



# PRACTICAL LAB: INTRO TO PACKET TRACER - MY FIRST PING



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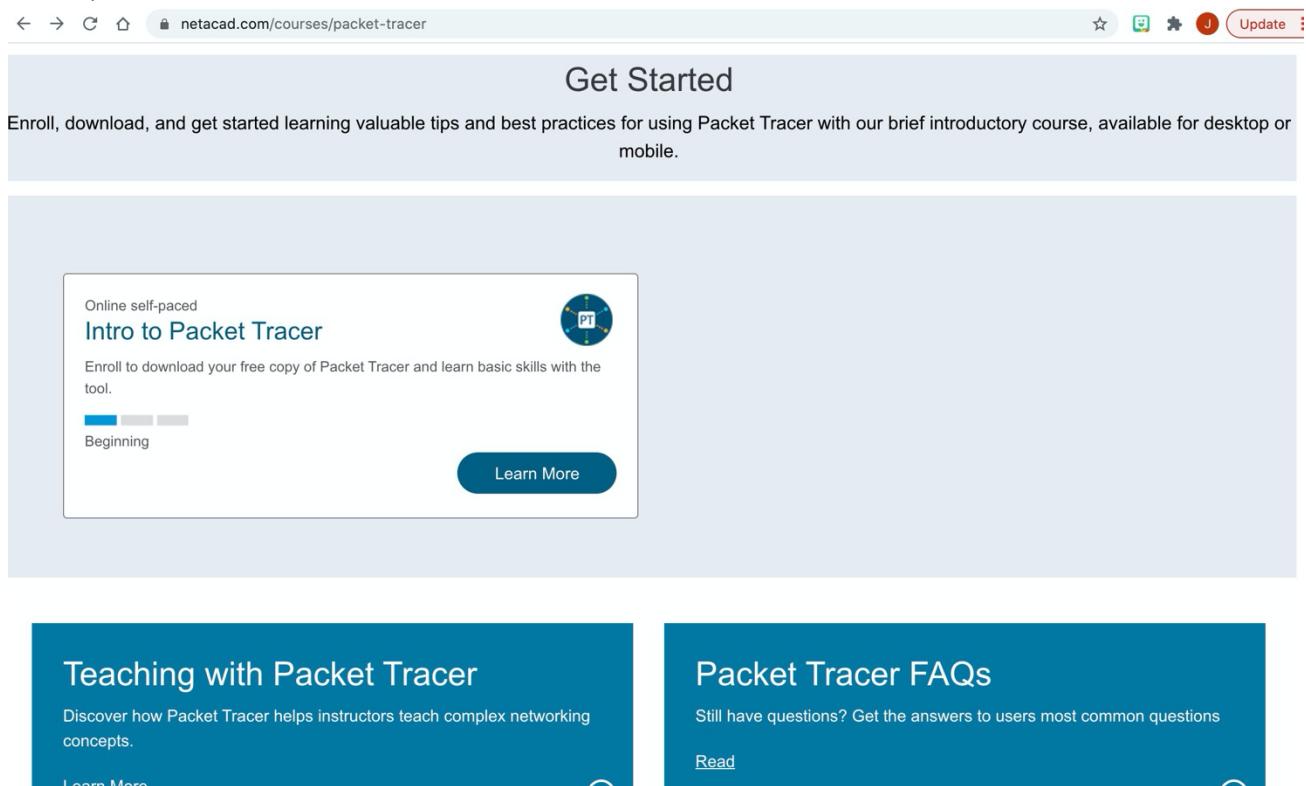
## Practical Lab: Intro to Packet Tracer – My First Ping - JA

### 1 Introduction

For this practical we will be using *Cisco Packet Tracer (student edition)*, a tool provided by Cisco to build and test Cisco networks.

### 2 Install Packet Tracer

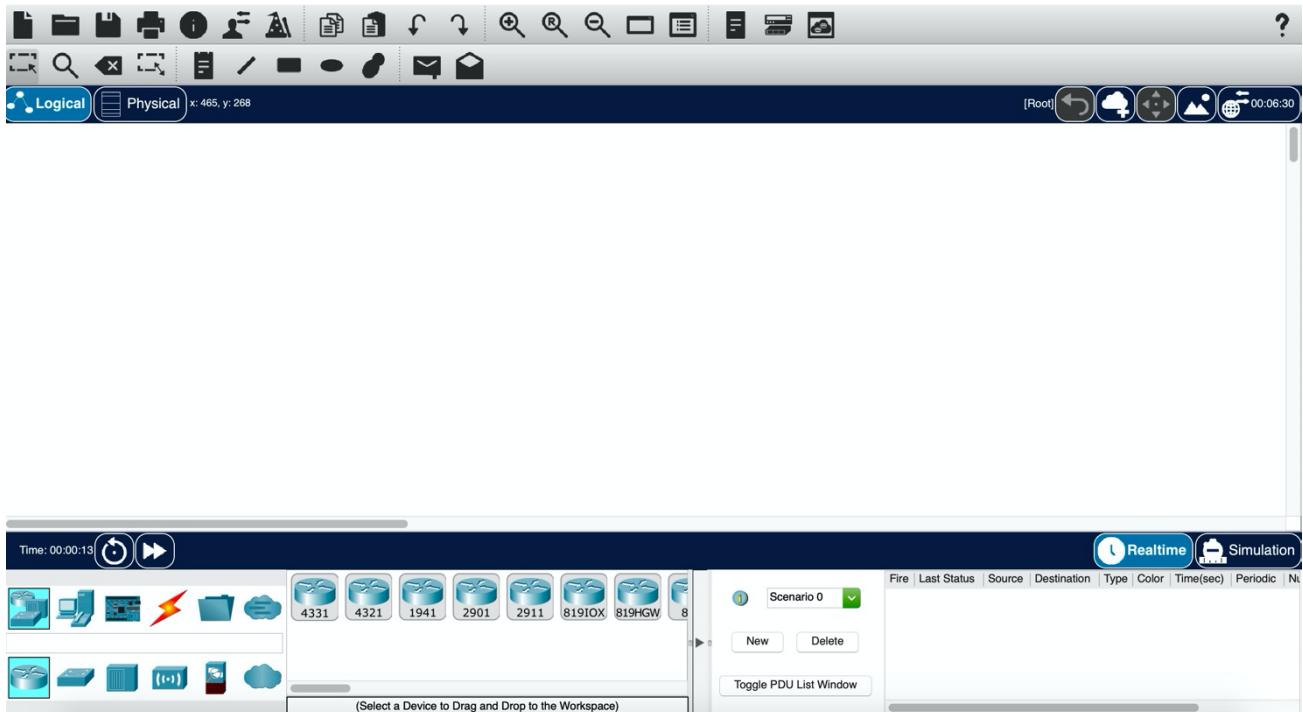
Please download and install the Packet Tracer application. You can access this on university PCs or you can download it once you have enrolled to the ‘Intro to Packet Tracer’ on netacad.com (see below).



The screenshot shows a web browser window with the URL [netacad.com/courses/packet-tracer](https://netacad.com/courses/packet-tracer). The page title is "Get Started". Below the title, there is a brief description: "Enroll, download, and get started learning valuable tips and best practices for using Packet Tracer with our brief introductory course, available for desktop or mobile." A large button labeled "Learn More" is visible. To the left, there is a box for the "Intro to Packet Tracer" course, which is described as "Online self-paced" and "Beginning". It includes a "Learn More" button and a small icon of a network node. Below this, there are two more sections: "Teaching with Packet Tracer" and "Packet Tracer FAQs".

Run the install. Once completed, the *Cisco Packet Tracer Student* shortcut should appear on your desktop. Double click the shortcut, you should see a screen similar to the one shown in the figure below.

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### 3 Using Packet Tracer

Watch the *Interface Overview* video. This is accessed by clicking Help, Tutorials and selecting Interface Overview in the Getting Started section.

**Official Packet Tracer Tutorials**  
The following tutorials demonstrate the basic functions, features, and aspects of Packet Tracer.

**1 Getting Started**

- 1-0 Getting Started**
  - Learn how to start the application.
- 1-1 Interface Overview**
  - See section 15-1
  - Learn how to view and analyze network traffic.
- 1-2 Options**
  - Learn how to customize the application settings.

**2 Logical Workspace**

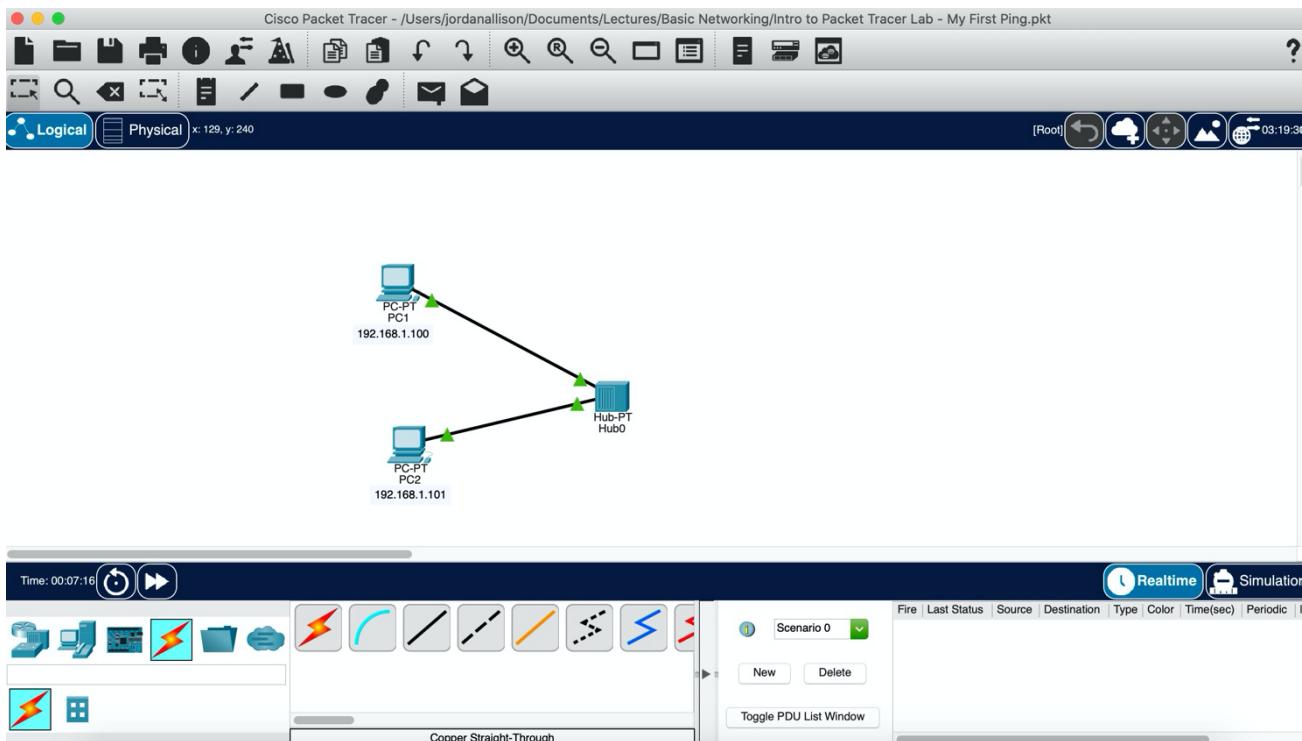
- 2-1 Creating A Network**
  - Learn how to create a basic network topology.
- 2-2 Custom Devices**
  - Learn how to create custom network devices.
- 2-3 Clustering A Network**
  - Learn how to create, arrange, uncluster, delete, and connect clusters.
- 2-4 Annotating A Network Topology**
  - Learn how to add annotations to network diagrams.

A screenshot of the Cisco Packet Tracer software interface, similar to the one above but with a different window configuration. It shows a network diagram with several nodes and connections. On the left, there's a toolbar with icons for creating different types of devices. In the center, a list of nodes is shown with names like 4331, 4321, 1941, 2901, 2911, 819IOX, 819HGW, and 8. Below this is a text input field '(Select a Device to Drag and Drop to the Workspace)'. On the right, there are buttons for 'Realtime' and 'Simulation', and a scenario dropdown set to 'Scenario 0'. A timeline at the bottom indicates the current time is 00:00:13.

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### 4 My First Ping

Open up the provided packet tracer file “Intro to Packet Tracer – My First Ping”. It should look like this below:

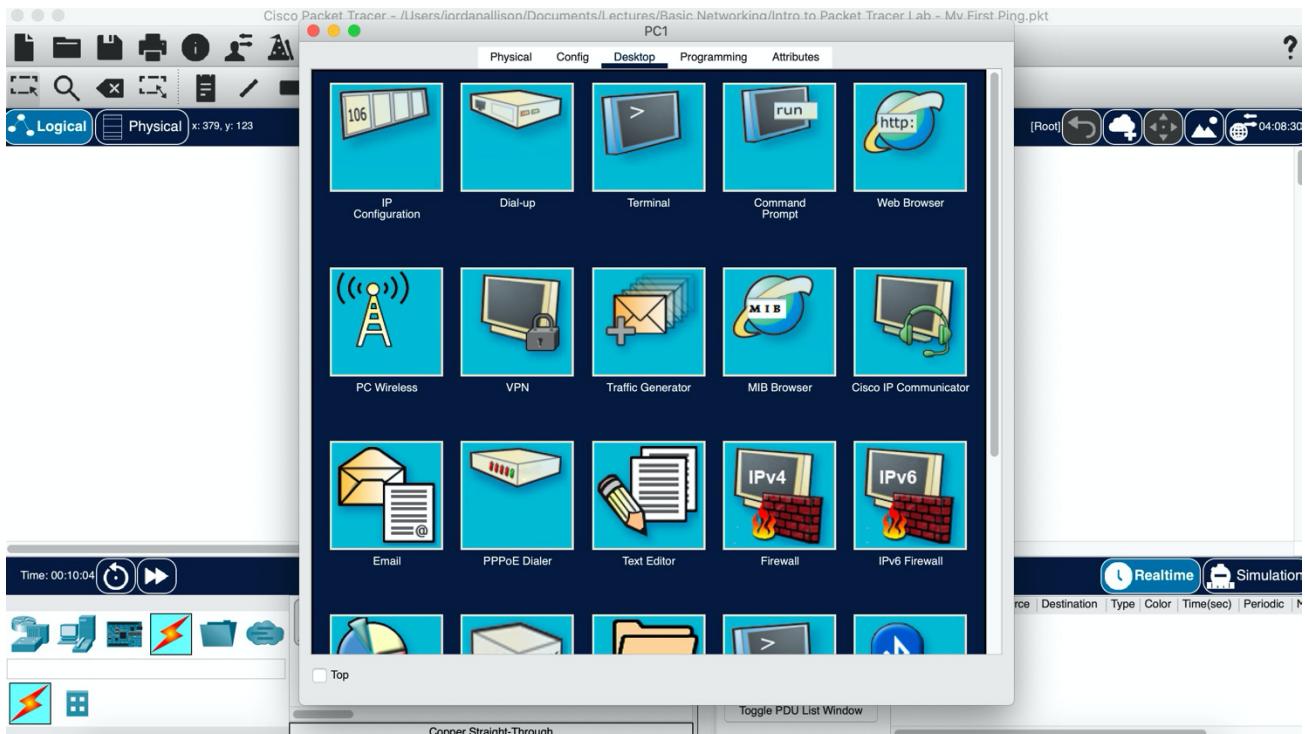


The network provided has two PCs connected via a hub. Notice the IP addresses, as shown in the table below:

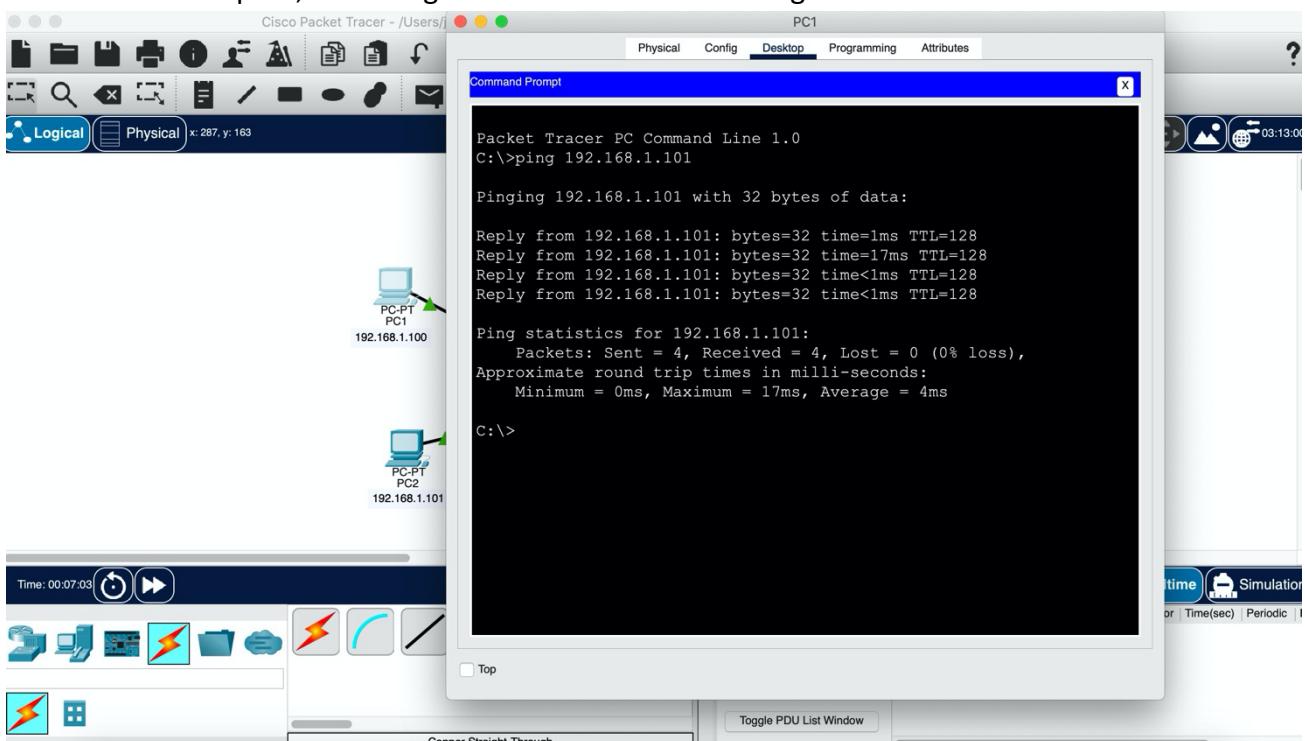
PC	IP	Subnet Mask
PC1	192.168.1.100	255.255.255.0
PC2	192.168.1.101	255.255.255.0

My First Ping. Click on PC1, and choose the Desktop Tab. Then click on command prompt.

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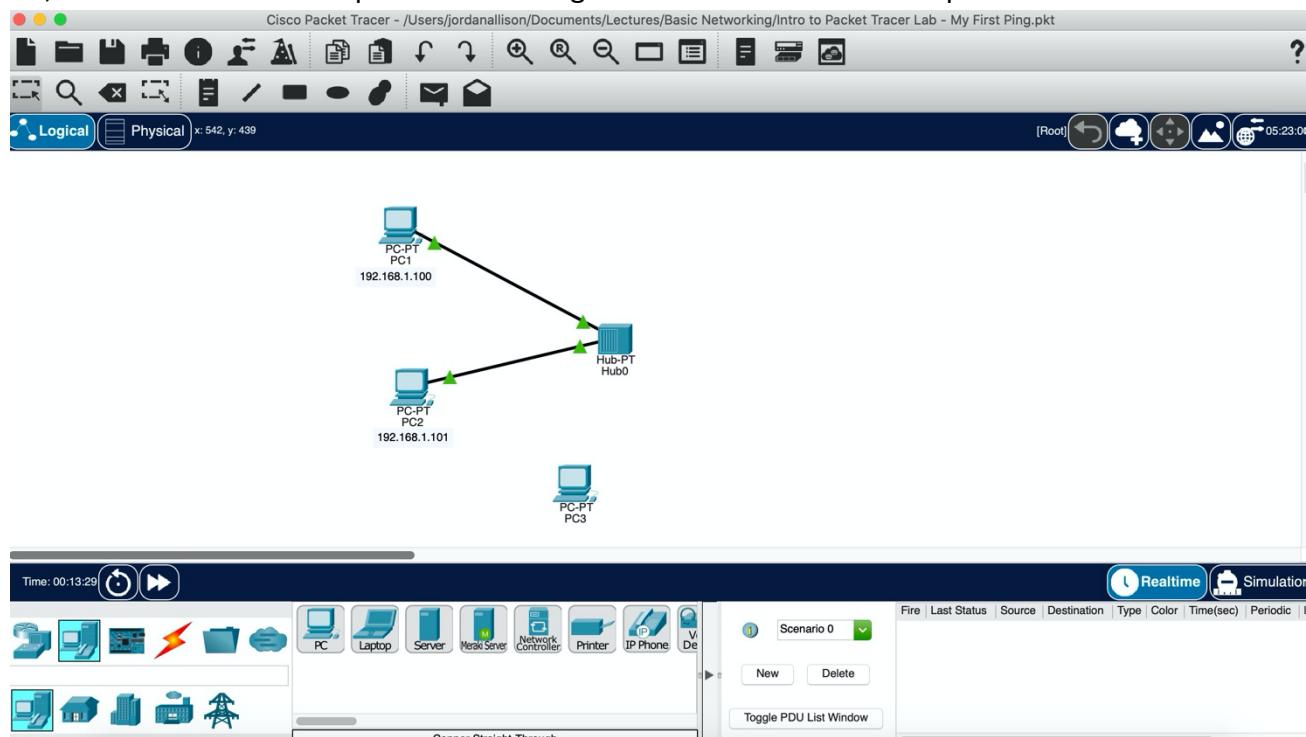
In the Command Prompt window, type: ping 192.168.1.101, followed by the Enter key:  
You should see replies, indicating that the network is working.



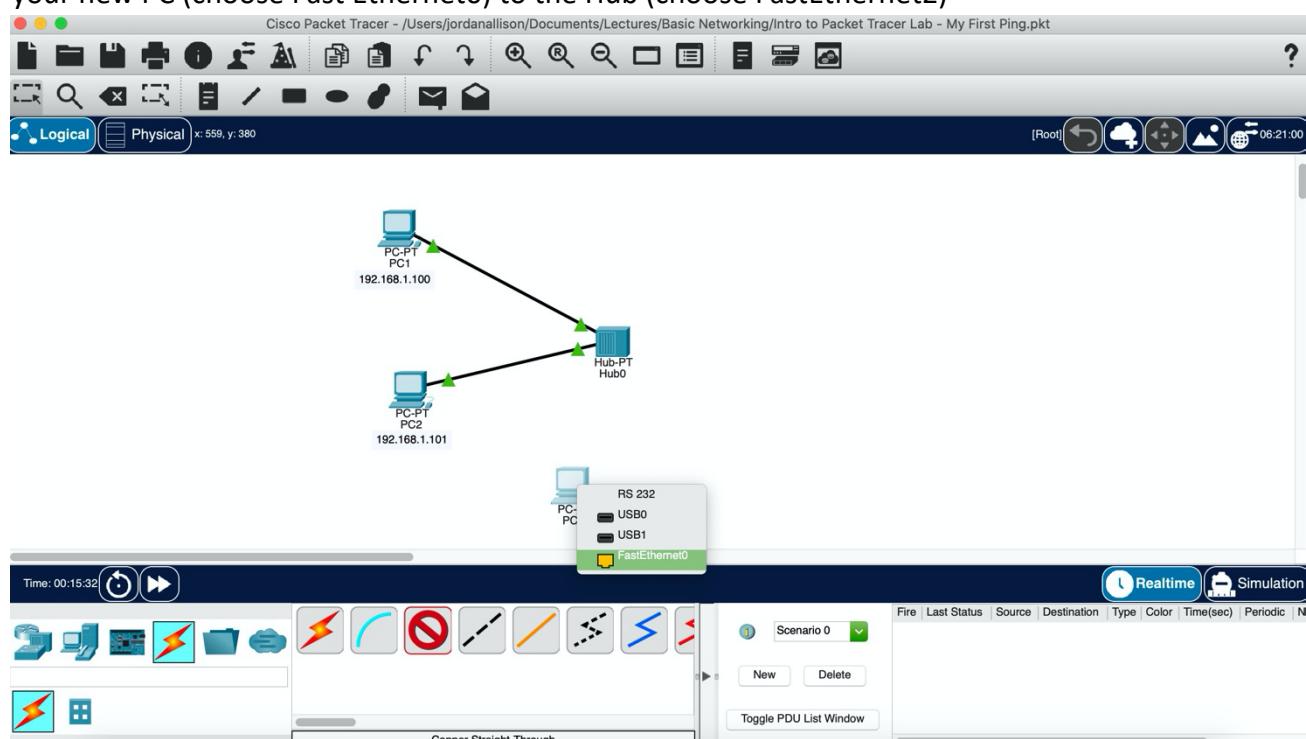
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### 5 Adding a new PC

Now let's add another PC to the network. In the lower left of Packet Tracer, click the End Devices icon. The lower centre pane shows the available end devices. Drag the first end device, a Generic PC, from the lower centre pane into the large central work area and drop it there.

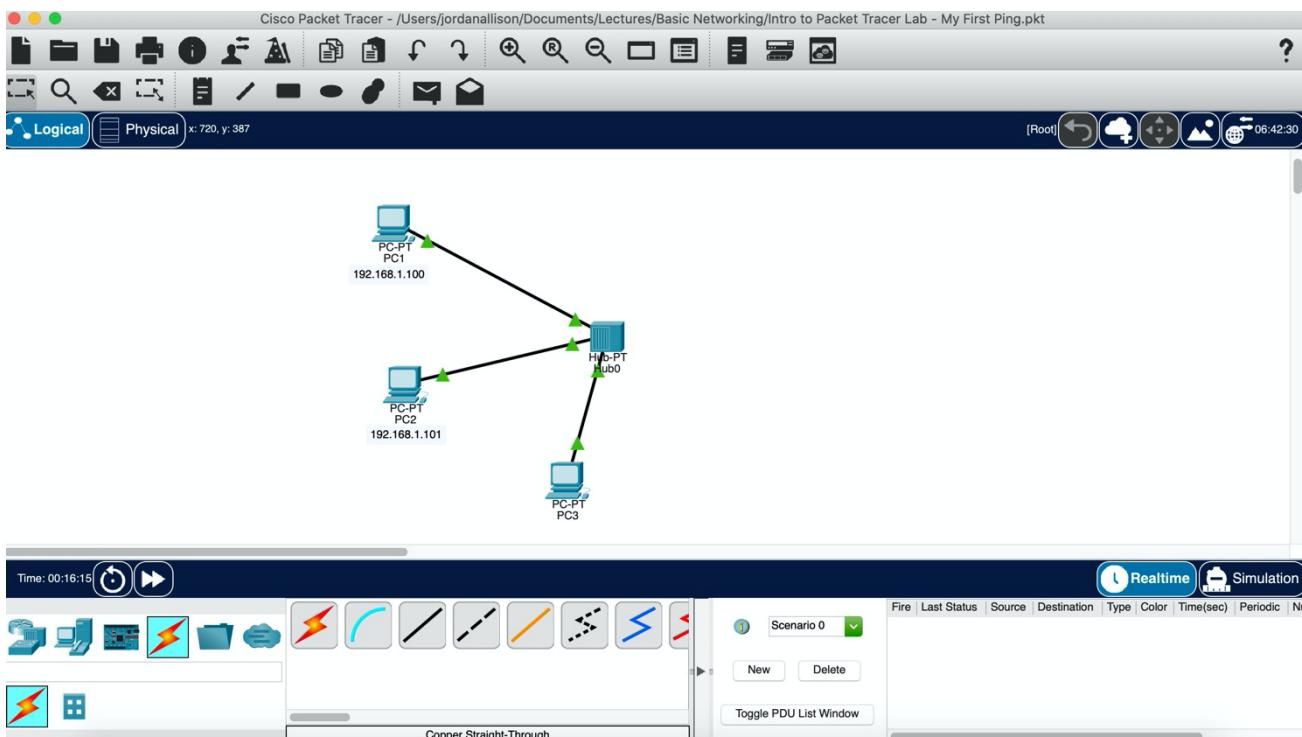


Now click on the Connections icon, which looks like an orange/red lightning bolt. The lower center pane shows the available connections. Choose a copper-straight through cable and connect from your new PC (choose Fast Ethernet0) to the Hub (choose FastEthernet2)

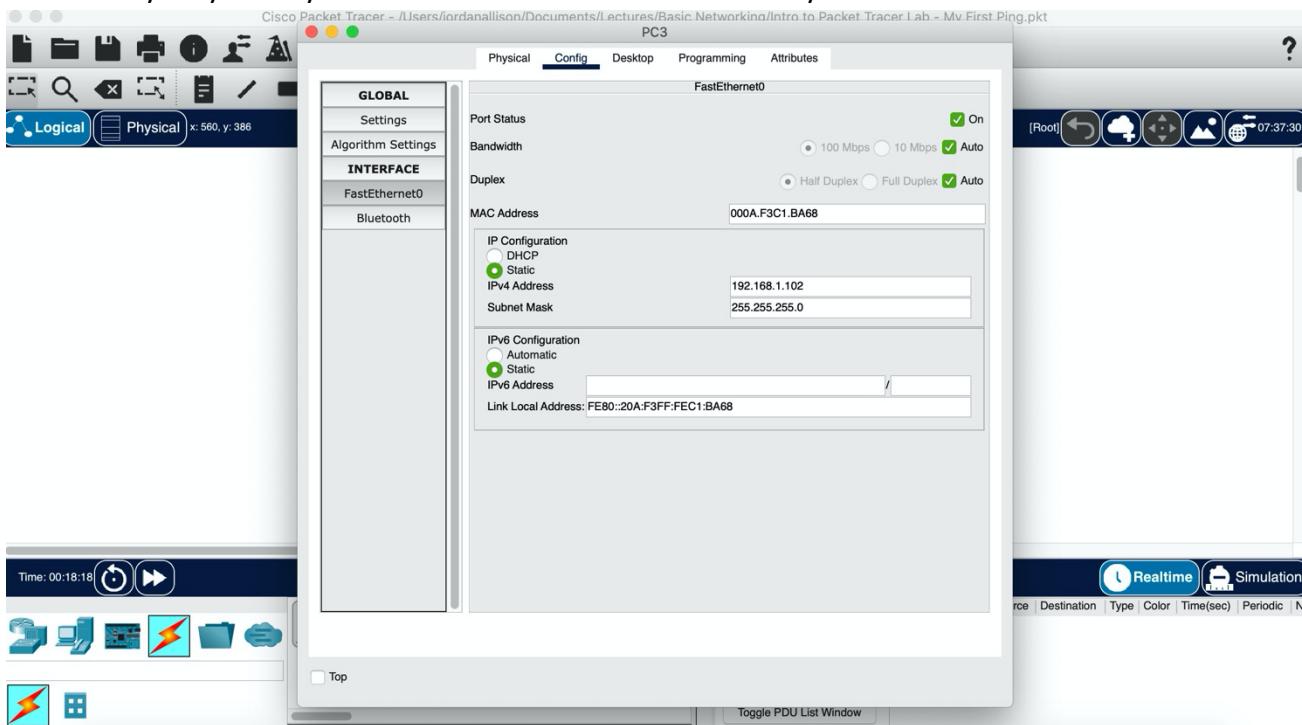


It should be connected and show green lights for the connection.

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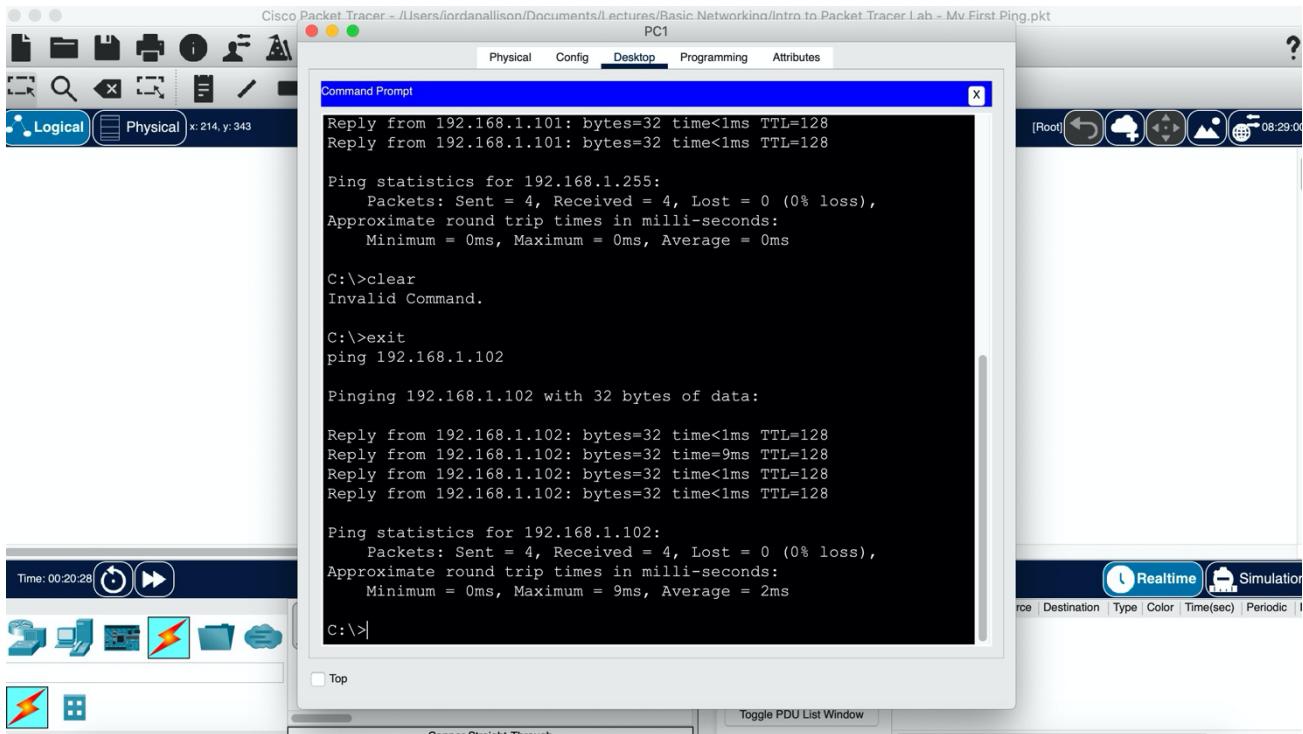


Configure the IP Address and subnet mask for this new PC. Click on the PC3, and select the config tab. On the left side, click FastEthernet. On the right side of the PC3 window, in the "IP Configuration" section, make sure Static is selected. Enter an IP Address of 192.168.1.102 and press the Tab key on your keyboard. The Subnet Mask automatically fills with 255.255.255.0.



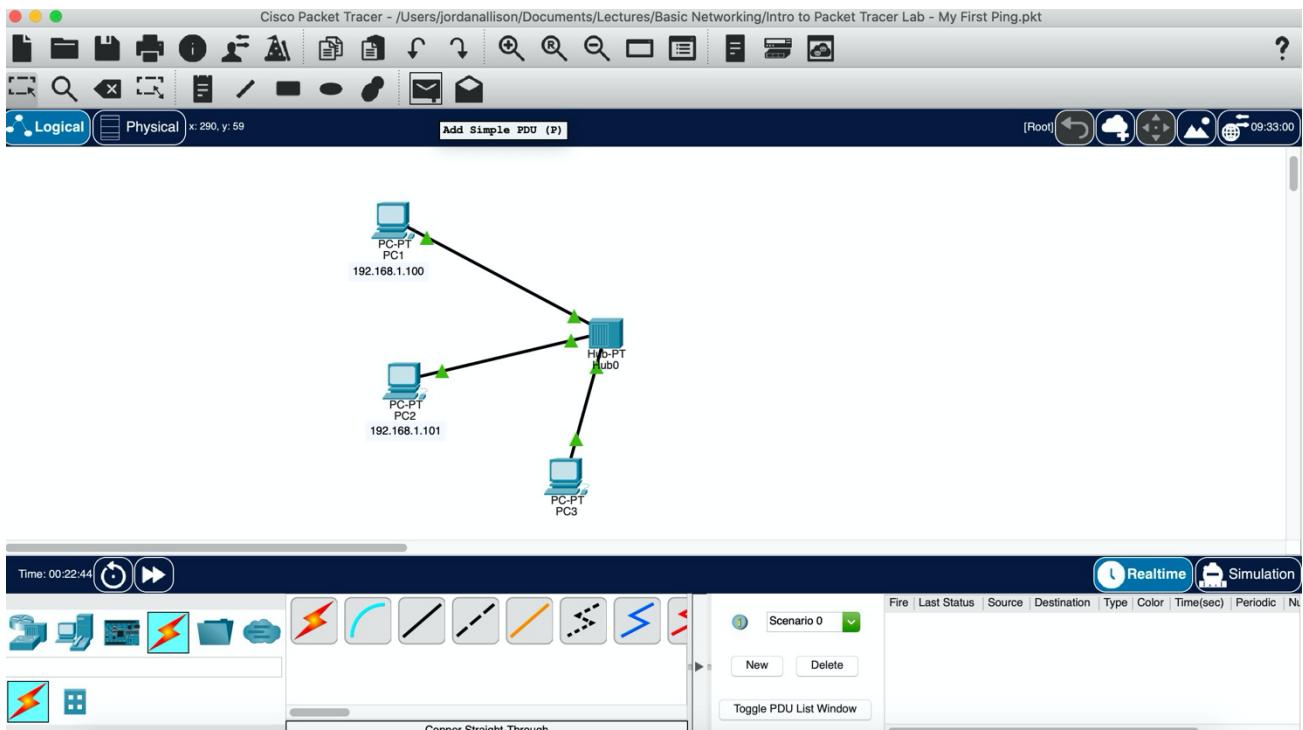
Now let's test the connection of our new PC. Click on PC1, then the desktop tab, and choose command prompt. Type ping 192.168.1.102  
You should see replies, indicating that the network is working.

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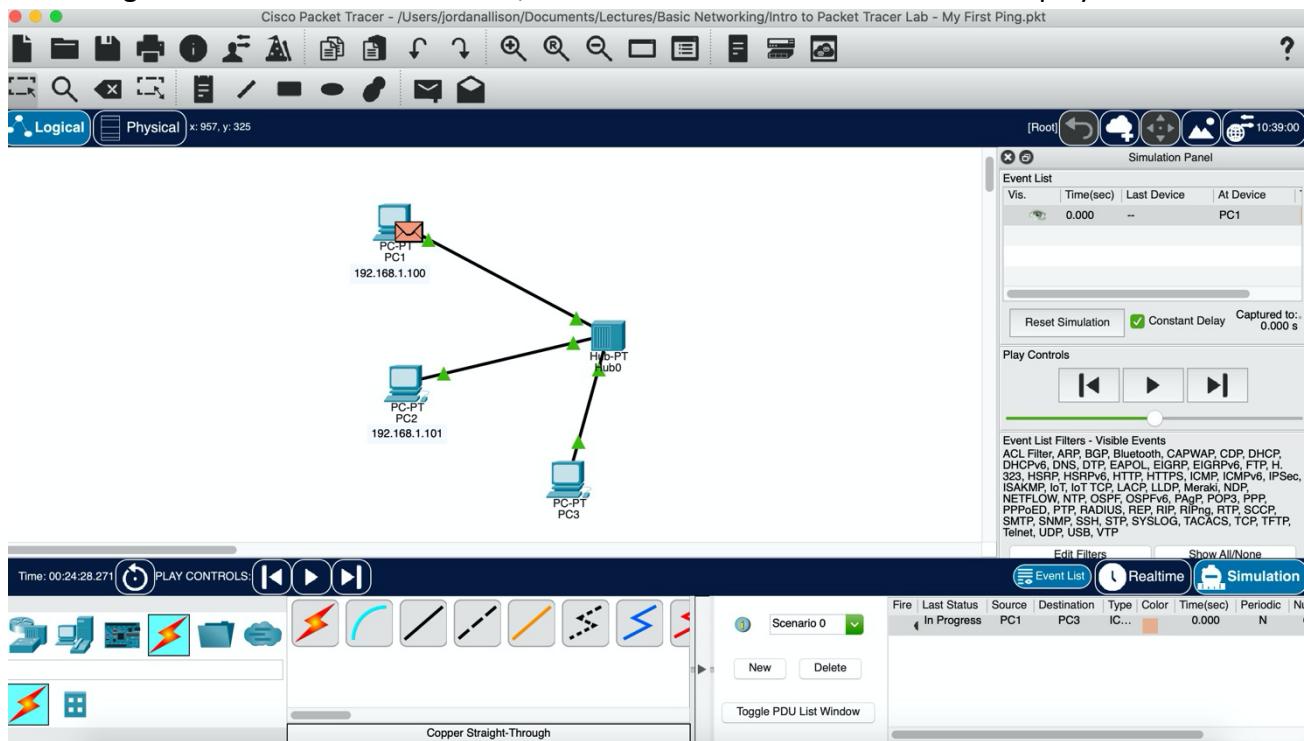
## 6 Using the Simulation Mode

Now let's try using the simulation mode to visualise the packets being sent when pinging from machine to another. In the menu bar at the top of packet-tracer, click on 'Add Simple PDU'. Then click on PC1, followed by PC3. This launches a Ping packet from PC1 to PC3.

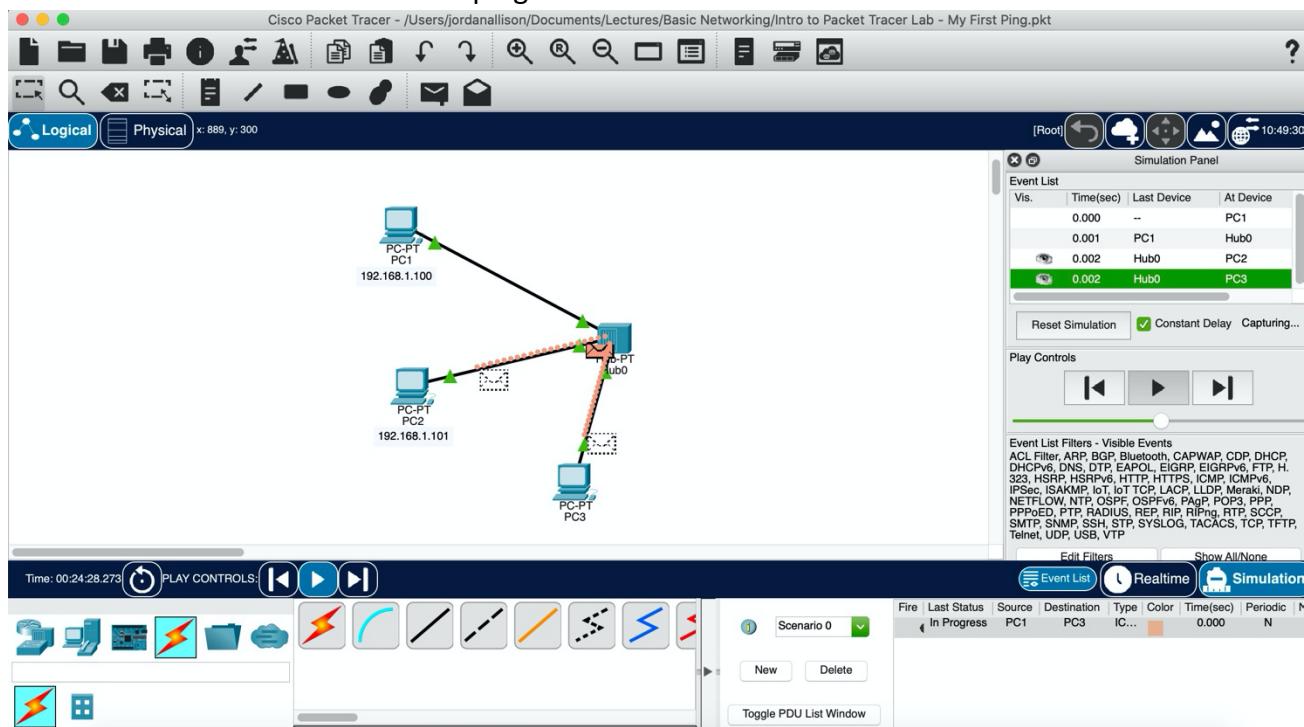


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On the right-hand side of Packet Tracer, click on ‘Simulation’ and then click the play button.



You should be able to visualise the ‘ping’.



Near the end of the sequence, what should happen is that the ping comes back to PC1 (indicated by a green tick), but not PC2 (indicated by a red cross). See below:

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