Device: JVC GY-HM660 and GY-HC900



Important Notice:

Please notice a more detailed manual can be found at: <u>https://www.skaarhoj.com/support/manuals/</u> called "User guide for RM-LP250S + RM-LP250M"

Introduction

The Device Core "JVC RCP" is used for controlling the JVC GY-HC900 and the GY-HC550 with some support for HM660 cameras and allows to control most parameters of the cameras through the official HTTP based API. The Device Core is still in beta.

Setting up Camera

In order to control the camera a USB/Ethernet adapter must be utilized from the USB2.0 HOST port on the camera, if no native port are on the camera. All communication between a SKAARHOJ interface and the camera is done via wired IP. This tutorial illustrates setup for a JVC GY-HM660U.

For the JVC GY-HC900 the ethernet port directly on the camera can be used.





A number of actions are required for a SKAARHOJ controller to communicate with the camera. Basically the IP address of the camera must match the IP address of the JVC Device Core on a SKAARHOJ controller. This is an example using IP 192.168.10.249.

Set Static IP

Main Menu -> System -> Settings -> Connection Setup...

You can use the Wizard to guide you to set the following addresses

- DHCP: OFF
- IP ADDRESS: 192.168.10.249
- SUBNET MASK: 255.255.255.0







The configuration can also be set on the web interface of the camera it self (if Web Access have been enabled)

	192.168.10.24	9 (Ö	006+
		, a ^o 🔅	
	Settings > Connec	tion Setup	
	Wireless	Cellular	
	Access Point	P2P	
	Security Type None	WEP WPA WPA2	
	DHCP On	0#	
	IP Address	192.168.10.249	
	Subnet Mask	255.255.255.0	
	Gateway (Optional)		
	DNS1 (Optional)		
	DNS2 (Optional)		
	Cellular		
	Settings On	Off	
	FTP Proxy No Proxy	НТТР	
ľ	Port		
	Cancel		
L			

Enable Web Access

Web access must be enabled on the camera with

Login Name: jvc Login Password: skaarhoj

In order for our controllers to authenticate with the cameras. The above login name and login password are set by default on our controllers.

JVC GY-HM660U Main Menu -> System -> Settings -> Web...

JVC GY-HC900 Main Menu -> Network -> Web...



Set Web Access to On



Set "Login Password" to: skaarhoj

As an alternative to the above default authentication username and password, custom username and password can be set via Devices Core Options. Please see section: <u>Device Configurations</u>

Device Configurations

Device configuration options exist:

- Index 0: Sets username (maximum characters = 9)
- Index 1: Sets Password (maximum characters = 9)
- Index 2: Sets port

Example 1:

Setting username + password could look like this device configuration code in the generic form: D0:0="Username";D0:1="Password"

A example could be

D0:0="bryan";D0:1="1234567"

Where username is set to: bryan and password set to: 1234567

The general form of Device Core options are "Dx:y=z" where "x" is the number of the device core as installed on the controller (starting with zero for the first device core), "y" the index number and "z" the value for that index.

To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:

Memory A-D restored Compiled: Sep 10 2019 12:43:58 D0[0] = "bryan" D0[1] = "1234567" DeviceCore #0: JVCRCP0, IP = 192.168.10.137 JVC: Override default username with: bryan JVC: Override default password	newmac ok
setup() Done	

Example: If the JVC device core is the first like below:

О() скл	ARHOJ	4.
UniSketch OS	Device Cores	
Controller Configuration	Below, you can see the oursently enabled device support on your controller. You can add and device once in accordance with your requirements up to a maximum of 14 devices. To understand the deviceprised to the device core support page. For greened documents preserves the United to the device core support page.	nent
29 Device Cores 29 Manage Configurations	M0+	
Manage Media	JVC RCP The JVC RCP interview of the second	
Euron Labels Firmware Overview		
	Serve Settings Add another device -	

Then setting the username + password would be set by this configuration under "Manage Media" on your configuration page for your controller on <u>cores.skaarhoj.com</u>

Device Core Options

Some device cores support additional options that can be defined through this text field. Please refer to the manual for the particular device core for details.

D0:0="bryan";D0:1="1234567"

Setting port could look like this device configuration code in the generic form: D0:2=12345

To confirm that a device configuration is in fact detected by the controller, please check it out on the serial monitor where it will be mentioned:

D0[2] = 12345 DeviceCore #0: JVCRCP0, IP = 192.168.10.137	debug
JVC: Using Port 12345	
setup() Done	newmac
HWc#46 Down Analog: 63	
System action 2	ok
Mem A: 1	
System action 23	

Setting up Controller

If you are not using a default configuration then the Device Core "JVC RCP" must be added to your controller

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	Device Cores	
F Controller Configuration	Below, you can see the currently enabled device support on your controller. You can add and delete device cores in accordance with your requirements up to a maximum of 14 devices. To understand the development states Mature, Beta, Alpha and Planned (as well as Pro and Planned actions), please check out the device core support page.	
d Device Cores	For general documentation, please see the UniSketch Manual and System Actions Manual.	
Manage Configurations	JVC RCP - Wheel Version +	
🖬 Manage Media	JVC RCP	×
% Button Labels	JVC RCP Control of GY-HM680, GY-HM880 series and GY-HM900. Allows to control most parameters of the cameras through the afficial ETTP based API. New control and Million 2 Allows to control most parameters of the camera descending or market	
Pirmware Overview		
	Save Settings Add another device -	

The Device Core *must* have the IP address matching, the one set on the camera it self (see "Setting up Camera" section).

Deviews Cottings		IP Configuration
Devices Settings	Use DHCP	
	IP Address:	192.168.10.99
Controller IP Settings	Subnet:	255.255.255.0
0 . 0 . 0 . C	Gateway:	192.168.10.1
Subnef Mask: 222 . 222 . 228 . C	DNS:	192.168.10.1
Gademany:	JVC RCP	192.168.10.249 🗸 Enabled
162 - 162 - 10 . 1 JVC RCP g110 . 115 - 10 . . just		Save IP Settings

Connection to the camera can be confirmed from the Serial Monitor with the command: *Connected to camera at 192.168.10.249*

Command input. Press enter to send.	
<pre>KKARROJ Controller Booting KKYERJON: v2.2.138 defConfigCsc=214 KK VERJON: XX RCPV7 KK DETAL: 42696 EFFONS 12:24 EFFONS 12:24 EFFONS 12:24 EFFONS 12:24 EFFONS 12:24 FONS 12:24 FONS 12:24 FONS 12:24 EFFONS 12:24 EFFONS 12:24 FONS 12:24 FON</pre>	Commands reset config configd clearpresets debug newmac ok
<pre>Hmodify four Analog: 63 yystem action 2 Hem A: 1 Yystem action 17 Yystem action 17 Yystem action 17 System action 17 Evitor action 17 Evi</pre>	

This is a overview of the actions implemented in the Device Core

JVC RCP: Zoom (Joystick) JVC RCP: Zoom (Binary) JVC RCP: Recording JVC RCP: Streaming JVC RCP: Full Auto JVC RCP: Master Black JVC RCP: Iris JVC RCP: Iris OnePush JVC RCP: Iris Mode JVC RCP: Iris Range JVC RCP: Gain Mode JVC RCP: Ae Level JVC RCP: Shutter Speed JVC RCP: Shutter Mode JVC RCP: WB Mode JVC RCP: WB OnePush ✓ JVC RCP: WB Paint JVC RCP: Focus Mode JVC RCP: Focus OnePush JVC RCP: Focus JVC RCP: User Switch JVC RCP: Menu JVC RCP: Menu Navigation JVC RCP: Character Output Mix JVC RCP: Detail JVC RCP: Tally JVC RCP: Speed Limit

We have tested control of 3 x cameras simultaneously with success. Control of 4 x cameras should also be possible (but not tested), but above that performance will most likely degrade and connection stability will become an issue.