PRINTER MANAGEMENT OBJECTS

PRINTER CLASS

Draft 0.3

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ASSUMPTIONS:

- The DMTF will define a "SYSTEM" Group that corresponds to the System group within MIB-II. This will be available for all devices. It is therefore not included explicitly in this document.

- Enumerations will always provide for Other (1) and Unknown (2).

- Adding additional enumerations may be handled in three ways:
    1) Enumerations changed by altering this base document or RFC.
    2) Enumerations changed by registering with the IANA with the concurrence of the working group.
    3) Enumerations changed by registering with the IANA with no review by the working group.

  These are referred to within each object, as required, as "enum type."

PRINTER CLASS

Start Group

Start Attribute
Name=prtMarkTech
Access=Read-only
Description="This object described the marking technology of this device. It has an enum control type of 1."
Type= start enum
Other = 1
Unknown = 2
Electrophotographic:LED = 3
Electrophotographic:Laser = 4
Electrophotographic:Other = 5
Impact:Moving_Head:Dot_Matrix:9pin = 6
Impact:Moving_Head:Dot_Matrix:24pin = 7
Impact:Moving_Head:Dot_Matrix:other = 8
Impact:Moving_Head:Fully_Formed = 9
Impact:band = 10
Impact:other = 11
Inkjet:Aqueous = 12
Inkjet:Solid = 13
Inkjet:Other = 14
Pen = 15
Thermal:Transfer = 16
Thermal:Sensitive = 17
Thermal:Diffusion = 18
Thermal:Other= 19
Electroerosion = 20
Electrostatic = 21
Photographic:Microfiche = 22
Photographic:Imagesetter = 23
Photographic:Other = 24
Ion-depositon = 24
E-beam = 26
Typesetter = 27
end enum
End Attribute

Start Attribute
Name=prtProcessColorant
Access=Read-only
Type=Integer

```
            Description="This objects contains the number of process
                        colors supported by the marking engine.  A process color
                        of 1 implies monochrome.  The value of this object and
                              prtSpotColorant cannot both be 0.  A value of -1
implies                       'other' or 'infinite' while a value of -2 implies
'unknown'."
      End Attribute

      Start Attribute
            Name=prtSpotColorant
            Access=Read-only
            Type=Integer
            Description="This objects contains the number of spot
                              colors supported by the marking engine.  The
value of                            this object and prtProcessColorant cannot
both be 0.
                        A value of -1 implies 'other' or 'infinite' while a value
                        of -2 implies 'unknown'."
      End Attribute

      Start Attribute
            Name=prtMaxSpeedPrintUnits
            Access=Read-only
            Description="This object describes the print units used in specifying
                        the printing speed of the device.  This object is
                        a part of the numerator.  It has an enum control of type 1.
            Type= start enum
                        Other = 1
                        Unknown = 2
                        Characters = 3
                        Lines = 4
                        Impressions = 5
                        Inches = 6
                        Feet = 7
                        Millimeters = 8
                        Meters = 9
                        Sheets = 10
                  end enum
      End Attribute

      Start Attribute
            Name=prtMaxSpeedTimeUnits
            Access=Read-only
            Description="This object describes the time units used in specifying
                        the printing speed of the device.  This object is
                        a part of the denominator.  It has an enum control of
```

```
                    type 1."
            Type= start enum
                    other = 1
                    unknown = 2
                    seconds = 3
                    minutes = 4
                    hours = 5
                end enum
        End Attribute

        Start Attribute
            Name=prtMaxSpeed
            Access=Read-only
            Type=Integer
            Description="Maximum printing speed of the engine as specified
                    by PrtMaxSpeedTimeUnits.  A value of -1 implies 'other'
or                  'unknown' while a value of -2 implies 'unknown'."
        End Attribute

        Start Attribute
            Name-prtAddressabilityUnits
            Access=Read-only
            Description="This object contains the units of the denominator of
                    Horizontal and Vertical addressability.  It has an enum
                    control of type 1."
            Type= start enum
                    other = 1
                    unknown = 2
                    inches = 3
                    centimeters = 4
                end enum
        End Attribute

        Start Attribute
            Name=prtAddressabilityFeedDirection
            Access=Read-only
            Type=Integer
            Description="Addressability of the engine in the feed direction per
                    units specified by prtAddressabilityUnits.  A value
                    of -1 implies 'other' or 'infinite' while a value of -2
                    implies 'unknown'."
        End Attribute

        Start Attribute
            Name=prtAddressabilityCrossFeedDirection
            Access=Read-only
```

```
            Type=Integer
            Description="Addressability of the engine in the cross feed direction
                              per units specified by prtAddressabilityUnits.  A
value
                        of -1 implies 'other' or 'infinite' while a value of -2
                        implies 'unknown'."
      End Attribute

      Start Attribute
            Name=prtPhyMediaUnits
            Access=Read-only
            Description="This object describes the units used in specifying
                        the media size.  This object has an enum control of
                        type 1."
            Type= start enum
                        other = 1
                        unknown = 2
                        0.001 inches = 3
                        0.01 millimeters = 4
                  end enum
      End Attribute

      Start Attribute
            Name=prtMaxPhyMediaFeedDir
            Access=Read-only
            Type=Integer
            Description="Maximum physical media size in the feed direction
                        expressed in units specified by prtPhyMediaUnits.
                        A value of -1 implies 'other' or 'infinite' while a value of -
                        -2 implies 'unknown'.  A value of 0 implies unlimited."
      End Attribute

      Start Attribute
            Name=prtMinPhyMediaFeedDir
            Access=Read-only
            Type=Integer
            Description="Minimum physical media size in the feed direction
                        expressed in units specified by prtPhyMediaUnits.
                        A value of -1 implies 'other' while a value of -2 implies
                        'unknown'."
      End Attribute

      Start Attribute
            Name=prtMaxPhyMediaAcrossFeedDir
            Access=Read-only
            Type=Integer
```

```
        Description="Maximum physical media size across the feed direction
                expressed in units specified by prtPhyMediaUnits.
                A value of -2 implies 'unknown'. "
End Attribute

Start Attribute
        Name=prtMinPhyMediaAcrossFeedDir
        Access=Read-only
        Type=Integer
        Description="Minimum physical media size across the feed direction
                expressed in units specified by prtPhyMediaUnits.  A
                value of -2 implies 'unknown'."
End Attribute

Start Attribute
        Name=prtDuplexAvailable
        Access=Read-only
        Description="This object indicated whether the print engine is
                capable of printing on both sides of the media.  This
                process can be implemented by single or multiple
                passes of the media through the engine.  This object has
                an enum control of type 1."
        Type= start enum
                other = 1
                unknown = 2
                yes = 3
                no = 4
            end enum
End Attribute

Start Attribute
        Name=prtCounterUnits
        Access=Read-only
        Description="This objects contains the units that will be used by
                the printer when reporting counter values.  The time
                units are provided for a device like a strip recorder
                that does not or cannot track the physical dimensions
                of the media and does not use characters, lines
                or sheets.  This object has an enum control of type 1."
        Type= start enum
                Other = 1
                Unknown = 2
                Characters = 3
                Lines = 4
                Impressions = 5
                Inches = 6
```

```
                    Feet = 7
                    Millimeters = 8
                    Meters = 9
                    Sheets = 10
                    seconds = 11
                    minutes = 12
                    hours = 13
                end enum
End Attribute

Start Attribute
        Name=prtLifeCounter
        Access=Read-only
        Type=Counter
        Description="Life of printer counter of the number of units as
                specified by prtCounterUnits."
End Attribute

Start Attribute
        Name=prtPowerOnCounter
        Access=Read-only
        Type=Counter
        Description="This counter contains the count of the number of
                units counted since the equipment was most
                recently powered on using units as specified by
                        prtCounterUnits."
End Attribute

Start Attribute
        Name=prtRAMSize
        Access=Read-only
        Type=Integer
        Description="Number of k-bytes (1024)  present in the printer."
End Attribute

Start Attribute
        Name=hrDeviceStatus
        Description="This attribute is taken from the host MIB."
End Attribute

Start Attribute
        Name=hrPrinterStatus
        Description="This attribute is taken from the host MIB."
End Attribute

Start Attribute
```

```
                Name=prtDetailStatus
                Access=Read-only
                Type=Displaystring
                Description="Detailed description of the printer's state as follows:
                                *****TBD*****
                                Note:  This item was deferred at meeting #2 and at
meeting                                 #3."
        End Attribute
```

PRINTER CLASS, COLORANT DETAIL SUBCLASS (optional)

```
Start Group
        Name="Printer Colorant Details"

        Start Table
        Name="PrinterColorantsTable"
        Start Attribute
                Name=prtColorantRole
                Access=Read-only
                Type= start enum
                                other = 1
                                unknown = 2
                                process = 3
                                spot = 4
                        end enum
                Description="Role played by this colorant.  This enum is
                                of control type 1.
        End Attribute

        Start Attribute
                Name=prtColorantOrder
                Access=Read-only
                Type=Integer
                Description="The ordinal number of this colorant in the
                                order in which colorants are imaged onto the
                                medium within its role."
        End Attribute

        Start Attribute
                Name=prtColorantValue
                Access=Read-only
                Type=displaystring
                Description="This identifies the name of the color using
                                the following names.  Additional names may
                                be added using ISO9070 naming convention.
                                Predefined names below are returned
                                as the ASCII representation of the integer
                                associated with the name.
                                - Other (1)
                                - Unknown (2)
                                - White (3)
                                - Red (4)
                                - Green (5)
```

```
                        - Blue (6)
                        - Cyan (7)
                        - Magenta (8)
                        - Yellow (9)
                        - Black (10)"
        End Attribute

        Start Attribute
                Name=prtColorantTonality
                Access=Read-only
                Type=Integer
                Description="The object represents the distinct levels of
                        tonality realizable by the engine.  This does not
                        cover the number of levels of tnoal difference
                        that an interpreter can obtain by techniques
                        such as halftoning.  This object must be at
                        least 2."
        End Attribute

        End Table
End Group
```

PRINTER CLASS, CONTROL SUBCLASS (optional)

```
Start Group
        Name="Printer Controls"
        Start Attribute
                Name=prtctrlReset
                Access=Write-only
                Type=Integer
                Description="Writing a 1 instructs the printer to reset
                                simulating a power cycle.  Each manufacturer
                                will determine what events or activities are
                                to occur before the reset occurs."
        End Attribute

        Start Attribute
                Name=prtctrlResetSpecial
                Access=Write-only
                Description="Writing to this object instructs the printer to
                                reset in special ways.  Each manufacturer
                                will determine what events or activities are
                                to occur before the reset occurs.  This object has
                                enum control of type 3."
                Type= start enum
                                Other = 1
                                Unknown = 2
                                Reset NVRAM = 3
                                Reset to factory defaults = 4
                        end enum
        End Attribute

        Start Attribute
                Name=prtDuplexDefault
                Access=Read-write
                Description="This object indicates the current duplexing
                                default.  The state of this object applies to
                                to all input, all interpreters, etc. unless
                                overriden by other control.  This object has
                                enum control of type 1."
                Type= start enum
                        Other = 1
                        Unknown = 2
                        Long Edge Binding = 3
                        Short Edge Binding = 4
                        None = 5
```

```
End Attribute

Start Attribute
        Name=prtDefaultOrient
        Access=Read-write
        Description="This object indicates the current orientation
                default.  The state of this object applies to
                to all input, all interpreters, etc. unless
                overriden by other control.  This object has
                enum control of type 1."
        Type= start enum
                Other = 1
                Unknown = 2
                Portrait = 3
                Reverse Portrait = 4
                Landscape = 5
                Reverse Landscape = 6
            end enum
End Attribute

Start Attribute
        Name=prtctrlLineStatus
        Access=Read-write
        Description="This object indicates the current on-line/offline
                state of the printer.  This object is of enum
                control type 1."
        Type= start enum
                Other = 1
                Unknown = 2
                On-line = 3
                Pending on-line = 4
                Off-line = 5
                Pending off-line = 6
            end enum
End Attribute

Start Attribute
        Name=prtctrlControlPanelLanguage
        Access=Read-write
        Type=Displaystring
        Description="Reading returns the current language, writing
                sets it.  Language values read or written are as
                defined in ISO 1024.
                ***
                PENDING CONFIRMATION OF ISO1024
                OR SOME OTHER STANDARD FOR
```

LANGUAGE NAMES.
*** "

End Attribute
End Group
End Group