SNMP MIB manual

for i-PRO Recorder

Ver. 1.0

i-PRO Co., Ltd.

Revision History

Version	Date	Chapter #	Comment	Trigger
1.0	1/4/2022	-	First edition.	-

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Table of contents

1. Introduction

This document describes the setting information necessary for the network monitoring system to monitor the devices for surveillance system using the SNMP protocol, and tips for the network administrator to maintain the devices.
This document does not provide detailed descriptions of SNMP specifications or standard MIBs.

1.1. Definition

Word	Definition
SNMP	Simple Network Management Protocol
SNMP agent	In this document, SNMP agent refers to a recorder or a decoder.
SNMP manager	An SNMP client that can monitor an SNMP agent.
Network monitoring system	A system for monitoring devices connected to a network. Although the status of network devices can be obtained not only by SNMP but also by other methods, in this document, it refers to a system that has a function as an SNMP manager.
Network administrator	An administrator who receives network device error notifications issued by the network monitoring system and maintain according to the conditions of each device.
MIB	Management Information Base
Standard MIB	MIB as defined in RFC
Extended MIB	A MIB that defines the object ID below ".iso(1).org(3).dod(6).internet(1).private(4).enterprises(1)". The MIBs extended for the target devices can be downloaded from the web page.
I-PRO-MIB	Name of the MIB that defines the object ID that i-PRO Co., Ltd. applied for in the extended MIB.
ipro	Object name defined in the I-PRO-MIB.

1.2. Target devices

The devices mentioned in this document are the network recorders, WJ-NX400, WJ-NX300, WJ-NX200 and WJ-NX100, the firmware versions are V5.00 or later.

2. Abstract

2.1. SNMP version

The network recorders support v1, v2c and v3.

2.2. SNMP operation

All devices do not support the SNMP *SET* command.

3. MIBs supported by i-PRO recorders

The i-PRO recorders respond with standard MIB (mainly mib-2) and extended MIB (*ipro*). This chapter describes the response contents of the standard MIB supported by the i-PRO recorders and the OID of the extended MIB.

Overview of SNMP responses that i-PRO recorders respond to:

```
+ iso(1)
| + org(3)
| | + dod(6)
| | | + internet(1)
| | | | + mgmt(2)
| | | | | + mib-2(1)
| | | | | | + system(1)
| | | | | | + interfaces(2)
| | | | | | + ip(4)
| | | | + private(4)
| | | | | + enterprises(1)
| | | | | | + ipro(57501)
| | | | | | | + general(1)
| | | | | | | + recorder(200)
```

3.1. Standard MIB

The i-PRO recorders support OID responses defined by the following standard MIBs at maximum.

SNMPv2-MIB
IF-MIB
IP-MIB
RFC1213-MIB

3.2. Extended MIB of i-PRO Co., Ltd.

The i-PRO recorders respond to the extended OID 57501 acquired by i-PRO Co., Ltd. as defined in this chapter. The response OID changes depending on the i-PRO recorder's ability and status.
For details on how to input the extended MIB, refer to the manual of the monitoring system you are using.

3.2.1. I-PRO-MIB

I-PRO-MIB is OID 57501 for i-PRO Co., Ltd. that has been applied to IANA, defines .iso (1) .org (3) .dod (6) .internet (1) .private (4) .enterprises (1) .ipro (57501).
I-PRO-MIB defines .iso (1) .org (3) .dod (6) .internet (1) .private (4) .enterprises (1) .ipro (57501) .general(1) and 5 responsive OIDs.
SNMPv2-SMI and SNMPv2-TC are required to interpret this MIB.
This MIB is required to read the I-PRO-REC-MIB.

```
+ iso(1)
| + org(3)
| | + dod(6)
| | | + internet(1)
| | | | + private(4)
| | | | | + enterprises(1)
| | | | | | + ipro(57501)
| | | | | | | + general(1)
| | | | | | | | + manufacture(1)
| | | | | | | | + model(2)
| | | | | | | | + serialNumber(3)
| | | | | | | | + firmwareVersion(4)
| | | | | | | | + dayTime(5)
```

manufacture(1)

objectName	manufacturer
object id	.1.3.6.1.4.1.57501.1.1
SYNTAX RANGE	DisplayString (SIZE (0..63))
DESCRIPTION	Vendor name, “i-PRO”

model(2)

objectName	model
object id	.1.3.6.1.4.1.57501.1.2
SYNTAX RANGE	DisplayString (SIZE (0..47))
DESCRIPTION	Model number

serialNumber(3)

objectName	serialNumber
object id	.1.3.6.1.4.1.57501.1.3
SYNTAX RANGE	DisplayString (SIZE (0..47))
DESCRIPTION	Current time of the device

firmwareVersion(4)

objectName	firmwareVersion
object id	.1.3.6.1.4.1.57501.1.4
SYNTAX RANGE	DisplayString (SIZE (0..47))
DESCRIPTION	Serial number of the device

dayTime(5)

objectName	dayTime
object id	.1.3.6.1.4.1.57501.1.5
SYNTAX RANGE	DateAndTime
DESCRIPTION	Date and time of the device

3.2.2. I-PRO-REC-MIB

To read this MIB, I-PRO-MIB, SNMPv2-SMI, and SNMPv2-TC are required.

Summary of MIBs defined in I-PRO-REC-MIB:

```
+ ipro(57501)
| + recorder(200)
| | | + recInfo(1)
| | | | + iproRecorder(1)
| | | | + iproRecCommon(2)
| | | | | + userAccessCount(1)
| | | | | + alarmSumNum(2)
| | | | + hddInfo(13)
| | | | + camSyncState(15)
| | | | + temperature(16)
| | | | + dataInfo(19)
| | | + log(2)
| | | | + accessLogNumber(1)
| | | | + accessLogTable(2)
| | | | + networkLogNumber(3)
| | | | + networkLogTable(4)
| | | | + eventLogNumber(5)
| | | | + eventLogTable(6)
| | | | + errorLogNumber(7)
| | | | + errorLogTable(8)
| | | | + operationLogNumber(9)
| | | | + operationLogTable(10)
```

3.2.2.1. Common information

I-PRO-REC-MIB (iproRecCommon)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + iproRecCommon(2)
| | | | + userAccessCount(1)
| | | | + alarmSumNum(2)
```

userAccessCount

objectName	userAccessCount
object id	.1.3.6.1.4.1.57501.200.1.2.1
SYNTAX RANGE	INTEGER
DESCRIPTION	The number of clients that accesses the device via network. (0 - 99)

alarmSumNum

objectName	alarmSumNum
object id	.1.3.6.1.4.1.57501.200.1.2.2
SYNTAX RANGE	INTEGER
DESCRIPTION	The number of alarms from device boot. (0 - 4294967295) When exceed maximum value, count from 0 again.

3.2.2.2. HDD information

Information about the installed HDD. The assignment of HDD numbers is as follows, No.25 to No.32 are missing numbers.

HDD No. (1 - 24)

HDD No.	Position	HDD No.	Position	HDD No.	Position
1	MAIN-1	9	EXT2-1	17	EXT4-1
2	MAIN-2	10	EXT2-2	18	EXT4-2
3	MAIN-3	11	EXT2-3	19	EXT4-3
4	MAIN-4	12	EXT2-4	20	EXT4-4
5	EXT1-1	13	EXT3-1	21	EXT5-1
6	EXT1-2	14	EXT3-2	22	EXT5-2
7	EXT1-3	15	EXT3-3	23	EXT5-3
8	EXT1-4	16	EXT3-4	24	EXT5-4

HDD No. (33 - 62)

HDD No.	Position	HDD No.	Position	HDD No.	Position
33	MAIN-5	43	EXT2-5	53	EXT4-5
34	MAIN-6	44	EXT2-6	54	EXT4-6
35	MAIN-7	45	EXT2-7	55	EXT4-7
36	MAIN-8	46	EXT2-8	56	EXT4-8
37	MAIN-9	47	EXT2-9	57	EXT4-9
38	EXT1-5	48	EXT3-5	58	EXT5-5
39	EXT1-6	49	EXT3-6	59	EXT5-6
40	EXT1-7	50	EXT3-7	60	EXT5-7
41	EXT1-8	51	EXT3-8	61	EXT5-8
42	EXT1-9	52	EXT3-9	62	EXT5-9

1) HDD Capacity

I-PRO-REC-MIB(hddSize)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + hddInfo(13)
| | | | + hddSize(1)
| | | | | + hddSize01(1)
| | | | | +          :
| | | | | + hddSize62(62)
| | | | + hddSizeInt(11)
| | | | | + hddSizeInt01(1)
| | | | | +          :
| | | | | + hddSizeInt62(62)
```

hddSize*nn*

objectName	hddSize*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.1.* (* is HDD No.)
SYNTAX RANGE	DisplayString
DESCRIPTION	HDD capacity (GB) or link status

hddSizeInt*nn*

objectName	hddSizeInt*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.11.* (* is HDD No.)
SYNTAX RANGE	INTEGER
DESCRIPTION	HDD capacity (GB) or link status

- DESCRIPTION is output as follows according to the status of HDD.

HDD status	hddSize*nn*	hddSizeInt*nn*
Normal	2000 GB	2000
Remove	REMOVE	99999993
Add / No disk	- GB	99999999
Playback only	USED	22222222
Error	ERROR	99999994

2) HDD hour meter

I-PRO-REC-MIB(hourMeter)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + hddInfo(13)
| | | | + hourMeter(2)
| | | | | + hourMeter01(1)
| | | | | +          :
| | | | | + hourMeter62(62)
| | | | + hourMeterInt(12)
| | | | | + hourMeterInt01(1)
| | | | | +          :
| | | | | + hourMeterInt62(62)
```

hourMeter*nn*

objectName	hourMeter*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.2.* (* is HDD No.)
SYNTAX RANGE	DisplayString
DESCRIPTION	The operating time (hour) of the HDD.

hourMeterInt*nn*

objectName	hourMeterInt*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.12.* (* is HDD No.)
SYNTAX RANGE	INTEGER
DESCRIPTION	The operating time (hour) of the HDD.

- DESCRIPTION is output as follows according to the status of HDD.

HDD status	hourMeter*nn*	hourMeterInt*nn*
Normal	125 h	125
Other	- h	99999999

HDD G-List

I-PRO-REC-MIB(hddGList)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + hddInfo(13)
| | | | + hddGList(3)
| | | | | + hddGList01(1)
| | | | | +          :
| | | | | + hddGList62(62)
| | | | + hddGListInt(13)
| | | | | + hddGListInt01(1)
| | | | | +          :
| | | | | + hddGListInt62(62)
```

hddGList*nn*

objectName	hddGList*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.3.* (* is HDD No.)
SYNTAX RANGE	DisplayString
DESCRIPTION	The number of G-List (Hex:0000-FFFF)

hddGListInt*nn*

objectName	hddGListInt*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.13.* (* is HDD No.)
SYNTAX RANGE	INTEGER
DESCRIPTION	The number of G-List (Decimal)

- DESCRIPTION is output as follows according to the status of HDD.

HDD status	hddGList*nn*	hddGListInt*nn*
Normal	001A	26
Other	-	99999999

HDD S.M.A.R.T.

I-PRO-REC-MIB(hddSmart)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + hddInfo(13)
| | | | + hddSmart(4)
| | | | | + hddSmart01(1)
| | | | | +          :
| | | | | + hddSmart62(62)
| | | | + hddSmartInt(14)
| | | | | + hddSmartInt01(1)
| | | | | +          :
| | | | | + hddSmartInt62(62)
```

hddSmart*nn*

objectName	hddSmart*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.4.* (* is HDD No.)
SYNTAX RANGE	DisplayString
DESCRIPTION	HDD SMART warning

hddSmartInt*nn*

objectName	hddSmartInt*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.14.* (* is HDD No.)
SYNTAX RANGE	INTEGER
DESCRIPTION	HDD SMART warning

- DESCRIPTION is output as follows according to the status of HDD.

HDD status	hddSmart*nn*	hddSmartInt*nn*
SMART warning	1	1
Not warning	0	0
Other	-	99999999

HDD operation mode

I-PRO-REC-MIB(hddMode)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + hddInfo(13)
| | | | + hddMode(5)
| | | | | + hddMode01(1)
| | | | | +          :
| | | | | + hddMode62(62)
| | | | + hddModeInt(15)
| | | | | + hddModeInt01(1)
| | | | | +          :
| | | | | + hddModeInt62(62)
```

hddMode*nn*

objectName	hddMode*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.5.* (* is HDD No.)
SYNTAX RANGE	DisplayString
DESCRIPTION	HDD operation mode

hddModeInt*nn*

objectName	hddModeInt*nn* (*nn* is HDD No.)
object id	.1.3.6.1.4.1.57501.200.1.13.15.* (* is HDD No.)
SYNTAX RANGE	INTEGER
DESCRIPTION	HDD operation mode

- DESCRIPTION is output as follows according to the status of HDD.

HDD status	hddMode*nn*	hddModeInt*nn*
Single / RAID1 (normal)	0	0
RAID5 / RAID6 (normal)	1	1
RAID5 / RAID6 (down)	2	2
RAID1 (down)	-	99999999
Other	-	99999999

HDD recording range

I-PRO-REC-MIB(hddRecRange)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + hddInfo(13)
| | | | + hddRecRange(6)
| | | | | + hddRecRange01(1)
| | | | | | + hddRecRangeOldest(1)
| | | | | | + hddRecRangeLatest(2)
| | | | | +            :
| | | | | | +          :
| | | | | | +          :
| | | | | + hddRecRange62(62)
| | | | | | + hddRecRangeOldest(1)
| | | | | | + hddRecRangeLatest(2)
```

hddRecRangeOldest

objectName	hddRecRangeOldest
object id	.1.3.6.1.4.1.57501.200.1.13.6.*.1 (* is HDD No.)
SYNTAX RANGE	DisplayString
DESCRIPTION	The first date and time of the oldest data in the HDD.

hddRecRangeLatest

objectName	hddRecRangeLatest
object id	.1.3.6.1.4.1.57501.200.1.13.6.*.2 (* is HDD No.)
SYNTAX RANGE	DisplayString
DESCRIPTION	The first date and time of the latest data in the HDD.

- The date and time display format follows the settings of this unit.
- In RAID5/RAID6 mode, these are displayed on HDD1 of each unit, and other HDDs are displayed as “-“.
- If there is no recorded data in the HDD, “-” is displayed.

3.2.2.3. Camera connection status

I-PRO-REC-MIB(camSyncState)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + camSyncState(15)
| | | | + camSyncState001(1)
| | | | +              :
| | | | + camSyncState128(128)
```

camSyncState*mmm*

objectName	camSyncState*mmm* (*mmm* is camera No.)
object id	.1.3.6.1.4.1.57501.200.1.15.* (* is camera No.)
SYNTAX RANGE	INTEGER
DESCRIPTION	Camera connection status (0: No connection, 1: Connection)

3.2.2.4. Temperature

I-PRO-REC-MIB(temperature)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + temperature(16)
| | | | + recorderTemp(1)
| | | | + degreeCelsius(2)
| | | | | + degC(1)
| | | | | + degCTenTimes(2)
| | | | + degreeFahrenheit(3)
| | | | | + degF(1)
| | | | | + degFTenTimes(2)
```

recorderTemp

objectName	recorderTemp
object id	.1.3.6.1.4.1.57501.200.1.16.1
SYNTAX RANGE	DisplayString
DESCRIPTION	Temperature of the unit. (Ex.: 38.4 degrees centigrade)

degC

objectName	degC
object id	.1.3.6.1.4.1.57501.200.1.16.2.1
SYNTAX RANGE	INTEGER
DESCRIPTION	Temperature of the unit. (Degrees centigrade, rounded to whole number)

degCTenTimes

objectName	degCTenTimes
object id	.1.3.6.1.4.1.57501.200.1.16.2.2
SYNTAX RANGE	INTEGER
DESCRIPTION	Temperature of the unit. (Degrees centigrade, rounded to the first place and multiplied by 10)

degF

objectName	degF
object id	.1.3.6.1.4.1.57501.200.1.16.3.1
SYNTAX RANGE	INTEGER
DESCRIPTION	Temperature of the unit. (Degrees Fahrenheit, rounded to whole number)

degFTenTimes

objectName	degFTenTimes
object id	.1.3.6.1.4.1.57501.200.1.16.3.2
SYNTAX RANGE	INTEGER
DESCRIPTION	Temperature of the unit. (Degrees Fahrenheit, rounded to the first place and multiplied by 10)

3.2.2.5. Recording range

I-PRO-REC-MIB(dataInfo)

```
+ ipro(57501)
| + recorder(200)
| | + recInfo(1)
| | | + dataInfo(19)
| | | | + oldestData(1)
| | | | + latestData(2)
```

oldestData

objectName	oldestData
object id	.1.3.6.1.4.1.57501.200.1.19.1
SYNTAX RANGE	DisplayString
DESCRIPTION	The first date and time of the oldest data in the system.

latestData

objectName	latestData
object id	.1.3.6.1.4.1.57501.200.1.19.2
SYNTAX RANGE	DisplayString
DESCRIPTION	The first date and time of the latest data in the system.

- The date and time display format follows the settings of this unit.
- If there is no recorded data in all HDDs, “-” is displayed.

3.2.2.6. Access log

I-PRO-REC-MIB(accessLogNumber/accessLogTable)

```
+ ipro(57501)
| + recorder(200)
| | + log(2)
| | | + accessLogNumber(1)
| | | + accessLogTable(2)
| | | | + accessLogEntry(1)
| | | | | + accessLogIndex(1)
| | | | | + accessLogDayTime(2)
| | | | | + accessLogType(3)
```

accessLogNumber

objectName	accessLogNumber
object id	.1.3.6.1.4.1.57501.200.2.1
SYNTAX RANGE	INTEGER
DESCRIPTION	Number of logs

accessLogTable

One table row is returned for each log. To obtain the log information, attach the Index to all the columns in the table.

accessLogIndex

objectName	accessLogIndex
object id	.1.3.6.1.4.1.57501.200.2.2.1.1
SYNTAX RANGE	INTEGER (1 - 500)
DESCRIPTION	Log number

accessLogDayTime

objectName	accessLogDayTime
object id	.1.3.6.1.4.1.57501.200.2.2.1.2
SYNTAX RANGE	DateAndTime (INTEGER if there is no log)
DESCRIPTION	Date and time of the log (0 if there is no log)

accessLogType

objectName	accessLogType
object id	.1.3.6.1.4.1.57501.200.2.2.1.3
SYNTAX RANGE	DisplayString (INTEGER if there is no log)
DESCRIPTION	Contents of the log (Output as 0 for no log.) Format: [Access type number]-[User name]

- Access type

No.	Description
001	Login
002	Logout

3.2.2.7. Network log

I-PRO-REC-MIB(networkLogNumber/networkLogTable)

```
+ ipro(57501)
| + recorder(200)
| | + log(2)
| | | + networkLogNumber(3)
| | | + networkLogTable(4)
| | | | + networkLogEntry(1)
| | | | | + networkLogIndex(1)
| | | | | + networkLogDayTime(2)
| | | | | + networkLogType(3)
```

networkLogNumber

objectName	networkLogNumber
object id	.1.3.6.1.4.1.57501.200.2.3
SYNTAX RANGE	INTEGER
DESCRIPTION	Number of logs

networkLogTable

One table row is returned for each log. To obtain the log information, attach the Index to all the columns in the table.

networkLogIndex

objectName	networkLogIndex
object id	.1.3.6.1.4.1.57501.200.2.4.1.1
SYNTAX RANGE	INTEGER (1 - 100)
DESCRIPTION	Log number

networkLogDayTime

objectName	networkLogDayTime
object id	.1.3.6.1.4.1.57501.200.2.4.1.2
SYNTAX RANGE	DateAndTime (INTEGER if there is no log)
DESCRIPTION	Date and time of the log (0 if there is no log)

networkLogType

objectName	networkLogType
object id	.1.3.6.1.4.1.57501.200.2.4.1.3
SYNTAX RANGE	DisplayString (INTEGER if there is no log)
DESCRIPTION	Contents of the log (Output as 0 for no log.) Format: [Network log type number]

- Network log type

No.	Description
00-00-00	E-mail transmission complete
00-01-01	POP3 authentication error
00-02-57	SMTP authentication error
00-02-06	MAIL FROM command error
00-02-07	RCPT TO command error
00-04-03	Failed to find POP3 server
00-04-05	Failed to find SMTP server
00-05-02	Failed to resolve POP3 server address from DNS
00-05-04	Failed to resolve SMTP server address from DNS
00-05-08	Other errors for SMTP
02-04-22	No response from DDNS server
02-04-59	Failed to resolve DDNS server address from DNS
02-04-60	Duplicate DDNS hostname
02-04-61	Failed to resolve Viewnetcam server address from DNS
02-04-62	No response from Viewnetcam server
02-05-25	Other errors for DDNS
02-05-64	Other errors for Viewnetcam
03-00-26	Synchronization with the NTP server complete
03-05-27	Failed to resolve NTP server address from DNS
03-05-30	Synchronization with the NTP server failed (Time is not synchronized.)
03-05-31	Failed to adjust the time
03-05-32	Failed to find NTP server.
03-05-33	Other errors for NTP
04-05-35	Password error for SNMP user name
04-05-37	Other errors for SNMP
06-04-45	Password error for HTTP user name
06-04-46	HTTP download failure
06-04-47	HTTP request invalid
06-04-51	Other errors for HTTP

3.2.2.8. Event log

I-PRO-REC-MIB(eventLogNumber/eventLogTable)

```
+ ipro(57501)
| + recorder(200)
| | + log(2)
| | | + eventLogNumber(5)
| | | + eventLogTable(6)
| | | | + eventLogEntry(1)
| | | | | + eventLogIndex(1)
| | | | | + eventLogDayTime(2)
| | | | | + eventLogType(3)
```

eventLogNumber

objectName	eventLogNumber
object id	.1.3.6.1.4.1.57501.200.2.5
SYNTAX RANGE	INTEGER
DESCRIPTION	Number of logs

eventLogTable

One table row is returned for each log. To obtain the log information, attach the Index to all the columns in the table.

eventLogIndex

objectName	eventLogIndex
object id	.1.3.6.1.4.1.57501.200.2.6.1.1
SYNTAX RANGE	INTEGER (1 - 1000)
DESCRIPTION	Log number

eventLogDayTime

objectName	eventLogDayTime
object id	.1.3.6.1.4.1.57501.200.2.6.1.2
SYNTAX RANGE	DateAndTime (INTEGER if there is no log)
DESCRIPTION	Date and time of the log (0 if there is no log)

eventLogType

objectName	eventLogType
object id	.1.3.6.1.4.1.57501.200.2.6.1.3
SYNTAX RANGE	DisplayString (INTEGER if there is no log)
DESCRIPTION	Contents of the log (Output as 0 for no log.) Format: [Event number]-[Option number]

- Event

No.	Description	Option
02	Terminal alarm	Alarm input terminal number
03	Command alarm	Command number
04	Emergency recording input	0 (Fixed)
08	Camera site alarm	Camera number
09	Start external recording	0 (Fixed)
10	Stop external recording	0 (Fixed)
20	Face matching alarm	Camera number

- Option number

Option	No.	Description
Terminal input No.	1-32	Alarm terminal input 1 - 32
Command No.	1-192	Command 1 - 192
Camera number	1-128	Camera 1 - 128

3.2.2.9. Error log

I-PRO-REC-MIB(errorLogNumber/errorLogTable)

```
+ ipro(57501)
| + recorder(200)
| | + log(2)
| | | + errorLogNumber(7)
| | | + errorLogTable(8)
| | | | + errorLogEntry(1)
| | | | | + errorLogIndex(1)
| | | | | + errorLogDayTime(2)
| | | | | + errorLogType(3)
```

errorLogNumber

objectName	errorLogNumber
object id	.1.3.6.1.4.1.57501.200.2.7
SYNTAX RANGE	INTEGER
DESCRIPTION	Number of logs

errorLogTable

One table row is returned for each log. To obtain the log information, attach the Index to all the columns in the table.

errorLogIndex

objectName	errorLogIndex
object id	.1.3.6.1.4.1.57501.200.2.8.1.1
SYNTAX RANGE	INTEGER (1 - 1000)
DESCRIPTION	Log number

errorLogDayTime

objectName	errorLogDayTime
object id	.1.3.6.1.4.1.57501.200.2.8.1.2
SYNTAX RANGE	DateAndTime (INTEGER if there is no log)
DESCRIPTION	Date and time of the log (0 if there is no log)

errorLogType

objectName	errorLogType
object id	.1.3.6.1.4.1.57501.200.2.8.1.3
SYNTAX RANGE	DisplayString (INTEGER if there is no log)
DESCRIPTION	Contents of the log (Output as 0 for no log.) Format: [Error number]-[Unit number]-[Option number]

- Error

No.	Description	Unit	Option
001	HDD write error	Unit No.	HDD No.
002	HDD read error	Unit No.	HDD No.
003	Failed to write data on the media	Unit No.	0 (Fixed)
004	HDD SMART warning	Unit No.	HDD No.
005	HDD hour meter warning	Unit No.	HDD No.
006	Remain capacity warning	000 (Fixed)	0 (Fixed)
010	Copy media full	Unit No.	0 (Fixed)
016	Remove auto links (per HDD)	Unit No.	HDD No.
017	Mirroring recovery failure	Unit No.	0 (Fixed)
018	RAID5 recovery failure	Unit No.	0 (Fixed)
019	Remove auto links (per unit)	Unit No.	0 (Fixed)
023	Failed to read data on the media	Unit No.	0 (Fixed)
026	RAID5 1 down	Unit No.	HDD No.
027	RAID5 2 down	Unit No.	HDD No.
029	HDD skip (per HDD)	Unit No.	HDD No.
030	HDD format error	Unit No.	HDD No.
033	HDD removal error	Unit No.	HDD No.
034	RAID6 recovery failure	Unit No.	0 (Fixed)
035	RAID6 1 down	Unit No.	HDD No.
036	RAID6 2 down	Unit No.	HDD No.
037	RAID6 3 down	Unit No.	HDD No.
038	HDD skip (per unit)	Unit No.	0 (Fixed)
039	RAID5 format error	Unit No.	0 (Fixed)
040	RAID6 format error	Unit No.	0 (Fixed)
043	Number of data on the copy medium exceeded	Unit No.	0 (Fixed)
044	Complete mirroring recovery	Unit No.	0 (Fixed)
045	Complete RAID5 recovery	Unit No.	0 (Fixed)
046	Complete RAID6 recovery	Unit No.	0 (Fixed)
047	Starting mirroring recovery	Unit No.	0 (Fixed)
048	Starting RAID5 recovery	Unit No.	0 (Fixed)
049	Starting RAID6 recovery	Unit No.	0 (Fixed)
050	Parameter initialization error	Unit No.	0 (Fixed)
051	Mirroring 1 down	Unit No.	HDD No.
101	FAN warning	Unit No.	Fan No.
102	Thermal error warning	Unit No.	0 (Fixed)
103	Power failure detection	000 (Fixed)	0 (Fixed)
104	Power failure recovery	000 (Fixed)	0 (Fixed)

No.	Description	Unit	Option
106	Reboot (No extension unit connection detected)	000 (Fixed)	0 (Fixed)
107	Recording error detection (related to AGT)	000 (Fixed)	Camera No.
108	Reboot (related to CPU)	000 (Fixed)	0 (Fixed)
109	Reboot (related to DEC)	000 (Fixed)	0 (Fixed)
111	Line speed warning	000 (Fixed)	Port No.
112	Recording error detection (related to RCA)	000 (Fixed)	0 (Fixed)
113	Undetected sub monitor	000 (Fixed)	0 (Fixed)
114	Recording error detection (related to WCK)	000 (Fixed)	Camera No.
201	NW link error	000 (Fixed)	Port No.
203	Network camera error detection	000 (Fixed)	Camera No.
204	Network camera error recovery	000 (Fixed)	Camera No.
205	Camera SD - Card error	000 (Fixed)	Camera No.
206	Camera SD - Write start failure	000 (Fixed)	Camera No.
207	Camera SD - Write end failure	000 (Fixed)	Camera No.
208	Camera SD - List failure	000 (Fixed)	Camera No.
209	Camera SD - Image acquisition failure	000 (Fixed)	Camera No.
210	Camera SD - Image delete failure	000 (Fixed)	Camera No.
211	Video loss	000 (Fixed)	Camera No.
212	Video loss recovery	000 (Fixed)	Camera No.
213	Network camera error detection (audio)	000 (Fixed)	Camera No.
214	Network camera error recovery (audio)	000 (Fixed)	Camera No.
215	Failed to resolve an address of TCP alarm protocol from DNS	000 (Fixed)	0 (Fixed)
216	No response from a notified address of TCP alarm protocol	000 (Fixed)	0 (Fixed)
217	Undefined error of TCP alarm protocol	000 (Fixed)	0 (Fixed)
218	When time is not adjusted due to the time difference of 1000 second or more from the NTP server	000 (Fixed)	0 (Fixed)
222	Camera SD - Accumulated recording time warning	000 (Fixed)	Camera No.
223	Camera SD - Overwrite warning	000 (Fixed)	Camera No.
224	Camera SD - Access error	000 (Fixed)	Camera No.
227	HDD slow response	Unit No.	HDD No.
229	Network camera error detection (video)	000 (Fixed)	Camera No.
230	Network camera error recovery (video)	000 (Fixed)	Camera No.
231	Camera hardware error	000 (Fixed)	Camera No.
232	Wiper rubber replacement notice	000 (Fixed)	Camera No.
234	NAS backup error	000 (Fixed)	NAS Storage No.

No.	Description	Unit	Option
235	NAS backup full	000 (Fixed)	NAS Storage No.
236	Failover (Operation)	000 (Fixed)	0 (Fixed)
237	Failover (Alternative operation)	000 (Fixed)	Recorder No.
240	Network camera error detection (video)	000 (Fixed)	Camera No.
241	Network camera error recovery (live)	000 (Fixed)	Camera No.
242	NAS backup interrupted	000 (Fixed)	NAS Storage No.
243	Camera SD Recording failure	000 (Fixed)	Camera No.
244	Changed angle of the camera	000 (Fixed)	Camera No.
245	Recover angle of the camera	000 (Fixed)	Camera No.
246	The trial period for the extension software of the camera has expired	000 (Fixed)	Camera No.

- Unit number

No.	Description
001	Main unit
101	Extension unit 1
102	Extension unit 2
103	Extension unit 3
104	Extension unit 4
105	Extension unit 5
202	Copy drive (DVD)
203	Copy drive (USB)

- Option number

Option	No.	Description
HDD No.	1-62	See chapter **エラー! 参照元が見つかりません。**
Camera number	1-128	Camera 1 - 128
Fan No.	1-4	Fan 1 - 4
Port No.	1	[Camera/PC] port
	2	[PC] port
	3	Maintenance port
NAS Storage No.	1-2	NAS Storage 1 - 2
Recorder No.	1-5	Recorder 1 - 5

3.2.2.10. Operation Log

I-PRO-REC-MIB(operationLogNumber/operationLogTable)

```
+ ipro(57501)
| + recorder(200)
| | + log(2)
| | | + operationLogNumber(9)
| | | + operationLogTable(10)
| | | | + operationLogEntry(1)
| | | | | + operationLogIndex(1)
| | | | | + operationLogDayTime(2)
| | | | | + operationLogType(3)
```

operationLogNumber

objectName	operationLogNumber
object id	.1.3.6.1.4.1.57501.200.2.9
SYNTAX RANGE	INTEGER
DESCRIPTION	Number of logs

operationLogTable

One table row is returned for each log. To obtain the log information, attach the Index to all the columns in the table.

operationLogIndex

objectName	operationLogIndex
object id	.1.3.6.1.4.1.57501.200.2.10.1.1
SYNTAX RANGE	INTEGER (1 - 500)
DESCRIPTION	Log number

operationLogDayTime

objectName	operationLogDayTime
object id	.1.3.6.1.4.1.57501.200.2.10.1.2
SYNTAX RANGE	DateAndTime (INTEGER if there is no log)
DESCRIPTION	Date and time of the log (0 if there is no log)

operationLogType

objectName	operationLogType
object id	.1.3.6.1.4.1.57501.200.2.10.1.3
SYNTAX RANGE	DisplayString (INTEGER if there is no log)
DESCRIPTION	Contents of the log (Output as 0 for no log.) Format: [Operation number]

- Operation

No.	Description
001	A host has logged in the "HDD management" page
002	A host has logged out the "HDD management" page
003	Settings have been changed
004	The power of the recorder has been turned on
005	The recorder is rebooted after the software is updated
006	The recorder is rebooted by pushing the Restart button
007	Before the system clock has been changed
008	Just after the system clock has been changed
009	Before the system clock has been changed by NTP
010	Just after the system clock has been changed by NTP
011	The HDD has been formatted
012	The settings have been reset
013	The recorder has been rebooted by the operation of the setting menu
014	The highest temperature information has been cleared
015	The recording order has been changed

Appendix

I. Appendix

A) extended MIB tree structure

```
+ ipro(57501)
| + general(1)
| | + manufacture(1)
| | + model(2)
| | + serialNumber(3)
| | + firmwareVersion(4)
| | + dayTime(5)
| + recorder(200)
| | | + recInfo(1)
| | | | + iproRecorder(1)
| | | | + iproRecCommon(2)
| | | | | + userAccessCount(1)
| | | | | + alarmSumNum(2)
| | | | + hddInfo(13)
| | | | | + hddSize(1)
| | | | | | + hddSize01(1)
| | | | | | +        :
| | | | | | + hddSize62(62)
| | | | | + hourMeter(2)
| | | | | | + hourMeter01(1)
| | | | | | +        :
| | | | | | + hourMeter62(62)
| | | | | + hddGList(3)
| | | | | | + hddGList01(1)
| | | | | | +        :
| | | | | | + hddGList62(62)
| | | | | + hddSmart(4)
| | | | | | + hddSmart01(1)
| | | | | | +        :
| | | | | | + hddSmart62(62)
| | | | | + hddMode(5)
| | | | | | + hddMode01(1)
| | | | | | +        :
| | | | | | + hddMode62(62)
| | | | | + hddRecRange(6)
| | | | | | + hddRecRange01(1)
| | | | | | | + hddRecRangeOldest(1)
| | | | | | | + hddRecRangeLatest(2)
| | | | | | +              :
| | | | | | | +            :
| | | | | | | +            :
| | | | | | + hddRecRange62(62)
| | | | | | | + hddRecRangeOldest(1)
| | | | | | | + hddRecRangeLatest(2)
| | | | | + hddSizeInt(11)
| | | | | | + hddSizeInt01(1)
| | | | | | +        :
| | | | | | + hddSizeInt62(62)
| | | | | + hourMeterInt(12)
| | | | | | + hourMeterInt01(1)
| | | | | | +        :
| | | | | | + hourMeterInt62(62)
| | | | | + hddGListInt(13)
| | | | | | + hddGListInt01(1)
| | | | | | +        :
| | | | | | + hddGListInt62(62)
| | | | | + hddSmartInt(14)
| | | | | | + hddSmartInt01(1)
| | | | | | +        :
| | | | | | + hddSmartInt62(62)
```

```
| | | | | + hddModeInt(15)
| | | | | | + hddModeInt01(1)
| | | | | | +        :
| | | | | | + hddModeInt62(62)
| | | | + camSyncState(15)
| | | | | + camSyncState001(1)
| | | | | +           :
| | | | | + camSyncState128(128)
| | | | + temperature(16)
| | | | | + recorderTemp(1)
| | | | | + degreeCelsius(2)
| | | | | | + degC(1)
| | | | | | + degCTenTimes(2)
| | | | | + degreeFahrenheit(3)
| | | | | | + degF(1)
| | | | | | + degFTenTimes(2)
| | | | + dataInfo(19)
| | | | | + oldestData(1)
| | | | | + latestData(2)
| | | + log(2)
| | | | + accessLogNumber(1)
| | | | + accessLogTable(2)
| | | | | + accessLogEntry(1)
| | | | | | + accessLogIndex(1)
| | | | | | + accessLogDayTime(2)
| | | | | | + accessLogType(3)
| | | | + networkLogNumber(3)
| | | | + networkLogTable(4)
| | | | | + networkLogEntry(1)
| | | | | | + networkLogIndex(1)
| | | | | | + networkLogDayTime(2)
| | | | | | + networkLogType(3)
| | | | + eventLogNumber(5)
| | | | + eventLogTable(6)
| | | | | + eventLogEntry(1)
| | | | | | + eventLogIndex(1)
| | | | | | + eventLogDayTime(2)
| | | | | | + eventLogType(3)
| | | | + errorLogNumber(7)
| | | | + errorLogTable(8)
| | | | | + errorLogEntry(1)
| | | | | | + errorLogIndex(1)
| | | | | | + errorLogDayTime(2)
| | | | | | + errorLogType(3)
| | | | + operationLogNumber(9)
| | | | + operationLogTable(10)
| | | | | + operationLogEntry(1)
| | | | | | + operationLogIndex(1)
| | | | | | + operationLogDayTime(2)
| | | | | | + operationLogType(3)
```