

VI.5.3C-MAPE PROGRAM FCST MEAN AREAL POTENTIAL EVAPORATION FUNCTION (MAPE)

Purpose

Function MAPE is a preprocessor Function that creates 24 hour Mean Areal Potential Evaporation time series.

Function MAPE checks all the available data from stations having the required meteorological observations for the computation of potential evaporation (PE). Point PE values are computed for all stations that have an observation of mean daily air temperature, dew point and wind speed plus observed or estimated solar radiation. The potential evaporation for each MAPE area is the weighted average of the station values. Future values of MAPE are estimated by blending the most recent computed value to the long-term mean for the MAPE area. Where station observations are missing for all the stations associated with an MAPE area, the long-term mean values adjusted by the user defined blend factor are used.

The computation sequence followed by the MAPE program is to compute the point PE for each individual station for every day requested in the run and then to compute the MAPE for each area. Future MAPE values are computed and blended to the observed values.

HCL Input

Input to Function MAPE is through the Hydrologic Command Language (HCL).

The input consists of Techniques and their Arguments (see Section VI.5.3D-MAPE-TECH [[Hyperlink](#)]).

Sample HCL Input

The following example will produce an MAPE time series using the run period default values for Techniques STARTRUN, ENDRUN and LSTCMPDY. Station PE estimates and the MAPE time series values will be printed for all days.

```
@SETOPTIONS
  STNPE(2)
  PRTMAPE(1)
@COMPUTE MAPE
@STOP
```

The following example will produce an MAPE time series starting 4 days before today's date and ending 4 days after today's date. Station PE observations, station PE estimates and the MAPE time series values will be printed for all days.

```
@SETOPTIONS
  STARTRUN *-04
```

```
ENDRUN    +04
STNPE(1)
PRTMAPE(1)
@COMPUTE MAPE
@STOP
```

Output

There are two types of output from Function MAPE. The first is printer output. The second is the time series which are written to the Processed Data Base.

Error Messages

The error messages printed by Function MAPE are described in Section VI.5.3C-MAPE-ERROR [[Hyperlink](#)].