Input databases

Fire observations
MODIS (1 km, 500 m)

Vegetation type
observation
MODIS (500 m)

Fuel consumed
ORCHIDEE model simulations (70 km)
or tabulated values from literature

Gridding onto specified domain and resolution
1. Calculate area burned (AB) and attribute vegetation type at resolution of fire detection
2. Total AB and fraction in each vegetation type on model grid
3. Regrid potential carbon consumed

Calculate emissions
1. Carbon emissions; dry matter burned
2. Derive emissions for inventory species using emission factors

CTM input files
1. Convert to model species using aggregation matrix
2. Write fluxes to output netcdf file