WorkinVR

Virtual Desktop and Augmented Keyboard overlay

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Overview

Virtual reality is the new human-computer interactive interface. It brings a new magnitude in our ability to create and experience new environments limited only by our imagination. Now we are no more bound by the two-dimensional rectangular screen but fully immersed in a three-dimensional space

Most of us when we go to work every day we sit in front of the computer screen and use a keyboard to do our job. These are the most important devices to interact with the informational world and yet up to this point of time Virtual Reality fails to offer a good enough alternative. There are no existing practical application of virtual screen and keyboard.

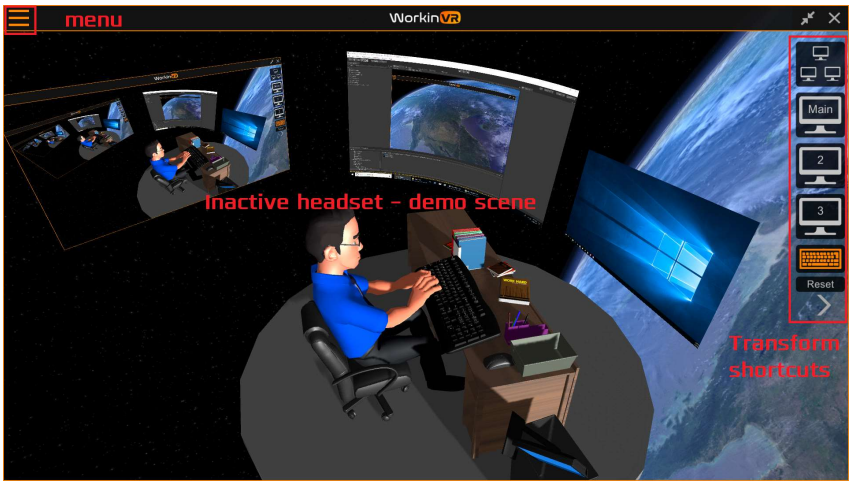
WorkinVR standing for "Work in virtual reality" delivers such a solution. It bridges the gap between the old and the new technology by providing a flexible, easy to use virtual displays mirroring your monitors and augmented keyboard which is a live stream of your real keyboard inside the virtual environment. In addition it provides a utility for VR creators to edit their project inside their virtual world while creating.

Last but not the least "WorkinVR" is an overlay on the top of any standalone virtual reality application. Play your favorite VR game or app and access your desktop and keyboard at the same time.

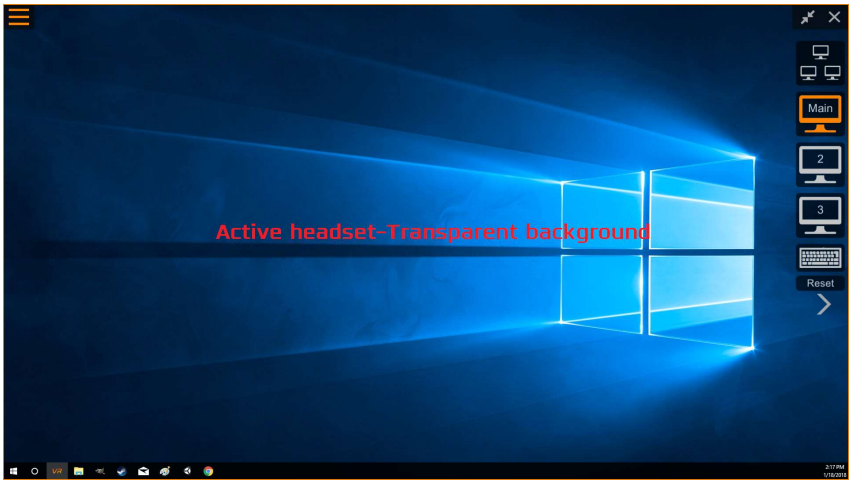
WorkinVR is an intuitive, easy to use and efficient tool. Just a click of a mouse and you can position, scale, rotate your virutal displays or keyboard in space.

Home screen

When the application starts it will show a demo scene, menu icon and transform shortcuts. The demo scene represents your 3D layout, transform shortcuts allow you to transform a display or the keyboard and the menu button leads to all other options.If the application is launched for the first time there will be a quick tutorial.



Once you put the headset on, the demo scene disappears . This allows you to see the desktop application behind WorkinVR window and at the same time gives you control over your virtual rig. Inside VR there is now need to see the demo scene.



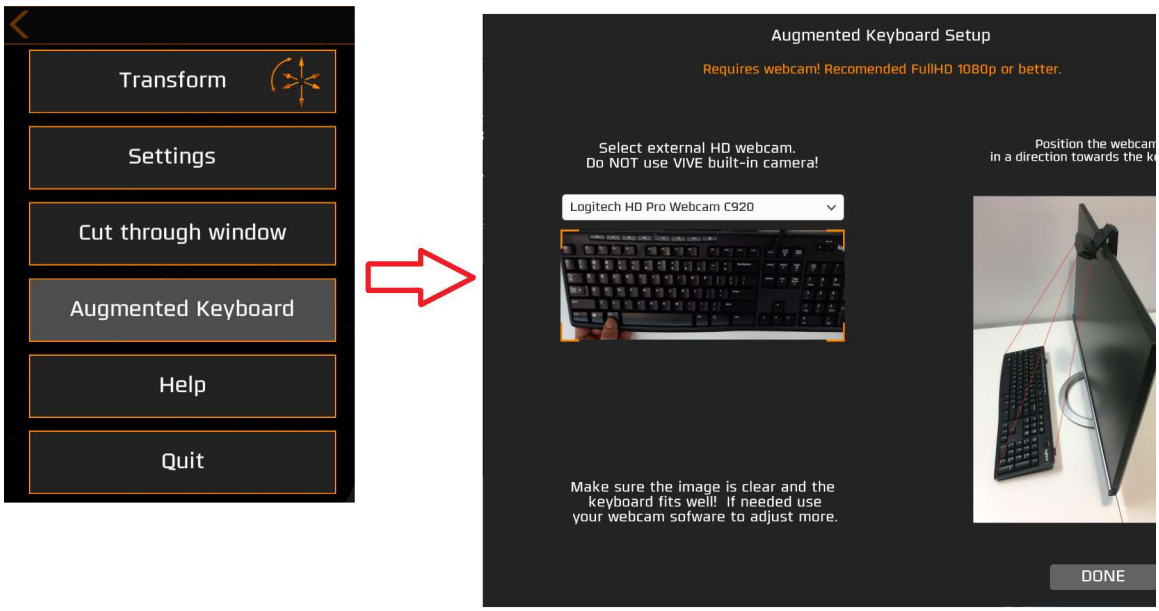
Keyboard setup

In order to use the augmented keyboard the user needs to set up an external webcam. Press menu button and then Augmented Keyboard. From the dropdown menu select the webcam. Position the webcam so it sees the keyboard and fits it into the shown boundaries.

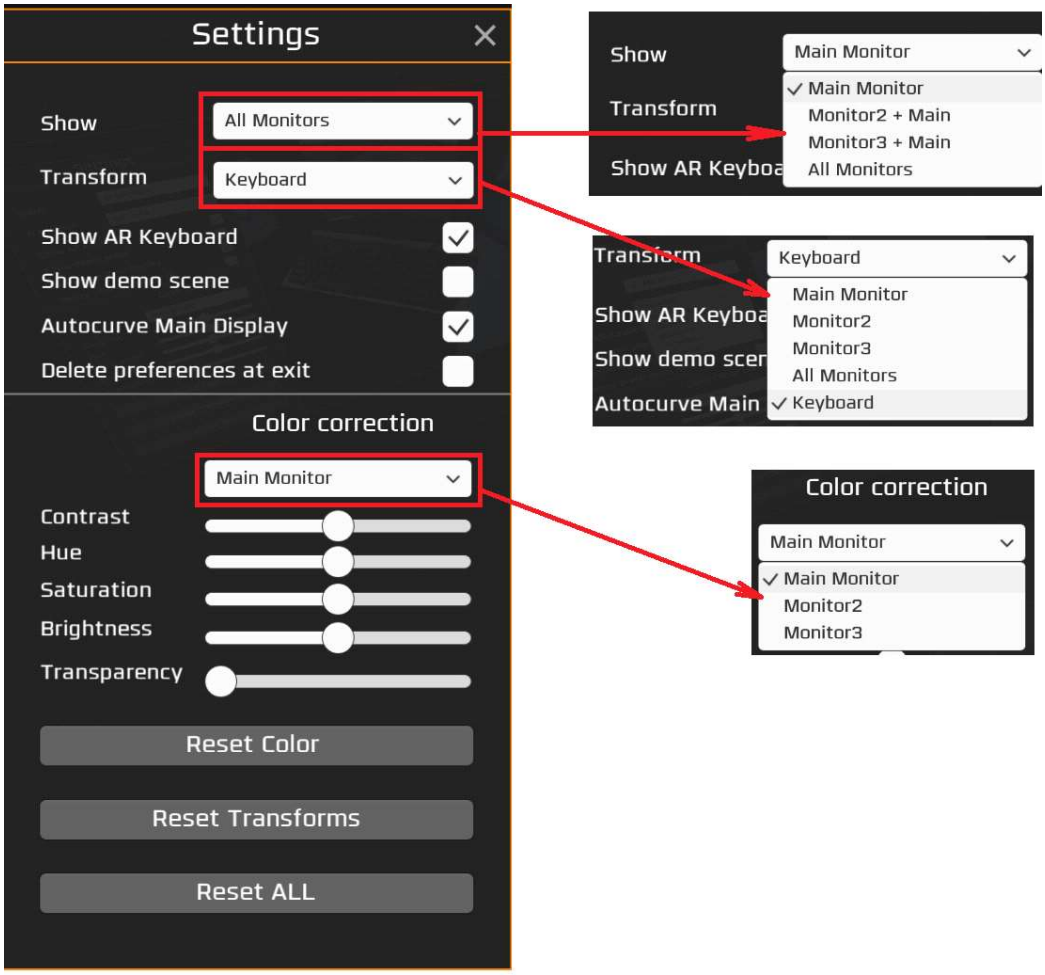
In the photo to the right side the webcam is attached on the top of the monitor with foamtape. Feel free to use wahtever fixture or ways to set it up. Tripod might work even better.

Once the keyboard is setup you will be able to see it in virtual space. The scale and position of the keyboard overlay in space might not be the same as the real one. This will cause your brain to adapt to the new perception.

The demo version of WorkinVR does not support this feature. However it will show a demo keyboard.



Settings



Show Dropdown - Choose which monitors to be visible in the virtual space.

Transform Dropdown - Choose which is the active transform object. All transform inputs will be applied to it. This is the same functionality as the Transform shortcuts.

Color correction dropdown - Choose which virtual display needs to get color correction. As a VR user you already know how different a photo or video looks like in VR. This tool allows to to customize each display individually.

Show AR keyboard option - Check to show the keyboard overlay.

Autocurve main display - If checked the main display will be curved with a radius the distance between the head and the display. If the check is off the user can modify the curvature.

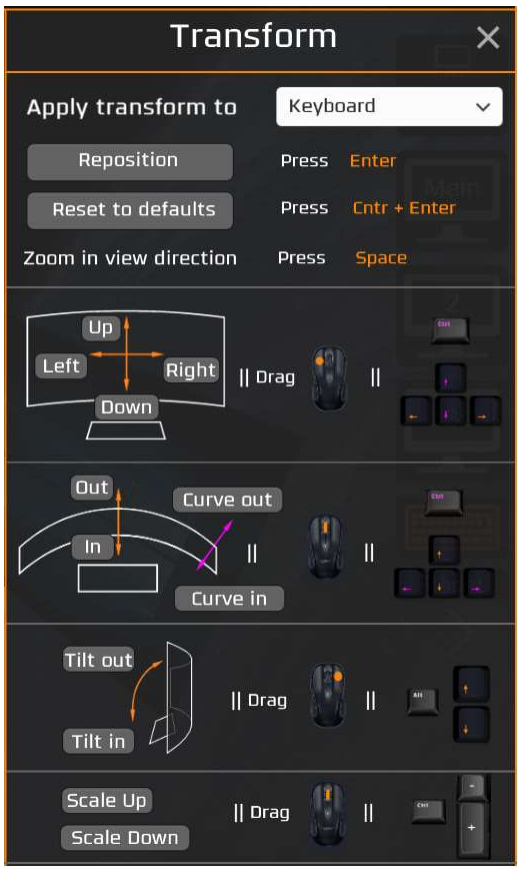
Delete preferences at exit - If checked it will cause the application to load all default settings at the next launch.

Transformations

It is very important how easy and quickly the user can move in space the virtual displays and keyboard overlays. There are two choices of doing it, using the mouse or/and keyboard shortcuts.

Mouse:
- Simply left click and drag to move up-down-left-right the active transform object in space.
- Right click and drag to tilt it up-down-left-right.
- Mid-button click and drag to scale it up or down
- Scroll to move away or towards you

Keyboard
- left/right arrow moves the active transfrom object to the left or right
- up/down arrow moves it away or towards you
- Cntr + up/down arrow moves it up or down
- Cntr + left/right arrow curves in or out the main display



Control panel



The control panel makes it easy to switch between active WorkinVR app and the next app on the desktop.

 Click on menu icon to access menu

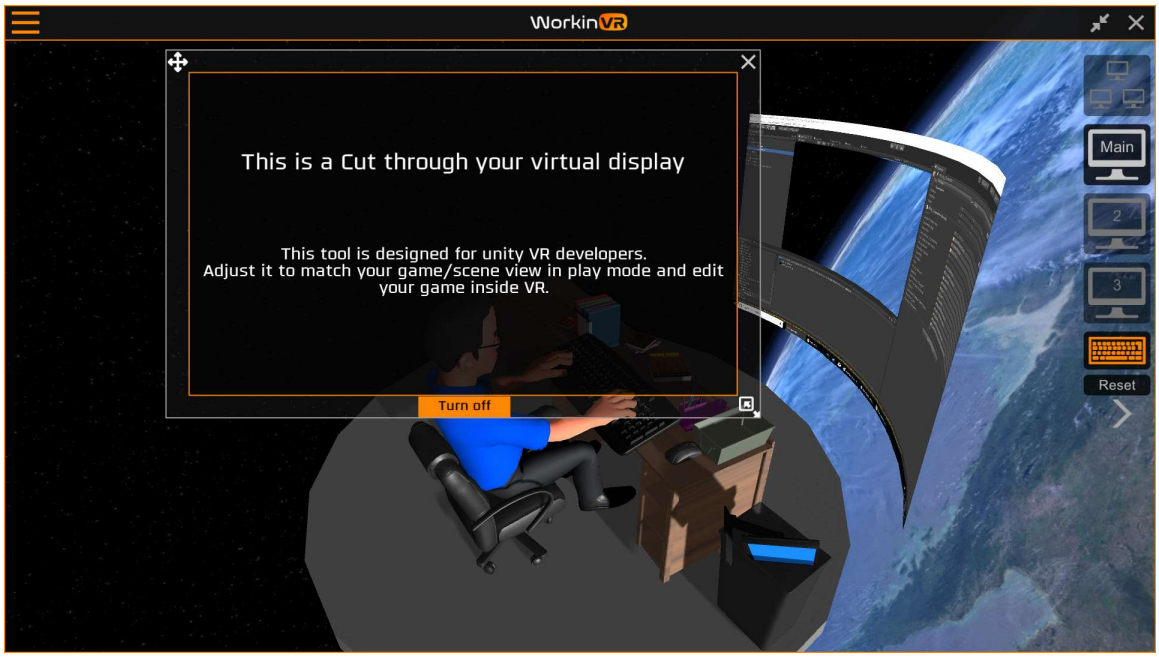
 Click on this icon to move the control panel around the desktop.

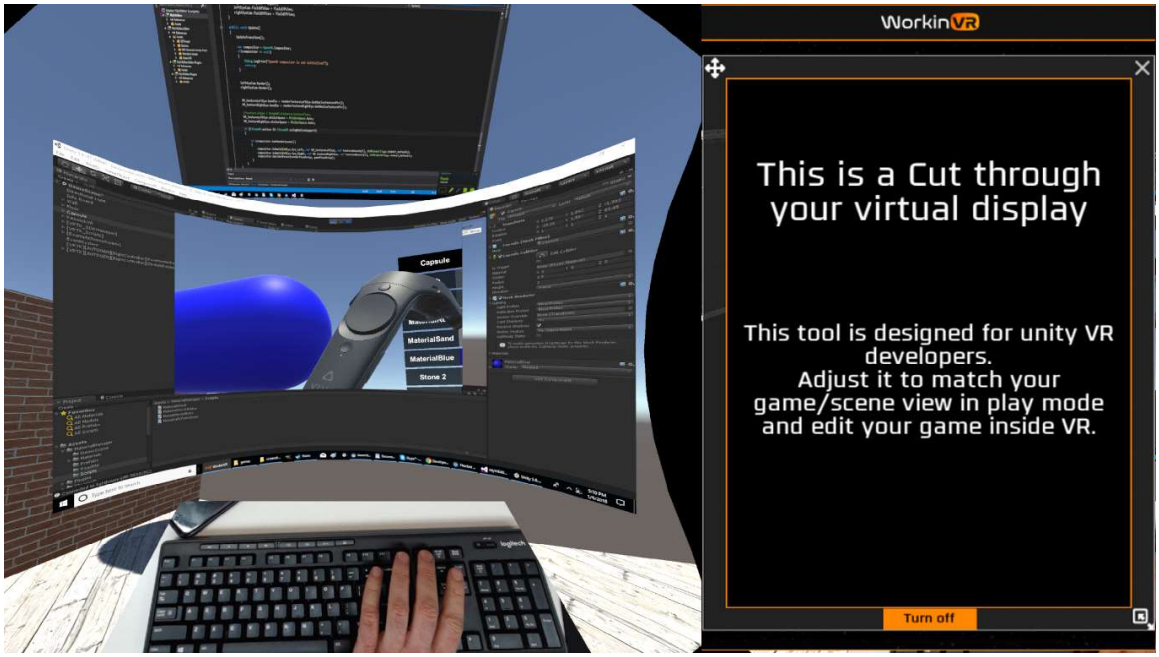
 Click to activate or deactivate application. For example if you are browsing the web and switch to a video but want to watch it in a big screen then activate the app and scale up your screen.

 Maximize to full window size

Cut-through window

If you are unity vr developer then this tool comes in really handy. Start your unity vr project in playmode and then launch WorkinVR. Go to menu then Cut-through window. Adjust it so it matches your game view and turn it on. Now you have access to your unity editor and you are inside your scene. This adds certain editing capabilities to your project without taking the headset off.


WorkinVR
This is a Cut through your virtual display
This tool is designed for unity VR developers.
Adjust it to match your game/scene view in play mode and edit your game inside VR.
Turn off
Main
2
3
Reset


WorkinVR
This is a Cut through your virtual display
This tool is designed for unity VR developers.
Adjust it to match your game/scene view in play mode and edit your game inside VR.
Turn off
Capsule
MaterialSand
MaterialBlue
Stone 2