LILIN CCTV systems control modules

For use with.....

Driver software written and provided by...

Copyright 2014, Janus Technology Ltd, All rights reserved.

Introduction

These modules are designed to control supported LILIN IP cameras and DVR/NVRs (digital/network video recorders).

This Crestron module has been tested with the following LILIN products:

- NVR1116
- IPS5204S
- LR7424EX3.6

It was written and tested using Crestron Simpl Windows version 4.02.20 running on series 2 and 3 Crestron processors.

Module release version: v1.0.

Crestron Configuration

Adding the modules to your project

Open your Crestron Simpl Windows program. Copy the following files to the folder where your program is stored:

LILIN_Camera.umc

LILIN_Camera.ush

LILIN_Camera.usp

LILIN_NVR.umc

LILIN_NVR.ush

LILIN_NVR.usp

Click **Options -> Reload Device and Symbol Libraries from disk**. The LILIN modules will appear in your Symbol Library under **Project Modules -> --All Project Modules--.** Add the modules to your program.

Copyright 2014, Janus Technology Ltd, All rights reserved.

Available Properties & Commands

Input to LILIN_Camera module

Name	Type	Explanation
CAMERA_SELECT_[*camera number*]	DIGITAL	Selects the camera to control
PRESET_SELECT_[preset *number*]	DIGITAL	Selects a preset camera position
PTZ_REL_STOP	DIGITAL	Stop moving the selected camera
PTZ_UP	DIGITAL	Move the selected camera up
PTZ_UPRIGHT	DIGITAL	Move the selected camera up and to the right
PTZ_RIGHT	DIGITAL	Move the selected camera to the right
PTZ_DOWNRIGHT	DIGITAL	Move the selected camera down and to the right
PTZ_DOWN	DIGITAL	Move the selected camera down
PTZ_DOWNLEFT	DIGITAL	Move the selected camera down and to the left
PTZ_LEFT	DIGITAL	Move the selected camera to the left
PTZ_UPLEFT	DIGITAL	Move the selected camera up and to the left
PTZ_ZOOMPLUS	DIGITAL	Increase the zoom level of the selected camera
PTZ_ZOOMMINUS	DIGITAL	Decrease the zoom level of the selected camera
PTZ_ROTATE	DIGITAL	Rotate the selected camera
IRIS_PLUS	DIGITAL	Open iris on the selected camera
IRIS_MINUS	DIGITAL	Close iris on the selected camera
IRIS_AUTO	DIGITAL	Enable automatic iris
FOCUS_PLUS	DIGITAL	Increase focus
FOCUS_MINUS	DIGITAL	Decrease focus
FOCUS_AUTO	DIGITAL	Enable automatic focus
PTZ_DEG_PAN	ANALOG	Define the pan level of the selected camera (based on the Crestron scaler)
PTZ_DEG_TILT	ANALOG	Define the tilt level of the selected camera (based on the Crestron scaler)
PTZ_DEG_ZOOM	ANALOG	Define the zoom level of the selected camera (based on the Crestron scaler)

Copyright 2014, Janus Technology Ltd, All rights reserved.

PRESET_STORE_[*preset number*]	DIGITAL	Store the position of the current camera as a preset

Output from LILIN_Camera module

Name	**Type**	**Explanation**
[ERROR_STATE]	STRING	Service tool only
[CURRENT_CAMERA]	ANALOG	Reports the selected camera
CURRENT_DEG_PAN	ANALOG	Provides the current pan position of the selected camera in degrees.
CURRENT_DEG_TILT	ANALOG	Provides the current tilt position of the selected camera in degrees.
CURRENT_DEG_ZOOM	ANALOG	Provides the current zoom position of the selected camera in degrees.
MJPEG_URL	STRING	The address of the selected camera's motion JPEG image
DETECTED_ALARM	DIGITAL	This signal goes high when an alarm is detected
DETECTED_MOTION	DIGITAL	This signal goes high when motion is detected
DETECTED_TEMPER	DIGITAL	This signal goes high when a tamper is detected (note the misspelling ifrom the camera's protocol)

Parameters of LILIN_Camera module

Name	**Type**	**Explanation**
CAMERA_IP_[*camera number*]	STRING	The IP address of the camera (default for most LILIN cameras is "192.168.0.200").
CAMERA_USERNAME_[*camera number*]	STRING	The user name you log in to the camera with (default for most LILIN cameras is "admin").
CAMERA_PASSWORD_[*camera number*]	STRING	The password you log in to the switch with (default for most LILIN cameras is "pass").

Input to LILIN_NVR module

Name	**Type**	**Explanation**
SETUP	DIGITAL	Display the Set UP menu
ESC	DIGITAL	Escape / exit / stop
ENTER	DIGITAL	Enter operation in setup menu / select camera in live mode
ARROWLEFT	DIGITAL	Move cursor left / pan left / decrease value

Copyright 2014, Janus Technology Ltd, All rights reserved.

ARROWRIGHT	DIGITAL	Move cursor right / pan right / increase value
ARROWUP	DIGITAL	Move cursor up / tilt up
ARROWDOWN	DIGITAL	Move cursor down / tilt down
REC	DIGITAL	Start or stop recording
DIVISION4	DIGITAL	4 camera split display
DIVISION8	DIGITAL	8 camera split display
DIVISION9	DIGITAL	9 camera split display
DIVISION16	DIGITAL	16 camera split display
PTZAUTOPAN	DIGITAL	Perform auto pan feature
CAMERA[*camera number*]	DIGITAL	Choose a camera to display and control
PRESET[*preset number*]	DIGITAL	Recall a preset camera position
PLAY	DIGITAL	Start playback
SEARCH	DIGITAL	Search for recorded events
STOP	DIGITAL	Stop playback
PAUSE	DIGITAL	Pause playback
FASTREWIND	DIGITAL	Rewind playback quickly
FASTFORWARD	DIGITAL	Advance playback quickly
STEPBACKWARD	DIGITAL	Rewind playback frame by frame
STEPFORWARD	DIGITAL	Advance playback frame by frame

Parameters of LILIN_NVR module

Name	**Type**	**Explanation**
LILIN_IP_ADDRESS	STRING	The IP address of the LILIN NVR (by default, LILIN recorders are set to DHCP. It is recommended you use a static IP address).
LILIN_USRENAME	STRING	The user name you log in to the NVR with (default for most LILIN recorders is "admin").
LILIN_PASSWORD	STRING	The password you log in to the NVR with (default for most LILIN recorders is "1111").

Copyright 2014, Janus Technology Ltd, All rights reserved.

Testing

The supplied test harness, including a touch panel design for an iPad, can be used to test the module. Ensure you have entered correct IP address and login details for all cameras and NVRs.

The DVR and camera icons at the top left of the screen can be used to switch between the LILIN_Camera and LILIN_NVR modules.

Troubleshooting

Problem	**Potential Solutions**
No communication with IP camera	Check the IP address, username and password strings are all correctly entered in the module and match the configuration of the camera.
No communication with NVR	Check the IP address, username and password strings are all correctly entered in the module and match the configuration of the NVR.

Copyright 2014, Janus Technology Ltd, All rights reserved.