# Very fast connection between a laptop and a Raspberry Pi without a network

If you have a reliable and fast wired or wireless network, use it.

This description is for those situations, where there is no suitable wired or Wifi network available. In the past, one has used serial connections in this situation, but today the fastest and easiest connection uses a network cable. This description is suitable for all Raspberry Pi versions with a wired network connector.

All you need is a network cable. If your laptop does not have a wired network connector, you need a USB network adapter. If your laptop is a PC, you have to install a ssh client such as for example "putty".

Connect the network cable between the laptop and the Raspberry Pi. You do not need a "crossover cable" here, because all modern network interfaces (such as the Raspberry Pi 3 or 4) handle direct connections automatically. The rest happens fully automatically, if you have not set any fixed ethernet addresses on the laptop or the Raspberry Pi.

Turn the laptop on and wait until it is ready. Then boot the Raspberry Pi (or PiDP-11). If you have not changed the host name of your Raspberry Pi, use "raspberrypi.local", otherwise use "yourhostname.local" instead.

On a Mac or Linux laptop, open a terminal window and type

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ssh pi@raspberrypi.local
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On a PC, use your ssh client, such as putty, and make an ssh connection to raspberrypi.local

In both cases you get a Raspbian login prompt and are all set. This is most likely the fastest and easiest connection between a laptop and a Raspberry Pi. Note: I have tested this on a Mac, a PC and a Linux laptop with the latest OS versions. I don't know how well this works with older OS versions.

If you enable VNC server on the Raspberry Pi, you can also connect using VNC client and you get a very fast Raspbian desktop on your laptop.

If your laptop can be connected to a network using Wifi, you can enable “internet connection sharing” on your laptop from the Wifi to the wired network, and your Raspberry Pi will have access to the internet.