# Readme

Language Used: Java

JRE: 7

# How to run the program:

Simply run the class TSP.java, no need to give any arguments.

#### Note:

Do not delete the file 'texas\_cities\_with\_coordinates.txt', as the coordinates are read from this file.

### **Best output found so far:**

Brownwood Stephenville Waco Temple Killeen Austin SanAntonio Kerrville Hondo Cotulla Laredo Mcallen Brownsville Harlingen Kingsville Alice CorpusChristi Rockport ChaseNAS Victoria Palacios Galveston Houston Hooks CollegeStation PortArthur Lufkin Longview Tyler Greenville Paris Sherman Dallas FortWorth MineralWells Wichita Childress Amarillo Dalhart Plainview Lubbock BigSky BigSpring Midland Wink Guadalupe ElPaso Marfa Sanderson DelRio Junction SanAngelo Abilene

Total Tour Length: 3525.3 mi

**Total Iterations:** 50000

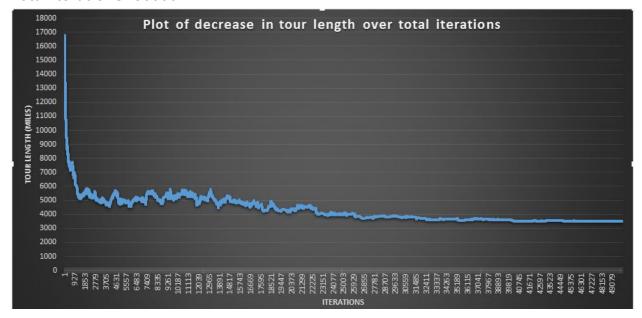


Fig1: Profile showing how quality of solution (tour length) decreased over 50000 iterations, converging at a tour length of 3525, using a starting temp of 50

## **Temperature Schedule Used:**

Temperature schedule started at 50 and decreased linearly to 0 with a rate of 0.001.

```
fun schedule ( iter ):  return\ INITIAL\_TEMP - 0.001\ *\ iter; \\ where\ INITAL\_TEMP = 50
```

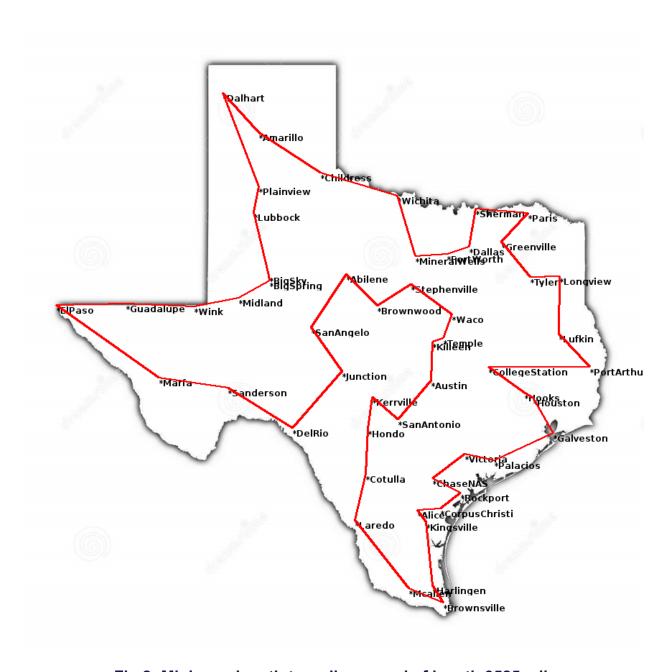


Fig 2: Minimum length tour discovered of length 3525 miles