1. Generating the configuration files (in JSON format) and running commands for the simulations.

The script was written in Java. All the scripts in Java can be downloaded via a subversion repository (svn://mmweb.animal.net.cn/NicheBreadth/trunk). The function for step No.1 can be found in the following location.

**package** org.ioz.niche.breadth.r2016\_r12

**class** GenerateJson

**public** **void** generateSpeciesJson()

**public** **void** generateScenarioJson()

**public** **void** generateCommand()

1. Launching the simulations by running the commands generated in step No.1.

The simulation application was written in C++. The source code is open accessed. Everyone can use it under GNU Public License. The latest source code can be downloaded via svn://mmweb.animal.net.cn/nb\_icesheet/trunk. More details about the code is in its documentation.

The simulations’ results were saved in a batch of log files in plain text, GIS raster (GTIFF) or NEXUS tree formats.

1. Analyzing the log files, extract the useful information and import them into the database.