

Device: IO Industries Victorem 4KSDI-Mini



Introduction

The Victorem from IO Industries can be controlled from SKAARHOJ panels using a Ethernet-Serial converter. The Device Core is still in Alpha

Ethernet to Serial connection

To communicate via serial (RS-485) to the camera you need an Ethernet-Serial converter. We suggest you get a TCP232-306 from USR- <https://www.usriot.com/products/serial-to-ethereum-server.html>

Below you will find screenshots of how to configure the USR-TCP232-306 converter (found on the web interface of the TCP232-306). Notice the IP address of the TCP232-306 (Static IP Address) must match the IP settings of the Victorem Device Core.

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Local IP Config

parameter

- IP type: Static IP DHCP
- Static IP: 192 . 168 . 10 . 29
- Submask: 255 . 255 . 255 . 0
- Gateway: 192 . 168 . 10 . 1
- DNS Server: 8 . 8 . 8 . 8

Save Cancel

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Serial Port

parameter

- Baud Rate: 115200 bps
- Data Size: 8 bit
- Parity: None
- Stop Bits: 1 bit
- Local Port Number: 5000 (0~65535)
- Remote Port Number: 8234 (1~65535)
- Work Mode: TCP Server
- Remote Server Addr: 192.168.0.201 [192.168.0.201]
- RESET:
- LINK:
- INDEX:
- Similar RFC2217:

Save Cancel

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parameter

Heartbeat Packet Type: None ASCII

Register Packet Type: None

Short Connection:

TCP Server-kick off old connection:

Buffer Data Before Connected:

UART Set Parameter:

Save Cancel

Current Status
Local IP Config
Serial Port
Expand Function
Misc Config
Reboot



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parameter

Module Name: USR-TCP232-306

Webserver Port: 80

Username: admin

Password: admin

MAC Address: 9C-A6-25-9E-DF-D4

Max Clients Connect To TCP Server: 4 (1~16)

Reset Timeout: 3600 (s)(0,60~65535s)

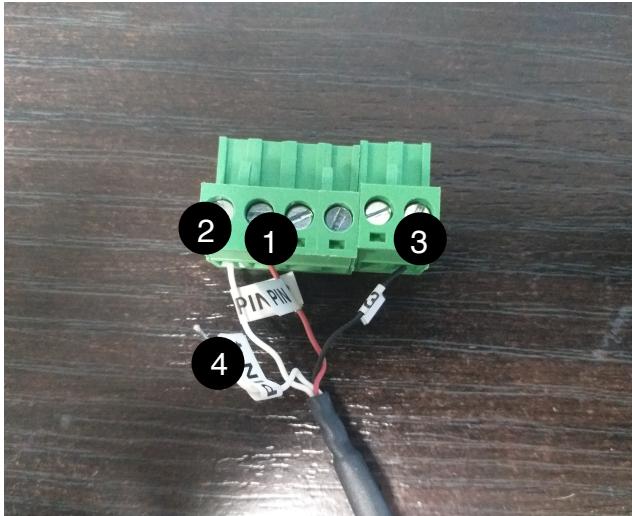
Save Cancel

Current Status
Local IP Config
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Misc Config
Reboot

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Wiring to the Camera/Converter



Another model we have had success with is the XS1200 from US Converters - <http://www.usconverters.com/serial-rs232-device-server>

There is a quirk you should know about: The XS1200 only accepts a single TCP connection at a time and it will take some time to realise if a client disconnected silently before it allows a new connection. In essence this means if the SKAARHOJ controller was connected and is rebooted without disconnecting, the XS1200 Server may not realise this before after some time. Therefore you may need to powercycle it along with the SKAARHOJ controller to make sure it will accept a connection.

Below you will find screenshots of how to configure the XS1200 converter (found on the web interface of the XS1200). Notice the IP address of the XS1200 (Static IP Address) must match the IP settings of the Victorem Device Core.

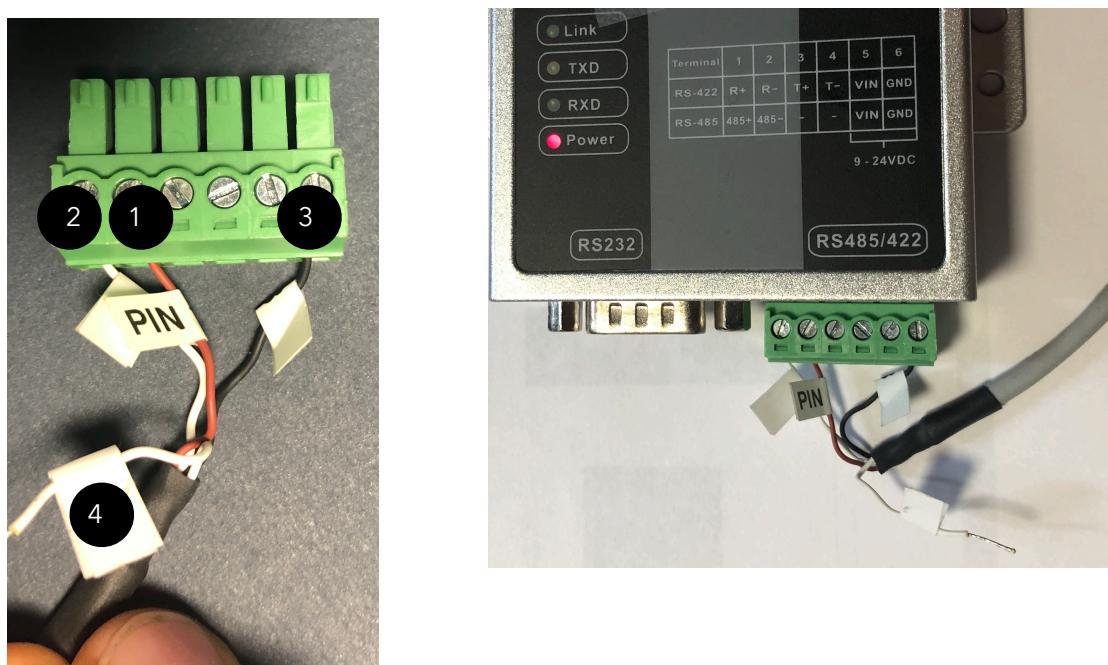
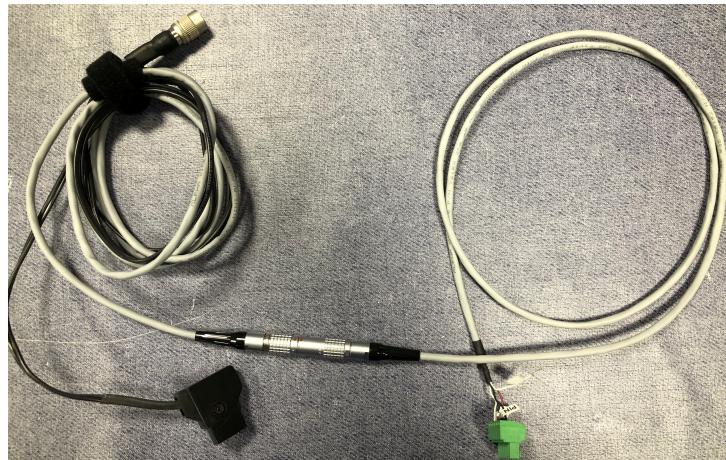
In the settings below the Baud Rate is set to 115200, Serial Type to RS485 and Transmit Timer to 50.

| Serial Settings | |
|-----------------|--------|
| Device Name | DSM1 |
| Data Baud Rate | 115200 |
| Data Bits | 8 |
| Data Parity | None |
| Stop Bits | 1 |
| Flow Control | None |
| Serial Type | RS485 |

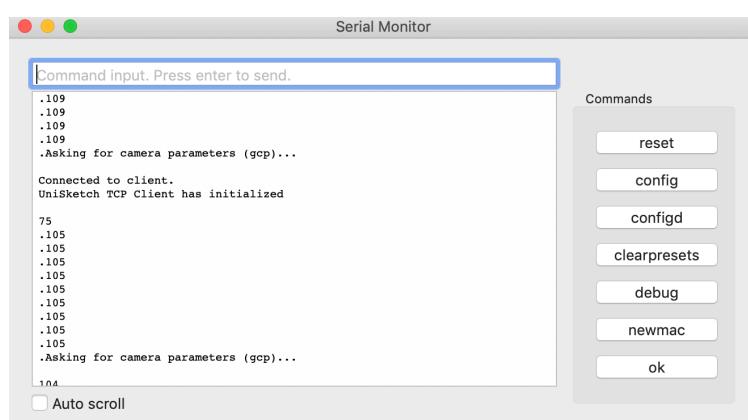
| Network Settings | |
|---|----------------|
| DHCP Client | Disable |
| Static IP Address | 192.168.10.38 |
| Static Subnet Mask | 255.255.255.0 |
| Static Default Gateway | 192.168.10.1 |
| Static DNS Server | 192.168.10.1 |
| Connection Type | TCP |
| Transmit Timer | 50 |
| Please enter an integer between 10~65535 ms | |
| Server/Client Mode | Server |
| Server Listening Port | 5000 |
| Please enter an integer between 1~65535 | |
| Client Destination Host Name/IP | 192.168.10.166 |
| Please enter host name or IP address | |
| Client Destination Port | 5000 |
| Please enter an integer between 1~65535 | |

Wiring to the Camera/Converter

Confirm Connection



The Serial Monitor from the Firmware Application can be used to monitor connection status.



When the Serial Monitor reports

.Asking for camera parameters (gcp)...
Connected to client.
UniSketch TCP Client has initialized

connection to the Serial Converter and the camera have been established.

Device Configurations

Device configuration options exist:

- Index 0: **Disable requirement for feedback from camera (unidirectional communication)**
 - If "1" = Requirement is disabled

Example I:

Enabling "Disable requirement" could look like this device configuration code: "D0:0=1" where the general form would be "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.

If the IO Industries device core is the first like below:

The screenshot shows the SKAARHOJ Device Cores configuration interface. On the left is a sidebar with the UniSketch OS logo and links for Controller Configuration, Device Cores (which is selected and highlighted in blue), Manage Configurations, Manage Media, Button Labels, and Firmware Overview. The main content area has a header "Device Cores". Below it, a message states: "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](#). For general documentation, please see the [UniSketch Manual](#) and [System Actions Manual](#)". A blue button labeled "User Configuration #28" is visible. A card for the "IO Industries Victorem Cameras" device core is shown, featuring the IO Industries logo, a camera icon, and the text "Parameter control of Victorem camera series from IO Industries (requires ethernet to serial converter)". At the bottom of the card are "Save Settings" and "Add another device" buttons.

Then setting the "Disable requirement" would be set by this configuration under "Manage Media" on your configuration page for your controller on cores.skaarhoj.com

The screenshot shows the SKAARHOJ Device Core Configuration interface. On the left is a sidebar with a hexagonal logo for UniSketch OS and links for Controller Configuration, Device Cores, Manage Configurations, Manage Media (which is selected), Button Labels, and Firmware Overview. The main content area has a header "SKAARHOJ" and a sub-header "Manage Media". It contains a note about adding media content, a dropdown for "User Configuration #28", and a section titled "Device Core Options" with a text input field containing "D0:0=1". Below this is a "Strings" section with a "Note on Local Label Formats for Strings" and a "Save Settings" button. At the bottom is an "Images" section with an "Add Image" button.

Actions

An excerpt of the actions in the Device Core

```
IO Industries Victorem Cameras: Exposure Mode
IO Industries Victorem Cameras: Shutter
IO Industries Victorem Cameras: Iso
IO Industries Victorem Cameras: Gain
IO Industries Victorem Cameras: AEC Min/Max
IO Industries Victorem Cameras: AEC Target
IO Industries Victorem Cameras: AEC Speed
IO Industries Victorem Cameras: Aperture
IO Industries Victorem Cameras: Master Pedestal
IO Industries Victorem Cameras: TWB
IO Industries Victorem Cameras: TWB Speed
IO Industries Victorem Cameras: One-Push WB
IO Industries Victorem Cameras: Color Temp
IO Industries Victorem Cameras: Color Matrix
IO Industries Victorem Cameras: Color Offset
IO Industries Victorem Cameras: Saturation
IO Industries Victorem Cameras: LUT 1D
IO Industries Victorem Cameras: LUT 3D
IO Industries Victorem Cameras: LUT RGB 1D
IO Industries Victorem Cameras: Gamma
IO Industries Victorem Cameras: Gamma Reset
IO Industries Victorem Cameras: Black Balance
IO Industries Victorem Cameras: Image Enhance
IO Industries Victorem Cameras: Overshoot
IO Industries Victorem Cameras: Chroma Err Correction
IO Industries Victorem Cameras: Profiles
IO Industries Victorem Cameras: Reset to PUP
IO Industries Victorem Cameras: Link Configuration
IO Industries Victorem Cameras: Resolution
IO Industries Victorem Cameras: Sampling
IO Industries Victorem Cameras: Frame Rate
IO Industries Victorem Cameras: Zone Position
IO Industries Victorem Cameras: Zone Overlay
IO Industries Victorem Cameras: Test Pattern
IO Industries Victorem Cameras: Image Flip
IO Industries Victorem Cameras: OSD Primary
IO Industries Victorem Cameras: Fan Control
IO Industries Victorem Cameras: Menu
```