1. Introduction

This memo defines an extension to the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it defines objects for the management of coffee-brewing and maintenance devices.

2. The SNMPv2 Network Management Framework

The SNMPv2 Network Management Framework consists of four major components. They are:

- RFC 1442 [1] which defines the SMI, the mechanisms used for describing and naming objects for the purpose of management.
2.1. Object Definitions

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. Objects in the MIB are defined using the subset of Abstract Syntax Notation One (ASN.1) defined in the SMI. In particular, each object object type is named by an OBJECT IDENTIFIER, an administratively assigned name. The object type together with an object instance serves to uniquely identify a specific instantiation of the object. For human convenience, we often use a textual string, termed the descriptor, to refer to the object type.

3. Overview

The COFFEE POT MIB applies to managed devices that brew, store, and deliver heated coffee beverages. The COFFEE POT MIB is mandatory for all systems that have such a hardware port supporting services managed through some other MIB.

The MIB contains objects that relate to physical connections, configuration, storage levels, availability, quality of service, and availability.

3.1. Relationship to Interface MIB

The COFFEE-POT-MIB is one of many MIBs designed for layered use as described in the Interface MIB [5]. In most implementations where it is present, it will be in the lowest interface sublayer, that is, the COFFEE-POT-MIB represents the physical layer, providing service to higher layers such as the Character MIB [6].

Although it is unlikely that a coffee port will actually be used as a network interface, which is the intent of the Interface MIB, the COFFEE-POT-MIB is closely connected to the Character MIB, which can share hardware interfaces with network operation, and relate to the RS-232 MIB [7].
The Interface MIB’s ifTestTable and ifRcvAddressTable are not relevant to the COFFEE-POT-MIB.

The COFFEE-POT-MIB is relevant for ifType values sip(31), and perhaps others.

The COFFEE-POT-MIB requires the conformance groups ifGeneralGroup, and ifFixedLengthGroup.

Usefulness of error counters in this MIB depends on the octet counters in ifFixedLengthGroup.

4. Definitions

COFFEE-POT-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY, OBJECT-TYPE, NOTIFICATION-TYPE,
    TimeStamp, TimeInterval,
    Counter32, Integer32
FROM SNMPv2-SMI
    InterfaceIndex
FROM IF-MIB
    transmission
FROM RFC1213-MIB
    MODULE-COMPLIANCE, OBJECT-GROUP
FROM SNMPv2-CONF;

coffee MODULE-IDENTITY
    LAST-UPDATED "9803231700Z"
    ORGANIZATION "Networked Appliance Management Working Group"
    CONTACT-INFO
        "Michael Slavitch
         Loran Technologies,
         955 Green Valley Crescent
         Ottawa, Ontario Canada K2A 0B6"
        Tel: 613-723-7505
        Fax: 613-723-7209
        E-mail: slavitch@loran.com"
    DESCRIPTION
        "The MIB Module for coffee vending devices."
        ::= { transmission 132 }

potName OBJECT-TYPE
    SYNTAX     DisplayString (SIZE (0..255))
    MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The vendor description of the pot under management"
 ::= { coffee 1 }

potCapacity OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of units of beverage supported by this device
(regardless of its current state)."
 ::= { coffee 2 }

potType OBJECT-TYPE
SYNTAX INTEGER {
   automatic-drip(1),
   percolator(2),
   french-press(3),
   espresso(4),
   }
MAX-ACCESS read-write
STATUS current
DESCRIPTION
"The brew type of the coffee pot."
 ::= { coffee 3 }

potLocation OBJECT-TYPE {
SYNTAX   DisplayString (SIZE (0..255))
MAX-ACCESS read-write
STATUS current
DESCRIPTION
"The physical location of the pot in question"
 ::= { coffee 4 }

potMonitor OBJECT IDENTIFIER ::= { coffee 6 }

potOperStatus
SYNTAX   Integer {
   off(1),
   brewing(2),
   holding(3),
   other(4),
   waiting(5)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The operating status of the pot in question. Note that this is a read-only feature. Current hardware prevents us from changing the port state via SNMP."
::= { potMonitor 1 }

potLevel OBJECT-TYPE
SYNTAX     Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of units of coffee under management. The units of level are defined in potMetric below."
::= { potMonitor 2 }

potMetric  OBJECT-TYPE
SYNTAX     Integer
{ espresso(1),
   demi-tasse(2),
   cup(3),
   mug(4),
   bucket(5) }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The vendor description of the pot under management"
::= { potMonitor 3 }

potStartTime OBJECT-TYPE
SYNTAX     Integer64
MAX-ACCESS read-write
STATUS current
DESCRIPTION
"The time in seconds since Jan 1 1970 to start the pot if and only if potOperStatus is waiting(5)"
::= { potMonitor 4 }

lastStartTime OBJECT-TYPE
SYNTAX     TimeInterval
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The amount of time, in TimeTicks, since the coffee making process was initiated."

::= { potMonitor 5 }

potTemperature OBJECT-TYPE
SYNTAX     Integer32
UNITS      "degrees Centigrade"
MAX-ACCESS read-only
STATUS     current
DESCRIPTION
"The ambient temperature of the coffee within the pot"

::= { potMonitor 6 }

END

5. Acknowledgements

Networked Appliance Management Working Group (not) of the IETF.

6. References


7. Security Considerations

Security issues are not discussed in this memo.
8. Author’s Address

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