Tutorial: Keydial System

# Introduction

Welcome to a new generation of text entry in VR. The old system of “point-and-click” entry can be slow and often immersion-breaking. With the Keydial System, text entry is fast and feels like a natural part of the virtual environment. When in Text Entry mode, Keydials will appear around each wrist of the player. Selection is as simple as rotating one’s wrists to the desired character. The Keydial System allows for treating text input like any other interaction in a virtual environment rather than requiring a separate interface.

# Enter/Exit Text Entry Mode

To enter Text Entry Mode, select an available Text Entry Object with the Index Trigger on either hand. In this virtual environment, the canvas above the desk is a Text Entry Object. Your movement around the environment will be temporarily disabled, as both Thumb Sticks are used for text entry. To leave Text Entry Mode, simply select an area outside of the Text Entry Object with either Index Trigger.

# Basic Text Entry

When in Text Entry Mode, your Thumb Sticks will be used to choose which Keywheel of characters you wish to select from. The Left and Right Hand Keydials each have four unique Keywheels, mirroring the rows each hand would select from on a traditional keyboard. The Keys available on each Keywheel are listed below:

|  |  |
| --- | --- |
| Left Hand Keydials | Right Hand Keydials |
| UpWheel – q w e r t y | UpWheel – y u i o p |
| InWheel – a s d f g | InWheel – h j k l ; |
| DownWheel – z x c v b | DownWheel – n m , . / |
| OutWheel – 1 2 3 4 5 | OutWheel – 6 7 8 9 0 |

The steps of Text Entry are as follows: Select Keywheel with Thumb Stick -> Rotate to desired Key -> Release Thumb Stick. For example, lets say you wished to enter the character “1”. You would move the Left Thumb Stick to the outside position (left on the Left Hand Controller), rotate your Left Hand Controller to the “1” Key, and release the Left Thumb Stick. If you select the wrong Keywheel, you can release the Thumb Stick when rotated to either of the blank Keys to deselect the Keywheel.

# Advanced Controls

The Keydial System also allows for common text entry controls such as Shift, Space, Tab, Enter, Backspace, moving the Cursor, and entering Special Characters.

## Shift

To shift to Uppercase Keywheels, click the Thumb Stick on the Controller containing the Keywheel you wish to select from. This feature functions similar to CapsLock on a traditional keyboard, so the Thumb Stick will need to be clicked again to return to Lowercase Keywheels. The Uppercase Keys available for selection mirror those available using Shift on a traditional keyboard and are listed below.

|  |  |
| --- | --- |
| Left Hand Uppercase Keydials | Right Hand Uppercase Keydials |
| UpWheel – Q W E R T Y | UpWheel – Y U I O P |
| InWheel – A S D F G | InWheel – H J K L : |
| DownWheel – Z X C V B | DownWheel – N M < > ? |
| OutWheel – ! @ # $ % | OutWheel – ^ & \* ( ) |

## Space, Backspace, Enter, and Tab

Space: To enter the Space character, press the Hand Trigger located on the side of either Left or Right Hand Controller.

Backspace: To delete the character before your Cursor, press the B Button on the Right Hand Controller.

Enter: To create a new line of text, press the A Button on the Right Hand Controller.

Tab: To enter whitespace similar to the Tab function on a traditional keyboard, press the Y Button on the Left Hand Controller. (Due to the nonexistence of tab stops in Text Entry Objects, the Tab function will create whitespace approximately five characters wide rather than moving to the next tab stop.)

## Special Characters

## Move Cursor?