ClearOne BMA 360 Camera Tracking Module for AMX

Products Supported

- CONVERGE Pro 2
- BMA 360

Overview

This document describes the functions and variables of the ClearOne AMX Camera Tracking Module. Multiple instances of this module can be supported in the same AMX program. Each instance of the module will be assigned to a single BMA 360 and will provide real time reporting of active beam status and related preset controls for up to two cameras.

Supported Devices

Equipment	Communication Inteface
CONVERGE® Pro 2 DSP	RS-232 or Ethernet
UNITE® 200 Camera	RS-232 or Ethernet
UNITE 150 and any camera that supports VISCA™	RS-232 or Ethernet

The module controls the above listed ClearOne devices and provides options to assign camera presets to zones related to talker positional reporting cues.

DEFINE_DEVICE

These codes define AMX ports and connectors, and their assigned task.

Variable Name	Example Assignment	Definition
dvPro2	= 0:3:0	ClearOne CP2 Network or RS-232 connection
vdvPro2	= 41001:1:0	ClearOne CP2 Duet Main Comm. Device connection
dvCam1	= 0:4:0	Camera 1 Serial or UNITE 200 Telnet connection
dvCam2	= 0:5:0	Camera 2 Serial or UNITE 200 Telnet connection
vdvCam1	= 33602:1:0	ClearOne UNITE 200/150 Camera 1 Duet Main Communication Device
vdvCam2	= 33603:1:0	ClearOne UNITE 200/150 Camera 2 Duet Main Communication Device
vdvCam1TP	= 33701:1:0	Virtual touchpanel for Camera 1
vdvCam2TP	= 33702:1:0	Virtual touchpanel for Camera 2
vdvPro2TP	= 33703:1:0	Virtual touchpanel for Pro 2
dvTP	= 10001:1:0	Touch Panel - TPControl for windows

Startup Definitions

These codes define elements needed for startup.

Command
DEFINE_START
DEFINE_MODULE 'Clearone_ConvergePro2_Comm_dr1_0_0' commClearoneConvergePro2(vdvPro2, dvPro2)
DEFINE_MODULE 'ClearOne_ConvergePro2_UI_dr1_0_0' uiClearoneConvergePro2(vdvPro2, vdvPro2TP,btPro2)
DEFINE_MODULE 'ClearOne_UniteVisca_Comm_dr1_0_0' commClearoneCamera1(vdvCam1, dvCam1) DEFINE_MODULE
'ClearOne_UniteVisca_Comm_dr1_0_0' commClearoneCamera2(vdvCam2, dvCam2) DEFINE_MODULE
'ClearOne_Unite100_UI_dr1_0_0' uiClearoneCamera1(vdvCam1, vdvCam1TP,btCam) DEFINE_MODULE
'ClearOne_Unite100_UI_dr1_0_0' uiClearoneCamera2(vdvCam2, vdvCam2TP,btCam)

Module Properties

These parameters are for connecting to ClearOne and external devices.

Variable Name	Example Assignment	Definition
IP_Address[]	= '10.101.20.65'	IP Address of ClearOne CONVERGE Pro 2 DSP IP
CAM1IP_Address[]	= '10.101.30.64'	IP Address of ClearOne UNITE 200/150 Camera 1
CAM2IP_Address[]	= '10.101.30.76'	IP Address of ClearOne UNITE 200/150 Camera 2
USERNAME[]	= 'clearone'	User name of ClearOne CONVERGE Pro 2 DSP
PASSWORD[]	= 'Converge'	Password of ClearOne CONVERGEPro 2 DSP
BAUD_RATE[]	= '57600'	Baud rate of ClearOne CONVERGE Pro 2 DSP
CAM1BAUD_RATE[]	= '9600'	Baud rate of ClearOne UNITE 200/150 Camera
CAM2BAUD_RATE[]	= '9600'	Baud rate of ClearOne UNITE 200/150 Camera
DEBUG[]	= '1'	Debug value for the modules
CAM1_DEVICEID[]	= '1'	Device IDs for ClearOne UNITE 200/150 Camera (1-7)
CAM2_DEVICEID[]	= '1'	Device IDs for ClearOne UNITE 200/150 Camera (1-7)
BMA360ID[]	= '101'	BMA 360 ID for parsing in Beamreport
cCAM1PAN_VALUE	= '10'	Pan speed value for Camera 1
cCAM1TILT_VALUE	= '10'	Tilt speed value for Camera 1
cCAM1ZOOM_VALUE	= '5'	Zoom speed value for Camera 1
cCAM1FOCUS_VALUE	= '5'	Focus speed value for Camera 1
cCAM2PAN_VALUE	= '10'	Pan speed value for Camera 2
cCAM2TILT_VALUE	= '10'	Tilt speed value for Camera 2

Variable Name	Example Assignment	Definition
cCAM2ZOOM_VALUE	= '5'	Zoom speed value for Camera 2
cCAM2FOCUS_VALUE	= '5'	Focus speed value for Camera 2
cMIN_PAN_VALUE	= '1'	Minimun Pan speed value for ClearOne UNITE 200/150
cMAX_PAN_VALUE	= '24'	Maximun Pan speed value for ClearOne UNITE 200/150
cMIN_TILT_VALUE	= '1'	Minimun Tilt speed value for ClearOne UNITE 200/150
cMAX_TILT_VALUE	= '20'	Maximun Tilt speed value for ClearOne UNITE 200/150
cMIN_FOCUS_VALUE	= '0'	Minimun Focus speed value for ClearOne UNITE 200/150
cMAX_FOCUS_VALUE	= '7'	Maximun Focus speed value for ClearOne UNITE 200/150
cMIN_ZOOM_VALUE	= '0'	Minimun Zoom speed value for ClearOne Unite
cMAX_ZOOM_VALUE	= '7'	Maximun Zoom speed value for ClearOne Unite

Touch Panel (TP)

The user interface template associated with this module provides a working example of how to control and view module data.

Below are the pages of the user interface which also help explain the functionality of the module.

Home Page - Initial Touch Panel page

Displays navigation option to the user.

Figure 1. TP Home Page

Camera Control Page (Tracking Disabled)

Allows the user to select the camera to be controlled. The selected camera can then be manually positioned via Pan, Tilt, Focus and Zoom controls. Users can save or recall presets and adjust the global variable tracking buffer delay.
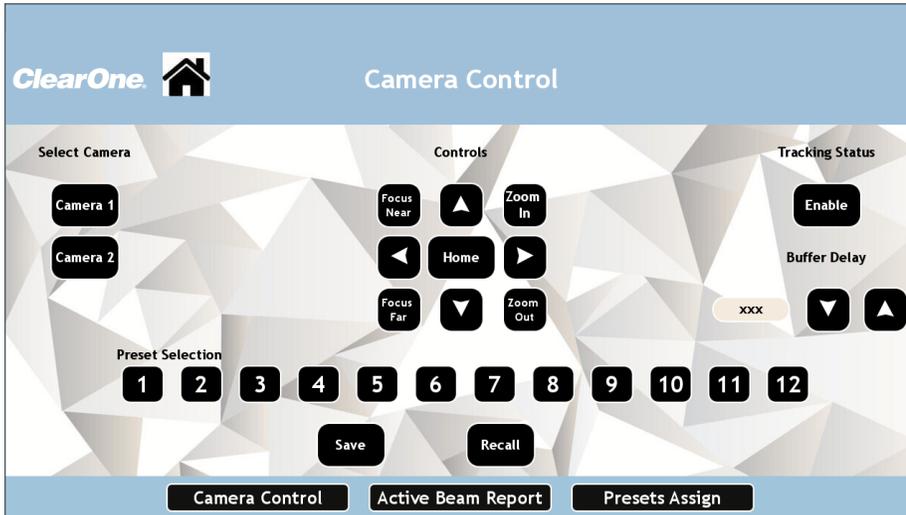
Figure 2. TP Active Camera Control Page

Camera Control Page (Tracking Enabled)

Enabling Tracking Status deactivates camera selection and controls and activates automated camera tracking. To regain access to manual camera control options, Tracking Status must be disabled.
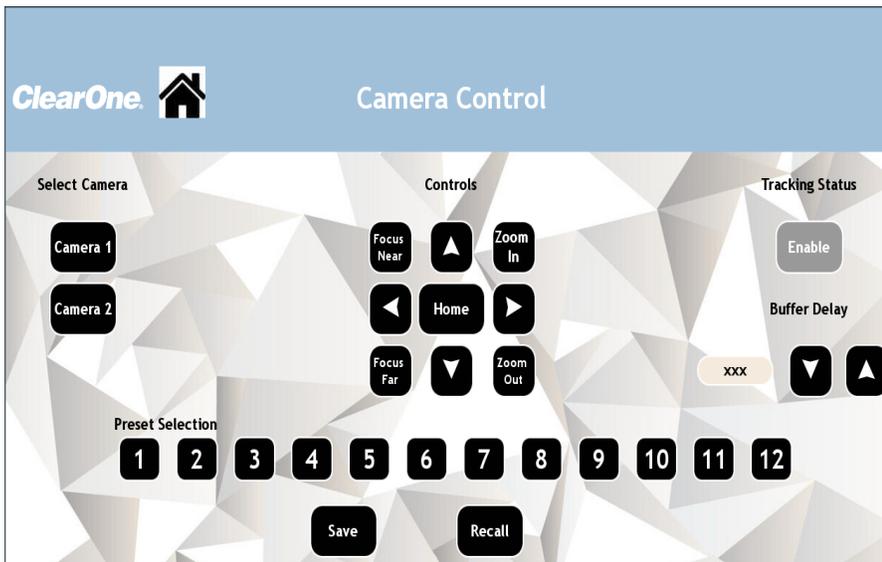

Figure 4. TP Camera Control Page with Tracking Enabled

Active Beam Report Page

Allows users to view the currently active BMA 360 Zones and the related camera preset calls as they occur within the Module. The top section of this page also represents which camera last executed a preset and is considered the "Active" camera.
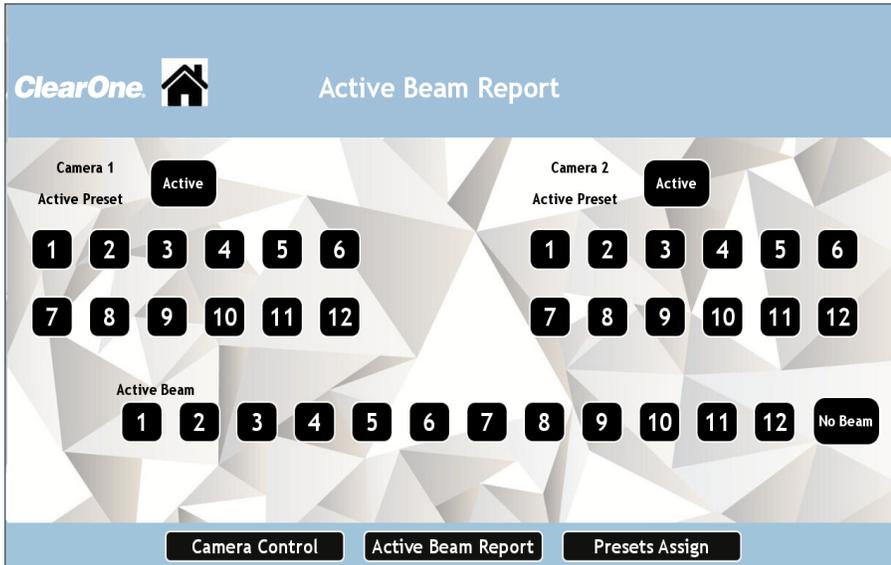
Figure 5. TP Active Beam Report Page

Presets Assignment Page

Allows for the assignment and un-assignment of any BMA 360 Zone to any camera preset. The "No Beam" zone option allows for a camera position to be assigned if no Zone is active.
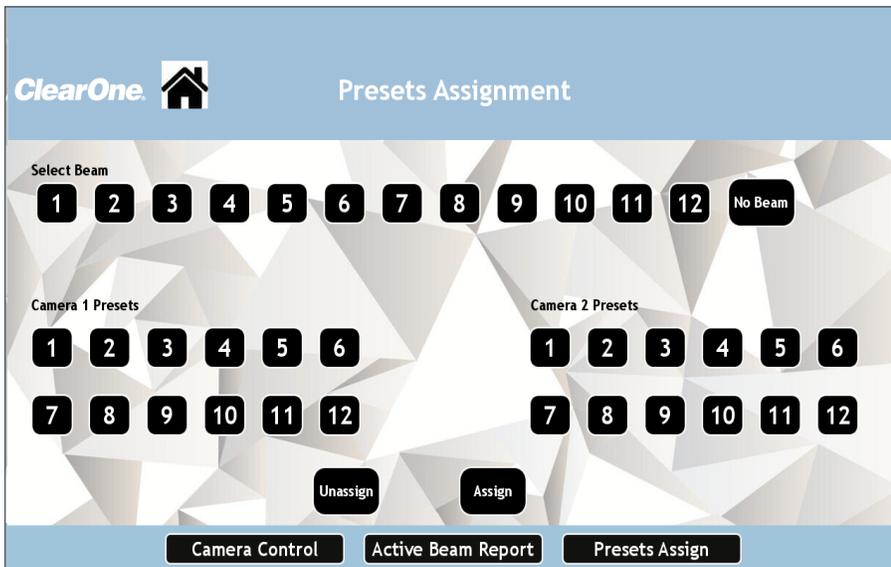
Figure 6. TP Presets Assignment Page

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