# Controllers STMn Command Reference

This chapter describes the commands to configure the STMn controller.

# controller (stm)

To configure a STMn controller, use the **controller** command in the config mode. To delete a STMn controller, use the **no** form of this command.

**controller stm***n R/S/I/P*

**no controller stm***n R/S/I/P*

## Syntax Description

| | |
|---|---|
| **stmn** | Configures an STMn controller. The range of n is 1, 4, 16, 64, 256. |
| *R/S/I/P* | Displays the Rack/Slot/Instance/Port of the controller. |

## Command Default

None

send : (0)

expected : (0)

receive : (0)

## Command Modes

Config mode

## Command History

| Release | Modification |
|---|---|
| Release 5.2.4 | This command was introduced. |

## Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

## Task ID

| Task ID | Operation |
|---|---|
| sonet-sdh | write |

### Example

This example shows how to access the interface instance of a stm64 controller on port2:

```
RP/0/RP0:hostname(config)# controller stm64 0/0/0/2
```

# overhead j0

To configure overhead value on an STMn controller, use the **overhead j0** command in the config mode. To delete the overhead value from a STMn controller, use the **no** form of this command.

**overhead j0** [**expected** | **send** [**1Byte** | **16Bytes**]

**no overhead j0** {**length**} [**1Byte** | **16Bytes**] [**send** | **expected**] *value*

## Syntax Description

| | |
|---|---|
| **1Byte** | Configures the 1 byte path trace for the STMn controller. |
| **16Bytes** | Configures the 16 bytes path trace for the STMn controller. |
| **send** | Configures the transmitted trace identifier of the STMn controller. |
| **expected** | Configures the expected trace identifier of the STMn controller. |
| *value* | Enters the ASCII text for the STMn controller. |

## Command Default

0 stand byte mode

BER thresholds: SF=10e-3 SD=10e-6

## Command Modes

Config mode

## Command History

| Release | Modification |
|---|---|
| Release 5.2.4 | This command was introduced. |

## Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

## Task ID

| Task ID | Operation |
|---|---|
| sonet-sdh | write |

### Example

This example shows how to configure the overhead j0 value on the stm64 controller:

```
RP/0/RP0:hostname(config)# controller stm64 0/0/0/2
RP/0/RP0:hostname(config-stm64)# overhead j0 length 1Byte expected 45
```

# pm stm

To configure the pm parameters of an STM controller, use the **pm** command in the config mode. To delete the pm parameters of an STM controller, use the **no** form of this command.

**pm** [**15-min** | **24-hour**] {**stm**} [**report** *status* | **threshold** *value*]

**no pm** [**15-min** | **24-hour**] {**stm**} [**report** *status* | **threshold** *value*]

**Syntax Description**

| | |
|---|---|
| **15 min** | Configures the 15 minute time interval for the PM parameters. |
| **24-hour** | Configures the 24 hour time interval for the PM parameters. |
| **stm** | Displays the name of the layer. |
| **report** | Configures the TCA reporting status of the controller. |
| *report status* | Configures the reporting status of the controller. |
| **threshold** | Configures threshold on the controller. |
| *threshold value* | Configures the threshold value on the controller. |

**Command Default**

Enable

**Command Modes**

Config mode

**Command History**

| Release | Modification |
|---|---|
| Release 5.2.4 | This command was introduced. |

**Usage Guidelines**

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

**Task ID**

| Task ID | Operation |
|---|---|
| sonet-sdh | write |

The following example shows how to specify the 15 min PM interval for the stm controller and set threshold value for the layer:

```
RP/0/RP0:hostname(config)# controller stm4 0/2/0/0
RP/0/RP0:hostname(config-stm4)# pm 15-min stm threshold eb-l-ne 30
```

# show controllers (stm)

To display all the details of an STMn controller, use the **show controllers** command in the exec mode.

**show controllers stm***n R/S/I/P*

**Syntax Description**

| | |
|---|---|
| **stmn** | Displays the name of the STMn controller. |
| *R/S/I/P* | Displays the Rack/Slot/Instance/Port of the controller. |

**Command Modes**

Exec mode

**Command History**

| Release | Modification |
|---|---|
| Release 5.2.4 | This command was introduced. |

**Usage Guidelines**

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

**Task ID**

| Task ID | Operation |
|---|---|
| sonet-sdh | read |

### Example

This example shows how to display the details of the stm64 controller:

```
RP/0/RP0:hostname # show controllers stm64 0/2/0/10
```

```
Port STM640/2/0/10:

Status:
 Primary State: Down

Sec admin State: Normal

Derived State: In Service

Loopback: None

REGENERATOR SECTION
  LOF = 0          LOS    = 1                              RS-BIP  = 0
Overhead
J0 Transmit:    (2)
J0 Receive:     (2)
J0 Expected:    (2)

MULTIPLEX SECTION
  AIS = 0          RDI    = 0          FEBE = 0          MS-BIP  = 0

Last clearing of "show controllers SDH" counters never
```

```
Detected Alarms: LOS
Masked Alarms: None
Detected Alerts: None
Masked Alerts: None

Framing: SONET
BER thresholds:  SF = 10e-3  SD = 10e-6
TCA thresholds:  B1 = 10e-6  B2 = 10e-6
  Clock source: internal (actual) line (configured)
```

**Note** Run *do show controller stmn R/S/I/P* when command is executed in config mode.

# threshold

To configure threshold for B3 bit error rate (BER) threshold crossing alert (TCA) on a STMn controller, use the **threshold** command in the config mode. To delete the threshold for B3 BER TCA from a STMn controller, use the **no** form of this command.

**threshold** {**b1-tca** | **b2-tca** | **sd-ber** | **sf-ber**} *value*

**no threshold** {**b1-tca** | **b2-tca** | **sd-ber** | **sf-ber**} *value*

## Syntax Description

| | |
|---|---|
| **b1-tca** | Configures the B1 BER threshold for the TCA on the STMn controller. |
| **b2-tca** | Configures the B2 BER threshold for the TCA on the STMn controller. |
| **sd-ber** | Configures the signal degrade BER threshold on the STMn controller. |
| **sf-ber** | Configures the signal fail BER threshold on the STMn controller. |
| *value* | Configures the BER value. The BER value ranges from 3 to 9 and default value is 6 for b1-tca and b2-tca. For sd-ber it ranges from 5 to 9 and default value is 6. BER value for sf-ber ranges from 3 to 5 and default value is 3. |

## Command Default

TCA threshold : B1=10e-6 B2=10e-6

## Command Modes

Config mode

## Command History

| Release | Modification |
|---|---|
| Release 5.2.4 | This command was introduced. |

## Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

## Task ID

| Task ID | Operation |
|---|---|
| sonet-sdh | write |

### Example

This example shows how to configure the threshold for B3 BER TCA on the stm64 controller:

```
RP/0/RP0:hostname(config)# controller stm64 0/0/0/2
RP/0/RP0:hostname(config-stm64)# threshold b2-tca 7
```