

n_notbio → number of non-biological species (e.g. cities, lakes, bare soil)
 n_bio → number of biological species (including separate age classes as separate species)
 ncol_enerbil → number of enerbil atmospheric columns (e.g. in scheme 2, ncol_enerbil = n_notbio + n_bio)
 n_points → number of global grid points
 ncol_snow → number of snow columns
 ncol_heatsoil → number of heat transport columns in the soil
 ncol_hydsoil → number of hydrological transport columns in the soil
 nbasin_max → maximum number of water basins

MODEL: ORCHIDEE

SUB MODEL: sechiba

MODULE: enerbil

SUBROUTINE: column_calc

MODULE:
thermosoil

(see next page)

soilflx (npts)

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DO i = 1, npts
  soilflx (i) →
  .....
  → temp_sol (i)
END DO ! i = 1, npts

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temp_sol (npts)

preliminaries

main routine

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soilflx (npts, ncol_heatsoil)

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DO i = 1, npts
  DO j = 1, ncol_enerbil
    IF OPTION 1 or 2
      soilflx_internal (:, :) = soilflx(:, :)
    IF OPTION 3
      DO k = 1, ncol_heatsoil
        soilflx_internal (i, j) =
          FUNCTION (soilflx (i, k))
      IF OPTION 4
        DO k = 1, ncol_heatsoil
          soilflx_internal (i, j) =
            FUNCTION (soilflx (i, k))
        END DO k = 1, ncol_heatsoil
      END DO j = 1, ncol_enerbil
    END DO i = 1, npts
  END DO j = 1, ncol_enerbil
  DO i = 1, npts
    DO j = 1, ncol_enerbil
      IF OPTION 1
        soilflx_internal (i, 1) →
      IF OPTION 2,3 or 4
        soilflx_internal (i, j) →
      → temp_sol (i, j)
    END DO ! j = 1, ncol_enerbil
  END DO ! i = 1, npts
  temp_sol (npts, ncol_enerbil)

```

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