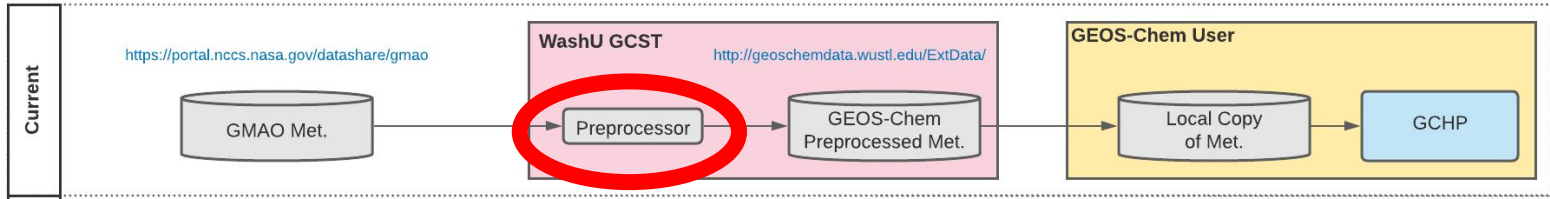


# Direct reading of GMAO meteorological data



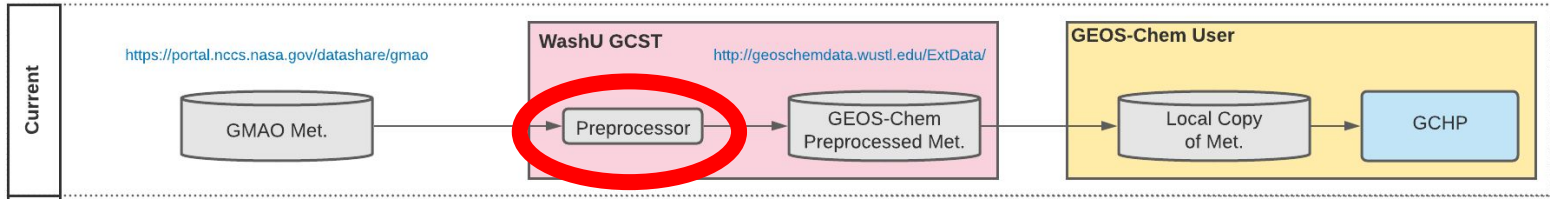
## The Problem

Using alternative met. data products is awkward because of our preprocessing requirement

## It doesn't need to be necessary

Nowadays, the preprocessor does light work (input  $\approx$  output)

# Direct reading of GMAO meteorological data



## Preprocessor Necessities

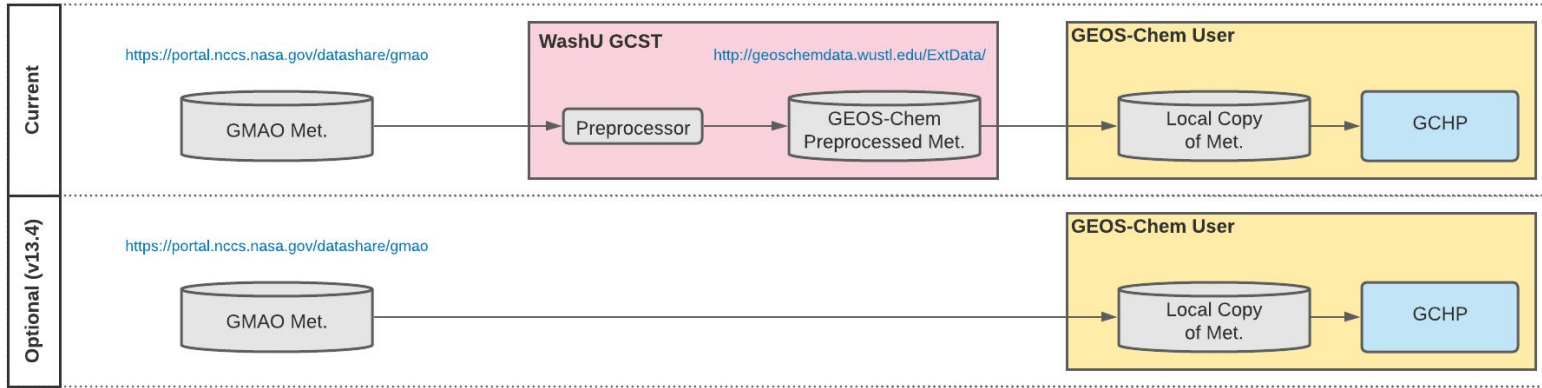
Vertically flips the data

Fills missing ALBEDO

$$OD_{\text{cloud}} = OD_{\text{water\_cloud}} + OD_{\text{ice\_cloud}}$$

Regridding (nested, coarse global)

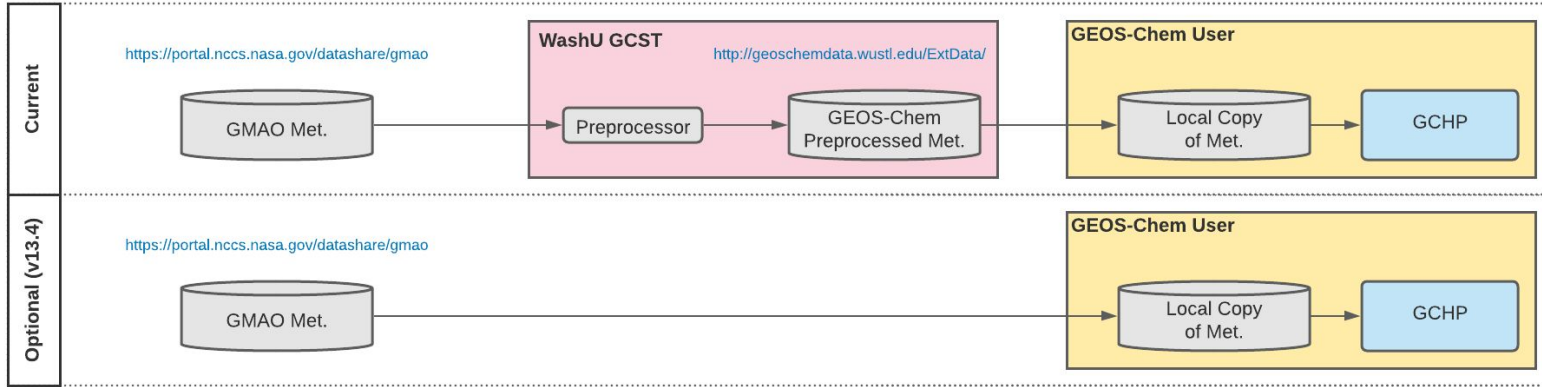
# Direct reading of GMAO meteorological data



## Useful outcomes

- + Easy to work with alternative met. Products (mass-flux sim, GEOS-IT, etc.)
- + Possibility for near real-time simulations (GEOS-FP available -12h)
- + Could be extended to GC-Classic

# Direct reading of GMAO meteorological data



## Preprocessor Necessities

Vertically flips the data

## GCHP

✓

## GC-Classic

~ (need to add switch)

Fills missing ALBEDO

✓

✓

$OD_{cloud} = OD_{water\_cloud} + OD_{ice\_cloud}$

✓

~ (need to sum online)

Regridding (nested, coarse global)

n/a

✓ (use FlexGrid)