



```

Fa0/1    1-20
Fa0/2    1-20
Fa0/3    1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     none

Switch(config)#interface fa0/3
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk allowed vlan 1-20
Switch(config-if)#exit
Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on          802.1q         trunking    1
Fa0/2     on          802.1q         trunking    1
Fa0/3     on          802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20
Fa0/2     1-20
Fa0/3     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     10,20

Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on          802.1q         trunking    1
Fa0/2     on          802.1q         trunking    1
Fa0/3     on          802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20
Fa0/2     1-20
Fa0/3     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Switch(config)#do sh vlan brief

VLAN Name                Status    Ports
-----
1    default                active    Fa0/4, Fa0/5, Fa0/6, Fa0/7
                                           Fa0/8, Fa0/9, Fa0/10, Fa0/11
                                           Fa0/12, Fa0/13, Fa0/14, Fa0/15
                                           Fa0/16, Fa0/17, Fa0/18, Fa0/19
                                           Fa0/20, Fa0/21, Fa0/22, Fa0/23
                                           Fa0/24, Gig0/1, Gig0/2
10   etudiant                active
20   admin                   active
1002 fddi-default             active
1003 token-ring-default     active
1004 fddinet-default         active
1005 trnet-default          active
Switch(config)#

```

```

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20

Switch(config)#interface fa0/2
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

Switch(config-if)#swi
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (20), with Switch FastEthernet0/1 (1)
% Ambiguous command: "s"
Switch(config-if)#switchport trunk allowed vlan 1-20
Switch(config-if)#exit
Switch(config)#do sh interface trunk
Port      Mode          Encapsulation  Status      Native vlan
Fa0/1     on             802.1q         trunking    1
Fa0/2     on             802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20
Fa0/2     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     10,20

Switch(config)#
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (20), with Switch FastEthernet0/1 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (20), with Switch FastEthernet0/1 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (20), with Switch FastEthernet0/1 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (20), with Switch FastEthernet0/1 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (20), with Switch FastEthernet0/1 (1).

Switch(config)#interface fa0/3
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up

Switch(config-if)#switchport trunk allowed vlan 1-20
Switch(config-if)#exit
Switch(config)#do sh interface trunk
Port      Mode          Encapsulation  Status      Native vlan
Fa0/1     on             802.1q         trunking    1
Fa0/2     on             802.1q         trunking    1
Fa0/3     on             802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20
Fa0/2     1-20
Fa0/3     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     10,20

Switch(config)#
%LINK-3-UPDOWN: Interface FastEthernet0/3, changed state to down

```

```

Switch(config)#
%LINK-3-UPDOWN: Interface FastEthernet0/3, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to down

%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up

Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1
Fa0/2     on        802.1q         trunking    1
Fa0/3     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20
Fa0/2     1-20
Fa0/3     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     none

Switch(config)#interface fa0/3
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk allowed vlan 1-20
Switch(config-if)#exit
Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1
Fa0/2     on        802.1q         trunking    1
Fa0/3     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20
Fa0/2     1-20
Fa0/3     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     10,20

Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1
Fa0/2     on        802.1q         trunking    1
Fa0/3     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20
Fa0/2     1-20
Fa0/3     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
Fa0/2     1,10,20
Fa0/3     1,10,20

Switch(config)#

```

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
```

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name etudiant
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name admin
Switch(config-vlan)#exit
Switch(config)#interface fa0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#do sh vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Fa0/3, Fa0/4, Fa0/5, Fa0/6 Fa0/7, Fa0/8, Fa0/9, Fa0/10 Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23, Fa0/24, Gig0/1, Gig0/2
10	etudiant	active	Fa0/2
20	admin	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

```
Switch(config)#interface fa0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#interface fa0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk allowed vlan 1-20
Switch(config-if)#exit
Switch(config)#do sh vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Fa0/4, Fa0/5, Fa0/6, Fa0/7 Fa0/8, Fa0/9, Fa0/10, Fa0/11 Fa0/12, Fa0/13, Fa0/14, Fa0/15 Fa0/16, Fa0/17, Fa0/18, Fa0/19 Fa0/20, Fa0/21, Fa0/22, Fa0/23 Fa0/24, Gig0/1, Gig0/2
10	etudiant	active	Fa0/2
20	admin	active	Fa0/3
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

```
Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status        Native vlan
Fa0/1     on        802.1q         trunking      1

Port      Vlans allowed on trunk
Fa0/1     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
```

```
Switch(config)#
```

```

Switch(config)#
Switch(config)#do sh interface trunk

Switch(config)#do sh vlan brief

VLAN Name                Status    Ports
-----
1    default                active    Fa0/1, Fa0/4, Fa0/5, Fa0/6
                                           Fa0/7, Fa0/8, Fa0/9, Fa0/10
                                           Fa0/11, Fa0/12, Fa0/13, Fa0/14
                                           Fa0/15, Fa0/16, Fa0/17, Fa0/18
                                           Fa0/19, Fa0/20, Fa0/21, Fa0/22
                                           Fa0/23, Fa0/24, Gig0/1, Gig0/2
10   etudiant                active    Fa0/2
20   admin                   active    Fa0/3
1002 fddi-default            active
1003 token-ring-default    active
1004 fddinet-default       active
1005 trnet-default         active
Switch(config)#interface fa0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch(config-if)#switchport trunk allowed vlan 10,20
Switch(config-if)#exit
Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     10,20

Port      Vlans allowed and active in management domain
Fa0/1     10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     20

Switch(config)#interface fa0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk allowed vlan 1-20
Switch(config-if)#exit
Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     10,20

Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#

Switch con0 is now available

```

```
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
```

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     1,10,20
```

```
Switch(config)#
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (1), with Switch FastEthernet0/2 (10).
```

Switch con0 is now available

Press RETURN to get started.

Switch>

```

%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%SPANTREE-2-RECV_PVID_ERR: Received 802.1Q BPDU on non trunk FastEthernet0/1 VLAN1.
%SPANTREE-2-BLOCK_PVID_LOCAL: Blocking FastEthernet0/1 on VLAN0001. Inconsistent port type.

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name etudiant
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name admin
Switch(config-vlan)#exit
Switch(config)#interface fa0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#interface fa0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#do sh vlan brief

VLAN Name                Status    Ports
-----
1    default                active    Fa0/1, Fa0/4, Fa0/5, Fa0/6
                                           Fa0/7, Fa0/8, Fa0/9, Fa0/10
                                           Fa0/11, Fa0/12, Fa0/13, Fa0/14
                                           Fa0/15, Fa0/16, Fa0/17, Fa0/18
                                           Fa0/19, Fa0/20, Fa0/21, Fa0/22
                                           Fa0/23, Fa0/24, Gig0/1, Gig0/2
10   etudiant                active    Fa0/2
20   admin                   active    Fa0/3
1002 fddi-default           active
1003 token-ring-default     active
1004 fddinet-default        active
1005 trnet-default          active
Switch(config)#interface fa0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch(config-if)#switchport trunk allowed vlan 1-20
Switch(config-if)#exit
Switch(config)#do sh interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/1     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/1     1-20

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     10,20

Switch(config)#

```


PC0

Physical

Config

Desktop

Programming

Attributes

Command Prompt

X

Request timed out.

Ping statistics for 192.168.10.2:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Request timed out.

Ping statistics for 192.168.10.2:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Request timed out.

Ping statistics for 192.168.10.2:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time=1ms TTL=128

Reply from 192.168.10.2: bytes=32 time<1ms TTL=128

Reply from 192.168.10.2: bytes=32 time=1ms TTL=128

Reply from 192.168.10.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|

PC1

Physical

Config

Desktop

Programming

Attributes

Command Prompt

X

Packet Tracer PC Command Line 1.0

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Reply from 192.168.20.2: bytes=32 time=1ms TTL=128

Reply from 192.168.20.2: bytes=32 time<1ms TTL=128

Reply from 192.168.20.2: bytes=32 time<1ms TTL=128

Reply from 192.168.20.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.20.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|

PC2

Physical

Config

Desktop

Programming

Attributes

Command Prompt

X

Packet Tracer PC Command Line 1.0

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Request timed out.

Ping statistics for 192.168.10.3:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Reply from 192.168.10.3: bytes=32 time<1ms TTL=128

Reply from 192.168.10.3: bytes=32 time<1ms TTL=128

Reply from 192.168.10.3: bytes=32 time=11ms TTL=128

Reply from 192.168.10.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 11ms, Average = 2ms

C:\>ping 192.168.10.1

Pinging 192.168.10.1 with 32 bytes of data:

Reply from 192.168.10.1: bytes=32 time<1ms TTL=128

Reply from 192.168.10.1: bytes=32 time<1ms TTL=128

Reply from 192.168.10.1: bytes=32 time<1ms TTL=128

Reply from 192.168.10.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.1:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>