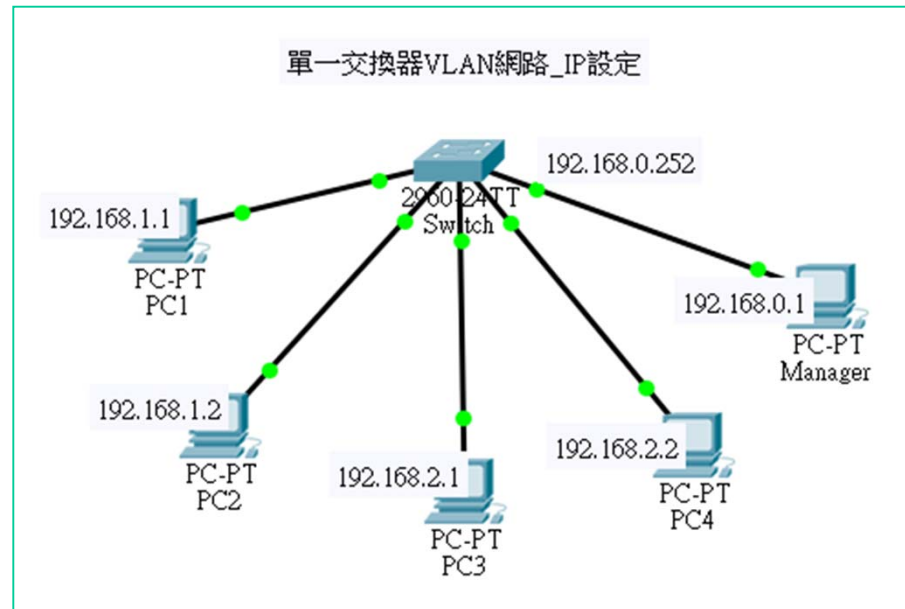


8-2-3 建立 VLAN 網路及成員(-)



✧ VLAN 網路規劃

VLAN網路	網路區段	Gateway/DNS	名稱	IP 位址	連接埠口
Vlan 10 (students)	192.168.1.0/	192.168.1.254/	PC1	192.168.1.1	Switch(Fa0/2)
	255.255.255.0	168.95.1.1	PC2	192.168.1.2	Switch(Fa0/3)
Vlan 20 (teachers)	192.168.2.0/	192.168.2.254/	PC3	192.168.2.1	Switch(Fa0/4)
	255.255.255.0	168.95.1.1	PC4	192.168.2.2	Switch(Fa0/5)



8-2-3 建立 VLAN 網路及成員(二)



✦ 設定位置

◆ 交換器

◆ Manager 主機

- telenet 密碼 mis

```
Switch>en
Password: [misUser]
Switch#config t
Switch(config)#vlan 10
Switch(config-vlan)#name students
Switch(config-vlan)#^Z
Switch#config t
Enter configuration commands, one per line. End with
CNTL/Z.
Switch(config)#vlan 20
Switch(config-vlan)#name teachers
Switch(config-vlan)#exit
Switch(config)#int fa0/2
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
```

```
Switch(config)#int fa0/3
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int fa0/4
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#int fa0/5
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#do show vlan brief

    10 students active Fa0/2, Fa0/3 [VLAN10 的成員]
    20 teachers active Fa0/4, Fa0/5 [VLAN20 的成員]
    1002 fddi-default active
    ....
Switch(config)#exit
Switch#copy running-config startup-config [複製設定結果]
Switch#
```



8-2-3 建立 VLAN 網路及成員(三)

✦ 測試 VLAN 功能

- ◆ 由 PC1 ping PC2 : VLAN 具有過濾封包功能
- ◆ 由 PC1 ping PC3 : 失敗、封包無法跨越網路
- ◆ 由 PC3 ping PC4 : 成功、同網路區段可成功連線

✦ 結論 :

- ◆ 交換器不具有繞路功能(須由路由器輔助)

The screenshot displays a network simulation environment. The main window shows a central switch connected to five PCs. The switch is labeled '2400-24T Switch' and has IP address 192.168.0.252. The PCs are labeled 'PC-PT PC1' (192.168.1.1), 'PC-PT PC2' (192.168.1.2), 'PC-PT PC3' (192.168.2.1), 'PC-PT PC4' (192.168.2.2), and 'PC-PT Manager' (192.168.0.1). The interface includes a 'Logical' menu, a 'Simulation Panel' with an 'Event List' table, and 'Play Controls'.

Vis.	Time(sec)	Last Device	At Device	Type	In
	0.000	--	PC1	ARP	
	0.001	PC1	Switch	ARP	
	0.002	Switch	PC2	ARP	
	0.003	PC2	Switch	ARP	

The 'Event List Filters - Visible Events' section shows 'ARP' selected. The 'Simulation' button is highlighted in the bottom right corner.