

- Switch Port Configuration -

Switch Port Configuration

To enter interface configuration mode for interface Fast Ethernet 0/10:

```
Switch(config)# interface fa0/10
```

Multiple individual ports can be configured simultaneously:

```
Switch(config)# interface range fa0/10 , fa0/12 , fa0/14
```

The above command selects ports *fa0/10*, *fa0/12*, and *fa0/14*. Please note the space on either side of the commas.

A contiguous range of interfaces can be specified:

```
Switch(config)# interface range fa0/10 - 15
```

The above command selects ports *fa0/10* through *fa0/15*. Please note the space on either side of the dash.

Macros can be created for groups of ports that are configured often:

```
Switch(config)# define interface-range MACRONAME fa0/10 – 15  
Switch(config)# interface range macro MACRONAME
```

The first command creates a macro, or “group,” of interfaces called *MACRONAME*. The second command actually selects those interfaces for configuration.

For documentation purposes, we can apply **descriptions** on interfaces:

```
Switch(config)# interface fa0/0  
Switch(config-if)# description DESCRIPTIONTEXT
```

To view the status of an interface (example, Fast Ethernet 0/10):

```
Switch# show interface fa0/10
```

This will also display duplex, speed, and packet errors on this particular interface.

To view the errdisable state (explained shortly) of an interface:

```
Switch# show interface status err-disabled
```

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Switch Port Configuration – Speed and Duplex

To specify the port speed of an interface:

```

Switch(config)# interface fa0/10
Switch(config-if)# speed 10
Switch(config-if)# speed 100
Switch(config-if)# speed 1000
Switch(config-if)# speed auto

```

To specify the duplex of an interface:

```

Switch(config)# interface fa0/10
Switch(config-if)# duplex half
Switch(config-if)# duplex full
Switch(config-if)# duplex auto

```

Port Error Conditions

Catalyst switches can detect error **conditions** on a port, and if necessary automatically disable that port. When a port is disabled due to an error, the port is considered to be in **errdisable state**.

The following events can put a port into errdisable state:

- **bpdu-guard** – when a port configured for STP Portfast and BPDU Guard receives a BPDU
- **dtp-flap** – when trunking encapsulation (ISL or 802.1Q) is “flapping”
- **link-flap** – when a port is flapping between an “up” or “down” state
- **pagp-flap** – when EtherChannel ports become inconsistently configured
- **rootguard** – when a non-designated port receives a BPDU from a root bridge
- **udld** – when data appears to be only sent in one direction

To enable all possible error conditions:

```
Switch(config)# errdisable detect cause all
```

To enable a specific error condition:

```
Switch(config)# errdisable detect cause link-flap
```

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Port Error Conditions (continued)

To take a port out of **errdisable** state:

```
Switch(config)# interface fa0/10
Switch(config-if)# shut
Switch(config-if)# no shut
```

To allow switch ports to automatically recover from an **errdisable** state:

```
Switch(config)# errdisable recovery cause all
Switch(config)# errdisable recovery interval 250
```

The last line specifies the duration a port will remain in errdisable before recovering. The default is **300 seconds**.

* * *