6-hourly interpolation in ORCHIDEE standard

Basic principles

- State variables (e.g Temp) are instaneous values, linearly interpolated from one time step to another
- Flux variables (e.g. SW) are mean values over a time period:
 - SW is re-distributed inside a time period by using a weighted mean (solar_angle/mean_solar_angle)
 - Precipitation are uniformely redistributed

Climatologies based on NCEP/NCAR

- NCC => Ngo Dhuc
- CRU/NCP => Viovy
- Temporal characteristics
 - State variables are forecasts valid 6 hours after the reference time
 - Flux variables are 6 hour averages starting at the reference time

Input vs Output for ncc

- Swdown input
 - Swdown ouput
 - Tair input
- Tair output



Input vs Output for iera

- State variables are values at ref time
- Flux variables are averages centered at ref time

Swdown input Swdown ouput Tair input

—— Tair output



Input vs Output for iera modif

• C. Bacour modification for swdown

Swdown input Swdown ouput Tair input Tair output



To be done

- Inventory of the climatologies used and of their temporal characteristics
- To re-code readdim2.f90 for accounting for these different characteristics