Administrator Manual

Un-Gerrymandered Software

Customer: Shawn Squire

DIAMOND DISTRICTING

Members: Corey Atkins, Matthew Hancher, Nahum Meherete, Joey Napolitano, Nirav Shah, Eric Yoo

Date: December 5, 2017

Un-Gerrymandered Software

Administrator Manual

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Section 1: Introduction

Section 1.1 Purpose of This Document

The purpose of this document is to inform the Administer of the *Un-Gerrymandered Software* provided by Team Diamond. Team Diamond will inform the user how to maintain, install, and handle the software. In the event of limitations or errors, this manual will be able to guide you to better use *Un-Gerrymandered Software*. As the administrator of the software after initial download, it will be the user's responsibility to maintain the software, instructions will be provided how to keep your program up to date and working properly.

Section 1.2: References

Diamond Districting. (2017, October 24). *Un-Gerrymandered Software System Design Document.*

Diamond Districting. (2017, October 19). *Un-Gerrymandered Software System Requirements Specification.*

Diamond Districting. (2017, November 28). *Un-Gerrymandered Software Code Inspection Report.*

Ingraham, Christopher. (2015, March 1). *This is the best explanation of gerrymandering you will ever see*. Retrieved from https://www.washingtonpost.com/news/wonk/wp/2015/03/01/this-is-the-best-explanation-of-gerrymandering-you-will-ever-see/?utm_term=.8c8e3fe95ad1

(2017, August 12). *Redistricting*. Retrieved from https://en.wikipedia.org/wiki/Redistricting#Gerrymandering

UMBC CSEE. (2015, Spring Semester). *C++ Coding Standards*. https://www.csee.umbc.edu/courses/undergraduate/202/spring15/projects/coding-standards.shtml.

Kevin Baas. (2012, November 12) *Auto-Redistrict*. http://autoredistrict.org/

The Qt Company. (2017) *Qt*. 5.6.x Offline Installers. https://www.qt.io/

Diamond Districting. (2017, October 17). https://github.com/DiamondDistrict/CMSC_447

Section 2: System Overview

Section 2.1: Background

The program was implemented on *Qt* software with a Java algorithm to sort the gerrymandered data. With the use of pre-formatted shapefiles, we can divide and conquer previously gerrymandered states with the *Un-Gerrymandered Software*. The program will be pre-loaded with states Maryland, North Carolina, and Wyoming to get a handle for selecting districts. Districts of even numbers 2-16 will be available for viewing with Maryland, odd numbers 1-15 will be available for North Carolina, and districts 1-8 for Wyoming. Also you can open the implementation for the redistricting software and choose your own number of districts with the *Auto Redistricting* source provided by Kevin Baas of autoredistrict.org. The user is also responsible for any updates *Qt* 5.6.x offline installer may need.

Section 2.2: Hardware and Software Requirements

The user will need the most recently updated Java version 8, and *Qt* version 5.6.x offline installer. Processor: 1 gigahertz (GHz) or faster processor or SoC. RAM: 64MB for 32-bit or 128MB for 64-bit. Hard disk space: about 1GB for storage. Graphics card: DirectX 9 or later with WDDM 1.0 driver. Display: 800x600.

Section 3: Administrative Procedures

Section 3.1: Installation

Installation of current version of Java version 8 and *Qt* version 5.6.x offline installer will be required. Download the zip file from the Diamond District github and run the execution file. Updates will be available in the same fashion in brand new zip files (we hope to eventually patch on new updates in the future). Shapefiles will be usable on old and new sources of the Diamond District software.

Section 3.2: Routine Tasks

Checking for current updates are recommended but not required. Brand new shapefiles and census information will become available after first launch of Diamond District software, so for accurate quality software, we recommended the latest updates. If any errors or limitations are recognized, please forward your concerns to diamonddistricting@gmail.com to bring attention to these issues.

Section 3.3: Periodic Administration

As an open source software, submitted bugs and fixes will be helpful to our company. Updates will be qualitative in nature and will be few and far between, as to not bother the users but keep quality of the software high. Downloading the latest shapefiles is up to user, the latest census information is currently being formatted and will be released at a later date.

Section 3.4: User Support

We at Diamond Districting appreciate those that have used and will be using our software. We provide our assistance and prompt response to our emails as they are received. Help features within the software will be available in our second release.

Section 4: Troubleshooting

Section 4.1: Dealing with Error Messages and Failures

As of right now, error messages are being handled by closure of the program and starting over. Most errors will be handled within the program, but if not, they will be critical, causing the program to crash.

Section 4.2: Known Bugs and Limitations

We at Diamond District understand that buggy programs with limitations make for short term lifespan software, but with the help of the community, we will reduce these bugs and limitations. The only known bugs are the the zoom in and zoom out features of the GUI implementation. The zoom in/out features will only maximize/minimize the window respectively. As of right now the provided shapefiles are the recommended files to use and the only ones to use limiting our users. Referring to the CIR you can find the common bugs and limitations.

Appendix A – Agreement Between Customer and Contractor

Client Agreement

Shawn Squire
1000 Hilltop Circle
Baltimore, MD 21250

The following represents an agreement between **Diamond Districting** (hereinafter referred to as “we”, “us”, or “Diamond Districting”) and **Shawn Squire** (hereinafter referred to as “you” or “Client”). The details of this agreement are as follows:

Professional Services. The Client hereby contracts with Diamond Districting to perform a visualization of non-gerrymandered states.

Description of Services. The following services will be provided:

· Files containing all source code to Un-Gerrymandered Software

Other Terms/Customer Comments

_____
_____
_____
_____
_____

Terms and Conditions

Limited Liability. We shall not be liable for any delay due to circumstances beyond our control to provide services, including acts of God, war, government regulations, disaster, or civil disorder.

Amendments. Any changes or modifications must be specifically placed in writing, attached, dated, signed, and approved by both parties.

Cancellation. Cancellation of services should be provided to **Diamond Districting** in writing to amend the current client agreement. In the event that the client cancels the contracted services outlined in this contract, the initial payment will be forfeited.

I have read and understand the terms of the entire agreement. I hereby agree to the terms of this agreement. We both agree to make the attached Terms and Conditions as part of this Agreement.

Client

Shawn Squire: ____Shawn Squire_____ **Date** __12/5/2017_____

Diamond Districting (Team)

Corey Atkins: _____Corey Atkins_____ **Date** _12/5/2017_

Matthew Hancher: _____Matthew Hancher_____ **Date** _12/5/2017__

Nahum Meherete: _____Nahum Meherete_____ **Date** __12/5/2017__

Joey Napolitano: _____Joey Napolitano_____ **Date** _12/5/2017__

Nirav Shah: _____Nirav Shah_____ **Date** _12/5/2017__

Eric Yoo: _____Eric Yoo_____ **Date** __12/5/2017___

Appendix B - Peer Review Sign-off

All members of Diamond Districting have reviewed the document and agree on its content and format.

Corey Atkins: _____Corey Atkins_____ **Date** __12/5/2017___

Matthew Hancher: ____Matthew Hancher_____ **Date** __12/5/2017___

Nahum Meherete: ___Nahum Meherete_____ **Date** _12/5/2017___

Joey Napolitano: ____Joey Napolitano_____ **Date** _12/5/2017_____

Nirav Shah: _____Nirav Shah_____ **Date** __12/5/2017__

Eric Yoo: _____Eric Yoo_____ **Date** _12/5/2017____

Comments:
__None_____

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Appendix C – Document Contributions

Atkins, Corey - Background, Routine Tasks, Known Bugs and Limitations (15%)
Hancher, Matthew - Purpose of this Document, Background, Hardware and Software Requirements, Routine Tasks, Dealing with Error Messages and Failures (65%)
Meherete, Nahum - Dealing with Error Messages and Failures (5%)
Napolitano, Joey - Appendix A, B, & C, User Support, Installation, Routine Tasks (5%)
Shah, Nirav - Known Bugs and Limitations (5%)
Yoo, Eric - Dealing with Error Messages and Failures, Known Bugs and Limitations, References (5%)