CSCI 31082 - Systems and Network Administration

Lab 02

2020/2021

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Packet Tracer - Creating a New Topology

1.1 Adding Hosts

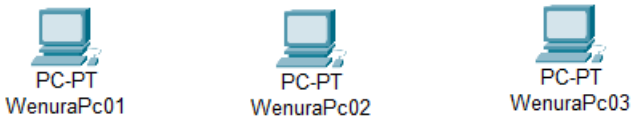


Figure 1 - Adding Hosts

1.2 Adding a Hub

Figure 2 - Adding a Hub

1.3 Adding Connections to the Hub

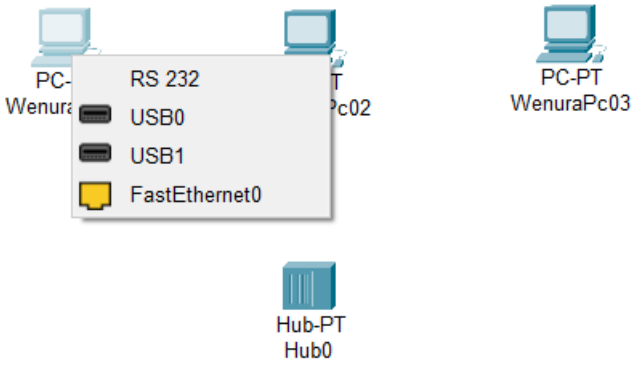


Figure 3 - PC connection

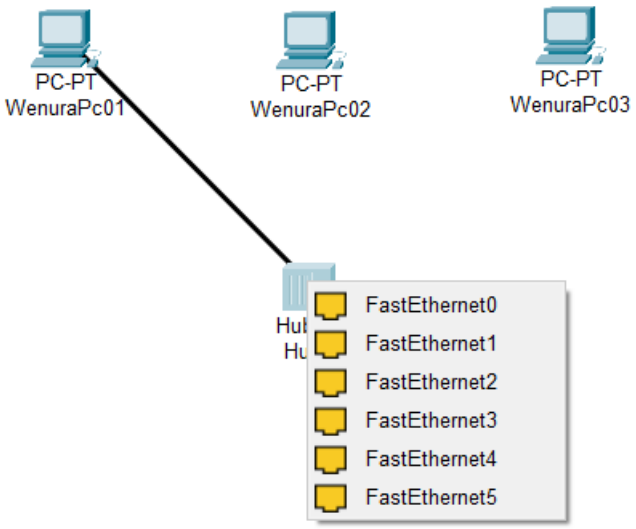


Figure 4 – Hub connection

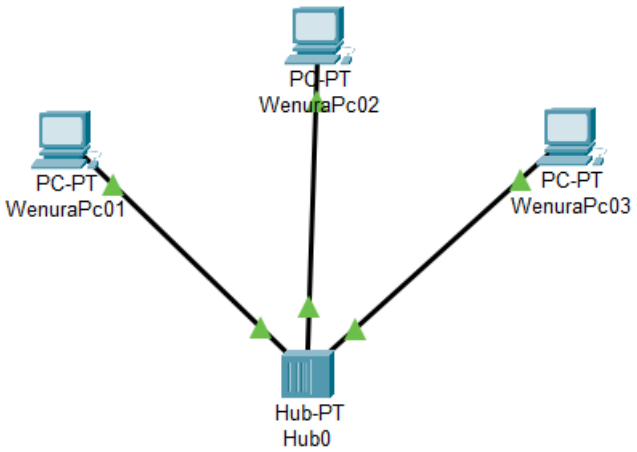


Figure 5 - Hub Connection

1.4 Adding a Switch

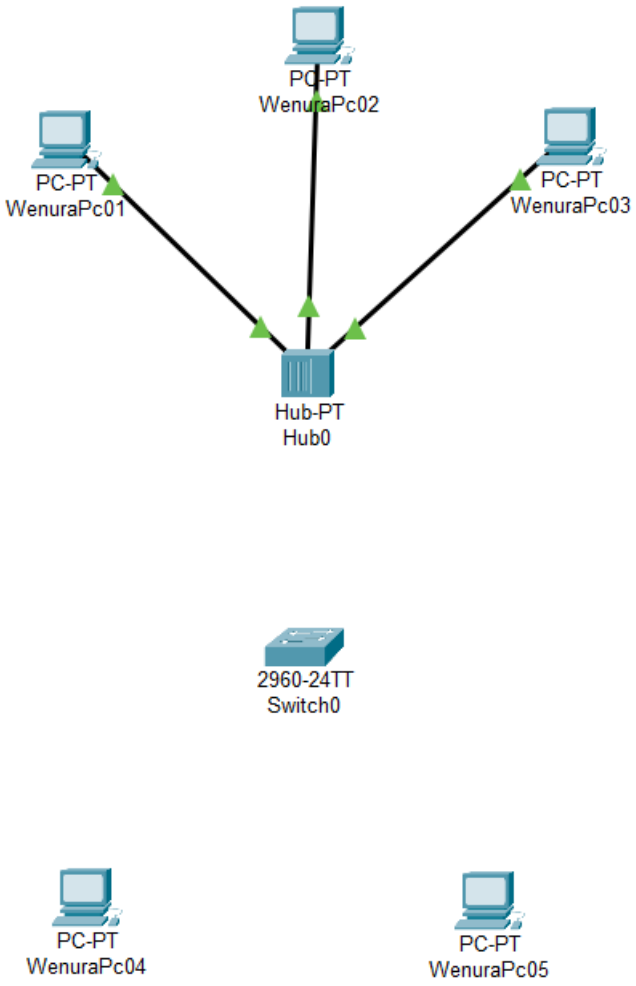


Figure 6 – Adding a Switch

1.5 Adding Connection to the Switch

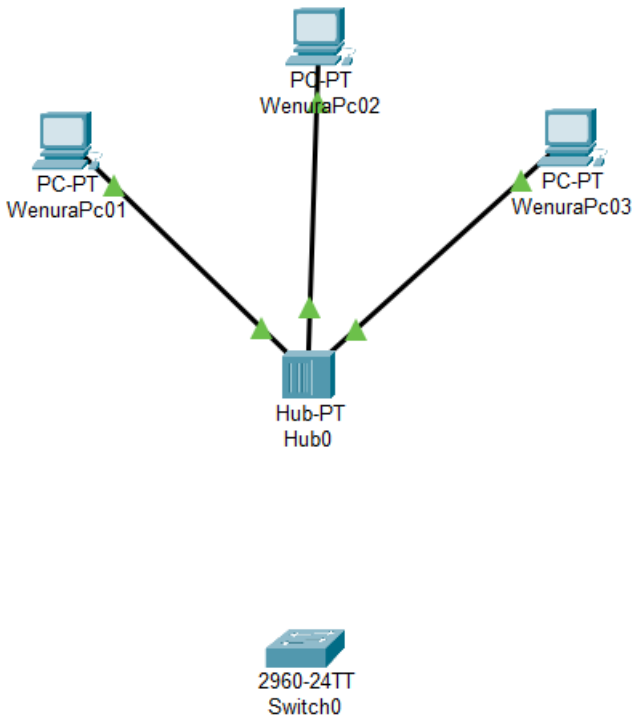


Figure 7 - PC port

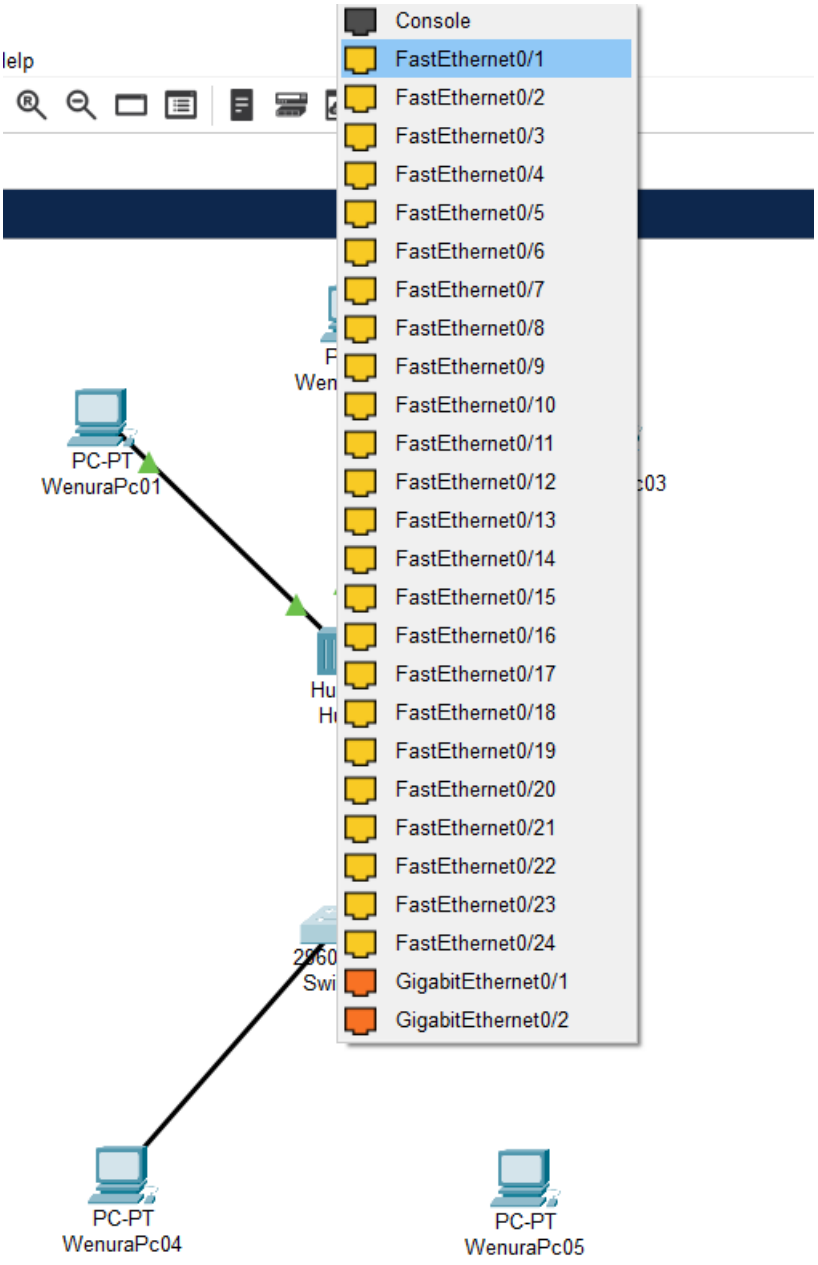


Figure 8 – Switch Port

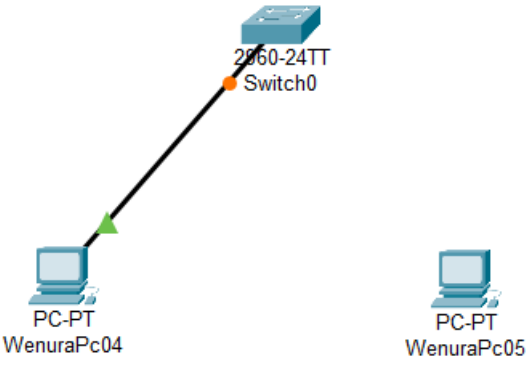


Figure 9 – Just after connected

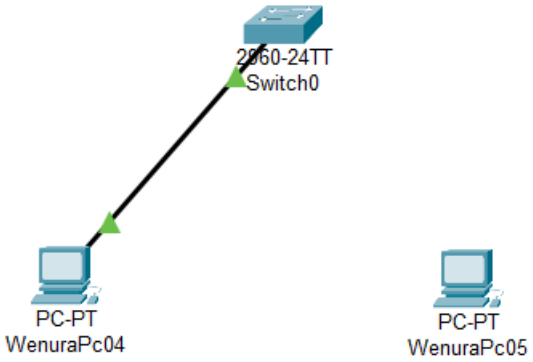


Figure 10 – After 30 seconds forwarding frames

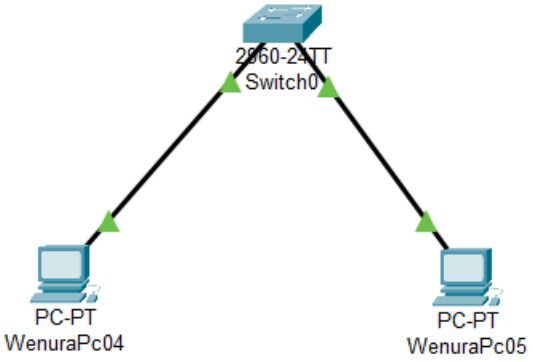


Figure 11 – Switch Connection

1.6 Configuring IP Addresses and Subnet Masks on the Hosts

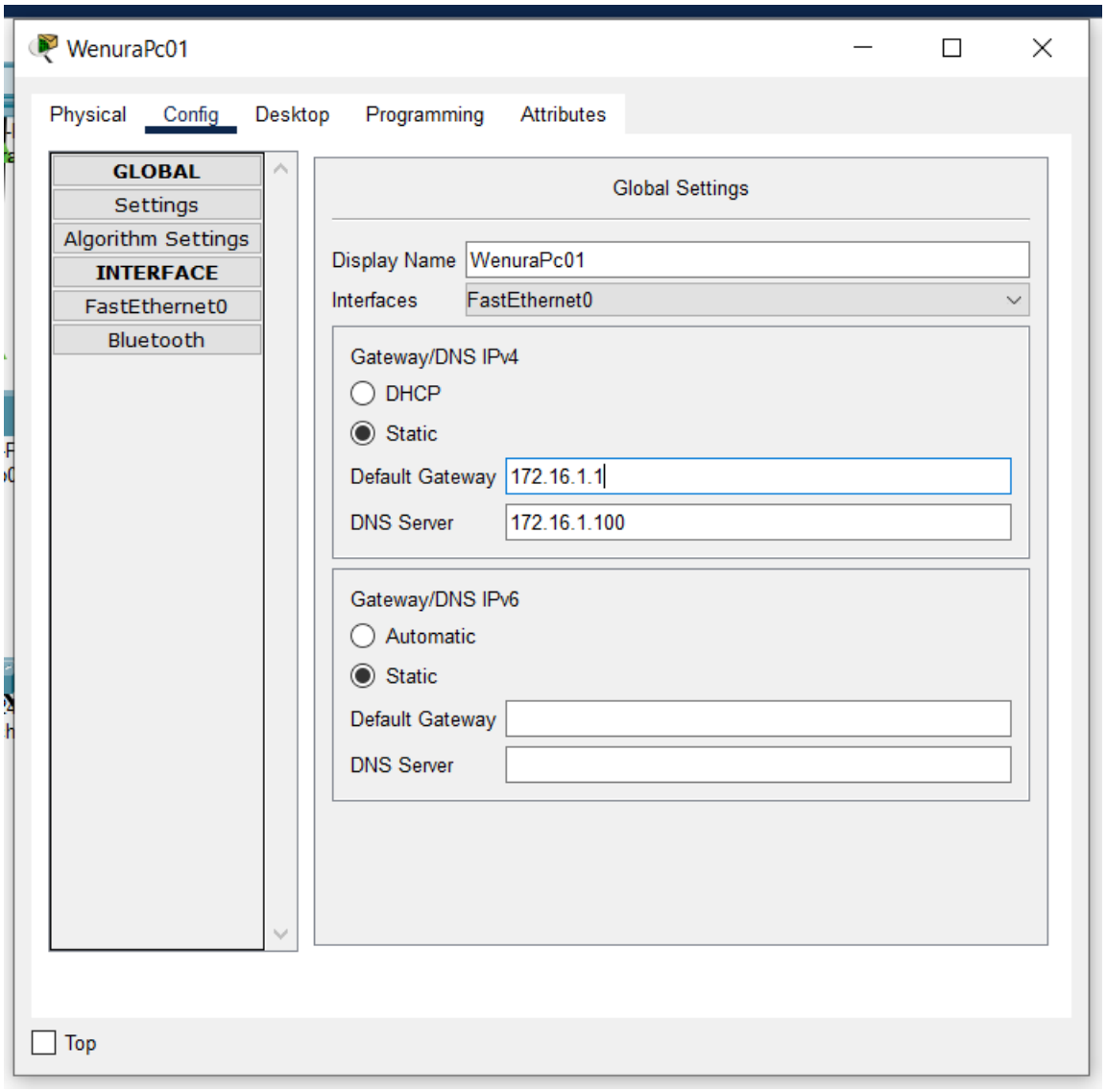


Figure 12 - Configuring Gateway and DNS server

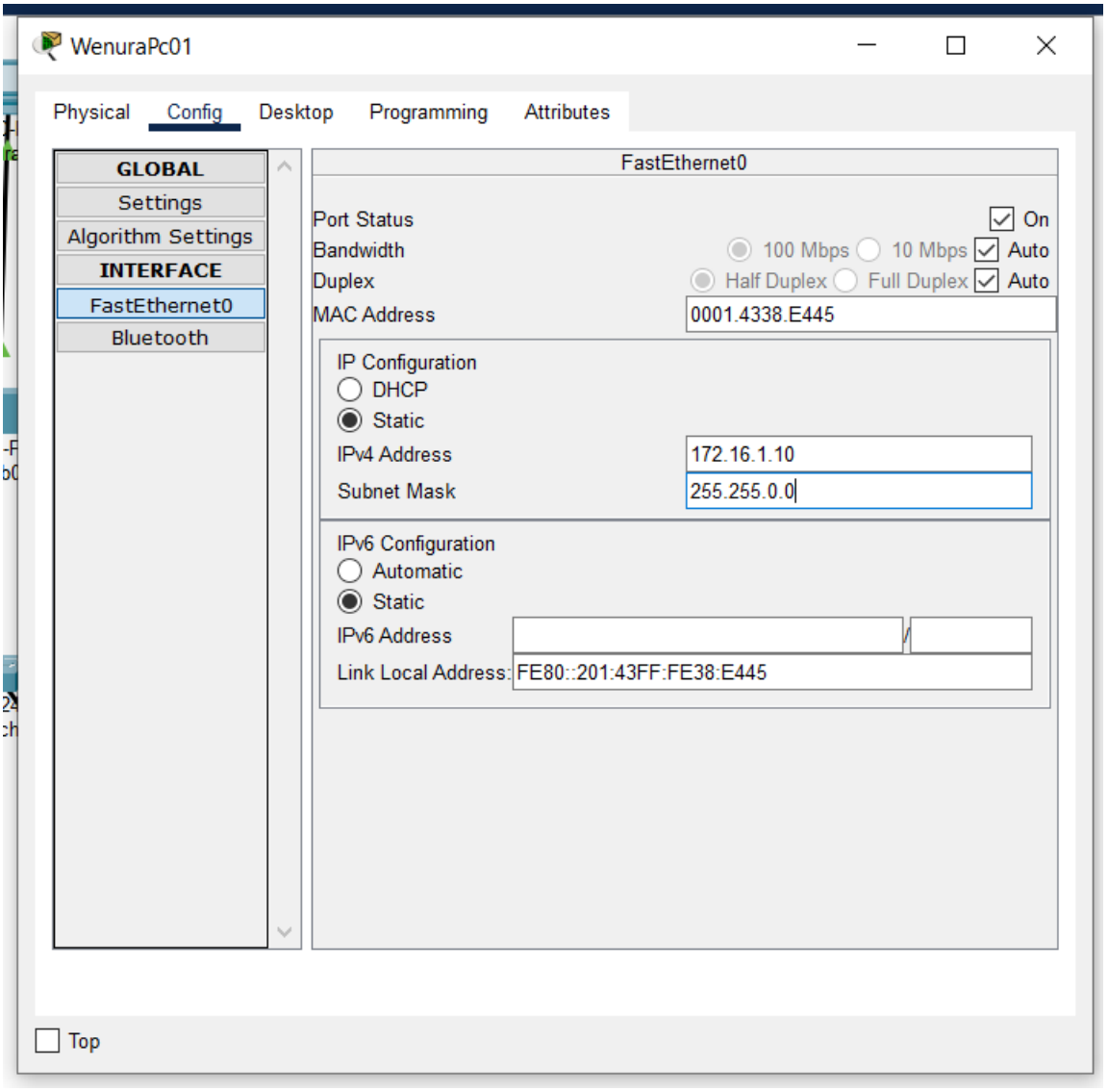


Figure 13 – Configuring IP address

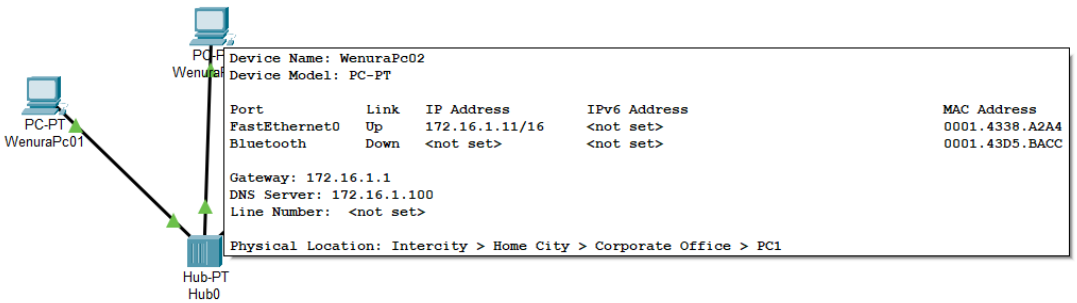


Figure 14 – Verifying the information

1.7 Connecting Hub and Switch

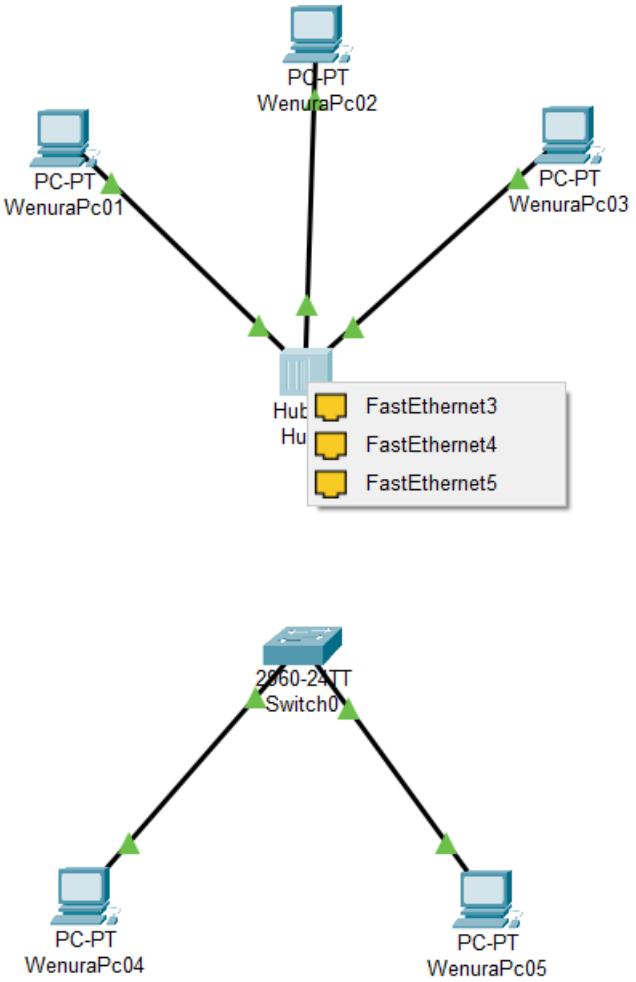


Figure 15 - Hub port

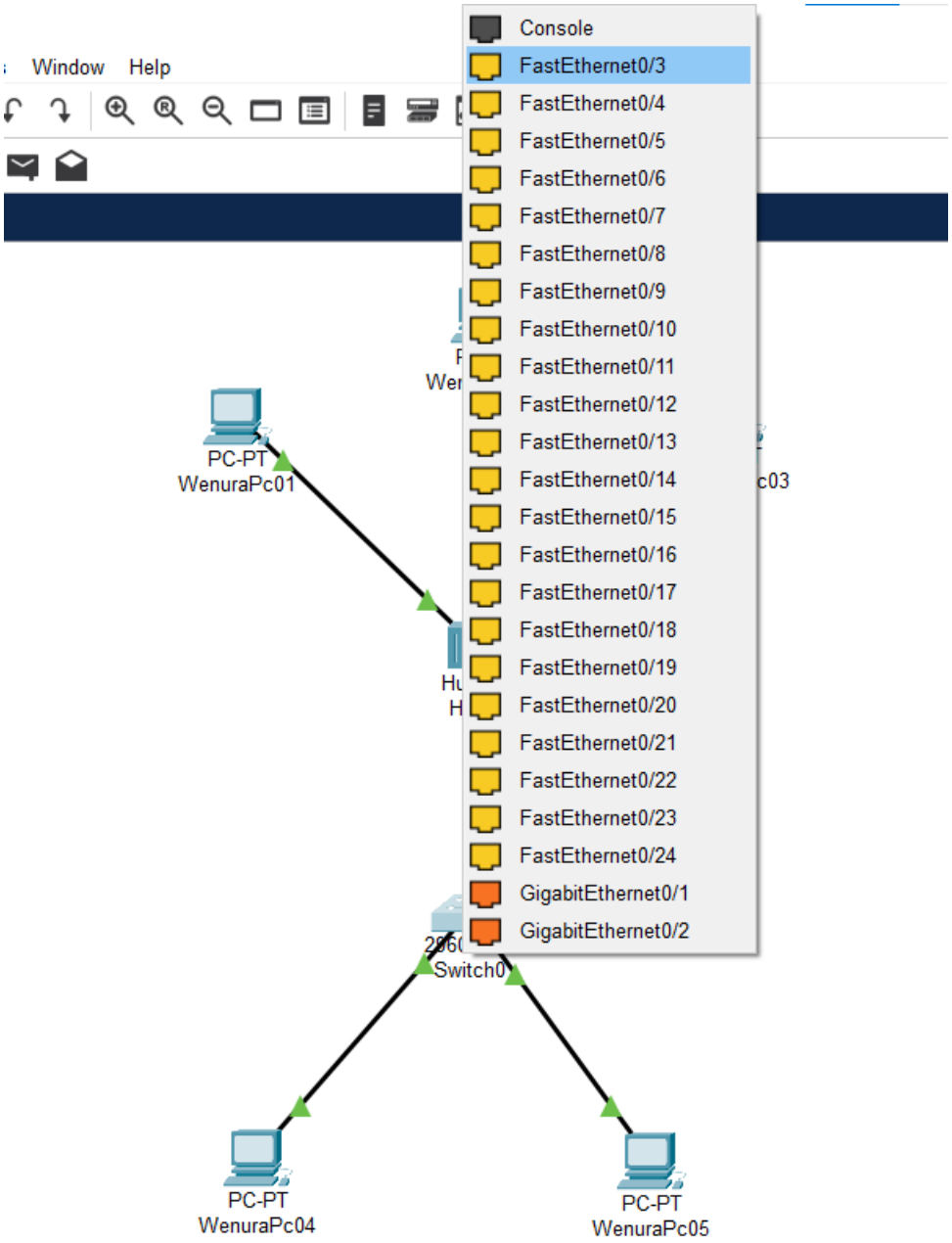


Figure 16 – Switch Port

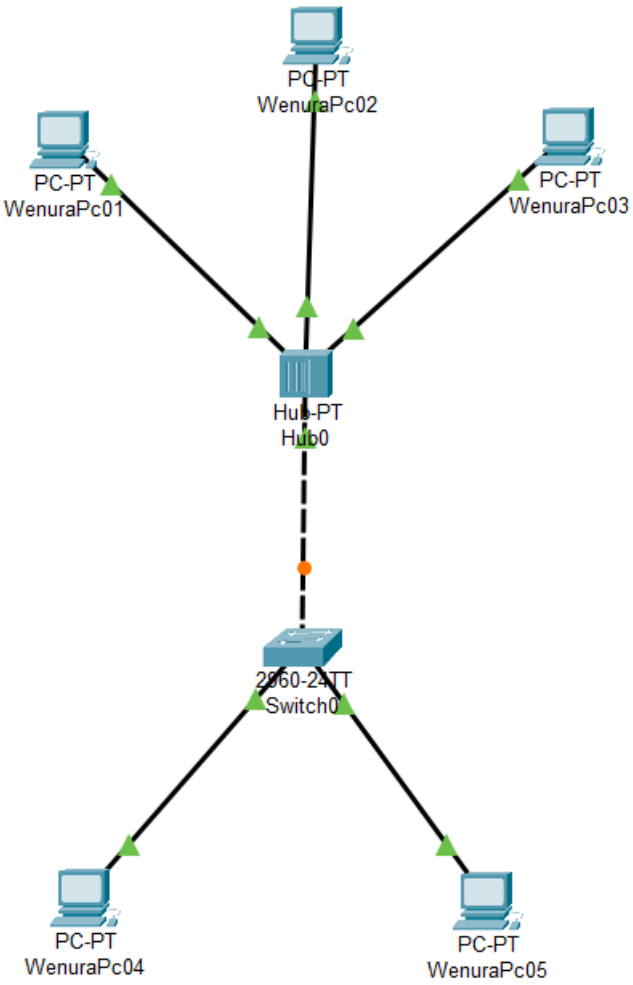
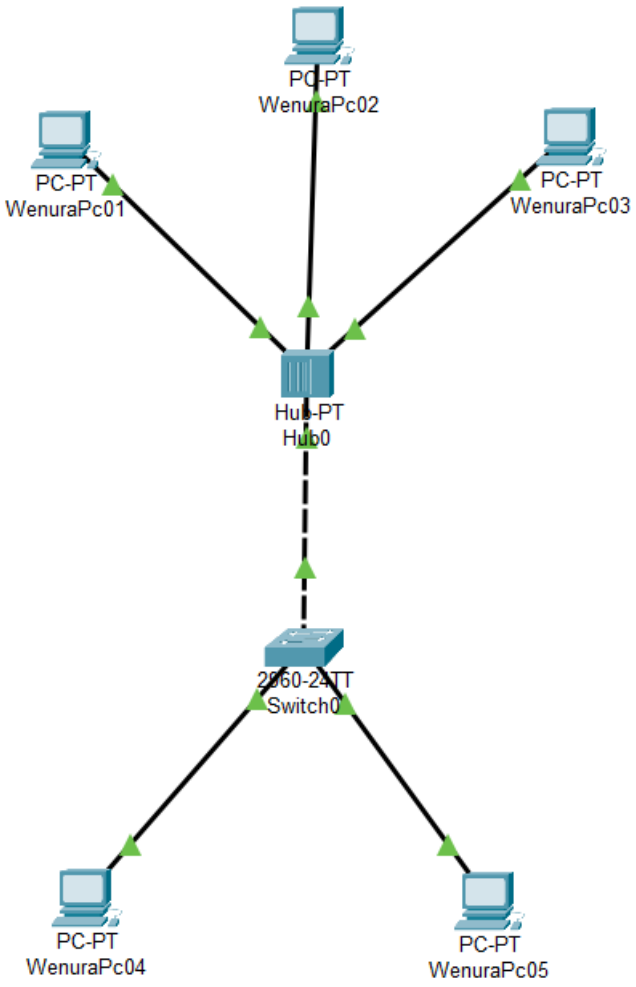


Figure 17 – just after connecting hub and switch



1.8 Verifying Connectivity in Real-Time Mode

Change to Real-Time Mode. Then a simple PDU is added from WenuraPc01 to WenuraPc05. A successful message can be seen in the PDU window.

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	WenuraPc01	WenuraPc05	ICMP		0.000	N	0	(edit)	(delete)

Figure 18 - Confirmation of Connectivity

1.9 Verifying Connectivity in Simulation Mode

Change to Simulation Mode. Remove the event list filters. Add the ICMP filter. Then a simple PDU is added from WenuraPc01 to WenuraPc05.

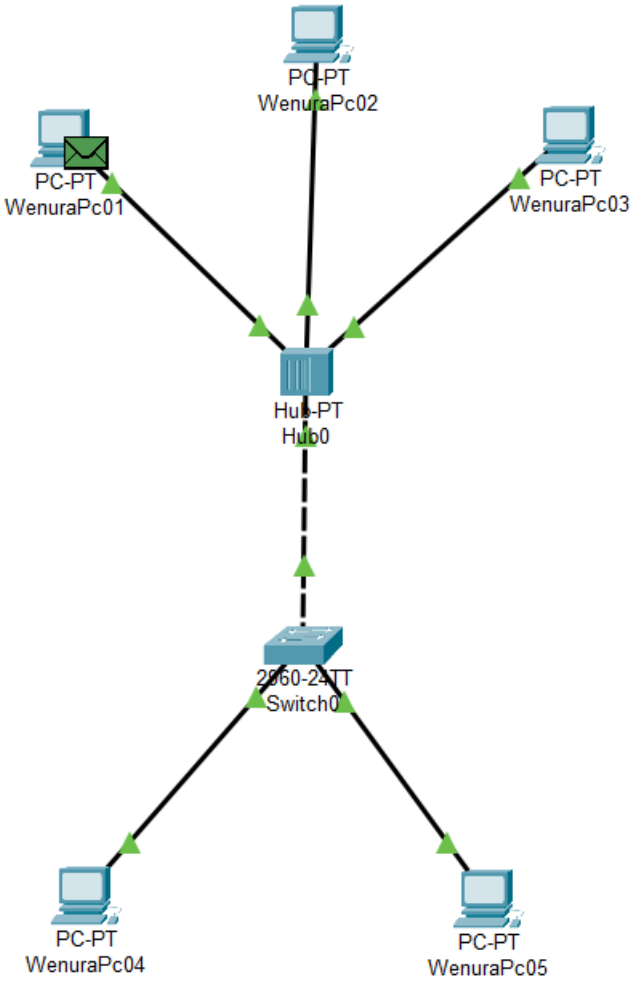


Figure 19 – Stage 1

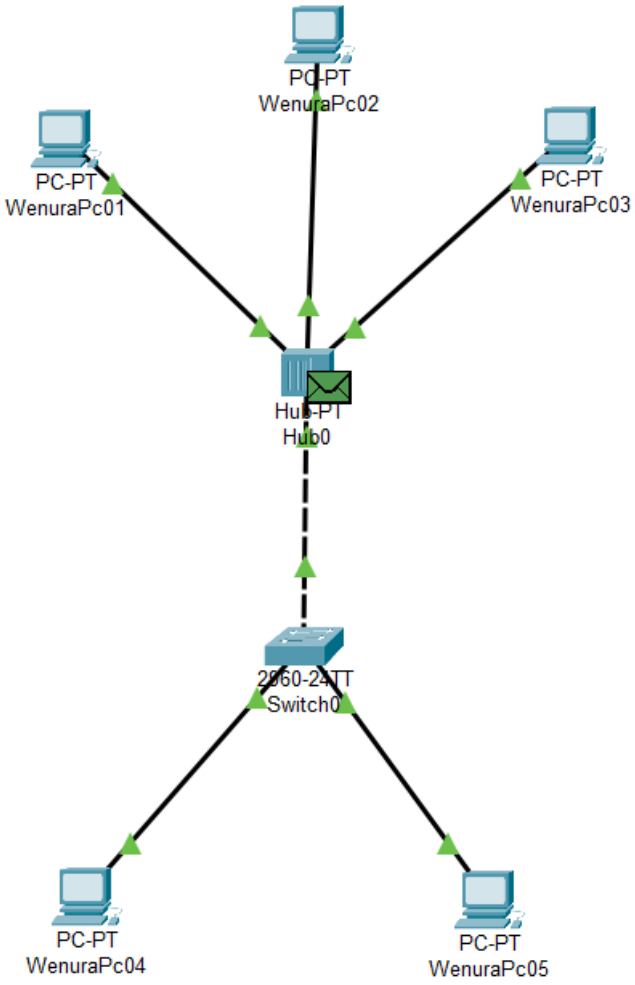


Figure 20 – Stage 2

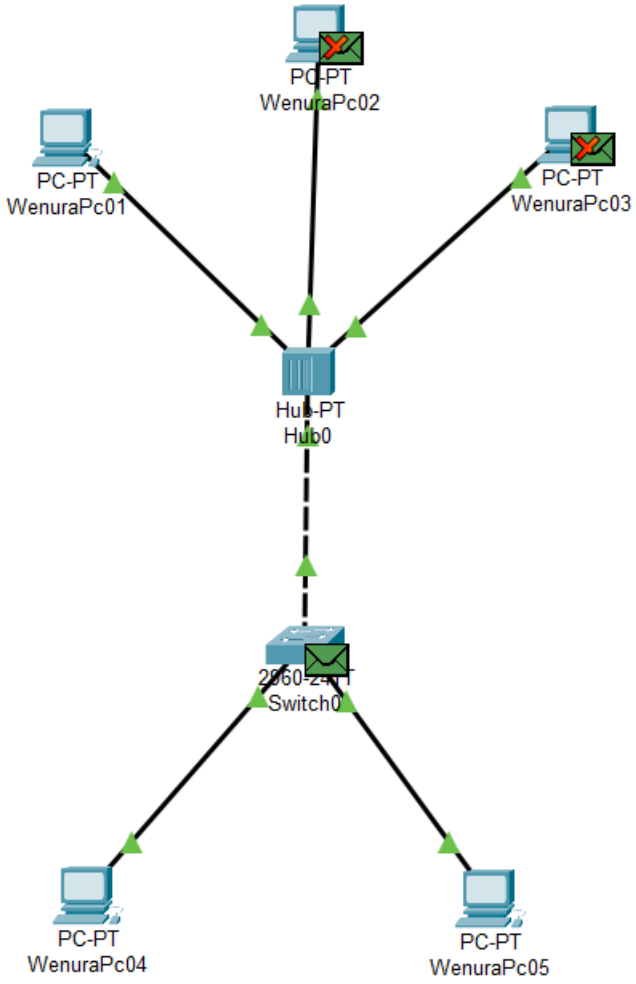


Figure 21 – Stage 3

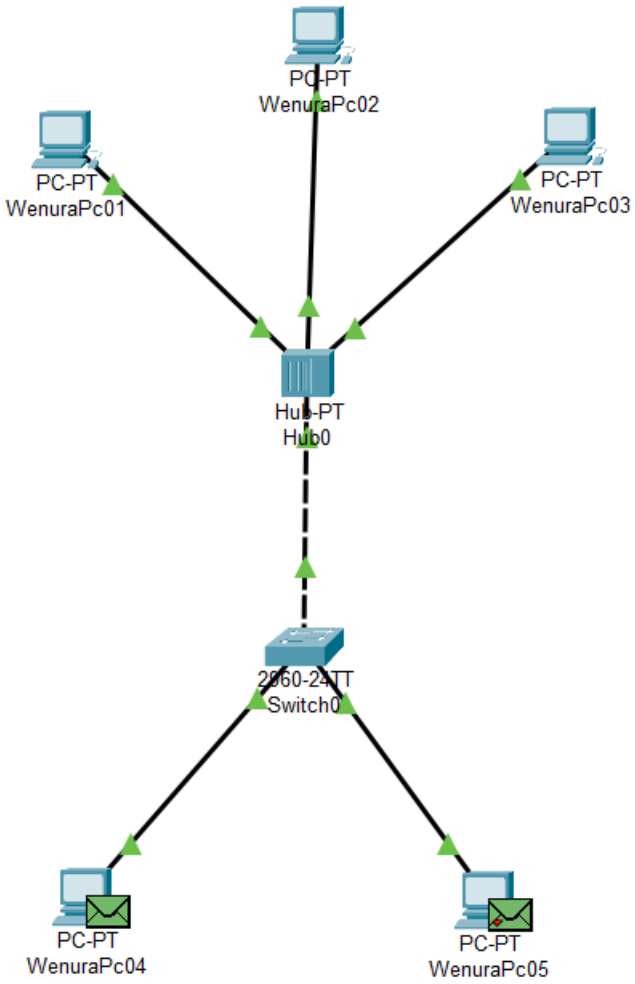


Figure 22 – Stage 4

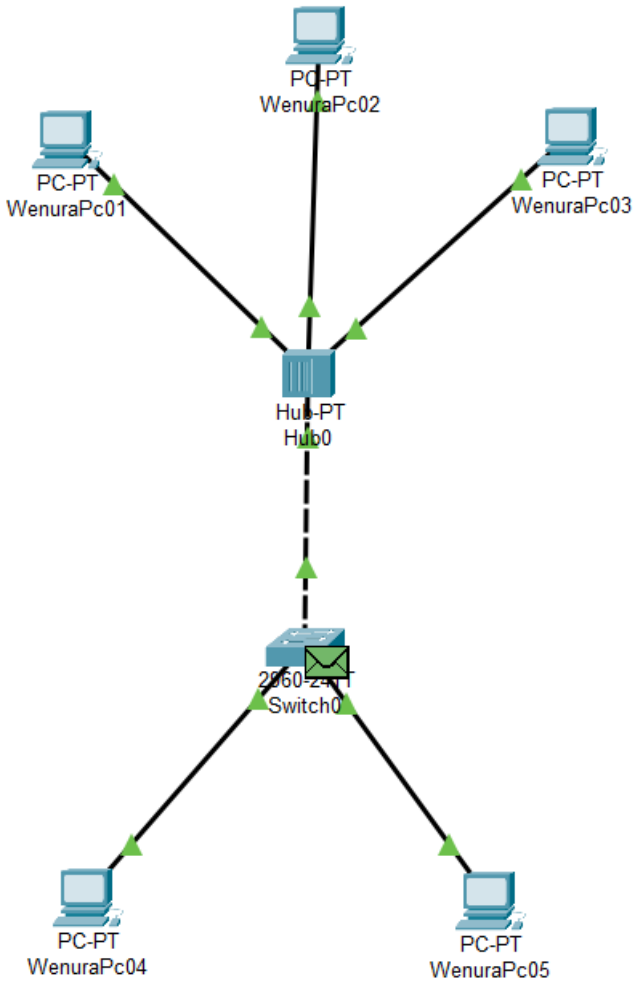


Figure 23 – Stage 5

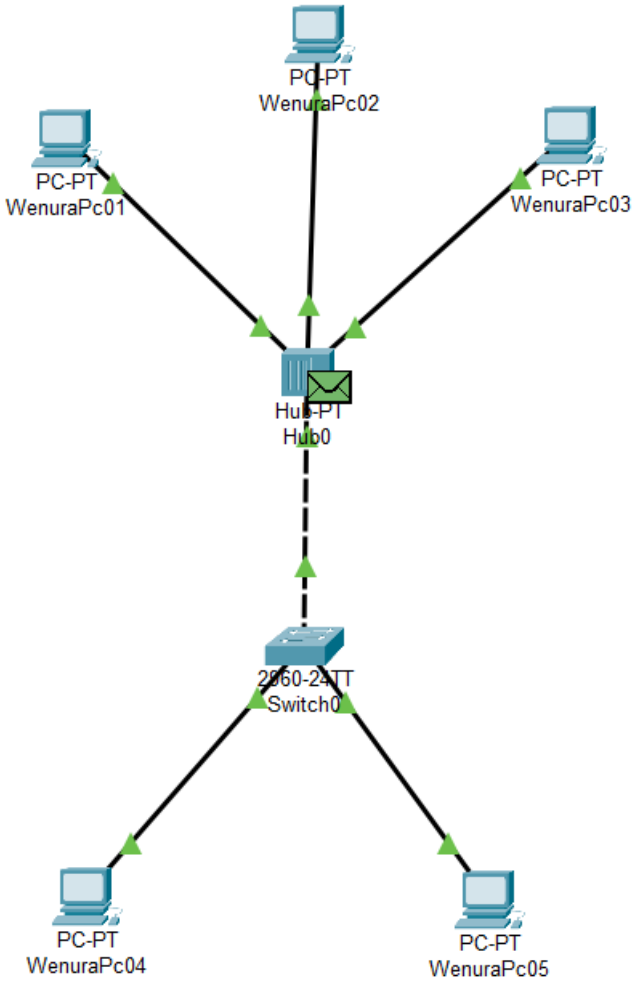


Figure 24 – Stage 6

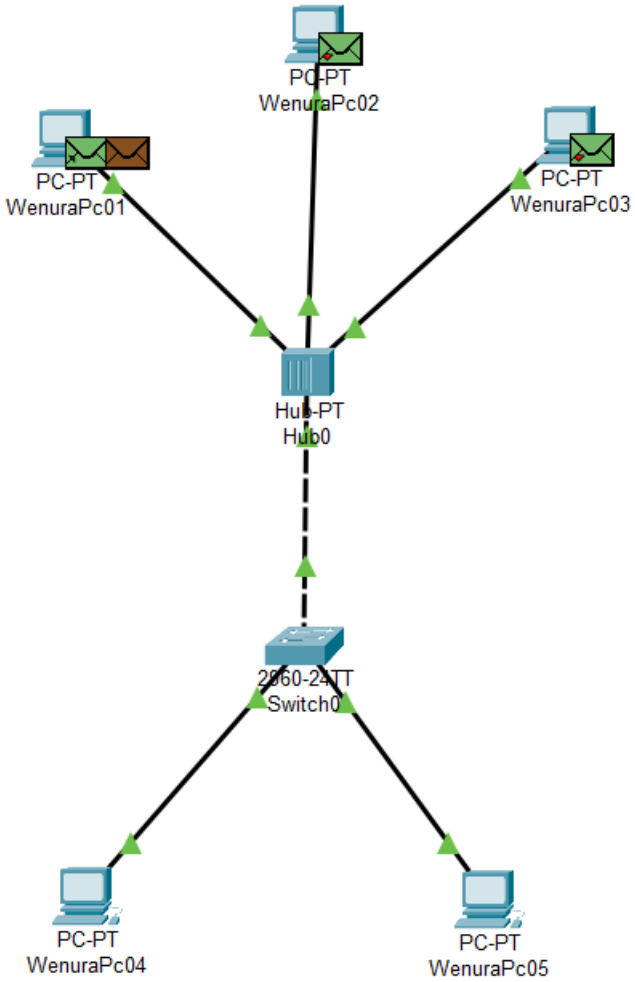


Figure 25 – Stage 7

After switch send packets to WenuraPc4 and WenuraPc05, it recognizes the device. So next time Switch doesn't send packets to both devices, it just sends to the intended device.

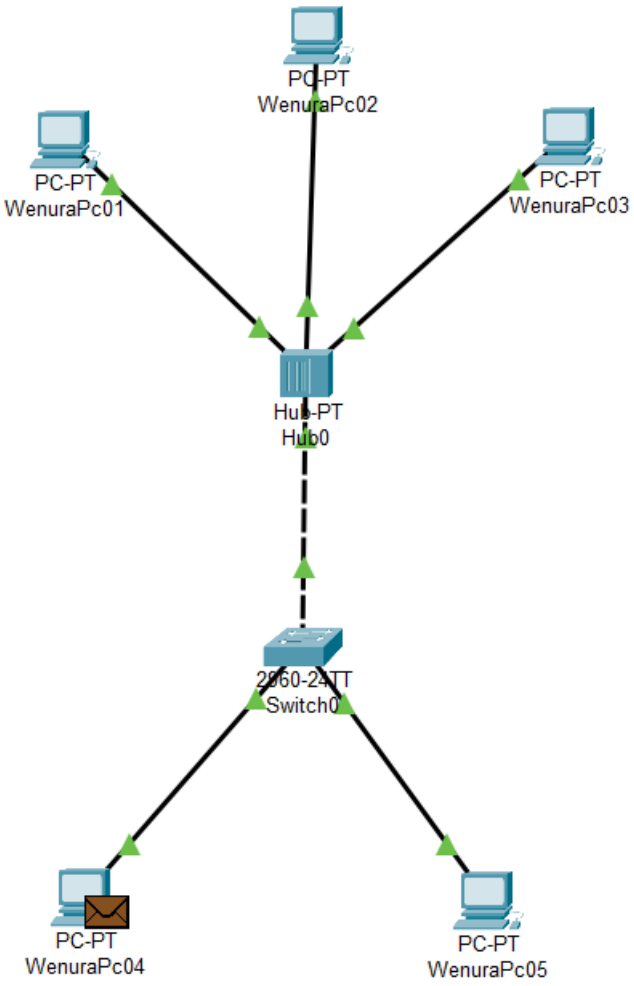


Figure 26 – Switch send packet to the intended device