Supplemental Reading for Projectors

Projectors

Projectors are display devices for when you need to share information with people in the same location! Most projectors can be used just like any other display on a computer, and with a few differences, can be troubleshot just like any other display device. For example, projectors can have **dead** or **stuck pixels**, and can acquire **image burn-in**, just like other types of displays.

Connectors and Cables

You will connect a computer to a projector using a display cable like VGA, DVI, HDMI, or DisplayPort. When you do this, the computer's operating system will detect that a new display has been added. Depending on what your computer's video adapter supports, this new display can be **extended** or **mirrored** just like if you had added a second monitor!

- Windows - How to connect to a projector or PC
- MacOS - How to connect a display, TV or projector to Mac
- Ubuntu - How to connect another monitor to your computer

A lot of times, display issues with projectors come down to the connectors and the cables that you are using. Because people frequently connect and disconnect from projectors, the cables and connectors can become worn out or damaged. Always consider this early in your troubleshooting if the projection display flickers or disappears.

Device Drivers

Just like other display devices, if your computer does not correctly recognize the display resolution of the projector it may default to a very low-resolution **VGA mode** like 640x480 or 1024x768. If this happens, your computer may need a device driver for your projector. Take a look at the support website for your projector's manufacturer!

Lighting

Projectors often rely on expensive, hot, very bright **incandescent** bulbs, or **lamps**. If a projector gets too hot for the lamp to safely operate, the projector will shut down. If the lamp burns out, the projector will either not work or will shut itself down. It is increasingly common for projectors to rely on LED lights, rather than incandescent lamps. These LED lights have far fewer issues with overheating, and have much longer lifespans than incandescent lamps.

Calibration

Sometimes, like when a projector is first installed, reset, or moved, you will need to **calibrate** the projector image to account for the distance and angle that the projector is installed at. If the image is skewed or keystoned, you might need to recalibrate the projector geometry. Calibrating the image involves focusing the image, and making adjustments to the image to make it square and aligned with the projection surface. Every projector is a little different, so refer to the vendor documentation to complete this task!