

VRDI CHAIN INSTRUCTIONS

VRDI
MGGG

1. INTRODUCTION

This guide provides a brief guide to running the chain program. This assumes that you have already installed chain using the earlier guide.

2. RUNNING CHAIN

(1) Start by launching a command prompt.

(2) Enter the vrDI directory

```
conda activate vrDI
cd %VRDI_DATA%      (<- Windows)
cd $VRDI_DATA      (<- unix/mac)
```

(3) You can run

```
chain -h
```

to see the help and any flags that are currently allowed (and make sure you are in the right place).

(4) Since we want to separate the output for various runs we should make a new directory:

```
mkdir 2011_sen10
cd 2011_sen10
```

(5) A basic run of the chain software looks like (all one line at your prompt):

```
chain -f ..\precincts.txt --filename_wes_units ..\plans\2011.csv
--filename_election_results ..\elections\sen10.csv -n 18 -M -d 14
```

The output of this run should something like:

```
We have 9059 precincts.
There are 4792/2 boundary edges
Random seed for this run is 3499211612
first edgeset.count is 4792
first p is 0.132157
first revisitations is 3
A has 1951779 votes
B has 2037272 votes
total population is 12702379
initial median_mean is 0.0622747
```

```
for i=0,
--FOR MEDIAN/MEAN--
median_mean is 0.062295
moreunusual is 16
lessunusual is 0
```

ep=1
p=1.4142

for i=65536,
--FOR MEDIAN/MEAN--
median_mean is 0.055286
moreunusual is 204
lessunusual is 193420
ep=0.0010536
p=0.045904

for i=100000,
--FOR MEDIAN/MEAN--
median_mean is 0.049732
moreunusual is 220
lessunusual is 270270
ep=0.00081334
p=0.040332

for i=131072,
--FOR MEDIAN/MEAN--
median_mean is 0.051346
moreunusual is 220
lessunusual is 336777
ep=0.00065282
p=0.036134

for i=196608,
--FOR MEDIAN/MEAN--
median_mean is 0.055124
moreunusual is 220
lessunusual is 477927
ep=0.00046011
p=0.030335

for i=262143,
--FOR MEDIAN/MEAN--
median_mean is 0.04412
moreunusual is 220
lessunusual is 618600
ep=0.00035552
p=0.026665