

How to Troubleshoot Touch on MultiTaction Displays

This document describes how to troubleshoot touch connectivity on MultiTaction apps and with MultiTaction displays. Touch issues can occur from a few hardware, software, or configuration reasons.

- 1) **Network Troubleshooting** – MultiTaction displays communicate touch through ethernet to an application PC, so the first step is confirm their network connectivity by pinging the display.
 - a) **Check the display's IP** – A MultiTaction display must have an IP address. With OSD open (see step 1 above), check the bottom left corner of the display to read the display's IP address, or check the network settings in the "Setup" tab. In almost all cases, displays require a static IP address, so make note of this address (ex. 10.77.84.104)
 - b) **Ping the Display from the Application PC**
 - i) **Windows** – Exit out of all applications, hit the windows key and open a command prompt and type the below:
`ping 10.77.84.104`
Be sure to replace the IP above with your display's IP
 - ii) **Linux/Ubuntu** - For PCs running MultiTaction's Ubuntu base image, exit out of all applications with `ctl+shift+esc` or `ctl+q` and open a terminal emulator by right-clicking the blue desktop background and selecting "terminal emulator". Type the below:
`ping 10.77.84.104`
Be sure to replace the IP above with your display's IP
 - iii) **Successful Ping** - If you're able to ping, go ahead and skip to step 3, otherwise proceed to check your PC's IP
 - c) **Check IP** – If you're unable to ping, please check your PC's IP address. For each operating system below, run the command and confirm that your PC's IP address is in the same subnet as the application PC. If you're uncertain how to read the outputs of these, please consult your organization's IT Team, MultiTaction Support, [this guide for Ubuntu](#), or [this guide for Windows](#).
 - i) **Windows** – Exit out of all applications, hit the windows key and open a command prompt and type the below:
`ipconfig`
 - ii) **Linux/Ubuntu** - For PCs running MultiTaction's Ubuntu base image, exit out of all applications with `ctl+shift+esc` or `ctl+q` and open a terminal emulator by right-clicking the blue desktop background and selecting "terminal emulator". Type the below:
`ip a`
- 2) **Display Hardware Troubleshooting** – Certain hardware failures can cause the display itself to not track touch. It's important to first verify the display is functioning on its own.
 - a) **Check the display's cameras** – On boot, MultiTaction displays will show their On Screen Display (OSD) for a certain amount of time (usually set to 10 seconds) before timing out to show the external video. You can also wake the display's OSD by plugging in a USB mouse/keyboard and wiggling the mouse.
 - b) **Check the Display's Cameras** - With the display's OSD active, touch the screen and you should see the camera images of your hand on the display (scaled down slightly). If you

see a fully black image with no static or a portion of the camera imaging flashing/glitching, this could indicate a hardware issue with the display

3) Confirming Touch in Cornerstone – If you can successfully ping the display, the next step is to confirm that Cornerstone is receiving

- a) Printheads – found in the bin directory of your Cornerstone, Showcase, or Canvas installation; Printheads shows the number of objects being detected and where. This is useful to ensure the touch events are being recognized if you think your touch translation might be off.
- b) Twinkle – found in the bin directory of your Cornerstone, Showcase, or Canvas installation; Twinkle prints neon lines where finger touches are detected. This is useful for making sure your touch translation is correct in the config.txt file.

TIP: Try running both of these in a terminal in Window or Ubuntu rather than double-clicking the executable file, that way if it fails, the error will be printed on the command line.

4) Config.txt - If you're not getting any touch shown in PrintHands or Twinkle, then your config.txt file is not set correctly. The most complete info on how to configure config.txt can be found in section 11, section 9, and Appendix C of the [MT555 User Manual](#). The critical factor is that each display should have its own "Netbridge" section defining its IP and translation in pixels.

5) Other Causes

- a) Managed networks – MultiTaction displays are always recommended to be connected via unmanaged switches on their own dedicated networks. If all other configurations are correct, being on a managed network with other devices can cause a "black box" full of unknown problems, and determining the root cause will be impossible. As a troubleshooting step, its imperative to test the setup on an unmanaged, dedicated switch in the event of other issues or inconsistencies
- b) Security changes on the NIC port used for touch – sometimes enterprise security software on managed devices will cause touch disconnection or inconsistencies for touch. Similarly to a managed network, this presents a "black box" full of unknowns. If all other possibilities have been ruled out, it is important to consult your security team to ensure nothing is blocking the NIC port, TCP port, or application from receiving data from the MultiTaction displays.