NU LAGUNA

NETWORK SECURITY, STORAGE & DATA COMMUNICATION

Network Simulation Software

1

LESSON OUTLINE

- Overview in Packet Tracer
- Installing Packet Tracer
- Getting started with Packet Tracer

LEARNING OUTCOMES

Here's what I will teach you in this course material:

- Discuss the software requirements and install packet tracer.
- Discuss the parts of packet tracer.
- Use the packet tracer environment

RESOURCES NEEDED

For this lesson, you would need the following resources:

- Laptop/PC
- Downloaded packet tracer software.

STARTING POINT

Pretest

Before you start, try answering the following questions.

1. What is your Internet Service Provider?

_____

2. What kind of Internet connection do you have at home?

_____

3. What is the download speed of your Internet connection?

_____

4. Why do you select the Internet Service Provider that you currently have?

_____

_____

5. What are your basic steps in troubleshooting your network?

_____

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Overview in Packet Tracer

Packet Tracer is a network simulator software. It allows us to simulate all essential networking devices that you can used to practice your networking skills in creating your own network with routers, switches, wireless devices, cables, and application of device configurations. It is also serving as a supplement not alternative for real devices used in Networking System. Using this simulation software, it will help you to demonstrate the dynamic way in either Real-Time or Simulation.

Packet Tracer System Requirements

To successfully install and run your Packet Tracer, the following minimum prerequisites must be met:

Minimum Requirements

- CPU: Intel Pentium 4, 2.53 GHz or equivalent
- OS: Microsoft Windows 7, Microsoft Windows 8.1, Microsoft Windows 10 or Ubuntu 18.04.3 LTS
- RAM: 2 GB
- Storage: 500 MB of free disk space
- Display resolution: 1024 x 768
- Language fonts supporting Unicode encoding (if viewing in languages other than English)
- Latest video card drivers and operating system updates

Recommended Requirements

- CPU: Intel Pentium 4, 3.0 GHz or better
- RAM: 4 GB
- Storage: 700 MB of free disk space
- Display resolution: 1920 x 1080
- Sound card and speakers
- Internet connectivity (if you will be using the Multiuser feature)

DOWNLOAD

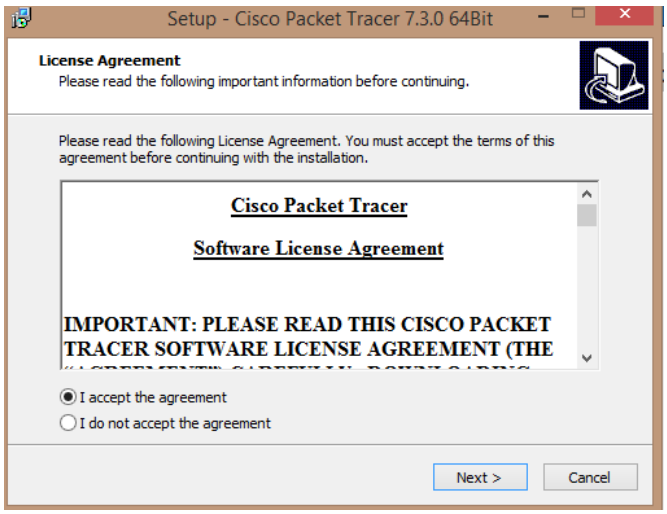
To download your Packet Tracer, click this link
https://www.netacad.com/courses/packet-tracer/introduction-packet-tracer
Click the signup button in the Packet tracer Windows or Linux, then download the version of Packet tracer appropriate for your Operating System.

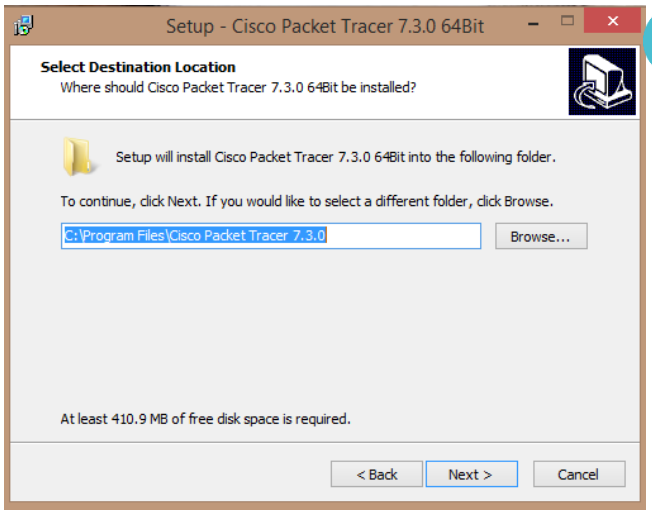
Another way to download your Packet Tracer is to click the link
https://www.computernetworkingnotes.com/ccna-study-guide/download-packet-tracer-for-windows-and-linux.html

Installing Packet Tracer

1 After downloading the Packet Tracer, open the folder that has the downloaded file and click the setup file. Based on your UAC (User Access Control) setting, your windows might ask you to confirm the installation. If it asks, click the ***Yes*** button to verify the installation.

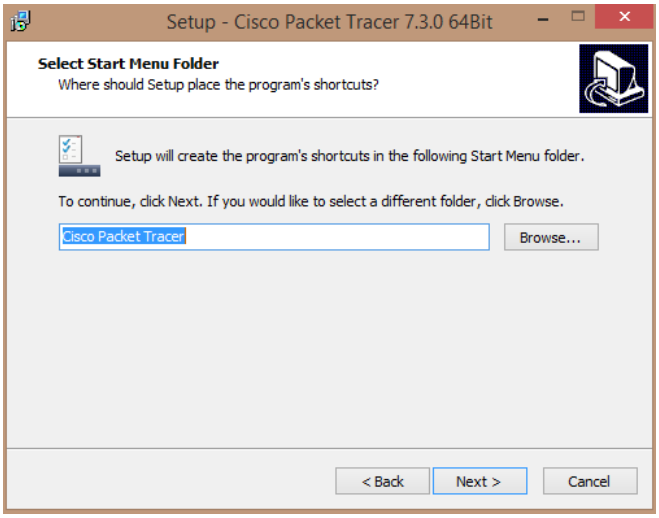
2 The next window you will see is the license agreement. Select the ***I accept the agreement*** option and click the ***Next*** button.

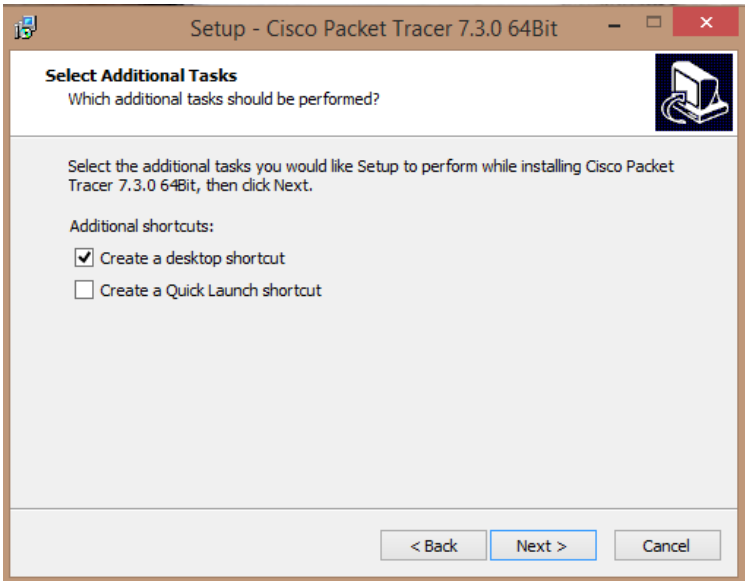




3 The next screen enables you to customize the installation directory. With the default settings, your packet tracer will be installed in the ***Program File*** folder of the Windows partition. If you would like to install the Packet Tracer in another folder, click the Browse button and select the folder into which you want to install the Packet Tracer. Make your selection and then click on the ***Next*** button to proceed with the installation.

4 The next screen allows you to customize the shortcut-link name and the location of the Packet Tracer in the start menu. By default, your wizard utilizes the name ***Cisco Packet Tracer*** for both the folder-name and the shortcut-link name. Keep default options and click the ***Next*** button.





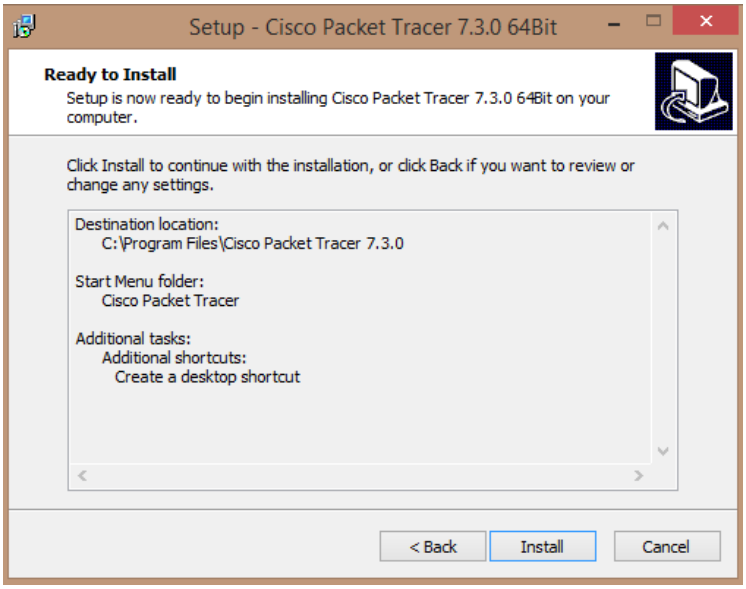
5 The next screen allows you to create two more shortcut links to launch the Packet Tracer.

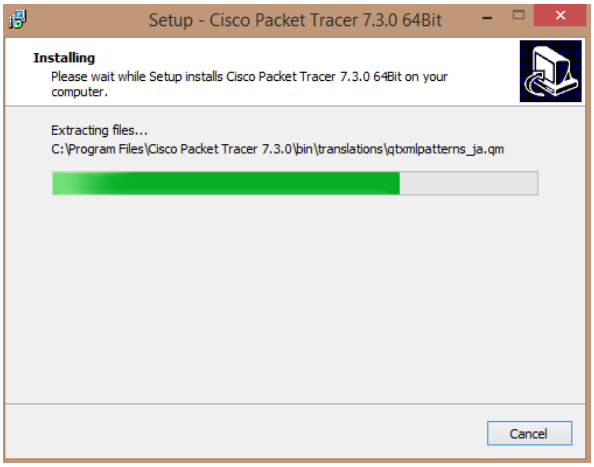
Create a desktop icon - This option creates a shortcut link on the Desktop.

Create a quick launch icon - This option creates a shortcut link in the Quick-Launch bar.

Decide your choice and click on the ***Next*** button.

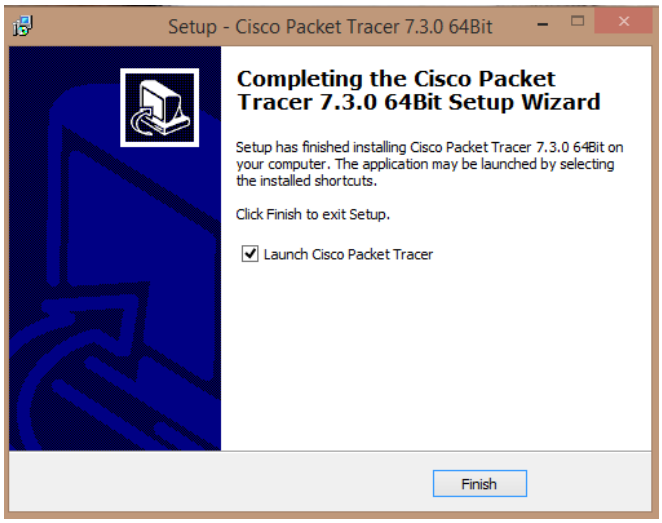
6 The next screen provides a summary of selections. If you need to change an option, use the ***Back*** button to get that option. To start the installation with currently selected options, click the ***Install*** button.

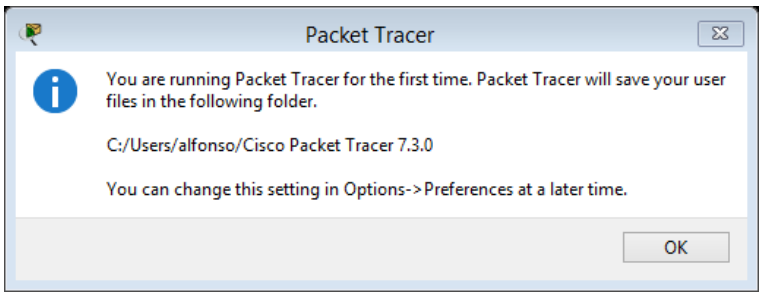




7 The wizard shows the real-time progress of the installation.

8 If the installation is successful, this screen displays an option to start the Packet Tracer. If you keep this option selected, the packet tracer starts when the wizard is closed. Click the Finish button to close the wizard.

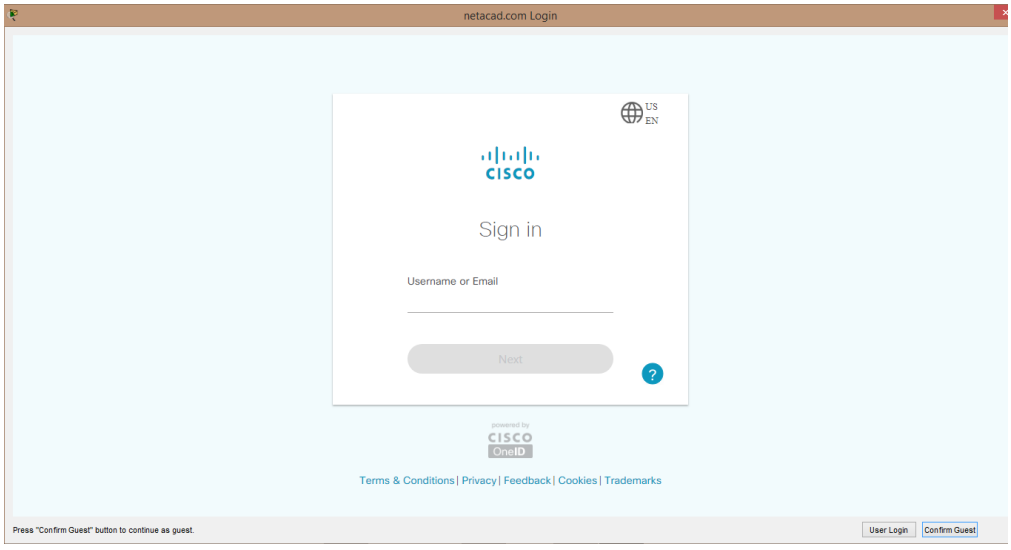




9 On the first run to save your activities, the packet tracer automatically creates a folder. This setting, as well as your other settings, can be changed at any time from the ***Options-> Preferences*** options.

Activating Packet Tracer

Since version 7.0.0, the Packet Tracer can only be used after login. When you start the Packet Tracer, it displays a login box. If the system is not connected to the Internet, you can use the ***Guest account*** to access the Packet Tracer.

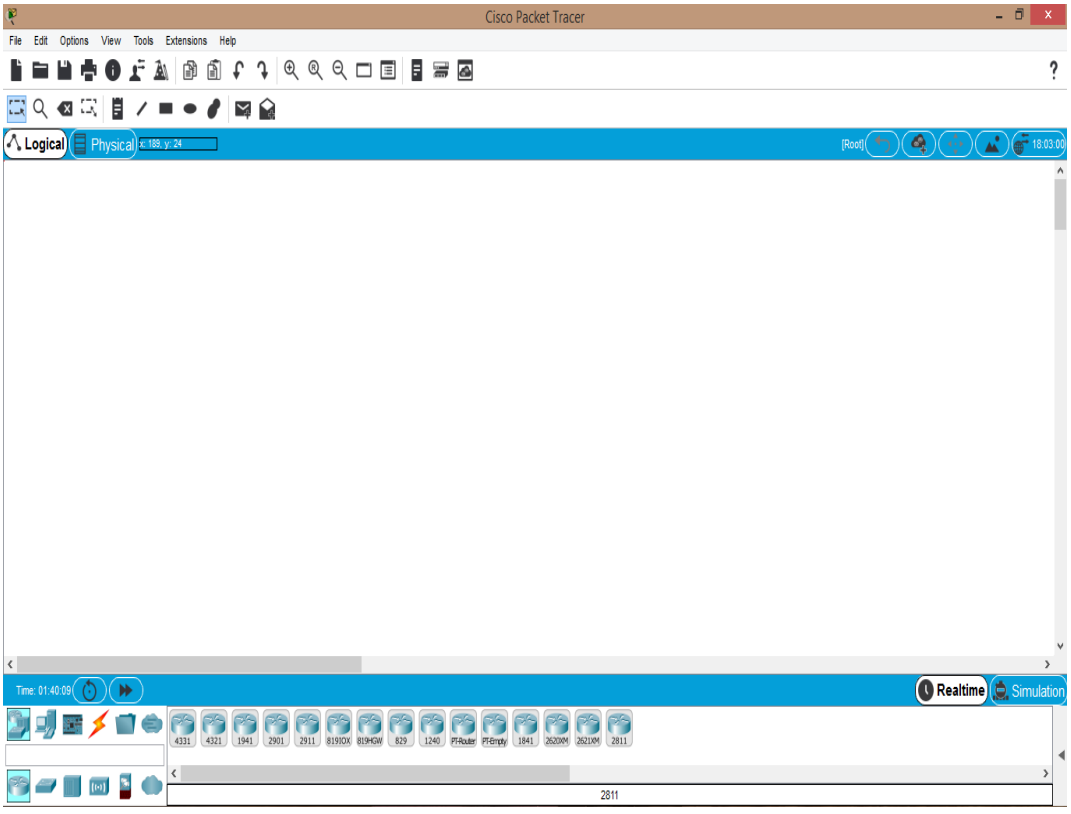


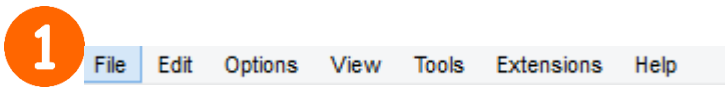
You can used Guest Account but offers limited features. It allows you to save three practical activities.

To remove this restriction, you must log in to the Packet Tracer from a Cisco Academy account. To create your free Cisco Academy account, visit the following web page. https://www.netacad.com/courses/packet-tracer/introduction-packet-tracer

Getting started with Packet Tracer

I will help you to explore the devices and tools available in your packet tracer environment. You need to be familiarized in each tool to determine its functions and application.



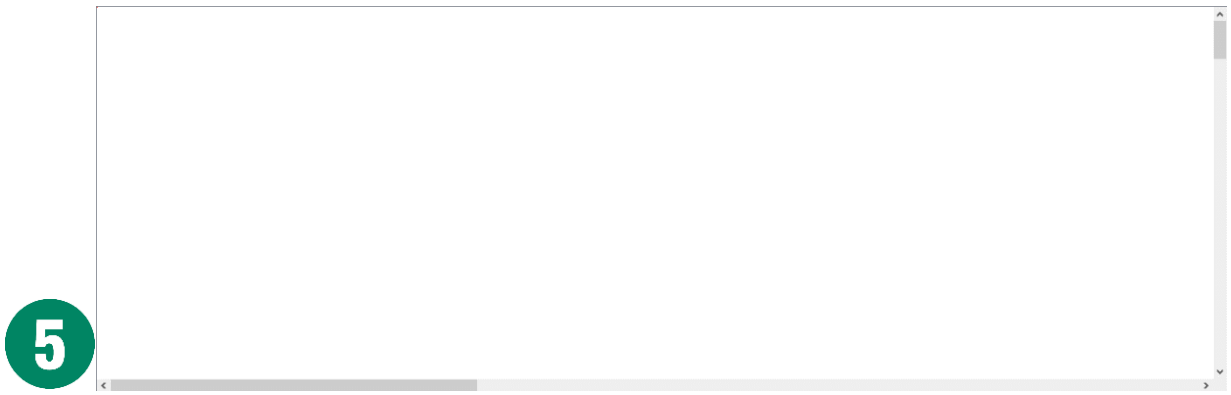


Menu bar – This is a common menu found in all software applications; it is used to open, save, print, change preferences, and so on.

Main toolbar – This bar provides shortcut icons to menu options that are commonly accessed, such as open, save, zoom, undo, and redo, and on the right-hand side is an icon for entering network information for the current network.

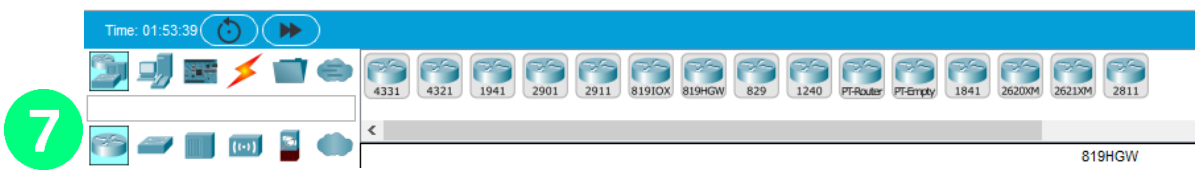
Common tools bar – This toolbar provides controls for manipulating topologies, such as select, move layout, place note, delete, inspect, resize shape, and add simple/complex PDU.

Logical/Physical workspace tabs – These tabs allow you to toggle between the Logical and Physical work areas.



Workspace – This is the area where topologies are created, and simulations are displayed.

Realtime/Simulation tabs – These tabs are used to toggle between the real and simulation modes. Buttons are also provided to control the time, and to capture the packets.



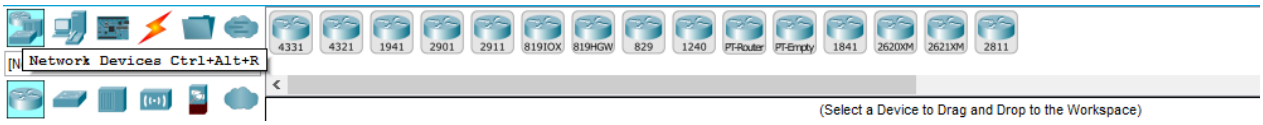
Network component box – This component contains all the network and end devices available with Packet Tracer, and is further divided into two areas:

Device-type selection box – This area contains device categories

Device-specific selection box – When a device category is selected, this selection box displays the different device models within that category.

Device Models

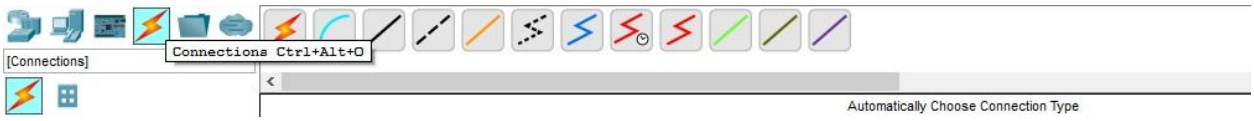
1. ***Network devices*** – You can see different models of routers, switches, hubs, wireless devices, security, and WAN emulation.



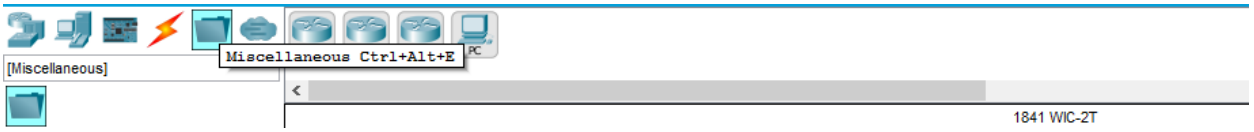
2. ***End devices*** – These devices are the most used by us. In packet tracer, it has different group of devices like home appliances, devices used in smart city, industrial, and power grid.

3. ***Components*** – Aside from network and end devices, you can also use components to design your network topology.

4. ***Connections*** – Media devices are used to connect different devices. Packet Tracer provides you choices to choose in connecting your devices from Local Area to Wide Area network.



5. ***Miscellaneous***- You will see the common devices you used in packet tracer.



REFERENCES

Website

Academy, C. N. (n.d.). Introduction to Packet Tracer. Retrieved from www.netacad.com: https://www.netacad.com/courses/packet-tracer/introduction-packet-tracer

Bhardwaj, R. (2020, July 22). *Cisco Packet Tracer Download & Installation Windows*. Retrieved from https://ipwithease.com: https://ipwithease.com/how-to-install-packet-tracer-on-windows-system/