



Royal University of Phnom Penh
Faculty of Engineering



Cisco Packet Tracer

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Data Communication



Content

- Introduction
- Important toolbars on the top
- Bottom Toolbars
- Virtual Devices
- Video Demo with a small topology with 2 LANs connected



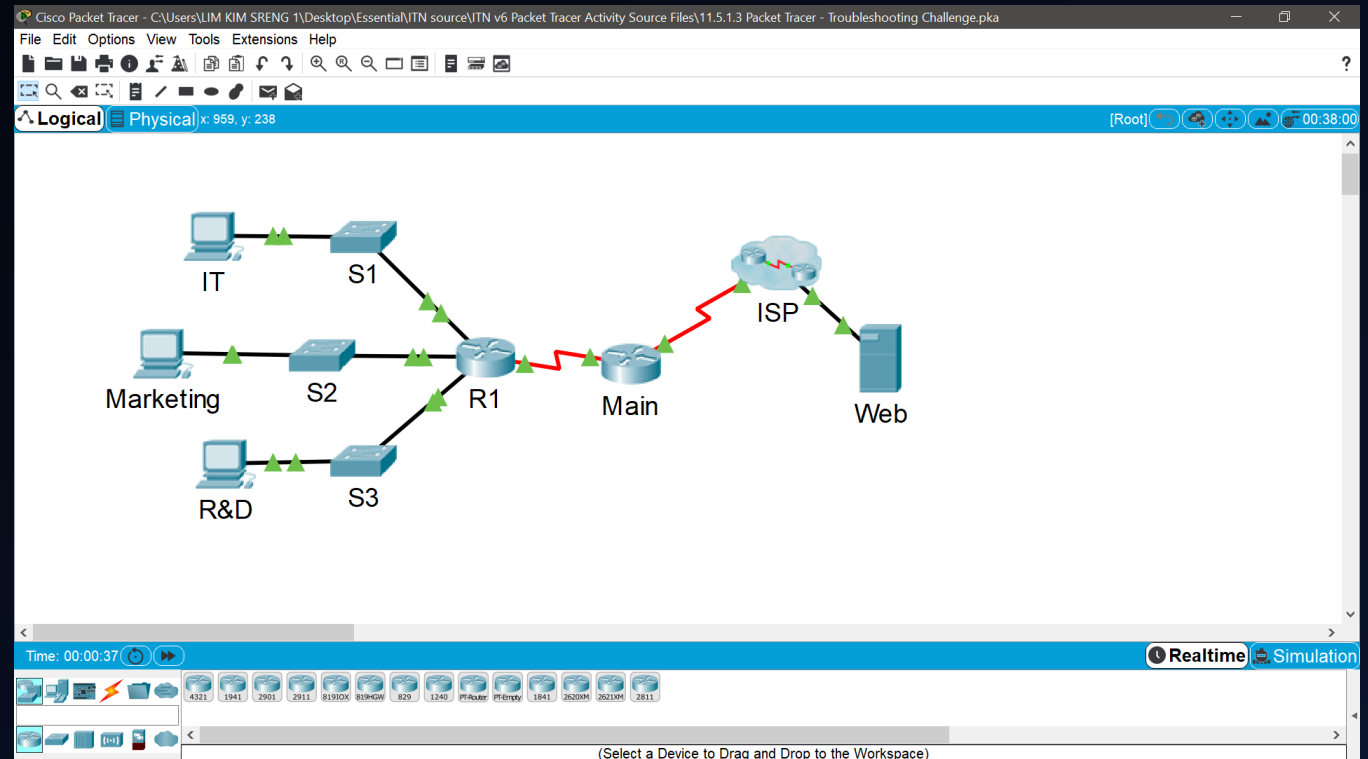
Introduction

- What is Packet Tracer?
- Why do we use it? Why not other programs?
- How to download and install Packet Tracer?

What is Packet Tracer?

Packet Tracer is a

network simulation and
modelling tool that allows
you to develop your skill
set in networking that
developed by Cisco.





Why do we use it? Why not other programs?

- Offers a variety of common virtual networking equipment, especially Cisco products.
- Ideal for those who want to achieve Cisco certifications like CCENT, CCNA ...etc.
- We choose to use it over other network simulation tools (GNS3...etc.) because Packet Tracer is free to download and simple for beginner to use as well.



How to download and install Packet Tracer?

How to download Packet Tracer

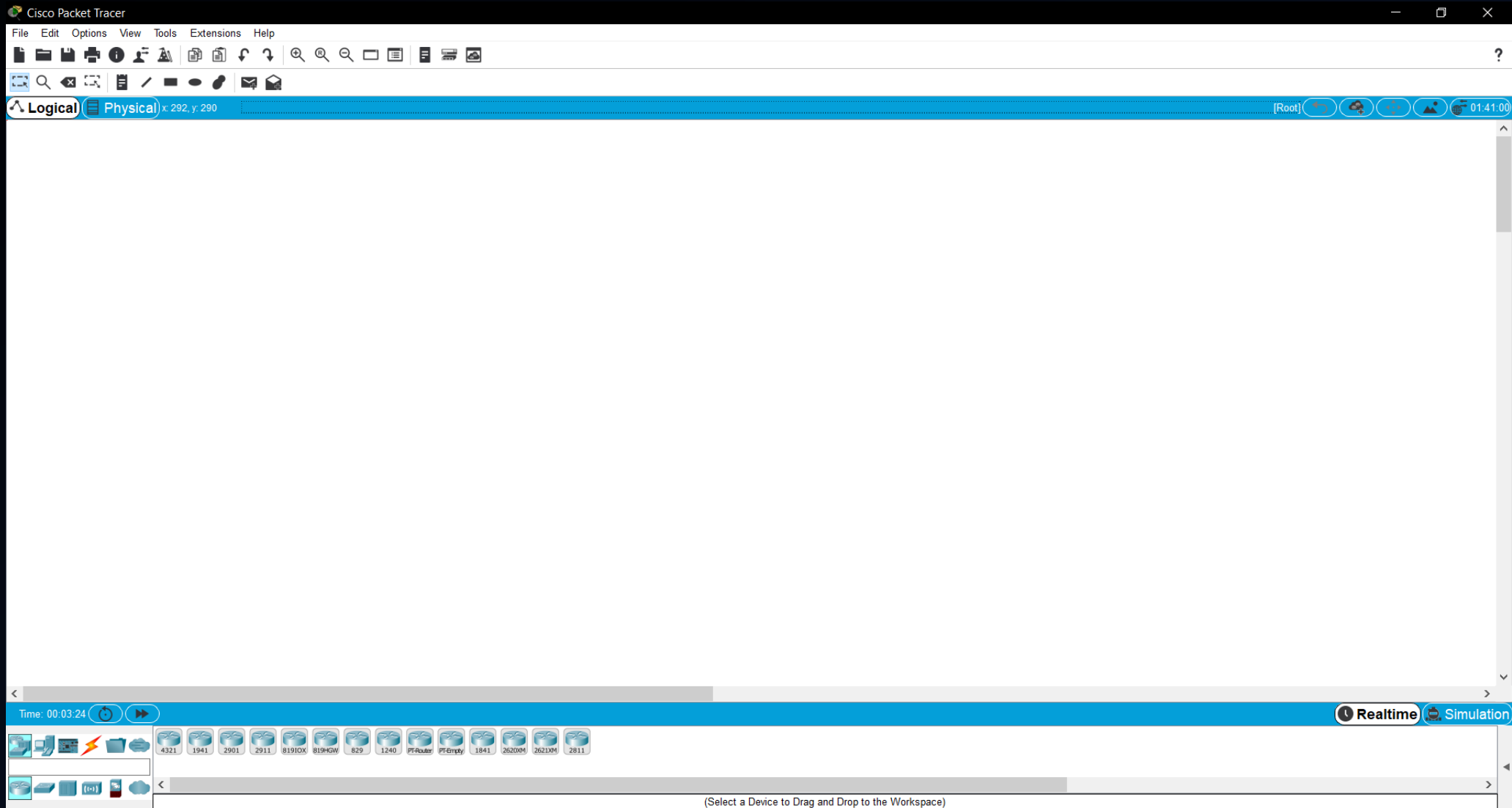
To download Packet Tracer, follow these steps to create your Networking Academy registration:

- Click the 'Enroll to Download Packet Tracer' button
- Enroll in the Introduction to Packet Tracer course
- Complete your Networking Academy registration
- Launch the Introduction to Packet Tracer course
- Download instructions are found within the course

Enroll to download Packet Tracer

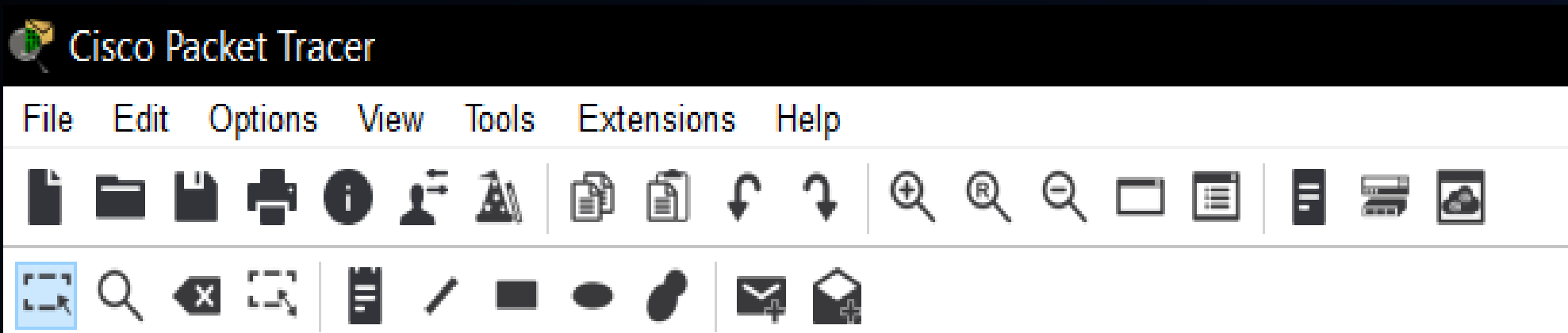
To get Packet Tracer (download and install it) (Latest Version), Cisco requires you to register as a Netacad student in order to download the Packet Tracer. Go to <https://www.netacad.com/courses/packet-tracer>

Important toolbars on the top

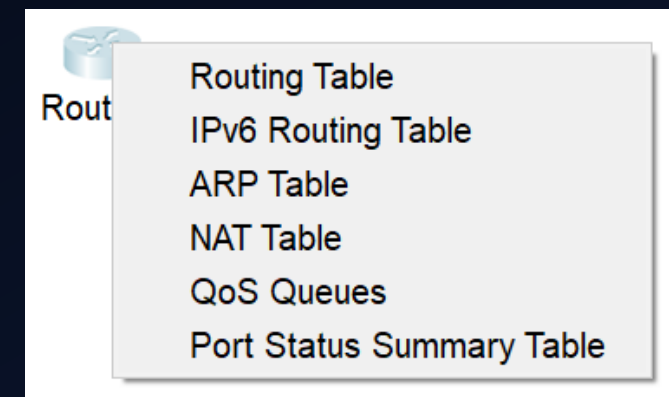
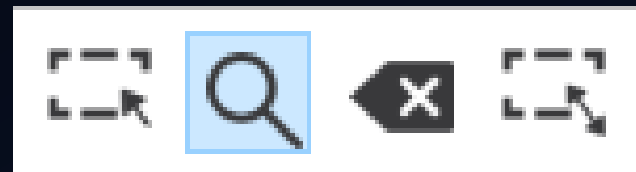


Important toolbars on the top

At the top of Packet Tracer interface, you find the classic drop-down menu and some shortcuts in the blue bar.



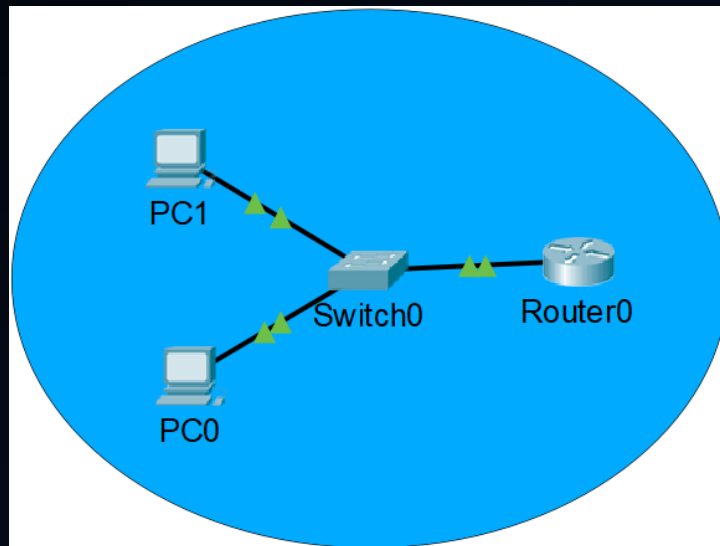
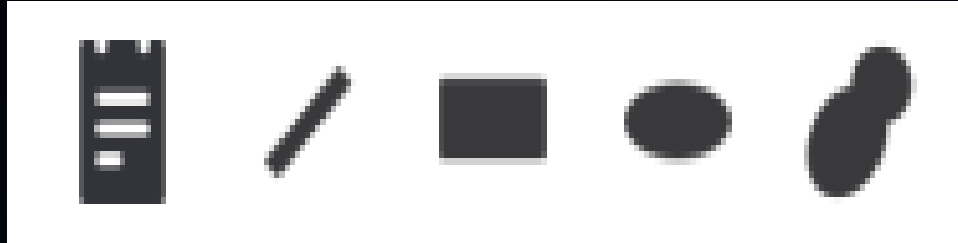
Inspect tool :



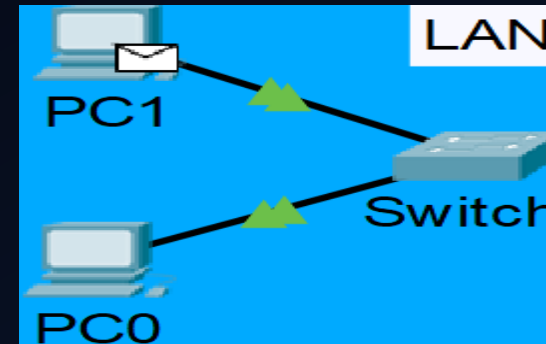
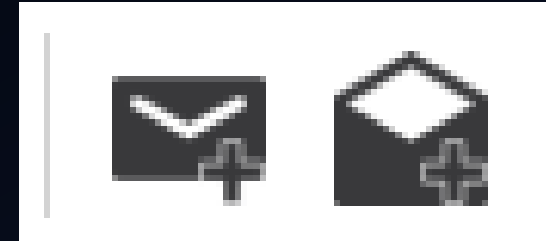
Important toolbars on the top



“The Drawing menu + Note“



“PDU for connection testing“



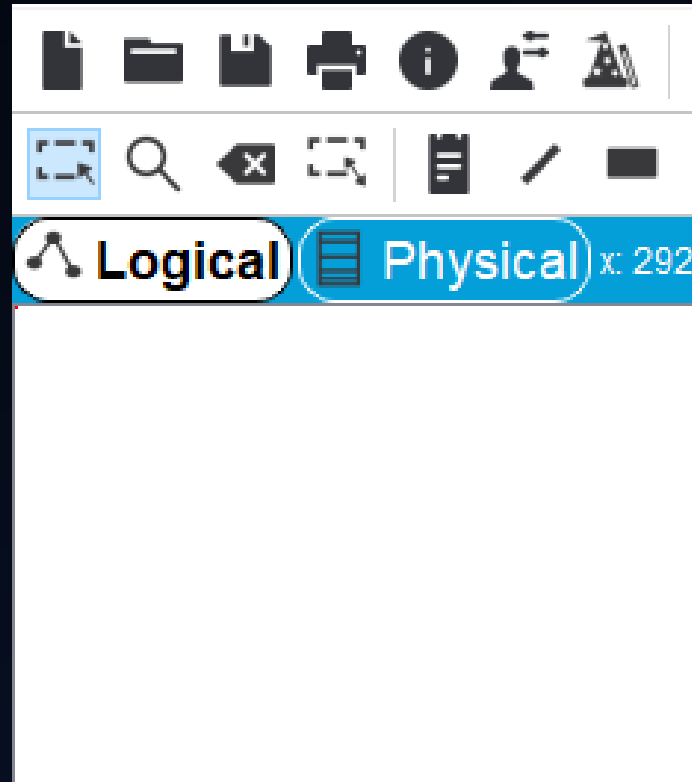
Fire	Last Status	Source	Destination	Type	Color	Time(sec)
	Successful	PC1	PC0	ICMP		0.000

< >



Important toolbars on the top

The *switch* between Logical and Physical workspace is the leftmost element of the bar. You can use it to switch between logical workspace (icon with three dots) or physical workspace (server icon).

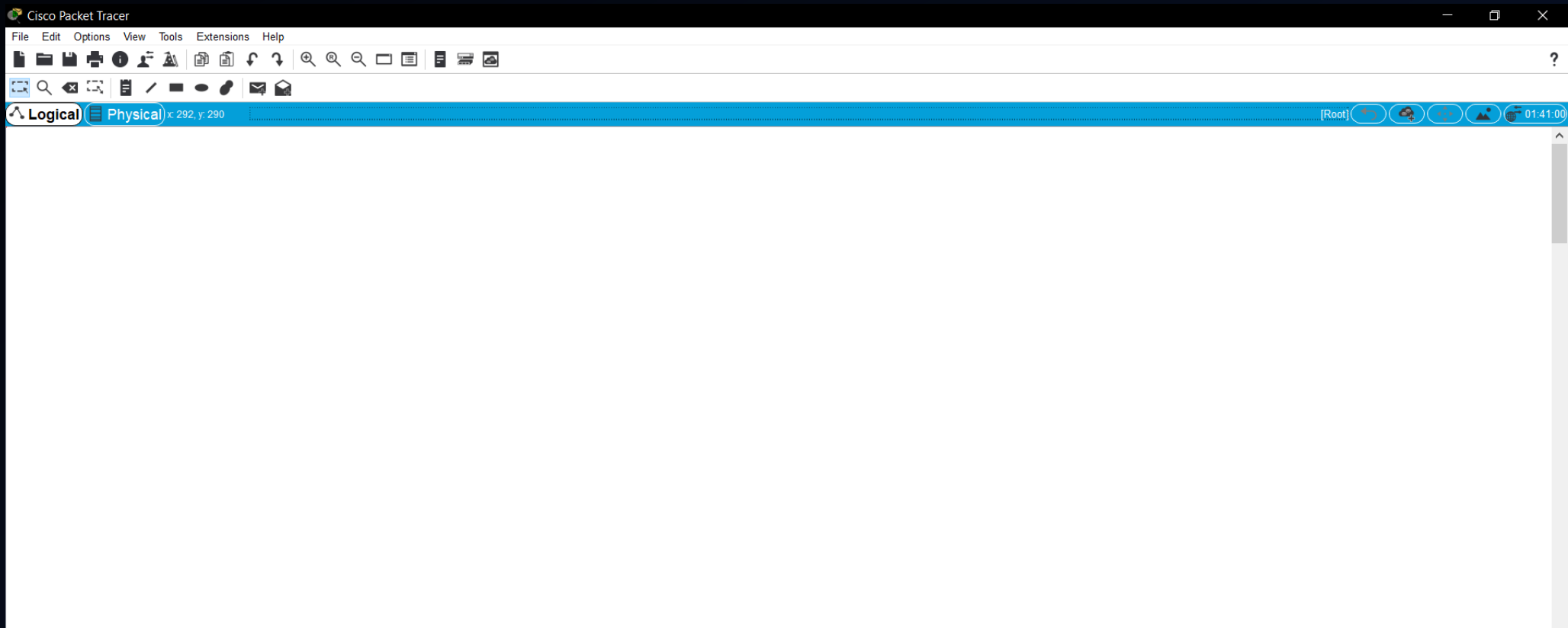




Important toolbars on the top

Workspace toolbar

This is the Packet Tracer workspace toolbar with the “Logical” tab selected.

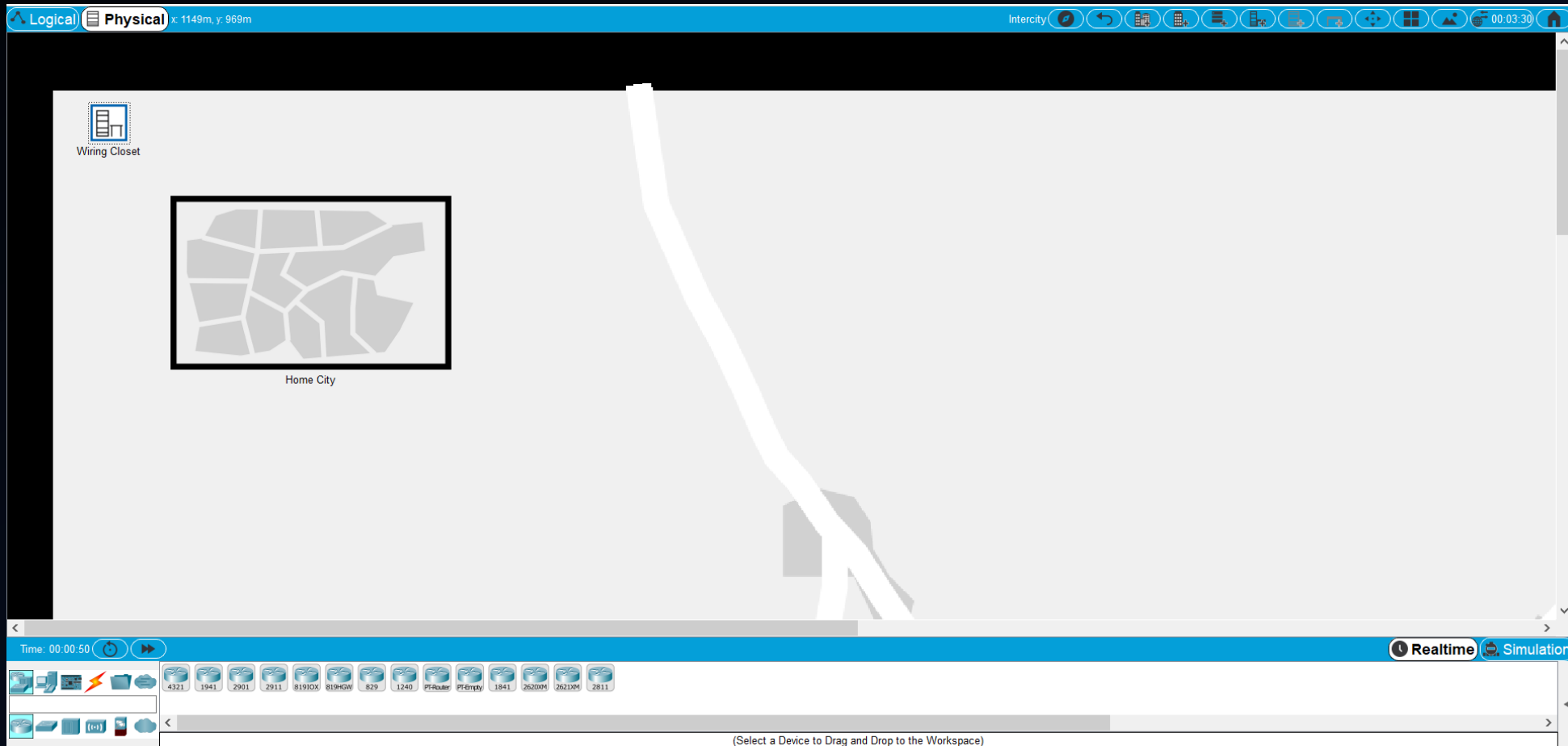




Important toolbars on the top

Workspace toolbar

In the physical workspace, you can see fictitious cities, buildings and wiring closets.





Important toolbars on the top

“ Real-time and Simulation mode toolbar“



Most of the content in the previous slides are in Realtime Mode.

Simulation mode will be described more in the Video Demo.

Simulation Mode

Simulation Panel

Event List

Vis.	Time(sec)	Last Dev	At Dev	Type
	0.000	--	PC1	ICMP
	0.000	--	PC1	ARP
	0.001	PC1	Switch	ARP
	0.002	Switch	PC2	ARP
	0.003	PC2	Switch	ARP
	0.004	Switch	PC1	ARP
	0.004	--	PC1	ICMP
	0.005	PC1	Switch	ICMP
	0.006	Switch	PC2	ICMP
	0.007	PC2	Switch	ICMP
	0.008	Switch	PC1	ICMP

Reset Simulation ☒ Constant Delay Captured to: 0.008 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

Bottom toolbar



- Network Devices



- End Devices



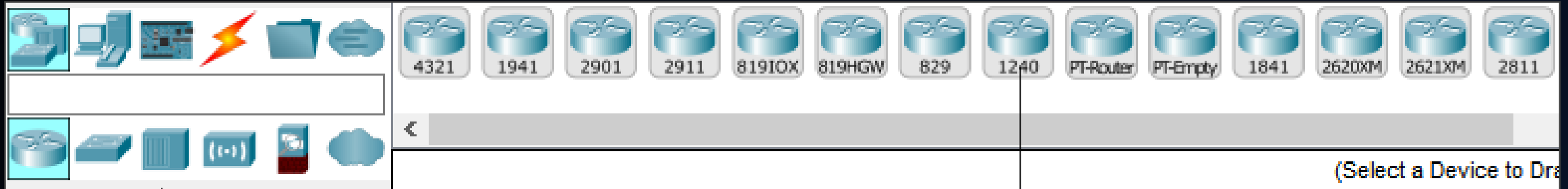
- Connections





Bottom toolbar

1 2 3 4 5 6



Subsidiary of
devices

2nd Subsidiary of
devices

1-Network Devices

2-End Devices

3-Components

4-Connection

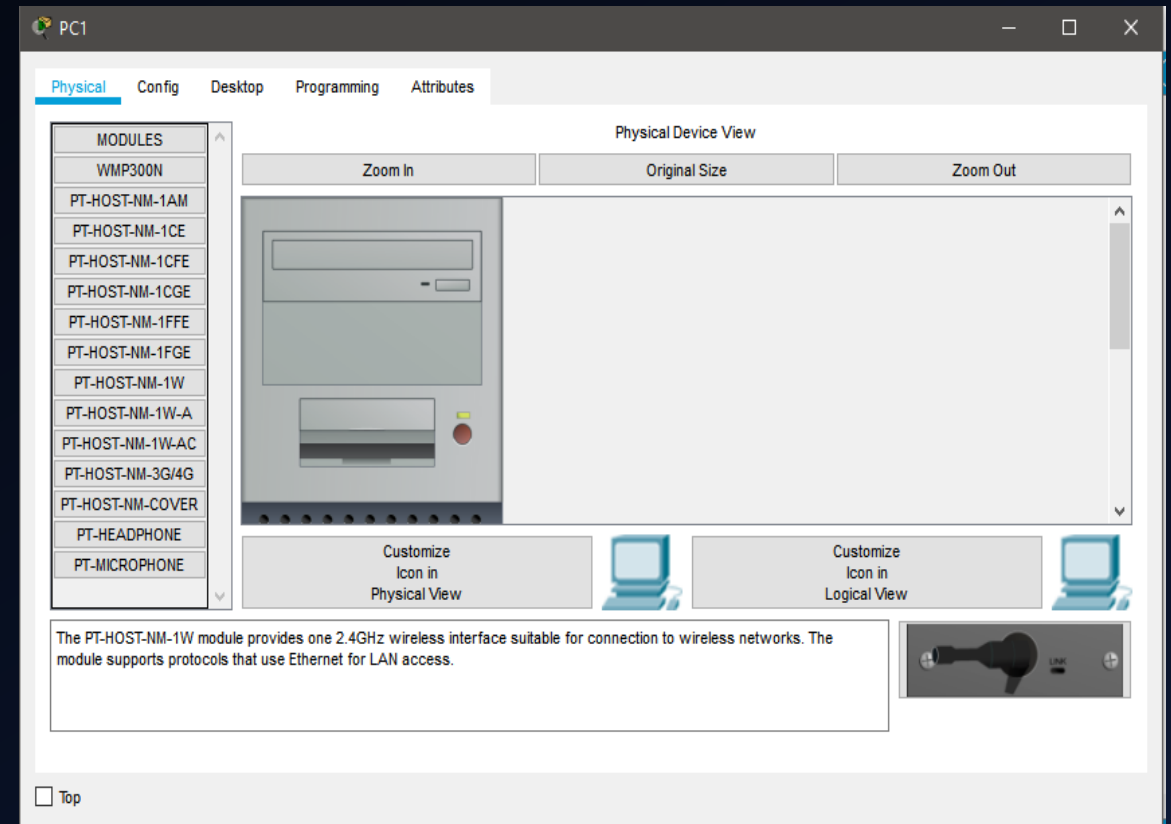
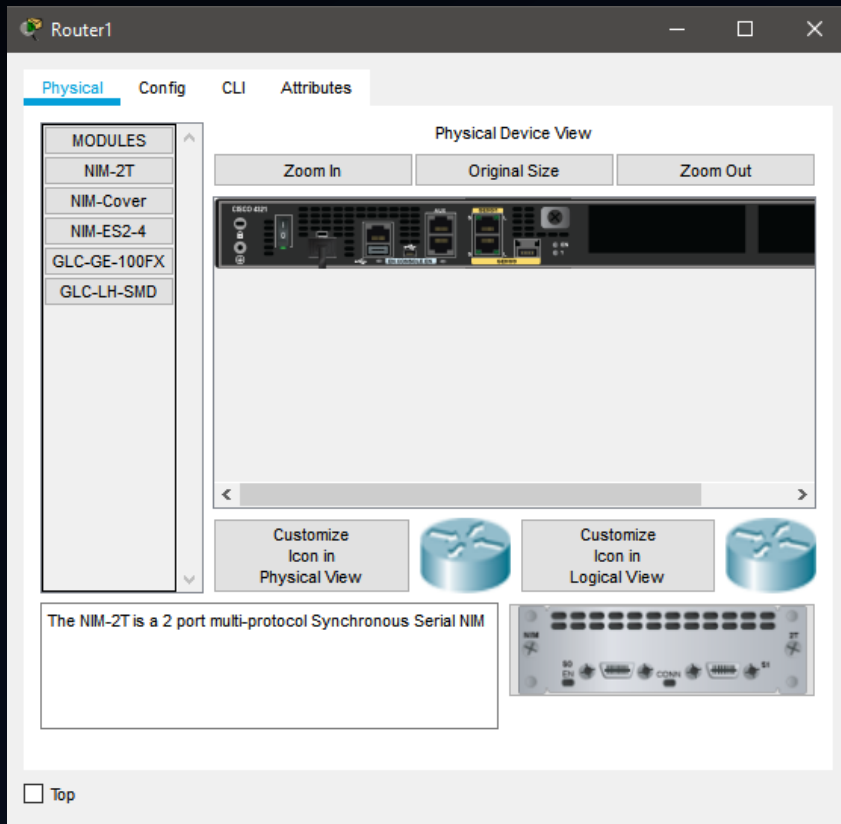
5-Miscs

6-Multiuser

Connection

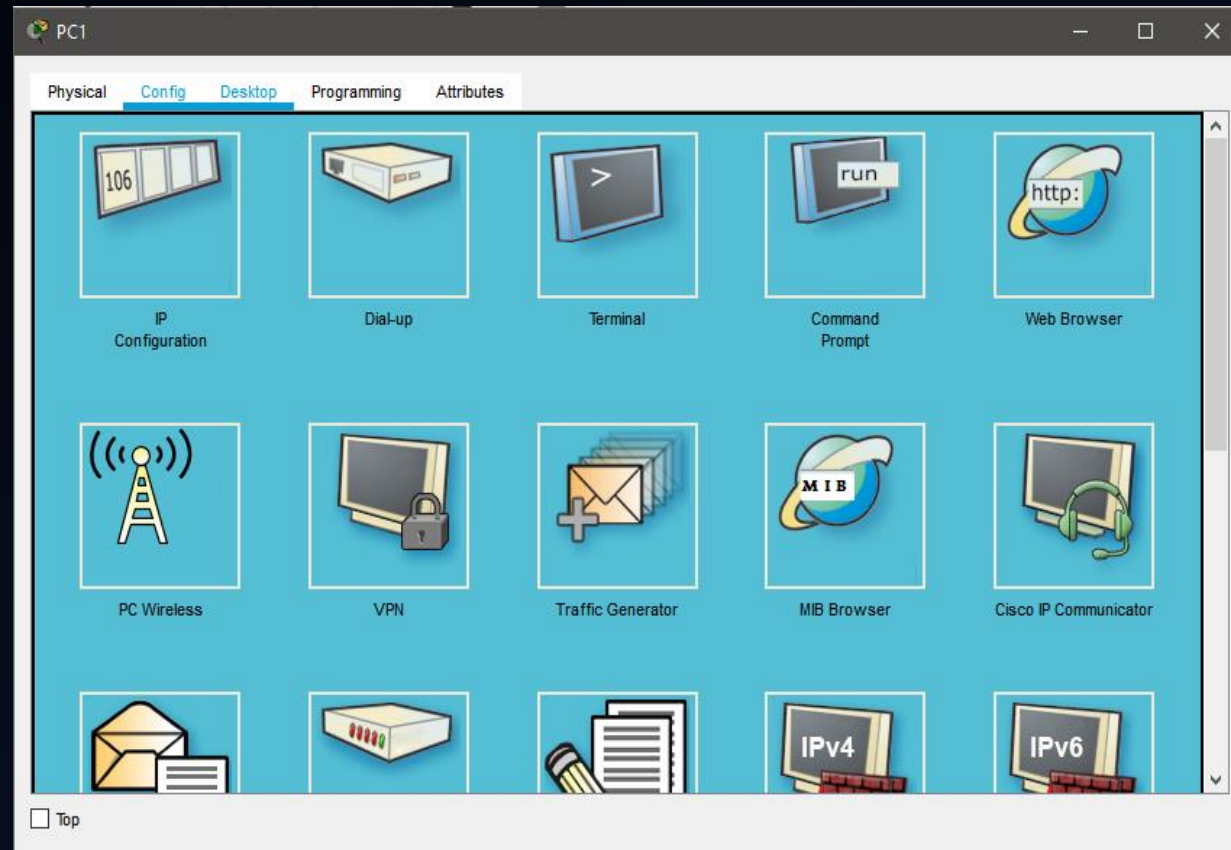
Virtual Device

- In Cisco Packet Tracer, you can view device physical part, modify part or configure your device.



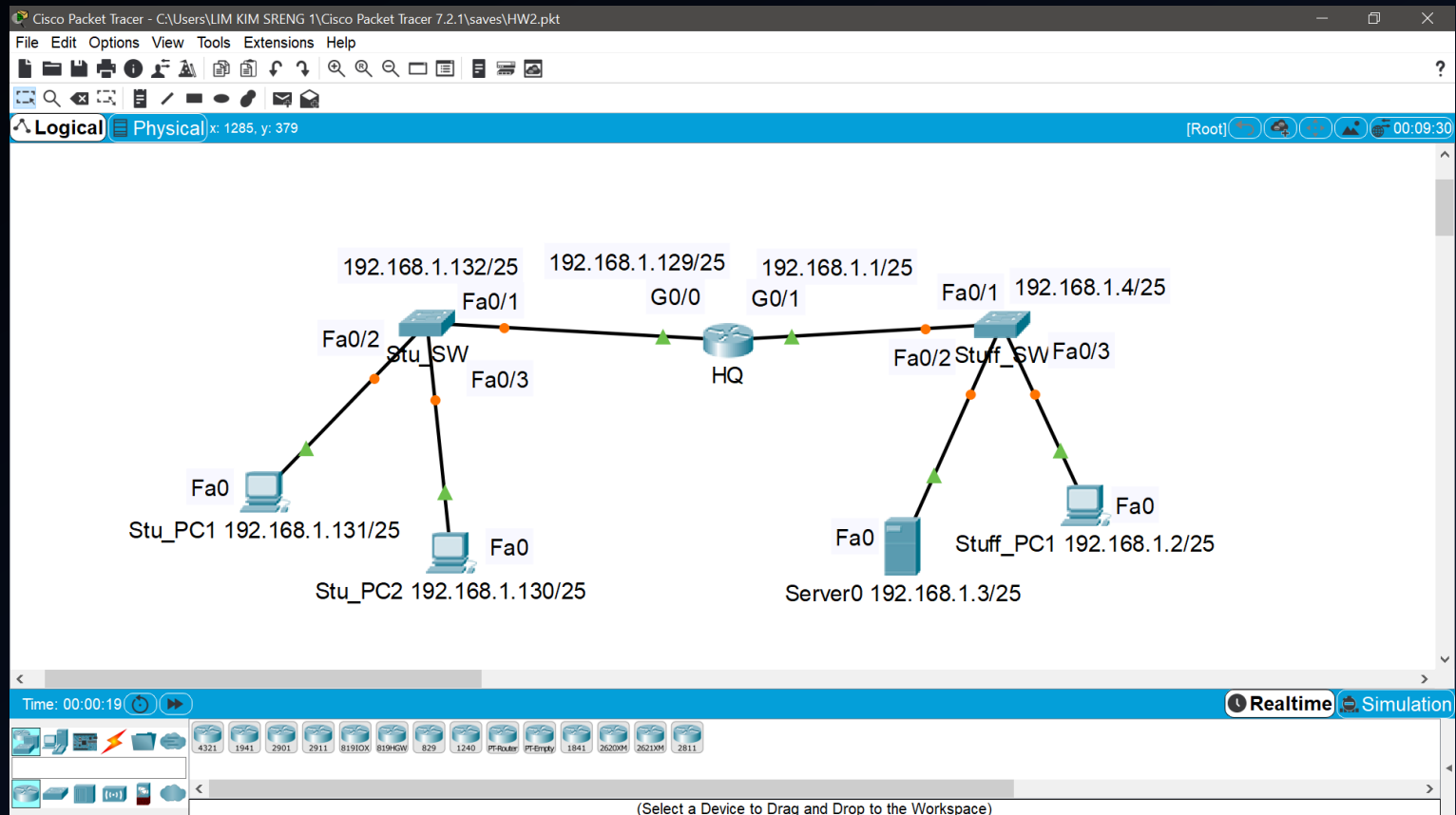
Virtual Device

- In Desktop tab, you can see some applications such as web browser, VPN, Terminal, Dial up and more.





Video Demo





This demo covers:

- Assigning IP to a PC
- Simple PDU in Real time mode(Ping)
- Simulation mode:
 - Protocol filter walk-through
 - Step-by-step process of ICMP pinging through command prompt
 - Details in PDU type



Conclusion:

- Cisco Packet Tracer is ideal for anyone who wishes to experiment network devices virtually
- Get to play with Cisco virtual products
- Testing newly developed network topology before deploying



Reference:

- <https://www.netacad.com/courses/packet-tracer/introduction-packet-tracer>



thank you!

