

# Senior Seminar

Skylar Thompson

November 20, 2005

Weather generators such as Cligen use a large database of historical weather readings to produce a likely model of weather at a particular site on a particular day. Because of the amount of data, the models can take a long time to generate. Parallelization of the software could result in significant speed-ups. The core equations involve summations and nested polynomials, so I would expect to get fairly significant speed-up.

In addition to improving run-time, I would also like to design a graphical front-end for the simulation. The front-end would not only display a human-readable summary of the data, but would allow the user to tweak the local conditions to see what small (or large) changes to the weather have on the model.