How to use Cable Diagnostics via SNMP on DES-3200 C1 R4.00

Example:

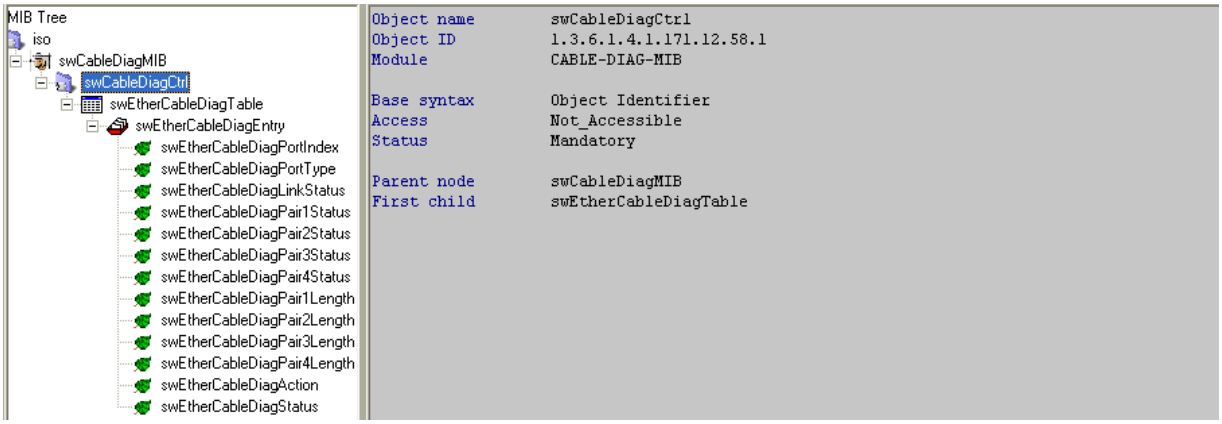
1. Cable diagnostics only works on one port at a time. Before a user wants to check the cable info on a port, he/she has to run the function on that port first for one time.
   Run cable diagnostics on port **13**:
   cable_diag ports 13
   ```
   C:\snmpset -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.58.1.1.1.12.13
   i 1
   ```

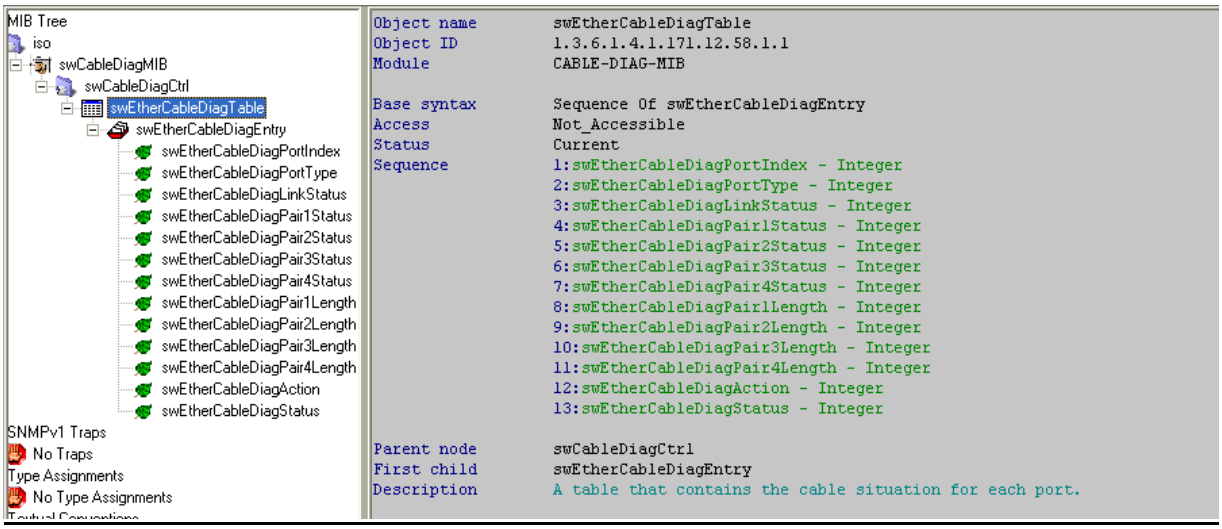
2. After the function has been run, the results are available. A user can check the results of different categories such as pair2 status, pair3 status, pair4 length, etc. Each category has a separate OID. Please refer to the following snapshots for each category.
   Check the status of pair2 of port **13**:
   ```
   C:\snmpwalk -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.58.1.1.1.5.13
   ```

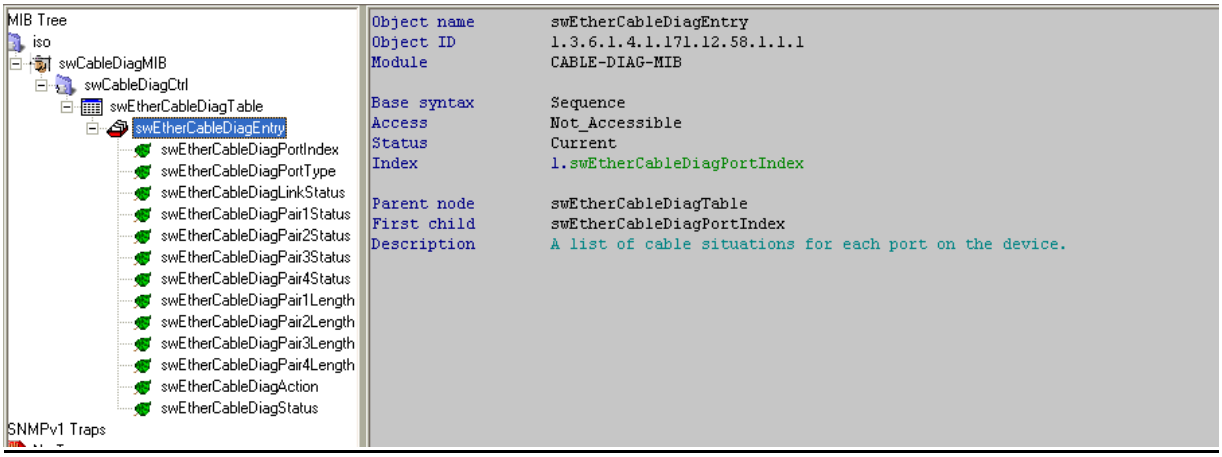
   Check the status of pair3 of port **13**:
   ```
   C:\snmpwalk -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.58.1.1.1.6.13
   ```

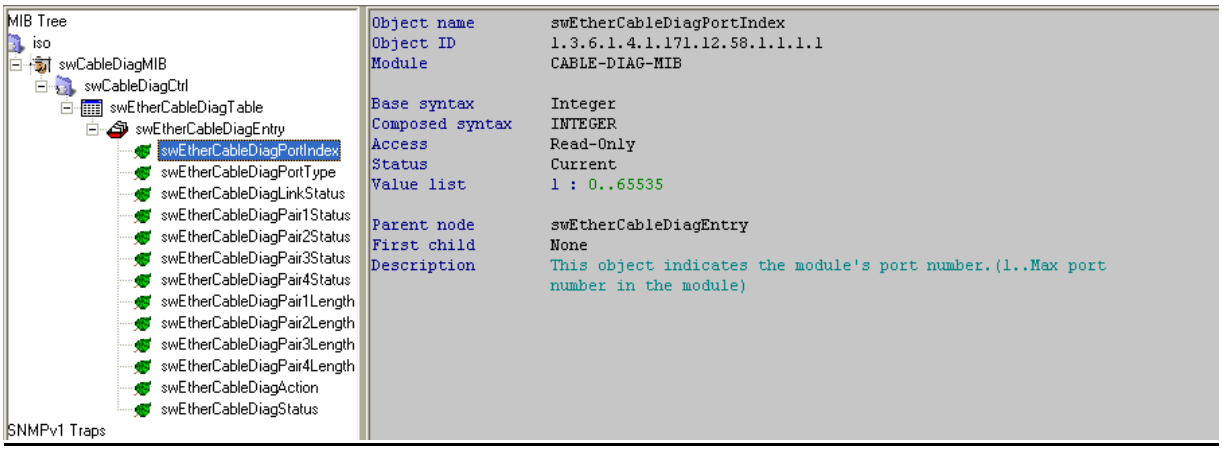
   Check the length of pair3 of port **13**:
   ```
   C:\snmpwalk -c private -v 2c 10.90.90.90 1.3.6.1.4.1.171.12.58.1.1.1.10.13
   ```

MIB: CableDiag.mib
OIDs:
1.3.6.1.4.1.171.12.58.1.1.1.1
1.3.6.1.4.1.171.12.58.1.1.1.2
1.3.6.1.4.1.171.12.58.1.1.1.3
1.3.6.1.4.1.171.12.58.1.1.1.4
1.3.6.1.4.1.171.12.58.1.1.1.5
1.3.6.1.4.1.171.12.58.1.1.1.6
1.3.6.1.4.1.171.12.58.1.1.1.7
1.3.6.1.4.1.171.12.58.1.1.1.8
1.3.6.1.4.1.171.12.58.1.1.1.9
1.3.6.1.4.1.171.12.58.1.1.1.10
1.3.6.1.4.1.171.12.58.1.1.1.11
1.3.6.1.4.1.171.12.58.1.1.1.12




MIB Tree
iso
swCableDiagMIB
swCableDiagCtrl
swEtherCableDiagTable
swEtherCableDiagEntry
swEtherCableDiagPortIndex
swEtherCableDiagPortType
swEtherCableDiagLinkStatus
swEtherCableDiagPair1Status
swEtherCableDiagPair2Status
swEtherCableDiagPair3Status
swEtherCableDiagPair4Status
swEtherCableDiagPair1Length
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
No Traps
Type Assignments
No Type Assignments
Object name swEtherCableDiagTable
Object ID 1.3.6.1.4.1.171.12.58.1.1
Module CABLE-DIAG-MIB
Base syntax Sequence Of swEtherCableDiagEntry
Access Not_Accessible
Status Current
Sequence 1:swEtherCableDiagPortIndex - Integer
2:swEtherCableDiagPortType - Integer
3:swEtherCableDiagLinkStatus - Integer
4:swEtherCableDiagPair1Status - Integer
5:swEtherCableDiagPair2Status - Integer
6:swEtherCableDiagPair3Status - Integer
7:swEtherCableDiagPair4Status - Integer
8:swEtherCableDiagPair1Length - Integer
9:swEtherCableDiagPair2Length - Integer
10:swEtherCableDiagPair3Length - Integer
11:swEtherCableDiagPair4Length - Integer
12:swEtherCableDiagAction - Integer
13:swEtherCableDiagStatus - Integer
Parent node swCableDiagCtrl
First child swEtherCableDiagEntry
Description A table that contains the cable situation for each port.


MIB Tree
iso
swCableDiagMIB
swCableDiagCtrl
swEtherCableDiagTable
swEtherCableDiagEntry
swEtherCableDiagPortIndex
swEtherCableDiagPortType
swEtherCableDiagLinkStatus
swEtherCableDiagPair1Status
swEtherCableDiagPair2Status
swEtherCableDiagPair3Status
swEtherCableDiagPair4Status
swEtherCableDiagPair1Length
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagEntry
Object ID 1.3.6.1.4.1.171.12.58.1.1.1
Module CABLE-DIAG-MIB
Base syntax Sequence
Access Not_Accessible
Status Current
Index 1.swEtherCableDiagPortIndex
Parent node swEtherCableDiagTable
First child swEtherCableDiagPortIndex
Description A list of cable situations for each port on the device.


MIB Tree
iso
swCableDiagMIB
swCableDiagCtrl
swEtherCableDiagTable
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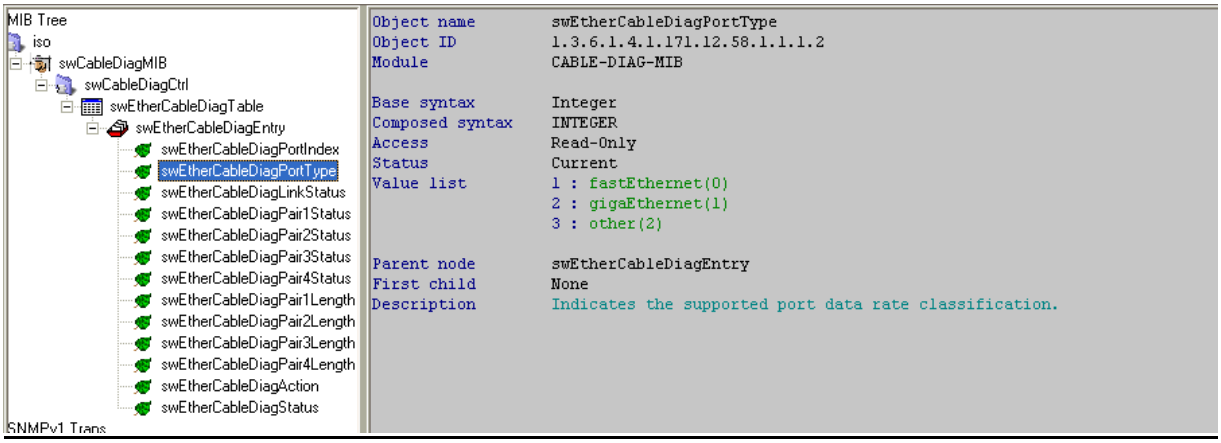
swEtherCableDiagPair1Status
swEtherCableDiagPair2Status
swEtherCableDiagPair3Status
swEtherCableDiagPair4Status
swEtherCableDiagPair1Length
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagPortIndex
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.1
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Value list 1 : 0..65535
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the module's port number.(1..Max port number in the module)


MIB Tree
iso
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swCableDiagCtrl
swEtherCableDiagTable
swEtherCableDiagEntry
swEtherCableDiagPortIndex
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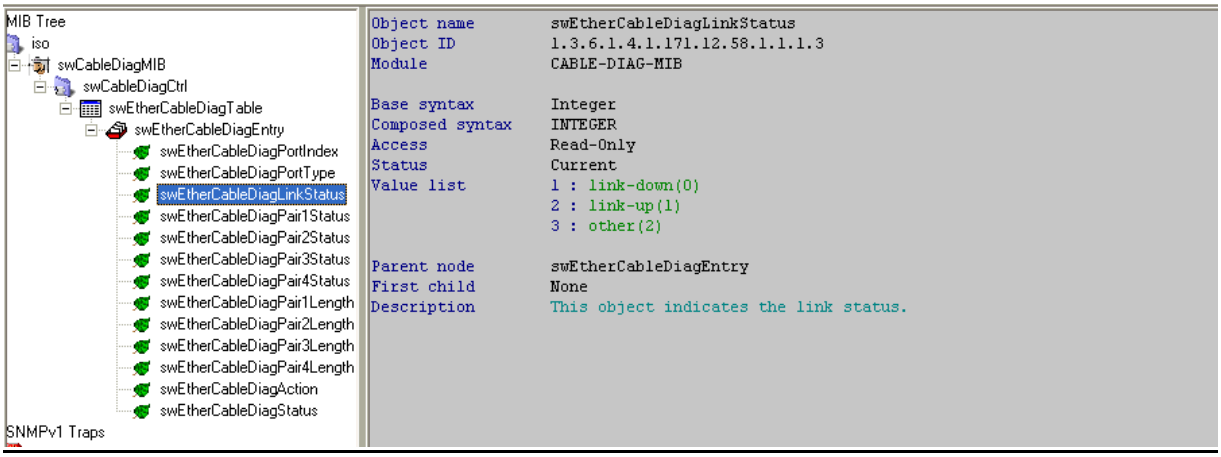
swEtherCableDiagLinkStatus
swEtherCableDiagPair1Status
swEtherCableDiagPair2Status
swEtherCableDiagPair3Status
swEtherCableDiagPair4Status
swEtherCableDiagPair1Length
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagPortType
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.2
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Value list 1 : fastEthernet(0)
2 : gigaEthernet(1)
3 : other(2)
Parent node swEtherCableDiagEntry
First child None
Description Indicates the supported port data rate classification.


MIB Tree
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swEtherCableDiagPair4Status
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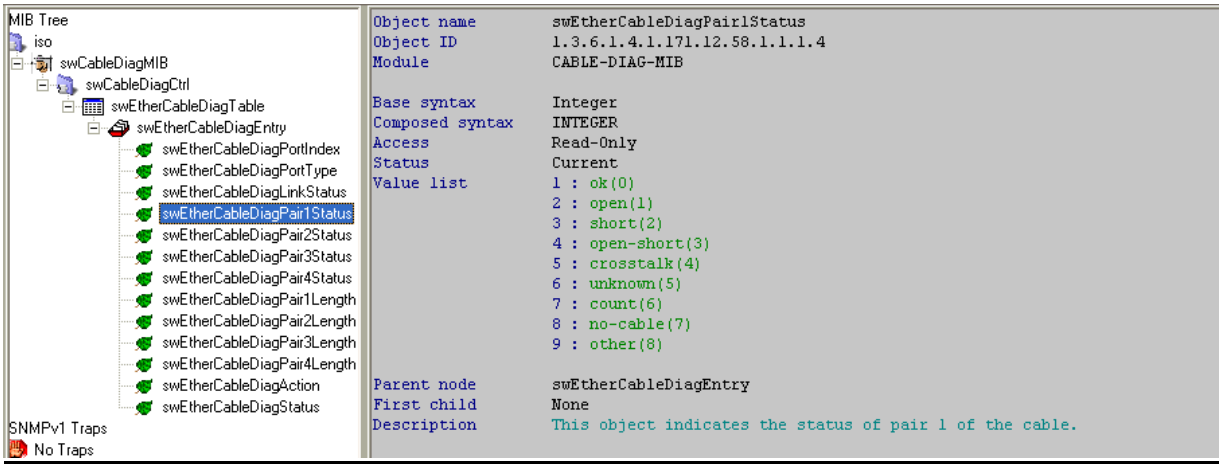
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagLinkStatus
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.3
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Value list 1 : link-down(0)
2 : link-up(1)
3 : other(2)
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the link status.


MIB Tree
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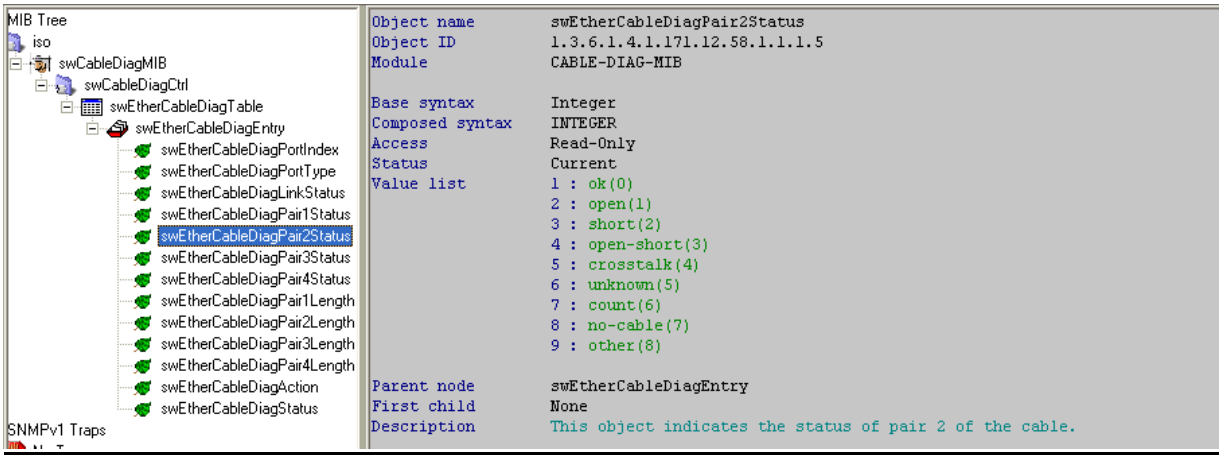
swCableDiagMIB
swCableDiagCtrl
swEtherCableDiagTable
swEtherCableDiagEntry
swEtherCableDiagPortIndex
swEtherCableDiagPortType
swEtherCableDiagLinkStatus
swEtherCableDiagPair1Status
swEtherCableDiagPair2Status
swEtherCableDiagPair3Status
swEtherCableDiagPair4Status
swEtherCableDiagPair1Length
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
No Traps
Object name swEtherCableDiagPair1Status
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.4
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Value list 1 : ok(0)
2 : open(1)
3 : short(2)
4 : open-short(3)
5 : crosstalk(4)
6 : unknown(5)
7 : count(6)
8 : no-cable(7)
9 : other(8)
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the status of pair 1 of the cable.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swEtherCableDiagPair1Status
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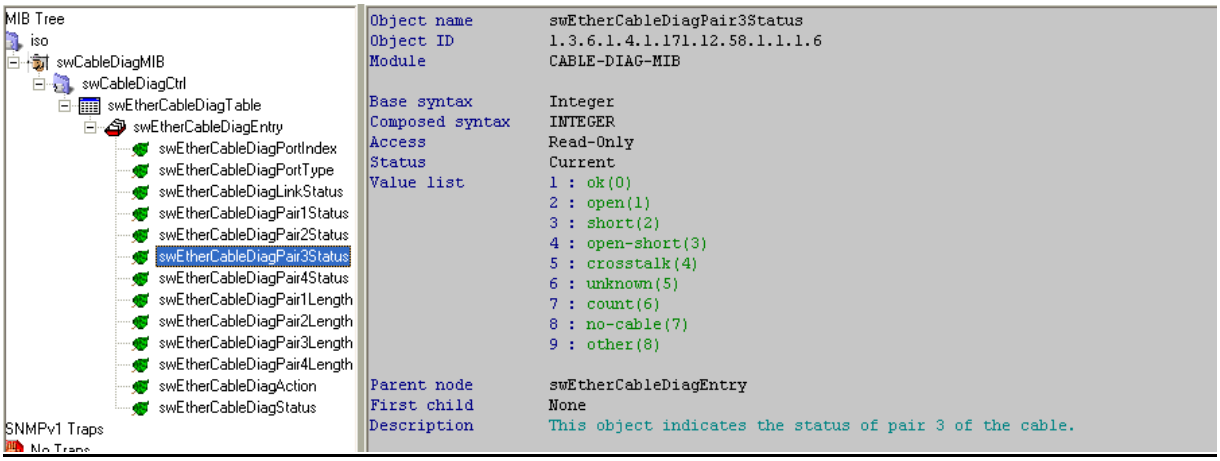
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagPair2Status
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.5
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Value list 1 : ok(0)
2 : open(1)
3 : short(2)
4 : open-short(3)
5 : crosstalk(4)
6 : unknown(5)
7 : count(6)
8 : no-cable(7)
9 : other(8)
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the status of pair 2 of the cable.


MIB Tree
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swCableDiagCtrl
swEtherCableDiagTable
swEtherCableDiagEntry
swEtherCableDiagPortIndex
swEtherCableDiagPortType
swEtherCableDiagLinkStatus
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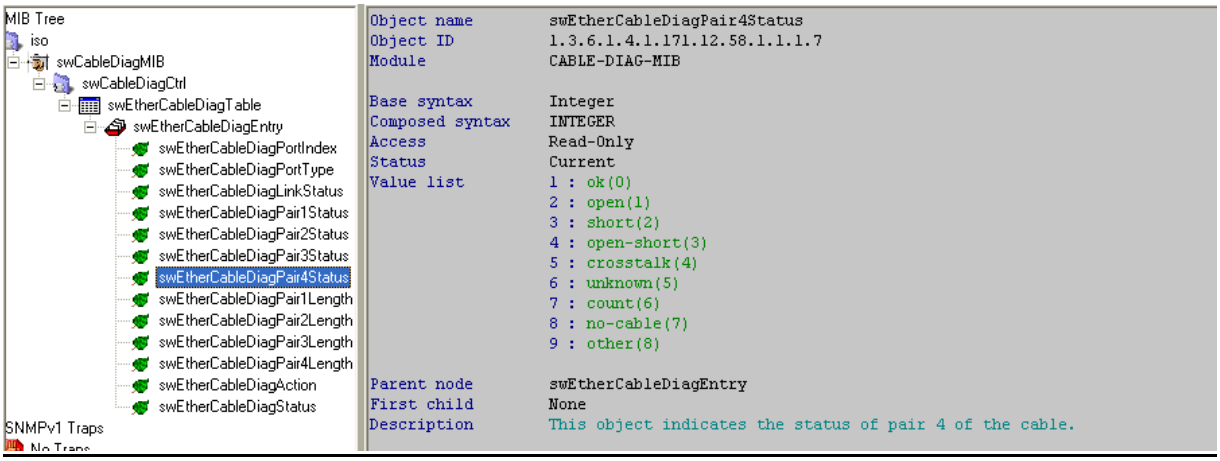
swEtherCableDiagPair2Status
swEtherCableDiagPair3Status
swEtherCableDiagPair4Status
swEtherCableDiagPair1Length
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagPair3Status
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.6
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Value list 1 : ok(0)
2 : open(1)
3 : short(2)
4 : open-short(3)
5 : crosstalk(4)
6 : unknown(5)
7 : count(6)
8 : no-cable(7)
9 : other(8)
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the status of pair 3 of the cable.


MIB Tree
iso
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swCableDiagCtrl
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swEtherCableDiagEntry
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swEtherCableDiagPair2Status
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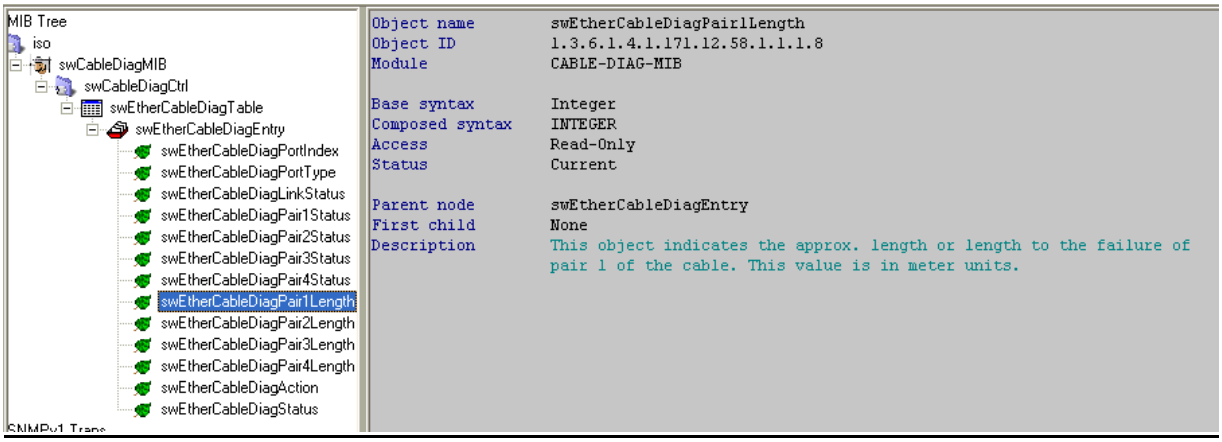
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagPair4Status
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.7
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Value list 1 : ok(0)
2 : open(1)
3 : short(2)
4 : open-short(3)
5 : crosstalk(4)
6 : unknown(5)
7 : count(6)
8 : no-cable(7)
9 : other(8)
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the status of pair 4 of the cable.


MIB Tree
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swEtherCableDiagPair3Status
swEtherCableDiagPair4Status
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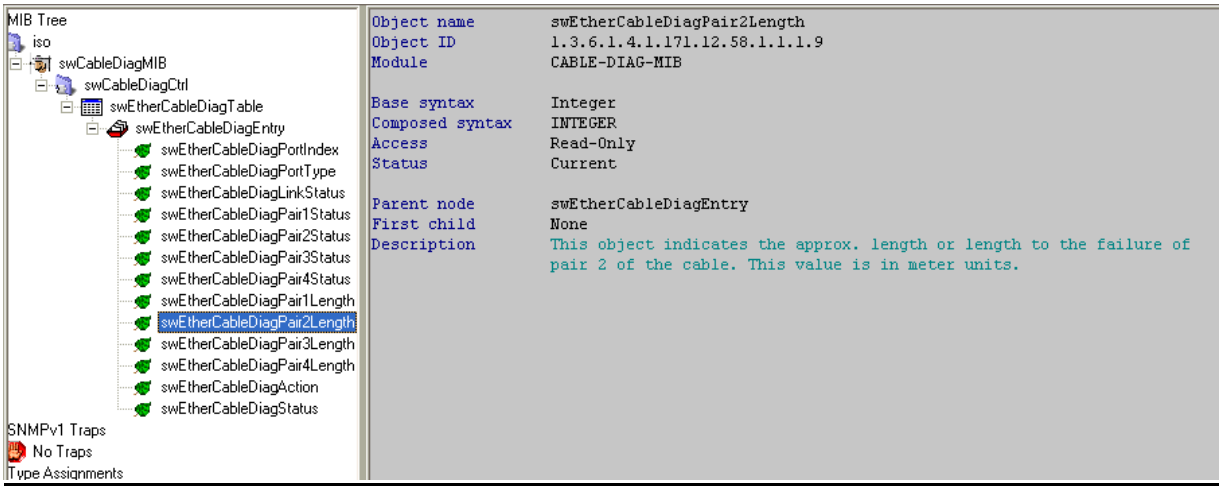
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
Object name swEtherCableDiagPairlLength
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.8
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the approx. length or length to the failure of pair 1 of the cable. This value is in meter units.


MIB Tree
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swCableDiagCtrl
swEtherCableDiagTable
swEtherCableDiagEntry
swEtherCableDiagPortIndex
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swEtherCableDiagPair2Status
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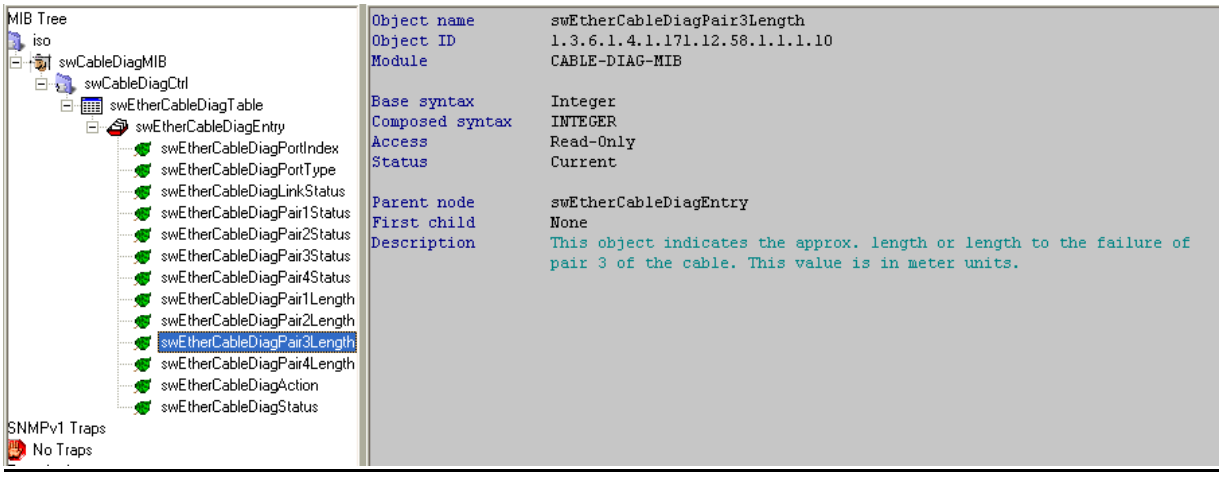
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
No Traps
Type Assignments
Object name swEtherCableDiagPair2Length
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.9
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the approx. length or length to the failure of pair 2 of the cable. This value is in meter units.


MIB Tree
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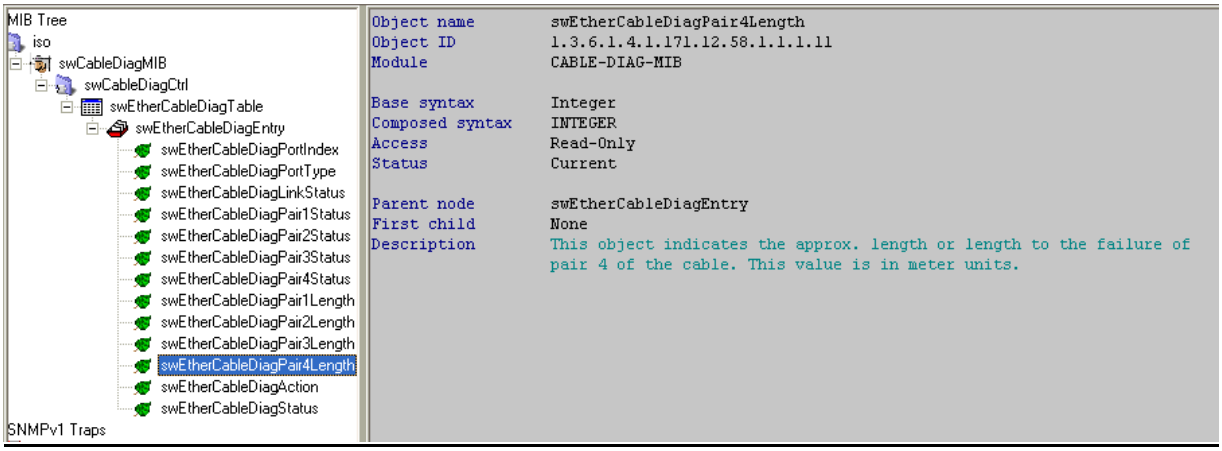
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
No Traps
Object name swEtherCableDiagPair3Length
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.10
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the approx. length or length to the failure of pair 3 of the cable. This value is in meter units.


MIB Tree
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swEtherCableDiagPair2Status
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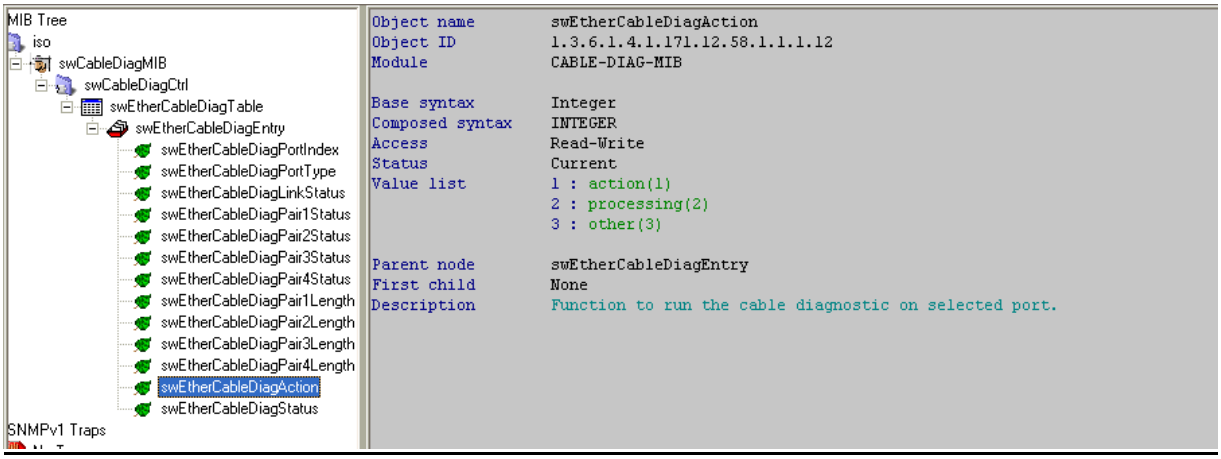
swEtherCableDiagPair2Length
swEtherCableDiagPair3Length
swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagPair4Length
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.11
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Current
Parent node swEtherCableDiagEntry
First child None
Description This object indicates the approx. length or length to the failure of pair 4 of the cable. This value is in meter units.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swEtherCableDiagPair4Length
swEtherCableDiagAction
swEtherCableDiagStatus
SNMPv1 Traps
Object name swEtherCableDiagAction
Object ID 1.3.6.1.4.1.171.12.58.1.1.1.12
Module CABLE-DIAG-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Current
Value list 1 : action(1)
2 : processing(2)
3 : other(3)
Parent node swEtherCableDiagEntry
First child None
Description Function to run the cable diagnostic on selected port.