# Sentinel Camera Communication Protocols Specification Document (Draft 2c) Addendum

**Peter McCarthy**
**March 12, 2003**

**Note: This is a confidential document.**

## Control

### Diagnostics

To facilitate service and fault management, it should be possible for the control PC to get and/or reset diagnostics 'properties' similar to those shown in Table 6 below:

| Property | Description | Get | Reset |
|---|---|---|---|
| TotalStartStops | The total number of times that the PTZ camera device has moved, from a stationary position and back again, since manufacture. This is a 32-bit integer value | ✓ | |
| Total360°Rotations | The total number of 360° rotations performed by the PTZ camera device since manufacture. This is a 32-bit integer value | ✓ | |
| Flags | An array of bits that indicate any data communications errors, mechanical failures, etc, experienced by the camera device | ✓ | ✓ |

**Table 6**

To get diagnostics properties, the control PC must send a *Get Diagnostics* message to a particular camera device.

When a camera device receives a *Get Diagnostics* message, it sends a *Diagnostics* message to the control PC containing diagnostic values of interest.

To reset diagnostics properties, the control PC must send a *Reset Diagnostics* message instead.

**Note: the *Flags* diagnostic property has been included for information purposes only, and will only be subject to implementation in a future revision of the specification**

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*Reset Diagnostics* (32)

The format is:

| 0 | 1..2 | 3..6 | 7..8 | 9 |
|---|---|---|---|---|
| STX | MsgID | NetID | Mask | ETX |

- Byte 0 represents the start of message character (ASCII 0x02)
- Bytes 1..2 represent the *Reset Diagnostics* message ID. These bytes consist of the hexadecimal characters ASCII 0x33, ASCII 0x32 (i.e. '32')

- Bytes 3..6 represent the 16-bit Sentinel network address assigned to the camera device. These bytes consist of 4 hexadecimal ASCII characters

- Bytes 7..8 represent an 8-bit property value mask encoded as 2 hexadecimal ASCII characters. The mask comprises the following bits:

| 7 | 6 | 5..0 |
|---|---|---|
| TotalStartStops | Total360°Rotations | unused |

  - Bit 7 indicates that the *TotalStartStops* property value is to be reset to zero

  - Bit 6 indicates that the *Total360°Rotations* property value is to be reset to zero

  - Bits 5..0 are unused

- Byte 9 represents the end of message character (ASCII 0x03)

An example is:

| 0 | 1..2 | 3..6 | 7..8 | 9 |
|---|---|---|---|---|
| | 32 | 000F | C0 | |

This message requests that the *TotalStartStops* and *Total360°Rotations* diagnostics property values, for a camera device that has a *NetID* of 000F, be reset to zero