

WHITEPAPER

SMAVIA RECORDING SERVER
SIMPLE NETWORK MANAGEMENT
PROTOCOL

MANAGING SMAVIA RECORDING SERVER WITH SNMP

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INTRODUCTION

Dallmeier recording systems support the Simple Network Management Protocol (SNMP). This enables the management and monitoring of these recorders with a Network Management System (NMS). This document contains a general description of SNMP and detailed instructions on the management information available via SNMP on Dallmeier recorders.

1.1 VALIDITY

This document is valid for recording systems running SMAVIA Recording Server software version 8.x.x or 9.x.x. The document has been generated based on software version 9.x.6

1.2 PREREQUISITES

To monitor a recorder via SNMP, the following prerequisites must be fulfilled:

- Executing an SNMP network application (e.g. Net-SNMP) or an activated SNMP service on the client side
- Ethernet connection between recorder and SNMP client

SNMP COMMANDS

There are several ways to retrieve the MIB information from the recording system. For the “DALLMEIER-MIB.txt” file please contact Dallmeier Support.

SNMP queries via the Windows*) command console (**Start menu > Run > cmd**) are described below (SNMP command line application must be installed, e.g. Net-SNMP).

Make sure that the SNMP agent is activated on the device (**Setup > System > System > Info > Activations**).

2.1 BASIC STRUCTURE

The basic SNMP command is structured as follows:

```
Command|Community|Version|Recorder IP|Global MIB|Dallmeier OID
```

| | |
|--------------------------------|--------------------------------|
| Command: | snmpwalk snmpget snmpset |
| Community: | -c dally |
| Version: | -v 1 -v 2c |
| Recording system IP (example): | 192.168.2.230 |
| Global MIB | 1.3.6.1.4.1 |
| Dallmeier OID1 | 27344 |



The IP address (192.168.2.230) mentioned in this documentation is used for example purposes only and must be replaced with the IP address of the recording system to be monitored.

The following information can be managed and monitored by a SNMP client:

- Alarms (recording system alarm start/stop)
- Cameras (status and failures)
- Storage (internal HDD status, internal/external RAID status)
- Housekeeping (sabotage, system monitoring)
- UPS (status messages)

2.2 SNMPWALK

The “snmpwalk” command queries the recording system for the entire tree of the Management Information Base (MIB).

Example:

```
snmpwalk -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344
```

The above command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.1.1 = Counter32: 25
SNMPv2-SMI::enterprises.27344.1.2 = INTEGER: 3
SNMPv2-SMI::enterprises.27344.1.3 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.1 = INTEGER: 16
SNMPv2-SMI::enterprises.27344.2.2 = INTEGER: 2
SNMPv2-SMI::enterprises.27344.2.3 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.2.0 = STRING: "Cam 1"
SNMPv2-SMI::enterprises.27344.2.4.1.2.1 = STRING: "Cam 2"
SNMPv2-SMI::enterprises.27344.2.4.1.2.2 = STRING: "Cam 3"
SNMPv2-SMI::enterprises.27344.2.4.1.2.3 = STRING: "Cam 4"
SNMPv2-SMI::enterprises.27344.2.4.1.2.4 = STRING: "Cam 5"
SNMPv2-SMI::enterprises.27344.2.4.1.2.5 = STRING: "Cam 6"
SNMPv2-SMI::enterprises.27344.2.4.1.2.6 = STRING: "Cam 7"
SNMPv2-SMI::enterprises.27344.2.4.1.2.7 = STRING: "Cam 8"
SNMPv2-SMI::enterprises.27344.2.4.1.2.8 = STRING: "Cam 9"
SNMPv2-SMI::enterprises.27344.2.4.1.2.9 = STRING: "Cam 10"
SNMPv2-SMI::enterprises.27344.2.4.1.2.10 = STRING: "Cam 11"
SNMPv2-SMI::enterprises.27344.2.4.1.2.11 = STRING: "Cam 12"
SNMPv2-SMI::enterprises.27344.2.4.1.2.12 = STRING: "Cam 13"
SNMPv2-SMI::enterprises.27344.2.4.1.2.13 = STRING: "Cam 14"
SNMPv2-SMI::enterprises.27344.2.4.1.2.14 = STRING: "Cam 15"
SNMPv2-SMI::enterprises.27344.2.4.1.2.15 = STRING: "Cam 16"
SNMPv2-SMI::enterprises.27344.2.4.1.3.0 = INTEGER: 2
SNMPv2-SMI::enterprises.27344.2.4.1.3.1 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.2.4.1.3.2 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.3 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.4 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.5 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.6 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.7 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.8 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.9 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.10 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.11 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.12 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.13 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.14 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.15 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.3.1 = INTEGER: 0
```

```
SNMPv2-SMI::enterprises.27344.3.2 = Counter32: 0
SNMPv2-SMI::enterprises.27344.3.3 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.3.4.1 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.3.4.2 = STRING: "external raid not available"
SNMPv2-SMI::enterprises.27344.4.1.1 = Counter32: 0
SNMPv2-SMI::enterprises.27344.4.1.2 = Counter32: 0
SNMPv2-SMI::enterprises.27344.4.1.3 = Counter32: 0
SNMPv2-SMI::enterprises.27344.4.2.2.1 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.4.2.2.2 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.4.2.2.3 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.4.2.2.4 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.4.2.3.1 = Counter32: 0
SNMPv2-SMI::enterprises.27344.4.2.3.2 = Counter32: 0
SNMPv2-SMI::enterprises.27344.4.2.3.3 = Counter32: 0
SNMPv2-SMI::enterprises.27344.4.2.3.4 = Counter32: 0
SNMPv2-SMI::enterprises.27344.5.1 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.5.2 = STRING: "STATUS=ok, CMD=0"
SNMPv2-SMI::enterprises.27344.6.1 = INTEGER: 3
SNMPv2-SMI::enterprises.27344.6.2.1.2.0 = INTEGER: 7
SNMPv2-SMI::enterprises.27344.6.2.1.2.1 = INTEGER: 7
SNMPv2-SMI::enterprises.27344.6.2.1.2.2 = INTEGER: 7
End of MIB
```

2.3 ALARMS

Path in MIB tree:

```
dallmeier(27344).alarms(1)
```

2.3.1 Number of Alarms

```
.numberofalarms(1)
```

Type: Counter32, read-only

To retrieve information about the number of alarms since the first start of the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.1.1
```

The above command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.1.1 = Counter32: 25
```

Explanation of above output:

The number of alarms since the first start of the recording system is 25.

2.3.2 Alarm Pending

```
.alarmpending(2)
```

Type: Integer32, read-write

If an alarm occurs, this variable is increased by 1. The variable can be reset to “0” (or any other Integer32 value).

2.3.2.1 Get Value

To retrieve information about the number of alarms pending, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.1.2
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.1.2 = INTEGER: 3
```

Explanation of above output:

The number of alarms pending is 3.

2.3.2.2 Set Value

To reset the value of alarms pending to “0”, use the following command:

```
snmpset -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.1.2 i 0
```

The command will return the following output:

```
SNMPv2-SMI::enterprises.27344.1.2 = INTEGER: 0
```

The value is reset to “0”.

2.3.3 Alarm Condition

```
.alarmcondition(3)
```

Type: Integer32, read-only

This variable indicates the current alarm condition of the recording system:

0 = Alarm stop

1 = Alarm start

To retrieve information about the alarm condition of the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.1.3
```

The command will return output similar to the following:


```
SNMPv2-SMI::enterprises.27344.1.3 = INTEGER: 1
```

Explanation of above output:

The recording system alarm is currently active (alarm start).

2.4 CAMERAS

Path in MIB tree:

```
dallmeier(27344).cameras(2)
```

2.4.1 Maximum Cameras

```
.maxCams(1)
```

Type: Integer32, read-only

To retrieve information about the maximum number of cameras which can be connected to the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.2.1
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.2.1 = INTEGER: 16
```

Explanation of above output:

The maximum number of cameras which can be connected to the recording system is 16.

2.4.2 Connected Cameras

```
.conCams(2)
```

Type: Integer32, read-only

To retrieve information about the cameras currently connected to the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.2.2
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.2.2 = INTEGER: 2
```

Explanation of above output:

The number of cameras currently connected to the recording system is 2.

2.4.3 Failed Cameras

```
.failCams(3)
```

Type: Integer32, read-only

To retrieve information about cameras currently connected to the recording system but failed, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.2.3
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.2.3 = INTEGER: 1
```

Explanation of above output:

One camera connected to the recording system failed.

2.4.4 Camera Details

```
.camTable(4)
```

Type: read-only

Available camera information:

- Name of camera connection (String)
- Status (Integer32)
 - 0 = OK
 - 1 = No camera connected
 - 2 = Camera failed

To retrieve detailed information about all camera connections on the recording system, use the following “snmpwalk” command:

```
snmpwalk -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.2.4
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.2.4.1.2.0 = STRING: "Cam 1"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.1 = STRING: "Cam 2"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.2 = STRING: "Cam 3"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.3 = STRING: "Cam 4"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.4 = STRING: "Cam 5"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.5 = STRING: "Cam 6"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.6 = STRING: "Cam 7"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.7 = STRING: "Cam 8"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.8 = STRING: "Cam 9"  
SNMPv2-SMI::enterprises.27344.2.4.1.2.9 = STRING: "Cam 10"
```

```

SNMPv2-SMI::enterprises.27344.2.4.1.2.10 = STRING: "Cam 11"
SNMPv2-SMI::enterprises.27344.2.4.1.2.11 = STRING: "Cam 12"
SNMPv2-SMI::enterprises.27344.2.4.1.2.12 = STRING: "Cam 13"
SNMPv2-SMI::enterprises.27344.2.4.1.2.13 = STRING: "Cam 14"
SNMPv2-SMI::enterprises.27344.2.4.1.2.14 = STRING: "Cam 15"
SNMPv2-SMI::enterprises.27344.2.4.1.2.15 = STRING: "Cam 16"
SNMPv2-SMI::enterprises.27344.2.4.1.3.0 = INTEGER: 2
SNMPv2-SMI::enterprises.27344.2.4.1.3.1 = INTEGER: 0
SNMPv2-SMI::enterprises.27344.2.4.1.3.2 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.3 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.4 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.5 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.6 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.7 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.8 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.9 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.10 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.11 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.12 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.13 = INTEGER: 1
SNMPv2-SMI::enterprises.27344.2.4.1.3.14 = INTEGER: 1

```

Explanation of above output (line 1 and 17):

The camera connection 1 is named "Cam 1". The connected camera failed.

2.5 STORAGE

Path in MIB tree:

```
dallmeier(27344).storage(3)
```

2.5.1 Disk Status

```
.diskstatus(1)
```

Type: Integer32, read-only

This variable indicates the status of all hard disks (internal/external) of the recording system: 0 = All hard disks OK

1 = Minimum one internal hard disk in non-raid configuration is defective.

2 = Minimum one external hard disk of RAID system is defective.

To retrieve information about the disk status of the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.3.1
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.3.1 = INTEGER: 0
```

Explanation of above output:
All hard disks of the recording system are OK.

For internal disks in RAID configuration use “.inraidstatus(3)” as described below

2.5.2 Disk Status Change

```
.diskstatuschange(2)
```

Type: Counter32, read-only

Every time the disk status changes, the value is increased by 1. This is very useful to find out if the disk status has changed since the last SNMP query.

To retrieve information about the disk status changes, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.3.2
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.3.2 = Counter32: 0
```

Explanation of above output:
The disk status has never changed yet.

2.5.3 Internal RAID Status

```
.inraidstatus(3)
```

Type: Integer32, read-only

This variable indicates the status of the internal RAID (DAS-4 Eco or recording system):

0 = OK

1 = Resync

2 = Recovery

3 = Error (one or more disks of RAID Array are in error state)

To retrieve information about the status of the internal RAID, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.3.3
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.3.3 = INTEGER: 0
```

Explanation of above output:
The internal RAID is OK.

2.5.4 External RAID Status

`.extraid(4)`

Type: read-only

Available information (not DAS-4 Eco):

- Status of external RAID (Integer32)
 - 0 = OK
 - 1 = Error
- Last message from external RAID (String)

To retrieve information about the external RAID, use the following “snmpwalk” command:

```
snmpwalk -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.3.4
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.3.4.1 = INTEGER: 0  
SNMPv2-SMI::enterprises.27344.3.4.2 = STRING: "external raid not available"
```

2.6 HOUSEKEEPING

Path in MIB tree:

`dallmeier(27344).housekeeping(4)`

2.6.1 Sabotage

`.sabotage(1)`

Type: read-only

2.6.1.1 Cover Contacts

`.covercontacts(1)`

Type: Counter32, read-only

Every time a cover contact is detected, the value is increased by 1.

To retrieve information about the number of cover contacts, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.1.1
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.1.1 = Counter32: 0
```

Explanation of above output:
No cover contacts detected.

2.6.1.2 Screw Contacts

```
.screwcontacts(2)
```

Type: Counter32, read-only

Every time a screw contact is detected, the value is increased by 1.

To retrieve information about the number of screw contacts, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.1.2
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.1.2 = Counter32: 0
```

Explanation of above output:
No screw contacts detected.

2.6.1.3 Terminal Board Contacts

```
.terminalboard(3)
```

Type: Counter32, read-only

Every time a terminal board contact is detected, the value is increased by 1.

To retrieve information about the number of terminal board contacts, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.1.3
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.1.3 = Counter32: 0
```

Explanation of above output:
No terminal board contacts detected.

2.6.2 System

```
.system(2)
```

Type: read-only

2.6.2.1 Fan Status

```
.status(2).fan(1)
```

Type: Integer32, read-only

This variable indicates the current fan status on the recording system:

0 = All fans OK

1 = Minimum one fan defective

To retrieve information about the current fan status on the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.2.1
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.2.1 = INTEGER: 0
```

Explanation of above output:

All fans are OK.

2.6.2.2 Fan Status Change

```
.statuschange(3).fanchange(1)
```

Type: Counter32, read-only

Every time the fan status changes, the value is increased by 1. This is useful if only a short-time fan problem has occurred between two SNMP queries.

To retrieve information about the fan status changes, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.3.1
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.3.1 = Counter32: 0
```

Explanation of above output:

The fan status has not changed yet.

2.6.2.3 Temperature Status

```
.status(2).temperature(2)
```

Type: Integer32, read-only

This variable indicates the current temperature status of all components on the recording system: 0 = Temperature of all components OK

1 = Minimum one component has a temperature problem

To retrieve information about the current temperature status of all components on the recorder, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.2.2
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.2.2 = INTEGER: 0
```

Explanation of above output:

The temperature of all components is OK.

2.6.2.4 Temperature Status Change

```
.statuschange(3).tempchange(2)
```

Type: Counter32, read-only

Every time the temperature status changes, the value is increased by 1. This is useful if only a short-time temperature problem has occurred between two SNMP queries.

To retrieve information about the temperature status changes, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.3.2
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.3.2 = Counter32: 0
```

Explanation of above output:

The temperature status has not changed yet.

2.6.2.5 Display Status

```
.status(2).display(3)
```

Type: Integer32, read-only

This variable indicates the current display status of the recording system:

0 = Display OK

1 = Display defective

To retrieve information about the current display status of the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.2.3
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.2.3 = INTEGER: 0
```

Explanation of above output:

The display of the recording system works correctly.

2.6.2.6 Display Status Change

```
.statuschange(3).displaychange(3)
```

Type: Counter32, read-only

Every time the display status changes, the value is increased by 1. This is useful if only a short-time display problem has occurred between two SNMP queries.

To retrieve information about the display status changes, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.3.3
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.3.3 = Counter32: 0
```

Explanation of above output:

The display status has not changed yet.

2.6.2.7 I/O Card Status

```
.status(2).iocard(4)
```

Type: Integer32, read-only

This variable indicates the current I/O card status of the recording system: 0 = I/O card OK

1 = I/O card defective

To retrieve information about the current I/O card status of the recording system, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.2.4
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.2.4 = INTEGER: 0
```

Explanation of above output:
The I/O card of the recording system works correctly.

2.6.2.8 I/O Card Status Change

```
.statuschange (3) .iocardchange (4)
```

Type: Counter32, read-only

Every time the I/O card status changes, the value is increased by 1. This is useful if only a short-time I/O card problem has occurred between two SNMP queries.

To retrieve information about the I/O card status changes, use the following command:

```
snmpget -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.4.2.3.4
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.4.2.3.4 = Counter32: 0
```

Explanation of above output:
The I/O card status has not changed yet.

2.7 UPS STATUS

Path in MIB tree:

```
dallmeier (27344) .ups (5)
```

Type: read-only

Available UPS information:

- Status of UPS (Integer32):
 - 0 = OK
 - 1 = Error
- Last message from UPS including CMD value (String)

To retrieve information about the UPS (Uninterruptible Power Supply) status, use the following “snmpwalk” command:

```
snmpwalk -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.5
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.5.1 = INTEGER: 0  
SNMPv2-SMI::enterprises.27344.5.2 = STRING: "STATUS=ok, CMD=0"
```

2.8 PSU STATUS

Path in MIB tree:

```
dallmeier(27344).psu(6)
```

Type: read-only

2.8.1 Number of Powersupplies

Path in MIB tree:

```
dallmeier(27344).psu(6).numPSU(1)
```

Number of power supply units (Integer32)

To retrieve information about the number of power supplies, use the following “snmpwalk” command:

```
snmpwalk -c dally -v 1 192.168.2.230 1.3.6.1.4.1.27344.6.1
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.6.1 = INTEGER: 3
```

2.8.2 PSU Status

Path in MIB tree:

```
dallmeier(27344).psu(6).psuState(1)
```

Status of available power supplies is provided as sequence with integer values.

The returned integers show the status of the PSU in a binary interpretation:

-1 = unknown

otherwise: Bit0=plugged, Bit1=power on, Bit2=fan ok”

Examples:

A value of 7 (111) shows all PSU ok,

a value of 3 (011) show that a fan has failed

To retrieve information about the number of power supplies, use the following “snmpwalk” command:

```
snmpwalk -c dally -v 1 10.40.1.21 1.3.6.1.4.1.27344.6.2
```

The command will return output similar to the following:

```
SNMPv2-SMI::enterprises.27344.6.2.1.2.0 = INTEGER: 7
```

```
SNMPv2-SMI::enterprises.27344.6.2.1.2.1 = INTEGER: 7
```

```
SNMPv2-SMI::enterprises.27344.6.2.1.2.2 = INTEGER: 7
```

MANAGEMENT INFORMATION BASE

The Dallmeier Object Identifier (OID) is 27344. The Dallmeier MIB tree is structured as follows:

```
+--enterprises(1)
|
+--dallmeier(27344)
|
+--alarms(1)
|   |
|   +-- -R-- Counter32 numberofalarms(1)
|   +-- -RW- Integer32 alarmpending(2)
|   +-- -R-- Integer32 alarmcondition(3)
|
+--cameras(2)
|   |
|   +-- -R-- Integer32 maxCams(1)
|   +-- -R-- Integer32 conCams(2)
|   +-- -R-- Integer32 failCams(3)
|   |
|   +--camTable(4)
|   |
|   +--camEntry(1)
|   |
|   +-- -R-- Integer32 camIndex(1) //obsolete
|   +-- -R-- String   camName(2)
|   |   Textual Convention: DisplayString
|   |   Size: 0..255
|   +-- -R-- Integer32 camStatus(3)
|
+--storage(3)
|   |
|   +-- -R-- Integer32 diskstatus(1)
|   +-- -R-- Counter32 diskstatuschange(2)
|   +-- -R-- Integer32 inraidstatus(3)
|   |
|   +--extraid(4)
|   |
|   +-- -R-- Integer32 extraidstatus(1)
|   +-- -R-- String   extraidmessage(2)
|   |   Textual Convention: DisplayString
|   |   Size: 0..255
|
+--housekeeping(4)
|   |
|   +--sabotage(1)
|   |
|   |   |
|   |   +-- -R-- Counter32 covercontacts(1)
|   |   +-- -R-- Counter32 screwcontacts(2)
```

```

|         |         +--- -R-- Counter32 terminalboard(3)
|         |
|         +---system(2)
|         |
|         +---status(2)
|         |         |
|         |         +--- -R-- Integer32 fan(1)
|         |         +--- -R-- Integer32 temperature(2)
|         |         +--- -R-- Integer32 display(3)
|         |         +--- -R-- Integer32 iocard(4)
|         |
|         +---statuschange(3)
|         |
|         +--- -R-- Counter32 fanchange(1)
|         +--- -R-- Counter32 tempchange(2)
|         +--- -R-- Counter32 displaychange(3)
|         +--- -R-- Counter32 iocardchange(4)
+---ups(5)
|         |
|         +--- -R-- Integer32 upsstatus(1)
|         |
|         +--- -R-- String upsmessage(2)
|         Textual Convention:
|         DisplayString Size: 0..255
|
+---psu(6)
|
+--- -R-- Integer32 numPSU(1)
|
+--- psuTable (2)
|
+--- psuState(0..2)

```



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