

Laptop Projection Resolution/Display Problems

Rule #1 Your image will look best if; the resolution of the PC used to create the presentation
the resolution of the PC used to present the show
and the resolution of the projector, all match.

When this happens, the images will not be compressed or expanded to fit a new format, and the images will appear exactly as you created them. If images are out of proportion or text is hard to read, the resolution may have changed.

Rule #2 Always boot your laptop while it is connected to the projector.

Many versions of windows will check for termination at each port or external connection during the boot process to create a list of what devices are connected and what functions should be available. If no external display is connected, many will not allow the external display function to be added or switched to later and usually will not auto-detect a change if the connection is made later. Some laptops will automatically turn on the external monitor output if a connection is detected during the boot process and others may still require a keyboard command to make the output active. This command/function can usually be activated by holding the function key “Fn” down while momentarily pressing the appropriate “F” key at the top of the keyboard. The correct “F” key will usually have a small monitor symbol on it, or may say “LCD/CRT”. On many laptops, this is a three way switch function that toggles between internal display, external display or both. See below for more info.

Rule #3 Laptops lie. Laptops don’t always have all the monitor drivers you need.

Some laptops can’t display on both the internal display and an external display at the same time.

Some laptops can display on both, but only under certain conditions.

Most laptops allow the screen resolution to be changed to match the projector resolution, but this is where many laptop lie to their users. (The display resolution information can be found in “Display Properties”.)

Laptops have a built in display that has a fixed resolution. The monitor display resolution setting of the unit must always match the resolution of this display any time the display is active unless the internal and external displays have separate monitor drivers. Most laptops DO NOT have separate drivers. They may have one that can handle multiple functions, but 2 different resolutions do not fall into the separate functions category. (More on that below.)

Without multiple monitor drivers, when a screen resolution is selected that does not match the resolution of the internal screen the laptop can only make this switch if its own screen is turned off. This is so important that I will repeat it. It can only make the switch if its internal screen is turned off. The screen may appear to have changed, the unit may ask you to confirm the change, but if you had the tools available to measure the output frequency, you would see that the actual resolution does not change until you turn the internal screen off. The monitor driver simply mimics the new resolution by changing font size, but places that information within the parameters of the original resolution. It looks like it changed, but it didn’t. When the internal screen is switched off and its resolution no longer has to be matched, the actual change can take place.

Now that business about multiple functions. If you have a PowerPoint presentation that has a window or screen where video is shown, this is a separate monitor driver function. What does this mean to you? You may have a laptop that can display on both the internal and external screens at the same time, but when you get to the video portion of your PowerPoint presentation the projector displays the frame but no video. This is because you are using the full capability of your display driver/drivers to keep both the internal and external screens active, but now you want to add another function by inserting video. Your only option is to eliminate one function to make room for another. Turn off the internal display and the video will appear on the external display.

Rule #4 Laptops can fool you. You activate the external monitor and only see your desktop, but no icons.

Some monitor drivers have a function to extend the windows desktop. This is usually shown by a check mark in an appropriately titled box on the display settings screen when monitor 2 is selected. What this function does is extend the desktop area to be double the width with the left half of the desktop appearing on the internal screen and the right half appearing on the external screen. If you think this is the problem, the function can be easily confirmed by dragging an icon off the right side of the laptop screen and it should appear to enter on the left edge of the external display. To show your presentation, you could drag it onto the external display, which will work, but it will not display in the laptops screen, or simply uncheck the box in display settings to turn the function off. For some monitor drivers, turning the function off may not be this simple, and the instructions vary from one version of the software to another.

Enjoy your presentation,

Glen Sherman

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