

**BROWARD COUNTY
ADVANCED TRANSPORTATION MANAGEMENT SYSTEM (ATMS)
SOFTWARE**

NTCIP COMPLIANCE TESTING PLAN

FPID No. 228087-1-32-01/228089-1-32-01



Prepared For

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INTRODUCTION

The National Transportation Communications for ITS Protocol (NTCIP) is a communications protocol that is becoming widely adopted in the Intelligent Transportation System (ITS) industry. A communication protocol is a set of rules for how messages and data elements are coded and transmitted between electronic devices. The equipment at each end of a data transmission must use the same protocol to successfully communicate.

The NTCIP standards are intended for use in all types of management systems dealing with the transportation environment, including those for freeways, traffic signals, transit, emergency management, traveler information and data archiving.

The proper use of NTCIP open-standards in an ITS deployment will allow the future expansion of the system to benefit from cost efficiencies related to the interchangeability and interoperability of various types of field devices.

The NTCIP offers increased flexibility and choices for agencies operating transportation management systems. It removes barriers to interagency coordination and allows equipment of different types and manufacturers to be mixed on the same communications line. For these reasons, operating agencies will benefit from specifying the NTCIP in future purchases and upgrades, even if the NTCIP is not used initially. NTCIP standards are beneficial and helpful in avoiding early equipment obsolescence, providing a choice of manufacturer, enabling inter-agency coordination and using one communications network for all purposes.

There are approximately 70 standards for various devices either under development, in ballot, approved or published. Currently the NTCIP standards for dynamic message signs (DMSs), closed circuit television (CCTV) camera control and actuated signal controllers (ASC) have been approved and the data collection standard is under development.

TESTING PROCEDURE

The NTCIP Compliance Test will determine if the Advanced Transportation Management System (ATMS) software provided by the Vendors is in compliance with the NTCIP standards for CCTV cameras, DMS and ASC. The ATMS software will be tested using the DeviceTester for NTCIP provided by Intelligent Devices, Inc. shown in Figure 1.

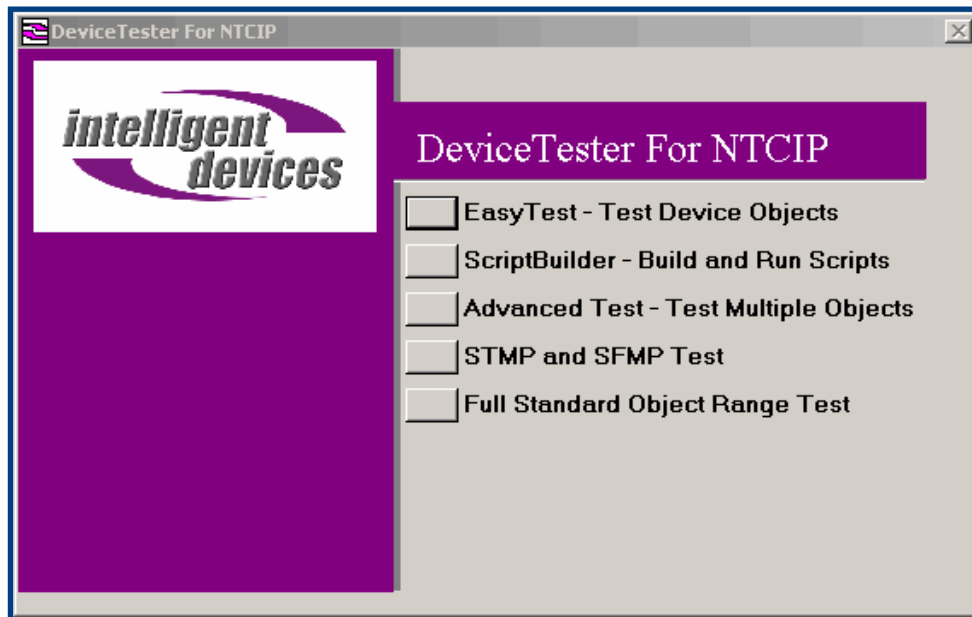


FIGURE 1: DEVICETESTER

The DeviceTester for NTCIP will simulate a field device (i.e., CCTV camera, DMS, or ASC) that sends and receives commands to and from the ATMS software. The DeviceTester will use the official NTCIP or the Florida Department of Transportation's (FDOT's) approved Management Information Bases (MIBs) to simulate NTCIP compliant field devices. Figure 2 shows a sample test with a listing of some of the various MIB objects to be tested. The DeviceTester will log the results of each test. Sample logs from DeviceTester are included in Appendix A.

The NTCIP Compliance Test will be conducted in Gray-Calhoun & Associates, Inc.'s (GCA's) ITS Lab. Personnel from Broward County and FDOT may attend and observe the tests, if so desired.

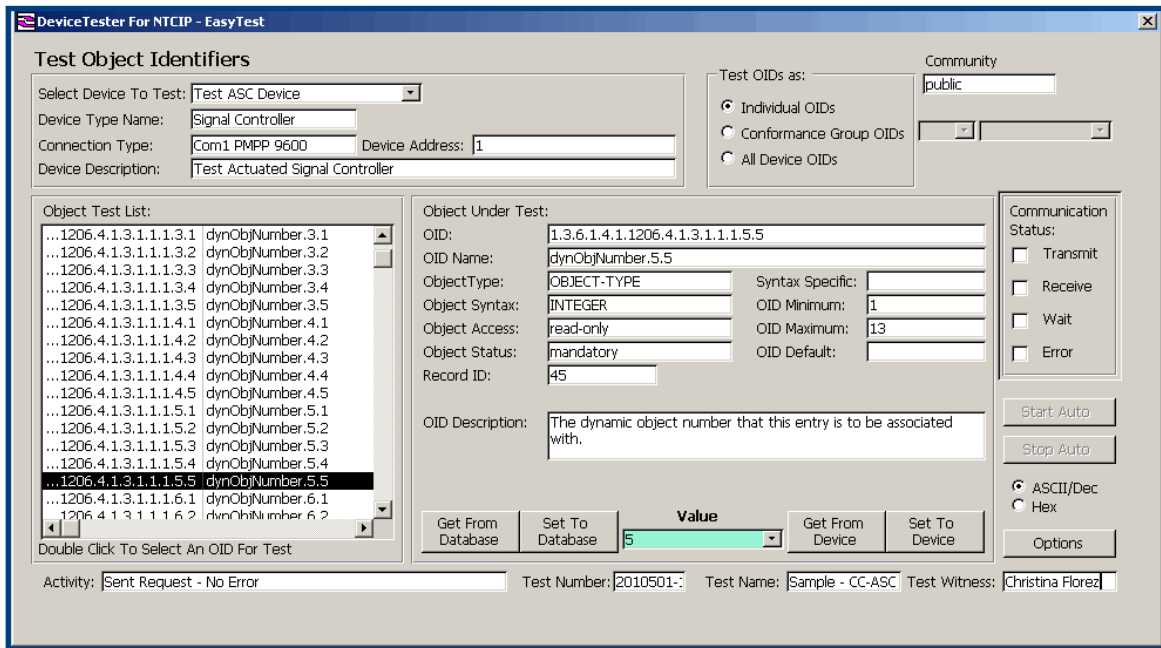


FIGURE 2: DEVICE TEST SCREEN

The following equipment and materials are required for the test:

- Two workstations: The DeviceTester will be installed in one workstation and the ATMS software will be installed in the second workstation.
- DeviceTester for NTCIP software
- Transmission Control Protocol/Internet Protocol (TCP/IP) network
- ATMS software
- Device MIBs
- Test operator(s)

MIB Installation

The MIBs for field devices such as CCTV cameras, DMSs and ASCs can be imported for the flexible testing of any device type, and to accurately simulate a field device. MIBs to be imported will be:

FDOT Approved MIBs

- Standard Global MIB (1201) (subset)
- Standard DMS MIB (1203) (subset)
- FDOT specific MIB for DMS

NTCIP Standard MIBs

- CCTV camera control (1205)
- ASC (1202)

For detailed MIB information, refer to Appendix B.

The object categories which will be tested within these MIBs are:

CCTV Camera Objects:

- Pan/Tilt/Zoom Conformance – CCTV Range Objects
- CCTV Preset Objects
- CCTV System Feature Control Objects
- CCTV Discrete Input Objects
- CCTV Zone Objects
- CCTV On-screen Camera Menu Objects
- CCTV Timeout Objects
- CCTV Positioning Objects
- CCTV Alarm Objects
- CCTV Discrete Output Objects
- CCTV Label Objects

DMS Objects:

- Sign Configuration and Capability Objects
- Font Definition Objects
- Message Objects
- Illumination/Brightness Objects
- Auxiliary Input/Output Objects
- DMS Configuration Objects
- Multi Configuration Objects
- Sign Control Objects
- Scheduling Action Objects
- Sign Status Objects

ASC Objects:

- Phase Parameter
- Unit Parameters
- Time Base Parameters
- Ring Parameters
- Overlap Parameters
- Detector Parameters
- Coordination Parameters
- Pre-empt Parameters
- Channel Parameters
- TS2 Port 1 Parameters

Testing Plan

As a minimum, the following operations will be tested to verify that NTCIP commands are sent and received without errors. Any errors that arise will be indicated in the Log Report. The test for function that failed will be repeated for verification. The test will fail if communication protocols or values do not meet the NTCIP standards. The values for the various functions of each field device type will be preloaded into the database for each field device type. All preloaded values will be within the acceptable range as defined by the NTCIP standards. Any additional functions offered in the software will be tested for NTCIP compliance.

The test will be performed by operating the central software package connected to DeviceTester. Each function of the central software which would require communications with a field device will be initiated, and both the command and response will be logged by DeviceTester.

Following are classes of operation which will be tested:

CCTV Camera Operation

1. Pan
2. Tilt
3. Zoom
4. Presets
5. Focus
6. Iris
7. Camera Feature Control (i.e., Camera Power, Heater Power, Wiper, Washer, etc...)
8. Camera Feature Status
9. Camera Equipped
10. Lens Feature Control
11. Lens Feature Status
12. Lens Feature Equipped
13. Alarm Status

DMS Operation

1. Sign Configuration
2. Font Configuration
3. Message Configuration
4. Receive Status Messages
5. Control Sign (i.e., New Message, Change Message, Remove Message)
6. Communications Status
7. Control Illumination/Brightness
8. Schedule Action
9. Status Reports

ASC Operation

1. Phase Parameters
2. Detector Parameters
3. Unit Parameters
4. Coordination Parameters
5. Time Base Parameters
6. Pre-empt Parameters
7. Ring Parameters
8. Channel Parameters
9. Overlap Parameters
10. TS2 Port 1 Parameters

RESULTS

GCA will submit for approval and acceptance a Log Report containing the date, time, Object Identification (OID), OID Name, value and result of each test performed for each Vendor. Each test will have a designated Test Number, Test Name and Witness. GCA will also submit an Overall NTCIP Compliance Results spreadsheet for each ATMS software package that is tested. For sample Log Reports and a results spreadsheet, refer to Appendices A and C, respectively.

APPENDIX A
SAMPLE LOG REPORTS

AutoTest Log Report

<i>Date Time</i>	<i>OID</i>	<i>OID Name</i>	<i>Value</i>	<i>Result</i>
Get Request				
<i>Test Number: 2010501-1</i>	<i>Test Name: Sample - ASC</i>		<i>Witness: Christina Florez</i>	
1/8/2004 10:17:29 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	5	Success
1/8/2004 10:18:00 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	1	Success
1/8/2004 10:19:28 AM	1.3.6.1.4.1.1206.4.1.3.1.1.5.8.4	dynObjStatus.8.4	4	Success
1/8/2004 10:20:45 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.1.7	phaseNumber.7	7	Success
1/8/2004 10:21:01 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.4.5	phaseMinimumGreen.5	8	Success
1/8/2004 10:21:11 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.5.8	phasePassage.8	40	Success
1/8/2004 10:21:20 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.6.6	phaseMaximum1.6	30	Success
1/8/2004 10:31:23 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	10	Success
1/8/2004 10:31:30 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	40	Success
1/8/2004 10:31:44 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.9.2	phaseRedClear.2	20	Success
1/8/2004 10:32:03 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	0	Success
1/8/2004 10:32:20 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	216	Success
1/8/2004 10:32:25 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	0	Success
1/8/2004 10:32:41 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.13.2	phaseTimeBeforeReduction.2	0	Success
1/8/2004 10:33:04 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	5	Success
1/8/2004 10:33:31 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	6	Success
1/8/2004 10:33:38 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	5	Success
1/8/2004 10:33:44 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.7	phaseStartup.7	2	Success
1/8/2004 10:33:56 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2241	Success
1/8/2004 10:37:57 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2	Success
1/8/2004 10:38:03 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2241	Success
1/8/2004 10:38:59 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.8	phaseOptions.8	2113	Success
1/8/2004 10:39:15 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.22.4	phaseRing.4	1	Success
1/8/2004 10:40:21 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05 06	Success
1/8/2004 10:41:05 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05	Success
1/8/2004 10:41:10 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05 05	Success
Set Request				
<i>Test Number: 2010501-1</i>	<i>Test Name: Sample - ASC</i>		<i>Witness: Christina Florez</i>	
1/8/2004 10:17:46 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	1	Success
1/8/2004 10:18:06 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	5	Success
1/8/2004 10:31:13 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	10	Success
1/8/2004 10:31:28 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	40	Success
1/8/2004 10:32:13 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	216	Success
1/8/2004 10:32:24 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	0	Success
1/8/2004 10:33:14 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	2	Success
1/8/2004 10:33:19 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	1	Success
1/8/2004 10:33:28 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	6	Success
1/8/2004 10:33:37 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	5	Success
1/8/2004 10:37:45 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	60030	Success
1/8/2004 10:37:55 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2	Success
1/8/2004 10:38:02 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2241	Success
1/8/2004 10:40:55 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05	Success
1/8/2004 10:41:09 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05 05	Success

Script Log Report

Test Sample - ASC

Witness Christina Florez

Test Number 2010501-1

<i>Time</i>	<i>Function</i>	<i>Object</i>	<i>Result</i>	<i>Value</i>
1/8/2004 10:17:29 AM	Get Request	dynObjIndex.5.5	Success	5
1/8/2004 10:17:46 AM	Set Request	dynObjIndex.5.5	Success	1
1/8/2004 10:18:00 AM	Get Request	dynObjIndex.5.5	Success	1
1/8/2004 10:18:06 AM	Set Request	dynObjIndex.5.5	Success	5
1/8/2004 10:19:28 AM	Get Request	dynObjStatus.8.4	Success	4
1/8/2004 10:20:45 AM	Get Request	phaseNumber.7	Success	7
1/8/2004 10:21:01 AM	Get Request	phaseMinimumGreen.5	Success	8
1/8/2004 10:21:11 AM	Get Request	phasePassage.8	Success	40
1/8/2004 10:21:20 AM	Get Request	phaseMaximum1.6	Success	30
1/8/2004 10:31:13 AM	Set Request	phaseYellowChange.7	Success	10
1/8/2004 10:31:23 AM	Get Request	phaseYellowChange.7	Success	10
1/8/2004 10:31:28 AM	Set Request	phaseYellowChange.7	Success	40
1/8/2004 10:31:30 AM	Get Request	phaseYellowChange.7	Success	40
1/8/2004 10:31:44 AM	Get Request	phaseRedClear.2	Success	20
1/8/2004 10:32:03 AM	Get Request	phaseAddedInitial.4	Success	0
1/8/2004 10:32:13 AM	Set Request	phaseAddedInitial.4	Success	216
1/8/2004 10:32:20 AM	Get Request	phaseAddedInitial.4	Success	216
1/8/2004 10:32:24 AM	Set Request	phaseAddedInitial.4	Success	0
1/8/2004 10:32:25 AM	Get Request	phaseAddedInitial.4	Success	0
1/8/2004 10:32:41 AM	Get Request	phaseTimeBeforeReduction.2	Success	0
1/8/2004 10:33:04 AM	Get Request	phaseStartup.6	Success	5
1/8/2004 10:33:14 AM	Set Request	phaseStartup.6	Success	2
1/8/2004 10:33:19 AM	Set Request	phaseStartup.6	Success	1
1/8/2004 10:33:28 AM	Set Request	phaseStartup.6	Success	6
1/8/2004 10:33:31 AM	Get Request	phaseStartup.6	Success	6
1/8/2004 10:33:37 AM	Set Request	phaseStartup.6	Success	5
1/8/2004 10:33:38 AM	Get Request	phaseStartup.6	Success	5
1/8/2004 10:33:44 AM	Get Request	phaseStartup.7	Success	2
1/8/2004 10:33:56 AM	Get Request	phaseOptions.2	Success	2241
1/8/2004 10:37:45 AM	Set Request	phaseOptions.2	Success	60030

Tuesday, March 16, 2004

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Test Sample - ASC

Witness Christina Florez

Test Number 2010501-1

<i>Time</i>	<i>Function</i>	<i>Object</i>	<i>Result</i>	<i>Value</i>
1/8/2004 10:37:55 AM	Set Request	phaseOptions.2	Success	2
1/8/2004 10:37:57 AM	Get Request	phaseOptions.2	Success	2
1/8/2004 10:38:02 AM	Set Request	phaseOptions.2	Success	2241
1/8/2004 10:38:03 AM	Get Request	phaseOptions.2	Success	2241
1/8/2004 10:38:59 AM	Get Request	phaseOptions.8	Success	2113
1/8/2004 10:39:15 AM	Get Request	phaseRing.4	Success	1
1/8/2004 10:40:21 AM	Get Request	phaseConcurrency.2	Success	05 06
1/8/2004 10:40:55 AM	Set Request	phaseConcurrency.2	Success	05
1/8/2004 10:41:05 AM	Get Request	phaseConcurrency.2	Success	05
1/8/2004 10:41:09 AM	Set Request	phaseConcurrency.2	Success	05 05
1/8/2004 10:41:10 AM	Get Request	phaseConcurrency.2	Success	05 05

AutoTest Log Report

<i>Date Time</i>	<i>OID</i>	<i>OID Name</i>	<i>Value</i>	<i>Result</i>
Manual Get From Device				
<i>Test Number: 2010501-1</i>	<i>Test Name: Sample - CC-ASC</i>		<i>Witness: Christina Florez</i>	
1/8/2004 10:13:42 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	5	Success
1/8/2004 10:14:13 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	1	Success
1/8/2004 10:15:41 AM	1.3.6.1.4.1.1206.4.1.3.1.1.5.8.4	dynObjStatus.8.4	4	Success
1/8/2004 10:16:58 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.1.7	phaseNumber.7	7	Success
1/8/2004 10:17:14 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.4.5	phaseMinimumGreen.5	8	Success
1/8/2004 10:17:24 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.5.8	phasePassage.8	40	Success
1/8/2004 10:17:32 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.6.6	phaseMaximum1.6	30	Success
1/8/2004 10:27:36 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	10	Success
1/8/2004 10:27:43 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	40	Success
1/8/2004 10:27:57 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.9.2	phaseRedClear.2	20	Success
1/8/2004 10:28:16 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	0	Success
1/8/2004 10:28:32 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	216	Success
1/8/2004 10:28:38 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	0	Success
1/8/2004 10:28:54 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.13.2	phaseTimeBeforeReduction.2	0	Success
1/8/2004 10:29:17 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	5 (yellowChange)	Success
1/8/2004 10:29:44 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	6 (redClear)	Success
1/8/2004 10:29:51 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	5 (yellowChange)	Success
1/8/2004 10:29:57 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.7	phaseStartup.7	2 (phaseNotOn)	Success
1/8/2004 10:30:09 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2241	Success
1/8/2004 10:34:10 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2	Success
1/8/2004 10:34:16 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2241	Success
1/8/2004 10:35:12 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.8	phaseOptions.8	2113	Success
1/8/2004 10:35:28 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.22.4	phaseRing.4	1	Success
1/8/2004 10:36:34 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05 06	Success
1/8/2004 10:37:18 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05	Success
1/8/2004 10:37:23 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05 05	Success

Manual Set To Device

<i>Test Number: 2010501-1</i>	<i>Test Name: Sample - CC-ASC</i>		<i>Witness: Christina Florez</i>	
1/8/2004 10:13:59 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	1	Success
1/8/2004 10:14:19 AM	1.3.6.1.4.1.1206.4.1.3.1.1.2.5.5	dynObjIndex.5.5	5	Success
1/8/2004 10:27:25 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	10	Success
1/8/2004 10:27:41 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.8.7	phaseYellowChange.7	40	Success
1/8/2004 10:28:26 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	216	Success
1/8/2004 10:28:37 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.11.4	phaseAddedInitial.4	0	Success
1/8/2004 10:29:27 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	2 (phaseNotOn)	Success
1/8/2004 10:29:32 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	1 (other)	Success
1/8/2004 10:29:41 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	6 (redClear)	Success
1/8/2004 10:29:50 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.20.6	phaseStartup.6	5 (yellowChange)	Success
1/8/2004 10:33:58 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	60030	Success
1/8/2004 10:34:07 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2	Success
1/8/2004 10:34:15 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.21.2	phaseOptions.2	2241	Success
1/8/2004 10:37:08 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05	Success
1/8/2004 10:37:21 AM	1.3.6.1.4.1.1206.4.2.1.1.2.1.23.2	phaseConcurrency.2	05 05	Success

Script Log Report

Test Sample - CC-ASC

Witness Christina Florez

Test Number 2010501-1

Time	Function	Object	Result	Value
1/8/2004 10:13:42 AM	Manual Get From Device	dynObjIndex.5.5	Success	5
1/8/2004 10:13:59 AM	Manual Set To Device	dynObjIndex.5.5	Success	1
1/8/2004 10:14:13 AM	Manual Get From Device	dynObjIndex.5.5	Success	1
1/8/2004 10:14:19 AM	Manual Set To Device	dynObjIndex.5.5	Success	5
1/8/2004 10:15:41 AM	Manual Get From Device	dynObjStatus.8.4	Success	4
1/8/2004 10:16:58 AM	Manual Get From Device	phaseNumber.7	Success	7
1/8/2004 10:17:14 AM	Manual Get From Device	phaseMinimumGreen.5	Success	8
1/8/2004 10:17:24 AM	Manual Get From Device	phasePassage.8	Success	40
1/8/2004 10:17:32 AM	Manual Get From Device	phaseMaximum1.6	Success	30
1/8/2004 10:27:25 AM	Manual Set To Device	phaseYellowChange.7	Success	10
1/8/2004 10:27:36 AM	Manual Get From Device	phaseYellowChange.7	Success	10
1/8/2004 10:27:41 AM	Manual Set To Device	phaseYellowChange.7	Success	40
1/8/2004 10:27:43 AM	Manual Get From Device	phaseYellowChange.7	Success	40
1/8/2004 10:27:57 AM	Manual Get From Device	phaseRedClear.2	Success	20
1/8/2004 10:28:16 AM	Manual Get From Device	phaseAddedInitial.4	Success	0
1/8/2004 10:28:26 AM	Manual Set To Device	phaseAddedInitial.4	Success	216
1/8/2004 10:28:32 AM	Manual Get From Device	phaseAddedInitial.4	Success	216
1/8/2004 10:28:37 AM	Manual Set To Device	phaseAddedInitial.4	Success	0
1/8/2004 10:28:38 AM	Manual Get From Device	phaseAddedInitial.4	Success	0
1/8/2004 10:28:54 AM	Manual Get From Device	phaseTimeBeforeReduction.2	Success	0
1/8/2004 10:29:17 AM	Manual Get From Device	phaseStartup.6	Success	5 (yellowChange)
1/8/2004 10:29:27 AM	Manual Set To Device	phaseStartup.6	Success	2 (phaseNotOn)
1/8/2004 10:29:32 AM	Manual Set To Device	phaseStartup.6	Success	1 (other)
1/8/2004 10:29:41 AM	Manual Set To Device	phaseStartup.6	Success	6 (redClear)
1/8/2004 10:29:44 AM	Manual Get From Device	phaseStartup.6	Success	6 (redClear)
1/8/2004 10:29:50 AM	Manual Set To Device	phaseStartup.6	Success	5 (yellowChange)
1/8/2004 10:29:51 AM	Manual Get From Device	phaseStartup.6	Success	5 (yellowChange)
1/8/2004 10:29:57 AM	Manual Get From Device	phaseStartup.7	Success	2 (phaseNotOn)
1/8/2004 10:30:09 AM	Manual Get From Device	phaseOptions.2	Success	2241
1/8/2004 10:33:58 AM	Manual Set To Device	phaseOptions.2	Success	60030

Tuesday, March 16, 2004

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Test Sample - CC-ASC

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Test Number 2010501-1

Time	Function	Object	Result	Value
1/8/2004 10:34:07 AM	Manual Set To Device	phaseOptions.2	Success	2
1/8/2004 10:34:10 AM	Manual Get From Device	phaseOptions.2	Success	2
1/8/2004 10:34:15 AM	Manual Set To Device	phaseOptions.2	Success	2241
1/8/2004 10:34:16 AM	Manual Get From Device	phaseOptions.2	Success	2241
1/8/2004 10:35:12 AM	Manual Get From Device	phaseOptions.8	Success	2113
1/8/2004 10:35:28 AM	Manual Get From Device	phaseRing.4	Success	1
1/8/2004 10:36:34 AM	Manual Get From Device	phaseConcurrency.2	Success	05 06
1/8/2004 10:37:08 AM	Manual Set To Device	phaseConcurrency.2	Success	05
1/8/2004 10:37:18 AM	Manual Get From Device	phaseConcurrency.2	Success	05
1/8/2004 10:37:21 AM	Manual Set To Device	phaseConcurrency.2	Success	05 05
1/8/2004 10:37:23 AM	Manual Get From Device	phaseConcurrency.2	Success	05 05

APPENDIX B
DETAILED MIB INFORMATION


```

--The following MIB has been developed for use by FDOT. This MIB
--contains new objects specifically developed to fulfill FDOT-specific
--functional requirements.

--Author: Joerg 'Nu' Rosenbohm (PB Farradyne Inc)
--Development Date: March 15, 2001
--Version: v02
--Compiled using the NTCIP Exerciser 3.3b

--Filename:      FDOT-specific DMS MIB v02.MIB
--Discription:  This MIB describes the FDOT Specific DMS Objects

--*****
--05/01/02  This MIB was Modified by the FDOT-TERL as follows:
--          Changed filename from FDOT-specific DMS MIB v01c.MIB
--          to FDOT-specific DMS MIB v02.MIB
--          Changed status of fdotCriticalMaxTemperature.0 object
--          from mandatory to optional.
--          Changed description of fdotCriticalMaxTemperature.0 object.
--          Changed description of fdotLog90Full.0 object to reflect
--          that this object is to reflect whether or not any configured
--          event class is 90% full.
--          Changed status of dmsNoActivityTime.0 from mandatory to
--          optional.
--*****

FDOT-DMS-MIB DEFINITIONS ::= BEGIN
IMPORTS
    OBJECT-TYPE
        FROM RFC-1212
    nemaPrivate
        FROM NEMA_SMI
    devices, protocols, profiles, DisplayString
        FROM TMIB-II
    Opaque, Counter, Gauge
        FROM RFC1155-SMI
    MessageIDCode
        FROM DMS-MIB;

    farradyne OBJECT IDENTIFIER ::= {nemaPrivate 6}

fdot-dms OBJECT IDENTIFIER ::= {farradyne 11}
-- This node is an identifier used to group all objects specifically developed
for
-- Florida DOT's deployment of 'NTCIP-compliant' DMS signs.  The functionalities
of
-- these objects have not been addressed in any NTCIP or NTCIP-referenced
standards
-- or draft standards.

--the following objects indicate whether any of the power supplies have failed.
--Additionally, a table includes objects to query the various power supply
voltages.
fdotPowerSupplyFailures OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE (0..4))

```

ACCESS read-only
STATUS ~~mandatory~~ optional
DESCRIPTION "Indicates whether each power supply within a DMS is operational, expressed as a bitmap. If a power supply failed, its associated bit is set to a value greater than zero (>0). Each power supply is associated with a bit (bit-power supply correlation order specified by manufacturer) allowing for up to 32 power supply to report failure status."
::= {fdot-dms 1}

fdotPowerSupplyTableRows OBJECT-TYPE
SYNTAX INTEGER (0..255)
ACCESS read-only
STATUS ~~mandatory~~ optional
DESCRIPTION "Indicates the maximum number of rows in the fdotPowerSupplyTable. Each row represents a particular power supply."
::={fdot-dms 2}

fdotPowerSupplyTable OBJECT-TYPE
SYNTAX SEQUENCE OF FdotPowerSupplyEntry
ACCESS not-accessible
STATUS ~~mandatory~~ optional
DESCRIPTION "A table containing the detected power supply voltages, power supply status, and descriptions for each power supply associated with this device. The number of rows is given by the value of fdotPowerSupplyTableRows-object."
::= { fdot-dms 3}

fdotPowerSupplyEntry OBJECT-TYPE
SYNTAX FdotPowerSupplyEntry
ACCESS not-accessible
STATUS optional
DESCRIPTION "Parameters of the FDOT-specific Power Supply Status Table."
INDEX {fdotPowerSupplyNumber}
::={ fdotPowerSupplyTable 1}

FdotPowerSupplyEntry ::= SEQUENCE {
fdotPowerSupplyNumber INTEGER,
fdotPowerSupplyType INTEGER,
fdotPowerSupplyDescription OCTET STRING,
fdotPowerSupplyVoltage INTEGER,
fdotPowerSupplyStatus INTEGER}

fdotPowerSupplyNumber OBJECT-TYPE
SYNTAX INTEGER (1..32)
ACCESS read-only
STATUS ~~mandatory~~ optional
DESCRIPTION "The number assigned by the device vendor to a power supply. This value is the first and only index into this table. It shall be mandatory that the vendor assign the power supply numbers sequentially."
::= { fdotPowerSupplyEntry 1}

fdotPowerSupplyType OBJECT-TYPE
SYNTAX INTEGER {
other (1),
displayModule (2),
cabinetPower (3),
upsPower (4),

```
signHousingPower (5)
}
ACCESS      read-only
STATUS      mandatory optional
DESCRIPTION "indicates the type of power supply associated with this row in the
table. The values are:
other (1) - an type other than the ones explained below. Refer to device
manual.
displayModule (2) - the power supplies associated with the various display
modules which assemble one or more characters.
cabinetPower (3) - the power supplies associated with powering the sign
controller cabinet including the sign controller, communications equipment and
other cabinet electronics.
upsPower (4) - the un-interrupted power supplies within the sign housing and/or
the sign controller cabinet.
signHousingPower (5) - the power supplies associated with powering the sign
housing and other non-display associated electronics. This type may be covered
as part of the displayModule power supplies."
::= { fdotPowerSupplyEntry 2}
```

```
fdotPowerSupplyDescription OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE (0..40)) --Assumed that 40 characters of
description
--is sufficient.
ACCESS      read-only
STATUS      optional --this object may not be needed, since this information
--can be maintained at central.
DESCRIPTION "indicates the description assigned by the vendor to this
particular power supply."
::= { fdotPowerSupplyEntry 3}
```

```
fdotPowerSupplyVoltage OBJECT-TYPE
SYNTAX      INTEGER (0..65535)
ACCESS      read-only
STATUS      mandatory optional
DESCRIPTION "Indicates the detected voltage, in hundredth (1/100) of a volt, of
this power supply. The maximum value (0xFFFF) corresponds to a voltage of
655.35 volts."
::= { fdotPowerSupplyEntry 4}
```

```
fdotPowerSupplyStatus OBJECT-TYPE
SYNTAX      INTEGER (0..1)
ACCESS      read-only
STATUS      mandatory optional
DESCRIPTION "Indicates whether this power supply is operational. A value of
zero (0) indicates that the power supply is operational, while a value of
greater than zero (>0) indicates a non-operational power supply."
::= { fdotPowerSupplyEntry 5}
```

--the following object is used to set the critical threshold for the maximum
--sign housing temperature.

```
fdotCriticalMaxTemperature OBJECT-TYPE
SYNTAX      INTEGER (-128..127)
ACCESS      read-write
STATUS      mandatory optional
```

DESCRIPTION "Indicates the maximum user-defined temperature, in degrees Celcius, within the sign housing. If this threshold is reached or exceeded, the sign shall be blanked and ~~an the error message be send to the central computer~~ **reflected by the fdotMsgSourceModeExtension object (set to a value of (3)), which also requires that the 'dmsMsgSourceMode' object is set to a value of 'other' (1).. Additionally, the 'temperature error' bit (BIT 9) within the shortErrorStatus object shall be set to a value of (1) to indicate that a temperature value was exceeded.**"
::={fdot-dms 4}

--the following 2 objects are used to disable the alarm and error generation when the

--sign controller was not polled for a user-defined time.

fdotDmsMaxPollTime OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-write

STATUS mandatory

DESCRIPTION "Indicates the maximum time, in minutes, between communications between the central computer and the sign. This threshold is being used to determine whether to disable the generation of errors and failures that are to be logged (to avoid logging overrun). The value of 65535 indicates an infinite duration."

::= {fdot-dms 5}

fdotDmsErrorGenerationToggle OBJECT-TYPE

SYNTAX INTEGER (0..1)

ACCESS read-write

STATUS mandatory

DESCRIPTION "Indicates whether to stop the generation of new errors and failures, which are to be logged (to avoid logging overruns). A value of zero (0) indicates that all errors and failures are being generated even after the threshold (see fdotDmsMaxPollTime) has been exceeded. A value of greater than zero (>0) indicates that the generation of additional errors and failures is to be terminated after the threshold indicated by the fdotDmsMaxPollTime has been exceeded."

DEFVAL {0}

::= {fdot-dms 6}

--the following object is used to SET the threshold at which the number of failed

--pixels will lead to the 'blanking' of the sign display.

fdotMaxNumPixelFailure OBJECT-TYPE

SYNTAX INTEGER (0..4294967295)

ACCESS read-write

STATUS ~~optional~~ **mandatory**

DESCRIPTION "Indicates the total number of failed pixels that cannot be exceed before the sign must be blanked. A pixel failure is considered to be either stuck-on or stuck-off, i.e., cannot change its state.

Whether the sign display was blank based on exceeding this threshold is indicated by a value of (1) within the fdotMsgSourceModeExtension object."

::= {fdot-dms 7}

--the following 2 objects are used for Hybrid Fiber/Flip signs. The first object

--allows to SET the threshold at which the duration of a power loss shall lead --to the 'blanking' of the sign display. The second object allows to SET the --message (blank) that is to be displayed if the threshold is being exceeded.

fdotLongPowerLossTime OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-write

STATUS optional

DESCRIPTION "the time (inclusive), in seconds, that must elapse before a long power loss is assumed. If this object is set to zero (0), no differentiation between long power loss and short power loss shall be made."

DEFVAL {600} -- suggested value for FDOT (10 minutes)

::= {fdot-dms 8}

dmsLongPowerLossMessage OBJECT-TYPE

SYNTAX MessageIDCode

ACCESS read-write

STATUS optional

DESCRIPTION "Indicates the message that is displayed after the value indicated in the fdotLongPowerLossTime object has elapsed."

--DEFVAL {0x07 0x01 0x00 0x00} - required value for FDOT (blank the sign)

::= { fdot-dms 9}

--the following object indicates whether the log is 90% full.

fdotLog90Full OBJECT-TYPE

SYNTAX INTEGER (0..1)

ACCESS read-only

STATUS mandatory

DESCRIPTION "Indicates whether any of the configured event classes within the log are 90% full. A value of zero (0) indicates that ~~the log has not~~ **none of the configured event classes within the log have** exceeded 90% of ~~its~~ capacity."

::= {fdot-dms 10}

--the following object is used to SET the threshold at which the user is being logged

--off from the sign controller, if not communication activity occurs.

dmsNoActivityTime OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-write

STATUS ~~mandatory~~ optional **Deprecated**

DESCRIPTION "the time (inclusive), in seconds, that must elapse before a user is being logged off due to no communication activity. If this object is set to 65535, a user shall never be logged off."

DEFVAL {600} -- suggested value for FDOT (10 minutes)

::= { fdot-dms 11}

--the following object is an extension to the dmsMsgSourceMode and indicates

--additional reasons/conditions that led to the display of the current

--message, typically a blank message.

fdotMsgSourceModeExtension OBJECT-TYPE

SYNTAX INTEGER {

blankPixelFailure (1),

reserved (2),

excessLedTemperature (3),

longPowerLoss (4) }

ACCESS read-only

STATUS mandatory

DESCRIPTION "Indicates additional sources/reasons that initiated the currently displayed message. The object values are based on agency-specific requirements and will typically lead to a blanked message. Their meaning is:

BlankPixelFailure (1) = if threshold of all failed pixels is exceeded

```
reserved (2) = value cannot be used in FDOT implementations.  
excessLedTemperature (3) = if temperature exceeds 'rated operating temperature  
of LEDs'  
longPowerLoss (4) = if the duration of a power loss exceeds the value indicated  
in the fdotLongPowerLossTime object has been elapsed.  
"  
::= {fdot-dms 12}
```

```
END
```

FDOT APPROVED GLOBAL - OID 1201

OID	OID_Name	OID_SyntaxTypeName	OID_Description
1.3.6.1.4.1.1206.4.1.2.2	profilesSTMP	reg point	
1.3.6.1.4.1.1206.4.1.2.3	profilesPMPP	reg point	
1.3.6.1.4.1.1206.4.2.6.1	globalConfiguration	reg point	
1.3.6.1.4.1.1206.4.2.6.1.1.0	globalSetIDParameter	INTEGER	Specifies a relatively unique ID for all user-changable parameters of the particular device-type currently implemented in the device. Often this ID is calculated using a CRC algorithm.
1.3.6.1.4.1.1206.4.2.6.1.2.0	globalMaxModules	INTEGER	The number of rows that are listed in the Global Module Table.
1.3.6.1.4.1.1206.4.2.6.1.3	globalModuleTable	SEQUENCE	A table containing information regarding manufacturer of software and hardware and the associated module models and version numbers as well as an indicator if the module is hardware or software related. The number of rows in this table shall equal the va
1.3.6.1.4.1.1206.4.2.6.1.3.1	moduleTableEntry	SEQUENCE	This object defines an entry in the module table.
1.3.6.1.4.1.1206.4.2.6.1.3.1.1	moduleNumber	INTEGER	This object contains the row number (1..255) within this table for the associated module.
1.3.6.1.4.1.1206.4.2.6.1.3.1.2	moduleDeviceNode	OBJECT IDENTIFIER	This object contains the device node number of the device-type.
1.3.6.1.4.1.1206.4.2.6.1.3.1.3	moduleMake	OCTET STRING	This object specifies the manufacturer of the associated module. A null-string shall be transmitted if this object has no entry.
1.3.6.1.4.1.1206.4.2.6.1.3.1.4	moduleModel	OCTET STRING	This object specifies the model number (hardware) or firmware reference (software) of the associated module. A null-string shall be transmitted if this object has no entry.
1.3.6.1.4.1.1206.4.2.6.1.3.1.5	moduleVersion	OCTET STRING	This object specifies the version of the associated module. A null-string shall be transmitted if this object has no entry.
1.3.6.1.4.1.1206.4.2.6.1.3.1.6	moduleType	Enum	This object specifies if the associated module is a hardware or software module.
1.3.6.1.4.1.1206.4.2.6.2	globalDBManagement	reg point	
1.3.6.1.4.1.1206.4.2.6.3	globalTimeManagement	reg point	
1.3.6.1.4.1.1206.4.2.6.3.1.0	globalTime	Counter	The current time in seconds since the epoch of 00:00:00 (midnight) January 1, 1970 UTC (a.k.a Zulu).
1.3.6.1.4.1.1206.4.2.6.3.2.0	globalDaylightSaving	Enum	This object specifies if the Daylight Savings Time (DST) is enabled, disabled or some other form of daylight savings time is active. disableDST - DST clock adjustments shall NOT occur. enableUSDST - DST clock adjustments shall occur. In accordance
1.3.6.1.4.1.1206.4.2.6.3.4.0	globalLocalTimeDifferential	INTEGER	Indicates the number of seconds offset between local time and GMT. Positive values indicate local times in the Eastern Hemisphere up to the International Date Line and negative values indicate local times in the Western Hemisphere back to the Internation
1.3.6.1.4.1.1206.4.2.6.4	globalReport	reg point	
1.3.6.1.4.1.1206.4.2.6.4.1.0	maxEventLogConfigs	INTEGER	The number of rows that exist in the static eventLogConfig table for this device.
1.3.6.1.4.1.1206.4.2.6.4.2	eventLogConfigTable	SEQUENCE	A table containing Event Log Configuration information. The number of rows in this table is equal to the maxEventLogConfigs object.
1.3.6.1.4.1.1206.4.2.6.4.2.1	eventLogConfigEntry	SEQUENCE	This object defines an entry in the event log configuration table.
1.3.6.1.4.1.1206.4.2.6.4.2.1.1	eventConfigID	INTEGER	This object contains the row number which is used to identify the event associated with this row in the eventLogConfigTable. The number of event IDs shall not exceed the value indicated in the maxEventLogConfigs object. The value zero (0) is not allowed
1.3.6.1.4.1.1206.4.2.6.4.2.1.2	eventConfigClass	INTEGER	This object contains the class value to assign to the event associated with this row in the event configuration table. This value is used in the event log table to organize various events defined in this table into logical groupings.
1.3.6.1.4.1.1206.4.2.6.4.2.1.3	eventConfigMode	Enum	This object specifies the mode of operation for this event. All checks and entries to the table must occur within one second of the condition becoming true. The modes are defined as follows: VALUE DESCRIPTION onChange create a l
1.3.6.1.4.1.1206.4.2.6.4.2.1.4	eventConfigCompareValue	INTEGER	This object contains the comparison value to use with eventConfigMode values (greaterThanValue, smallerThanValue, hysteresisBound). No value within this object is necessary when the eventConfigMode-object has the value onChange (2).
1.3.6.1.4.1.1206.4.2.6.4.2.1.5	eventConfigCompareValue2	INTEGER	If the eventConfigMode is set to hysteresisBound, this object specifies the second comparison value for the hysteresis. If the eventConfigMode is set to greaterThanValue or smallerThanValue, this object specifies the time (in tenths of seconds) for which
1.3.6.1.4.1.1206.4.2.6.4.2.1.6	eventConfigCompareOID	OBJECT IDENTIFIER	This object contains the object identifier which references the value against which the comparison is made. If the eventConfigMode is set to periodic, the value of this object shall be ignored.
1.3.6.1.4.1.1206.4.2.6.4.2.1.7	eventConfigLogOID	OBJECT IDENTIFIER	This object contains the object identifier which indicates what value to log when a condition or event occurs (e.g., log the phase display when the watchdog alarm status changes).
1.3.6.1.4.1.1206.4.2.6.4.2.1.8	eventConfigAction	Enum	This value of this object indicates the action that will take place when the event described in this row of the event configuration table occurs. disabled - no entry will be recorded due to this event. log - an entry will be recorded in the event log tab
1.3.6.1.4.1.1206.4.2.6.4.3.0	maxEventLogSize	INTEGER	The maximum, fixed number of rows that can be utilized within the Event Log Table.
1.3.6.1.4.1.1206.4.2.6.4.4	eventLogTable	SEQUENCE	A table containing Event History data collected.
1.3.6.1.4.1.1206.4.2.6.4.4.1	eventLogEntry	SEQUENCE	This object defines an entry in the event log table
1.3.6.1.4.1.1206.4.2.6.4.4.1.1	eventLogClass	INTEGER	This object contains the class of the associated event as defined in the eventLogConfig Table.
1.3.6.1.4.1.1206.4.2.6.4.4.1.2	eventLogNumber	INTEGER	The event number within this class for this event. Event numbers shall be assigned starting at 1 and shall increase to the value specified by the associated eventClassLimit for the class associated with the rows. Events shall maintain a chronological or
1.3.6.1.4.1.1206.4.2.6.4.4.1.3	eventLogID	INTEGER	This object contains the event configuration ID (from the eventLogConfigTable) that caused this table entry. It indicates the row in the eventLogConfig table responsible for this event entry. If this object is set to zero (0) then the associated row (in
1.3.6.1.4.1.1206.4.2.6.4.4.1.4	eventLogTime	Counter	The time that the event occurred in seconds since the epoch of 00:00:00 (midnight) January 1, 1970 per the device's globalTime object. If the device does not have valid date and time information, then this shall be the time in seconds since the device po
1.3.6.1.4.1.1206.4.2.6.4.4.1.5	eventLogValue	Opaque	The value of this object is set to the value referenced by the eventConfigLogOID of the associated eventLogID when the event was logged. Its length is variable.
1.3.6.1.4.1.1206.4.2.6.4.5.0	maxEventClasses	INTEGER	This object defines the maximum, fixed number of rows in the eventClassTable that this device supports. This places an upper limit on the number of classes that may be defined for events in this device.
1.3.6.1.4.1.1206.4.2.6.4.6	eventClassTable	SEQUENCE	This table is used to configure event logging limits and log table maintenance.
1.3.6.1.4.1.1206.4.2.6.4.6.1	eventClassEntry	SEQUENCE	This defines a row in the Event Class Table.
1.3.6.1.4.1.1206.4.2.6.4.6.1.1	eventClassNumber	INTEGER	This is a class value that is to be configured.
1.3.6.1.4.1.1206.4.2.6.4.6.1.2	eventClassLimit	INTEGER	This object specifies the maximum number of events of the associated class to store in the log. Once the limit is reached, the oldest entry of the matching class will be overwritten by any new entry of the same class. If the value of this object is set
1.3.6.1.4.1.1206.4.2.6.4.6.1.3	eventClassClearTime	Counter	This object is used to clear multiple event log entries from the event log table. Setting this value shall cause all events of this class that have an eventTime equal to or less than this object to be cleared from the eventLog table. The time is the num
1.3.6.1.4.1.1206.4.2.6.4.6.1.4	eventClassDescription	OCTET STRING	This object specifies a description of the class in ASCII characters.
1.3.6.1.4.1.1206.4.2.6.4.6.1.5	eventClassNumRowsInLog	INTEGER	The number of rows for this class that currently exist in the eventLogTable.
1.3.6.1.4.1.1206.4.2.6.5	security	reg point	
1.3.6.1.4.1.1206.4.2.6.5.1.0	communityNameAdmin	OCTET STRING	This object is the community name that must be used to specifically gain access to information under the security node. A message with this value in the community name field of an SNMP message has user read-write access to the security node objects and a
1.3.6.1.4.1.1206.4.2.6.5.2.0	communityNamesMax	INTEGER	This object specifies the maximum number of rows that are implemented in the community name table.
1.3.6.1.4.1.1206.4.2.6.5.3	communityNameTable	SEQUENCE	This table defines the community names that can appear in the community name field of the SNMP message and access privileges associated with that community name.
1.3.6.1.4.1.1206.4.2.6.5.3.1	communityNameTableEntry	SEQUENCE	This is the row index of information in the community name table.
1.3.6.1.4.1.1206.4.2.6.5.3.1.1	communityNameIndex	INTEGER	This object defines the row index into the communityNameTable. This value shall not exceed the communityNamesMax object value.
1.3.6.1.4.1.1206.4.2.6.5.3.1.2	communityNameUser	OCTET STRING	This object defines a community name value that a security administrator can assign user read-write access to information (other than security) in a device A message with this value in the community name field of an SNMP message has user access rights as
1.3.6.1.4.1.1206.4.2.6.5.3.1.3	communityNameAccessMask	GAUGE	This object defines a 32 bit mask that can be used to associate 'write access' with a community name. A value of 0x00000000 grants the community name user read-only access and overrides any individual object's read-write access clause. A value of 0xFFFF

ASC - OID 1202

**The highlighted OIDs will be tested as a minimum.

OID	OID_Name	OID_SyntaxTypeName	OID_Description	OID_Minimum	OID_Maximum
1.3.6.1.4.1.1206.4.2.1.2.4.1.3.4	vehicleDetectorStatusGroupAlarms	INTEGER	This object shall return the alarm status of the detectors associated with the group. Each detector alarm status shall be represented as ON or OFF by individual bits in this object. If any detector alarm (defined in the vehicleDetectorAlarm object) is a	0	255
1.3.6.1.4.1.1206.4.2.1.2.5	volumeOccupancyReport	reg point			
1.3.6.1.4.1.1206.4.2.1.2.5.1.0	volumeOccupancySequence	INTEGER	This object defines a Sequence Number for Volume / Occupancy data collection. This object is used to detect duplicate or missing reports. The value cycles within the limits of 0 to 255. This object is incremented by one at the expiration of the volumeOc	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.2.0	volumeOccupancyPeriod	INTEGER	This object defines the number of seconds (0-255) that comprise the volume / occupancy collection period. When the collection period expires the device shall increment the volumeOccupancySequence, update the volumeOccupancyTable entries and reset the vo	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.3.0	activeVolumeOccupancyDetectors	INTEGER	The number of detectors in this device. This object indicates how many rows are in the volumeOccupancyTable object. There shall be a row for every detector that is collecting volume or occupancy data (refer to detectorOptions in the detectorTable).	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4	volumeOccupancyTable	SEQUENCE	A table containing Detector Volume and Occupancy data collected. The number of rows in this table is equal to the activeVolumeOccupancyDetectors object.		
1.3.6.1.4.1.1206.4.2.1.2.5.4.1	volumeOccupancyEntry	SEQUENCE	The Volume and Occupancy data collected for one of the detectors in the device.		
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.1	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.2	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.3	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.4	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.5	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.6	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.7	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.1.8	detectorVolume	INTEGER	Detector Volume data collected over the Volume / Occupancy Period. This value shall range from 0 to 254 indicating the volume of traffic crossing the associated detectorNumber during the collection period. The value 255 shall indicate volume overflow.	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.1	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.2	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.3	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.4	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.5	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.6	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.7	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.5.4.1.2.8	detectorOccupancy	INTEGER	Detector Occupancy data collected over the Volume / Occupancy Period or Detector Unit Diagnostic Information. The value of the object shall indicate occupancy or detector diagnostic information as follows: Range Meaning 0-200 Detector Occ	0	255
1.3.6.1.4.1.1206.4.2.1.2.6.0	maxPedestrianDetectors	INTEGER	The Maximum Number of Pedestrian Detectors this Actuated Controller Unit supports. This object indicates the maximum rows which shall appear in the pedestrianDetectorTable object.	0	255
1.3.6.1.4.1.1206.4.2.1.2.7	pedestrianDetectorTable	SEQUENCE	A table containing Actuated Controller Unit pedestrian detector parameters. The number of rows in this table is equal to the maxPedestrianDetectors object.		
1.3.6.1.4.1.1206.4.2.1.2.7.1	pedestrianDetectorEntry	SEQUENCE	Parameters for a specific Actuated Controller Unit pedestrian detector.		
1.3.6.1.4.1.1206.4.2.1.2.7.1.1	pedestrianDetectorNumber	INTEGER	The pedestrianDetector number for objects in this row. The value shall not exceed the maxPedestrianDetectors object value.	1	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.1.1	pedestrianDetectorNumber	INTEGER	The pedestrianDetector number for objects in this row. The value shall not exceed the maxPedestrianDetectors object value.	1	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.1.2	pedestrianDetectorNumber	INTEGER	The pedestrianDetector number for objects in this row. The value shall not exceed the maxPedestrianDetectors object value.	1	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.1.3	pedestrianDetectorNumber	INTEGER	The pedestrianDetector number for objects in this row. The value shall not exceed the maxPedestrianDetectors object value.	1	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.1.4	pedestrianDetectorNumber	INTEGER	The pedestrianDetector number for objects in this row. The value shall not exceed the maxPedestrianDetectors object value.	1	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.2	pedestrianDetectorCallPhase	INTEGER	This object contains assigned phase number for the pedestrian detector input associated with this row. The associated detector call capability is enabled when this object is set to a non-zero value. The value shall not exceed the value of maxPhases.	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.2.1	pedestrianDetectorCallPhase	INTEGER	This object contains assigned phase number for the pedestrian detector input associated with this row. The associated detector call capability is enabled when this object is set to a non-zero value. The value shall not exceed the value of maxPhases.	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.2.2	pedestrianDetectorCallPhase	INTEGER	This object contains assigned phase number for the pedestrian detector input associated with this row. The associated detector call capability is enabled when this object is set to a non-zero value. The value shall not exceed the value of maxPhases.	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.2.3	pedestrianDetectorCallPhase	INTEGER	This object contains assigned phase number for the pedestrian detector input associated with this row. The associated detector call capability is enabled when this object is set to a non-zero value. The value shall not exceed the value of maxPhases.	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.2.4	pedestrianDetectorCallPhase	INTEGER	This object contains assigned phase number for the pedestrian detector input associated with this row. The associated detector call capability is enabled when this object is set to a non-zero value. The value shall not exceed the value of maxPhases.	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.3	pedestrianDetectorNoActivity	INTEGER	Pedestrian Detector No Activity diagnostic Parameter in minutes (0-255 min.) . If an active detector does not exhibit an actuation in the specified period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.3.1	pedestrianDetectorNoActivity	INTEGER	Pedestrian Detector No Activity diagnostic Parameter in minutes (0-255 min.) . If an active detector does not exhibit an actuation in the specified period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.3.2	pedestrianDetectorNoActivity	INTEGER	Pedestrian Detector No Activity diagnostic Parameter in minutes (0-255 min.) . If an active detector does not exhibit an actuation in the specified period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.3.3	pedestrianDetectorNoActivity	INTEGER	Pedestrian Detector No Activity diagnostic Parameter in minutes (0-255 min.) . If an active detector does not exhibit an actuation in the specified period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.3.4	pedestrianDetectorNoActivity	INTEGER	Pedestrian Detector No Activity diagnostic Parameter in minutes (0-255 min.) . If an active detector does not exhibit an actuation in the specified period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.4	pedestrianDetectorMaxPresence	INTEGER	Pedestrian Detector Maximum Presence diagnostic Parameter in minutes (0-255 min.) . If an active detector exhibits continuous detection for too long a period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.4.1	pedestrianDetectorMaxPresence	INTEGER	Pedestrian Detector Maximum Presence diagnostic Parameter in minutes (0-255 min.) . If an active detector exhibits continuous detection for too long a period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.4.2	pedestrianDetectorMaxPresence	INTEGER	Pedestrian Detector Maximum Presence diagnostic Parameter in minutes (0-255 min.) . If an active detector exhibits continuous detection for too long a period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.4.3	pedestrianDetectorMaxPresence	INTEGER	Pedestrian Detector Maximum Presence diagnostic Parameter in minutes (0-255 min.) . If an active detector exhibits continuous detection for too long a period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.4.4	pedestrianDetectorMaxPresence	INTEGER	Pedestrian Detector Maximum Presence diagnostic Parameter in minutes (0-255 min.) . If an active detector exhibits continuous detection for too long a period, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.5	pedestrianDetectorErraticCounts	INTEGER	Pedestrian Detector Erratic Counts diagnostic Parameter in counts/minute (0-255 cpm). If an active detector exhibits excessive actuations, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0 for this object s	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.5.1	pedestrianDetectorErraticCounts	INTEGER	Pedestrian Detector Erratic Counts diagnostic Parameter in counts/minute (0-255 cpm). If an active detector exhibits excessive actuations, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0 for this object s	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.5.2	pedestrianDetectorErraticCounts	INTEGER	Pedestrian Detector Erratic Counts diagnostic Parameter in counts/minute (0-255 cpm). If an active detector exhibits excessive actuations, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0 for this object s	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.5.3	pedestrianDetectorErraticCounts	INTEGER	Pedestrian Detector Erratic Counts diagnostic Parameter in counts/minute (0-255 cpm). If an active detector exhibits excessive actuations, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0 for this object s	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.5.4	pedestrianDetectorErraticCounts	INTEGER	Pedestrian Detector Erratic Counts diagnostic Parameter in counts/minute (0-255 cpm). If an active detector exhibits excessive actuations, it is considered a fault by the diagnostics and the detector is classified as Failed. A value of 0 for this object s	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.6	pedestrianDetectorAlarms	INTEGER	This object shall return indications of detector alarms. Detector Alarms are indicated as follows: Bit Definition 0 No Activity Fault: This detector has been flagged as non-operational due to lower than expected activity by the CU detecto	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.6.1	pedestrianDetectorAlarms	INTEGER	This object shall return indications of detector alarms. Detector Alarms are indicated as follows: Bit Definition 0 No Activity Fault: This detector has been flagged as non-operational due to lower than expected activity by the CU detecto	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.6.2	pedestrianDetectorAlarms	INTEGER	This object shall return indications of detector alarms. Detector Alarms are indicated as follows: Bit Definition 0 No Activity Fault: This detector has been flagged as non-operational due to lower than expected activity by the CU detecto	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.6.3	pedestrianDetectorAlarms	INTEGER	This object shall return indications of detector alarms. Detector Alarms are indicated as follows: Bit Definition 0 No Activity Fault: This detector has been flagged as non-operational due to lower than expected activity by the CU detecto	0	255
1.3.6.1.4.1.1206.4.2.1.2.7.1.6.4	pedestrianDetectorAlarms	INTEGER	This object shall return indications of detector alarms. Detector Alarms are indicated as follows: Bit Definition 0 No Activity Fault: This detector has been flagged as non-operational due to lower than expected activity by the CU detecto	0	255
1.3.6.1.4.1.1206.4.2.1.3	unit	reg point			
1.3.6.1.4.1.1206.4.2.1.3.1.0	unitStartUpFlash	INTEGER	Unit Start up Flash time parameter in seconds (0 to 255 sec). The period/state (Start-Up Flash occurs when power is restored following a device defined power interruption. During the Start-Up Flash state, the Fault Monitor and Voltage Monitor outputs shall	0	255
1.3.6.1.4.1.1206.4.2.1.3.2.0	unitAutoPedestrianClear	Enum	Unit Automatic Ped Clear parameter (1 = False/Disable 2=True/Enable). When enabled, the CU shall time the Pedestrian Clearance interval when Manual Control Enable is active and prevent the Pedestrian Clearance interval from being terminated by the Interva		
1.3.6.1.4.1.1206.4.2.1.3.3.0	unitBackupTime	INTEGER	The Backup Time in seconds (0-65535). When one of the defined system control parameters is SET, the backup timer is reset and times the unitBackupTime interval. If the unitBackupTime interval expires without a SET operation to one of the system control p	0	65535
1.3.6.1.4.1.1206.4.2.1.3.4.0	unitRedRevert	INTEGER	The red revert in tenth seconds (0.0 - 25.5 seconds). This value shall provide the minimum red revert time for all phases (i.e. if it is greater than a phaseRedRevert object value, then this value shall be used as the red revert time for the affected ph	0	255
1.3.6.1.4.1.1206.4.2.1.3.5.0	unitControlStatus	Enum	The Control Mode for Pattern, Flash, or Free at the device: systemControl; control by master or central commands. systemStandby; control by local based on master or central command to use local control. backupMode; Backup Mode (see		
1.3.6.1.4.1.1206.4.2.1.3.6.0	unitFlashStatus	Enum	The Flash modes: notFlash; the CU is not in Flash automatic; the CU is currently in an Automatic Flash state. localManual; the Contoller Unit Local Flash input is active, MMU Flash input is not active, and Flash is not commanded by the		
1.3.6.1.4.1.1206.4.2.1.3.7.0	unitAlarmStatus2	INTEGER	Device Alarm Mask 2 (0 = False, 1 = True) as follows: Bit 7 - Reserved. Bit 6 - Reserved. Bit 5 - Reserved. Bit 4 - Stop Time - When either CU Stop Time Input becomes active. Bit 3 - External Start - When the CU External Start becomes active.	0	255
1.3.6.1.4.1.1206.4.2.1.3.8.0	unitAlarmStatus1	INTEGER	Device Alarm Mask 1 (0 = False, 1 = True) as follows: Bit 7 - CoordActive - When coordination is active and not preempted or overridden. Bit 6 - Local Free - When any of the Controller Unit inputs and/or programming cause it to not respon	0	255
1.3.6.1.4.1.1206.4.2.1.3.9.0	shortAlarmStatus	INTEGER	Short Alarm Mask (0 = False, 1 = True) as follows: Bit 7 - Critical Alarm; When the Stop Time input is active. Bit 6 - Non-Critical Alarm; When a physical alarm input is active. Bit 5 - Detector Fault; When any detectorAlarm fault occurs. Bit 4	0	255
1.3.6.1.4.1.1206.4.2.1.3.10.0	unitControl	INTEGER	This object is used to allow a remote entity to activate unit functions in the device (0 = False / Disabled, 1 = True / Enabled) as follows: Bit 7 = Dimming Enable - when set to 1, causes channel dimming to operate as configured. REFERENCE	0	255
1.3.6.1.4.1.1206.4.2.1.3.11.0	maxAlarmGroups	INTEGER	This object contains the maximum number of alarm groups (8 alarm inputs per group) this device supports. This object indicates the maximum rows which shall appear in the alarmGroupTable object.	0	255
1.3.6.1.4.1.1206.4.2.1.3.12	alarmGroupTable	SEQUENCE	This table contains alarm input status in groups of eight inputs. The number of rows in this table is equal to the maxAlarmGroups object.		
1.3.6.1.4.1.1206.4.2.1.3.12.1	alarmGroupEntry	SEQUENCE	Status for eight alarm inputs.		
1.3.6.1.4.1.1206.4.2.1.3.12.1.1	alarmGroupNumber	INTEGER	The alarm group number for objects in this row. This value shall not exceed the maxAlarmGroups object value.	1	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.1.1	alarmGroupNumber	INTEGER	The alarm group number for objects in this row. This value shall not exceed the maxAlarmGroups object value.	1	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.1.2	alarmGroupNumber	INTEGER	The alarm group number for objects in this row. This value shall not exceed the maxAlarmGroups object value.	1	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.1.3	alarmGroupNumber	INTEGER	The alarm group number for objects in this row. This value shall not exceed the maxAlarmGroups object value.	1	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.1.4	alarmGroupNumber	INTEGER	The alarm group number for objects in this row. This value shall not exceed the maxAlarmGroups object value.	1	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.2	alarmGroupState	INTEGER	Alarm input state bit field. When a bit = 1, the associated physical alarm input is active. When a bit = 0, the associated alarm input is NOT active. Bit 7 = Alarm Input number = (alarmGroupNumber * 8) Bit 6 = Alarm Input number = (alarmGroupNumb	0	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.2.1	alarmGroupState	INTEGER	Alarm input state bit field. When a bit = 1, the associated physical alarm input is active. When a bit = 0, the associated alarm input is NOT active. Bit 7 = Alarm Input number = (alarmGroupNumber * 8) Bit 6 = Alarm Input number = (alarmGroupNumb	0	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.2.2	alarmGroupState	INTEGER	Alarm input state bit field. When a bit = 1, the associated physical alarm input is active. When a bit = 0, the associated alarm input is NOT active. Bit 7 = Alarm Input number = (alarmGroupNumber * 8) Bit 6 = Alarm Input number = (alarmGroupNumb	0	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.2.3	alarmGroupState	INTEGER	Alarm input state bit field. When a bit = 1, the associated physical alarm input is active. When a bit = 0, the associated alarm input is NOT active. Bit 7 = Alarm Input number = (alarmGroupNumber * 8) Bit 6 = Alarm Input number = (alarmGroupNumb	0	255
1.3.6.1.4.1.1206.4.2.1.3.12.1.2.4	alarmGroupState	INTEGER	Alarm input state bit field. When a bit = 1, the associated physical alarm input is active. When a bit = 0, the associated alarm input is NOT active. Bit 7 = Alarm Input number = (alarmGroupNumber * 8) Bit 6 = Alarm Input number = (alarmGroupNumb	0	255
1.3.6.1.4.1.1206.4.2.1.3.13.0	maxSpecialFunctionOutputs	INTEGER	The Maximum Number of Special Functions this Actuated Controller Unit supports.	0	255
1.3.6.1.4.1.1206.4.2.1.3.14	specialFunctionOutputTable	SEQUENCE	A table containing Actuated Controller Unit special function output objects. The number of rows in this table is equal to the maxSpecialFunctionOutputs object.		
1.3.6.1.4.1.1206.4.2.1.3.14.1	specialFunctionOutputEntry	SEQUENCE	Control for Actuated Controller Unit system special functions.		

ASC - OID 1202

**The highlighted OIDs will be tested as a minimum.

OID	OID_Name	OID_SyntaxTypeName	OID_Description	OID_Minimum	OID_Maximum
1.3.6.1.4.1.1206.4.2.1.9.4.1.3.3	overlapStatusGroupYellows	INTEGER	Overlap Yellow Output Status Mask, when a bit = 1, the Overlap Yellow is currently active. When a bit = 0, the Overlap Yellow is NOT currently active. Bit 7 = Overlap number = (overlapStatusGroupNumber * 8) Bit 6 = Overlap number = (overlapStatusGroup	0	255
1.3.6.1.4.1.1206.4.2.1.9.4.1.3.4	overlapStatusGroupYellows	INTEGER	Overlap Yellow Output Status Mask, when a bit = 1, the Overlap Yellow is currently active. When a bit = 0, the Overlap Yellow is NOT currently active. Bit 7 = Overlap number = (overlapStatusGroupNumber * 8) Bit 6 = Overlap number = (overlapStatusGroup	0	255
1.3.6.1.4.1.1206.4.2.1.9.4.1.4	overlapStatusGroupGreens	INTEGER	Overlap Green Output Status Mask, when a bit = 1, the Overlap Green is currently active. When a bit = 0, the Overlap Green is NOT currently active. Bit 7 = Overlap number = (overlapStatusGroupNumber * 8) Bit 6 = Overlap number = (overlapStatusGroupNum	0	255
1.3.6.1.4.1.1206.4.2.1.9.4.1.4.1	overlapStatusGroupGreens	INTEGER	Overlap Green Output Status Mask, when a bit = 1, the Overlap Green is currently active. When a bit = 0, the Overlap Green is NOT currently active. Bit 7 = Overlap number = (overlapStatusGroupNumber * 8) Bit 6 = Overlap number = (overlapStatusGroupNum	0	255
1.3.6.1.4.1.1206.4.2.1.9.4.1.4.2	overlapStatusGroupGreens	INTEGER	Overlap Green Output Status Mask, when a bit = 1, the Overlap Green is currently active. When a bit = 0, the Overlap Green is NOT currently active. Bit 7 = Overlap number = (overlapStatusGroupNumber * 8) Bit 6 = Overlap number = (overlapStatusGroupNum	0	255
1.3.6.1.4.1.1206.4.2.1.9.4.1.4.3	overlapStatusGroupGreens	INTEGER	Overlap Green Output Status Mask, when a bit = 1, the Overlap Green is currently active. When a bit = 0, the Overlap Green is NOT currently active. Bit 7 = Overlap number = (overlapStatusGroupNumber * 8) Bit 6 = Overlap number = (overlapStatusGroupNum	0	255
1.3.6.1.4.1.1206.4.2.1.9.4.1.4.4	overlapStatusGroupGreens	INTEGER	Overlap Green Output Status Mask, when a bit = 1, the Overlap Green is currently active. When a bit = 0, the Overlap Green is NOT currently active. Bit 7 = Overlap number = (overlapStatusGroupNumber * 8) Bit 6 = Overlap number = (overlapStatusGroupNum	0	255
1.3.6.1.4.1.1206.4.2.1.10	ts2port1	reg point			
1.3.6.1.4.1.1206.4.2.1.10.1.0	maxPort1Addresses	INTEGER	The Maximum Number of Port 1 addresses this Actuated Controller Unit supports. This object indicates the maximum rows which shall appear in the port1Table object.	0	255
1.3.6.1.4.1.1206.4.2.1.10.2	port1Table	SEQUENCE	A table containing Actuated Controller Unit port 1 parameters. The number of rows in this table is equal to the maxPort1Addresses object. Address 255 is reserved for the all stations address.		
1.3.6.1.4.1.1206.4.2.1.10.2.1	port1Entry	SEQUENCE	This object defines a conceptual row in the port 1 Table.		
1.3.6.1.4.1.1206.4.2.1.10.2.1.1	port1Number	INTEGER	The (Port 1 address plus one) for objects in this row. This value shall not exceed the maxPort1Addresses object value.	1	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.1.1	port1Number	INTEGER	The (Port 1 address plus one) for objects in this row. This value shall not exceed the maxPort1Addresses object value.	1	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.1.2	port1Number	INTEGER	The (Port 1 address plus one) for objects in this row. This value shall not exceed the maxPort1Addresses object value.	1	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.1.3	port1Number	INTEGER	The (Port 1 address plus one) for objects in this row. This value shall not exceed the maxPort1Addresses object value.	1	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.1.4	port1Number	INTEGER	The (Port 1 address plus one) for objects in this row. This value shall not exceed the maxPort1Addresses object value.	1	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.2	port1DevicePresent	INTEGER	The presence or absence of a device for this port 1 address. Command Frames shall be transmitted only to those devices that are present as determined by this programming. If the object is TRUE (non-zero) then the device is present. If the object is FALS	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.2.1	port1DevicePresent	INTEGER	The presence or absence of a device for this port 1 address. Command Frames shall be transmitted only to those devices that are present as determined by this programming. If the object is TRUE (non-zero) then the device is present. If the object is FALS	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.2.2	port1DevicePresent	INTEGER	The presence or absence of a device for this port 1 address. Command Frames shall be transmitted only to those devices that are present as determined by this programming. If the object is TRUE (non-zero) then the device is present. If the object is FALS	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.2.3	port1DevicePresent	INTEGER	The presence or absence of a device for this port 1 address. Command Frames shall be transmitted only to those devices that are present as determined by this programming. If the object is TRUE (non-zero) then the device is present. If the object is FALS	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.2.4	port1DevicePresent	INTEGER	The presence or absence of a device for this port 1 address. Command Frames shall be transmitted only to those devices that are present as determined by this programming. If the object is TRUE (non-zero) then the device is present. If the object is FALS	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.3	port1Frame40Enable	INTEGER	To enable or disable Frame 40 messages to the device at this port 1 address. Frame 40 is used to poll the secondary stations for a secondary to secondary message exchange. Command 40 series frames shall be transmitted only to those devices that are enable	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.3.1	port1Frame40Enable	INTEGER	To enable or disable Frame 40 messages to the device at this port 1 address. Frame 40 is used to poll the secondary stations for a secondary to secondary message exchange. Command 40 series frames shall be transmitted only to those devices that are enable	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.3.2	port1Frame40Enable	INTEGER	To enable or disable Frame 40 messages to the device at this port 1 address. Frame 40 is used to poll the secondary stations for a secondary to secondary message exchange. Command 40 series frames shall be transmitted only to those devices that are enable	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.3.3	port1Frame40Enable	INTEGER	To enable or disable Frame 40 messages to the device at this port 1 address. Frame 40 is used to poll the secondary stations for a secondary to secondary message exchange. Command 40 series frames shall be transmitted only to those devices that are enable	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.3.4	port1Frame40Enable	INTEGER	To enable or disable Frame 40 messages to the device at this port 1 address. Frame 40 is used to poll the secondary stations for a secondary to secondary message exchange. Command 40 series frames shall be transmitted only to those devices that are enable	0	1
1.3.6.1.4.1.1206.4.2.1.10.2.1.4	port1Status	Enum	This object indicates the communications status with the associated device: online - This indicates that at least five of the most recent 10 response transfers were received correctly responseFault - This indicates that more than 5 of the most recent		
1.3.6.1.4.1.1206.4.2.1.10.2.1.4.1	port1Status	Enum	This object indicates the communications status with the associated device: online - This indicates that at least five of the most recent 10 response transfers were received correctly responseFault - This indicates that more than 5 of the most recent		
1.3.6.1.4.1.1206.4.2.1.10.2.1.4.2	port1Status	Enum	This object indicates the communications status with the associated device: online - This indicates that at least five of the most recent 10 response transfers were received correctly responseFault - This indicates that more than 5 of the most recent		
1.3.6.1.4.1.1206.4.2.1.10.2.1.4.3	port1Status	Enum	This object indicates the communications status with the associated device: online - This indicates that at least five of the most recent 10 response transfers were received correctly responseFault - This indicates that more than 5 of the most recent		
1.3.6.1.4.1.1206.4.2.1.10.2.1.4.4	port1Status	Enum	This object indicates the communications status with the associated device: online - This indicates that at least five of the most recent 10 response transfers were received correctly responseFault - This indicates that more than 5 of the most recent		
1.3.6.1.4.1.1206.4.2.1.10.2.1.5	port1FaultFrame	INTEGER	This object indicates the frame number that caused the most recent fault.	0	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.5.1	port1FaultFrame	INTEGER	This object indicates the frame number that caused the most recent fault.	0	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.5.2	port1FaultFrame	INTEGER	This object indicates the frame number that caused the most recent fault.	0	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.5.3	port1FaultFrame	INTEGER	This object indicates the frame number that caused the most recent fault.	0	255
1.3.6.1.4.1.1206.4.2.1.10.2.1.5.4	port1FaultFrame	INTEGER	This object indicates the frame number that caused the most recent fault.	0	255

CCTV - OID 1205

OID	OID_Name	OID_SyntaxTypeName	OID_Description
1	iso	reg point	
1.3	org	reg point	
1.3.6	dod	reg point	
1.3.6.1	internet	reg point	
1.3.6.1.1	directory	reg point	
1.3.6.1.2	mgmt	reg point	
1.3.6.1.3	experimental	reg point	
1.3.6.1.4	private	reg point	
1.3.6.1.4.1	enterprises	reg point	
1.3.6.1.4.1.1206	nema	reg point	
1.3.6.1.4.1.1206.1	nemaMgmt	reg point	
1.3.6.1.4.1.1206.2	nemaExperimental	reg point	
1.3.6.1.4.1.1206.3	nemaPrivate	reg point	
1.3.6.1.4.1.1206.4	transportation	reg point	
1.3.6.1.4.1.1206.4.1	protocols	reg point	
1.3.6.1.4.1.1206.4.2	devices	reg point	
1.3.6.1.4.1.1206.4.2.7	cctv	reg point	
1.3.6.1.4.1.1206.4.2.7.1	cctvRange	reg point	
1.3.6.1.4.1.1206.4.2.7.1.1.0	rangeMaximumPreset	INTEGER	A preset is the pre-specified position where a camera is pointed to a fixed point in space (includes positions for pan, tilt, and zoom). The maximumPreset is a number indicating the total number of possible preset positions supported by the device. A va
1.3.6.1.4.1.1206.4.2.7.1.2.0	rangePanLeftLimit	INTEGER	Specifies the panning left range limit in 1/100th degree units in a clockwise direction from the Home Position. If the rangePanLeftLimit and the rangePanRightLimit are both zero (0), then the device does not support panning movement. If the rangePanLeft
1.3.6.1.4.1.1206.4.2.7.1.3.0	rangePanRightLimit	INTEGER	Specifies the panning right range limit in 1/100th degree units in a clockwise direction from the Home Position. If the rangePanLeftLimit and the rangePanRightLimit are both zero (0), then the device does not support panning movement. If the rangePanLeftL
1.3.6.1.4.1.1206.4.2.7.1.4.0	rangePanHomePosition	INTEGER	Specifies an arbitrary point on a circle from which the left and right limits are measured in 1/100th degree units. The value of 65535 means that Home position referencing is not supported for the horizontal plane..
1.3.6.1.4.1.1206.4.2.7.1.5.0	rangeTrueNorthOffset	INTEGER	Specifies the zoom range in arbitrary units. Used for absolute or offset control. Zero (0) identifies that zoom limits are not supported. This number represents the scalar zoom positioning beginning with zero (0) for wide and ending with 65535 for tele
1.3.6.1.4.1.1206.4.2.7.1.6.0	rangeTiltUpLimit	INTEGER	Specifies the tilting up range limit in 1/100th degree units. The zero point for measurement is the horizon line. Tilting upward indicates a positive direction. If the rangeTiltUpLimit and the rangeTiltDownLimit are both zero (0), then the device does n
1.3.6.1.4.1.1206.4.2.7.1.7.0	rangeTiltDownLimit	INTEGER	Specifies the tilting down range limit in 1/100th degree units. The zero point for measurement is the horizon line. Tilting upward indicates a positive direction. If the rangeTiltUpLimit and the rangeTiltDownLimit are both zero (0), then the device does
1.3.6.1.4.1.1206.4.2.7.1.8.0	rangeZoomLimit	INTEGER	Specifies the zoom range in arbitrary units. Used for absolute or offset control. Zero (0) identifies that zoom limits are not supported. This number represents the scalar zoom positioning beginning with zero (0) for near and ending with 65535 for fa
1.3.6.1.4.1.1206.4.2.7.1.9.0	rangeFocusLimit	INTEGER	Specifies the focus range in arbitrary units. Used for absolute or offset control. Zero (0) identifies that focus limits are not supported. This number represents the scalar focus positioning beginning with zero (0) for near and ending with 65535 for fa
1.3.6.1.4.1.1206.4.2.7.1.10.0	rangeIrisLimit	INTEGER	Specifies the iris range in arbitrary units. Used for absolute or offset control. Zero (0) identifies that iris limits are not supported. This number represents the scalar zoom positioning beginning with zero (0) for open and ending with 65535 for close
1.3.6.1.4.1.1206.4.2.7.1.11.0	rangeMinimumPanStepAngle	INTEGER	Specifies the minimum incremental angle in 1/100th degree units for the minimum pan step size to guarantee movement in the horizontal plane. A value of 65535 means that Minimum pan step angle is not supported.
1.3.6.1.4.1.1206.4.2.7.2	cctvTimeout	reg point	
1.3.6.1.4.1.1206.4.2.7.1.12.0	rangeMinimumTiltStepAngle	INTEGER	Specifies the minimum incremental angle in 1/100th degree units for the minimum tilt step size to guarantee movement in the vertical plane. A value of 65535 means that minimum tilt step angle is not supported.
1.3.6.1.4.1.1206.4.2.7.2.1.0	timeoutPan	INTEGER	A number indicating the total number of milliseconds that a panning motion can continue without a reissue of a pan command. A value of zero identifies that panning timeout is not supported.
1.3.6.1.4.1.1206.4.2.7.2.2.0	timeoutTilt	INTEGER	A number indicating the total number of milliseconds that a tilting motion can continue without a reissue of a tilt command. A value of zero identifies that tilting timeout is not supported.
1.3.6.1.4.1.1206.4.2.7.2.3.0	timeoutZoom	INTEGER	A number indicating the total number of milliseconds that a zoom motion can continue without a reissue of a zoom command. A value of zero identifies that zooming timeout is not supported.
1.3.6.1.4.1.1206.4.2.7.2.4.0	timeoutFocus	INTEGER	A number indicating the total number of milliseconds that a focus motion can continue without a reissue of a focus type command. A value of zero identifies that focusing timeout is not supported.
1.3.6.1.4.1.1206.4.2.7.2.5.0	timeoutIris	INTEGER	A number indicating the total number of milliseconds that an iris motion can continue without a reissue of an iris type command. A value of zero identifies that iris timeout is not supported.
1.3.6.1.4.1.1206.4.2.7.3	cctvPreset	reg point	
1.3.6.1.4.1.1206.4.2.7.3.1.0	presetGotoPosition	INTEGER	Writing to this object commands the device to move to a preset if that preset exists. Reading returns the last value written. This value is reset to zero (0) upon the issuance of a pan, tilt, or zoom command.
1.3.6.1.4.1.1206.4.2.7.3.2.0	presetStorePosition	INTEGER	Writing to this object commands the device to save the current position to the specified preset. Reading returns the last value written. This value is reset to zero (0) upon the issuance of a pan, tilt, or zoom command.
1.3.6.1.4.1.1206.4.2.7.4	cctvPosition	reg point	
1.3.6.1.4.1.1206.4.2.7.4.1.0	positionPan	OCTET STRING	Object is 4 bytes in length: Byte 1 is the mode of operation defined as stop movement, delta, absolute, or continuous movement, Byte 2 is speed defined as a scalar unit with positive (+) being clockwise and negative (-) being counterclockwise,
1.3.6.1.4.1.1206.4.2.7.4.2.0	positionTilt	OCTET STRING	Object is 4 bytes in length: Byte 1 is the mode of operation defined as stop movement, delta, absolute, or continuous movement, Byte 2 is speed defined as a scalar unit with positive (+) being up and negative (-) being down, Bytes 3 and 4 specify
1.3.6.1.4.1.1206.4.2.7.4.3.0	positionZoomLens	OCTET STRING	Object is 4 bytes in length: Byte 1 is the mode of operation defined as stop movement, delta, absolute, or continuous movement, Byte 2 is speed defined as a scalar unit with positive (+) being telephoto and negative (-) being wide, Bytes 3 and 4
1.3.6.1.4.1.1206.4.2.7.4.4.0	positionFocusLens	OCTET STRING	Object is 4 bytes in length: Byte 1 is the mode of operation defined as stop movement, delta, absolute, or continuous movement, Byte 2 is speed defined as a scalar unit with positive (+) being far and negative (-) being near, Bytes 3 and 4 specif
1.3.6.1.4.1.1206.4.2.7.4.5.0	positionIrisLens	OCTET STRING	Object is 4 bytes in length: Byte 1 is the mode of operation defined as stop movement, delta, absolute, or continuous movement, Byte 2 is speed defined as a scalar unit with positive (+) being closed and negative (-) being opened, Bytes 3 and 4 s
1.3.6.1.4.1.1206.4.2.7.5	cctvSystem	reg point	
1.3.6.1.4.1.1206.4.2.7.5.1.0	systemCameraFeatureControl	OCTET STRING	A bit mapped value as defined below: Byte1 Bit7 0 = OFF, 1 = ON for Camera Power (MSB), Bit6 0 = OFF, 1 = ON for Heater Power, Bit5 0 = OFF, 1 = ON for Wiper, Bit4 0 = OFF, 1 = ON for Washer, Bit3 0 = OFF, 1 = ON for Blower, Bits2
1.3.6.1.4.1.1206.4.2.7.5.2.0	systemCameraFeatureStatus	OCTET STRING	A bit mapped value as defined below: Byte1 Bit7 0 = OFF, 1 = ON for status of Camera Power (MSB), Bit6 0 = OFF, 1 = ON for status of Heater Power, Bit5 0 = OFF, 1 = ON for status of Wiper, Bit4 0 = OFF, 1 = ON for status of Washer, Bit
1.3.6.1.4.1.1206.4.2.7.5.3.0	systemCameraEquipped	OCTET STRING	A bit mapped value as defined below: Bit7 0 = NO, 1 = YES denotes the availability of Camera Power (MSB), Bit6 0 = NO, 1 = YES denotes the availability of Heater Power, Bit5 0 = NO, 1 = YES denotes the availability of a Wiper, Bit4 0 =
1.3.6.1.4.1.1206.4.2.7.5.4.0	systemLensFeatureControl	OCTET STRING	A bit mapped value as defined below: Byte1 Bit 7 0 = OFF, 1 = ON for Auto Iris, Bit 6 0 = OFF, 1 = ON for Auto Focus, Bits5..0 Reserved (Bit 0 = LSB), Byte2 Bit7 0 = OFF, 1 = ON for activation and deactivation of the lens component
1.3.6.1.4.1.1206.4.2.7.5.5.0	systemLensFeatureStatus	OCTET STRING	A bit mapped value as defined below: Bit 7 0 = OFF, 1 = ON for Auto Iris, Bit 6 0 = OFF, 1 = ON for Auto Focus, Bits5..0 Reserved (Bit 0 = LSB),
1.3.6.1.4.1.1206.4.2.7.5.6.0	systemLensEquipped	OCTET STRING	A bit mapped value as defined below: Bit 7 0 = NO, 1 = YES denotes the availability of Auto Iris, Bit 6 0 = NO, 1 = YES denotes the availability of Auto Focus, Bits5..0 Reserved (Bit 0 = LSB).
1.3.6.1.4.1.1206.4.2.7.6	cctvAlarm	reg point	
1.3.6.1.4.1.1206.4.2.7.6.1.0	alarmStatus	OCTET STRING	Alarm status denotes a bit mapped value that indicates the current status of alarms, as outlined below: Bit7 0 = OFF, 1 = ON for the active status of the Cabinet Alarm signifying cabinet entry (MSB), Bit6 0 = OFF, 1 = ON for the active status of
1.3.6.1.4.1.1206.4.2.7.6.2.0	alarmLatchStatus	OCTET STRING	Latch status denotes a bit mapped value that indicates the presence of a latched alarm, indicating that an alarm has occurred since the previous latch was cleared, as outlined below: Bit7 0 = OFF, 1 = ON for the latch status of the Cabinet Alarm (MSB
1.3.6.1.4.1.1206.4.2.7.6.3.0	alarmLatchClear	OCTET STRING	Latch clear denotes a bit mapped value that clears the presence of a latched alarm, as outlined below: Bit7 0 = OFF, 1 = ON for clearing the alarm latch for the Cabinet Alarm (MSB), Bit6 0 = OFF, 1 = ON for clearing the alarm latch for the Enclo
1.3.6.1.4.1.1206.4.2.7.6.4.0	alarmTemperatureHighLowThreshold	OCTET STRING	Identifies the high and low thresholds for the temperature alarm, as shown below; Byte1 Low Threshold denotes the value of minimum internal camera enclosure temperature measured in degrees C, Byte2 HighThreshold denotes the value of maximum int
1.3.6.1.4.1.1206.4.2.7.6.5.0	alarmTemperatureCurrentValue	OCTET STRING	Identifies the current value for the temperature within the camera enclosure measured in degrees C.
1.3.6.1.4.1.1206.4.2.7.6.6.0	alarmPressureHighLowThreshold	OCTET STRING	Identifies the high and low thresholds for the pressure alarm, as shown below; Byte1 Low Threshold denotes the value of minimum pressure within the camera enclosure measured in psig, Byte2 HighThreshold denotes the value of maximum pressure wit
1.3.6.1.4.1.1206.4.2.7.6.7.0	alarmPressureCurrentValue	OCTET STRING	Identifies the current value for the pressure within the camera enclosure measured in psig.
1.3.6.1.4.1.1206.4.2.7.6.8.0	alarmWasherFluidHighLowThreshold	OCTET STRING	Identifies the high and low thresholds for the washer fluid alarm, as shown below; Byte1 Low Threshold denotes the percentage of minimum filled capacity between zero (0) and 100 percent, Byte2 HighThreshold denotes the percentage of maximum fil
1.3.6.1.4.1.1206.4.2.7.6.9.0	alarmWasherFluidCurrentValue	OCTET STRING	Identifies the current value for the washer fluid level measured as the amount of filled capacity between zero (0) and 100 percent.
1.3.6.1.4.1.1206.4.2.7.6.10.0	alarmLabelIndex	OCTET STRING	The label number identifies the entry into the camera control label table that provides additional text information or on-screen text information. Labels are text strings with formatting, positioning, and display information. A value of zero (0) indicat
1.3.6.1.4.1.1206.4.2.7.7	cctvInput	reg point	
1.3.6.1.4.1.1206.4.2.7.7.1.0	inputStatus	OCTET STRING	Input status denotes a bit mapped value that indicates the current state of eight (8) user defined discrete inputs, as outlined below: Bit7 0 = OFF, 1 = ON for the active status of discrete Input 8 (MSB), Bit6 0 = OFF, 1 = ON for the active stat
1.3.6.1.4.1.1206.4.2.7.7.2.0	inputLatchStatus	OCTET STRING	Latch status denotes a bit mapped value that indicates the presence of a latched input for eight (8) user defined discrete inputs, indicating that an input has occurred since the previous latch was cleared, as outlined below: Bit7 0 = OFF, 1 = ON for
1.3.6.1.4.1.1206.4.2.7.7.3.0	inputLatchClear	OCTET STRING	Latch clear denotes a bit mapped value that clears the presence of a latched input for eight (8) user defined discrete inputs, as outlined below: Bit7 0 = OFF, 1 = ON for clearing the input latch for discrete Input 8 (MSB), Bit6 0 = OFF, 1 = ON
1.3.6.1.4.1.1206.4.2.7.7.4.0	inputLabelIndex	OCTET STRING	The label number identifies the entry into the camera control label table that provides additional text information or on-screen text information. Labels are text strings with formatting, positioning, and display information. A value of zero (0) indicat
1.3.6.1.4.1.1206.4.2.7.8	cctvOutput	reg point	
1.3.6.1.4.1.1206.4.2.7.8.1.0	outputStatus	OCTET STRING	Output status denotes a bit mapped value that indicates the current state of eight (8) user defined discrete outputs, as outlined below: Bit7 0 = OFF, 1 = ON for the active status of discrete Output 8 (MSB), Bit6 0 = OFF, 1 = ON for the active s
1.3.6.1.4.1.1206.4.2.7.8.2.0	outputControl	OCTET STRING	Output control activates and deactivates individual user defined discrete outputs as outlined below: Byte1 discrete Output number to be controlled, 1 through 8, Byte2 Bit7 0 = OFF, 1 = ON for the active status of discrete Output (MSB), Bits6
1.3.6.1.4.1.1206.4.2.7.8.3.0	outputLabelIndex	OCTET STRING	The label number identifies the entry into the camera control label table that provides additional text information or on-screen text information. Labels are text strings with formatting, positioning, and display information. A value of zero (0) indicat
1.3.6.1.4.1.1206.4.2.7.9	cctvZone	reg point	
1.3.6.1.4.1.1206.4.2.7.9.1.0	zoneMaximum	INTEGER	Defines the maximum number of zones for this device. A zone is a region in space defined by pan and tilt limits. When read, this object returns last value written.

FDOT APPROVED DMS - OID 1203

OID	OID_Name	OID_SyntaxTypeName	OID_Description
1.3.6.1.4.1.1206.4.2.3.1	dmsSignCfg	reg point	
1.3.6.1.4.1.1206.4.2.3.1.2.0	dmsSignType	Enum	Indicates the type of sign.
1.3.6.1.4.1.1206.4.2.3.1.8.0	dmsBeaconType	Enum	Indicates the configuration of the type, numbers and flashing patterns of beacons on a sign.
1.3.6.1.4.1.1206.4.2.3.1.9.0	dmsSignTechnology	INTEGER	Indicates the utilized technology in a bitmap format (Hybrids will have to set the bits for all technologies that the sign utilizes). Bit 0- Other, Bit 1- LED, Bit 2- Flip Disk, Bit 3- Fiber Optics, Bit 4- Shuttered, Bit 5- Lamp, Bit 6- Drum
1.3.6.1.4.1.1206.4.2.3.2.1.0	vmsCharacterHeightPixels	INTEGER	Indicates the height of a single character in Pixels. The value zero (0) Indicates a variable character height.
1.3.6.1.4.1.1206.4.2.3.2.2.0	vmsCharacterWidthPixels	INTEGER	Indicates the width of a single character in Pixels. The value zero (0) indicates a variable character width.
1.3.6.1.4.1.1206.4.2.3.2.3.0	vmsSignHeightPixels	INTEGER	Indicates the number of rows of pixels for the entire sign.
1.3.6.1.4.1.1206.4.2.3.2.4.0	vmsSignWidthPixels	INTEGER	Indicates the number of columns of pixels for the entire sign.
1.3.6.1.4.1.1206.4.2.3.2.5.0	vmsHorizontalPitch	INTEGER	Indicates the horizontal distance from the center of one pixel to the center of the neighboring pixel in millimeters.
1.3.6.1.4.1.1206.4.2.3.2.6.0	vmsVerticalPitch	INTEGER	Indicates the vertical distance from the center of one pixel to the center of the neighboring pixel in millimeters.
1.3.6.1.4.1.1206.4.2.3.3.1.0	numFonts	INTEGER	Indicates the maximum number of fonts that the sign can store.
1.3.6.1.4.1.1206.4.2.3.3.2	fontTable	SEQUENCE	A table containing the information needed to configure/define a particular font.
1.3.6.1.4.1.1206.4.2.3.3.2.1	fontEntry	SEQUENCE	Parameters of the Font Table.
1.3.6.1.4.1.1206.4.2.3.3.2.1.1	fontIndex	INTEGER	Indicates the row number of the entry.
1.3.6.1.4.1.1206.4.2.3.3.2.1.2	fontNumber	INTEGER	A unique, user-specified number for a particular font which can be different from the value of the fontIndex-object. This is the number referenced by MULTI when specifying a particular font. A device shall return a GenError if this value is not unique.
1.3.6.1.4.1.1206.4.2.3.3.2.1.3	fontName	DisplayString	Indicates the name of the font.
1.3.6.1.4.1.1206.4.2.3.3.2.1.4	fontHeight	INTEGER	Indicates the height of the font in pixels. Setting this object to zero (0) invalidates this fontTable row, and also invalidates all corresponding entries into the characterTable.
1.3.6.1.4.1.1206.4.2.3.3.2.1.5	fontCharSpacing	INTEGER	Indicates the default horizontal spacing (in pixels) between each of the characters within the font. This object only applies to Full Matrix and Line Matrix VMS. If the font changes on a line, then the average value of the two fonts shall be used between
1.3.6.1.4.1.1206.4.2.3.3.2.1.6	fontLineSpacing	INTEGER	Indicates the default vertical spacing (in pixels) between each of the lines within the font. This object only applies to Full Matrix. The line spacing for a line is the largest font line spacing of all fonts used on that line. The number of pixels between
1.3.6.1.4.1.1206.4.2.3.3.2.1.7	fontVersionID	INTEGER	Each font that has been downloaded to a sign shall have a relatively unique ID. This ID shall be calculated using the CRC-16 algorithm defined in ISO 3309 and the associated PER-encoded FontVersionByteStream.
1.3.6.1.4.1.1206.4.2.3.3.3.0	maxFontCharacters	INTEGER	Indicates the maximum number of rows in the character table that can exist for any given font.
1.3.6.1.4.1.1206.4.2.3.3.4	characterTable	SEQUENCE	A table containing the information needed to configure/define each character of a particular font.
1.3.6.1.4.1.1206.4.2.3.3.4.1	characterEntry	SEQUENCE	Parameters of the Character Configuration Table.
1.3.6.1.4.1.1206.4.2.3.3.4.1.1	characterNumber	INTEGER	Indicates the binary value associated with this character of this font. For example, if the font set followed the ASCII numbering scheme, the character giving the bitmap of 'A' would be characterNumber 65 (41 hex).
1.3.6.1.4.1.1206.4.2.3.3.4.1.2	characterWidth	INTEGER	Indicates the width of this character in pixels. A width of zero (0) indicates this row is invalid.
1.3.6.1.4.1.1206.4.2.3.3.4.1.3	characterBitmap	OCTET STRING	A bitmap that defines each pixel within a rectangular region as being either ON (bit=1) or OFF (bit=0). The result of this bitmap is how the character appears on the sign.
1.3.6.1.4.1.1206.4.2.3.4.1.0	defaultBackgroundColor	INTEGER	Indicates the color of the background shown on the sign. The allowed values are: black (0), red (1), yellow (2), green(3), cyan (4), blue (5), magenta (6), white (7), orange (8), amber (9). Each of the background colors on a sign should map to one of the
1.3.6.1.4.1.1206.4.2.3.4.10.0	defaultCharacterSet	Enum	Indicates the default number of bits used to define a single character in a MULTI string. other - a character size other than those listed below, refer to the device manual. eightBit - each characterNumber of a given font is encoded as an 8-bit value.
1.3.6.1.4.1.1206.4.2.3.4.2.0	defaultForegroundColor	INTEGER	Indicates the color of the foreground (the actual text) shown on the sign. The allowed values are: black (0), red (1), yellow (2), green(3), cyan (4), blue (5), magenta (6), white (7), orange (8), amber (9). Each of the colors on a sign should map to one
1.3.6.1.4.1.1206.4.2.3.4.3.0	defaultFlashOn	INTEGER	Indicates the default flash on time, in tenths of a second, for flashing text. If the time is set to zero (0), the default is NO FLASHing but the text remains visible.
1.3.6.1.4.1.1206.4.2.3.4.4.0	defaultFlashOff	INTEGER	Indicates the default flash off time, in tenths of a second, for flashing text. If the time is set to zero (0), the default is NO FLASHing but the text remains visible.
1.3.6.1.4.1.1206.4.2.3.4.5.0	defaultFont	INTEGER	Indicates the default font number (fontNumber-object) for a message.
1.3.6.1.4.1.1206.4.2.3.4.6.0	defaultJustificationLine	Enum	Indicates the default line justification for a message.
1.3.6.1.4.1.1206.4.2.3.4.7.0	defaultJustificationPage	Enum	Indicates the default page justification for a message.
1.3.6.1.4.1.1206.4.2.3.4.8.0	defaultPageOnTime	INTEGER	Indicates the default page on time, in tenths (1/10) of a second. If the message is only one page, this value is ignored, and the page is continuously displayed.
1.3.6.1.4.1.1206.4.2.3.4.9.0	defaultPageOffTime	INTEGER	Indicates the default page off time, in tenths (1/10) of a second. If the message is only one page, this value is ignored, and the page is continuously displayed.
1.3.6.1.4.1.1206.4.2.3.5	dmsMessage	reg point	
1.3.6.1.4.1.1206.4.2.3.5.1.0	dmsNumPermanentMsg	INTEGER	Indicates the current number of Messages stored in non-volatile, non-changeable memory (e.g., EPROM). For CMS and BOS, this is the number of different messages that can be assembled.
1.3.6.1.4.1.1206.4.2.3.5.2.0	dmsNumChangeableMsg	INTEGER	Indicates the current number of Messages stored in non-volatile, changeable memory. For CMS and BOS, this number shall be zero (0).
1.3.6.1.4.1.1206.4.2.3.5.3.0	dmsMaxChangeableMsg	INTEGER	Indicates the maximum number of Messages that the sign can store in non-volatile, changeable memory. For CMS and BOS, this number shall be zero (0).
1.3.6.1.4.1.1206.4.2.3.5.4.0	dmsFreeChangeableMemory	INTEGER	Indicates the number of bytes available within non-volatile, changeable memory. For CMS and BOS, this number shall be zero (0).
1.3.6.1.4.1.1206.4.2.3.5.5.0	dmsNumVolatileMsg	INTEGER	Indicates the current number of Messages stored in volatile, changeable memory. For CMS and BOS, this number shall be zero (0).
1.3.6.1.4.1.1206.4.2.3.5.6.0	dmsMaxVolatileMsg	INTEGER	Indicates the maximum number of Messages that the sign can store in volatile, changeable memory. For CMS and BOS, this number shall be zero (0).
1.3.6.1.4.1.1206.4.2.3.5.7.0	dmsFreeVolatileMemory	INTEGER	Indicates the number of bytes available within volatile, changeable memory. For CMS and BOS, this number shall be zero (0).
1.3.6.1.4.1.1206.4.2.3.5.8	dmsMessageTable	SEQUENCE	A table containing the information needed to activate a Message on a sign. The values of a columnar object (except the dmsMessageStatus) cannot be changed when the `dmsMessageStatus`-object of that particular row has the value of `valid`.
1.3.6.1.4.1.1206.4.2.3.5.8.1	dmsMessageEntry	SEQUENCE	Parameters of the Message Table.
1.3.6.1.4.1.1206.4.2.3.5.8.1.1	dmsMessageMemoryType	Enum	Indicates the memory-type used to store a message. Also provides access to current message (currentBuffer) and currently scheduled message (schedule).
1.3.6.1.4.1.1206.4.2.3.5.8.1.2	dmsMessageNumber	INTEGER	Enumerated listing of row entries within the value of the primary index to this table (dmsMessageMemoryType -object). When the primary index is `currentBuffer` or `schedule`, then this value must be one (1).
1.3.6.1.4.1.1206.4.2.3.5.8.1.3	dmsMessageMultiString	OCTET STRING	Contains the message written in MULTI-language.
1.3.6.1.4.1.1206.4.2.3.5.8.1.4	dmsMessageOwner	OwnerString	Indicates the owner or author of this row.
1.3.6.1.4.1.1206.4.2.3.5.8.1.5	dmsMessageCRC	INTEGER	Indicates the CRC-16 (polynomial defined in ISO/IEC 3309) value created using the values of the dmsMessageMultiString- (MULTI-Message), the dmsMessageBeacon-, and the dmsMessagePixelService -objects in the order listed, not including the type or length f
1.3.6.1.4.1.1206.4.2.3.5.8.1.6	dmsMessageBeacon	INTEGER	Indicates if connected beacon(s) are to be activated when the associated message is displayed. Zero (0) = Beacon(s) are Disabled ; one (1) = Beacon(s) are Enabled.
1.3.6.1.4.1.1206.4.2.3.5.8.1.7	dmsMessagePixelService	INTEGER	Indicates whether pixel service shall be enabled (1) or disabled (0) while this message is active.
1.3.6.1.4.1.1206.4.2.3.5.8.1.8	dmsMessageRunTimePriority	INTEGER	Indicates the run time priority assigned to a particular message. The value of 1 indicates the lowest level, the value of 255 indicates the highest level.
1.3.6.1.4.1.1206.4.2.3.5.8.1.9	dmsMessageStatus	Enum	Indicates the current state of the message. This state-machine allows for defining a message, validating a message, and freeing message use.
1.3.6.1.4.1.1206.4.2.3.5.9.0	dmsValidateMessageError	Enum	This is an error code used to identify why a message was not validated. If multiple errors occur, only the first value will be indicated. The syntaxMULTI error is further detailed in the dmsMultiSyntaxError, dmsMultiSyntaxErrorPosition and dmsMultiOtherE
1.3.6.1.4.1.1206.4.2.3.6	signControl	reg point	
1.3.6.1.4.1.1206.4.2.3.6.1.0	dmsControlMode	Enum	A value indicating the selected control mode of the sign.
1.3.6.1.4.1.1206.4.2.3.6.10.0	dmsShortPowerLossTime	INTEGER	Indicates the time, in seconds, from the start of power loss to the threshold where a short power loss becomes a long power loss. If the value is set to zero (0), all power failures are defined as long power losses.
1.3.6.1.4.1.1206.4.2.3.6.11.0	dmsResetMessage	MessageIDCode	Indicates the message that is displayed after a Reset (either software or hardware) of the device. This assumes that the device can differentiate between a reset and a power loss.
1.3.6.1.4.1.1206.4.2.3.6.12.0	dmsCommunicationsLossMessage	MessageIDCode	Indicates the message that is displayed after the loss of communications to the device. If there is no default message defined after the duration expires, then the sign goes blank.
1.3.6.1.4.1.1206.4.2.3.6.13.0	dmsTimeCommLoss	INTEGER	Defines the maximum time (inclusive), in minutes, between successive Application Layer messages that can occur before a communication loss is assumed. If this object is set to zero (0), no communication loss shall occur.
1.3.6.1.4.1.1206.4.2.3.6.14.0	dmsPowerLossMessage	MessageIDCode	Indicates the message that is displayed DURING the loss of power of the device.
1.3.6.1.4.1.1206.4.2.3.6.15.0	dmsEndDurationMessage	MessageIDCode	Indicates the message that is displayed after the indicated duration for a message has expired and no other Message had been assigned to replace the previous Message.
1.3.6.1.4.1.1206.4.2.3.6.16.0	dmsMemoryMgmt	Enum	Allows the system to manage the device's memory.
1.3.6.1.4.1.1206.4.2.3.6.17.0	dmsActivateMsgError	Enum	This is an error code used to identify why a message was not displayed. If multiple errors occur, only the latest value will be indicated. The syntaxMULTI error is further detailed in the dmsMultiSyntaxError, dmsMultiSyntaxErrorPosition and dmsMultiOther
1.3.6.1.4.1.1206.4.2.3.6.18.0	dmsMultiSyntaxError	Enum	This is an error code used to identify the first detected syntax error within the MULTI message.
1.3.6.1.4.1.1206.4.2.3.6.19.0	dmsMultiSyntaxErrorPosition	INTEGER	This is the offset from the first character (i.e. first character has offset 0, second is 1, etc.) of the MULTI message where the SYNTAX error occurred.
1.3.6.1.4.1.1206.4.2.3.6.2.0	dmsSWReset	INTEGER	A software interface to initiates a controller reset. The execution of the controller reset shall set this object to the value 0. Value zero (0) = no reset, value one (1) = reset.
1.3.6.1.4.1.1206.4.2.3.6.20.0	dmsMultiOtherErrorDescription	DisplayString	Indicates vendor-specified error message descriptions. Associated errors occurred due to vendor-specific MULTI-tag responses.
1.3.6.1.4.1.1206.4.2.3.6.21.0	vmsPixelServiceDuration	INTEGER	Indicates the pixel service duration in seconds.
1.3.6.1.4.1.1206.4.2.3.6.22.0	vmsPixelServiceFrequency	INTEGER	Indicates the pixel service cycle time (frequency) in minutes.
1.3.6.1.4.1.1206.4.2.3.6.23.0	vmsPixelServiceTime	INTEGER	Indicates the base time at which the first pixel service shall occur. Time is expressed in minutes from the epoch of Midnight of each day.
1.3.6.1.4.1.1206.4.2.3.6.3.0	dmsActivateMessage	MessageActivationCode	A code indicating the message which the sign shall activate. The dmsActivateMsgError object shall be set appropriately when this object is SET. If a message activation error occurs, the new message shall not be displayed and a GenErr shall be returned.
1.3.6.1.4.1.1206.4.2.3.6.4.0	dmsMessageTimeRemaining	INTEGER	Indicates the amount of remaining time in minutes that the current message shall be displayed. The value 65535 indicates an infinite duration. A value of zero (0) shall indicate that the current message display duration has expired.
1.3.6.1.4.1.1206.4.2.3.6.5.0	dmsMsgTableSource	MessageIDCode	Identifies the message number used to generate the currently displayed message. This object is written to by the device when the new message is loaded into the currentBuffer of the MessageTable. The currently displayed message is stored in the currentBuf
1.3.6.1.4.1.1206.4.2.3.6.6.0	dmsMsgRequesterID	IpAddress	A copy of the source-address field from the dmsActivateMessage- object used to activate the current message. If the current message was not activated by the dmsActivateMessage-object, then the value of this object shall be zero (0). refer: RFC 1155, Ma

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OID	OID_Name	OID_SyntaxTypeName	OID_Description
1.3.6.1.4.1.1206.4.2.3.6.7.0	dmsMsgSourceMode	Enum	Indicates the source that initiated the currently displayed message.
1.3.6.1.4.1.1206.4.2.3.6.8.0	dmsShortPowerRecoveryMessage	MessageIDCode	Indicates the message that is displayed after a short power recovery of the device. The length of time that defines a short power loss is indicated in the dmsShortPowerLossTime-object.
1.3.6.1.4.1.1206.4.2.3.6.9.0	dmsLongPowerRecoveryMessage	MessageIDCode	Indicates the message that is displayed after a power recovery of the device. The length of time that defines a long power loss is indicated in the dmsShortPowerLossTime-object.
1.3.6.1.4.1.1206.4.2.3.7	illum	reg point	
1.3.6.1.4.1.1206.4.2.3.7.1.0	dmsIllumControl	Enum	Indicates the method used to select the Brightness Level. Photocell indicates that the Brightness Level is based on photocell status. Timer indicates the the Brightness Level is set by an internal timer. Manual indicates that the Brightness Level must be
1.3.6.1.4.1.1206.4.2.3.7.2.0	dmsIllumMaxPhotocellLevel	INTEGER	Indicates the maximum value given by the dmsIllumPhotocellLevelStatus-object.
1.3.6.1.4.1.1206.4.2.3.7.3.0	dmsIllumPhotocellLevelStatus	INTEGER	Indicates the level of Ambient Light as a value ranging from 0 (darkest) to the value of dmsIllumMaxPhotocellLevel- object (brightest), based on the photocell detection.
1.3.6.1.4.1.1206.4.2.3.7.4.0	dmsIllumNumBrightLevels	INTEGER	Indicates the number of individually selectable Brightness Levels supported by the device, excluding the OFF level.
1.3.6.1.4.1.1206.4.2.3.7.5.0	dmsIllumBrightLevelStatus	INTEGER	Indicates the current Brightness Level of the device, ranging from 0 (OFF) to the maximum value given by the dmsIllumNumBrightLevels- object (Brightest).
1.3.6.1.4.1.1206.4.2.3.7.6.0	dmsIllumManLevel	INTEGER	Indicates the desired value of the Brightness Level as a value ranging from 0 to the value of the dmsIllumNumBrightLevels-object when under manual control.
1.3.6.1.4.1.1206.4.2.3.7.7.0	dmsIllumBrightnessValues	OCTET STRING	An OCTET STRING describing the sign's Brightness Level in relationship to the Photocell(s) detection of ambient light. For each brightness level, there is a corresponding range of photocell levels. The number of levels transmitted is defined by the firs
1.3.6.1.4.1.1206.4.2.3.7.8.0	dmsIllumBrightnessValuesError	Enum	Indicates the error encountered when the brightness table was SET.
1.3.6.1.4.1.1206.4.2.3.7.9.0	dmsIllumLightOutputStatus	INTEGER	Indicates the current physical light output value ranging from 0 (darkest) to 65535 (maximum output).
1.3.6.1.4.1.1206.4.2.3.9	dmsStatus	reg point	
1.3.6.1.4.1.1206.4.2.3.9.1.0	statMultiFieldRows	INTEGER	Indicates the number of rows in the statMultiFieldTable that are currently being used.
1.3.6.1.4.1.1206.4.2.3.9.2	statMultiFieldTable	SEQUENCE	A table containing the currently displayed value of a specified Field. The number of rows is given by the value of statMultiFieldRows-object.
1.3.6.1.4.1.1206.4.2.3.9.2.1	statMultiFieldEntry	SEQUENCE	Parameters of the Status Multi Field Table.
1.3.6.1.4.1.1206.4.2.3.9.2.1.1	statMultiFieldIndex	INTEGER	The index number into this table indicating the sequential order of the field within the MULTI-string.
1.3.6.1.4.1.1206.4.2.3.9.2.1.2	statMultiFieldCode	INTEGER	Indicates the ID of the value of the statMultiCurrentFieldValue- object. The field codes are indicated under the 'Field'-tag in MULTI (see section 3).
1.3.6.1.4.1.1206.4.2.3.9.2.1.3	statMultiCurrentFieldValue	OCTET STRING	Indicates the currently displayed text of the MULTI-message for the corresponding Field.
1.3.6.1.4.1.1206.4.2.3.9.5.0	watchdogFailureCount	Counter	An ASN.1 Counter indicating the number of watchdog failures that have occurred.
1.3.6.1.4.1.1206.4.2.3.9.6.0	dmsStatDoorOpen	INTEGER	Indicates whether any of the doors to the controller cabinet or the sign housing are open. This is a bitmap; if a bit is set (= 1) then the door is open; if a bit not is not set, then the associated door is closed.
1.3.6.1.4.1.1206.4.2.3.9.7	statError	reg point	
1.3.6.1.4.1.1206.4.2.3.9.7.1.0	shortErrorStatus	INTEGER	A bitmap of summary errors where the bits are defined as follows: Bit 0- other error Bit 1- communications error Bit 2- power error Bit 3- attached device error Bit 4- lamp error Bit 5- pixel error Bit 6- photocell error Bit 7- message error Bit 8- contro
1.3.6.1.4.1.1206.4.2.3.9.7.10.0	controllerErrorStatus	INTEGER	A bitmap of controller related errors where the bits are defined as follows: Bit 0- other controller error Bit 1- PROM error Bit 2- program/processor error Bit 3- RAM error If a bit is set to one (1), then the associated error is existing; if the bit is s
1.3.6.1.4.1.1206.4.2.3.9.7.2.0	pixelFailureTableNumRows	INTEGER	The number of rows contained in the pixelFailureTable each indicating failed pixels.
1.3.6.1.4.1.1206.4.2.3.9.7.3	pixelFailureTable	SEQUENCE	A table containing the X and Y location of a failed pixel. The number of rows is given by the value of pixelFailureTableNumRows -object.
1.3.6.1.4.1.1206.4.2.3.9.7.3.1	pixelFailureEntry	SEQUENCE	Parameters of the Pixel Failure Table. The detection of pixel failures during message displays shall be appended to the end of the table.
1.3.6.1.4.1.1206.4.2.3.9.7.3.1.1	pixelFailureDetectionType	Enum	Indicates the type of test/display that leads to the pixel failure entry.
1.3.6.1.4.1.1206.4.2.3.9.7.3.1.2	pixelFailureIndex	INTEGER	Enumerated listing of row entries.
1.3.6.1.4.1.1206.4.2.3.9.7.3.1.3	pixelFailureXLocation	INTEGER	Indicates the X location of the failed pixel. The X direction is the horizontal direction. The X location is counted from the left-most pixel in number of pixels.
1.3.6.1.4.1.1206.4.2.3.9.7.3.1.4	pixelFailureYLocation	INTEGER	Indicates the Y location of the failed pixel. The Y direction is the vertical direction. The Y location is counted from the top-most pixel in number of pixels.
1.3.6.1.4.1.1206.4.2.3.9.7.3.1.5	pixelFailureStatus	INTEGER	Indicates the current status of the specified pixel and the operation which made this determination. This is a bit field with the following format: Bit 0 0: Stuck Off / 1: Stuck On Bit 1 0: No Color Error / 1: Color Error Bit 2 0: no electrical erro
1.3.6.1.4.1.1206.4.2.3.9.7.4.0	pixelTestActivation	Enum	Indicates the state of the pixel testing. The actual test routine can vary among different manufacturers. The results of the pixel failure test shall be stored in the pixel failure table. The pixel failure table will be cleared, when a pixel test is st
1.3.6.1.4.1.1206.4.2.3.9.7.5.0	lampFailureStuckOn	OCTET STRING	Indicates whether each lamp within the sign is stuck on as a bitmap. If a lamp is stuck on, its associated bit is set to one (1).
1.3.6.1.4.1.1206.4.2.3.9.7.6.0	lampFailureStuckOff	OCTET STRING	Indicates whether each lamp within the sign is stuck off as a bitmap. If a lamp is stuck off, its associated bit is set to one (1).
1.3.6.1.4.1.1206.4.2.3.9.7.7.0	lampTestActivation	Enum	Indicates the state of the lamp testing. The actual test routine can vary among different manufacturers. The results of the lamp failure test shall be stored appropriately, either in the lampFailureStuckOn- or in the lampFailureStuckOff-objects. Setting
1.3.6.1.4.1.1206.4.2.3.9.7.8.0	fanFailures	OCTET STRING	Indicates whether each fan (system) within a DMS is capable of operating, expressed as a bitmap. If a fan (system) failed, its associated bit is set to one (1).
1.3.6.1.4.1.1206.4.2.3.9.7.9.0	fanTestActivation	Enum	Indicates the state of the fan testing. The actual test routine can vary among different manufacturers. The results of the fan test shall be stored in either the fanFailures-objects. Setting the value to test will start the test, meaning this test will b
1.3.6.1.4.1.1206.4.2.3.9.8	statPower	reg point	
1.3.6.1.4.1.1206.4.2.3.9.8.1.0	signVolts	INTEGER	A voltage measurement in units of hundredth (1/100) of a volt. The maximum value (0xFFFF) corresponds to a voltage of 655.35 volts. This is an indication of the sign battery voltage.
1.3.6.1.4.1.1206.4.2.3.9.8.5.0	lineVolts	INTEGER	The DMS line voltage measurement in (1.0) volts. The range is 0 volts to 255 volts.
1.3.6.1.4.1.1206.4.2.3.9.8.6.0	powerSource	Enum	Indicates the source of power that is currently utilized by the sign.
1.3.6.1.4.1.1206.4.2.3.9.9	statTemp	reg point	
1.3.6.1.4.1.1206.4.2.3.9.9.1.0	tempMinCtrlCabinet	INTEGER	Indicates the current temperature, single sensor, or the current minimum temperature, multiple sensors, within the DMS Control Cabinet in degrees Celsius.
1.3.6.1.4.1.1206.4.2.3.9.9.2.0	tempMaxCtrlCabinet	INTEGER	Indicates the current temperature, single sensor, or the current maximum temperature, multiple sensors, within the DMS Control Cabinet in degrees Celsius.
1.3.6.1.4.1.1206.4.2.3.9.9.3.0	tempMinAmbient	INTEGER	Indicates the current outside ambient temperature, single sensor, or the current minimum outside ambient temperature, multiple sensors in degrees Celsius.
1.3.6.1.4.1.1206.4.2.3.9.9.4.0	tempMaxAmbient	INTEGER	Indicates the current outside ambient temperature, single sensor, or the current maximum outside ambient temperature, multiple sensors in degrees Celsius.
1.3.6.1.4.1.1206.4.2.3.9.9.5.0	tempMinSignHousing	INTEGER	Indicates the current temperature, single sensor, or the current minimum temperature, multiple sensors in the sign housing in degrees Celsius.
1.3.6.1.4.1.1206.4.2.3.9.9.6.0	tempMaxSignHousing	INTEGER	Indicates the current temperature, single sensor, or the current maximum temperature, multiple sensors in the sign housing in degrees Celsius.

APPENDIX C
OVERALL RESULTS SPREADSHEET

OVERALL NTCIP COMPLIANCE RESULTS

ATMS Software:

ATMS Software Vendor:

Software Functionality	Pass/Fail	Performed By	Date	Comment
CCTV Camera Operation:				
1. Pan				
2. Tilt				
3. Zoom				
4. Presets				
5. Focus				
6. Iris				
7. Camera Feature Control (i.e., Camera Power Heater Power Wiper Washer)				
8. Camera Feature Status				
9. Camera Equipped				
10. Lens Feature Control				
11. Lens Feature Status				
12. Lens Feature Equipped				
13. Alarm Status				
DMS Operation:				
1. Sign Configuration				
2. Font Configuration				
3. Message Configuration				
4. Receive Status Messages				
5. Control Sign (i.e., New Message, Change Message, Remove Message)				
6. Communications Status				
7. Control Illumination/Brightness				
8. Schedule Action				
9. Status Reports				
ASC Operation:				
1. Phase Parameters				
2. Detector Parameters				
3. Unit Parameters				
4. Coordination Parameters				
5. Time Base Parameters				
6. Pre-empt Parameters				
7. Ring Parameters				
8. Channel Parameters				
9. Overlap Parameters				
10. TS2 Port 1 Parameters				