

1. How long does it run? Should I just manually stop it, once it settles into a "static" display? I hesitate to stop it, because I figure it's supposed to arrive at "the best" one based on the settings.

Answer: Yes, use your own judgment, based on how "static" it looks. I researched "stopping criteria" for genetic algorithms and the conclusion was that it's an unsolved problem. So I decided to leave it to the user to determine, based on how static the map is, and what the stats of the map are.

How long that takes depends on a few things:

- * granularity of the shape file**
- * "population size"**
- * where the annealing rate slider is set**
- * how fast your computer is.**

These factors all effectively multiply together.

2. The % mutation slider seems to decrease by itself, but it has approached 0 and has not ever gotten there. I figured it was a kind of de facto progress meter, but maybe not.

Answer: The mutation amount automatically decreases over time at a rate determined by the "annealing rate" slider. The rate decreases **geometrically over time - meaning each iteration the mutation fraction is **multiplied** by e.g. 0.99 (the rate depends on the annealing rate slider), as opposed to having an amount subtracted from it. This is why it never reaches zero.**

And yes, it has a side effect of serving as a de facto progress meter.

3. I don't understand "Quota" or "HARE".

Answer: "quota" and "hare" are for multi-member ranked choice districts, such as what FairVote.org promotes. If you aren't doing multi member districts, you can ignore it.