

HOP Kramer Protocol SOFT 3000 for RTI

1. Overview

This driver allows TCP or RS232 integration of various Kramer Protocol 3000 products, driver comes as bundle of model specific drivers due to inconsistencies of Protocol 3000 implementations and versions across product range. You can test driver closest to your device if bundle does not contain specific driver for model you need. Otherwise contact us and we can build driver for you.

Bundle also contains detailed user manual and sample APEX file to demonstrate tagging, layers and room proxy.

This definitely is not driver for "quick" Friday afternoon job and you should test integration on test bench prior to installation on customer premisses.

2. Features

Connectivity

- RS-232
- TCP

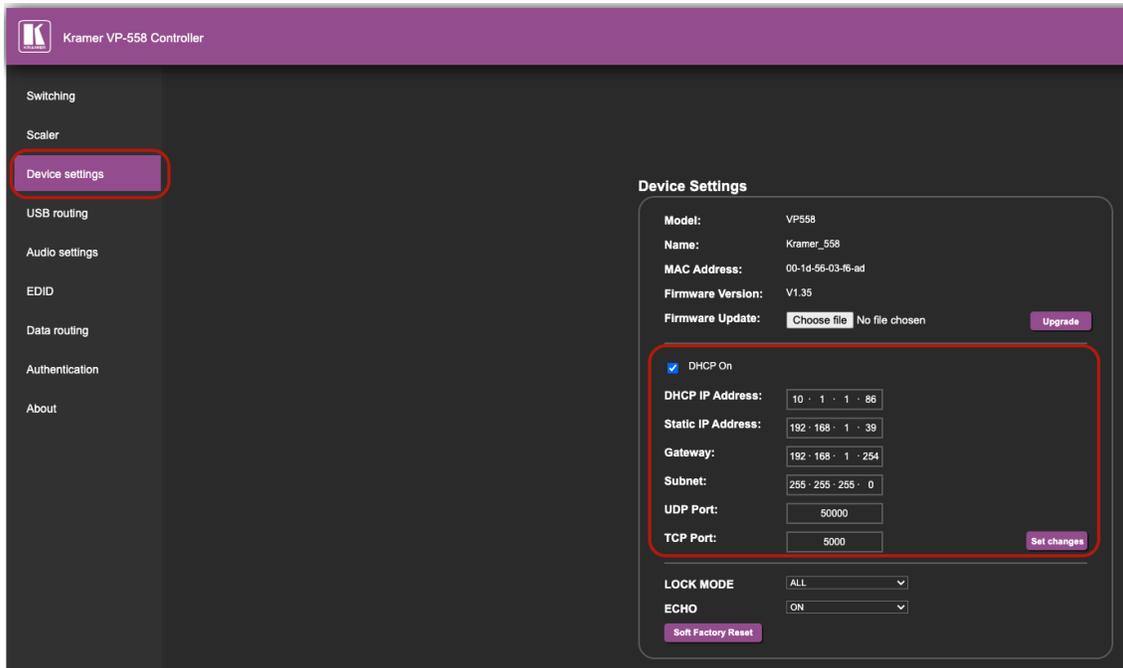
Functions

- Volume control of all outputs and channels
- Equalizer control
- Volume control of all inputs
- Video switching
- Video switching of Kramer Step-In devices
- Audio-Video switching
- Embedded audio switching
- Analog audio switching
- USB switching
- Sending of RAW command

3. Device Configuration

There are no special settings needed on the device side, however you need to make sure that you have configured the correct TCP port and enabled “Step-IN” devices on outputs if these are installed.

TCP Configuration



Step-In Device Configuration

Kramer VP-558 Controller

- Switching
- Scaler
- Device settings
- USB routing
- Audio settings
- EDID
- Data routing**
- Authentication
- About

Data Routing

Routing Setting

Port	Ethernet		RS-232 Data
	Step-In Device	General	
HDBT IN1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HDBT IN2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDBT IN3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDBT IN4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDBT OUT1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDBT OUT2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDBT OUT3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDBT OUT4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDMI IN1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDMI IN2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDMI IN3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDMI IN4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDMI IN5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HDMI IN6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

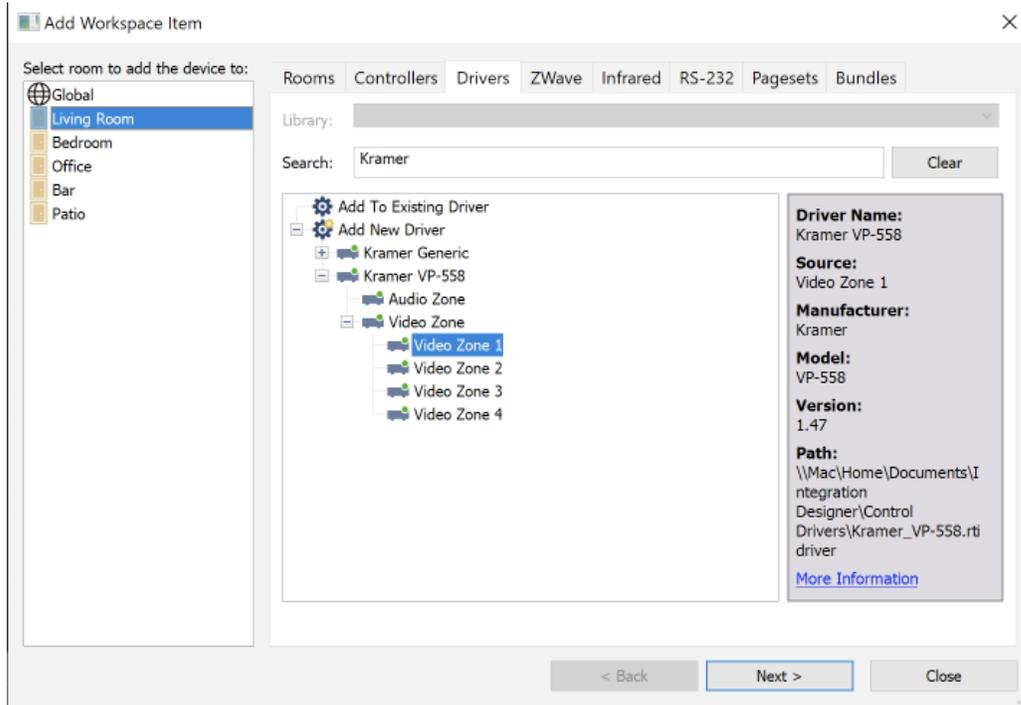
Model: VP558
FW version: V0.01
IP: 192.168.3.100
Settings:

4. Installation

Save Kramer_VP-558.rtidriver file into Integration Designer (APEX) driver folder.

Default location is: “Documents\Integration Designer\Control Drivers”

Add source drivers to rooms.



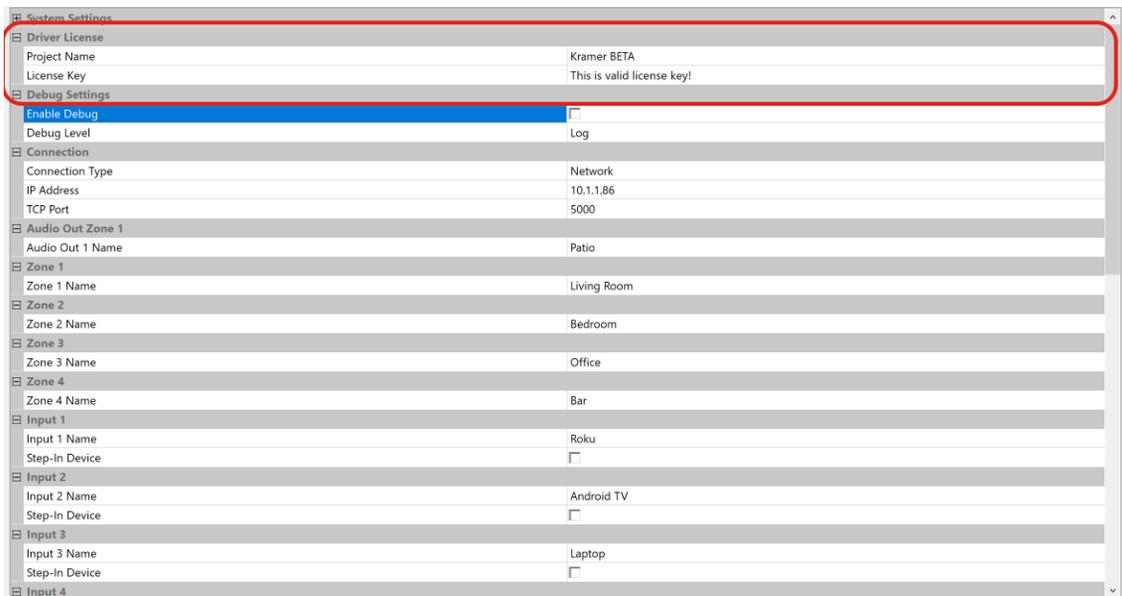
5. Driver Configuration

Driver bundle contains Integration designer APEX file as an working example of driver configuration and best practises.

Project name - This should be a brief description or identifier of the project where the driver is used.

License key - License key provided after driver purchase, driver comes with three day trial which gets automatically activated if no license key is entered.

License status is exposed via driver variables.



The screenshot shows a 'System Settings' dialog box with a tree view on the left and a configuration table on the right. A red rectangle highlights the 'Driver License' section. The 'Enable Debug' checkbox is checked.

Section	Property	Value
Driver License	Project Name	Kramer BETA
	License Key	This is valid license key!
	Enable Debug	<input checked="" type="checkbox"/>
Debug Settings	Debug Level	Log
	Connection	
Connection	Connection Type	Network
	IP Address	10.1.1.86
	TCP Port	5000
Audio Out Zone 1	Audio Out 1 Name	Patio
	Zone 1	
Zone 1	Zone 1 Name	Living Room
	Zone 2	
Zone 2	Zone 2 Name	Bedroom
	Zone 3	
Zone 3	Zone 3 Name	Office
	Zone 4	
Zone 4	Zone 4 Name	Bar
	Input 1	
Input 1	Input 1 Name	Roku
	Step-In Device	<input type="checkbox"/>
Input 2	Input 2 Name	Android TV
	Step-In Device	<input type="checkbox"/>
Input 3	Input 3 Name	Laptop
	Step-In Device	<input type="checkbox"/>
Input 4	Input 4 Name	
	Step-In Device	<input type="checkbox"/>

Connection - Configure driver connection to device, select network or serial connection and its parameters.

Zone Configuration - Here you can name device outputs/zones names of the functions and variables will then correspond to these.

Input Configuration - Here you can name all device input and enable additional setting if input has "Step-In" devices. Driver will offer additional commands and variables for each input if "Step-In" device is configured.

6. Tags

Most commands and variables are tagged for easy programming using APEX auto-program functionality. Tags are self explanatory and can be easily copy-pasted in APEX. Buttons will then have commands and variables automatically assigned.

Volume TAGS

- Volume
- Volume Up
- Volume Down
- Monitor Volume Up
- Monitor Volume Down
- Monitor Volume
- SPDIF Volume Up
- SPDIF Volume Down
- SPDIF Volume
- Line Volume Up
- Line Volume Down
- Line Volume
- Mute
- Mute On
- Mute Off
- Monitor Mute
- Monitor Mute On
- Monitor Mute Off
- Line Mute
- Line Mute On
- Line Mute Off
- SPDIF Mute
- SPDIF Mute On
- SPDIF Mute Off
- Microphone Volume Up
- Microphone Volume Down
- Microphone Volume

Equalizer TAGS

- EQ 120Hz
- EQ 200Hz
- EQ 500Hz
- EQ 1.2KHz
- EQ 3KHz
- EQ 7.5KHz
- EQ 12KHz

Switching TAGS

- Select Audio Input **[1-12]** - example: Select Audio Input 1
- Audio Out Follow Zone **[1-4]** - example: Audio Out Follow Zone 1
- Select Analog Audio Input **[1-6]** - example: Select Analog Audio Input 1
- Select Audio-Video Input **[1-12]** - example: Select Audio-Video Input 1
- Select Analog Audio-Video Input **[1-6]** - example: Select Analog Audio-Video Input 1
- Select Video Input **[1-11]** - example: Select Video Input 1
- Select Video Input **[1-10]** step-in HDMI - example: Select Video Input 1 step-in HDMI
- Select Video Input **[1-10]** step-in Display - example: Select Video Input 1 step-in Display
- Select Video Input **[1-10]** step-in DVI - example: Select Video Input 1 step-in DVI
- Select Video Input **[1-10]** step-in VGA - example: Select Video Input 1 step-in VGA
- Video Mute Off
- Video Mute On
- Video Mute Blank
- Video Mute

Input TAGS

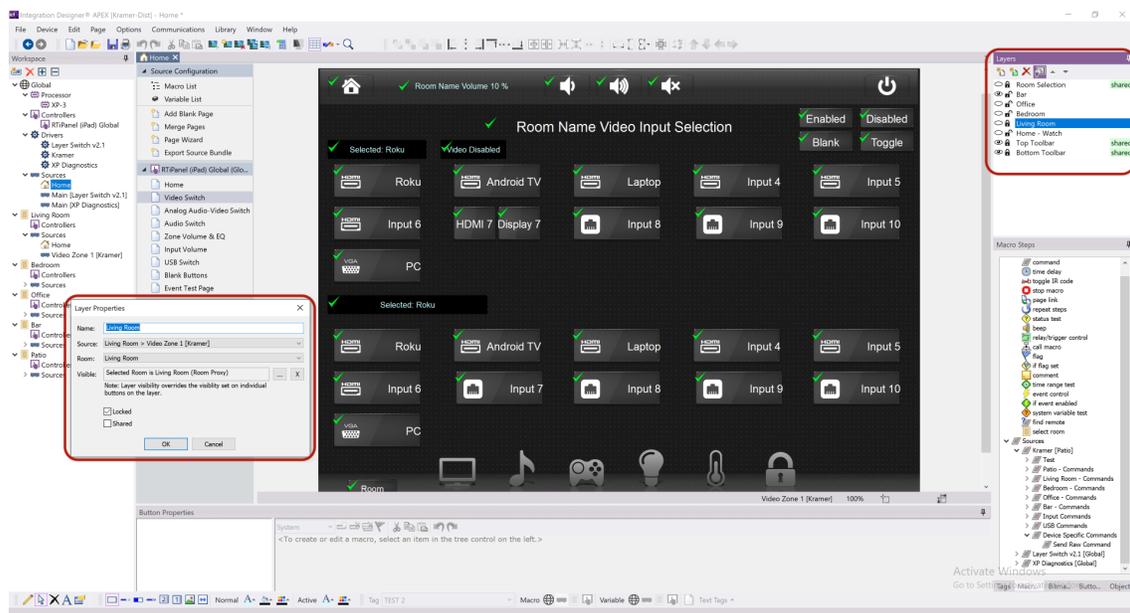
- Input [1-12] Volume - example: Input 1 Volume
- Input [1-6] Analog Volume - example: Input 1 Analog Volume

USB Switching

- Select USB Input [1-4] - example: Select USB Input 1

7. Sample APEX

Sample APEX file included in the driver bundle contains simple pages for all commands and variables available in driver and demonstrates use of layers for each room.



8. Know Limitations

Device State

Kramer Protocol 3000 does not support of requesting some specific state of the device, including but not limited to:

- Which “Step-In” input is selected
- What type of audio input is selected (Embedded or Analog)

Because of above and fact that number of data points is quite significant driver requests state of the device only after controller reboot and stores entire state in persistent memory so state can be recovered after reboot prior to rather lengthy state request. While this technique is sufficient for most of the scenarios it can result in differences in state between RTI and Kramer if connection between devices has been lost for extended time period.