

Test Procedures for NTCIP-conformant Closed Circuit Television (CCTV) Camera Controllers

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Introduction

This document provides an initial set of test procedures for CCTV cameras that claim conformance to NTCIP 1205 per the ENTERPRISE/I-95 Procurement Specification Guide. These procedures have been written in a tool-neutral manner such that they can be performed by a variety of SNMP test tools, including the NTCIP Exerciser, the public domain tool developed by the Federal Highway Administration in 1996, and NTester, a new NTCIP conformance tester developed in cooperation with ENTERPRISE, the I-95 Corridor Coalition, and the FHWA.

The procedures listed in this document cover all of the various capabilities addressed by NTCIP 1205; however, many of these features are optional. Further, the procedures define several variables that should be customized to reflect project-specific limitations and/or to ensure robust testing. Thus, prior to performing a test according to these procedures, a tester should develop a formal test plan, that, among other things, defines the exact test cases to be implemented and the variables to use for each test case. For more information about test documentation see IEEE 829-1998.

This document is intended for manufacturers, system integrators, and other advanced users that are interested in testing a device for conformance. The nature of such testing is necessarily complex and requires extensive knowledge of the NTCIP standards. This document assumes that the reader possesses this knowledge. More information about the NTCIP is available from <http://www.ntcip.org>.

It should be noted that during the process of developing these test procedures, many ambiguities and issues were uncovered regarding NTCIP 1205. These issues were addressed as best as possible given the limitations of the project, but further clarification of these issues should be obtained from the Working Group prior to formally declaring a device passed or failed. A list of questions that have been submitted to the WG are contained in the Annex.

Acknowledgments

This document was originally prepared as a part of a cooperative effort among ENTERPRISE (<http://enterprise.prog.org/inch.html>), the I-95 Corridor Coalition, and the FHWA. The work was performed by Trevilon Corporation under a contract with the Arizona Department of Transportation.

Rules for Following Test Procedures

The device under test shall 'pass' the test case if, and only if, it is awarded all possible points for the given test case. Otherwise it shall 'fail' the test case.

Each test case is divided up among several steps. The rules for each step type are defined as follows:

DEFINE – Most test cases start with one or more DEFINE steps. When implementing a DEFINE step the tester shall define a logical variable for later use in the test case. The value to be entered for this variable is defined by the Description clause and the Action Clause defines the precise syntax of the variable, including: the data type, the allowed range, and its default value. The Action clause also indicates whether the user should customize this variable for their specific test plan.

GET – When implementing a GET step, the tester shall send one or more SNMP Get commands containing the Object Identifiers for the Objects listed in the table to the device under test. The Object Identifiers may appear in any order and in any combination of GET commands (unless otherwise noted). The step also implicitly includes the decoding of the response and storing the requested data into the logical variable names shown in the table to the right of each object name so that they may be referenced later. The logical variables shall have the same syntax as the object retrieved (unless otherwise noted).

SET – When implementing a SET step, the tester shall send one or more SNMP Set commands containing the Object Identifiers and values for the Objects listed in the table to the device under test. The Object Identifiers may appear in any order (but shall be properly paired with the values) and in any combination of SET commands (unless otherwise noted). The values for block objects are given in '+' notation with each plus symbol indicating the linkage between the component field values.

VERIFY/GOTO – When implementing a VERIFY/GOTO step, the tester shall perform the comparison (typically between two variables or a variable and a constant) and then implement the indicated steps (a point assignment and/or goto command if passed and possibly a goto command if failed). A VERIFY/GOTO is intended to be a largely automated process and can be performed using information previously stored.

USER-VERIFY – When implementing a USER-VERIFY step, the tester shall perform the manual inspection indicated and record the result as pass or failed. In some instances, this step is merely used to allow the user to perform some manual action, in which case no points are assigned and the selection of pass or fail have no impact on the test. The failed condition may also have a goto command associated with it.

PRECONDITION – When implementing a PRECONDITION step, the tester shall ensure that the precondition has been met prior to performing the test.

POSTCONDITION – When implementing a POSTCONDITION step, the tester shall be aware that the device is left in an altered state from the starting condition.

DELAY – When implementing a DELAY step, the tester shall delay at least the time shown prior to implementing the next step.

Executive Summary

This section contains a listing of test cases included within this document. The test case identifier, name, and description are shown in the following table.

| Identifier | Name | Description |
|------------|--------------------------------------|---|
| TC1 | Identify Device | This test case ensures that the device under test contains valid information for the module make, model, and version number as well as other related information. |
| TC2 | Identify Preset Position Range | This test case ensures that the device indicates that it supports the required number of preset positions. |
| TC3 | Identify Pan Limits | This test case identifies and verifies the left and right panning limits and the home position of the device. |
| TC4 | True North Offset | This test case ensures that the user can configure the true north setting in the camera. |
| TC5 | Identify Tilt Limits | This test case ensures that the device indicates that it supports up and down tilting limits of the device. |
| TC6 | Identify Zoom Limit | This test case ensures that the device indicates that it supports the required zoom limit of the device. |
| TC7 | Identify Focus Limit | This test case ensures that the device indicates that it supports the required focus limit of the device |
| TC8 | Identify Iris Limit | This test ensures that the device indicates that it supports the required iris limit of the device. |
| TC9 | Identify Pan-Tilt Step Angle Minimum | This test case ensures that the device indicates that it supports the pan and tilt step angle minimum of the device |
| TC10 | Get and Set Label | This test case verifies the number of labels the device can store. Test labels are stored in the device to verify storage capabilities |
| TC11 | Display Camera Location | This test case tests the capability to |

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|------|----------------------------------|--|
| | | display a text label on the video output. |
| TC12 | Delta Pan Motion | This test case tests the delta panning motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC13 | Absolute Pan Motion | This test case tests the absolute panning motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC14 | Continuous Pan Motion | This test case tests the continuous panning motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera. |
| TC15 | Continuous Pan Motion with Stop | This test case tests the continuous panning motion of the camera by moving the camera and using the stop command to stop movement. |
| TC16 | Delta Tilt Motion | This test case tests the delta tilt motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC17 | Absolute Tilt Motion | This test case tests the absolute tilt motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC18 | Continuous Tilt Motion | This test case tests the continuous tilt motion of the camera by moving the camera with with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera. |
| TC19 | Continuous Tilt Motion with Stop | This test case tests the continuous tilting motion of the camera by moving the camera and using the stop command to stop movement. |

| | | |
|------|-----------------------------------|--|
| TC20 | Delta Zoom Motion | This test case tests the delta zoom motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC21 | Absolute Zoom Motion | This test case tests the absolute zoom motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC22 | Continuous Zoom Motion | This test case tests the continuous zoom motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera |
| TC23 | Continuous Zoom Motion with Stop | This test case tests the continuous zooming motion of the camera by moving the camera and using the stop command to stop movement. |
| TC24 | Delta Focus Motion | This test case tests the delta focus motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them |
| TC25 | Absolute Focus Motion | This test case tests the absolute focus motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC26 | Continuous Focus Motion | This test case tests the continuous focus motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera. |
| TC27 | Continuous Focus Motion with Stop | This test case tests the continuous focus motion of the camera by moving the camera and using the stop command to stop movement. |
| TC28 | Delta Iris Motion | This test case tests the delta iris motion of the camera by moving the camera with |

| | | |
|------|----------------------------------|---|
| | | the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera. |
| TC29 | Absolute Iris Motion | This test case tests the absolute iris motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them. |
| TC30 | Continuous Iris Motion | This test case tests the continuous iris motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera. |
| TC31 | Continuous Iris Motion with Stop | This test case tests the continuous Iris motion of the camera by moving the camera and using the stop command to stop movement. |
| TC32 | Preset Positon | This test case stores and moves the camera to preset camera positions |
| TC33 | Get-Set Zone | This test case tests the storage of camera zones. |
| TC34 | Move In and Out of Zone | This test case tests the labelling capability of zones by moving to areas within zones |
| TC35 | Get Availability of Equipment | This test case identifies and verifies the availability of attached equipment to the camera. |
| TC36 | Control Camera Power | This test case enables and disables this feature while the user verifies. |
| TC37 | Control Heater Power | This test case enables and disables this feature while the user verifies. |
| TC38 | Control Wiper | This test case enables and disables this feature while the user verifies. |
| TC39 | Control Washer | This test case enables and disables this feature while the user verifies. |
| TC40 | Control Blower | This test case enables and disables this feature while the user verifies. |
| TC41 | Get Availability of Lens | This test case identifies and verifies the |

| | | |
|------|-------------------------|--|
| | Equipment | availability of attached equipment to the camera. |
| TC42 | Control Auto Iris | This test case enables and disables this feature while the user verifies. |
| TC43 | Control Auto Focus | This test case enables and disables this feature while the user verifies |
| TC44 | Cabinet Alarm | This test case tests the cabinet open alarm and the label associated with it. |
| TC45 | Enclosure Alarm | This test case tests the enclosure alarm and the label associated with it. |
| TC46 | Video Loss Alarm | This test case tests the video loss alarm and the label associated with it. |
| TC47 | Temperature Alarm | This test case tests the temperature alarm and the label, thresholds, and current value associated with it. |
| TC48 | Pressure Alarm | This test case tests the pressure alarm and the label, thresholds, and current value associated with it. |
| TC49 | Local-Remote Alarm | This test case tests the local-remote alarm and the label associated with it. |
| TC50 | Washer Fluid Alarm | This test case tests the washer fluid alarm and the label, thresholds, and current value associated with it. |
| TC51 | Monitor Discrete Input | This test case verifies the state of discrete inputs and the label associated with it. |
| TC52 | Monitor Discrete Output | This test case verifies the state of discrete outputs and the label associated with it. |
| TC53 | Page Down | This test case sends a page down command to the CCTV. |
| TC54 | Page Up | This test case sends a page up command to the CCTV |
| TC55 | Cursor Up | This test case sends a cursor up command to the CCTV. |
| TC56 | Cursor Down | This test case sends a cursor down command to the CCTV. |
| TC57 | Cursor Right | This test case sends a cursor right command to the CCTV. |

| | | |
|------|----------------------------|---|
| TC58 | Cursor Left | This test case sends a cursor left command to the CCTV. |
| TC59 | Increment | This test case sends an increment command to the CCTV. |
| TC60 | Decrement Value | This test case sends and decrement command to the CCTV. |
| TC61 | Enter Value | This test case sends an enter command to the CCTV |
| TC62 | Activate Menu | This test case activates the menu of the CCTV. |
| TC63 | Activate Menu with Timeout | This test case activates the menu with a timeout value. When the time has expired, the menu shall turn off. |
| TC64 | Deactivate Menu | This test case turns off the internal camera menu. |

CCTV Test Cases

Test Case *TC1: Identify Device*

This test case ensures that the device under test contains valid information for the module make, model, and version number as well as other related information.

Step 1: DEFINE

Description: Please enter the number of rows required in the device's module table per the project requirements.

Action: Define the following variable(s) for later use

Variable Name: req_globalMaxModules

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 2: DEFINE

Description: Please enter the module number for which you wish to retrieve make, model, and version information.

Action: Define the following variable(s) for later use

Variable Name: req_globalModuleEntry

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 3: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | globalMaxModules.0 | globalMaxModules |

Step 4: VERIFY/GOTO

If globalMaxModules >= req_globalMaxModules

Award Points: 1

Step 5: GET

Description: A user specified entry of the global module table will be retrieved in this step.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--|------------------|
| | moduleDeviceNode.<req_globalModuleEntry> | moduleDeviceNode |
| | moduleMake.<req_globalModuleEntry> | moduleMake |
| | moduleModel.<req_globalModuleEntry> | moduleModel |
| | moduleVersion.<req_globalModuleEntry> | moduleVersion |

| | |
|------------------------------------|------------|
| moduleType.<req_globalModuleEntry> | moduleType |
|------------------------------------|------------|

Step 6: VERIFY/GOTO

Description: This step ensures that the module references the CCTV node (i.e., 1.3.6.1.4.1.1206.4.2.7).

If moduleDeviceNode equals 1.3.6.1.4.1.1206.4.2.7
Award Points: 1

Step 7: USER-VERIFY

Description: Please verify that the device is reporting the manufacturer name for the requested module.

Points: 1

Step 8: USER-VERIFY

Description: Please verify that the device is reporting the model number of the module for the device under test.

Points: 1

Step 9: USER-VERIFY

Description: Please verify that the device is reporting the version of the module for the device under test.

Points: 1

Step 10: USER-VERIFY

Description: Please verify the module type being reported is correct for the module of the device under test.

Points: 1

Test Case TC2: Identify Preset Position Range

This test case ensures that the device indicates that it supports the required number of preset positions.

Step 1: DEFINE

Description: Please enter the number of preset positions that the CCTV procurement specifications required.

Action: Define the following variable(s) for later use

Variable Name: req_rangeMaxPreset

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 2: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|------------------|----------------|
| | rangeMaxPreset.0 | rangeMaxPreset |

Step 3: VERIFY/GOTO

If rangeMaxPreset >= req_rangeMaxPreset

Award Points: 1

Test Case TC3: Identify Pan Limits

This test case identifies and verifies the left and right panning limits and the home position of the device.

Step 1: DEFINE

Description: Please enter the speed at which you wish to pan the camera.

Action: Define the following variable(s) for later use

Variable Name: absolutePanSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 2: DEFINE

Description: Please enter the pan left limit per the project requirements.

Action: Define the following variable(s) for later use

Variable Name: req_rangePanLeftLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 27000

Step 3: DEFINE

Description: Please enter the pan right limit per the project requirements.

Action: Define the following variable(s) for later use

Variable Name: req_rangePanRightLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 9000

Step 4: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------|-----------|
|--|--------|-----------|

| | | |
|--|----------------------|--------------------|
| | rangePanRightLimit.0 | rangePanRightLimit |
| | rangePanLeftLimit.0 | rangePanLeftLimit |

Step 5: VERIFY/GOTO

Description: Verify the left limit received is appropriate for the device. This object is measured in 1/100th degree units in a clockwise direction from the Home Position. NOTE: Since the limit is measured in the clockwise direction, a smaller number indicates a greater left-pan limit

If rangePanLeftLimit <= req_rangePanLeftLimit
Award Points: 1

Step 6: VERIFY/GOTO

Description: Verify the right limit received is appropriate for the device. This object is measured in 1/100th degree units in a clockwise direction from the Home Position.

If rangePanRightLimit >= req_rangePanRightLimit
Award Points: 1

Step 7: SET

Description: Move to Home Position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|------------------------------|
| | positionPan.0 | '2' + absolutePanSpeed + '0' |

Step 8: USER-VERIFY

Description: The camera was just panned to home position. Look at the direction the camera is pointed and remember this direction as home position. After pressing enter, note in which direction the camera is panning.

Points: 0

Step 9: SET

Description: Move to left limit

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|---|
| | positionPan.0 | '2' + (-absolutePanSpeed) + rangePanLeftLimit |

Step 10: USER-VERIFY

Description: The camera was just panned to the left limit. Verify that the camera panned in a leftward motion to a position <(rangePanLeftLimit/100)> clockwise degrees from home.

Points: 1

Step 11: SET

Description: Move to home position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|---|
| | positionPan.0 | '2' + absolutePanSpeed + rangePanHomePosition |

Step 12: USER-VERIFY

Description: Verify the camera moved back to the home position

Points: 1

Step 13: SET

Description: Move to right limit

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|---|
| | positionPan.0 | '2' + absolutePanSpeed + rangePanRightLimit |

Step 14: USER-VERIFY

Description: The camera was just panned to the right limit. Verify that the camera panned in a rightward motion to a position $\langle \text{rangePanRightLimit}/100 \rangle$ clockwise degrees from home.

Points: 1

Test Case TC4: True North Offset

This test case ensures that the user can configure the true north setting in the camera.

Step 1: DEFINE

Description: Please enter a test value for the true North offset; this should be in 1/100ths of degrees clockwise from the home position. For example, a value of 500 would indicate 5.00 clockwise degrees from home.

Action: Define the following variable(s) for later use

Variable Name: alt_rangeTrueNorthOffset

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 0

Step 2: DEFINE

Description: Please enter an errant value for true North offset between 36000 and 65534.

Action: Define the following variable(s) for later use

Variable Name: errant_rangeTrueNorthOffset

Type: INTEGER

Lower Bound: 36000

Upper Bound: 65534

Get Value from User: Yes

Default value: 45000

Step 3: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|----------------------|
| rangeTrueNorthOffset.0 | rangeTrueNorthOffset |

Step 4: SET

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|--------------------------|
| rangeTrueNorthOffset.0 | alt_rangeTrueNorthOffset |

Step 5: VERIFY/GOTO

If SnmpResponse.error = noError

Award Points: 1

Step 5: SET

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|-----------------------------|
| rangeTrueNorthOffset.0 | errant_rangeTrueNorthOffset |

Step 6: VERIFY/GOTO

If SnmpResponse.error = badValue

Award Points: 1

Step 7: SET

Description: Restore the true North back to the original value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|----------------------|
| rangeTrueNorthOffset.0 | rangeTrueNorthOffset |

Test Case TC5: Identify Tilt Limits

This test case ensures that the device indicates that it supports up and down tilting limits of the device.

Step 1: DEFINE

Description: Please enter the project minimum requirement for the up tilt limit of the camera in 1/100th of degrees. For example, 500 would indicate 5.00 degrees up.

Action: Define the following variable(s) for later use

Variable Name: req_rangeTiltUpLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 4500

Step 2: DEFINE

Description: Please enter the project minimum requirement for the down tilt limit of the camera in

1/100th of degrees lower than 36000. For example, 35500 would indicate 355.00 degrees or 5.00 degrees downward.

Action: Define the following variable(s) for later use

Variable Name: req_rangeTiltDownLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 4500

Step 3: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|----------------------|--------------------|
| | rangeTiltUpLimit.0 | rangeTiltUpLimit |
| | rangeTiltDownLimit.0 | rangeTiltDownLimit |

Step 4: VERIFY/GOTO

If rangeTiltUpLimit >= req_rangeTiltUpLimit

Award Points: 1

Step 5: VERIFY/GOTO

If rangeTiltDownLimit <= req_rangeTiltDownLimit

Award Points: 1

Test Case TC6: Identify Zoom Limit

This test case ensures that the device indicates that it supports the required zoom limit.

Step 1: DEFINE

Description: Please enter the project requirement for the number of zoom levels.

Action: Define the following variable(s) for later use

Variable Name: req_rangeZoomLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 10000

Step 2: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|------------------|----------------|
| | rangeZoomLimit.0 | rangeZoomLimit |

Step 3: VERIFY/GOTO

Description: Verify the zoom limitation received from device is larger than or equal to the project requirements.

If rangeZoomLimit >= req_rangeZoomLimit

Award Points: 1

Test Case TC7: Identify Focus Limit

This test case ensures that the device indicates that it supports the required focus limit.

Step 1: DEFINE

Description: Please enter the project requirement for the number of focus levels.

Action: Define the following variable(s) for later use

Variable Name: req_rangeFocusLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 10000

Step 2: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-------------------|-----------------|
| rangeFocusLimit.0 | rangeFocusLimit |

Step 3: VERIFY/GOTO

Description: Verify the focus limitation received from device is larger than or equal to the project requirements.

If rangeFocusLimit >= req_rangeFocusLimit

Award Points: 1

Test Case TC8: Identify Iris Limit

This test ensures that the device indicates that it supports the required iris limit.

Step 1: DEFINE

Description: Please enter the project requirement for the number of iris levels.

Action: Define the following variable(s) for later use

Variable Name: req_rangeIrisLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 10000

Step 2: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------|----------------|
| rangeIrisLimit.0 | rangeIrisLimit |

Step 3: VERIFY/GOTO

Description: 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 closed. Open is defined as the largest aperture setting. Closed is defined as the smallest aperture setting.

If rangeIrisLimit >= req_rangeIrisLimit
Award Points: 1

Test Case TC9: Identify Pan-Tilt Step Angle Minimum

This test case ensures that the device indicates that it supports the pan and tilt step angle minimum of the device

Step 1: DEFINE

Description: Please enter the project required value of the minimum angle that will cause the camera to pan in 1/100ths of degrees. For example, a value of 50 will indicate that any command to pan 0.50 degrees or more will result in the camera moving.

Action: Define the following variable(s) for later use
Variable Name: req_rangeMinimumPanStepAngle
Type: INTEGER
Lower Bound: 0
Upper Bound: 35999
Get Value from User: Yes
Default value: 1

Step 2: DEFINE

Description: Please enter the project required value of the minimum angle that will cause the camera to tilt in 1/100ths of degrees. For example, a value of 50 will indicate that any command to tilt 0.50 degrees or more will result in the camera moving..

Action: Define the following variable(s) for later use
Variable Name: req_rangeMinimumTiltStepAngle
Type: INTEGER
Lower Bound: 0
Upper Bound: 35999
Get Value from User: Yes
Default value: 1

Step 3: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| rangeMinimumPanStepAngle.0 | rangeMinimumPanStepAngle |
| rangeMinimumTiltStepAngle.0 | rangeMinimumTiltStepAngle |

Step 4: VERIFY/GOTO

If rangeMinimumPanStepAngle <= req_rangeMinimumPanStepAngle
Award Points: 1

Step 5: VERIFY/GOTO

If rangeMinimumTiltStepAngle <= req_rangeMinimumTiltStepAngle
Award Points: 1

Test Case TC10: Get and Set Label

This test case verifies the number of labels the device can store. Test labels are stored in the device to verify storage capabilities

Step 1: DEFINE

Description: Please enter the number of labels that the device is required to support.

Action: Define the following variable(s) for later use

Variable Name: req_labelMaximum

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 2: DEFINE

Description: Please enter the label row number to test.

Action: Define the following variable(s) for later use

Variable Name: index_labelIndex

Type: INTEGER

Lower Bound: 1

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 3: DEFINE

Description: Please enter the text to which the test label should be set.

Action: Define the following variable(s) for later use

Variable Name: alt_labelText

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'TEST'

Step 4: DEFINE

Description: Please enter the font for the test label.

Action: Define the following variable(s) for later use

Variable Name: alt_labelFontType

Type: INTEGER

Lower Bound: 1

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 5: DEFINE

Description: Please enter the height for the test label.

Action: Define the following variable(s) for later use

Variable Name: alt_labelHeight

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 6: DEFINE

Description: Please enter the color for the test label.

Action: Define the following variable(s) for later use

Variable Name: alt_labelColor

Type: INTEGER

Lower Bound: 1

Upper Bound: 16

Get Value from User: Yes

Default value: 10

Step 7: DEFINE

Description: Please enter the row position for the start of the label text. A value of zero indicates the top of the screen and a value of 255 indicates the bottom of the screen.

Action: Define the following variable(s) for later use

Variable Name: alt_labelStartRow

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 8: DEFINE

Description: Please enter the column in which the test label should start. A value of zero indicates the left side of the screen, a value of 255 indicates the right side of the screen.

Action: Define the following variable(s) for later use

Variable Name: alt_labelStartColumn

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 9: DEFINE

Description: Please enter the value to set a label table entry status to.

Action: Define the following variable(s) for later use

Variable Name: alt_labelStatus

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Default value: 0xC0

Step 10: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|----------------|--------------|
| | labelMaximum.0 | labelMaximum |

Step 11: VERIFY/GOTO

If labelMaximum >= req_labelMaximum

Award Points: 1

Step 12: GET

Description: Get and store the original values

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-------------------------------------|------------------|
| labelText.<index_labelIndex> | labelText |
| labelFontType.<index_labelIndex> | labelFontType |
| labelHeight.<index_labelIndex> | labelHeight |
| labelColor.<index_labelIndex> | labelColor |
| labelStartRow.<index_labelIndex> | labelStartRow |
| labelStartColumn.<index_labelIndex> | labelStartColumn |
| labelStatus.<index_labelIndex> | labelStatus |

Step 14: SET

Description: Set the alternate user specified label information.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------------------------|----------------------|
| labelText.<index_labelIndex> | alt_labelText |
| labelFontType.<index_labelIndex> | alt_labelFontType |
| labelHeight.<index_labelIndex> | alt_labelHeight |
| labelColor.<index_labelIndex> | alt_labelColor |
| labelStartRow.<index_labelIndex> | alt_labelStartRow |
| labelStartColumn.<index_labelIndex> | alt_labelStartColumn |
| labelStatus.<index_labelIndex> | alt_labelStatus |

Step 16: GET

Description: Get the label information to make sure it was set correctly.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-------------------------------------|-------------------|
| labelText.<index_labelIndex> | labelText2 |
| labelFontType.<index_labelIndex> | labelFontType2 |
| labelHeight.<index_labelIndex> | labelHeight2 |
| labelColor.<index_labelIndex> | labelColor2 |
| labelStartRow.<index_labelIndex> | labelStartRow2 |
| labelStartColumn.<index_labelIndex> | labelStartColumn2 |
| labelStatus.<index_labelIndex> | labelStatus2 |

Step 17: VERIFY/GOTO

If labelText2 equals alt_labelText
Award Points: 1

Step 18: VERIFY/GOTO

If labelFontType2 equals labelFontType
Award Points: 1

Step 19: VERIFY/GOTO

If labelHeight2 equals labelHeight
Award Points: 1

Step 20: VERIFY/GOTO

If labelColor2 equals labelColor
Award Points: 1

Step 21: VERIFY/GOTO

If labelStartRow2 equals labelStartRow
Award Points: 1

Step 22: VERIFY/GOTO

If labelStartColumn2 equals labelStartColumn
Award Points: 1

Step 23: VERIFY/GOTO

If labelStatus2 equals labelStatus
Award Points: 1

Step 24: SET

Description: Set the label back to the original value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------------------------|----------------------|
| labelText.<index_labelIndex> | labelText |
| labelFontType.<index_labelIndex> | labelFontType |
| labelHeight.<index_labelIndex> | labelHeight |
| labelColor.<index_labelIndex> | labelColor |
| labelStartRow.<index_labelIndex> | labelStartRow |
| labelStartColumn.<index_labelIndex> | alt_labelStartColumn |
| labelStatus.<index_labelIndex> | labelStatus |

Test Case TC11: Display Camera Location

This test case tests the capability to display a text label on the video output.

Step 1: DEFINE

Description: Please enter the label row to use in the lable table for testing storing labels.

Action: Define the following variable(s) for later use

Variable Name: index_LocationLabelIndex

Type: INTEGER

Lower Bound: 1
Upper Bound: 255
Get Value from User: Yes
Default value: 2

Step 2: DEFINE

Description: Please enter the value to set a label table entry text to.

Action: Define the following variable(s) for later use
Variable Name: alt_LocLabelText
Type: STRING
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 'LOCATION'

Step 3: DEFINE

Description: Please enter the value to set a label table entry font type to.

Action: Define the following variable(s) for later use
Variable Name: alt_LocLabelFontType
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 1

Step 4: DEFINE

Description: Please enter the value to set a label table entry height to.

Action: Define the following variable(s) for later use
Variable Name: alt_LocLabelHeight
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 5: DEFINE

Description: Please enter the value to set a label table entry color to.

Action: Define the following variable(s) for later use
Variable Name: alt_LocLabelColor
Type: INTEGER
Lower Bound: 1
Upper Bound: 16
Get Value from User: Yes
Default value: 11

Step 6: DEFINE

Description: Please enter the value to set a label table entry start row to.

Action: Define the following variable(s) for later use
Variable Name: alt_LocLabelStartRow
Type: INTEGER
Lower Bound: 0

Upper Bound: 255
 Get Value from User: Yes
 Default value: 1

Step 7: DEFINE

Description: Please enter the value to set a label table entry start column to.

Action: Define the following variable(s) for later use
 Variable Name: alt_LocLabelStartColumn
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 255
 Get Value from User: Yes
 Default value: 1

Step 8: DEFINE

Description: Please enter the value to set a label table entry status to.

Action: Define the following variable(s) for later use
 Variable Name: alt_LocLabelStatus
 Type: STRING
 Lower Bound: 1
 Upper Bound: 1
 Get Value from User: Yes
 Default value: 0xC0

Step 9: GET

Description: Get the current label setting and store for restoration later.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---|-----------------------|
| labelText.<index_LocationLabelIndex> | orig_labelText |
| labelFontType.<index_LocationLabelIndex> | orig_labelFontType |
| labelHeight.<index_LocationLabelIndex> | orig_labelHeight |
| labelColor.<index_LocationLabelIndex> | orig_labelColor |
| labelStartRow.<index_LocationLabelIndex> | orig_labelStartRow |
| labelStartColumn.<index_LocationLabelIndex> | orig_labelStartColumn |
| labelStatus.<index_LocationLabelIndex> | orig_labelStatus |

Step 10: SET

Description: Set up the location label entry

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--|----------------------|
| labelText.<index_LocationLabelIndex> | alt_LocLabelText |
| labelFontType.<index_LocationLabelIndex> | alt_LocLabelFontType |
| labelHeight.<index_LocationLabelIndex> | alt_LocLabelHeight |

| | | |
|--------------------------|---|-------------------------|
| <input type="checkbox"/> | labelColor.<index_LocationLabelIndex> | alt_LocLabelColor |
| <input type="checkbox"/> | labelStartRow.<index_LocationLabelIndex> | alt_LocLabelStartRow |
| <input type="checkbox"/> | labelStartColumn.<index_LocationLabelIndex> | alt_LocLabelStartColumn |
| <input type="checkbox"/> | labelStatus.<index_LocationLabelIndex> | alt_LocLabelStatus |

Step 11: SET

Description: Setup the location index pointing to the entry that was just set up.

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|----------------------|--------------------------|
| <input type="checkbox"/> | labelLocationLabel.0 | index_LocationLabelIndex |

Step 12: SET

Description: Enable the text display of all labels by setting labelEnableTextDisplay.0 to 0x80

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|---------------------------|-------|
| <input type="checkbox"/> | labelEnableTextDisplay..0 | 0x80 |

Step 13: USER-VERIFY

Description: Verify the location label is displayed

Points: 1

Step 14: SET

Description: Turn off the text display for all labels

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|--------------------------|-------|
| <input type="checkbox"/> | labelEnableTextDisplay.0 | 0x00 |

Step 15: USER-VERIFY

Description: Verify there are no labels displayed

Points: 1

Step 16: SET

Description: Turn on the text display for all labels

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|--------------------------|-------|
| <input type="checkbox"/> | labelEnableTextDisplay.0 | 0x80 |

Step 17: USER-VERIFY

Description: Verify the location label is displayed

Points: 1

Step 18: SET

Description: Turn off the status for the location label

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--|-------|
| labelStatus.<index_LocationLabelIndex> | 0x00 |

Step 19: USER-VERIFY

Description: Verify the location label is not displayed. Only the location label has been disabled. Other labels should be able to be displayed.

Points: 1

Step 20: SET

Description: Turn on the status for the location label

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--|-------|
| labelStatus.<index_LocationLabelIndex> | 0xC0 |

Step 21: USER-VERIFY

Description: Verify the location label is displayed

Points: 1

Step 22: SET

Description: Dereference the location label

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------------|-------|
| labelLocationLabel.0 | 0 |

Step 23: USER-VERIFY

Description: Verify the location label is no longer displayed

Points: 1

Step 24: SET

Description: Restore the original values for the label entry

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--|-----------------------|
| labelText.<index_LocationLabelIndex> | orig_LocLabelText |
| labelFontType.<index_LocationLabelIndex> | orig_LocLabelFontType |
| labelHeight.<index_LocationLabelIndex> | orig_LocLabelHeight |
| labelColor.<index_LocationLabelIndex> | orig_LocLabelColor |
| labelStartRow.<index_LocationLabelIndex> | orig_LocLabelStartRow |

| | | |
|--------------------------|---|--------------------------|
| <input type="checkbox"/> | labelStartColumn.<index_LocationLabelIndex> | orig_LocLabelStartColumn |
| <input type="checkbox"/> | labelStatus.<index_LocationLabelIndex> | orig_LocLabelStatus |

Test Case TC12: Delta Pan Motion

This test case tests the delta panning motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the amount of movement to utilize within the delta pan motion test. Specifies measurement in 1/100th degrees.

Action: Define the following variable(s) for later use

Variable Name: deltaPanMovement

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 200

Step 2: DEFINE

Description: Please enter the speed of the movement to utilize within the delta pan motion test.

Action: Define the following variable(s) for later use

Variable Name: deltaPanMoveSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 3: SET

Description: Move the camera in a clockwise direction

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|---------------|---|
| <input type="checkbox"/> | positionPan.0 | '1' + deltaPanMoveSpeed + deltaPanMovement |

Step 4: USER-VERIFY

Description: Verify the camera moved in a clockwise direction at the movement and speed specified by the test variables deltaPanMovement and deltaPanMoveSpeed.

Points: 1

Step 5: SET

Description: Move the camera in a counterclockwise direction

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|---------------|---------|
| <input type="checkbox"/> | positionPan.0 | '1' + - |

| | | |
|--|--|---|
| | | (deltaPanMoveSpeed) + deltaPanMovement |
|--|--|---|

Step 6: USER-VERIFY

Description: Verify the camera moved in a counterclockwise direction at the movement and speed specified by the test variables deltaPanMovement and deltaPanMoveSpeed.

Points: 1

Test Case TC13: Absolute Pan Motion

This test case tests the absolute panning motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the first position to move the camera for the absolute pan motion test. Specifies a position in 1/100th degrees.

Action: Define the following variable(s) for later use

Variable Name: absolutePanPosition

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 0

Step 2: DEFINE

Description: Please enter the second position to move the camera for the absolute pan motion test. Specifies a position in 1/100th degrees.

Action: Define the following variable(s) for later use

Variable Name: absolutePanPosition2

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 9000

Step 3: DEFINE

Description: Please enter the speed of the movement to utilize within the absolute pan motion test.

Action: Define the following variable(s) for later use

Variable Name: absolutePanSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 4: SET

Description: Move the camera to the first position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|--|
| | positionPan.0 | '2' + absolutePanSpeed + absolutePanPosition |

Step 5: USER-VERIFY

Description: Verify that the camera moved to position indicated by absolutePanPosition

Points: 1

Step 6: SET

Description: Move the camera to the second position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|---|
| | positionPan.0 | '2' + absolutePanSpeed + absolutePanPosition2 |

Step 7: USER-VERIFY

Description: Verify that the camera moved to position indicated by absolutePanPosition2

Points: 1

Test Case TC14: Continuous Pan Motion

This test case tests the continuous panning motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous pan motion test.

Action: Define the following variable(s) for later use

Variable Name: contPanSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the alternate timeout value for continuous movement.

Action: Define the following variable(s) for later use

Variable Name: alt_contPanTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the pan motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------|-----------------|
| timeoutPan.0 | orig_timeoutPan |

Step 4: SET

Description: Set the pan motion timeout

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------|--------------------|
| timeoutPan.0 | alt_contPanTimeout |

Step 5: SET

Description: Start the camera moving in a clockwise direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|-------------------|
| positionPan.0 | '3' + conPanSpeed |

Step 6: USER-VERIFY

Description: Verify the camera stops moving after a time of alt_contPanTimeout

Points: 1

Step 7: SET

Description: Set the camera moving in a counterclockwise direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|-----------------------|
| positionPan.0 | '3' + (-contPanSpeed) |

Step 8: USER-VERIFY

Description: Verify the camera moves in a counterclockwise direction and stops after alt_contPanTimeout.

Points: 1

Step 9: SET

Description: Set the pan motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------|-----------------|
| timeoutPan.0 | orig_timeoutPan |

Test Case TC15: Continuous Pan Motion with Stop

This test case tests the continuous panning motion of the camera by moving the camera and using the stop command to stop movement.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous pan motion test.

Action: Define the following variable(s) for later use

Variable Name: contPanSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the delay before sending a stop command for the continuous movement. Measured in milliseconds.

Action: Define the following variable(s) for later use

Variable Name: contPanTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the pan motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------|-----------------|
| | timeoutPan.0 | orig_timeoutPan |

Step 4: SET

Description: Set the pan motion timeout to unused (0)

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------|-------|
| | timeoutPan.0 | 0 |

Step 5: SET

Description: Start the camera moving in a clockwise direction

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------|--------------------|
| | postionPan.0 | '3' + contPanSpeed |

Step 6: DELAY

Delay: <contPanTimeout> milliseconds:

Step 7: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|-----------------------|
| positionPan.0 | '0' + '0' + '0' + '0' |

Step 8: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 9: SET

Description: Set the camera moving in a counterclockwise direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|----------------------|
| positionPan.0 | '3' + (-conPanSpeed) |

Step 10: DELAY

Delay: <contPanTimeout> milliseconds:

Step 11: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|-----------------------|
| positionPan.0 | '0' + '0' + '0' + '0' |

Step 12: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 13: SET

Description: Set the pan motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------|-----------------|
| timeoutPan.0 | orig_timeoutPan |

Test Case TC16: Delta Tilt Motion

This test case tests the delta tilt motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the amount of movement to utilize within the delta tilt motion test.

Specifies measurement in 1/100th degrees.

Action: Define the following variable(s) for later use

Variable Name: deltaTiltMovement

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535
Get Value from User: Yes
Default value: 200

Step 2: DEFINE

Description: Please enter the speed of the movement to utilize within the delta tilt motion test.

Action: Define the following variable(s) for later use
Variable Name: deltaTiltMoveSpeed
Type: INTEGER
Lower Bound: 0
Upper Bound: 127
Get Value from User: Yes
Default value: 64

Step 3: SET

Description: Move the camera in a up direction

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------|--|
| | positionTilt.0 | '1' + deltaTiltMoveSpeed + deltaTiltMovement |

Step 4: USER-VERIFY

Description: Verify the camera moved in a up direction at the movement and speed specified by the test variables deltaTiltMovement and deltaTiltMoveSpeed.

Points: 1

Step 5: SET

Description: Move the camera in a down direction

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------|--|
| | positionTilt.0 | '1' + - (deltaTiltMoveSpeed) + deltaTiltMovement |

Step 6: USER-VERIFY

Description: Verify the camera moved in a down direction at the movement and speed specified by the test variables deltaTiltMovement and deltaTiltMoveSpeed.

Points: 1

Test Case TC17: Absolute Tilt Motion

This test case tests the absolute tilt motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the first position to move the camera for the absolute tilt motion test. Specifies a position in 1/100th degrees.

Action: Define the following variable(s) for later use
 Variable Name: absoluteTiltPosition
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 65535
 Get Value from User: Yes
 Default value: 0

Step 2: DEFINE

Description: Please enter the second position to move the camera for the absolute tilt motion test. Specifies a position in 1/100th degrees.

Action: Define the following variable(s) for later use
 Variable Name: absoluteTiltPosition2
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 65535
 Get Value from User: Yes
 Default value: 4500

Step 3: DEFINE

Description: Please enter the speed of the movement to utilize within the absolute tilt motion test.

Action: Define the following variable(s) for later use
 Variable Name: absoluteTiltSpeed
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 127
 Get Value from User: Yes
 Default value: 64

Step 4: SET

Description: Move the camera to the first position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------|--|
| | positionTilt.0 | '2' + absoluteTiltSpeed + absoluteTiltPosition |

Step 5: USER-VERIFY

Description: Verify that the camera moved to position indicated by absoluteTiltPosition

Points: 1

Step 6: SET

Description: Move the camera to the second position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------|---|
| | positionTilt.0 | '2' + absoluteTiltSpeed + absoluteTiltPosition2 |

Step 7: USER-VERIFY

Description: Verify that the camera moved to position indicated by absoluteTiltPosition2

Points: 1

Test Case TC18: Continuous Tilt Motion

This test case tests the continuous tilt motion of the camera by moving the camera with with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous tilt motion test.

Action: Define the following variable(s) for later use

Variable Name: conTiltSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the alternate timeout value for continuous movement.

Action: Define the following variable(s) for later use

Variable Name: alt_contTiltTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the tilt motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------|------------------|
| timeoutTilt.0 | orig_timeoutTilt |

Step 4: SET

Description: Set the pan motion timeout

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|---------------------|
| timeoutTilt.0 | alt_contTiltTimeout |

Step 5: SET

Description: Start the camera moving in a upwards direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------|-------|
|--------|-------|

| | |
|----------------|--------------------|
| positionTilt.0 | '3' + conTiltSpeed |
|----------------|--------------------|

Step 6: USER-VERIFY

Description: Verify the camera stops moving after a time of alt_contTiltTimeout

Points: 1

Step 7: SET

Description: Set the camera moving in a downward direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-----------------------|
| positionTilt.0 | '3' + (-conTiltSpeed) |

Step 8: USER-VERIFY

Description: Verify the camera moves in a downward direction and stops after alt_contTiltTimeout.

Points: 1

Step 9: SET

Description: Set the tilt motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|------------------|
| timeoutTilt.0 | orig_timeoutTilt |

Test Case TC19: Continuous Tilt Motion with Stop

This test case tests the continuous tilting motion of the camera by moving the camera and using the stop command to stop movement.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous tilt motion test.

Action: Define the following variable(s) for later use

Variable Name: conTiltSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the delay before sending a stop command for the continuous movement. Measured in milliseconds.

Action: Define the following variable(s) for later use

Variable Name: contTiltTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535
Get Value from User: Yes
Default value: 100

Step 3: GET

Description: Get the tilt motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------|------------------|
| timeoutTilt.0 | orig_timeoutTilt |

Step 4: SET

Description: Set the tilt motion timeout to unused (0)

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|-------|
| timeoutTilt.0 | 0 |

Step 5: SET

Description: Start the camera moving in a upward direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|--------------------|
| positionTilt.0 | '3' + conTiltSpeed |

Step 6: DELAY

Delay: <contTiltTimeout> milliseconds:

Step 7: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-----------------------|
| positionTilt.0 | '0' + '0' + '0' + '0' |

Step 8: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 9: SET

Description: Set the camera moving in a downward direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-----------------------|
| positionTilt.0 | '3' + (-conTiltSpeed) |

Step 10: DELAY

Delay: <contTiltTimeout> milliseconds:

Step 11: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------|-----------------------|
| | positionTilt.0 | '0' + '0' + '0' + '0' |

Step 12: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 13: SET

Description: Set the Tilt motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|------------------|
| | timeoutTilt.0 | orig_timeoutTilt |

Test Case TC20: Delta Zoom Motion

This test case tests the delta zoom motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the amount of movement to utilize within the delta zoom motion test. Specifies measurement in 1/100th degrees.

Action: Define the following variable(s) for later use

Variable Name: deltaZoomMovement

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 200

Step 2: DEFINE

Description: Please enter the speed of the movement to utilize within the delta zoom motion test.

Action: Define the following variable(s) for later use

Variable Name: deltaZoomMoveSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 3: SET

Description: Move the camera lens to telephoto zoom

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|--|
| | positionZoomLens.0 | '1' + deltaZoomMoveSpeed + deltaZoomMovement |

Step 4: USER-VERIFY

Description: Verify the camera lens moved towards a telephoto position at the movement and speed specified by the test variables deltaZoomMovement and deltaZoomMoveSpeed.

Points: 1

Step 5: SET

Description: Move the camera lens to wide zoom

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|--|
| | positionZoomLens.0 | '1' + - (deltaZoomMoveSpeed) + deltaZoomMovement |

Step 6: USER-VERIFY

Description: Verify the camera lens moved towards a wide angle position at the movement and speed specified by the test variables deltaZoomMovement and deltaZoomMoveSpeed.

Points: 1

Test Case TC21: Absolute Zoom Motion

This test case tests the absolute zoom motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the first position to move the camera for the absolute zoom motion test.

Action: Define the following variable(s) for later use

Variable Name: absoluteZoomPosition

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 0

Step 2: DEFINE

Description: Please enter the second position to move the camera for the absolute zoom motion test.

Action: Define the following variable(s) for later use

Variable Name: absoluteZoomPosition2

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 450

Step 3: DEFINE

Description: Please enter the speed of the movement to utilize within the absolute zoom motion test.

Action: Define the following variable(s) for later use

Variable Name: absoluteZoomSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 4: SET

Description: Move the camera lens to the first zoom position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|---|
| | positionZoomLens.0 | '2' + absoluteZoomSpeed + absoluteZoomPosition |

Step 5: USER-VERIFY

Description: Verify that the camera lens moved to position indicated by absoluteZoomPosition

Points: 1

Step 6: SET

Description: Move the camera lens to the second zoom position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|--|
| | positionZoomLens.0 | '2' + absoluteZoomSpeed + absoluteZoomPosition2 |

Step 7: USER-VERIFY

Description: Verify that the camera lens moved to position indicated by absoluteZoomPosition2

Points: 1

Test Case TC22: Continuous Zoom Motion

This test case tests the continuous zoom motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous zoom motion test.

Action: Define the following variable(s) for later use

Variable Name: conZoomSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127
Get Value from User: Yes
Default value: 64

Step 2: DEFINE

Description: Please enter the alternate timeout value for continuous movement.

Action: Define the following variable(s) for later use
Variable Name: alt_contZoomTimeout
Type: INTEGER
Lower Bound: 0
Upper Bound: 65535
Get Value from User: Yes
Default value: 100

Step 3: GET

Description: Get the zoom motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------|------------------|
| timeoutZoom.0 | orig_timeoutZoom |

Step 4: SET

Description: Set the zoom motion timeout

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|--------------------|
| timeoutZoom.0 | alt_conZoomTimeout |

Step 5: SET

Description: Start the camera lens moving in a telephoto angle direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|--------------------|
| positionZoomLens.0 | '3' + conZoomSpeed |

Step 6: USER-VERIFY

Description: Verify the camera lens stops moving after a time of alt_contZoomTimeout

Points: 1

Step 7: SET

Description: Set the camera lens moving in a wide angle direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|-----------------------|
| positionZoomLens.0 | '3' + (-conZoomSpeed) |

Step 8: USER-VERIFY

Description: Verify the camera moves in a wide angle direction and stops after alt_contZoomTimeout.

Points: 1

Step 9: SET

Description: Set the zoom motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|------------------|
| | timeoutZoom.0 | orig_timeoutZoom |

Test Case TC23: Continuous Zoom Motion with Stop

This test case tests the continuous zooming motion of the camera by moving the camera and using the stop command to stop movement.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous zoom motion test.

Action: Define the following variable(s) for later use

Variable Name: conZoomSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the delay before sending a stop command for the continuous movement. Measured in milliseconds.

Action: Define the following variable(s) for later use

Variable Name: contZoomTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the zoom motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|---------------|------------------|
| | timeoutZoom.0 | orig_timeoutZoom |

Step 4: SET

Description: Set the zoom motion timeout to unused (0)

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------|-------|
|--|--------|-------|

| | |
|---------------|---|
| timeoutZoom.0 | 0 |
|---------------|---|

Step 5: SET

Description: Start the camera lens moving towards the telephoto direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|--------------------|
| positionZoomLens.0 | '3' + conZoomSpeed |

Step 6: DELAY

Delay: <contZoomTimeout> milliseconds:

Step 7: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|-----------------------|
| positionZoomLens.0 | '0' + '0' + '0' + '0' |

Step 8: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 9: SET

Description: Set the camera moving towards the wide direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|-----------------------|
| positionZoomLens.0 | '3' + (-conZoomSpeed) |

Step 10: DELAY

Delay: <contZoomTimeout> milliseconds:

Step 11: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-----------------------|
| positionZoom.0 | '0' + '0' + '0' + '0' |

Step 12: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 13: SET

Description: Set the zoom motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|------------------|
| | timeoutZoom.0 | orig_timeoutZoom |

Test Case TC24: Delta Focus Motion

This test case tests the delta focus motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them

Step 1: DEFINE

Description: Please enter the amount of movement to utilize within the delta focus motion test. Specifies measurement in 1/100th degrees.

Action: Define the following variable(s) for later use

Variable Name: deltaFocusMovement

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 200

Step 2: DEFINE

Description: Please enter the speed of the movement to utilize within the delta focus motion test.

Action: Define the following variable(s) for later use

Variable Name: deltaFocusMoveSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 3: SET

Description: Move the camera lens to far focus

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------------|--|
| | positionFocusLens.0 | '1' + deltaFocusMoveSpeed + deltaFocusMovement |

Step 4: USER-VERIFY

Description: Verify the camera moved the lens towards telephoto position at the movement and speed specified by the test variables deltaFocusMovement and deltaFocusMoveSpeed.

Points: 1

Step 5: SET

Description: Move the camera lens to near focus

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------|-------|
|--|--------|-------|

| | |
|---------------------|--|
| positionFocusLens.0 | '1' + - (deltaFocusMoveSpeed) + deltaFocusMovement |
|---------------------|--|

Step 6: USER-VERIFY

Description: Verify the camera lens move towards near focus at the movement and speed specified by the test variables deltaFocusMovement and deltaFocusMoveSpeed.

Points: 1

Test Case TC25: Absolute Focus Motion

This test case tests the absolute focus motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the first position to move the camera for the absolute focus motion test.

Action: Define the following variable(s) for later use

Variable Name: absoluteFocusPosition

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 0

Step 2: DEFINE

Description: Please enter the second position to move the camera for the absolute focus motion test.

Action: Define the following variable(s) for later use

Variable Name: absoluteFocusPosition2

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 4500

Step 3: DEFINE

Description: Please enter the speed of the movement to utilize within the absolute focus motion test.

Action: Define the following variable(s) for later use

Variable Name: absoluteFocusSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 4: SET

Description: Move the camera lens to the first focus position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------------|--|
| | positionFocusLens.0 | '2' + absoluteFocusSpeed + absoluteFocusPosition |

Step 5: USER-VERIFY

Description: Verify that the camera lens moved to position indicated by absoluteFocusPosition

Points: 1

Step 6: SET

Description: Move the camera lens to the second focus position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------------|---|
| | positionFocusLens.0 | '2' + absoluteFocusSpeed + absoluteFocusPosition2 |

Step 7: USER-VERIFY

Description: Verify that the camera lens moved to position indicated by absoluteFocusPosition2

Points: 1

Test Case TC26: Continuous Focus Motion

This test case tests the continuous focus motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous focus motion test.

Action: Define the following variable(s) for later use

Variable Name: conFocusSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the alternate timeout value for continuous movement.

Action: Define the following variable(s) for later use

Variable Name: alt_contFocusTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the focus motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------|-------------------|
| timeoutFocus.0 | orig_timeoutFocus |

Step 4: SET

Description: Set the focus motion timeout

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|----------------------|
| timeoutFocus.0 | alt_contFocusTimeout |

Step 5: SET

Description: Start the camera lens moving in a far focus direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------------|---------------------|
| positionFocusLens.0 | '3' + conFocusSpeed |

Step 6: USER-VERIFY

Description: Verify the camera lens stops moving after a time of alt_contFocusTimeout

Points: 1

Step 7: SET

Description: Set the camera lens moving in a near focus direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------------|------------------------|
| positionFocusLens.0 | '3' + (-conFocusSpeed) |

Step 8: USER-VERIFY

Description: Verify the camera moves in a near focus direction and stops after alt_contFocusTimeout.

Points: 1

Step 9: SET

Description: Set the zoom motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-------------------|
| timeoutFocus.0 | orig_timeoutFocus |

Test Case TC27: Continuous Focus Motion with Stop

This test case tests the continuous focus motion of the camera by moving the camera and using the stop command to stop movement.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous focus motion test.

Action: Define the following variable(s) for later use

Variable Name: conFocusSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the delay before sending a stop command for the continuous movement. Measured in milliseconds.

Action: Define the following variable(s) for later use

Variable Name: contFocusTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the focus motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------|-------------------|
| timeoutFocus.0 | orig_timeoutFocus |

Step 4: SET

Description: Set the focus motion timeout to unused (0)

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-------|
| timeoutFocus.0 | 0 |

Step 5: SET

Description: Start the camera lens moving towards the far focus direction

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------------|---------------------|
| positionFocusLens.0 | '3' + conFocusSpeed |

Step 6: DELAY

Delay: <contFocusTimeout> milliseconds:

Step 7: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------------|-----------------------|
| | positionFocusLens.0 | '0' + '0' + '0' + '0' |

Step 8: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 9: SET

Description: Set the camera moving towards the near focus direction

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------------|------------------------|
| | positionFocusLens.0 | '3' + (-conFocusSpeed) |

Step 10: DELAY

Delay: <contFocusTimeout> milliseconds:

Step 11: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------------|-----------------------|
| | positionFocusLens.0 | '0' + '0' + '0' + '0' |

Step 12: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 13: SET

Description: Set the focus motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------|-------------------|
| | timeoutFocus.0 | orig_timeoutFocus |

Test Case TC28: Delta Iris Motion

This test case tests the delta iris motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera.

Step 1: DEFINE

Description: Please enter the amount of movement to utilize within the delta focus motion test.

Specifies measurement in scaler units.

Action: Define the following variable(s) for later use

Variable Name: deltaIrisMovement

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 200

Step 2: DEFINE

Description: Please enter the speed of the movement to utilize within the delta focus motion test.

Action: Define the following variable(s) for later use

Variable Name: deltaIrisMoveSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 3: SET

Description: Move the camera lens iris towards a closed position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|--|
| | positionIrisLens.0 | '1' + deltaIrisMoveSpeed + deltaIrisMovement |

Step 4: USER-VERIFY

Description: Verify the camera moved the lens towards a closed position at the movement and speed specified by the test variables deltaIrisMovement and deltaIrisMoveSpeed.

Points: 1

Step 5: SET

Description: Move the camera lens iris towards an open position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|--|
| | positionIrisLens.0 | '1' + - (deltaIrisMoveSpeed) + deltaIrisMovement |

Step 6: USER-VERIFY

Description: Verify the camera lens move towards an open position at the movement and speed specified by the test variables deltaIrisMovement and deltaIrisMoveSpeed.

Points: 1

Test Case TC29: Absolute Iris Motion

This test case tests the absolute iris motion of the camera by moving the camera with several different speed and direction parameters and allowing the user to verify them.

Step 1: DEFINE

Description: Please enter the first position to move the camera lens for the absolute Iris motion test.

Action: Define the following variable(s) for later use

Variable Name: absolutelrisPosition

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 0

Step 2: DEFINE

Description: Please enter the second position to move the camera lens for the absolute Iris motion test.

Action: Define the following variable(s) for later use

Variable Name: absolutelrisPosition2

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 4500

Step 3: DEFINE

Description: Please enter the speed of the movement to utilize within the absolute Iris motion test.

Action: Define the following variable(s) for later use

Variable Name: absolutelrisSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 4: SET

Description: Move the camera lens to the first iris position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|--|
| | positionIrisLens.0 | '2' + absolutelrisSpeed + absolutelrisPosition |

Step 5: USER-VERIFY

Description: Verify that the camera lens moved to position indicated by absolutelrisPosition

Points: 1

Step 6: SET

Description: Move the camera lens to the second iris position

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------|---|
| | positionIrisLens.0 | '2' + absolutelIrisSpeed + absolutelIrisPosition2 |

Step 7: USER-VERIFY

Description: Verify that the camera lens moved to position indicated by absolutelIrisPosition2

Points: 1

Test Case TC30: Continuous Iris Motion

This test case tests the continuous iris motion of the camera by moving the camera with the continuous command using the timeout parameter to stop the camera. The user verifies the movement and stopping of the camera.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous iris motion test.

Action: Define the following variable(s) for later use

Variable Name: conIrisSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the alternate timeout value for continuous movement.

Action: Define the following variable(s) for later use

Variable Name: alt_contIrisTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the iris motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|---------------|------------------|
| | timeoutIris.0 | orig_timeoutIris |

Step 4: SET

Description: Set the iris motion timeout

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|--------------------|
| timeoutIris.0 | alt_conIrisTimeout |

Step 5: SET

Description: Start the camera lens moving towards a closed position

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|--------------------|
| positionIrisLens.0 | '3' + conIrisSpeed |

Step 6: USER-VERIFY

Description: Verify the camera lens stops moving after a time of alt_conIrisTimeout

Points: 1

Step 7: SET

Description: Set the camera lens moving towards an open position

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|-----------------------|
| positionIrisLens.0 | '3' + (-conIrisSpeed) |

Step 8: USER-VERIFY

Description: Verify the camera moves towards an open and stops after alt_conIrisTimeout.

Points: 1

Step 9: SET

Description: Set the iris motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|------------------|
| timeoutIris.0 | orig_timeoutIris |

Test Case TC31: Continuous Iris Motion with Stop

This test case tests the continuous Iris motion of the camera by moving the camera and using the stop command to stop movement.

Step 1: DEFINE

Description: Please enter the speed of the movement to utilize within the continuous iris motion test.

Action: Define the following variable(s) for later use

Variable Name: conIrisSpeed

Type: INTEGER

Lower Bound: 0

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 2: DEFINE

Description: Please enter the delay before sending a stop command for the continuous movement. Measured in milliseconds.

Action: Define the following variable(s) for later use

Variable Name: conIrisTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 65535

Get Value from User: Yes

Default value: 100

Step 3: GET

Description: Get the iris motion timeout.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------|------------------|
| timeoutIris.0 | orig_timeoutIris |

Step 4: SET

Description: Set the iris motion timeout to unused (0)

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|-------|
| timeoutIris.0 | 0 |

Step 5: SET

Description: Start the camera lens moving towards the closed position

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|--------------------|
| positionIrisLens.0 | '3' + conIrisSpeed |

Step 6: DELAY

Delay: <conIrisTimeout> milliseconds:

Step 7: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|-----------------------|
| positionIrisLens.0 | '0' + '0' + '0' + '0' |

Step 8: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 9: SET

Description: Set the camera moving towards the open position

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|-----------------------|
| positionIrisLens.0 | '3' + (-conIrisSpeed) |

Step 10: DELAY

Delay: <conIrisTimeout> milliseconds:

Step 11: SET

Description: Send the stop command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------|-----------------------|
| positionIrisLens.0 | '0' + '0' + '0' + '0' |

Step 12: USER-VERIFY

Description: Verify the camera stops moving.

Points: 1

Step 13: SET

Description: Set the iris motion timeout back to original.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|------------------|
| timeoutIris.0 | orig_timeoutIris |

Test Case TC32: Preset Positon

This test case stores and moves the camera to preset camera positions

Step 1: DEFINE

Description: Please enter a pan position for the first preset position in the preset position test.

Action: Define the following variable(s) for later use

Variable Name: presetPanPosition1

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 0

Step 2: DEFINE

Description: Please enter a tilt position for the first preset position in the preset position test.

Action: Define the following variable(s) for later use

Variable Name: presetTiltPosition1

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 0

Step 3: DEFINE

Description: Please enter a pan position for the second preset position in the preset position test.

Action: Define the following variable(s) for later use

Variable Name: presetPanPosition2

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 450

Step 4: DEFINE

Description: Please enter a tilt position for the second preset position in the preset position test.

Action: Define the following variable(s) for later use

Variable Name: presetTiltPosition2

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 100

Step 5: DEFINE

Description: Please enter the movement speed to utilize within the preset positions test.

Action: Define the following variable(s) for later use

Variable Name: presetMovementSpeed

Type: INTEGER

Lower Bound: -127

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 6: DEFINE

Description: Please enter a index to use for the first preset position

Action: Define the following variable(s) for later use

Variable Name: presetStore1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 7: DEFINE

Description: Please enter a index to use for the second preset position

Action: Define the following variable(s) for later use

Variable Name: presetStore2

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 2

Step 8: SET

Description: Goto position 1

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|---|
| positionPan.0 | '2' + presetMovementSpeed + presetPanPosition1 |
| positionTilt.0 | '2' + presetMovementSpeed + presetTiltPosition1 |

Step 9: USER-VERIFY

Description: Verify the camera is in position 1

Points: 1

Step 10: SET

Description: Set position 1 as a preset

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------|--------------|
| presetStorePosition.0 | presetStore1 |

Step 11: SET

Description: Goto position 2

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|---|
| positionPan.0 | '2' + presetMovementSpeed + presetPanPosition2 |
| positionTilt.0 | '2' + presetMovementSpeed + presetTiltPosition2 |

Step 12: USER-VERIFY

Description: Verify the camera is in position 2

Points: 1

Step 13: SET

Description: Set position 2 as a preset

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------|--------------|
| presetStorePosition.0 | presetStore2 |

Step 14: SET

Description: Goto preset position 1

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------------|--------------|
| | presetGotoPosition.0 | presetStore1 |

Step 15: USER-VERIFY

Description: Verify the camera moved to position 1

Points: 1

Step 15: USER-VERIFY

Description: Verify the camera moved to position 2

Points: 1

Step 16: SET

Description: Goto preset position 2

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------------|--------------|
| | presetGotoPosition.0 | presetStore2 |

Test Case TC33: Get-Set Zone

This test case tests the storage of camera zones.

Step 1: DEFINE

Description: Please enter the number of zones required by the project.

Action: Define the following variable(s) for later use

Variable Name: req_ZoneMaximum

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 255

Step 2: DEFINE

Description: Please enter the zone row to use in the zone table for testing storing zones.

Action: Define the following variable(s) for later use

Variable Name: index_ZoneIndex

Type: INTEGER

Lower Bound: 1

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 3: DEFINE

Description: Please enter an alternate value to set a zone table entry label to.

Action: Define the following variable(s) for later use
Variable Name: alt_zoneLabel
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 4: DEFINE

Description: Please enter an alternate value to set a zone table entry left limit to.

Action: Define the following variable(s) for later use
Variable Name: alt_zoneLeftLimit
Type: INTEGER
Lower Bound: 0
Upper Bound: 35999
Get Value from User: Yes
Default value: 0

Step 5: DEFINE

Description: Please enter an alternate value to set a zone table entry right limit to.

Action: Define the following variable(s) for later use
Variable Name: alt_zoneRightLimit
Type: INTEGER
Lower Bound: 0
Upper Bound: 35999
Get Value from User: Yes
Default value: 400

Step 6: DEFINE

Description: Please enter an alternate value to set a zone table entry up limit to.

Action: Define the following variable(s) for later use
Variable Name: alt_zoneUpLimit
Type: INTEGER
Lower Bound: 0
Upper Bound: 35999
Get Value from User: Yes
Default value: 450

Step 7: DEFINE

Description: Please enter an alternate value to set a zone table entry down limit to.

Action: Define the following variable(s) for later use
Variable Name: alt_zoneDownLimit
Type: INTEGER
Lower Bound: 0
Upper Bound: 35999
Get Value from User: Yes
Default value: 0

Step 8: GET

Description: Get the maximum storage limit for zones

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------|-------------|
| zoneMaximum.0 | zoneMaximum |

Step 9: VERIFY/GOTO

If zoneMaximum >= req_ZoneMaximum

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 10: GET

Description: Get the zone about to be changed and store

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-------------------------------------|------------------------|
| zoneLabel.<index_ZoneIndex> | orig_zoneLabel |
| zonePanRightLimit.<index_ZoneIndex> | orig_zonePanRightLimit |
| zoneTiltUpLimit.<index_ZoneIndex> | orig_zoneTiltUpLimit |
| zoneTiltDownLimit.<index_ZoneIndex> | orig_zoneTiltDownLimit |
| zonePanLeftLimit.<index_ZoneIndex> | orig_zonePanLeftLimit |

Step 11: SET

Description: Set the zone entry

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------------------------|-----------------------|
| zoneLabel.<index_ZoneIndex> | alt_zoneLabel |
| zonePanRightLimit.<index_ZoneIndex> | alt_zonePanRightLimit |
| zoneTiltUpLimit.<index_ZoneIndex> | alt_zoneTiltUpLimit |
| zoneTiltDownLimit.<index_ZoneIndex> | alt_zoneTiltDownLimit |
| zonePanLeftLimit.<index_ZoneIndex> | alt_zonePanLeftLimit |

Step 12: VERIFY/GOTO

Description: Verify no error was received

If

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 13: SET

Description: Set the zone back to original value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------|-------|
|--------|-------|

| | |
|-------------------------------------|------------------------|
| zoneLabel.<index_ZoneIndex> | orig_zoneLabel |
| zonePanRightLimit.<index_ZoneIndex> | orig_zonePanRightLimit |
| zoneTiltUpLimit.<index_ZoneIndex> | orig_zoneTiltUpLimit |
| zoneTiltDownLimit.<index_ZoneIndex> | orig_zoneTiltDownLimit |
| zonePanLeftLimit.<index_ZoneIndex> | orig_zonePanLeftLimit |

Test Case TC34: Move In and Out of Zone

This test case tests the labelling capability of zones by moving to areas within zones

Step 1: DEFINE

Description: Please enter an alternate value to set a zone table entry label to.

Action: Define the following variable(s) for later use

Variable Name: alt_zoneLabel

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 2: DEFINE

Description: Please enter an alternate value to set a zone table entry left limit to.

Action: Define the following variable(s) for later use

Variable Name: alt_zoneLeftLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 0

Step 3: DEFINE

Description: Please enter an alternate value to set a zone table entry right limit to.

Action: Define the following variable(s) for later use

Variable Name: alt_zoneRightLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 400

Step 4: DEFINE

Description: Please enter an alternate value to set a zone table entry up limit to.

Action: Define the following variable(s) for later use

Variable Name: alt_zoneUpLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 450

Step 5: DEFINE

Description: Please enter an alternate value to set a zone table entry down limit to.

Action: Define the following variable(s) for later use

Variable Name: alt_zoneDownLimit

Type: INTEGER

Lower Bound: 0

Upper Bound: 35999

Get Value from User: Yes

Default value: 0

Step 6: DEFINE

Description: Please enter the index of zone entry to utilize in the move in and out of zone test.

Action: Define the following variable(s) for later use

Variable Name: indexZone

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 7: DEFINE

Description: Please enter a value to set a label table entry text to.

Action: Define the following variable(s) for later use

Variable Name: alt_ZLabelText

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'Zone1'

Step 8: DEFINE

Description: Please enter a value to set a label table entry font type to.

Action: Define the following variable(s) for later use

Variable Name: alt_ZLabelFontType

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 9: DEFINE

Description: Please enter a value to set a label table entry height to.

Action: Define the following variable(s) for later use

Variable Name: alt_ZLabelHeight

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 10: DEFINE

Description: Please enter a value to set a label table entry color to.

Action: Define the following variable(s) for later use

Variable Name: alt_ZLabelColor

Type: INTEGER

Lower Bound: 0

Upper Bound: 16

Get Value from User: Yes

Default value: 11

Step 11: DEFINE

Description: Please enter a value to set a label table entry start row to.

Action: Define the following variable(s) for later use

Variable Name: alt_ZLabelStartRow

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 12: DEFINE

Description: Please enter a value to set a label table entry start column to.

Action: Define the following variable(s) for later use

Variable Name: alt_LocLabelStartColumn

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 13: DEFINE

Description: Please enter a value to set a label table entry status to.

Action: Define the following variable(s) for later use

Variable Name: alt_ZLabelStatus

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Default value: 0xC0

Step 14: DEFINE

Description: Please enter the movement speed to utilize within the preset positions test.

Action: Define the following variable(s) for later use

Variable Name: zoneMoveSpeed

Type: INTEGER

Lower Bound: -127

Upper Bound: 127

Get Value from User: Yes

Default value: 64

Step 15: GET

Description: Get the zone about to be changed and store

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-------------------------------|------------------------|
| zoneLabel.<indexZone> | orig_zoneLabel |
| zonePanRightLimit.<indexZone> | orig_zonePanRightLimit |
| zoneTiltUpLimit.<indexZone> | orig_zoneTiltUpLimit |
| zoneTiltDownLimit.<indexZone> | orig_zoneTiltDownLimit |
| zonePanLeftLimit.<indexZone> | orig_zonePanLeftLimit |

Step 16: SET

Description: Configure the zone entry

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------------------|-----------------------|
| zoneLabel.<indexZone> | alt_zoneLabel |
| zonePanRightLimit.<indexZone> | alt_zonePanRightLimit |
| zoneTiltUpLimit.<indexZone> | alt_zoneTiltUpLimit |
| zoneTiltDownLimit.<indexZone> | alt_zoneTiltDownLimit |
| zonePanLeftLimit.<indexZone> | alt_zonePanLeftLimit |

Step 17: GET

Description: Get the label information and store

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------------------------|-----------------------|
| labelText.<alt_zoneLabel> | orig_labelText |
| labelFontType.<alt_zoneLabel> | orig_labelFontType |
| labelHeight.<alt_zoneLabel> | orig_labelHeight |
| labelColor.<alt_zoneLabel> | orig_labelColor |
| labelStartRow.<alt_zoneLabel> | orig_labelStartRow |
| labelStartColumn.<alt_zoneLabel> | orig_labelStartColumn |
| labelStatus.<alt_zoneLabel> | orig_labelStatus |

Step 18: SET

Description: Configure the label to be used

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------------------|----------------|
| labelText.<alt_zoneLabel> | alt_ZlabelText |

| | |
|----------------------------------|-----------------------|
| labelFontType.<alt_zoneLabel> | alt_ZlabelFontType |
| labelHeight.<alt_zoneLabel> | alt_ZlabelHeight |
| labelColor.<alt_zoneLabel> | alt_ZlabelColor |
| labelStartRow.<alt_zoneLabel> | alt_ZlabelStartRow |
| labelStartColumn.<alt_zoneLabel> | alt_ZlabelStartColumn |
| labelStatus.<alt_zoneLabel> | alt_ZlabelStatus |

Step 19: SET

Description: Move the camera into the set zone.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|--|
| positionPan.0 | '2' + zoneMoveSpeed + (alt_zoneRightLimit - 1) |
| positionTilt.0 | '2' + zoneMoveSpeed + (alt_zoneUpLimit - 1) |

Step 20: USER-VERIFY

Description: Verify the label associated with the zone is displayed

Points: 1

Step 21: SET

Description: Move the camera out of the zone.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|--|
| positionPan.0 | '2' + zoneMoveSpeed + (alt_zoneRightLimit + 1) |
| positionTilt.0 | '2' + zoneMoveSpeed + (alt_zoneUpLimit + 1) |

Step 22: USER-VERIFY

Description: Verify the label associated with the zone is not displayed

Points: 1

Step 23: SET

Description: Restore the original zone entry

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------------------|------------------------|
| zoneLabel.<indexZone> | orig_zoneLabel |
| zonePanRightLimit.<indexZone> | orig_zonePanRightLimit |
| zoneTiltUpLimit.<indexZone> | orig_zoneTiltUpLimit |

| | |
|-------------------------------|------------------------|
| zoneTiltDownLimit.<indexZone> | orig_zoneTiltDownLimit |
| zonePanLeftLimit.<indexZone> | orig_zonePanLeftLimit |

Step 24: SET

Description: Restore the original label entry

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------------------------|-----------------------|
| labelText.<alt_zoneLabel> | orig_labelText |
| labelFontType.<alt_zoneLabel> | orig_labelFontType |
| labelHeight.<alt_zoneLabel> | orig_labelHeight |
| labelColor.<alt_zoneLabel> | orig_labelColor |
| labelStartRow.<alt_zoneLabel> | orig_labelStartRow |
| labelStartColumn.<alt_zoneLabel> | orig_labelStartColumn |
| labelStatus.<alt_zoneLabel> | orig_labelStatus |

Test Case TC35: Get Availability of Equipment

This test case identifies and verifies the availability of attached equipment to the camera.

Step 1: PRE-CONDITIONS

Description: The object 'systemCameraEquipped' must be configured to project requirements prior to this test.

Step 2: DEFINE

Description: Please enter the required equipment that is attached to the device.

Action: Define the following variable(s) for later use

Variable Name: req_systemCameraEquipped

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Step 3: DEFINE

Description: Please enter a value for the systemCameraEquipped. This value should be different than req_systemCameraEquipped

Action: Define the following variable(s) for later use

Variable Name: alt_systemCameraEquipped

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Step 4: GET

Description: Get the equipped object.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|---------------------------|
| systemCameraEquipped.0 | orig_systemCameraEquipped |

Step 5: VERIFY/GOTO

If orig_systemCameraEquipped equals req_systemCameraEquipped

Award Points: 1

Step 6: SET

Description: Set equipped to an alternate value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|--------------------------|
| systemCameraEquipped.0 | alt_systemCameraEquipped |

Step 7: GET

Description: Get the changed value

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|----------------------|
| systemCameraEquipped.0 | systemCameraEquipped |

Step 8: VERIFY/GOTO

If systemCameraEquipped equals alt_systemCameraEquipped

Award Points: 1

Step 9: SET

Description: Set back to the original value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|---------------------------|
| systemCameraEquipped.0 | orig_systemCameraEquipped |

Test Case TC36: Control Camera Power

This test case enables and disables this feature while the user verifies.

Step 1: DEFINE

Description: Storage for the original state of the systemCameraFeatureControl object.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraFeatureControl

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: No

Step 2: DEFINE

Description: Storage for the original value of the object systemCameraEquipped.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraEquipped

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: No

Step 3: GET

Description: Get the camera equipped object

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|---------------------------|
| systemCameraEquipped.0 | orig_systemCameraEquipped |

Step 4: VERIFY/GOTO

If systemCameraEquipped bitwise AND 0x80

Award Points: 1

Step 5: SET

Description: Turn on bit 7

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|--------------------------------|
| systemCameraEquipped.0 | systemCameraEquipped 0x80 |

Step 6: GET

Description: Get the feature control object.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------------|----------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl |

Step 7: SET

Description: Turn on bit 7 camera power.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|--------------------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl 0x80 |

Step 8: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------|-----------|
|--------|-----------|

| | |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |
|-----------------------------|---------------------------|

Step 9: VERIFY/GOTO

Description: Ensure that bit 7 is set

If systemCameraFeatureStatus bitwise AND 0x80

Award Points: 1

Step 10: USER-VERIFY

Description: Camera Power is on

Points: 1

Step 11: SET

Description: Turn off bit 7 - camera power

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------------|-----------------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureControl & 0x7F |

Step 12: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 13: VERIFY/GOTO

Description: Ensure that bit 7 is cleared

If systemCameraFeatureStatus bitwise AND 0x80

Award Points: 1

Step 14: USER-VERIFY

Description: Camera Power is off

Points: 1

Step 15: SET

Description: Set the feature control back to the original value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|---------------------------|
| systemCameraFeatureControl.0 | orig_systemCameraEquipped |

Test Case TC37: Control Heater Power

This test case enables and disables this feature while the user verifies.

Step 1: DEFINE

Description: Storage for the original state of the systemCameraFeatureControl object.

Action: Define the following variable(s) for later use
 Variable Name: store_systemCameraFeatureControl
 Type: STRING
 Lower Bound: 2
 Upper Bound: 2
 Get Value from User: No

Step 2: DEFINE

Description: Storage for the original value of the object systemCameraEquipped.

Action: Define the following variable(s) for later use
 Variable Name: store_systemCameraEquipped
 Type: STRING
 Lower Bound: 1
 Upper Bound: 1
 Get Value from User: No

Step 3: GET

Description: Get the camera equipped object

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|---------------------------|
| systemCameraEquipped.0 | orig_systemCameraEquipped |

Step 4: VERIFY/GOTO

If systemCameraEquipped bitwise AND 0x40
 Award Points: 1

Step 5: SET

Description: Turn on bit 6

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|--------------------------------|
| systemCameraEquipped.0 | systemCameraEquipped 0x40 |

Step 6: GET

Description: Get the feature control object.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|----------------------|
| systemCameraEquipped.0 | systemCameraEquipped |

Step 7: SET

Description: Turn on bit 6 heater power.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|----------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl |

| | |
|--|------|
| | 0x40 |
|--|------|

Step 8: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 9: VERIFY/GOTO

Description: Ensure that bit 6 is set

If systemCameraFeatureStatus bitwise AND 0x40

Award Points: 1

Step 10: USER-VERIFY

Description: Heater Power is on

Points: 1

Step 11: SET

Description: Turn off bit 6 - heater power

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------------|-----------------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureControl & 0xBF |

Step 12: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 13: VERIFY/GOTO

Description: Ensure that bit 6 is cleared

If systemCameraFeatureStatus bitwise AND 0x40

Award Points: 1

Step 14: USER-VERIFY

Description: Heater Power is off

Points: 1

Step 15: SET

Description: Set the feature control back to the original value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------|-------|
|--------|-------|

| | |
|------------------------------|---------------------------|
| systemCameraFeatureControl.0 | orig_systemCameraEquipped |
|------------------------------|---------------------------|

Test Case TC38: Control Wiper

This test case enables and disables this feature while the user verifies.

Step 1: DEFINE

Description: Storage for the original state of the systemCameraFeatureControl object.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraFeatureControl

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: No

Step 2: DEFINE

Description: Storage for the original value of the object systemCameraEquipped.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraEquipped

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: No

Step 3: GET

Description: Get the camera equipped object

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|---------------------------|
| systemCameraEquipped.0 | orig_systemCameraEquipped |

Step 4: VERIFY/GOTO

If systemCameraEquipped bitwise AND 0x20

Award Points: 1

Step 5: SET

Description: Turn on bit 5

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|--------------------------------|
| systemCameraEquipped.0 | systemCameraEquipped 0x20 |

Step 6: GET

Description: Get the feature control object.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|----------------------|
| systemCameraEquipped.0 | systemCameraEquipped |

Step 7: SET

Description: Turn on bit 5 for wiper.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|--------------------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl 0x20 |

Step 8: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 9: VERIFY/GOTO

Description: Ensure that bit 5 is set

If systemCameraFeatureStatus bitwise AND 0x20

Award Points: 1

Step 10: USER-VERIFY

Description: Wiper is on

Points: 1

Step 11: SET

Description: Turn off bit 5 - wiper control

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|--------------------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl & 0xDF |

Step 12: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 13: VERIFY/GOTO

Description: Ensure that bit 5 is cleared

If systemCameraFeatureStatus bitwise AND 0x20

Award Points: 1

Step 14: USER-VERIFY

Description: Wiper is off

Points: 1

Step 15: SET

Description: Set the feature control back to the original value

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|------------------------------|---------------------------|
| | systemCameraFeatureControl.0 | orig_systemCameraEquipped |

Test Case TC39: Control Washer

This test case enables and disables this feature while the user verifies.

Step 1: DEFINE

Description: Storage for the original state of the systemCameraFeatureControl object.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraFeatureControl

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: No

Step 2: DEFINE

Description: Storage for the original value of the object systemCameraEquipped.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraEquipped

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: No

Step 3: GET

Description: Get the camera equipped object

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|------------------------|---------------------------|
| | systemCameraEquipped.0 | orig_systemCameraEquipped |

Step 4: VERIFY/GOTO

If systemCameraEquipped bitwise AND 0x10

Award Points: 1

Step 5: SET

Description: Turn on bit 4

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|--------------------------------|
| systemCameraEquipped.0 | systemCameraEquipped 0x10 |

Step 6: GET

Description: Get the feature control object.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|------------------------|----------------------|
| systemCameraEquipped.0 | systemCameraEquipped |

Step 7: SET

Description: Turn on bit 4 for washer.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|--------------------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl 0x10 |

Step 8: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 9: VERIFY/GOTO

Description: Ensure that bit 4 is set

If systemCameraFeatureStatus bitwise AND 0x10

Award Points: 1

Step 10: USER-VERIFY

Description: Wiper is on

Points: 1

Step 11: SET

Description: Turn off bit 4 - washer control

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|--------------------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl & 0xEF |

Step 12: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|-----------------------------|---------------------------|
| | systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 13: VERIFY/GOTO

Description: Ensure that bit 4 is cleared

If systemCameraFeatureStatus bitwise AND 0x10

Award Points: 1

Step 14: USER-VERIFY

Description: Washer is off

Points: 1

Step 15: SET

Description: Set the feature control back to the original value

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|------------------------|---------------------------|
| | systemCameraEquipped.0 | orig_systemCameraEquipped |

Test Case TC40: Control Blower

This test case enables and disables this feature while the user verifies.

Step 1: DEFINE

Description: Storage for the original state of the systemCameraFeatureControl object.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraFeatureControl

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: Yes

Step 2: DEFINE

Description: Storage for the original value of the object systemCameraEquipped.

Action: Define the following variable(s) for later use

Variable Name: store_systemCameraEquipped

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: Yes

Step 3: GET

Description: Get the camera equipped object

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|------------------------|---------------------------|
| | systemCameraEquipped.0 | orig_systemCameraEquipped |

Step 4: VERIFY/GOTO

If systemCameraEquipped bitwise AND 0x08

Award Points: 1

Step 5: SET

Description: Turn on bit 3

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|------------------------|--------------------------------|
| | systemCameraEquipped.0 | systemCameraEquipped 0x08 |

Step 6: GET

Description: Get the feature control object.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|------------------------|----------------------|
| | systemCameraEquipped.0 | systemCameraEquipped |

Step 7: SET

Description: Turn on bit 3 for blower.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|------------------------------|--------------------------------------|
| | systemCameraFeatureControl.0 | systemCameraFeatureControl 0x08 |

Step 8: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|-----------------------------|---------------------------|
| | systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 9: VERIFY/GOTO

Description: Ensure that bit 3 is set

If systemCameraFeatureStatus bitwise AND 0x08

Award Points: 1

Step 10: USER-VERIFY

Description: Blower is on

Points: 1

Step 11: SET

Description: Turn off bit 3 - blower control

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------|-----------------------------------|
| systemCameraFeatureControl.0 | systemCameraFeatureControl & 0xF7 |

Step 12: GET

Description: Get the status of the equipped.

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------|---------------------------|
| systemCameraFeatureStatus.0 | systemCameraFeatureStatus |

Step 13: VERIFY/GOTO

Description: Ensure that bit 3 is cleared

If systemCameraFeatureStatus bitwise AND 0x08

Award Points: 1

Step 14: USER-VERIFY

Description: Blower is off

Points: 1

Step 15: SET

Description: Set the feature control back to the original value

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------|---------------------------|
| systemCameraEquipped.0 | orig_systemCameraEquipped |

Test Case TC41: Get Availability of Lens Equipment

This test case identifies and verifies the availability of attached equipment to the camera.

Step 1: PRE-CONDITIONS

Description: The object 'systemLensEquipped' must be configured to project requirements prior to this test.

Step 2: DEFINE

Description: Please enter the required equipment for attachment to the device.

Action: Define the following variable(s) for later use

Variable Name: req_systemLensEquipped

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: No

Step 3: DEFINE

Description: Please enter an alternate value for the systemLensEquipped. This value should be different than req_systemCameraEquipped

Action: Define the following variable(s) for later use

Variable Name: alt_systemLensEquipped

Type: INTEGER

Lower Bound: 1

Upper Bound: 1

Get Value from User: No

Step 4: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|----------------------|-------------------------|
| | systemLensEquipped.0 | orig_systemLensEquipped |

Step 5: VERIFY

Step 6: SET

Description: Set the equipped to a user specified value.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------------|------------------------|
| | systemLensEquipped.0 | alt_systemLensEquipped |

Step 7: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|----------------------|--------------------|
| | systemLensEquipped.0 | systemLensEquipped |

Step 8: VERIFY

Description: Ensure the equipped was set properly.

Step 9: SET

Description: Set back to original

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------------|-------|
| | systemLensEquipped.0 | |

Test Case TC42: Control Auto Iris

This test case enables and disables this feature while the user verifies.

Step 1: GET

Description: Get the systemLensEquipped

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------------|--------------------|
| systemLensEquipped.0 | systemLensEquipped |

Step 2: VERIFY/GOTO

If systemLensEquipped bitwise AND 0x80

Award Points: 1

Step 3: SET

Description: Turn on bit 7 - Auto Iris

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------------|---------------------------|
| systemLensEquipped.0 | systemLensEquipped 0x80 |

Step 4: GET

Description: Get the feature control object

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------------------|-------------------------------|
| systemLensFeatureControl.0 | orig_systemLensFeatureControl |

Step 5: SET

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------------------|--------------------------------------|
| systemLensFeatureControl.0 | orig_systemLensFeatureControl 0x80 |

Step 6: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------------------|-------------------------|
| systemLensFeatureStatus.0 | systemLensFeatureStatus |

Step 7: VERIFY/GOTO

If systemLensFeatureStatus bitwise AND 0x80

Award Points: 1

Step 8: USER-VERIFY

Description: Auto Iris is on

Points: 1

Step 9: SET

Description: Turn off the auto iris

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------|-------|
|--------|-------|

| | |
|----------------------------|--------------------------------------|
| systemLensFeatureControl.0 | orig_systemLensFeatureControl & 0x7F |
|----------------------------|--------------------------------------|

Step 10: GET

Description: Get the status

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------------------|-------------------------|
| systemLensFeatureStatus.0 | systemLensFeatureStatus |

Step 11: VERIFY/GOTO

If systemLensFeatureStatus bitwise AND 0x80

Award Points: 1

Step 12: USER-VERIFY

Description: Auto Iris is off

Points: 1

Step 13: SET

Description: Set the feature control back to original

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------------------|-------------------------------|
| systemLensFeatureControl.0 | orig_systemLensFeatureControl |

Test Case TC43: Control Auto Focus

This test case enables and disables this feature while the user verifies

Step 1: GET

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------------|--------------------|
| systemLensEquipped.0 | systemLensEquipped |

Step 2: VERIFY

Description: Verify that bit 6 - Auto Focus is set

Step 3: SET

Description: Equip the device with auto focus

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------|-------|
| systemLensEquipped..0 | |

Step 4: GET

Description: Get the feature control

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------------------|-------------------------------|
| systemLensFeatureControl.0 | orig_systemLensFeatureControl |

Step 5: SET

Description: Turn on the auto focus

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------------------|---|
| systemLensFeatureStatus.0 | orig_systemLensFeatureControl 0x40 |

Step 6: GET

Description: Get the status of auto focus

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------------------|-------------------------|
| systemLensFeatureStatus.0 | systemLensFeatureStatus |

Step 7: VERIFY

Step 8: USER-VERIFY

Description: Auto Focus is on

Points: 1

Step 9: SET

Description: Turn off auto focus

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------------------|---|
| systemLensFeatureStatus.0 | orig_systemLensFeatureControl & 0xBF |

Step 10: GET

Description: Get the status

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------------------|-------------------------|
| systemLensFeatureStatus.0 | systemLensFeatureStatus |

Step 11: VERIFY

Step 12: USER-VERIFY

Description: Auto Focus is off

Points: 1

Step 13: SET

Description: Set feature control back to original

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|----------------------------|-------------------------------|
| | systemLensFeatureControl.0 | orig_systemLensFeatureControl |

Test Case TC44: Cabinet Alarm

This test case tests the cabinet open alarm and the label associated with it.

Step 1: DEFINE

Description: Please enter the label entry to use for the alarm

Action: Define the following variable(s) for later use

Variable Name: alarmCLabIndex

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 12

Step 2: DEFINE

Description: Please enter the text for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmCLabText1

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'C'

Step 3: DEFINE

Description: Please enter the font type for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmCLabFontType1

Type: INTEGER

Lower Bound: 0

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 4: DEFINE

Description: Please enter the text height for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmCLabHeight1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 5: DEFINE

Description: Please enter the text color for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmCLabColor1

Type: INTEGER

Lower Bound: 1

Upper Bound: 16

Get Value from User: Yes

Default value: 4

Step 6: DEFINE

Description: Please enter the start row for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmCLabStartRow1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 13

Step 7: DEFINE

Description: Please enter the start column for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmCLabStartColumn1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 8: DEFINE

Description: Please enter the status for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmCLabStatus1

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Default value: 0xC0

Step 9: SET

Description: Set up alarm label

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------------------|--------------------|
| | labelText.<alarmCLabIndex> | alarmCLabText1 |
| | labelFontType.<alarmCLabIndex> | alarmCLabFontType1 |
| | labelHeight.<alarmCLabIndex> | alarmCLabHeight1 |

| | | |
|--------------------------|-----------------------------------|-----------------------|
| <input type="checkbox"/> | labelColor.<alarmCLabIndex> | alarmCLabColor1 |
| <input type="checkbox"/> | labelStartRow.<alarmCLabIndex> | alarmCLabStartRow1 |
| <input type="checkbox"/> | labelStartColumn.<alarmCLabIndex> | alarmCLabStartColumn1 |
| <input type="checkbox"/> | labelStatus.<alarmCLabIndex> | alarmCLabStatus1 |

Step 10: SET

Description: Set up the label references

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|---------------------------------------|
| <input type="checkbox"/> | alarmLabelIndex.0 | 'alarmCLabIndex' 00 00 00 00 00 00 |

Step 11: USER-VERIFY

Description: Ensure no labels for this alarm are shown

Points: 1

Step 12: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|-------|
| <input type="checkbox"/> | alarmLatchClear.0 | 0x00 |

Step 13: USER-VERIFY

Description: Turn on the alarm and verify the label for that alarm is displayed

Points: 1

Step 14: GET

Description: Get the status and latch status of alarm

Action: Get the following object(s) and store the returned value in the indicated variables:

| <input type="checkbox"/> | Object | Variables |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | alarmStatus.0 | alarmStatus |
| <input type="checkbox"/> | alarmLatchStatus.0 | alarmLatchStatus |

Step 15: VERIFY/GOTO

Description: Verify the status for alarm is on

If alarmStatus equals 0x80

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 16: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x80

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 17: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 18: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 19: VERIFY/GOTO

Description: Verify the status for the alarm is on

If alarmStatus equals 0x80

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 20: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x80

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 21: USER-VERIFY

Description: Verify the label for the corresponding alarm is on and deactivate the alarm

Points: 1

Step 22: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 23: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------|-----------|
|--------|-----------|

| | | |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | alarmStatus.0 | alarmStatus |
| <input type="checkbox"/> | alarmLatchStatus.0 | alarmLatchStatus |

Step 24: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 25: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x80

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 26: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 27: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|-------|
| <input type="checkbox"/> | alarmLatchClear.0 | 0x00 |

Step 28: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| <input type="checkbox"/> | Object | Variables |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | alarmStatus.0 | alarmStatus |
| <input type="checkbox"/> | alarmLatchStatus.0 | alarmLatchStatus |

Step 29: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 30: VERIFY/GOTO

Description: Verify the latch status is off for the alarm

If inputLatchStatus equals 0x00

Award Points: 1
and Goto Step: 0
Otherwise Goto Step: 0

Test Case TC45: Enclosure Alarm

This test case tests the enclosure alarm and the label associated with it.

Step 1: DEFINE

Description: Please enter the label entry to use for the alarm

Action: Define the following variable(s) for later use

Variable Name: alarmELabIndex

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 12

Step 2: DEFINE

Description: Please enter the text for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmELabText1

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'C'

Step 3: DEFINE

Description: Please enter the font type for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmELabFontType1

Type: INTEGER

Lower Bound: 0

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 4: DEFINE

Description: Please enter the text height for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmELabHeight1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 5: DEFINE

Description: Please enter the text color for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmELabColor1
 Type: INTEGER
 Lower Bound: 1
 Upper Bound: 16
 Get Value from User: Yes
 Default value: 4

Step 6: DEFINE

Description: Please enter the start row for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmELabStartRow1
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 255
 Get Value from User: Yes
 Default value: 13

Step 7: DEFINE

Description: Please enter the start column for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmELabStartColumn1
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 255
 Get Value from User: Yes
 Default value: 1

Step 8: DEFINE

Description: Please enter the status for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmELabStatus1
 Type: STRING
 Lower Bound: 1
 Upper Bound: 1
 Get Value from User: Yes
 Default value: 0xC0

Step 9: SET

Description: Set up alarm label

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------------------|--------------------|
| | labelText.<alarmELabIndex> | alarmELabText1 |
| | labelFontType.<alarmELabIndex> | alarmELabFontType1 |
| | labelHeight.<alarmELabIndex> | alarmELabHeight1 |
| | labelColor.<alarmELabIndex> | alarmELabColor1 |
| | labelStartRow.<alarmELabIndex> | alarmELabStartRow1 |

| | | |
|--------------------------|-----------------------------------|-----------------------|
| <input type="checkbox"/> | labelStartColumn.<alarmELabIndex> | alarmELabStartColumn1 |
| <input type="checkbox"/> | labelStatus.<alarmELabIndex> | alarmELabStatus1 |

Step 10: SET

Description: Set up the label references

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|---------------------------------------|
| <input type="checkbox"/> | alarmLabelIndex.0 | 00 'alarmELabIndex' 00 00 00 00 00 |

Step 11: USER-VERIFY

Description: Ensure no labels for this alarm are shown

Points: 1

Step 12: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|-------|
| <input type="checkbox"/> | alarmLatchClear.0 | 0x00 |

Step 13: USER-VERIFY

Description: Turn on the alarm and verify the label for that alarm is displayed

Points: 1

Step 14: GET

Description: Get the status and latch status of alarm

Action: Get the following object(s) and store the returned value in the indicated variables:

| <input type="checkbox"/> | Object | Variables |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | alarmStatus.0 | alarmStatus |
| <input type="checkbox"/> | alarmLatchStatus.0 | alarmLatchStatus |

Step 15: VERIFY/GOTO

Description: Verify the status for alarm is on

If alarmStatus equals 0x40

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 16: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x40

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 17: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | alarmLatchClear.0 | 0x00 |

Step 18: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 19: VERIFY/GOTO

Description: Verify the status for the alarm is on

If alarmStatus equals 0x40

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 20: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x40

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 21: USER-VERIFY

Description: Verify the label for the corresponding alarm is on and deactivate the alarm

Points: 1

Step 22: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 23: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 24: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 25: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x40

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 26: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 27: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | alarmLatchClear.0 | 0x00 |

Step 28: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 29: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 30: VERIFY/GOTO

Description: Verify the latch status is off for the alarm

If inputLatchStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Test Case TC46: Video Loss Alarm

This test case tests the video loss alarm and the label associated with it.

Step 1: DEFINE

Description: Please enter the label entry to use for the alarm

Action: Define the following variable(s) for later use

Variable Name: alarmVLabIndex

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 12

Step 2: DEFINE

Description: Please enter the text for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmVLabText1

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'v'

Step 3: DEFINE

Description: Please enter the font type for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmVLabFontType1

Type: INTEGER

Lower Bound: 0

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 4: DEFINE

Description: Please enter the text height for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmVLabHeight1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 5: DEFINE

Description: Please enter the text color for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmVLabColor1

Type: INTEGER

Lower Bound: 1

Upper Bound: 16

Get Value from User: Yes
Default value: 4

Step 6: DEFINE

Description: Please enter the start row for the alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmVLabStartRow1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 14

Step 7: DEFINE

Description: Please enter the start column for the alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmVLabStartColumn1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 1

Step 8: DEFINE

Description: Please enter the status for the alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmVLabStatus1
Type: STRING
Lower Bound: 1
Upper Bound: 1
Get Value from User: Yes
Default value: 0xC0

Step 9: SET

Description: Set up alarm label

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------------------|-----------------------|
| labelText.<alarmVLabIndex> | alarmVLabText1 |
| labelFontType.<alarmVLabIndex> | alarmVLabFontType1 |
| labelHeight.<alarmVLabIndex> | alarmVLabHeight1 |
| labelColor.<alarmVLabIndex> | alarmVLabColor1 |
| labelStartRow.<alarmVLabIndex> | alarmVLabStartRow1 |
| labelStartColumn.<alarmVLabIndex> | alarmVLabStartColumn1 |
| labelStatus.<alarmVLabIndex> | alarmVLabStatus1 |

Step 10: SET

Description: Set up the label references

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|---------------------------------------|
| alarmLabelIndex.0 | 00 00 'alarmVLabIndex' 00 00 00 00 |

Step 11: USER-VERIFY

Description: Ensure no labels for this alarm are shown

Points: 1

Step 12: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 13: USER-VERIFY

Description: Turn on the alarm and verify the label for that alarm is displayed

Points: 1

Step 14: GET

Description: Get the status and latch status of alarm

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 15: VERIFY/GOTO

Description: Verify the status for alarm is on

If alarmStatus equals 0x20

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 16: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x20

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 17: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | alarmLatchClear.0 | 0x00 |

Step 18: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 19: VERIFY/GOTO

Description: Verify the status for the alarm is on

If alarmStatus equals 0x20

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 20: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x20

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 21: USER-VERIFY

Description: Verify the label for the corresponding alarm is on and deactivate the alarm

Points: 1

Step 22: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 23: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 24: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 25: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x20

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 26: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 27: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 28: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 29: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 30: VERIFY/GOTO

Description: Verify the latch status is off for the alarm

If inputLatchStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Test Case TC47: Temperature Alarm

This test case tests the temperature alarm and the label, thresholds, and current value associated with it.

Step 1: DEFINE

Description: Please enter the threshold to utilize when testing the temperature alarm.

Action: Define the following variable(s) for later use

Variable Name: temperatureThreshold

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: Yes

Default value: '0x20 0x40'

Step 2: DEFINE

Description: Please enter the label entry to use for the alarm

Action: Define the following variable(s) for later use

Variable Name: alarmTlabIndex

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 12

Step 3: DEFINE

Description: Please enter the text for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmTlabText1

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'P'

Step 4: DEFINE

Description: Please enter the font type for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmTlabFontType1

Type: INTEGER

Lower Bound: 0

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 5: DEFINE

Description: Please enter the text height for the alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmTlabHeight1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 6: DEFINE

Description: Please enter the text color for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmTLabColor1
 Type: INTEGER
 Lower Bound: 1
 Upper Bound: 16
 Get Value from User: Yes
 Default value: 4

Step 7: DEFINE

Description: Please enter the start row for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmTLabStartRow1
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 255
 Get Value from User: Yes
 Default value: 12

Step 8: DEFINE

Description: Please enter the start column for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmTLabStartColumn1
 Type: INTEGER
 Lower Bound: 0
 Upper Bound: 255
 Get Value from User: Yes
 Default value: 1

Step 9: DEFINE

Description: Please enter the status for the alarm label.

Action: Define the following variable(s) for later use
 Variable Name: alarmTLabStatus1
 Type: STRING
 Lower Bound: 1
 Upper Bound: 1
 Get Value from User: Yes
 Default value: 0xC0

Step 10: SET

Description: Set up alarm label

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|--------------------------------|--------------------|
| | labelText.<alarmTLabIndex> | alarmTLabText1 |
| | labelFontType.<alarmTLabIndex> | alarmTLabFontType1 |
| | labelHeight.<alarmTLabIndex> | alarmTLabHeight1 |
| | labelColor.<alarmTLabIndex> | alarmTLabColor1 |
| | labelStartRow.<alarmTLabIndex> | alarmTLabStartRow1 |

| | | |
|--------------------------|-----------------------------------|-----------------------|
| <input type="checkbox"/> | labelStartColumn.<alarmTlabIndex> | alarmTlabStartColumn1 |
| <input type="checkbox"/> | labelStatus.<alarmTlabIndex> | alarmTlabStatus1 |

Step 11: SET

Description: Set up the label references

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|--|
| <input type="checkbox"/> | alarmLabelIndex.0 | 00 00 00 'alarmTlabIndex' 00 00 00 |

Step 12: SET

Description: Set up the Threshold

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|---------------------------------|----------------------|
| <input type="checkbox"/> | alarmPressureHighLowThreshold.0 | temperatureThreshold |

Step 13: USER-VERIFY

Description: Ensure no labels for this alarm are shown

Points: 1

Step 14: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|-------|
| <input type="checkbox"/> | alarmLatchClear.0 | 0x00 |

Step 15: USER-VERIFY

Description: Turn on the alarm and verify the label for that alarm is displayed

Points: 1

Step 16: GET

Description: Get the status and latch status of alarm

Action: Get the following object(s) and store the returned value in the indicated variables:

| <input type="checkbox"/> | Object | Variables |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | alarmStatus.0 | alarmStatus |
| <input type="checkbox"/> | alarmLatchStatus.0 | alarmLatchStatus |

Step 17: VERIFY/GOTO

Description: Verify the status for alarm is on

If alarmStatus equals 0x10

Award Points: 1

and Goto Step: 0
Otherwise Goto Step: 0

Step 18: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x10

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 19: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | alarmLatchClear.0 | 0x00 |

Step 20: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 21: VERIFY/GOTO

Description: Verify the status for the alarm is on

If alarmStatus equals 0x10

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 22: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x10

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 23: USER-VERIFY

Description: Verify the label for the corresponding alarm is on and deactivate the alarm

Points: 1

Step 24: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 25: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 26: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 27: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x10

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 28: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 29: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 30: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 31: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 32: VERIFY/GOTO

Description: Verify the latch status is off for the alarm

If inputLatchStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Test Case TC48: Pressure Alarm

This test case tests the pressure alarm and the label, thresholds, and current value associated with it.

Step 1: DEFINE

Description: Please enter the threshold to utilize when testing the pressure alarm.

Action: Define the following variable(s) for later use

Variable Name: pressureThreshold

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: Yes

Default value: '0x20 0x40'

Step 2: DEFINE

Description: Please enter the label entry to use for the pressure alarm

Action: Define the following variable(s) for later use

Variable Name: alarmPLabIndex

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 11

Step 3: DEFINE

Description: Please enter the text for the pressure alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmPLabText1

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'P'

Step 4: DEFINE

Description: Please enter the font type for the pressure alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmPLabFontType1

Type: INTEGER

Lower Bound: 0

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 5: DEFINE

Description: Please enter the text height for the pressure alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmPLabHeight1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 6: DEFINE

Description: Please enter the text color for the pressure alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmPLabColor1

Type: INTEGER

Lower Bound: 1

Upper Bound: 16

Get Value from User: Yes

Default value: 4

Step 7: DEFINE

Description: Please enter the start row for the pressure alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmPLabStartRow1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 11

Step 8: DEFINE

Description: Please enter the start column for the pressure alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmPLabStartColumn1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 9: DEFINE

Description: Please enter the status for the pressure alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmPLabStatus1

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Default value: 0xC0

Step 10: SET

Description: Set up alarm label

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------------------|------------------------|
| labelText.<alarmPLabIndex> | alarmWFLabText1 |
| labelFontType.<alarmPLabIndex> | alarmWFLabFontType1 |
| labelHeight.<alarmPLabIndex> | alarmWFLabHeight1 |
| labelColor.<alarmPLabIndex> | alarmWFLabColor1 |
| labelStartRow.<alarmPLabIndex> | alarmWFLabStartRow1 |
| labelStartColumn.<alarmPLabIndex> | alarmWFLabStartColumn1 |
| labelStatus.<alarmPLabIndex> | alarmWFLabStatus1 |

Step 11: SET

Description: Set up the label references

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|---------------------------------------|
| alarmLabelIndex.0 | 00 00 00 00 'alarmPLabIndex' 00 00 |

Step 12: SET

Description: Set up the Threshold

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------------------------|-----------------|
| alarmPressureHighLowThreshold.0 | washerThreshold |

Step 13: USER-VERIFY

Description: Ensure no labels for this alarm are shown

Points: 1

Step 14: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 15: USER-VERIFY

Description: Turn on the alarm and verify the label for that alarm is displayed

Points: 1

Step 16: GET

Description: Get the status and latch status of alarm

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 17: VERIFY/GOTO

Description: Verify the status for alarm is on

If alarmStatus equals 0x08

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 18: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x08

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 19: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 20: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 21: VERIFY/GOTO

Description: Verify the status for the alarm is on

If alarmStatus equals 0x08

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 22: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x08

Award Points: 1

and Goto Step: 0
Otherwise Goto Step: 0

Step 23: USER-VERIFY

Description: Verify the label for the corresponding alarm is on and deactivate the alarm

Points: 1

Step 24: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 25: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 26: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 27: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x08

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 28: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 29: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | alarmLatchClear.0 | 0x00 |

Step 30: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 31: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 32: VERIFY/GOTO

Description: Verify the latch status is off for the alarm

If inputLatchStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Test Case TC49: Local-Remote Alarm

This test case tests the local-remote alarm and the label associated with it.

Step 1: DEFINE

Description: Please enter the label entry to use for the local-remote alarm

Action: Define the following variable(s) for later use

Variable Name: alarmLLabIndex

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 12

Step 2: DEFINE

Description: Please enter the text for the local-remotealarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmLLabText1

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'L'

Step 3: DEFINE

Description: Please enter the font type for the local-remote alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmLLabFontType1

Type: INTEGER

Lower Bound: 0

Upper Bound: 2
Get Value from User: Yes
Default value: 1

Step 4: DEFINE

Description: Please enter the text height for the local-remote alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmLLabHeight1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 5: DEFINE

Description: Please enter the text color for the local-remote alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmLLabColor1
Type: INTEGER
Lower Bound: 1
Upper Bound: 16
Get Value from User: Yes
Default value: 4

Step 6: DEFINE

Description: Please enter the start row for the local-remote alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmLLabStartRow1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 15

Step 7: DEFINE

Description: Please enter the start column for the local-remote alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmLLabStartColumn1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 1

Step 8: DEFINE

Description: Please enter the status for the local-remote alarm label.

Action: Define the following variable(s) for later use
Variable Name: alarmLLabStatus1
Type: STRING
Lower Bound: 1
Upper Bound: 1

Get Value from User: Yes
Default value: 0xC0

Step 9: SET

Description: Set up alarm label

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------------------------|-----------------------|
| labelText.<alarmLLabIndex> | alarmLLabText1 |
| labelFontType.<alarmLLabIndex> | alarmLLabFontType1 |
| labelHeight.<alarmLLabIndex> | alarmLLabHeight1 |
| labelColor.<alarmLLabIndex> | alarmLLabColor1 |
| labelStartRow.<alarmLLabIndex> | alarmLLabStartRow1 |
| labelStartColumn.<alarmLLabIndex> | alarmLLabStartColumn1 |
| labelStatus.<alarmLLabIndex> | alarmLLabStatus1 |

Step 10: SET

Description: Set up the label references

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|--|
| alarmLabelIndex.0 | 00 00 00 00 00 'alarmLLabIndex' 00 00 |

Step 11: USER-VERIFY

Description: Ensure no labels for this alarm are shown

Points: 1

Step 12: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 13: USER-VERIFY

Description: Turn on the alarm and verify the label for that alarm is displayed

Points: 1

Step 14: GET

Description: Get the status and latch status of alarm

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|---------------|-------------|
| alarmStatus.0 | alarmStatus |

| | | |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | alarmLatchStatus.0 | alarmLatchStatus |
|--------------------------|--------------------|------------------|

Step 15: VERIFY/GOTO

Description: Verify the status for alarm is on

If alarmStatus equals 0x04

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 16: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x04

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 17: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-------------------|-------|
| <input type="checkbox"/> | alarmLatchClear.0 | 0x00 |

Step 18: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| <input type="checkbox"/> | Object | Variables |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | alarmStatus.0 | alarmStatus |
| <input type="checkbox"/> | alarmLatchStatus.0 | alarmLatchStatus |

Step 19: VERIFY/GOTO

Description: Verify the status for the alarm is on

If alarmStatus equals 0x04

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 20: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x04

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 21: USER-VERIFY

Description: Verify the label for the corresponding alarm is on and deactivate the alarm

Points: 1

Step 22: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 23: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 24: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 25: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x04

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 26: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 27: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 28: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 29: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 30: VERIFY/GOTO

Description: Verify the latch status is off for the alarm

If inputLatchStatus equals 0x00

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Test Case TC50: Washer Fluid Alarm

This test case tests the washer fluid alarm and the label, thresholds, and current value associated with it.

Step 1: DEFINE

Description: Please enter the threshold to utilize when testing the washer fluid alarm.

Action: Define the following variable(s) for later use

Variable Name: washerThreshold

Type: STRING

Lower Bound: 2

Upper Bound: 2

Get Value from User: Yes

Default value: '0x80 0x80'

Step 2: DEFINE

Description: Please enter the label entry to use for the washer fluid alarm

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabIndex

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 11

Step 3: DEFINE

Description: Please enter the text for the washer fluid alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabText1

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'WF'

Step 4: DEFINE

Description: Please enter the font type for the washer fluid alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabFontType1

Type: INTEGER

Lower Bound: 0

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 5: DEFINE

Description: Please enter the text height for the washer fluid alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabHeight1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 6: DEFINE

Description: Please enter the text color for the washer fluid alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabColor1

Type: INTEGER

Lower Bound: 1

Upper Bound: 16

Get Value from User: Yes

Default value: 4

Step 7: DEFINE

Description: Please enter the start row for the washer fluid alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabStartRow1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 8: DEFINE

Description: Please enter the start column for the washer fluid alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabStartColumn1

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 1

Step 9: DEFINE

Description: Please enter the status for the washer fluid alarm label.

Action: Define the following variable(s) for later use

Variable Name: alarmWFLabStatus1

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Default value: 0xC0

Step 10: SET

Description: Set up alarm label

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------------|------------------------|
| labelText.<alarmWFLabIndex> | alarmWFLabText1 |
| labelFontType.<alarmWFLabIndex> | alarmWFLabFontType1 |
| labelHeight.<alarmWFLabIndex> | alarmWFLabHeight1 |
| labelColor.<alarmWFLabIndex> | alarmWFLabColor1 |
| labelStartRow.<alarmWFLabIndex> | alarmWFLabStartRow1 |
| labelStartColumn.<alarmWFLabIndex> | alarmWFLabStartColumn1 |
| labelStatus.<alarmWFLabIndex> | alarmWFLabStatus1 |

Step 11: SET

Description: Set up the label references

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|--|
| alarmLabelIndex.0 | 00 00 00 00 00 00 'alarmWFLabIndex' |

Step 12: SET

Description: Set up the Threshold

Action: Set the following object(s) to the value indicated:

| Object | Value |
|------------------------------------|-----------------|
| alarmWasherFluidHighLowThreshold.0 | washerThreshold |

Step 13: USER-VERIFY

Description: Ensure no labels for this alarm are shown

Points: 1

Step 14: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | alarmLatchClear.0 | 0x00 |

Step 15: USER-VERIFY

Description: Turn on the alarm and verify the label for that alarm is displayed

Points: 1

Step 16: GET

Description: Get the status and latch status of alarm

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 17: VERIFY/GOTO

Description: Verify the status for alarm is on

If alarmStatus equals 0x02

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 18: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x02

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 19: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | alarmLatchClear.0 | 0x00 |

Step 20: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 21: VERIFY/GOTO

Description: Verify the status for the alarm is on

If alarmStatus equals 0x02
Award Points: 1
and Goto Step: 0
Otherwise Goto Step: 0

Step 22: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x02
Award Points: 1
and Goto Step: 0
Otherwise Goto Step: 0

Step 23: USER-VERIFY

Description: Verify the label for the corresponding alarm is on and deactivate the alarm

Points: 1

Step 24: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 25: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | alarmStatus.0 | alarmStatus |
| | alarmLatchStatus.0 | alarmLatchStatus |

Step 26: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00
Award Points: 1
and Goto Step: 0
Otherwise Goto Step: 0

Step 27: VERIFY/GOTO

Description: Verify the latch status is on for the alarm

If alarmLatchStatus equals 0x02
Award Points: 1
and Goto Step: 0
Otherwise Goto Step: 0

Step 28: USER-VERIFY

Description: Verify the label for the corresponding alarm is off

Points: 1

Step 29: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|-------|
| alarmLatchClear.0 | 0x00 |

Step 30: GET

Description: Get the status and latch status of alarms

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------|------------------|
| alarmStatus.0 | alarmStatus |
| alarmLatchStatus.0 | alarmLatchStatus |

Step 31: VERIFY/GOTO

Description: Verify the status is off for the alarm

If alarmStatus equals 0x00
Award Points: 1
and Goto Step: 0
Otherwise Goto Step: 0

Step 32: VERIFY/GOTO

Description: Verify the latch status is off for the alarm

If inputLatchStatus equals 0x00
Award Points: 1
and Goto Step: 0
Otherwise Goto Step: 0

Test Case TC51: Monitor Discrete Input

This test case verifies the state of discrete inputs and the label associated with it.

Step 1: DEFINE

Description: Please enter the input (1-8) to use in the monitor discrete input test.

Action: Define the following variable(s) for later use
Variable Name: input1
Type: INTEGER
Lower Bound: 0
Upper Bound: 8
Get Value from User: Yes
Default value: 1

Step 2: DEFINE

Description: Please enter the label entry to use for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabelIndex1
Type: INTEGER
Lower Bound: 0

Upper Bound: 255
Get Value from User: Yes
Default value: 5

Step 3: DEFINE

Description: Please enter the text for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabText1
Type: STRING
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 'In1'

Step 4: DEFINE

Description: Please enter the font type for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabFontType1
Type: INTEGER
Lower Bound: 0
Upper Bound: 2
Get Value from User: Yes
Default value: 1

Step 5: DEFINE

Description: Please enter the text height for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabHeight1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 6: DEFINE

Description: Please enter the text color for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabColor1
Type: INTEGER
Lower Bound: 1
Upper Bound: 16
Get Value from User: Yes
Default value: 4

Step 7: DEFINE

Description: Please enter the start row for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabStartRow1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255

Get Value from User: Yes
Default value: 10

Step 8: DEFINE

Description: Please enter the start column for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabStartColumn1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 9: DEFINE

Description: Please enter the status for the discrete input.

Action: Define the following variable(s) for later use
Variable Name: inputLabStatus1
Type: STRING
Lower Bound: 1
Upper Bound: 1
Get Value from User: Yes
Default value: 0xC0

Step 10: SET

Description: Set up input label 1

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------------------------|----------------------|
| labelText.<inputLabelIndex1> | inputLabText1 |
| labelFontType.<inputLabelIndex1> | inputLabFontType1 |
| labelHeight.<inputLabelIndex1> | inputLabHeight1 |
| labelColor.<inputLabelIndex1> | inputLabColor1 |
| labelStartRow.<inputLabelIndex1> | inputLabStartRow1 |
| labelStartColumn.<inputLabelIndex1> | inputLabStartColumn1 |
| labelStatus.<inputLabelIndex1> | inputLabStatus1 |

Step 11: SET

Description: Set up the label references [input1]=inputLabelIndex1

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-------------------|---------------------------|
| inputLabelIndex.0 | [input1]=inputLabelIndex1 |

Step 12: USER-VERIFY

Description: Turn off inputs and verify that no labels corresponding to the inputs are displayed

Points: 1

Step 13: SET

Description: Clear latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--------------------------|-------------------|-------|
| <input type="checkbox"/> | inputLatchClear.0 | 0x00 |

Step 14: USER-VERIFY

Description: Turn on the input and verify the label for that input is displayed

Points: 1

Step 15: GET

Description: Get the status and latch status of inputs

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--------------------------|--------------------|------------------|
| <input type="checkbox"/> | inputStatus.0 | inputStatus |
| <input type="checkbox"/> | inputLatchStatus.0 | inputLatchStatus |

Step 16: VERIFY/GOTO

Description: Verify the Status is on for the input

If inputStatus equals correct bit is on

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 17: VERIFY/GOTO

Description: Verify the latch status is on for the input

If inputLatchStatus equals correct bit is on

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 18: USER-VERIFY

Description: Verify the label for the corresponding input is on

Points: 1

Step 19: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--------------------------|-------------------|-------|
| <input type="checkbox"/> | inputLatchClear.0 | 0x00 |

Step 20: GET

Description: Get the status and latch status of inputs

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | inputStatus.0 | inputStatus |
| | inputLatchStatus.0 | inputLatchStatus |

Step 21: VERIFY/GOTO

Description: Verify the Status is on for the input

If inputStatus equals correct bit is on

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 22: VERIFY/GOTO

Description: Verify the latch status is on for the input

If inputLatchStatus equals correct bit is on

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 23: USER-VERIFY

Description: Verify the label for the corresponding input is on, turn off the input after it has been checked

Points: 1

Step 24: GET

Description: Get the status and latch status of inputs

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | inputStatus.0 | inputStatus |
| | inputLatchStatus.0 | inputLatchStatus |

Step 25: VERIFY/GOTO

Description: Verify the Status is off for the input

If inputStatus equals correct bit is off

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 26: VERIFY/GOTO

Description: Verify the latch status is on for the input

If inputLatchStatus equals correct bit is on

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 27: USER-VERIFY

Description: Verify the label for the corresponding input is off

Points: 1

Step 28: SET

Description: Clear the latch

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|-------------------|-------|
| | inputLatchClear.0 | 0x00 |

Step 29: GET

Description: Get the status and latch status of inputs

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------------------|------------------|
| | inputStatus.0 | inputStatus |
| | inputLatchStatus.0 | inputLatchStatus |

Step 30: VERIFY/GOTO

Description: Verify the Status is off for the input

If inputStatus equals correct bit is off

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 31: VERIFY/GOTO

Description: Verify the latch status is off for the input

If inputLatchStatus equals correct bit is off

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 32: USER-VERIFY

Description: Verify the label for the corresponding input is off

Points: 1

Test Case TC52: Monitor Discrete Output

This test case verifies the state of discrete outputs and the label associated with it.

Step 1: DEFINE

Description: Please enter the first output (1-8) to use in the monitor discrete input test.

Action: Define the following variable(s) for later use

Variable Name: output1

Type: INTEGER

Lower Bound: 0

Upper Bound: 8
Get Value from User: Yes
Default value: 1

Step 2: DEFINE

Description: Please enter the label entry to use for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabelIndex1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 5

Step 3: DEFINE

Description: Please enter the text for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabText1
Type: STRING
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 'Out1'

Step 4: DEFINE

Description: Please enter the font type for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabFontType1
Type: INTEGER
Lower Bound: 0
Upper Bound: 2
Get Value from User: Yes
Default value: 1

Step 5: DEFINE

Description: Please enter the text height for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabHeight1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 6: DEFINE

Description: Please enter the text color for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabColor1
Type: INTEGER
Lower Bound: 1
Upper Bound: 16

Get Value from User: Yes
Default value: 4

Step 7: DEFINE

Description: Please enter the start row for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabStartRow1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 8: DEFINE

Description: Please enter the start column for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabStartColumn1
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes
Default value: 10

Step 9: DEFINE

Description: Please enter the status for the discrete output number 1.

Action: Define the following variable(s) for later use
Variable Name: outputLabStatus1
Type: STRING
Lower Bound: 1
Upper Bound: 1
Get Value from User: Yes
Default value: 0xC0

Step 10: DEFINE

Description: Please enter the second output (1-8) to use in the monitor discrete input test.

Action: Define the following variable(s) for later use
Variable Name: output2
Type: INTEGER
Lower Bound: 0
Upper Bound: 8
Get Value from User: Yes
Default value: 2

Step 11: DEFINE

Description: Please enter the label entry to use for the discrete output number 2.

Action: Define the following variable(s) for later use
Variable Name: outputLabelIndex2
Type: INTEGER
Lower Bound: 0
Upper Bound: 255
Get Value from User: Yes

Default value: 6

Step 12: DEFINE

Description: Please enter the text for the discrete output number 2.

Action: Define the following variable(s) for later use

Variable Name: outputLabText2

Type: STRING

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 'Out2'

Step 13: DEFINE

Description: Please enter the font type for the discrete output number 2.

Action: Define the following variable(s) for later use

Variable Name: outputLabFontType2

Type: INTEGER

Lower Bound: 0

Upper Bound: 2

Get Value from User: Yes

Default value: 1

Step 14: DEFINE

Description: Please enter the text height for the discrete output number 2.

Action: Define the following variable(s) for later use

Variable Name: outputLabHeight2

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 10

Step 15: DEFINE

Description: Please enter the text color for the discrete output number 2.

Action: Define the following variable(s) for later use

Variable Name: outputLabColor2

Type: INTEGER

Lower Bound: 1

Upper Bound: 16

Get Value from User: Yes

Default value: 4

Step 16: DEFINE

Description: Please enter the start row for the discrete output number 2.

Action: Define the following variable(s) for later use

Variable Name: outputLabStartRow2

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 11

Step 17: DEFINE

Description: Please enter the start column for the discrete output number 2.

Action: Define the following variable(s) for later use

Variable Name: outputLabStartColumn2

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Default value: 11

Step 18: DEFINE

Description: Please enter the status for the discrete output number 2.

Action: Define the following variable(s) for later use

Variable Name: outputLabStatus2

Type: STRING

Lower Bound: 1

Upper Bound: 1

Get Value from User: Yes

Default value: 0xC0

Step 19: GET

Description: Get original label 1

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|--------------------------------------|------------------------|
| labelText.<outputLabelIndex1> | orig_labelText1 |
| labelFontType.<outputLabelIndex1> | orig_labelFontType1 |
| labelHeight.<outputLabelIndex1> | orig_labelHeight1 |
| labelColor.<outputLabelIndex1> | orig_labelColor1 |
| labelStartRow.<outputLabelIndex1> | orig_labelStartRow1 |
| labelStartColumn.<outputLabelIndex1> | orig_labelStartColumn1 |
| labelStatus.<outputLabelIndex1> | orig_labelStatus1 |

Step 20: GET

Description: Get original label 2

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|-----------------------------------|---------------------|
| labelText.<outputLabelIndex2> | orig_labelText2 |
| labelFontType.<outputLabelIndex2> | orig_labelFontType2 |
| labelHeight.<outputLabelIndex2> | orig_labelHeight2 |
| labelColor.<outputLabelIndex2> | orig_labelColor2 |
| labelStartRow.<outputLabelIndex2> | orig_labelStartRow2 |

| | | |
|--------------------------|--------------------------------------|------------------------|
| <input type="checkbox"/> | labelStartColumn.<outputLabelIndex2> | orig_labelStartColumn2 |
| <input type="checkbox"/> | labelStatus.<outputLabelIndex2> | orig_labelStatus2 |

Step 21: SET

Description: Set up output label 1

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|--------------------------------------|-----------------------|
| <input type="checkbox"/> | labelText.<outputLabelIndex1> | outputLabText1 |
| <input type="checkbox"/> | labelFontType.<outputLabelIndex1> | outputLabFontType1 |
| <input type="checkbox"/> | labelHeight.<outputLabelIndex1> | outputLabHeight1 |
| <input type="checkbox"/> | labelColor.<outputLabelIndex1> | outputLabColor1 |
| <input type="checkbox"/> | labelStartRow.<outputLabelIndex1> | outputLabStartRow1 |
| <input type="checkbox"/> | labelStartColumn.<outputLabelIndex1> | outputLabStartColumn1 |
| <input type="checkbox"/> | labelStatus.<outputLabelIndex1> | outputLabStatus1 |

Step 22: SET

Description: Set up output label 2

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|--------------------------------------|-----------------------|
| <input type="checkbox"/> | labelText.<outputLabelIndex2> | outputLabText2 |
| <input type="checkbox"/> | labelFontType.<outputLabelIndex2> | outputLabFontType2 |
| <input type="checkbox"/> | labelHeight.<outputLabelIndex2> | outputLabHeight2 |
| <input type="checkbox"/> | labelColor.<outputLabelIndex2> | outputLabColor2 |
| <input type="checkbox"/> | labelStartRow.<outputLabelIndex2> | outputLabStartRow2 |
| <input type="checkbox"/> | labelStartColumn.<outputLabelIndex2> | outputLabStartColumn2 |
| <input type="checkbox"/> | labelStatus.<outputLabelIndex2> | outputLabStatus2 |

Step 23: SET

Description: Turn off all outputs

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|-----------------|-----------|
| <input type="checkbox"/> | outputControl.0 | 0x00 0x00 |

Step 24: SET

Description: Set up the label references for the outputs. [output1]=outputLabelIndex1
[output2]=outputLabelIndex2

Action: Set the following object(s) to the value indicated:

| <input type="checkbox"/> | Object | Value |
|--------------------------|--------|-------|
|--------------------------|--------|-------|

| | |
|--------------------|--|
| outputLabelIndex.0 | |
|--------------------|--|

Step 25: SET

Description: Turn on output 1. If output 1 = 1 then set outputControl to 0x01 0x10

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------|-------|
| outputControl.0 | |

Step 26: USER-VERIFY

Description: Verify that output 1 is on

Points: 1

Step 27: GET

Description: Get the status of outputs

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------|--------------|
| outputStatus.0 | outputStatus |

Step 28: VERIFY/GOTO

Description: Verify the output is on

If outputStatus equals or 0x01

Award Points: 1

and Goto Step: 0

Otherwise Goto Step: 0

Step 29: SET

Description: Turn on output 2. If output 2 = 2 then set outputControl to 0x02 0x10

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------|-------|
| outputControl.0 | |

Step 30: USER-VERIFY

Description: Verify that output 2 is on

Points: 1

Step 31: GET

Description: Get the status of outputs

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------|--------------|
| outputStatus.0 | outputStatus |

Step 32: VERIFY/GOTO

Description: Verify the output 1 and 2 is on

If outputStatus equals or 0x03
 Award Points: 1
 and Goto Step: 0
 Otherwise Goto Step: 0

Step 33: SET

Description: Turn off all outputs

Action: Set the following object(s) to the value indicated:

| Object | Value |
|-----------------|-----------|
| outputControl.0 | 0x00 0x00 |

Step 34: USER-VERIFY

Description: Verify that all outputs are off

Points: 1

Step 35: GET

Description: Get the status of outputs

Action: Get the following object(s) and store the returned value in the indicated variables:

| Object | Variables |
|----------------|--------------|
| outputStatus.0 | outputStatus |

Step 36: VERIFY/GOTO

Description: Verify the output 1 and 2 are off

If outputStatus equals or 0x00
 Award Points: 1
 and Goto Step: 0
 Otherwise Goto Step: 0

Step 37: SET

Description: Restore label 1

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------------------------|------------------------|
| labelText.<outputLabelIndex1> | orig_labelText1 |
| labelFontType.<outputLabelIndex1> | orig_labelFontType1 |
| labelHeight.<outputLabelIndex1> | orig_labelHeight1 |
| labelColor.<outputLabelIndex1> | orig_labelColor1 |
| labelStartRow.<outputLabelIndex1> | orig_labelStartRow1 |
| labelStartColumn.<outputLabelIndex1> | orig_labelStartColumn1 |
| labelStatus.<outputLabelIndex1> | orig_labelStatus1 |

Step 38: SET

Description: Restore label 2

Action: Set the following object(s) to the value indicated:

| Object | Value |
|--------------------------------------|------------------------|
| labelText.<outputLabelIndex2> | orig_labelText2 |
| labelFontType.<outputLabelIndex2> | orig_labelFontType2 |
| labelHeight.<outputLabelIndex2> | orig_labelHeight2 |
| labelColor.<outputLabelIndex2> | orig_labelColor2 |
| labelStartRow.<outputLabelIndex2> | orig_labelStartRow2 |
| labelStartColumn.<outputLabelIndex2> | orig_labelStartColumn2 |
| labelStatus.<outputLabelIndex2> | orig_labelStatus2 |

Test Case TC53: Page Down

This test case sends a page down command to the CCTV.

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view the execution.

Step 2: SET

Description: Send the page down command

Action: Set the following object(s) to the value indicated:

| Object | Value |
|---------------|--------------|
| menuControl.0 | pageDown (1) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the page down command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC54: Page Up

This test case sends a page up command to the CCTV

Step 1: GET

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view the execution.

Action: Get the following object(s) and store the returned value in the indicated variables:

| | Object | Variables |
|--|--------|-----------|
|--|--------|-----------|

Step 2: SET

Description: Send the page up command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|------------|
| | menuControl.0 | pageUp (2) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the page down command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC55: Cursor Up

This test case sends a cursor up command to the CCTV.

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view the execution.

Step 2: SET

Description: Send the cursor up command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|--------------|
| | menuControl.0 | cursorUp (3) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the cursor up command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC56: Cursor Down

This test case sends a cursor down command to the CCTV.

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view

the execution.

Step 2: SET

Description: Send the cursor down command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|----------------|
| | menuControl.0 | cursorDown (4) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the cursor down command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC57: Cursor Right

This test case sends a cursor right command to the CCTV.

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view the execution.

Step 2: SET

Description: Send the cursor right command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|-----------------|
| | menuControl.0 | cursorRight (5) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the cursor right command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC58: Cursor Left

This test case sends a cursor left command to the CCTV.

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view

the execution.

Step 2: SET

Description: Send the cursor left command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|----------------|
| | menuControl.0 | cursorLeft (6) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the cursor left command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC59: Increment

This test case sends an increment command to the CCTV.

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view the execution.

Step 2: SET

Description: Send the increment value command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|--------------------|
| | menuControl.0 | incrementValue (7) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the increment value command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC60: Decrement Value

This test case sends and decrement command to the CCTV.

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view

the execution.

Step 2: SET

Description: Send the decrement value command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|--------------------|
| | menuControl.0 | decrementValue (8) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the decrement command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC61: Enter Value

This test case sends an enter command to the CCTV

Step 1: PRE-CONDITIONS

Description: Run the test titled "Activate Menu" or "Activate Menu with Timeout" in order to display menu. Ensure menu is in a position so that the user can instruct this command and view the execution.

Step 2: SET

Description: Send the enter value command.

Action: Set the following object(s) to the value indicated:

| | Object | Value |
|--|---------------|----------------|
| | menuControl.0 | enterValue (9) |

Step 3: USER-VERIFY

Description: Ensure the device correctly executed the enter value command on the screen.

Points: 1

Step 4: POST-CONDITIONS

Description: Run the test titled "Deactivate Menu" if the user wishes to turn off the menu.

Test Case TC62: Activate Menu

This test case activates the menu of the CCTV.

Step 1: SET

Description: Activate the menu.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-------|
| menuActivate.0 | 255 |

Step 2: USER-VERIFY

Description: Verify that the menu is displayed on the video output and stays displayed until commanded to be turned off.

Points: 1

Test Case TC63: Activate Menu with Timeout

This test case activates the menu with a timeout value. When the time has expired, the menu shall turn off.

Step 1: DEFINE

Description: Used to test menu activation for a number of seconds.

Action: Define the following variable(s) for later use

Variable Name: activateMenuTimeout

Type: INTEGER

Lower Bound: 0

Upper Bound: 255

Get Value from User: Yes

Step 2: SET

Description: Activate menu with a timeout.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|---------------------|
| menuActivate.0 | activateMenuTimeout |

Step 3: USER-VERIFY

Description: Verify that the menu is displayed on the video output for activateMenuTimeout seconds.

Points: 1

Test Case TC64: Deactivate Menu

This test case turns off the internal camera menu.

Step 1: SET

Description: Deactivate the menu.

Action: Set the following object(s) to the value indicated:

| Object | Value |
|----------------|-------|
| menuActivate.0 | 0 |

Step 2: USER-VERIFY

Description: Verify that the menu has disappeared from the video output.

Points: 1

Annex – Questions about NTCIP 1205

1. Why is the Database Management conformance group listed as an option for 1205? I might not be seeing the big picture but I couldn't really think of a reason that CCTV should have this conformance group included at all. Database management is for controlling the acceptance of large amounts of object SET's. Basically the central controller would put the database into a mode that would queue up or buffer the SNMP SET's and not change the actual value of all of the objects until commanded to do so.
2. Why is the Time Management conformance group listed as an option for 1205? At first I thought the time and date might be utilized in labels as an option but I could not find it there. Then I thought the schedule or the report conformance group but those aren't even options. I just couldn't find a usage in 1205.
3. Why isn't the Security conformance group from 1201 an option for 1205? It seems to me that this group should be at least an option.
4. The description of the position objects is hard to understand.
 - 4.1. How do the four modes of operation act? (definition) It is not obvious at all what the exact value of each byte is supposed to be.
 - 4.2. Byte 1 is apparently a choice of stop movement, delta, absolute, or continuous movement, what are the enumerations? I read the PositionReference syntax but I am still confused by it. How do I know if byte 3 and 4 are position or offset.
 - 4.3. I assume that a (+) value means a range from 0..127 and (-) means a range from 128..255 in literal byte value. Is this a correct assumption?
5. labelFontType object - what is the definition of these two options for this object? How do I know what these look like? Should I care?
6. labelHeight object - What is this measurement in? Is it pixels, characters? (same for labelStartRow)
7. zoneLabel object - Is zero (0) a valid label? or does it mean no label
8. The 1205 standard requires the CCTV conformance group which includes the label table, however, I only see one minor usage of this label table. The major usage of this label table is in the Extended conformance group (zones). Is this intended or should the label table be in the Extended conformance group.
9. Discrete input and output
 - 9.1. I noticed that inputs and outputs are associated with label indexes. Is the label supposed to be displayed on the video output when the discrete input is ON? same for discrete outputs? So this means the video could have many labels scattered across the screen?

9.2. Same question for alarms

10. I noticed that the timeout parameters can be a value of zero which means that the particular timeout is not supported. What happens if this object is set to a different value? `genErr`?
11. I noticed that the objects `systemCameraFeatureStatus` and `systemLensFeatureStatus` have similar functionality but `systemCameraFeatureStatus` is read-only and `systemLensFeatureStatus` is read-write. Are these both supposed to be read-write?
12. Why is `alarmTemperatureCurrentValue`, `alarmPressureCurrentValue`, `alarmWasherFluidCurrentValue` read-write? It seems that this would never be SET through the SNMP interface.
13. Why is `alarmLabelIndex` read-only? It seems that one would want to be able to change the label reference for these alarms. `inputLabelIndex` and `outputLabelIndex` are too, why are these fixed?
14. If `alarmLatchClear` is set with `latch = ON`, does the `alarmLatchClear = 0` when read or would the `alarmLatchClear` need to be set with `latch = OFF` before it is latchable.
15. Is the alarm truly latched or is it this type of alarm just triggered and the value is held until cleared?
16. If an alarm is to display a label on the video when it occurs, does it happen upon a latch status or does it occur during an active status? I am assuming these are two distinct types of alarms, active and latched.
 - 16.1. What about `inputLatch`? Does it have the same behavior.
17. What happens when there are overlapping zones? Should the first zone in the table that fits the position of the camera be the one that displays the label? The standard should indicate how the correct zone is determined.
18. True North Offset: The definition of the true North offset is incomplete. This is the offset between true North and the Home position in the clockwise or counterclockwise direction.
19. What is the purpose of value for the Home Position? It appears to be a measurement from one arbitrary point to another arbitrary point.
20. Is it a requirement that the camera be able to pan, tilt, and zoom to the home position; or could a manufacturer define Home to be a position that the camera can not reach?
21. Is there anyway to send a command to the camera to force it to the Home position (assuming that the Home position is reachable)? It would appear that if the camera is pointing one degree clockwise from Home and you told it to go to the absolute position of Home with a speed of +1, it could not get there if the Pan Right Limit was less than 360 degrees.
22. If, in the above case, you told the camera to go home with a speed of +1, should it report back an error, or should it pan to the Pan Right Limit (or go home)? Same issues with tilt and zoom.
23. What does a positive speed mean in a move command; what about a negative speed?

24. rangeMinumumPanStepAngle and rangeMinimumTiltStepAngle: The title for these are confusing (Maximum Pan Step Angle Parameter). If this is intended to be minimum, it seems that the step angle can be equal to or larger than this value. It seems you would want the limit to be a maximum so that the device does not step larger than this limit. The title in the text and the object name should have the same verbage. The descriptive text should indicate that any step made by the device cannot be larger than this value (or smaller whichever is intended).
25. labelStatus – This description of this usage is very ambiguous. Is bit 7 for determining whether this particular label entry is currently being displayed? Is bit 6 for turning off a particular entry?