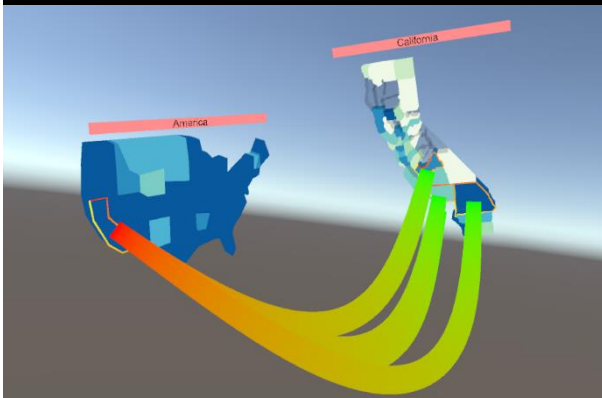# UPS:
Virtual Reality

INSTRUCTION BOOKLET

WARNING: PLEASE CAREFULLY READ INFORMATION AND PRECAUTIONS INCLUDED BEFORE USING

Thank you for choosing our visualization system for your company.

Please read the instruction book carefully to ensure maximum usefulness of the system. Then save this book for further reference

TABLE OF CONTENTS

GETTING STARTED

Running the tool requires specific hardware and software. Listed below are the requirements accompanied by a brief introduction of the main components.

Hardware Specifications

- CPU: Intel i5-4590/AMD FX 8350 equivalent
- GPU: Nvidia Geforce GTX 970/ AMD Radeon R9 290
- RAM: 4GB DDR4
- CPU Cooler: Stock/Deepcool Gammaxx 400
- Video Output: HDMI 1.4, DisplayPort 1.2 or newer
- USB Port: 1x USB 2.0 or better port
- 250 GB HDD(To store necessary program and data)
- VR Equipment: Value Index, HTC Vive, Oculus Rift, Windows Mixed Reality

Software Specifications

- Operation System : Windows 7, Windows 8.1 or Windows 10
- Steam
- SteamVR

Main Components

Legend

County Stack

Map
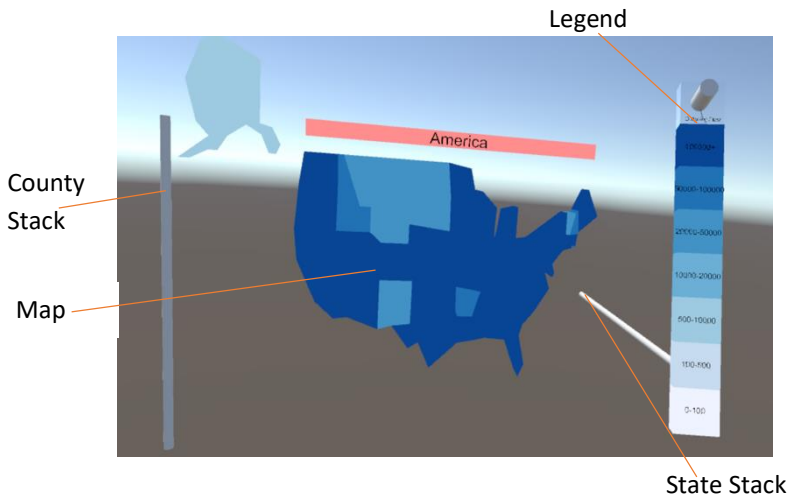
State Stack

There are four main components included in our project:

- Stack:
    - State Stack: Hold the selected state maps
    - County Stack: Hold the selected county maps
- Map: Overview map of the country.
- Legend: A guide for how much incoming/outgoing for each map, the button on the top will be the toggle between incoming and outgoing data.

Safety Precautions

- The headset produces an immersive virtual reality experience that distracts users from and completely blocks the view of their actual surroundings. Always be aware of surroundings when using the headset.
- Take special care to ensure that you are not near other people, objects, stairs, balconies, windows, furniture, or other items that you can bump into or knock down when using-or immediately after using-the headset
- Do not handle sharp or otherwise dangerous object while using the headset. Never wear the headset in situations that require attention, such as walking, bicycling or driving.
- Do not wear glasses when using the headset. Doing so may cause facial injuries. If you need corrective lenses, it is recommended that you wear contact lenses when using the headset.

CONTROLLER OPERATION

Trigger

Grip Button

Trackpad

Trackpad

- Rotate the map on the vertical axis (clockwise)

- Move the map away from the controller

- Rotate the map on the vertical axis (anticlockwise)

- Move the map towards the controller

Trigger

- Generate the selected map if pointer is pointing to a map
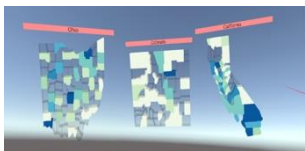- Show the help menu

Grip Button

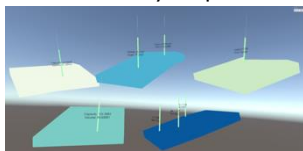- Grab the map

Interaction with Maps

Draw a map

You will be able to draw a map by hovering over a region and pressing the trigger button.

These new maps are referred to as the children of the original map.
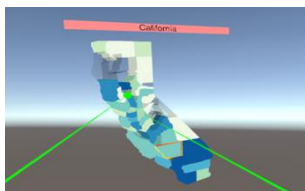
State Maps

County Maps

Scale the map

You can scale the map by griping the map using two controllers at the same time.

This is done through a pinching action similar to touch screen devices.

Deleting the Map

If you want to delete a single county, grab and flick it in any direction.

If you want to delete a state, grab and flick it. Be careful, once you have deleted the state, all the county maps which belong to the state will also be deleted.

If you want to delete all the state and county maps, you can select the country map and flick it. Then all the 'children' maps will be deleted.
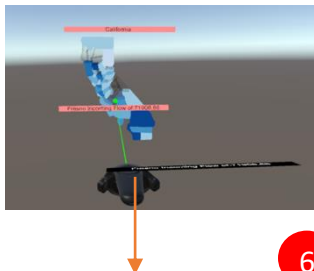
Displaying Map Information

Once your controller is pointing to a region on a map, it will show the incoming/outgoing data on the screen.

Legend

- **Change between incoming and outgoing**

  You can switch between incoming or outcoming data, for each region. This is done by simply pressing the trigger button on the toggle button on top of the legend.
  The class breaks will not change by pressing the button

Button
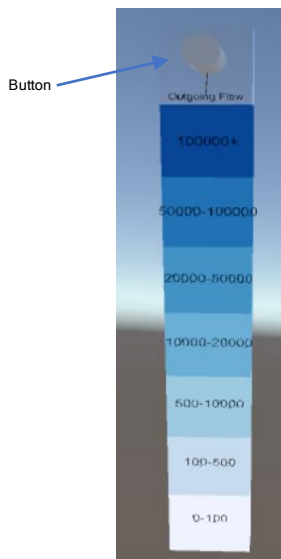
Flows

The flow follows the rule of:

- Green is origin and red is destination.
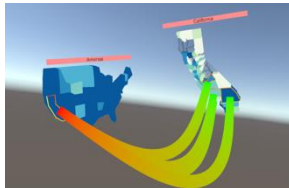- Thicker means larger data

Internal Flows

- The internal flows will show the flows internal to the map.
- You just need to click which two or more you want to see.
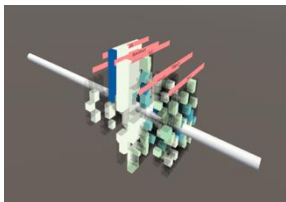

External Flows

- The external flows will be able to show the flows between two different maps.
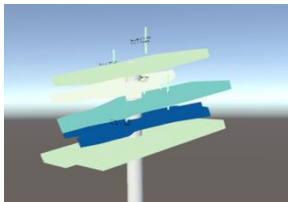
Stacks

We have provided two stacks for you to easily access the maps you have created.

State stack

County stack

- When you grab a map from either stack, it will grow in size for your ease of reference.