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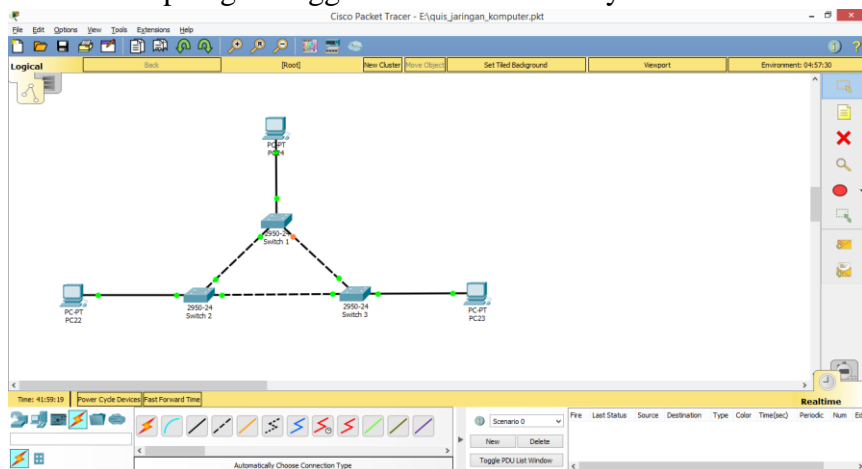
Kelas : F

Praktikum Jaringan Komputer

Modul 6: Spanning Tree Protocol

Kegiatan 1. Topologi 1

- a. Membuat topologi menggunakan Switch Catalyst 2950



Tugas 1A

- b. Memberi nama pada masing-masing switch

➤ Switch 1 sbg sw1

The screenshot shows the 'CLI' tab for 'Switch 1'. The text in the window is as follows:

```
IOS Command Line Interface
Model revision number: 00
Motherboard revision number: A0
Model number: WS-C2950-24
System serial number: FHK061020WC

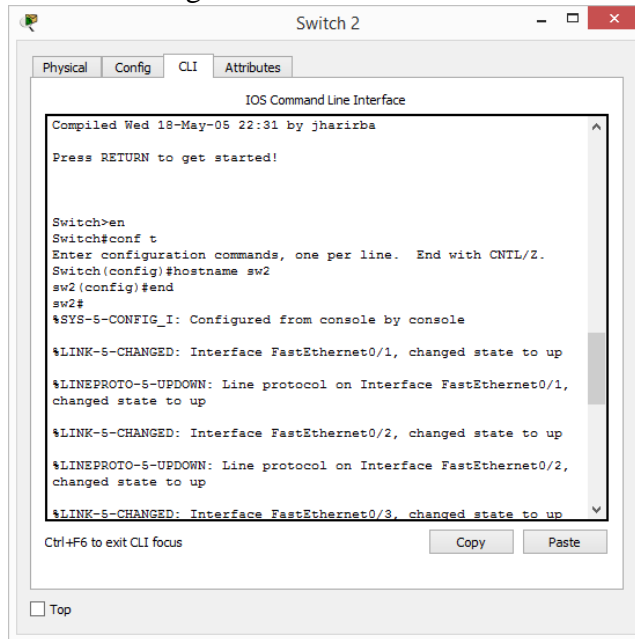
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4,
RELEASE SOFTWARE(fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Wed 18-May-05 22:31 by jharirba

Press RETURN to get started!

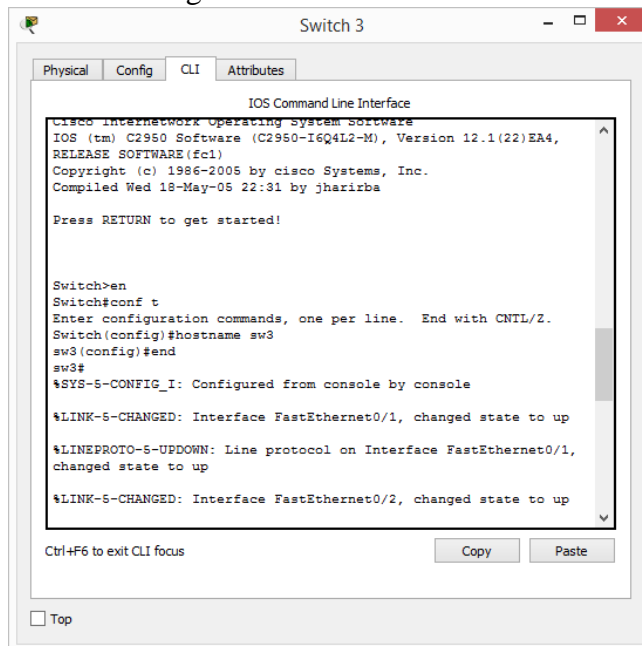
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname sw1
sw1(config)#end
sw1#
%SYS-5-CONFIG_I: Configured from console by console
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/24, changed state to up

Ctrl+F6 to exit CLI focus
```

➤ Switch 2 sebagai sw2



➤ Switch 3 sebagai sw 3



Tugas 2A

➤ Switch 1

```
Switch>en  
Switch#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Switch(config)#hostname sw1  
sw1(config)#end
```

➤ Switch 2

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname sw2

sw2(config)#end

➤ Switch 3

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname sw3

sw3(config)#end

c. Konfigurasi IP pada masing-masing PC

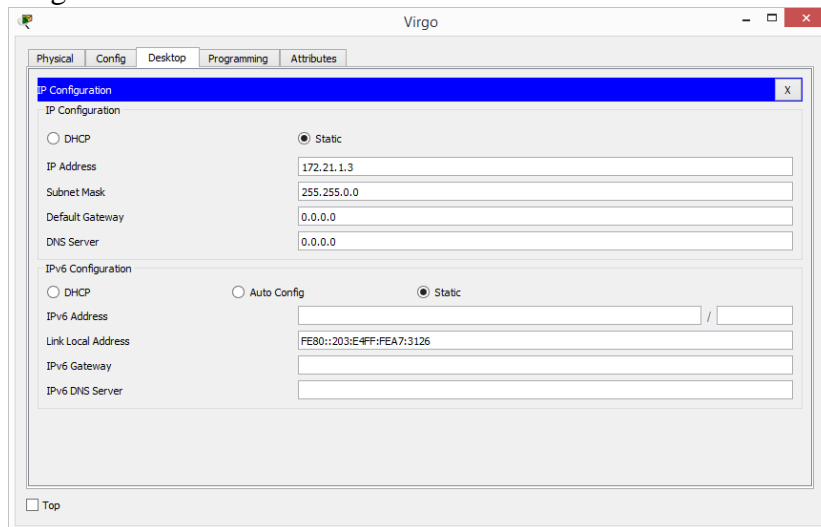
➤ Leo

The screenshot shows the 'Leo' PC configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing 'Static' IP configuration. The IP Address is 172.21.1.1, Subnet Mask is 255.255.0.0, Default Gateway is 0.0.0.0, and DNS Server is 0.0.0.0. The 'IPv6 Configuration' section is also visible, showing 'Static' configuration with a Link Local Address of FE80::2E0:B0FF:FE40:877D.

➤ Aries

The screenshot shows the 'Aries' PC configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing 'Static' IP configuration. The IP Address is 172.21.1.2, Subnet Mask is 255.255.0.0, Default Gateway is 0.0.0.0, and DNS Server is 0.0.0.0. The 'IPv6 Configuration' section is also visible, showing 'Static' configuration with a Link Local Address of FE80::2E0:F7FF:FE1:C338.

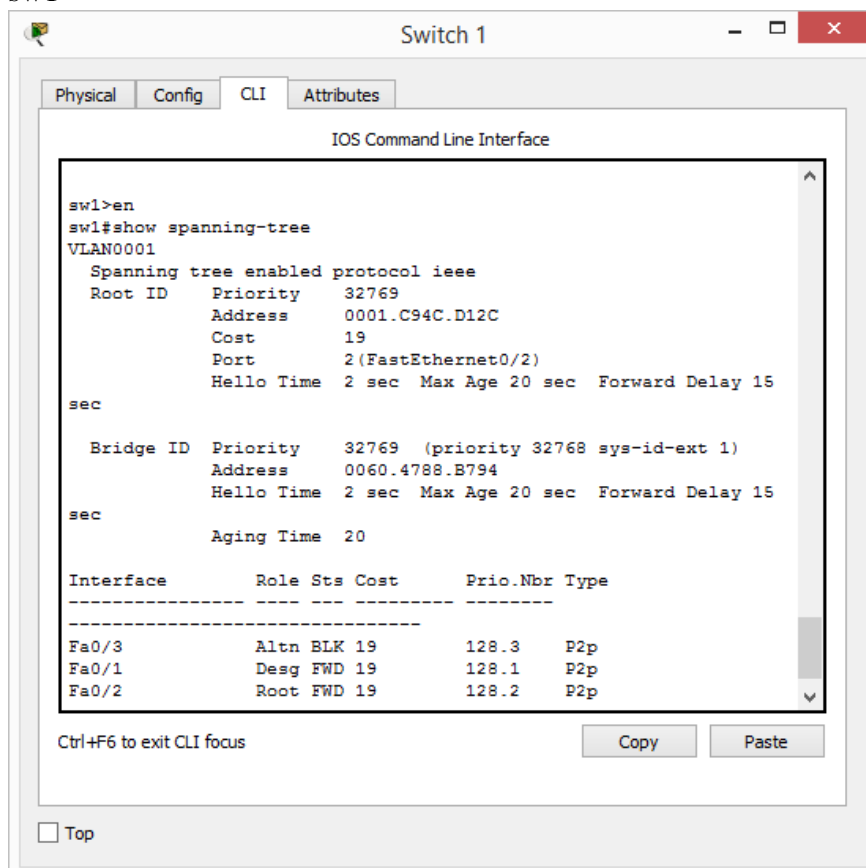
➤ Virgo



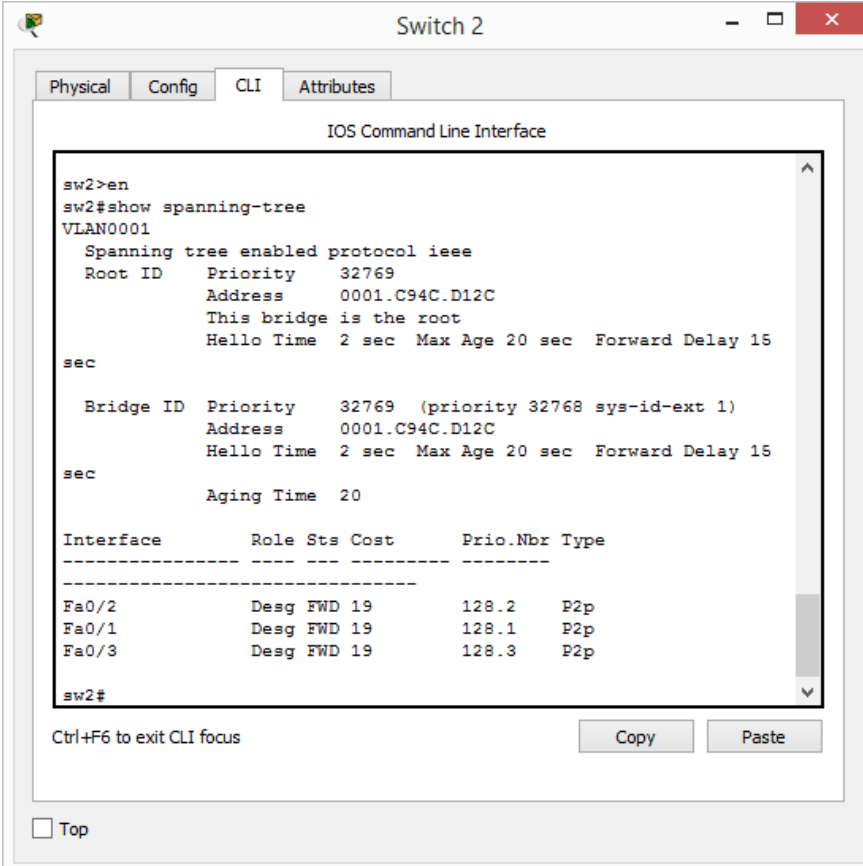
d. Lihat status STP pada masing-masing switch

Tugas 4A

➤ sw1



➤ sw2



Switch 2

Physical Config CLI Attributes

IOS Command Line Interface

```
sw2>en
sw2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0001.C94C.D12C
            This bridge is the root
            Hello Time 2 sec Max Age 20 sec Forward Delay 15
sec
  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
            Address     0001.C94C.D12C
            Hello Time 2 sec Max Age 20 sec Forward Delay 15
sec
            Aging Time 20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/2          Desg FWD 19        128.2    P2p
Fa0/1          Desg FWD 19        128.1    P2p
Fa0/3          Desg FWD 19        128.3    P2p

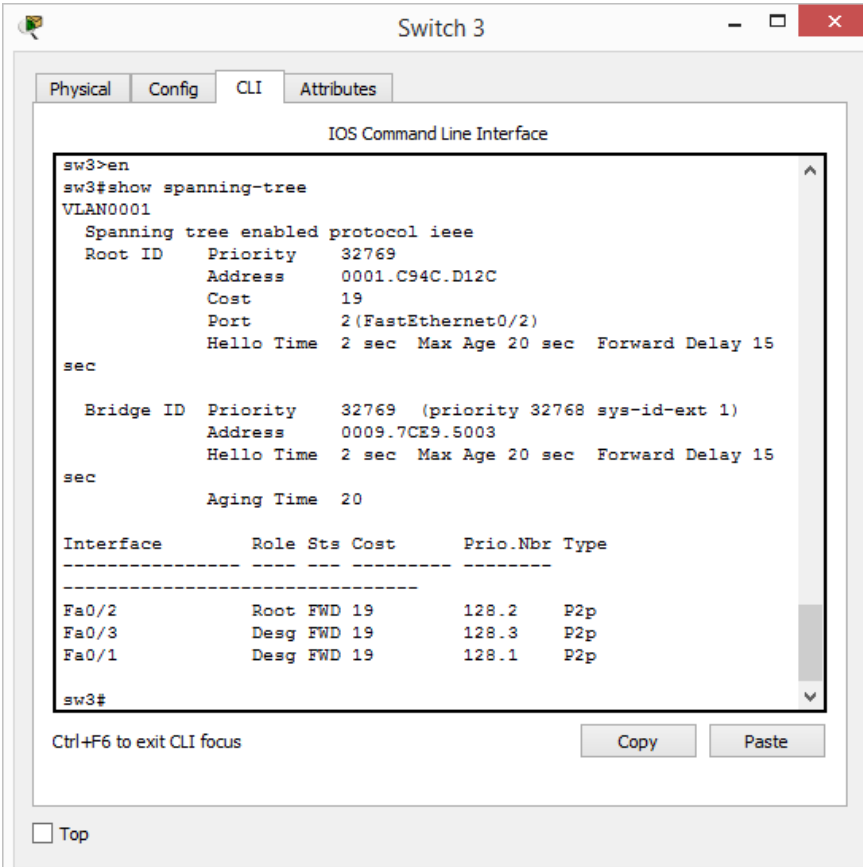
sw2#
```

Ctrl+F6 to exit CLI focus

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➤ sw3



Switch 3

Physical Config CLI Attributes

IOS Command Line Interface

```
sw3>en
sw3#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0001.C94C.D12C
            Cost         19
            Port         2 (FastEthernet0/2)
            Hello Time 2 sec Max Age 20 sec Forward Delay 15
sec
  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
            Address     0009.7CE9.5003
            Hello Time 2 sec Max Age 20 sec Forward Delay 15
sec
            Aging Time 20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/2          Root FWD 19        128.2    P2p
Fa0/3          Desg FWD 19        128.3    P2p
Fa0/1          Desg FWD 19        128.1    P2p

sw3#
```

Ctrl+F6 to exit CLI focus

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Tugas 4B

➤ sw1

No.	Variabel	Nilai
1.	Root ID	0001.C94C.D12C
2.	Priority	32769
3.	MAC Address	0060.4788.B794
4.	Bridge ID	0060.4788.B794
5.	Cost(0/1;0/2;0/3)	19/19/19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

➤ sw2

No.	Variabel	Nilai
1.	Root ID	0001.C94C.D12C
2.	Priority	32769
3.	MAC Address	0001.C94C.D12C
4.	Bridge ID	0001.C94C.D12C
5.	Cost(0/1;0/2;0/3)	19/19/19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

➤ sw3

No.	Variabel	Nilai
1.	Root ID	0001.C94C.D12C
2.	Priority	32769
3.	MAC Address	0009.7CE9.5003
4.	Bridge ID	0009.7CE9.5003
5.	Cost(0/1;0/2;0/3)	19/19/19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 ec

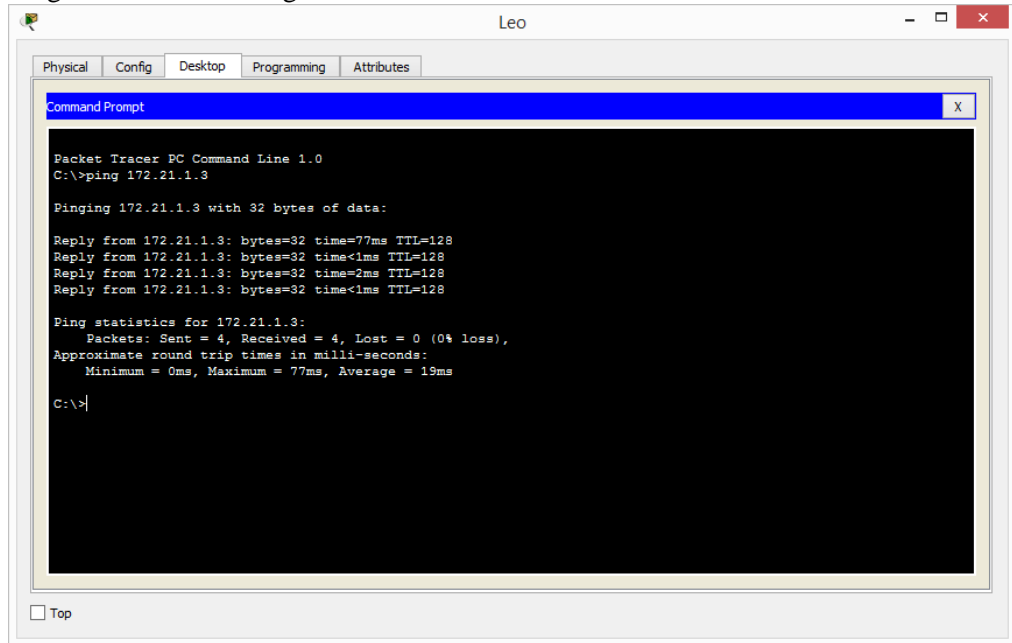
Tugas 4C

- Root bridge : sw2 (0001.C94C.D12C)
- Designated bridge : sw2 (Fa0/1;Fa0/2;Fa0/3)
- Root port : sw1(Fa0/2), sw3(Fa0/2)
- Designated port : sw1(Fa0/1), sw2(Fa0/1,Fa0/2,Fa0/3), sw3(Fa0/1;Fa0/3)

Tugas 4D

- Forwarding : sw1(Fa0/1;Fa0/2), sw2(Fa0/1;Fa0/2;Fa0/3), sw3(Fa0/1;Fa0/2;Fa0/3)
- Blocking : sw1(Fa0/3)

➤ Ping PC Leo ke PC Virgo

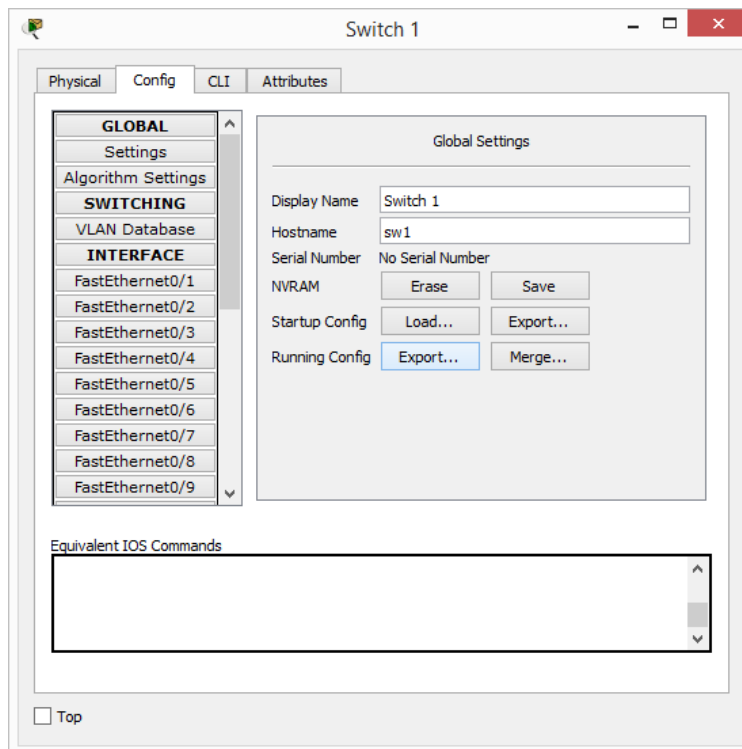


Tugas 5A. Langkah untuk melakukan perintah ping

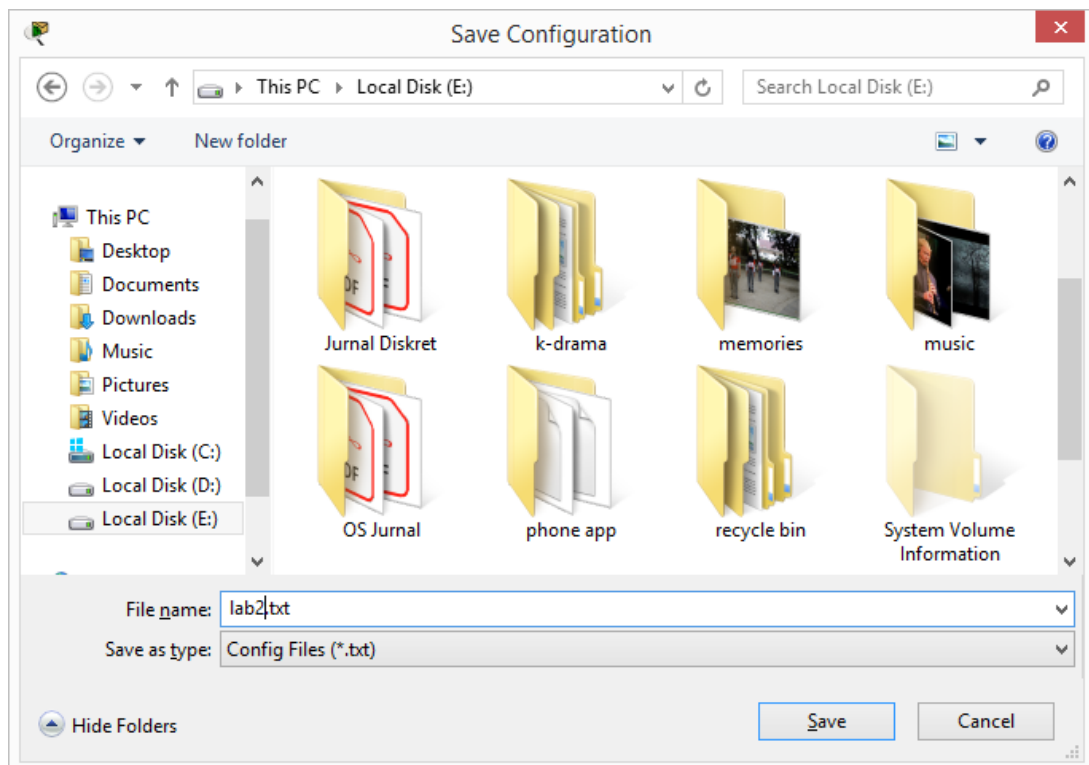
- Masuk ke PC >> Desktop >> Command Prompt
- Lalu ketik “ping 172.21.1.3(alamat IP PC yang akan di ping)”

Tugas 6A

- Masuk ke setiap switch, pilih export

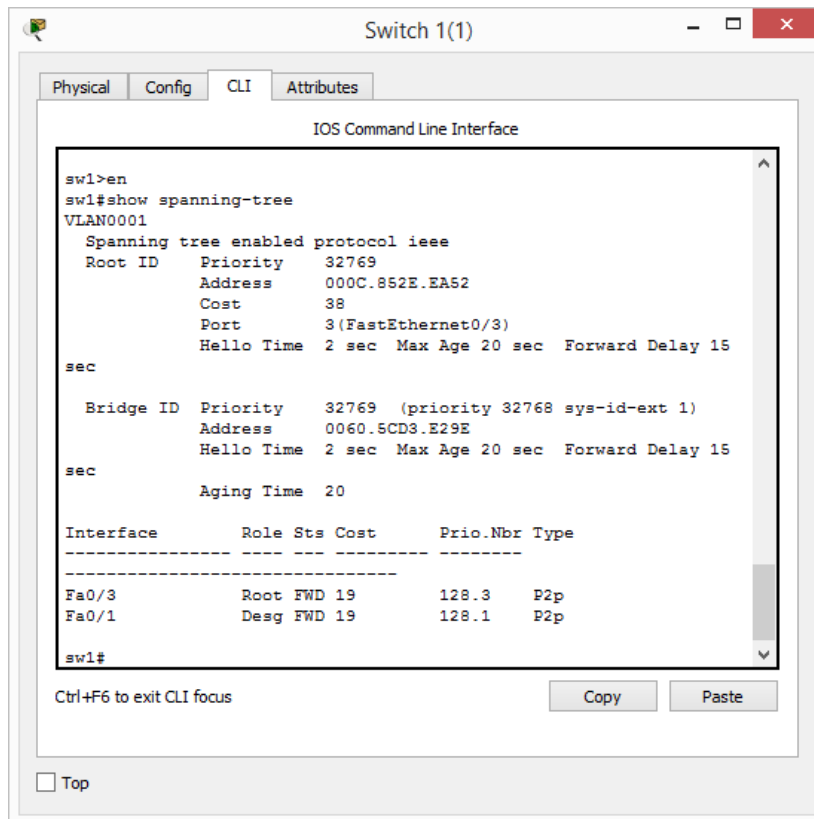


- Pilih direktori untuk menyimpan lalu tekan save

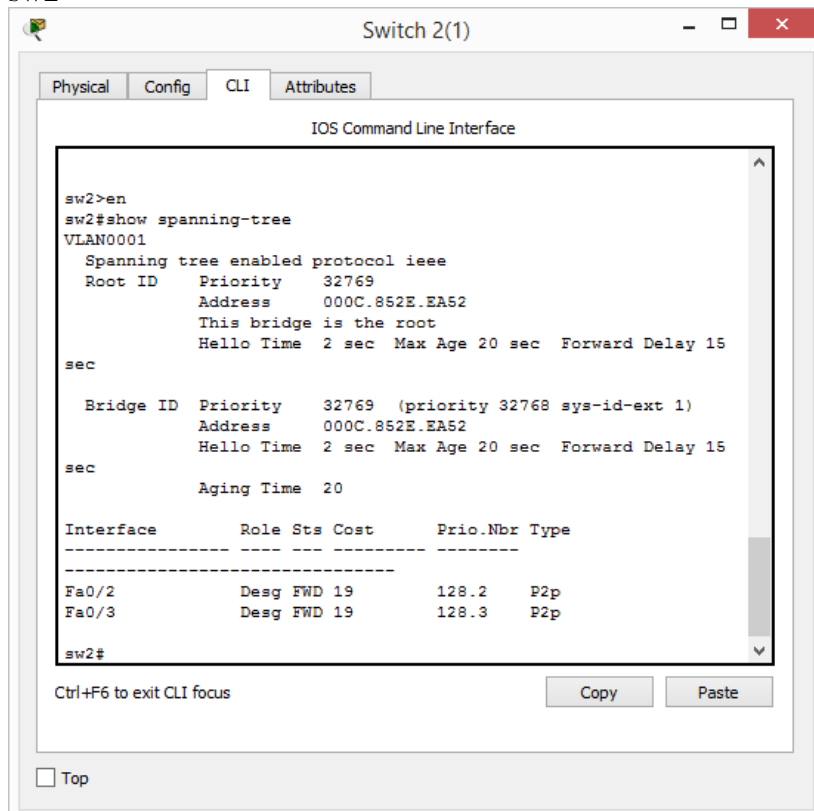


Kegiatan 2. Topologi 2

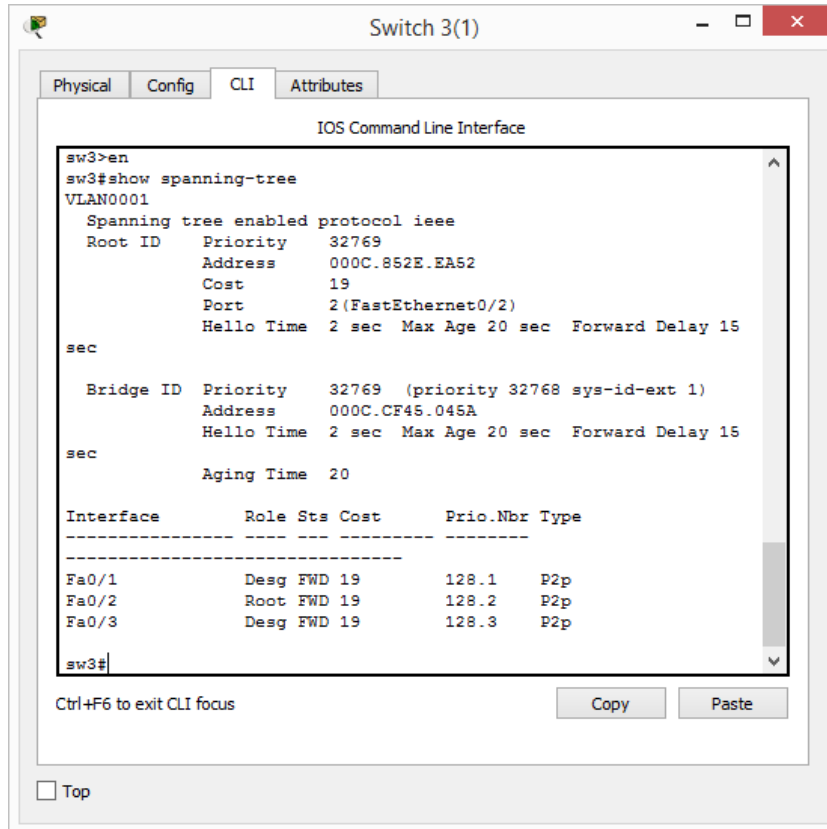
➤ sw1



➤ sw2



➤ sw3



Tabel STP

➤ sw1

No.	Variabel	Nilai
1.	Root ID	000C.852E.EA52
2.	Priority	32769
3.	MAC Address	0060.5CD3.E29E
4.	Bridge ID	0060.5CD3.E29E
5.	Cost(0/1;0/2;0/3)	19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

➤ sw2

No.	Variabel	Nilai
1.	Root ID	000C.852E.EA52
2.	Priority	32769
3.	MAC Address	000C.852E.EA52
4.	Bridge ID	000C.852E.EA52
5.	Cost(0/1;0/2;0/3)	19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

➤ sw3

No.	Variabel	Nilai
1.	Root ID	000C.852E.EA52
2.	Priority	32769
3.	MAC Address	000C.CF45.045A
4.	Bridge ID	000C.CF45.045A
5.	Cost(0/1;0/2;0/3)	19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

- Root bridge : sw2 (000C.852E.EA52)
- Designated bridge : sw2 (Fa0/1;Fa0/3)
- Root port : sw1(Fa0/3), sw3(Fa0/2)
- Designated port : sw1(Fa0/1), sw2(Fa0/2;Fa0/3), sw3(Fa0/1;Fa0/3)
- Forwarding : sw1(Fa0/1;Fa0/3), sw2(Fa0/2;Fa0/3), sw3(Fa0/1;Fa0/3)
- Blocking : tidak ada