

### messy\_ncregrid\_base.f90

```
INTEGER, PARAMETER :: SP = SELECTED_REAL_KIND(6,37)
INTEGER, PARAMETER :: DP= SELECTED_REAL_KIND(13,307)
INTEGER, PARAMETER :: I4 = SLECTED_INT_KIND(4)
INTEGER, PARAMETER :: I8 = SELECTED_INT_KIND(9)
```

```
TYPE narray
  INTEGER :: n
  INTEGER, DIMENSION(:), POINTER :: dim
  REAL (SP), DIMENSION(:), POINTER :: vr
  REAL (DP), DIMENSION(:), POINTER :: vd
  INTEGER (I8), DIMENSION(:), POINTER :: vi
  INTEGER (I4), DIMENSION(:), POINTER :: vb
  CHARACTER, DIMENSION(:), POINTER :: vc
END TYPE narray
```

```
TYPE axis
  TYPE (narray) :: dat
  LOGICAL :: lm
  INTEGER :: ndp
  INTEGER, DIMENSION(:), POINTER :: dep
END TYPE axis
```

### messy\_ncregrid\_geohyb.f90

```
TYPE geohybgrid
  CHARACTER(LEN=GRD_MAXSTRLEN) :: file
  INTEGER :: t
  TYPE(ncvar) :: lonm, latm, hyam, hybm, timem
  TYPE(ncvar) :: loni, lati, hyai, hybi, timei
  TYPE(ncvar) :: ps, p0
END TYPE geohybgrid
```

### messy\_ncregrid\_tools.f90

```
TYPE NCRGCNT
  CHARACTER(LEN=NCCNTMAXNLEN) :: name
  INTEGER :: start
  INTEGER :: step
  INTEGER :: reset
  INTEGER :: current
END TYPE NCRGCNT
```

### messy\_ncregrid\_netcdf.f90

```
TYPE ncdim
  CHARACTER(LEN=GRD_MAXSTRLEN) :: name
  INTEGER :: id
  INTEGER :: len
  LOGICAL :: fuid
  INTEGER :: varid
END TYPE ncdim
```

```
TYPE ncatt
  CHARACTER(LEN=GRD_MAXSTRLEN) :: name
  INTEGER :: num
  INTEGER :: xtype
  INTEGER :: varid
  INTEGER :: len
  TYPE (narray) :: dat
END TYPE ncatt
```

```
TYPE ncvar
  CHARACTER(LEN=GRD_MAXSTRLEN) :: name
  INTEGER :: id
  INTEGER :: xtype
  INTEGER :: ndims
  TYPE (ncdim), DIMENSION(:), POINTER :: dim
  INTEGER :: uid
  INTEGER :: ustep
  INTEGER :: natts
  TYPE (ncatt), DIMENSION(:), POINTER :: att
  TYPE (narray) :: dat
END TYPE ncvar
```