Vježba 9: Osnove konfiguriranja preklopnika

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Razred: 2.b

PRIPREMA

1. **Što je preklopnik? Koje zadatke u mreži obavlja ovaj uređaj? Na kojem sloju funkcionira?**

- **Preklopnik** je mrežni uređaj koji upravlja protokom podataka između dijelova lokalne mreže.
- Preklopnik povezuje računala zajedno u lokalnu mrežu, te nakon uključenja on skenira mrežu te **pamti s pomoću MAC** adresa na kojem se priključku nalazi koje računalo ili mrežni uređaj. On zapravo kreira **tablicu prosljeđivanja** koja povezuje **priključke i priključene uređaje prema njihovim MAC adresama**
- Preklopnik funkcionira na sloju podatkovne poveznice, tj. drugom sloju OSI modela

2. **Na koje se načine može konfigurirati preklopnik?**

- **Switch** (preklopnik) se može konfigurirati spajanjem računala **rollover** kablom sa **RS232** na konzolni ulaz switch-a (**CON 0**) ili pristupom preko mreže takozvanim virtualnim ulazima, kojih kod switch-a ima 16, od VTY 0 do VTY 15

3. **Objasnite razlike između korisničkog (user) i privilegiranog moda. Kako se prelazi iz jednog načina u drugi?**

- Korisnički (user mod) način rada:
    - Način rada **u koji ulazimo** kada se **prvi put** prijavimo na Cisco uređaj
    - Omogućuje **ograničen pristup** naredbama i konfiguracijskim postavkama.
    - Ovaj način rada omogućuje **pregled statusa** pomoću određenih naredbi za prikazivanje, ali **ne omogućuje pregled ili uređivanje konfiguracija**.
    - Identificiramo sa znakom **">"**.
- Privilegirani (**privileged mod**) način rada:
    - Ovaj način **omogućuje pristup svim naredbama**, omogućujući detaljnije ispitivanje i kontrolu rada i konfiguracije uređaja.
    - Identificira se znakom **"#"**.
- Switch>**enable** - ulaz iz user moda u privileged mod
- SX**#disable** - vraća iz privileged moda u user mod

4. **Kako se ulazi u global configuration način, a kako u interface configuration? Objasnite za što služi svaki od tih načina.**

- Način rada Global Configuration omogućuje korisnicima da naprave promjene u postavkama globalne konfiguracije usmjerivača, kao što su naziv glavnog računala ili da omoguće tajnu lozinku. Ovom modu se pristupa unosom naredbu **„configure terminal“** ili skraćeno **„conf t“** u **privilegiranom** načinu rada. Način

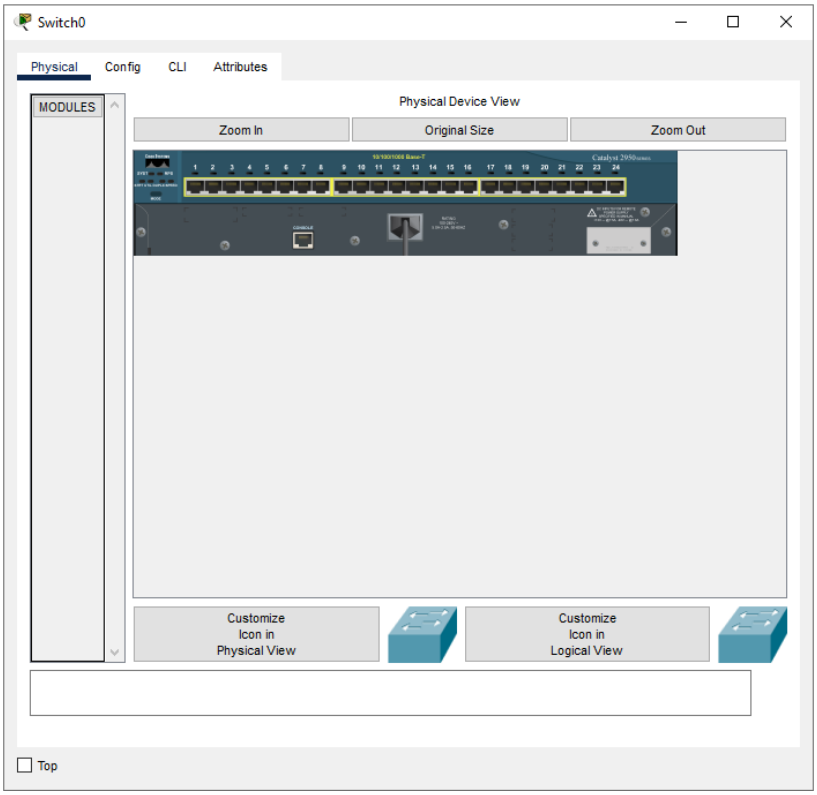
globalne konfiguracije može se dalje podijeliti na sljedeće naredbene načine, koji dopuštaju konfiguriranje različitih komponenti:

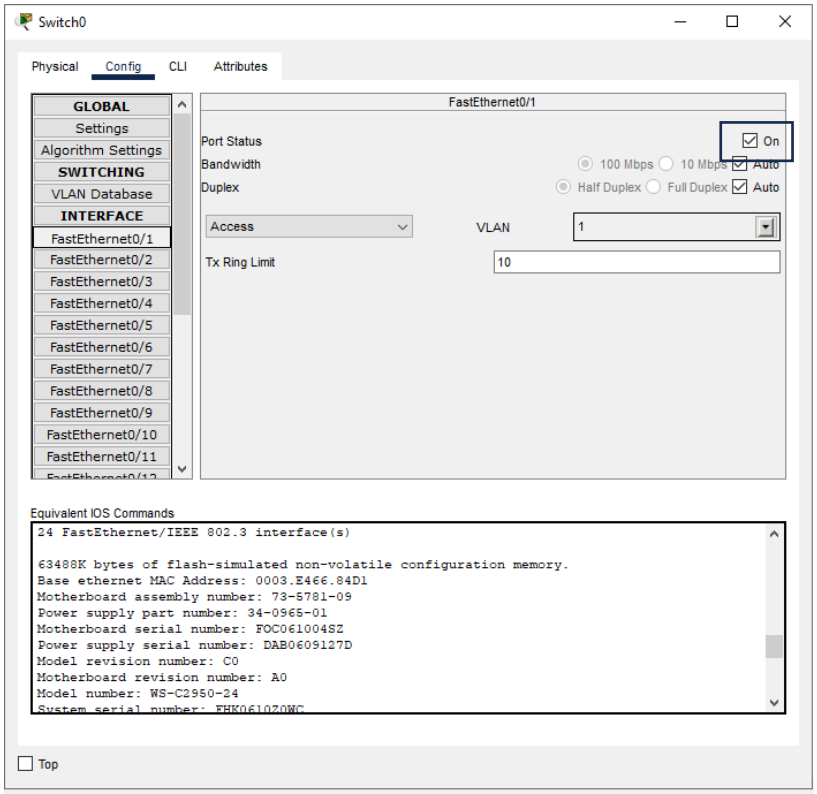
  - Interface configuration mode
  - Subinterface configuration mode
  - Router configuration mode
  - Line configuration mode

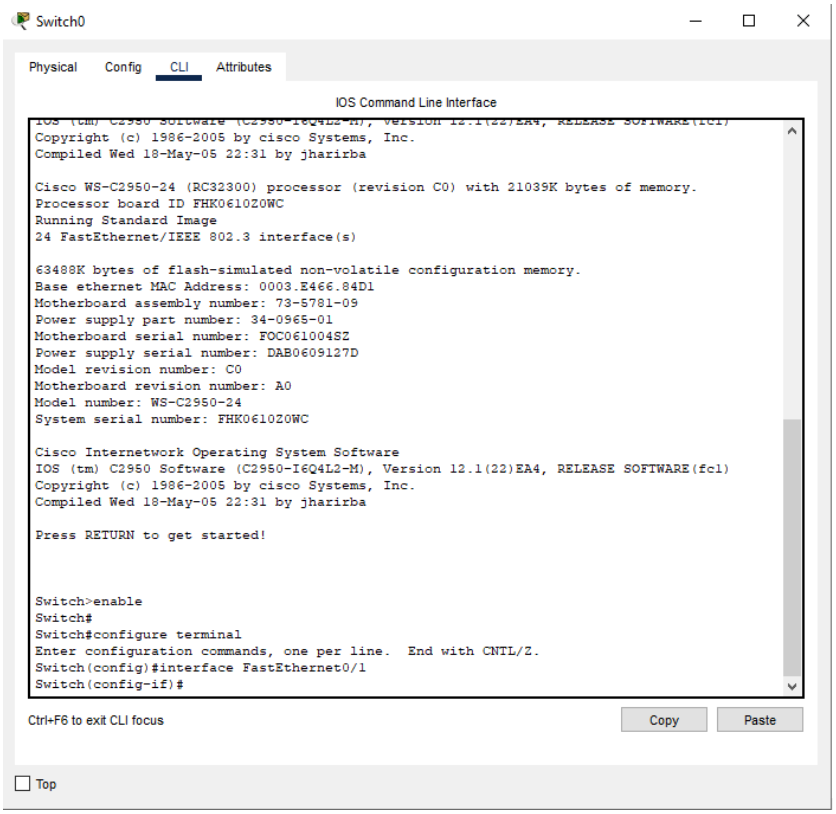
- **Interface configuration mode:** omogućuje korisnicima izmjene konfiguracije određenih sučelja na ruteru. Ovom modu se pristupa unosom naredbe **„interface <naziv sučelja>“** u globalne konfiguracije modu. Iz ovog načina možete se vratiti u globalnu konfiguraciju naredbom „**exit“**.

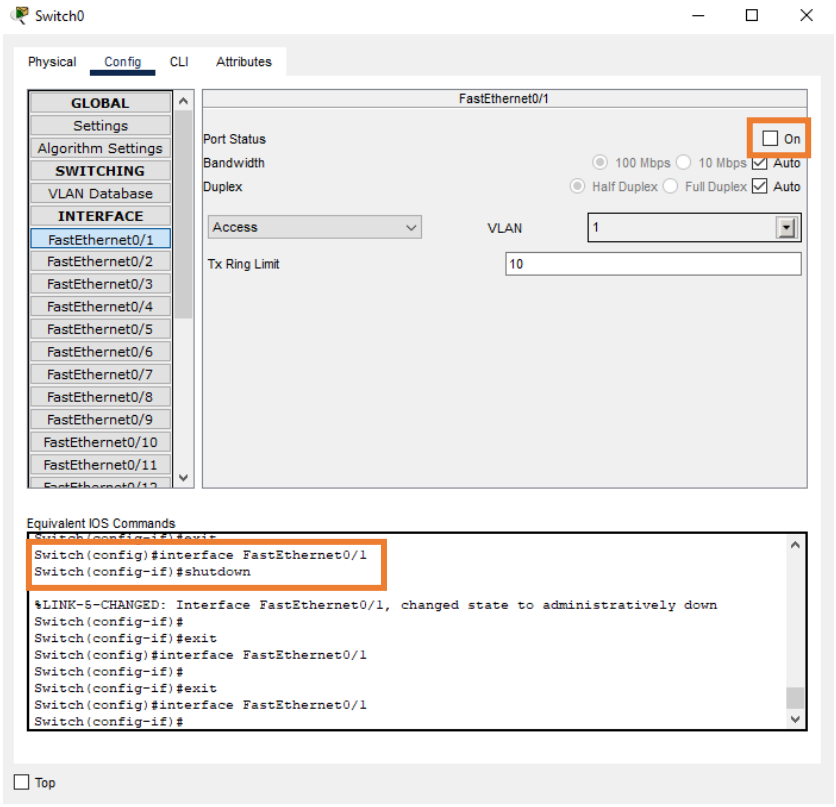
IZVOĐENJE VJEŽBE

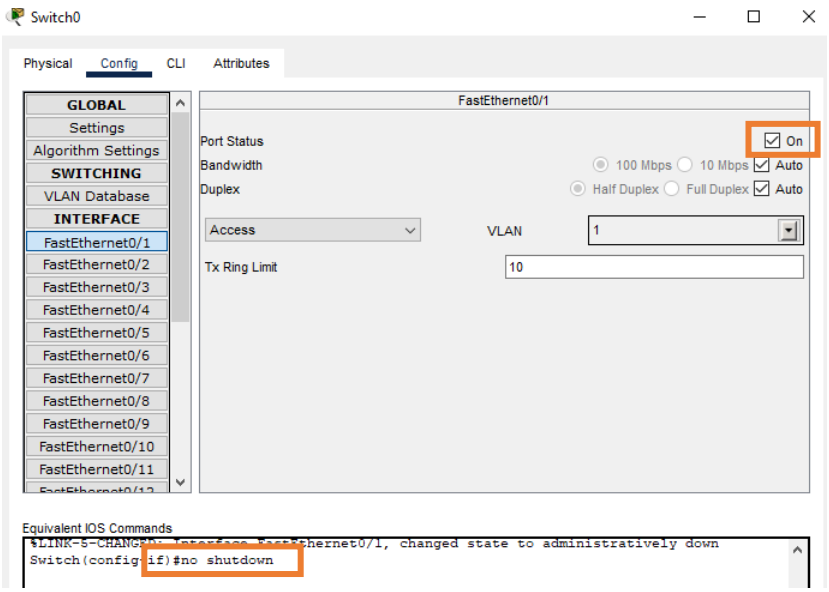
1.





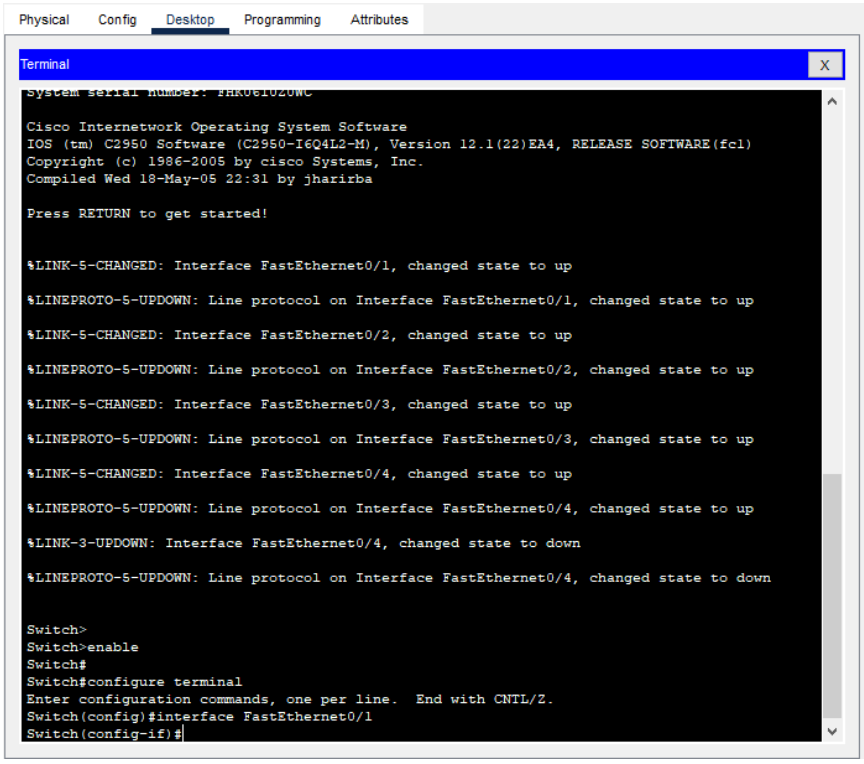

Switch0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Wed 18-May-05 22:31 by jharirba
Cisco WS-C2950-24 (RC32300) processor (revision C0) with 21039K bytes of memory.
Processor board ID FHK0610Z0WC
Running Standard Image
24 FastEthernet/IEEE 802.3 interface(s)
63488K bytes of flash-simulated non-volatile configuration memory.
Base ethernet MAC Address: 0003.E466.84D1
Motherboard assembly number: 73-5781-09
Power supply part number: 34-0965-01
Motherboard serial number: FOC061004SZ
Power supply serial number: DAB0609127D
Model revision number: C0
Motherboard revision number: A0
Model number: WS-C2950-24
System serial number: FHK0610Z0WC
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4, RELEASE SOFTWARE(fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Wed 18-May-05 22:31 by jharirba
Press RETURN to get started!
Switch>enable
Switch#
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet0/1
Switch(config-if)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

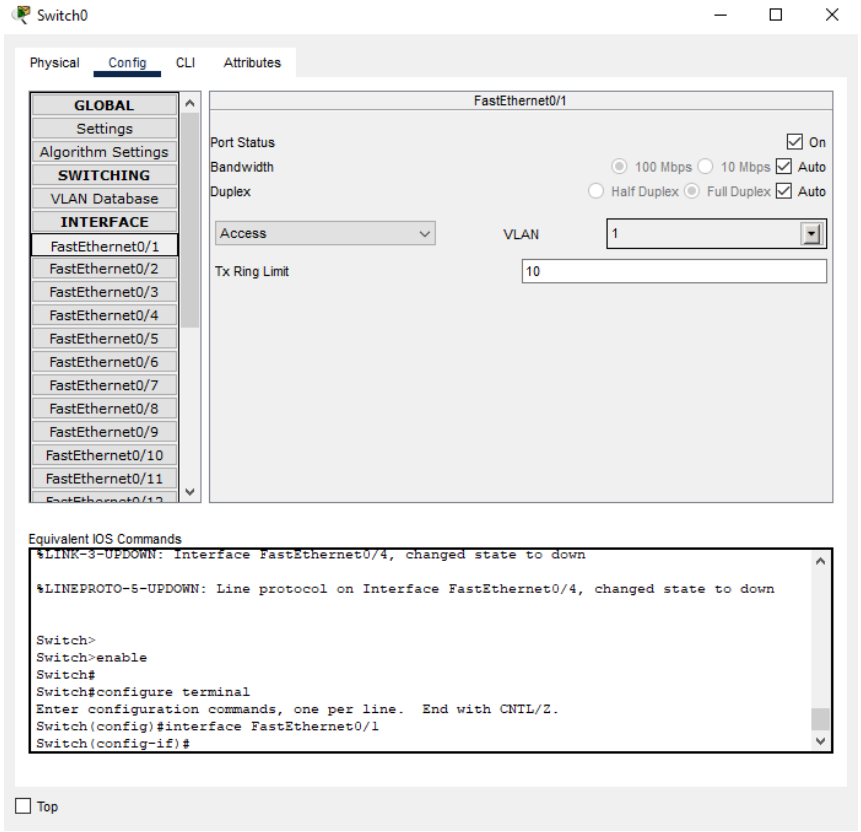

Switch0
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/1
FastEthernet0/2
FastEthernet0/3
FastEthernet0/4
FastEthernet0/5
FastEthernet0/6
FastEthernet0/7
FastEthernet0/8
FastEthernet0/9
FastEthernet0/10
FastEthernet0/11
FastEthernet0/1
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
Access
VLAN
1
Tx Ring Limit
10
Equivalent IOS Commands
Switch(config)#interface FastEthernet0/1
Switch(config-if)#shutdown
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/1
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/1
Switch(config-if)#
Top



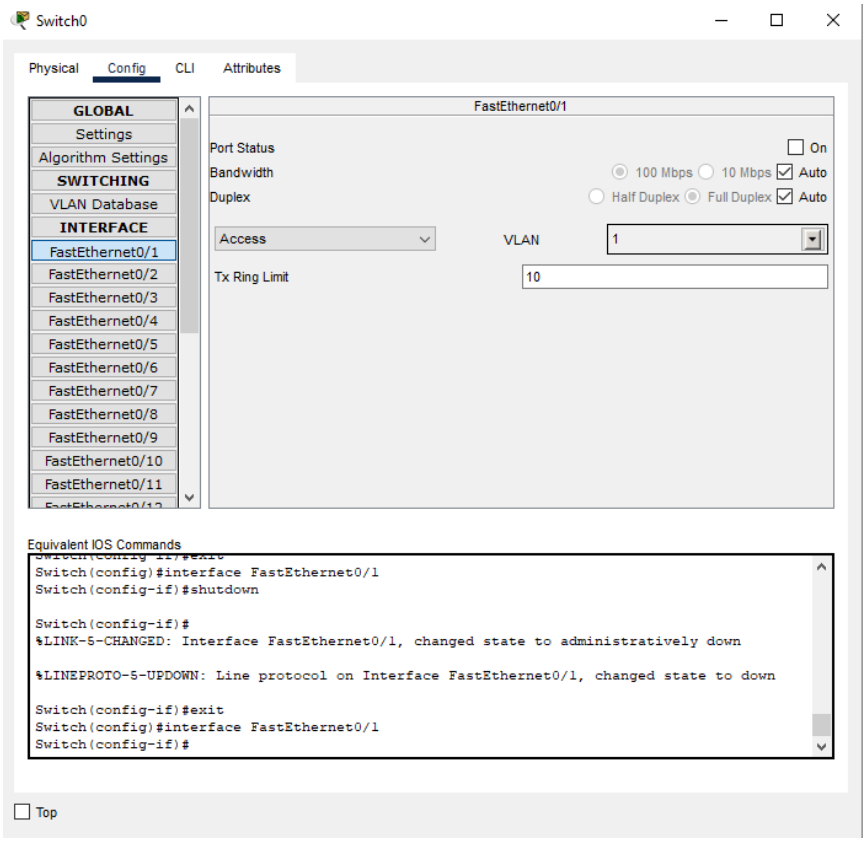

```
Switch(config)#interface FastEthernet0/1
Switch(config-if)#shutdown
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#
Switch(config)#interface FastEthernet0/1
Switch(config-if)#shutdown

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
Switch(config-if)#no shutdown

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to down
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/2
Switch(config-if)#
```

2.






```
Switch(config)#interface FastEthernet0/1
Switch(config-if)#shutdown
```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FastEthernet0/11
FastEthernet0/1
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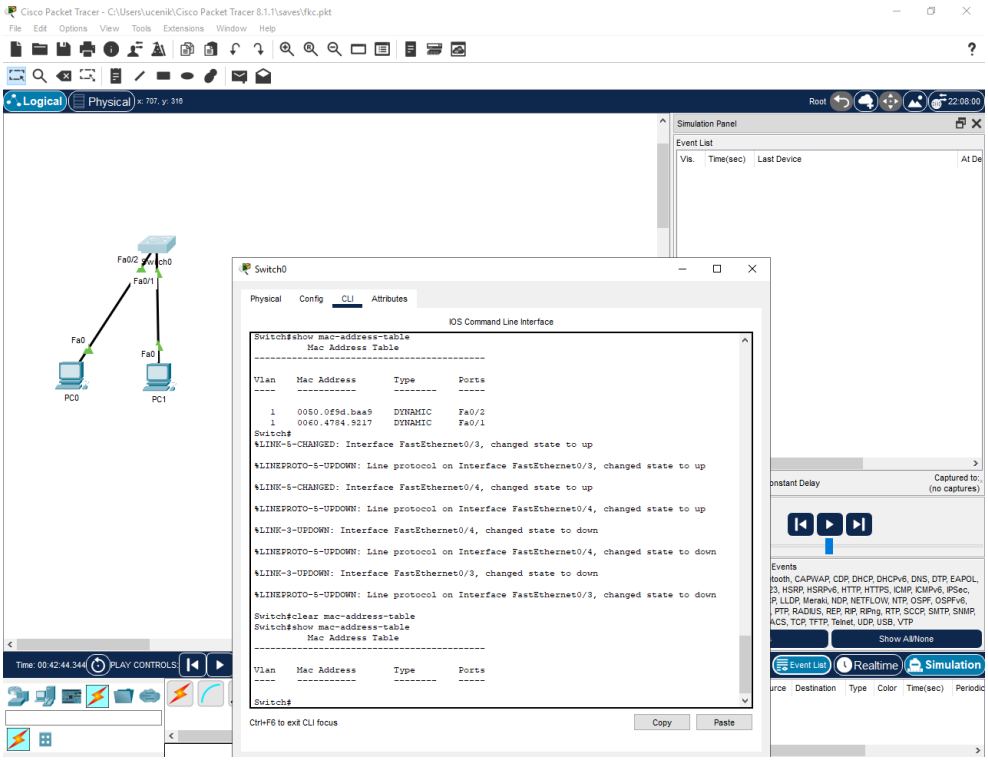
Half Duplex
Full Duplex
Auto
Access
VLAN
1
Tx Ring Limit
10
Equivalent IOS Commands
Switch(config)#interface FastEthernet0/1
Switch(config-if)#shutdown
Switch(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/1
Switch(config-if)#
Top

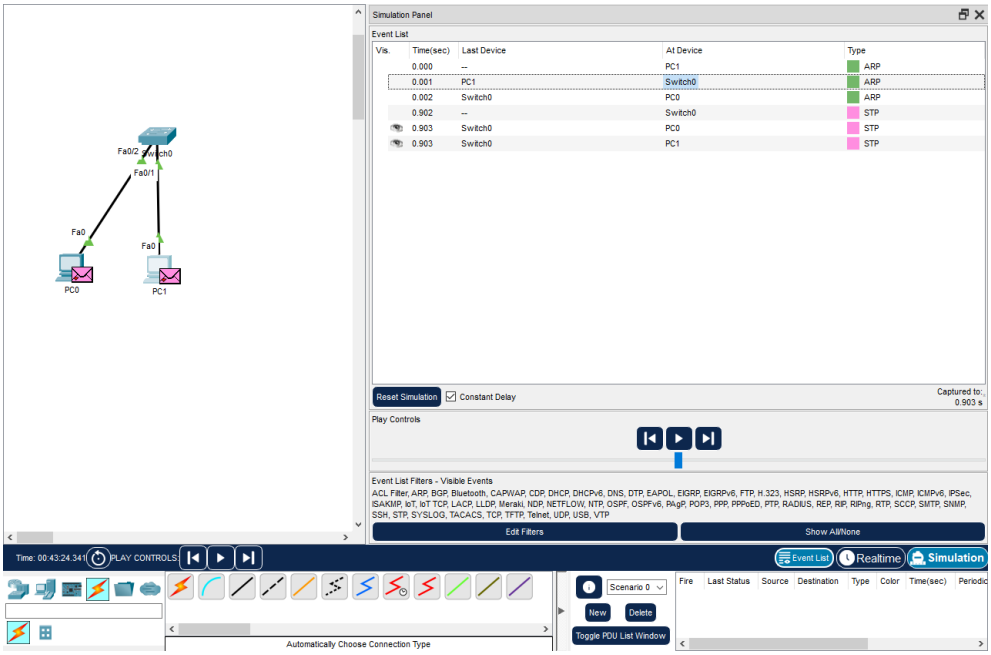
3.

```
Switch#show mac-address-table
          Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----
```

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ipconfig /all

FastEthernet0 Connection:(default port)

   Connection-specific DNS Suffix..:
   Physical Address.....................: 0060.4784.9217
   Link-local IPv6 Address.....: FE80::260:47FF:FE84:9217
   IPv6 Address.....................: ::
   IPv4 Address.....................: 0.0.0.0
   Subnet Mask.....................: 0.0.0.0
   Default Gateway.....................: ::
                                       0.0.0.0
   DHCP Servers.....................: 0.0.0.0
   DHCPv6 IAID.....................:
   DHCPv6 Client DUID.....: 00-01-00-01-86-BE-73-61-00-60-47-84-92-17
   DNS Servers.....................: ::
                                       0.0.0.0
```

```
Switch#show mac-address-table
          Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

   1    0050.0f9d.baa9    DYNAMIC     Fa0/2
   1    0060.4784.9217    DYNAMIC     Fa0/1
```






```
Switch#show mac-address-table
          Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

   1    0060.4784.9217    DYNAMIC     Fa0/1
Switch#
```