

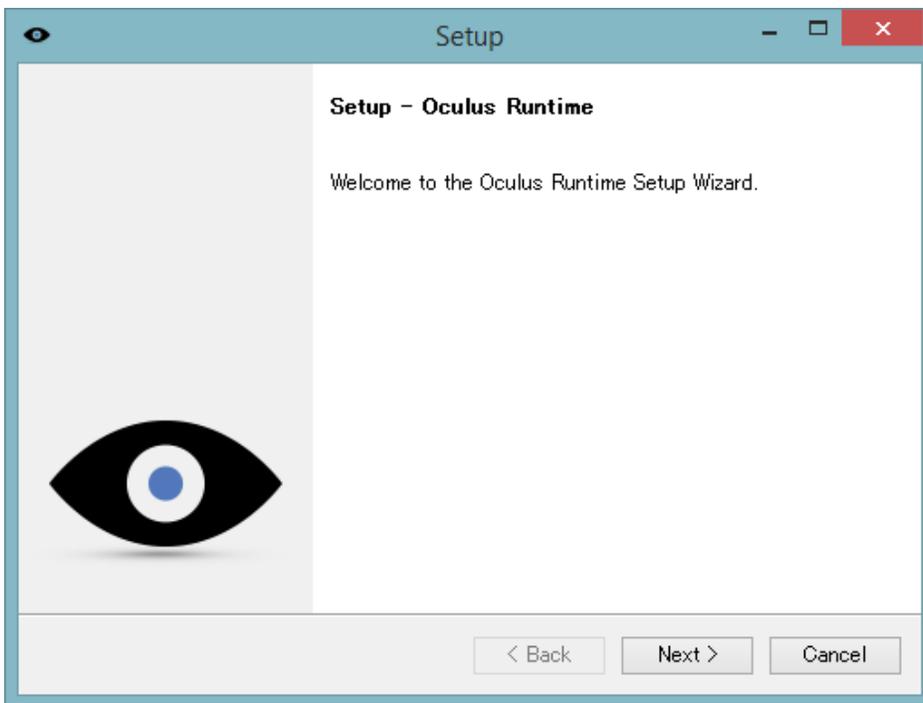


## Using the Oculus Rift DK2 headset with VR-Design Studio (UC/win-Road) v10.0.0

### Setting Up (adapted from the Oculus Rift Support website)

#### Step 1 - Install SDK and Runtime Software

Download and install the Oculus Runtime from <https://developer.oculus.com/downloads/>



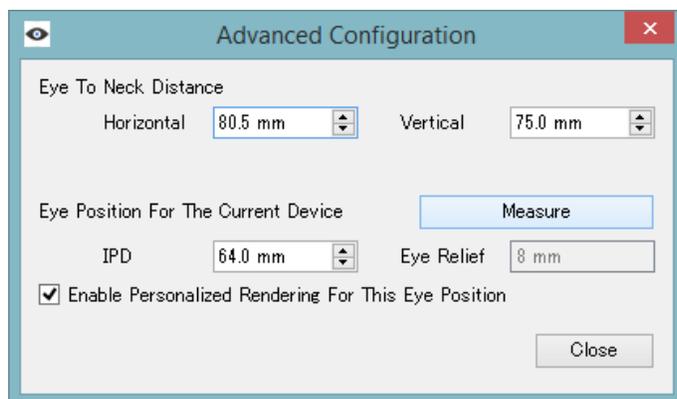
Current version is 0.4.4-beta (Oculus Runtime for Windows and Oculus SDK for Windows) (05/02/15) Run the newly installed shortcut "OculusService"

Right click "Oculus Manager" on the system tray, and select "Oculus Configuration Utility". Match eye relief settings using the dial picture and then set profile information. Make sure the firmware is updated to the latest version available on the website.

To determine the distance between your eyes, IPD (inter-pupillary distance) click on "Advanced" and then select "Measure"



### Advanced



### Measure

Choose “Show Demo Scene” and ensure you’re positioned correctly.

### **Step 2 - Set Up the Headset**

Remove the cover on the front of the headset to make sure that the cable is securely inserted into the ports on the front of the headset. Please replace the door on the front of the headset.

DO NOT place stickers or anything else on the front of the headset that could obstruct the LEDs, as this may impact performance.

### **Step 3 - Connect Headset Cable to Computer**

Unwrap the cable that is attached to the headset. The end of the headset cable has an HDMI connector and a USB connector. Plug both the HDMI connector and the USB connector into your computer.

If your computer does not have an HDMI interface but does have a DVI interface, use the included DVI to HDMI adapter to connect the HDMI to the DVI port.

### **Step 4 - Connect Positional Tracker Cables**

Attach the sync and USB cables to the potential tracker.

Positional tracker sync cable: Insert one end of the sync cable to the top connector on the right side of the positional tracker, with the positional tracker facing you. Connect the other end of the sync cable to the cable connector box on the headset cable.

Positional tracker USB cable: Insert the mini USB end of the positional tracker USB cable to the lower connector on the right side of the positional tracker. Connect the other end of the positional tracker USB cable to one of the USB ports on the computer.

### **Step 5 - Attach Positional Tracker to the Tripod or Monitor**

The positional tracker is used for tracking the position of the headset in 3D space.

Attach the positional tracker to a tripod or the top of your monitor, or rest it on your desk. Make sure the positional tracker lens is facing you. The positional tracker must be stable, as shaking the positional tracker can cause the image rendered on the display panel to shake even if you are sitting still.

- Ensure there is a direct line of sight from positional tracker to the headset.
- For optimal performance, position yourself about 1.5 meters or 5 feet away from the positional tracker.

### **Step 6 - Connect Power to the Cable Connector Box (Optional)**

The power adapter is used to power the USB accessory port on the headset. Plug the barrel connector of the power cord to the cable connector box.

You must plug the power adapter with the appropriate country plug to a power source. **Make sure that you use only the power adapter supplied with your headset.**

### **Step 7 - Power on the Headset**

The headset is on by default on plug in. The screen in the headset should be on.

If the headset does not turn on, please check and make sure all cables are firmly and properly connected. If the LED on the headset is illuminated orange, the headset is powered on, but does not have a video signal. If the LED is illuminated blue, the headset is powered on and is receiving video signal.

### **Step 8 - Adjust Head Straps**

Adjust the lateral and over the head straps so that the headset fits snugly and comfortably.

### **Step 9 - Headset Lenses**

Two different pairs of lenses are included:

- The taller set (A) is designed for moderately nearsighted users or users with normal vision.
- The shorter set (B) is designed for very nearsighted users.

The lenses are designed to be swapped using an inert-turn and lock-in-place mechanism. The A set comes installed in the headset.

If you wish to wear glasses while using the headset, please use lens set A, and adjust the side screws of the headset to allow additional clearance. Do not wear bifocals when using the headset.

Avoid scratching the lenses or screen, and please make sure to keep the lenses free of dirt and smudges.

### **Step 10 - Headset Adjustment**

For comfort, you can adjust the distance between your eyes and the lenses by turning the screws on either side of the headset using a coin. **Adjust both sides equally.**

**Note:** Not all glasses may fit while wearing the rift and you may risk scratching your lenses. If you are nearsighted, we recommend you use contact lenses.

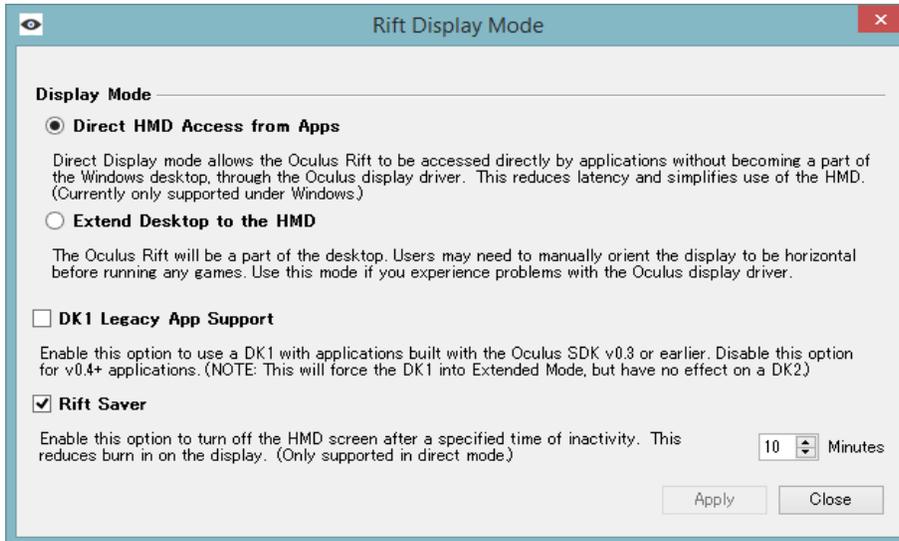
For any other questions or support information please visit:

<https://support.oculus.com/hc/en-us>

# VR-Design Studio (UC/win-Road) v10.0.0 Settings

## Step 1 - Set headset to "Direct" mode

Before starting UC/win-Road, click on the "Rift Display Mode" via the Configuration Utility, and select "Direct HMD Access from Apps". This is required for Rift use with UC/win-Road.



## Direct Mode

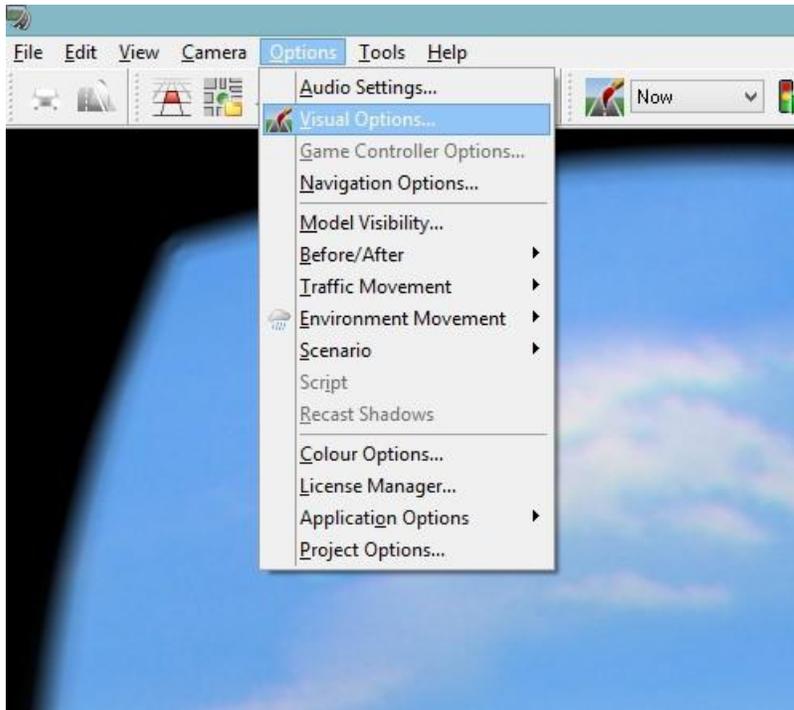
## Step 2 - Review graphics card settings

If you are using an nVidia GPU, check that the your 3D settings match the following where applicable :

### nVidia Settings:

Ambient Occlusion	Off
Anisotropic filtering	Application-controlled
Antialiasing - FXAA	Off
Antialiasing - Gamma correction	On
Antialiasing - Mode	Application-controlled
Antialiasing - Setting	Application-controlled
Antialiasing - Transparency	Off
CUDA - GPUs	All
DSR - Factors	Off
DSR - Smoothness	Off
Maximum pre-rendered frames	1
Multi-display/mixed-GPU acceleration	Multiple display performance mode
Power management mode	Prefer maximum performance
Preferred refresh rate (Idek Iiyama PL239...	Highest available
Shader Cache	On
Texture filtering - Anisotropic sample opti...	Off
Texture filtering - Negative LOD bias	Allow
Texture filtering - Quality	Quality
Texture filtering - Trilinear optimization	Off
Threaded optimization	Auto
Triple buffering	Off
Vertical sync	Off
Virtual Reality pre-rendered frames	1

- Run the UC/win-Road for Oculus Rift DK2 EXE file
- When the scene loads, you will notice a health warning message about Oculus Rift usage
- To dismiss this message, please tap the left side of the Oculus Rift headset. Try with slight pressure if it is not working immediately
- With UC/win-Road running, select Options → Visual Options to go to the display options



- Next, select the Performance tab.
- You can now adjust the “View distance” to one that will provide the least latency and highest frame rate for the Oculus Rift. NOTE: 75.0 FPS is the recommended frame-rate.
- If at any time you wish to re-center the Oculus Rift (restart positional tracker) then press the 'R' button while in UC/win-Road.

