visual engineering
LIGHTWARE

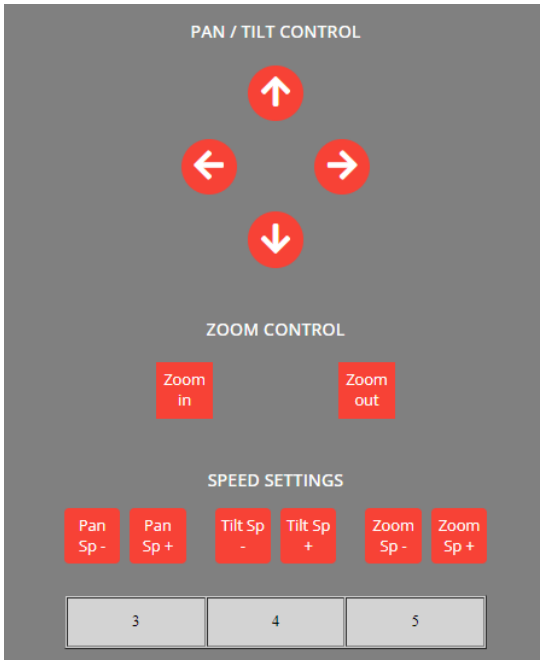
Example of

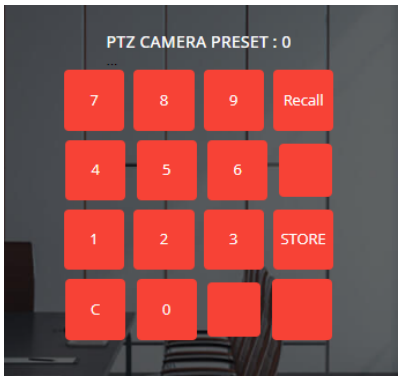
PTZ Camera Control using Visca protocol

and

User-panel

Installation Manual





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1. Introduction

This document is created to help integrators during the installation and configuration process of the PTZ Camera Control using Visca protocol and User-panel example LARA configuration.

The system’s main components are:

Lightware UCX/MMX2 Universal Matrix Switcher,

PTZ camera, that can be controlled via Visca protocol (RS232 / Ethernet UDP).

The room automation is done by Lightware Advanced Room Automation (LARA). It is a modular system which includes drivers for the equipment applied in the system. In this case a Visca protocol driver and two user-panels.

2. Solution overview

This LARA configuration can be used for controlling PTZ camera movement and storing / recalling camera position presets.

Two user-panels are used: PTZ Control Panel and Preset Control panel

3. Installation and Configuration

3.1. Installation

Minimum equipment requirement for the solution:

- Lightware UCX / MMX2 Universal Matrix Switcher (FW: v2.2.0b4)
- PTZ camera controllable via VISCA protocol
- Ethernet network switch
- Cables

Before uploading and configuring the PTZ Camera Control using Visca protocol and Userpanel example please download the latest Firmware from https://lightware.com/. Upgrade your UCX/MMX2 Universal Matrix Switcher and activate LARA.

For further information please refer to the user manuals:

https://lightware.com/pub/media/lightware/filedownloader/file/User-Manual/Taurus_UCX_series_Users_Manual.pdf

https://lightware.com/pub/media/lightware/filedownloader/file/User-Manual/LARA_Users_Manual.pdf

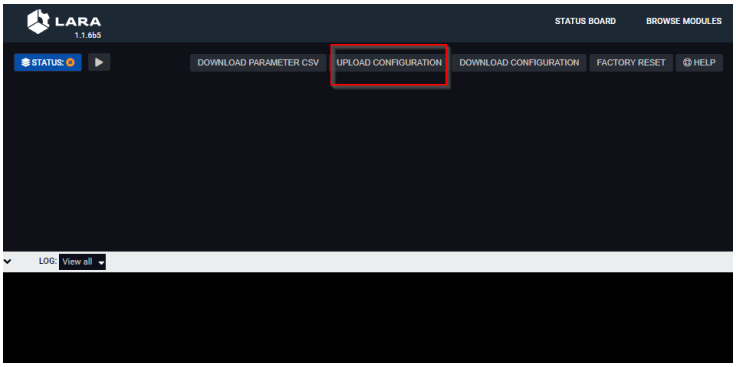
https://lightware.com/lara/

3.2. Configuration

3.2.1. Starting LARA, Uploading Configuration

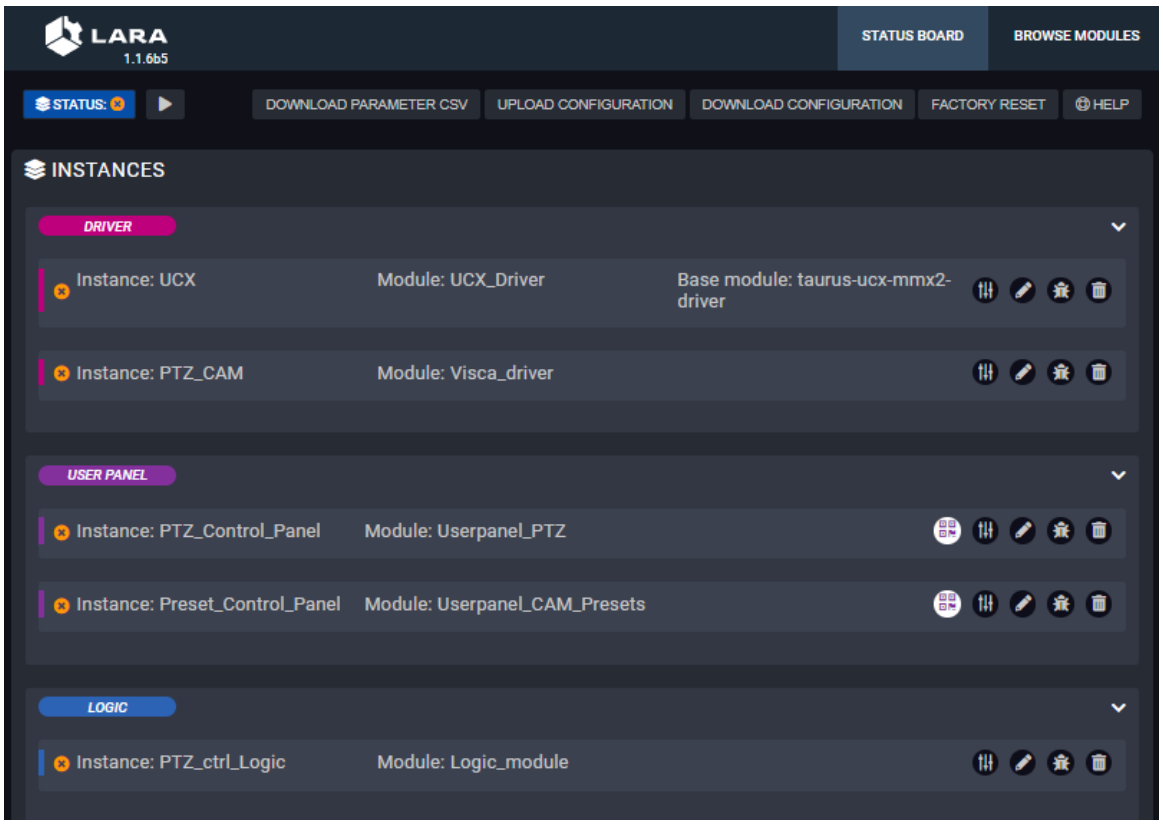
Start a new browser window and start LARA. e.g.: https://192.168.1.88/lara

Choose: UPLOAD CONFIGURATION



3.2.2. Status bar information

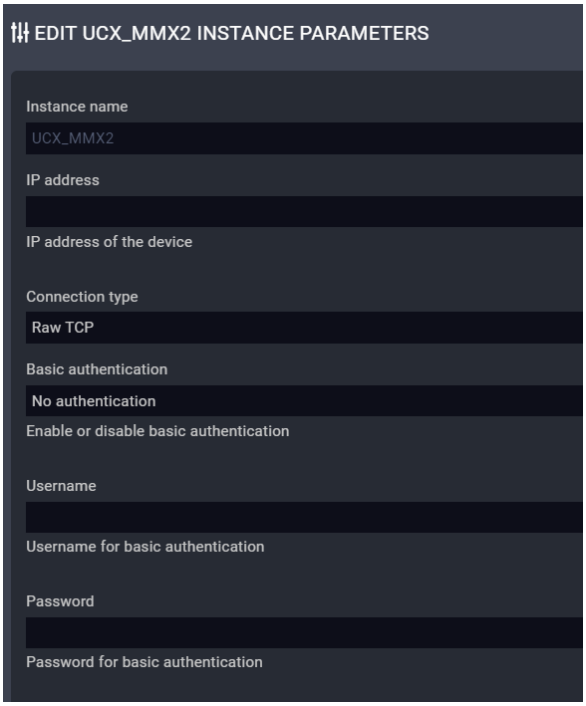
After uploading and starting the configuration the status board displays the actual state of the configuration:



To avoid any orange X markings on the status boards, that means there's an error in the instance, the correct parameters should be set in each instance.

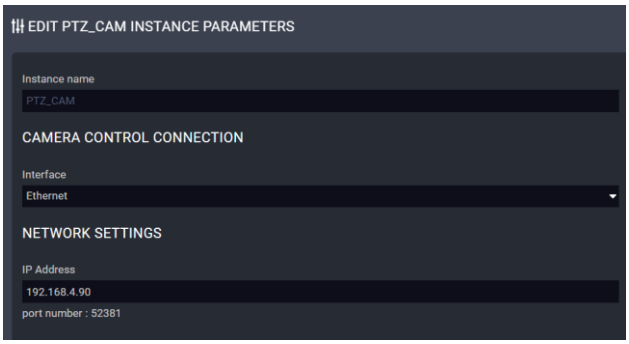
The parameter setting can be done with opening each instance's parameter section with this icon: 

3.2.3. Setting parameters of UCX_MMX2 instance:



Enter the IP address of UCX / MMX2 Universal Matrix Switcher. The other field can be left blank unless you set up authentication for this unit.

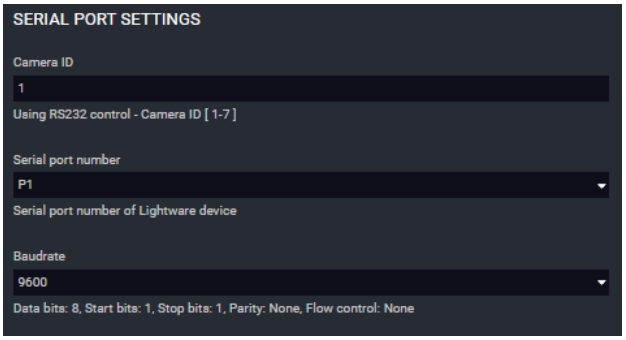
3.2.4. Setting parameters of PTZ_CAM instance:



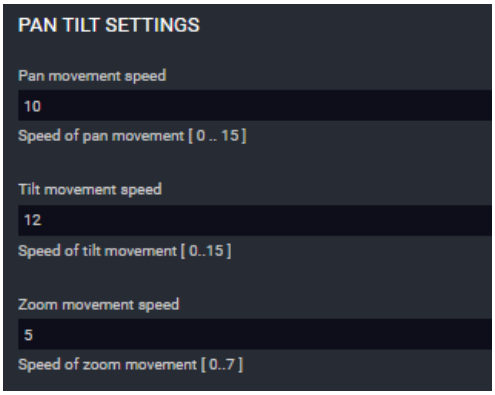
It is possible to choose Ethernet (UDP) or RS232 control options.

In case of choosing Ethernet option please set the IP address of the camera.

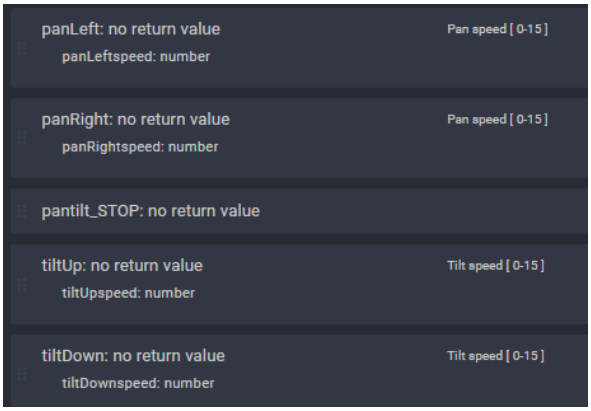
After choosing to use RS232 option please set the baud-rate matching the camera settings and the port number of UCX/MMX2 to connect the PTZ camera.



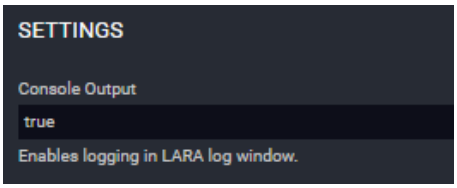
The PTZ movement speed can be adjusted in the PAN TILT SETTINGS.



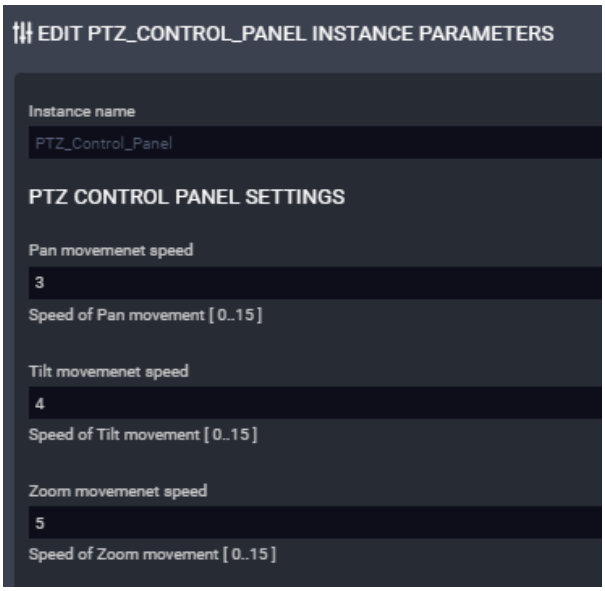
These parameters define the speed of PTZ movement in case of using methods of Visca driver.



Console output settings enables the LARA console log messages. It helps following the operation, and helps debugging.



3.2.5. Setting parameters of PTZ_Control_Panel instance:



Pan movement speed:

When using PTZ Control Panel it defines the speed of horizontal movement of PTZ Camera.

Tilt movement speed:

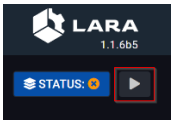
When using PTZ Control Panel it defines the speed of vertical movement of PTZ Camera.

Zoom movement speed:

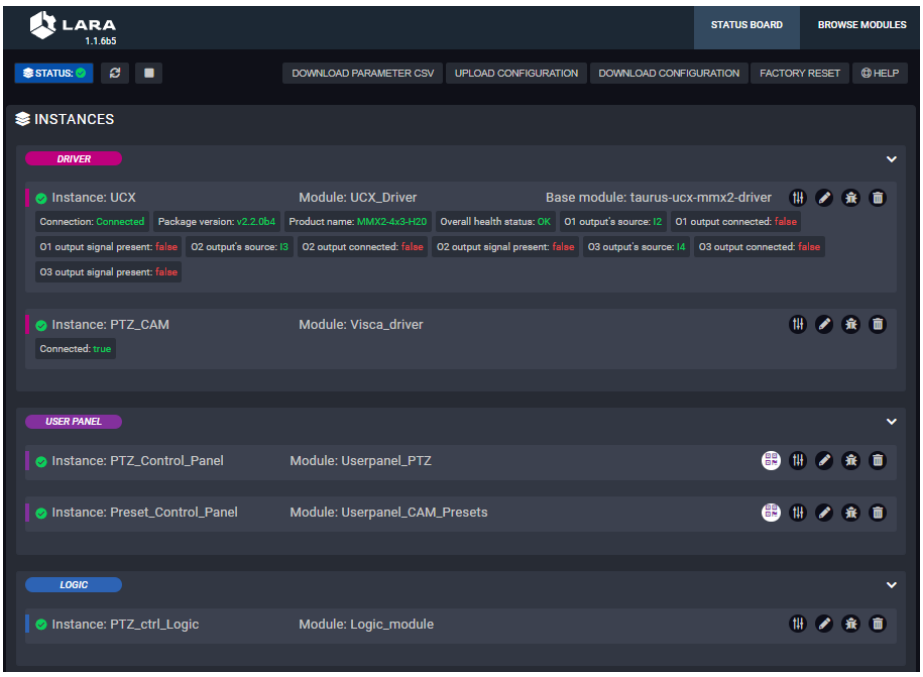
When using PTZ Control Panel it defines the speed of Zoom operation of PTZ Camera.

3.2.6. Finalizing the parameter settings:

After setting all of the necessary parameters, please press start:



If the configuration runs, and the IP address settings are properly done all of the status sign should be green on the left side of each instance's status section:



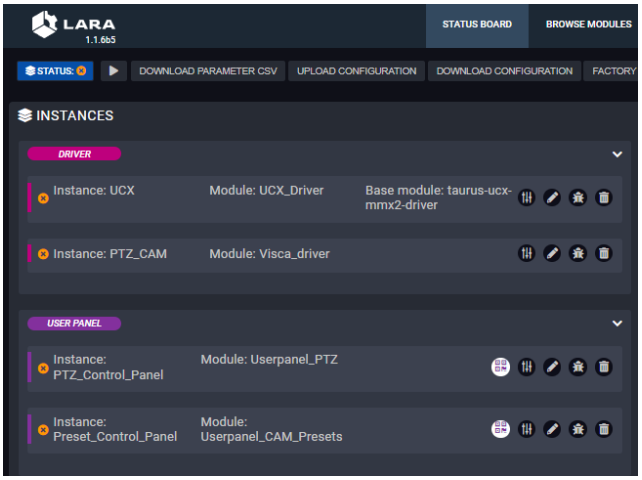
Now the system is ready to start to control the PTZ camera.

4. Operation

4.1. PTZ functions and Preset functions

4.1.1. PTZ operation

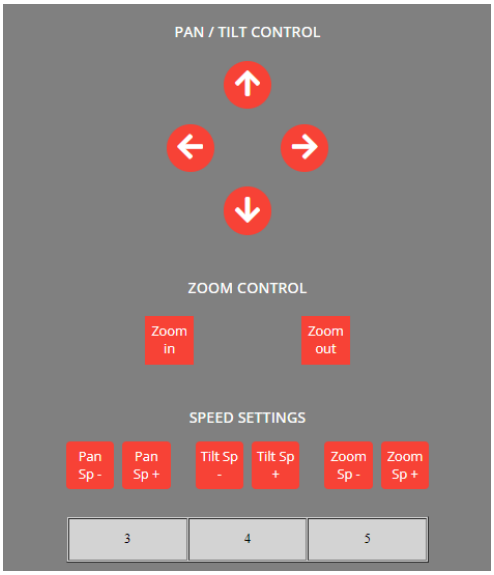
Start the PTZ_Control_Panel panel from the LARA Status Board using the QR code.



With the help of the PTZ_Control_Panel it is possible to control of the camera movements and zoom functions.

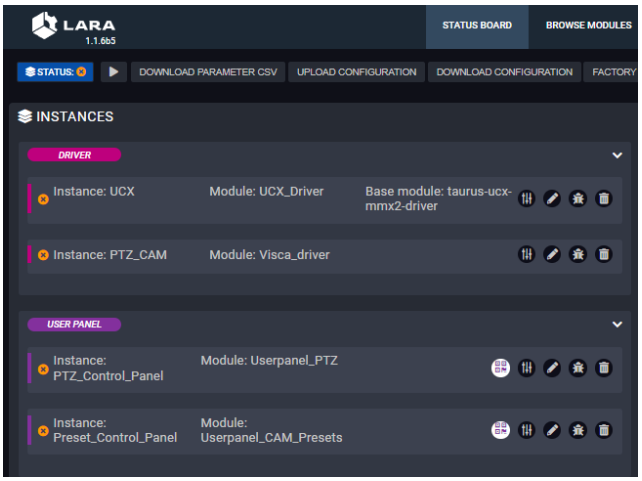
Speed of the individual movements can be defined with help of Sp+ / Sp- buttons.

Please check the available speed setting options in your camera's operating instruction document.



4.1.2. PTZ Preset settings

Start the Preset Control panel from the LARA Status Board using the QR code.



With the help of using Preset_Control_Panel it is possible to store and recall camera positions. In order to this compose a shot and store it by entering on the keypad e.g. “0” STORE. Try it by pressing Recall “0”.

5. Appendix

5.1. Document history

Rev.	Release date	Changes	Editor
v1.0	14-04-2023	Initial version	Péter Szabó 3
v1.1	04-05-2023	speed parameters added to PTZ function	Péter Szabó 3

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