This document contains steps necessary to run EDv2.2.

1) Compilation: EDv2.2 needs to be compiled in an appropriate compiler (intel, fortran etc), by specifying the locations to required modules (compiler, mpi, hdf5).

a. Download and install latest hdf5

b. Check and install mpicc, if needed

c. Edit include.mk.gfortran or include.mk.intel file in ED/build/make folder to make necessary correction to link to correct paths for HDF5\_HOME and LIBS.

d. Compile the model.

2) Preparare input data: Vegetation data can be used from an inventory based information (Glenn et al,,2017), remote sensing data or run for a spin-up. Cohort and Patch level information need to be created as text files with .css and .pss extensions respectively.

Meteorological file need to be created on HDF5 format. We used climate data by subsetting Weather Research and Forecasting (WRF) model (Flores et al., 2016) for the study area.

3) Prepare namelist file (ED2IN file): We define model run parameters in the namelist file and set up header for climate data

4) Prepare header file for met data: Prepare header file for met data according to the data characters, such as types of variables, temporal resolution, spatial reference, etc.

5) Load necessary modules: Load necessary modules eg, compiler (fortran/intel), openmpi (fortran/intel), hdf5

6) Model run: Model can be run for specified time period using inputs and initial conditions. For regional analysis, we can use mpi parallel runs.

Refer to Ecosystem Demography model (ED-2) code repository for more information at <https://github.com/EDmodel/ED2> (ED-2 model development team, 2014).

Reference:

ED-2 model development team: Ecosystem Demography model (ED-2) code repository, available at: https://github.com/EDmodel/ED2 (last access: 20 September 2019), 2014.

Flores, A., Masarik, M., and Watson, K.: A 30-Year, MultiDomain High-Resolution Climate Simulation Dataset for the Interior Pacific Northwest and Southern Idaho, data set, https://doi.org/10.18122/B2LEAFD001, 2016.

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