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The Regional Aerosol Model Intercomparison Project (RAMIP)

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This supplement contains an example of using the CDO functions, `mergegrid` and `sellonlatbox`, to modify SSP emission files for the RAMIP simulations. In the example below, `mergegrid` is used to insert SSP1-2.6 data from a specified geographical region into an array containing SSP3-7.0 data everywhere else. We recommend performing the fixed SST experiments first to evaluate the modified emission files, in addition to basic checks on the emissions files themselves, before performing the more computationally intensive coupled experiments.

```
#!/bin/bash
#List emission files
list=`ls /example/ssp126/*.nc`
for ll in $list; do
file="${ll##*/}"
echo $file

#Replace SSP3-7.0 with SSP1-2.6 for the longitude-latitude box bounded
#by lon1,lon2,lat1,lat2
cdo -mergegrid /example/ssp370/$file \
-sellonlatbox,lon1,lon2,lat1,lat2 \
/example/ssp126/$file /example/ramip/$file

#Extract the 12 months of data for 2050 (time indices tmin to tmax) from
#the timeseries to make the input file for the fixed SST simulations
ncks -d time,tmin,tmax /example/ramip/$file /example/ramip_fsst/$file

#Update attributes in the file for the fixed SST simulations
ncatted -a update_type,global,m,l,2 /example/ramip_fsst/$file
done
exit
```