

AIM: To study the Packet tracer tool installation and User Interface Overview

① To understand environment of CISCO packet tracer to design simple network.

### INTRODUCTION:

A simulator, as the name suggests, simulates network devices in its environment. Packet Tracer is an exciting network design, simulation & modelling tool.

- It allows you to model complex systems without the need of dedicated equipment.
- It helps you to practice your network configuration and troubleshooting skills via computer or an Android or iOS based mobile device.
- It is available for both the Linux & Windows desktop environments.
- Protocols in Packet Tracer are coded to work & behave in the same way as they would on real hardware.

### INSTALLING PACKET TRACER:

Download from: netacad.com  
(cisco login required)

#### Windows:

Run PacketTracer-Setup.exe & follow the installer.

#### Linux:

use Terminal

chmod +x installer.bin  
. /installer.cn

# PACKET TRACER INTERFACE - KEY COMPONENTS

- 1) Menu Bar - common functions: open, save, print, settings.
- 2) Main Toolbar - quick access: open, save, zoom, undo/redo, network info.
- 3) Logical / Physical Tabs - switch between logical, physical views.
- 4) Workspace - area to create and simulate network topologies.
- 5) Common Tools - tools to select, delete, inspect, add PDO etc.
- 6) RealTime / Simulation Tabs - toggle modes & control simulation flow.
- 7) Network Component Box:
  - 7a : device types (PC, switch, router)
  - 7b : specific models within the type
- 8) User - created Packet Box:  
Create test custom packets

## Analyzing Network Device Behaviour in Packet Tracer:

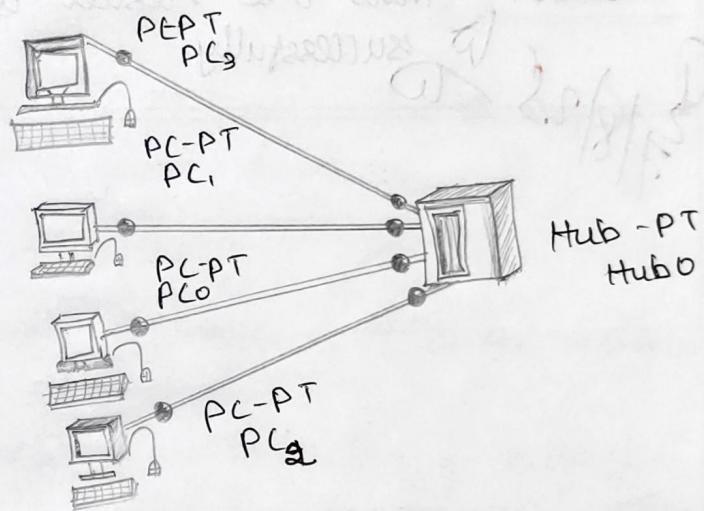
Steps:

- 1) Drag components from network box.
  - (a) 4 PCs + 1 Hub
  - (b) 4 PCs + 1 Switch.
- 2) Use copper straight - Through cable to connect PC's to hub & switch  
green light = connected.

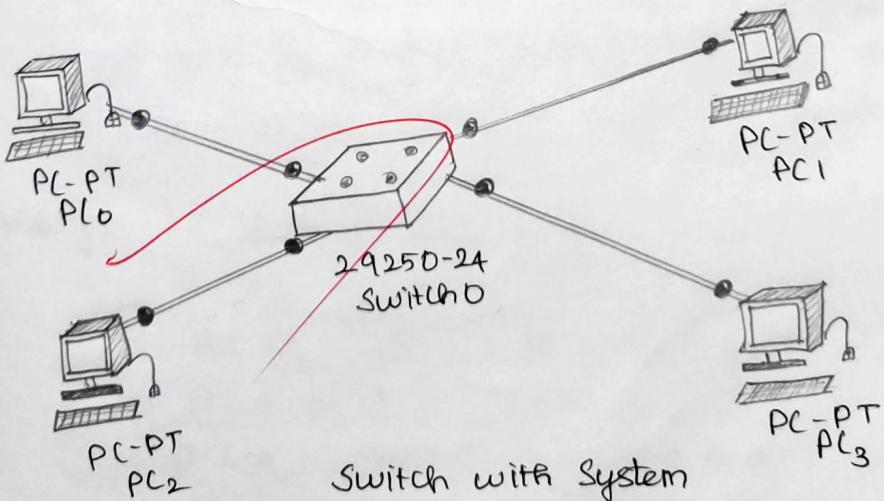
On each PC  $\leftrightarrow$  Desktop tab  $\rightarrow$   
IP configuration  $\rightarrow$  Assign IP & submit  
mask.

- 3) On each PC  $\rightarrow$  Desktop tab  $\rightarrow$  IP  
configuration  $\rightarrow$  Assign IP & Subnet  
Mask.
- 4) Use PDV tool to send a packet between  
2 PC's
- 5) Switch to realtime mode to observe how  
data flows.
- 6) Repeat for switch setup.

Hub  
with  
System



Switch with System



## STUDENT OBSERVATION:

- D) How do a switch & a hub forward packets?
- Hub broadcasts packets to all devices, while a switch forwards packets only to the target devices.
- 2) What is the network topology used in your lab?
- The college uses a [inset topology]  
eg: star topology]

RESULT: Thus the result is verified

1 2 3 4 5 6 7 8 9 10

79-39  
139

dut

139

139

79-39  
039

139

79-39  
e19

packets

79-39  
139

79-39  
019

NE-GP-PC  
DUT139

79-39  
e19

79-39  
139

multiple other routers

