/mrms_qpe_2017062200.nc
```

```
{CONFIG_DIR}/MODEConfig_MEAN
```

```
-outdir {MODE_OUT_DIR}/201706210000/mode
```

```
>> {OUTPUT_BASE}/logs/mode.log_20190204
```

Configuring METplus

MODE Time Domain (MTD) Use Case

- `examples/phpt-vs-qpe.conf`
- `met_config/MTDConfig`
- PHPT - probabilistic forecast data (grib2)
- QPE observation data (NetCDF)
- MTD to compare model vs. obs

Running METplus phpt-vs-qpe.conf Use Case

master_metplus.py

-c ~/METplus/parm/use_cases/mode/
examples/phpt-vs-qpe.conf

-C
/d1/mccabe/system.conf.mccabe.eyewall

METplus Configuration Files

phpt-vs-qpe.conf: Time Information

```
[config]
```

```
# time looping - options are INIT, VALID, RETRO, and REALTIME  
LOOP_BY = INIT
```

```
# Format of INIT_BEG and INIT_END  
INIT_TIME_FMT = %Y%m%d%H
```

```
# Start time for METplus run  
INIT_BEG=2017051003
```

```
INIT: 2017-05-10_03  
LEADS: 1,2,3
```

```
# End time for METplus run  
INIT_END=2017051003
```

```
# Increment between METplus runs in seconds. Must be >= 60  
INIT_INCREMENT = 12H
```

```
# list of forecast leads to process  
LEAD_SEQ = 1,2,3
```

METplus Configuration Files

phpt-vs-qpe.conf: Field Information

```
# List of applications to run
PROCESS_LIST = MTD

# list of variables to compare
FCST_VAR1_NAME = APCP
FCST_VAR1_LEVELS = A01
FCST_VAR1_THRESH = gt12.7

OBS_VAR1_NAME = P01M_NONE
OBS_VAR1_LEVELS = "(0,*,*)"
OBS_VAR1_THRESH = gt12.7
```

METplus Configuration Files

phpt-vs-qpe.conf: Data Information

```
[dir]
# location of configuration files used by MET applications
CONFIG_DIR={PARM_BASE}/use_cases/mode/met_config

# input and output data directories for each application in PROCESS_LIST
FCST_MTD_INPUT_DIR = {INPUT_BASE}/mode/PHPT
OBS_MTD_INPUT_DIR = {INPUT_BASE}/mode/QPE_Data

MTD_OUTPUT_DIR = {OUTPUT_BASE}/uswrp/met_out/{MODEL}

[filename_templates]
# format of filenames

# PHPT
FCST_MTD_INPUT_TEMPLATE= {init?fmt=%Y%m%d}/{init?fmt=%Y%m%d}_i{init?fmt=%H}_f{lead?fmt=%HHH}_HRRRTLE_PHPT.grb2

# QPE
OBS_MTD_INPUT_TEMPLATE = {valid?fmt=%Y%m%d}/qpe_{valid?fmt=%Y%m%d%H}.nc
```


METplus Configuration Files

phpt-vs-qpe.conf: MTD

```
# if true, only process a single data set with MTD  
MTD_SINGLE_RUN = False
```

```
# Data to process in single mode  
# FCST and OBS are valid options  
MTD_SINGLE_DATA_SRC = OBS
```

```
# forecast convolution radius list
```

```
FCST_MTD_CONV_RADIUS = 0
```

```
# forecast convolution threshold list
```

```
FCST_MTD_CONV_THRESH = >=10
```

```
# observation convolution radius list
```

```
OBS_MTD_CONV_RADIUS = 15
```

```
# observation convolution threshold list
```

```
OBS_MTD_CONV_THRESH = >=1.0
```

METplus Configuration Files

phpt-vs-qpe.conf: MTD

INITIALIZATION TIME: 2017051003

LEAD: 1,2,3

{MET_INSTALL_DIR}/bin/mtd

-fcst

{STAGING_DIR}/mtd_lists/201705100300_fcst_APCP.txt

-obs

{STAGING_DIR}/mtd_lists/201705100300_obs_P01M_NONE.txt

-outdir {MTD_OUT_DIR}

METplus Configuration Files

STAGING_DIR

[dir]

STAGING_DIR = {OUTPUT_BASE}/stage

If input data is compressed, METplus will automatically uncompress it and place it into the staging directory.

Currently only supports compressed file formats gzip (gz), bzip (bz2), or zip files, as well as Gempak data conversion.

For example:

INPUT: /some/data/path/2019020104.nc.gz

OUTPUT:

{STAGING_DIR}/some/data/path/2019020104.nc

METplus Configuration Files

MTD File Lists

Staging directory also contains MODE-TD file lists that are generated by METplus wrappers.

{STAGING DIR}/mtd lists/201705100300 fcst APCP.txt

{INPUT_BASE}/mode/PHPT/20170510/20170510_i03_f001_HRRRTLE_PHPT.grb2

{INPUT_BASE}/mode/PHPT/20170510/20170510_i03_f002_HRRRTLE_PHPT.grb2

{INPUT_BASE}/mode/PHPT/20170510/20170510_i03_f003_HRRRTLE_PHPT.grb2

{STAGING DIR}/mtd lists/201705100300 obs P01M NONE.txt

{INPUT_BASE}/ mode/QPE_Data/20170510/qpe_2017051004.nc

{INPUT_BASE}/ mode/QPE_Data/20170510/qpe_2017051005.nc

{INPUT_BASE}/ mode/QPE_Data/20170510/qpe_2017051006.nc

Running METplus

Debugging

- Check output directories to see if data exists.

- Check the log file and look for errors

`{OUTPUT_BASE}/logs/master_metplus.log.20190204`

- If [config] `LOG_MET_OUTPUT_TO_METPLUS = no`

A log file for each MET app will be generated as well

`{OUTPUT_BASE}/logs/grid_stat.log_20190204`

- Check final configuration file for anything set incorrectly

`{OUTPUT_BASE}/metplus_final.conf`

- Want to rerun an app? It is easy to copy commands into terminal.

Running METplus

Rerunning Commands

- Check log output for “RUNNING:” and copy that command into a **bash** shell.
- If METplus sets environment variables for a run, look for “COPYABLE ENVIRONMENT FOR NEXT COMMAND:”
- NOTE: Skip pipe to log file to view results in terminal
- **LOOK FOR THIS**, **COPY THIS**, **DON'T COPY THIS** (no longer in logs)

```
01/17 23:56:02.157 metplus.GridStat (compare_gridded_wrapper.py:342) DEBUG: COPYABLE ENVIRONMENT FOR NEXT COMMAND:
01/17 23:56:02.157 metplus.GridStat (command_builder.py:151) DEBUG: export MODEL="HREF_MEAN"; export FCST_VAR="APCP"; export OBS_VAR="P06M_NONE"; export LEVEL="A06"; export OBTYPE="MRMS_QPE"; export CONFIG_DIR="/d1/mccabe/METplus.develop/parm/use_cases/qpf/met_config"; export FCST_FIELD="{ name=\"APCP_06\"; level=\"(*,*)\"; cat_thresh=[ gt12.7,gt25.4,gt50.8,gt76.2,gt152.4 ]; }"; export OBS_FIELD="{ name=\"P06M_NONE\"; level=\"(0,*,*)\"; cat_thresh=[ gt12.7,gt25.4,gt50.8,gt76.2,gt152.4 ]; }"; export INPUT_BASE="/home/mccabe/data/input"; export MET_VALID_HHMM="0622"; export FCST_TIME="024";
01/17 23:56:02.157 metplus.GridStat (command_runner.py:222) DEBUG: LOG_MET_OUTPUT_TO_METPLUS log file is True
01/17 23:56:02.159 metplus.GridStat (command_runner.py:119) INFO: app_name is: grid_stat, output sent to:
/home/mccabe/data/output-qpf/logs/master_metplus.log.20190117
01/17 23:56:02.160 metplus.GridStat (command_runner.py:155) INFO: RUNNING: /usr/local/met-8.0/bin/grid_stat
/home/mccabe/data/output-qpf/uswrp/HREFv2_Mean/bucket/20170622/hrefmean_2017062200_A06.nc
/home/mccabe/data/input/qpf/MRMS_QPE_Data/20170622/mrms_qpe_2017062200.nc
/d1/mccabe/METplus.develop/parm/use_cases/qpf/met_config/GridStatConfig_MEAN -outdir /home/mccabe/data/output-qpf/uswrp/met_out/HREF_MEAN/201706210000/grid_stat >> /home/mccabe/data/output-qpf/logs/master_metplus.log.20190117
2>&1
```

```
01/18 00:00:27.728 metplus.Mode (master_metplus.py:150) INFO: *****
01/18 00:00:27.729 metplus.Mode (master_metplus.py:151) INFO: * RUNNING METplus
01/18 00:00:27.729 metplus.Mode (master_metplus.py:153) INFO: * at init time: 201706210000
01/18 00:00:27.729 metplus.Mode (master_metplus.py:156) INFO: *****
01/18 00:00:27.793 metplus.PcpCombine (command_runner.py:222) DEBUG: LOG_MET_OUTPUT_TO_METPLUS log file is True
01/18 00:00:27.797 metplus.PcpCombine (command_runner.py:119) INFO: app_name is: pcp_combine, output sent to:
/home/mccabe/data/output-mode/logs/master_metplus.log.20190118
01/18 00:00:27.818 metplus.PcpCombine (command_runner.py:155) INFO: RUNNING: /usr/local/met-8.0/bin/pcp_combine -name
APCP_06 -add /home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f024.nc
"name="P01M_NONE"; level="(0,*,*)";"
/home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f023.nc "name="P01M_NONE";
level="(0,*,*)";" /home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f022.nc
"name="P01M_NONE"; level="(0,*,*)";"
/home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f021.nc "name="P01M_NONE";
level="(0,*,*)";" /home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f020.nc
"name="P01M_NONE"; level="(0,*,*)";"
/home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f019.nc "name="P01M_NONE";
level="(0,*,*)";" /home/mccabe/data/output-mode/uswrp/HREFv2_Mean/bucket/20170622/hrefmean_2017062200_A06.nc -v 2 >>
/home/mccabe/data/output-mode/logs/master_metplus.log.20190118 2>&1
DEBUG 2: Performing addition command for 6 files.
DEBUG 1: Reading input file:
/home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f024.nc
DEBUG 1: Reading input file:
/home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f023.nc
DEBUG 1: Reading input file:
/home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f022.nc
DEBUG 1: Reading input file:
/home/mccabe/data/input/mode/uswrp/HREFv2_Mean/native/20170621/hrefmean_2017062100f021.nc
```

```

01/18 00:00:29.630 metplus.Mode (command_builder.py:156) DEBUG: OBS_MERGE_THRESH=>4, >8
01/18 00:00:29.630 metplus.Mode (command_builder.py:156) DEBUG: OBS_MERGE_FLAG=THRESH
01/18 00:00:29.630 metplus.Mode (mode_wrapper.py:251) DEBUG: COPYABLE ENVIRONMENT FOR NEXT COMMAND:
01/18 00:00:29.631 metplus.Mode (command_builder.py:151) DEBUG: export MODEL="HREF_MEAN"; export
FCST_VAR="APCP"; export OBS_VAR="P06M_NONE"; export LEVEL="06"; export OBTYP="MRMS_QPE"; export
CONFIG_DIR="/d1/mccabe/METplus.develop/parm/use_cases/mode/met_config"; export FCST_FIELD="{ name=\"APCP_06\";
level=\"(*,*)\"; }"; export OBS_FIELD="{ name=\"P06M_NONE\"; level=\"(0,*,*)\"; }"; export QUILT="TRUE"; export
MET_VALID_HHMM="0622"; export FCST_CONV_RADIUS="15"; export FCST_CONV_THRESH=">5, >10"; export
OBS_CONV_RADIUS="15"; export OBS_CONV_THRESH=">5, >10"; export FCST_MERGE_THRESH=">4, >8"; export
FCST_MERGE_FLAG="THRESH"; export OBS_MERGE_THRESH=">4, >8"; export OBS_MERGE_FLAG="THRESH";
01/18 00:00:29.631 metplus.Mode (mode_wrapper.py:253) DEBUG:
01/18 00:00:29.631 metplus.Mode (mode_wrapper.py:260) INFO:
01/18 00:00:29.631 metplus.Mode (command_runner.py:222) DEBUG: LOG_MET_OUTPUT_TO_METPLUS log file is True
01/18 00:00:29.634 metplus.Mode (command_runner.py:119) INFO: app_name is: mode, output sent to:
/home/mccabe/data/output-mode/logs/master_metplus.log.20190118
01/18 00:00:29.635 metplus.Mode (command_runner.py:155) INFO: RUNNING: /usr/local/met-8.0/bin/mode
/home/mccabe/data/output-mode/uswrp/HREFv2_Mean/bucket/20170622/hrefmean_2017062200_A06.nc
/home/mccabe/data/input/mode/MRMS_QPE_Data/20170622/mrms_qpe_2017062200.nc
/d1/mccabe/METplus.develop/parm/use_cases/mode/met_config/MODEConfig_MEAN -outdir /home/mccabe/data/output-
mode/uswrp/met_out/HREF_MEAN/201706210000/mode >> /home/mccabe/data/output-mode/logs/master_metplus.log.20190118
2>&1
DEBUG 1: Default Config File: /usr/local/met-8.0/share/met/config/MODEConfig_default
DEBUG 1: Match Config File: /d1/mccabe/METplus.develop/parm/use_cases/mode/met_config/MODEConfig_MEAN
DEBUG 1: Merge Config File: /d1/mccabe/METplus.develop/parm/use_cases/mode/met_config/MODEConfig_MEAN
DEBUG 1: Forecast File: /home/mccabe/data/output-mode/uswrp/HREFv2_Mean/bucket/20170622/hrefmean_2017062200_A06.nc
DEBUG 1: Observation File: /home/mccabe/data/input/mode/MRMS_QPE_Data/20170622/mrms_qpe_2017062200.nc
DEBUG 1: Regridding forecast APCP_06(*,*) to the verification grid.
DEBUG 1: Forecast Field: APCP_06 at 0,*,*

```


Running METplus Live Demo

- You can try it yourself!
- Questions?