

THE TANGIBLE UNIVERSE – DOCUMENTATION

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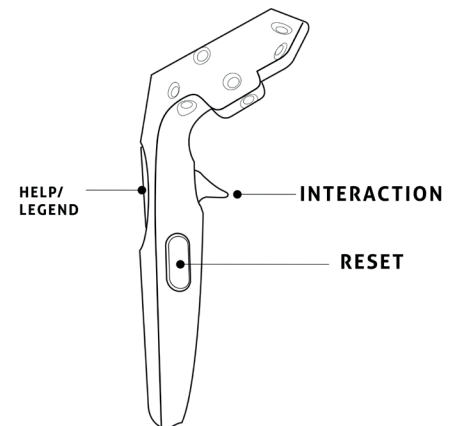
What you will see once you put on the glasses is the view of the universe from a satellite that orbits Earth. The background image shows the universe in visible light as we would see it with our own eyes. The objects that pop up however are sources of X-ray light. This kind of light is invisible to our eyes and is absorbed by Earth's atmosphere. In this data visualization however you feel and see how the X-ray universe looks like.

REQUIRE HARD- AND SOFTWARE

Windows
Steam VR
HTC Vive

RUN THE APPLICATION

Unzip the downloaded folder and run the TTU_ENGLISH.exe file. Due to the large number of data points that are uploaded, it is recommended to wait until the >loading< sign has disappeared before moving around and interact with the data objects..



CONTROLS

MOVEMENT (SWIMMING)

Hold both INTERACTION buttons. Spread the controllers apart to move the player in forward direction of the camera. Equivalently, moving the controllers closer to each other will move the player backwards.

INTERACT WITH DATA

Hold a controller into the center of an data object. The controller starts vibrating. The strength of the vibration is correlated with the intensity of the X-ray light that is emitted by the object. The stronger it vibrates, the higher its X-ray intensity.

To interact hit the INTERACTION button while the controller is vibrating. There are two interactions (one per controller): *Attract sources* or *Show data values*.

Attract Sources: this feature allows you to sort the different sources of X-rays by classification. Once this interaction button is pressed all objects, which belong to the same object class as the one you interacted with, are attracted in your surrounding.

Show data: activate to see the measured properties of a data object. Each branch that is created belongs to a different observable. In addition, you hear an explanation of the class type which you interacted with. What kind of class does this object belong to? Or how it produces X-ray light.

RESET

To undo the sorting of data objects, hit the RESET button on any of the controllers.

LEGEND / INFO

Press the TOUCHPAD (HELP/LEGEND) of a controller to show the legend. There is one for each controller which shows how data is used to define the appearance of a data object. „What you see?“ explains the outer appearance while „What does the data mean?“ explains the measured values for each object. Press the touchpad again to hide the canvas.

If you have any questions, comments, or recommendations, just drop me an e-Mail at hello@annok.de or send me a message on [facebook.com/annokdesign](https://www.facebook.com/annokdesign).