TECHNICAL REFERENCE MANUAL

Version 2.0. - April 2018

XEEBRA

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Table of Contents

What's New?

In the Technical Reference Manual the icon NEW ! has been added on the left margin to highlight information on updated features.

The changes linked to new features in version 2.0. are listed below.

Cabling procedure for the new PMX2-4601D has been added.

- See section "Cabling the System" on page 4.

BEPlay buttons can be customized.

- See section "Customizing the BEPlay Remote Controls" on page 18.

A new license key has been introduced: 40 - Xeebra Offside Line.

- See section "Managing the Xeebra Licenses" on page 12.

There is a new installation procedure.

- See section "Preparing the USB Drive" on page 21.
- See section "Installing a New Image" on page 21.

A new service monitoring tool is available.

- See section "Monitoring the Services" on page 26.

A procedure has been added to monitor the server record tracks.

- See section "Monitoring Server Record Tracks" on page 33.

A procedure has been added to monitor the Xeebra Client application.

- See section "Monitoring the Client" on page 33.

For most of the scripts, you no longer need to provide a username and password.

The following changes unrelated to new features, and therefore not highlighted with the New icon, have been brought to the Technical Reference Manual.

Procedure to secure the SDI cables has been added.

- See section "Cabling the System" on page 4.

The procedure to monitor the video inputs using a Terminal window has been added.

- See section "Monitoring Video Inputs" on page 31.

Crash dumps are available.

- See section "Consulting Xeebra System Log Files and Crash Dumps" on page 26.

1. Introduction

1.1. Product Overview

1.1.1. Description

Xeebra is an instant video review system that enables referees to focus on the content review with the utmost clarity and convenience. It allows the referees to see a multitude of HD camera feeds on up to two (touchscreen) monitors in a fast, synchronized and efficient way from a variety of locations.

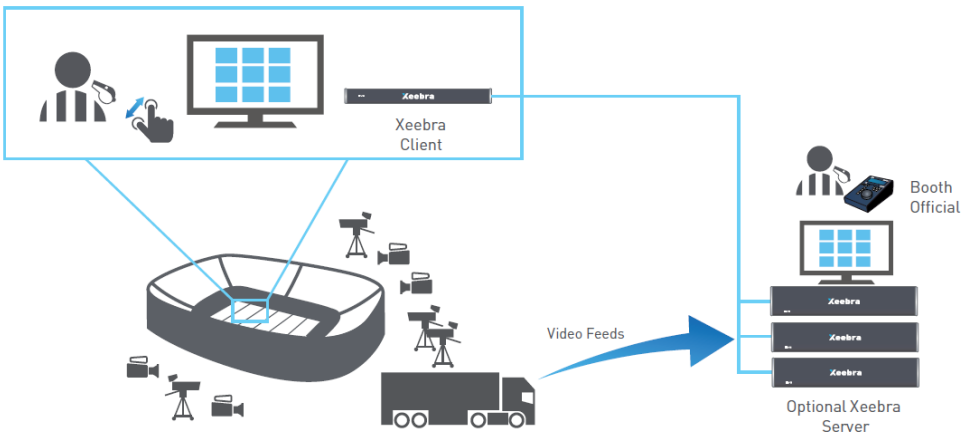
Xeebra is simple enough to be operated by a video referee in the game or can be operated by a dedicated operator. Using a touchscreen or mouse in conjunction with a dedicated BEPlay controller, referees can browse and navigate the camera feeds, instantly zoom into the replay directly with a touch and zoom, and mark and label the most important situations for review and export later.

With Artificial Intelligence inside, Xeebra can simplify the calibration and execution of offside calls for VAR reviews.

Xeebra is based on a client/server architecture that guarantees the highest level of flexibility and scalability.

1.1.2. Setup

The following diagram shows a setup with a dedicated Xeebra 1U client workstation for the on-field official. The client workstation is connected via a 1 Gigabit network cable with up to six 2U Xeebra servers operated by a booth official.



2. Requirements

2.1. Network Requirements

The Xeebra client workstation and the Xeebra server hardware need to be connected by a 1 Gbps link. This link can go through a switch or a direct connection.

Type of Link

The type of link to use depends on the distance between the client and server:

- When the distance between the client and the server hardware is smaller than 80m, a standard Cat 6 network cable is enough.
- When the distance is greater than 80, the connection must go over a fiber link.

  This can be achieved by extending the Cat 6 cable with fiber media converters, or by ordering the SFP+ Fiber option (XEE-10GSFP+) on the client and/or the server.

Type of Switch

When choosing a switch, the following recommendations should be followed:

	1 server	**2 servers**	**3 servers**
Clients hosted on server machines.	Should work with most switches or direct-attached Ethernet connections.	Should work with most switches or direct-attached Ethernet connections.	Requires data center-grade switch (*) or direct-attached Ethernet connections.
At least one dedicated client workstation.	Should work with most switches or direct-attached Ethernet connections.	Requires data center-grade switch (*) or direct-attached Ethernet connections.	Requires data center-grade switch (*).

(*) The following switches have been validated : CISCO 4948 and ARISTA 7048-T. More generally, switches with a dynamically allocated buffer and switches with a deep-buffer should work properly.

2.2. Other Technical Requirements

Recommendations When Working with Extenders

It can happen that extenders are used for the screen, keyboard, mouse and BEPlay.

The USB extenders used for the keyboard and mouse must support HID devices (USB HID class).

The USB extenders used for the touch screen(s) and BEPlay must be USB 2.0 extenders.

It is important to respect the manufacturer's recommendation in terms of distances between the machine and USB device and grade of cable.

Recommendations When Working with Two Screens

When working with 2 screens, both screens must be:

- the same resolution;
- either 2 touch screens or 2 non-touch screens.

3. Setting Up and Configuring the System

3.1. Cabling the System

3.1.1. Cabling the Different Components

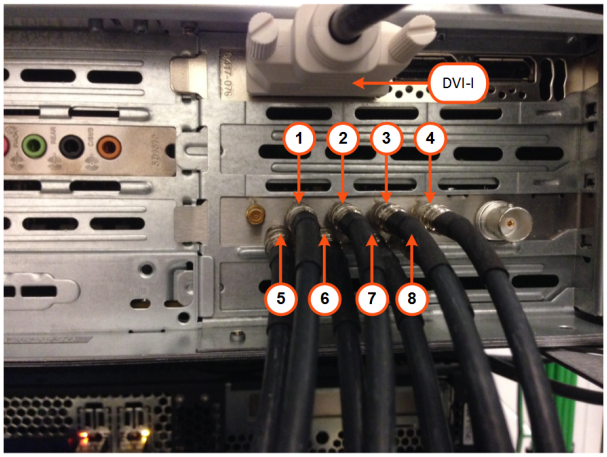
Client Workstation and Servers

The Xeebra client workstation is connected with a Xeebra server through a 1Gbps link. If the client workstation is going to be located more than 100 m away from the server, it is needed to use a Fiber link, either through extenders and media converters or by using the built-in SFP+ fiber connectors.

The Xeebra servers can be connected with each other through the 1Gbps link.

Cameras

The camera's SDI Out has to be connected with one of the Xeebra server's SDI In connectors using a mini BNC cable. A maximum of 8 cameras can be connected. The connectors are numbered as indicated in the photo below (XEE2-4601D).



A SLSM 3x camera has 3 SDI Outs that have to be connected with 3 SDI In connectors of the Xeebra server. A maximum of two SLSM 3x cameras can be connected.

Monitors

Up to two monitors can be connected to a Xeebra server or client workstation.

XEE2-4601D:

- DVI-I connector

- 2 DisplayPort connectors

NEW !

PMX2-4601D:

- 4 DisplayPort connectors

Xeebra supports any 16/9 resolution. In case the resolution is higher, e.g. 4/3 or 16/10, black bands will be displayed at the top and bottom of your screen.

4K monitors are not supported.

WARNING

The VGA connection at the machine does not work.

BEPlay Remote

The BEPlay remote is connected via USB to the Xeebra Client.

ShuttlePRO v2

The ShuttlePRO v2 device is connected via USB to the Xeebra Client. The device gets recognized when plugged in.

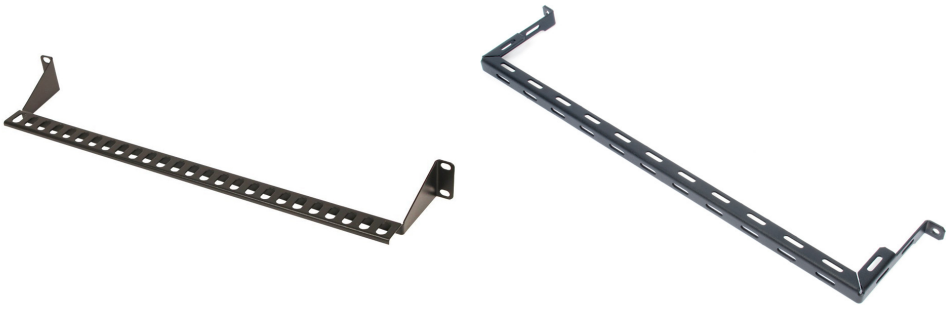
X-keys

The X-keys device is connected via USB to the Xeebra Client. The device gets recognized when plugged in.

3.1.2. Securing the SDI Cables

NEW !

To avoid that because of the heavy weight of the SDI cables one or more SDI In connectors might break or that the Deltacast video card might shift inside the Xeebra server chassis, it is recommended to attach an external cable management crossbar at the back of the rack and to fix the cables onto it using cable ties or Velcro® straps.

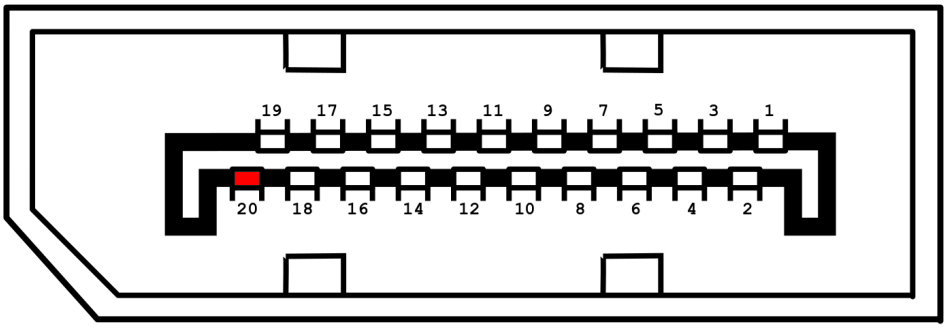


Below you can see an example with network cables.

You can also make use of a ring bracket attached to the side of the rack or flight case.

3.1.3. DisplayPort Cable Warning

If you directly connect a server with a monitor using a DisplayPort cable, you need to make sure that pin 20 (DP_PWR) of the cable is not wired and does not carry any power. In case of doubt, use a multimeter to verfiy this.



According to the VESA specification, the DP_PWR (pin 20) is not supposed to be wired in standard cables because both source and sink devices are designed to provide power.

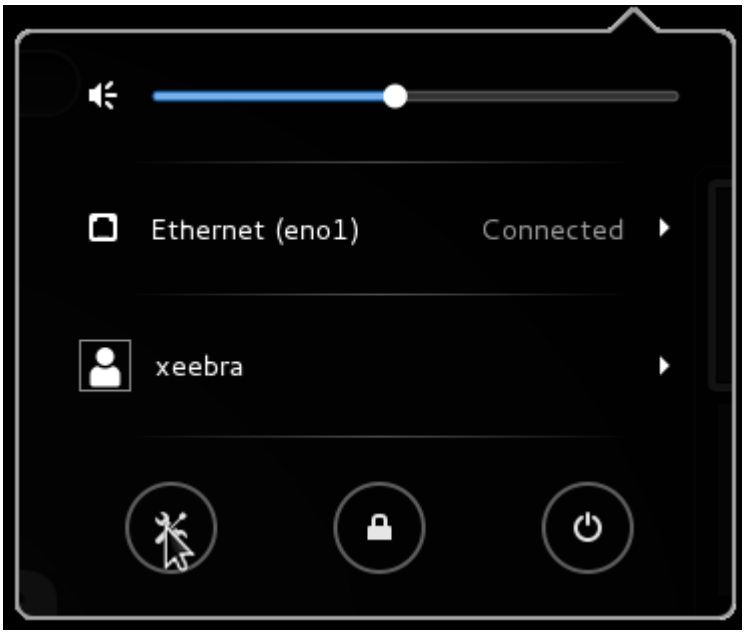
Ignoring this will in certain cases prevent the Avago RAID Controller (AOM-S3108-H8) from being initialized at startup and thus making the RAID unavailable for the OS.

3.2. Changing the IP Address and Hostname

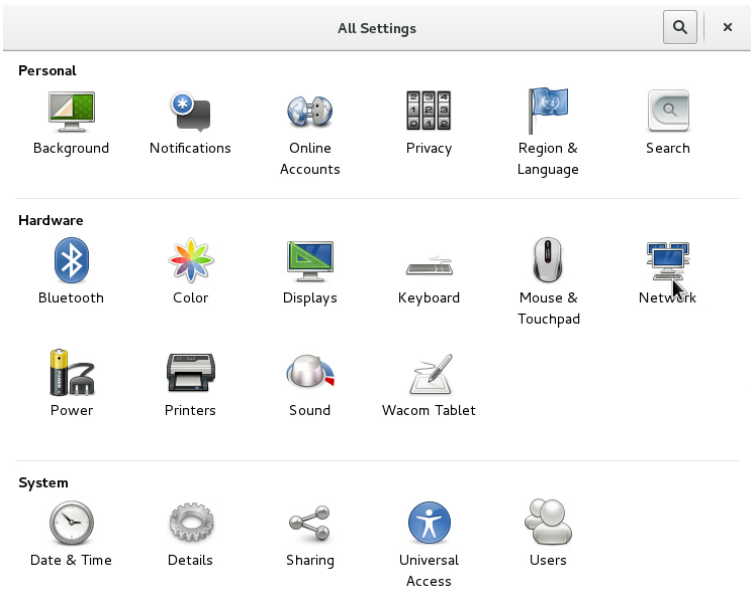
Changing the IP Address

To change the IP address of a Xeebra server, proceed as follows:

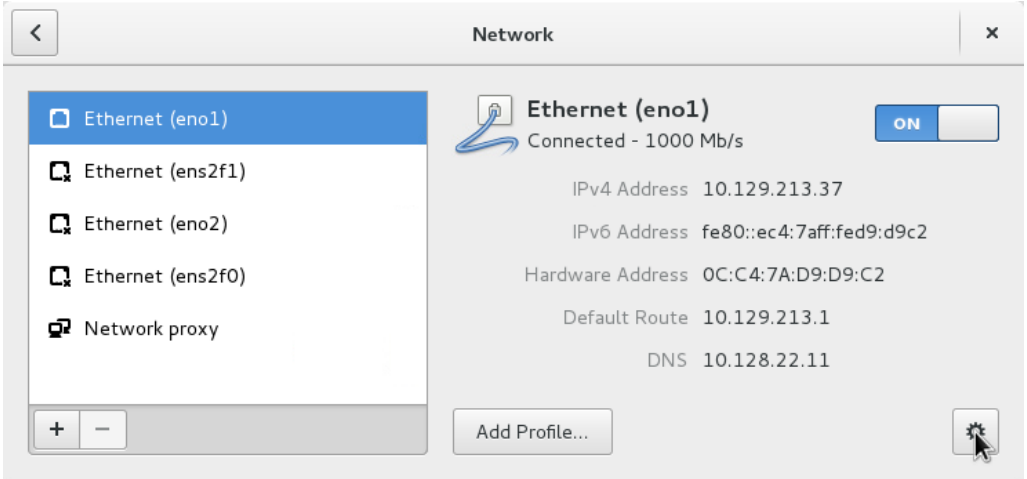
1. Press the Windows key, and click the **Settings** button in the window that appears.



2. Double-click the **Network** icon.



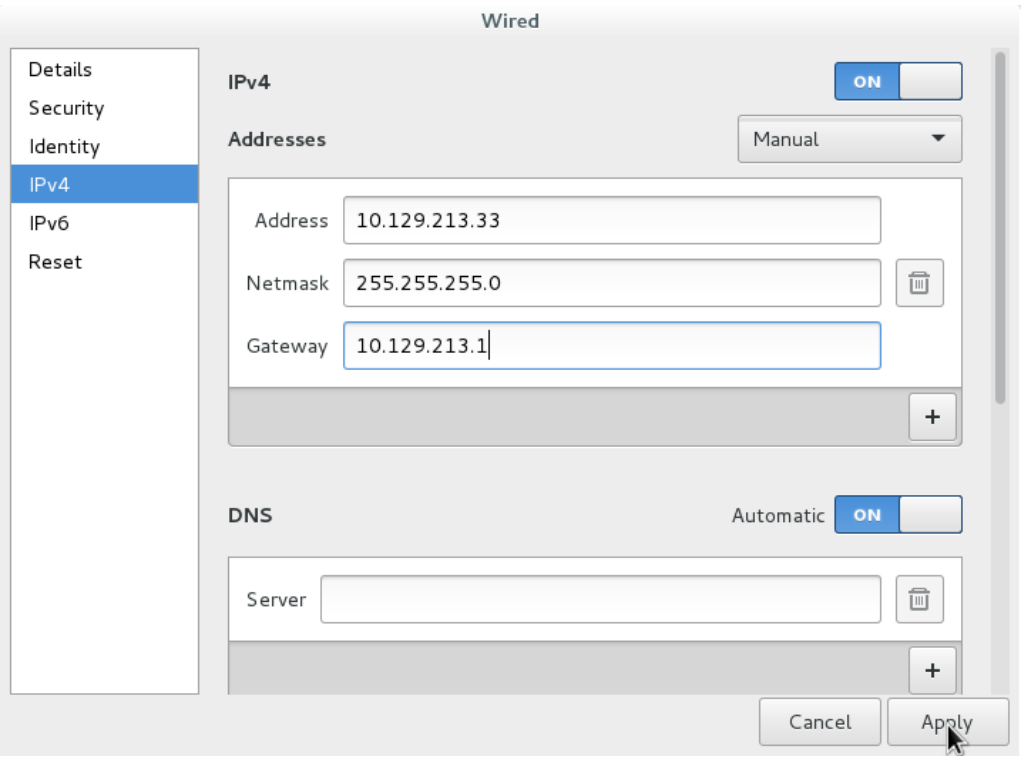
3. Select the interface to configure and click on the cogwheel.



NOTE

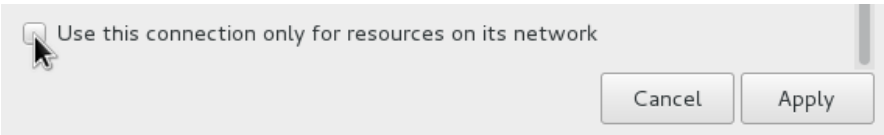
- eno1 & eno2 represent the onboard ethernet connections.
- ens2f0 & ens2f1 represent the optional card ethernet connections.

4. Open the IPv4 tab and configure the interface as expected. Once done, click **Apply**.

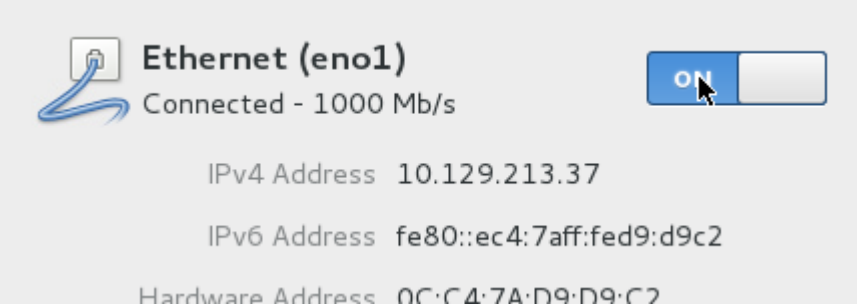


NOTE

In case you configure several interfaces, i.e. one for the Xeebra network, one for Internet access to allow access via TeamViewer, make sure to select the correct default gateway.



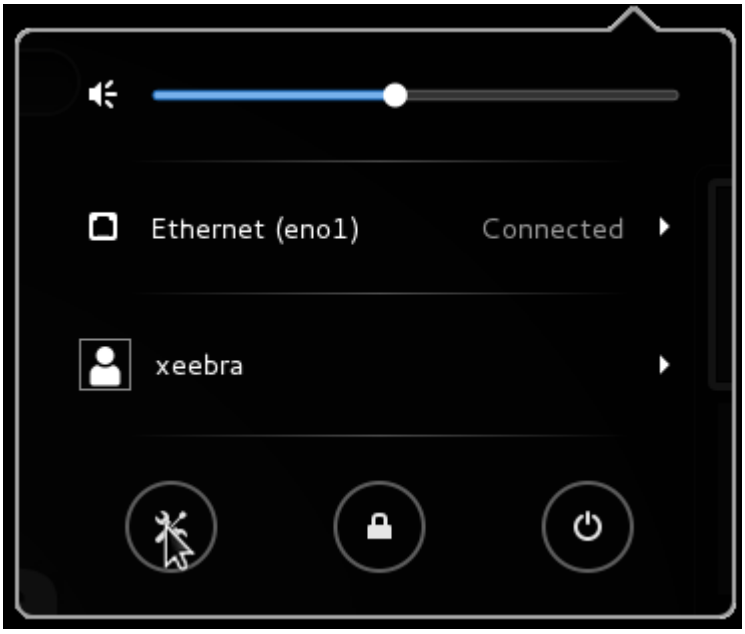
5. In order to apply the settings, the connection needs to be re-activated. Click the **ON/OFF** button to re-activate the connection.



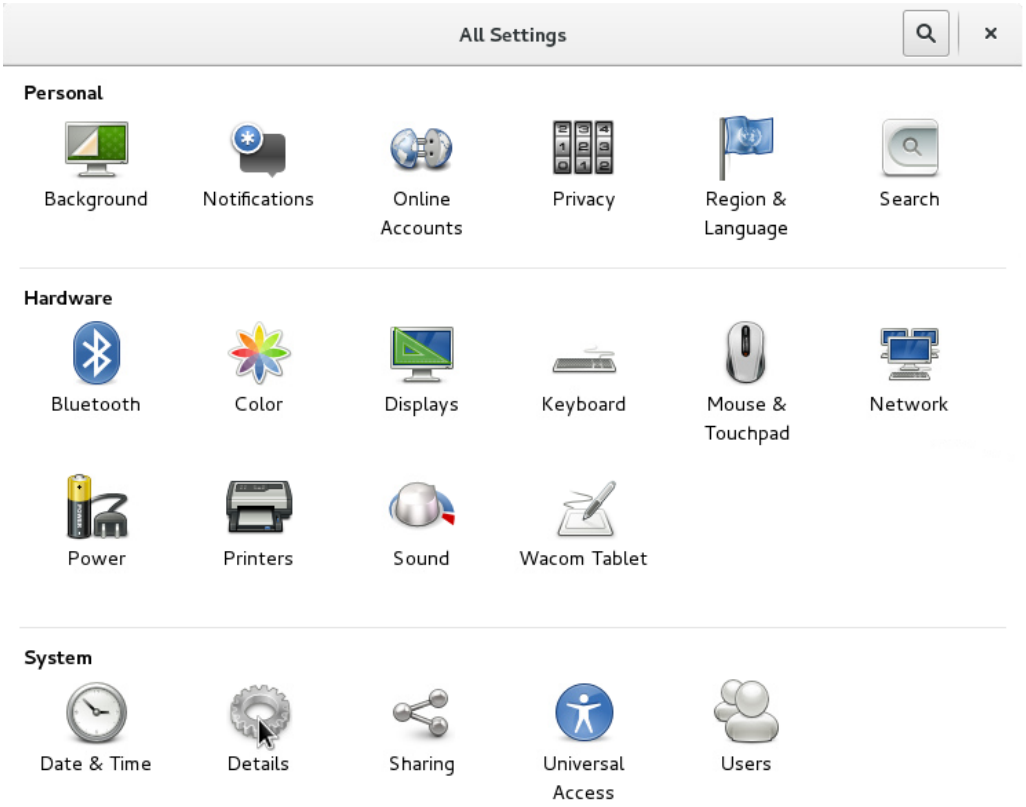
Changing the Hostname

To change the hostname of a Xeebra server, proceed as follows:

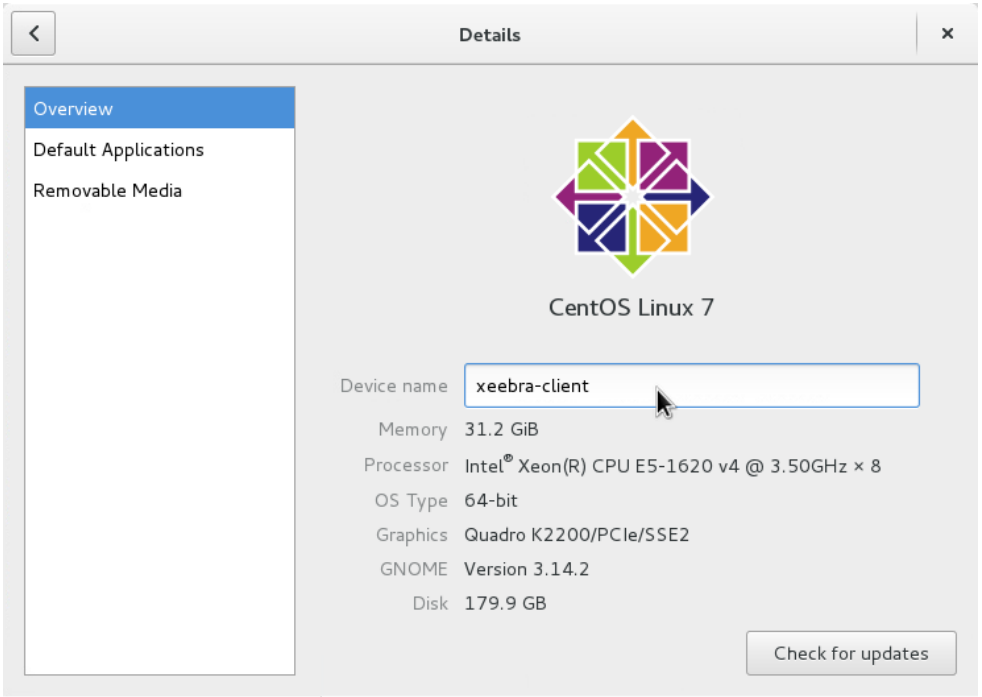
1. Press the Windows key, and click the **Settings** button in the window that appears.



2. Double-click the **Details** icon.



3. Change the hostname in the **Device Name** field.



3.3. Managing the Xeebra Licenses

3.3.1. Licenses List

Licenses must be imported into the License Manager. The list of license available codes is given hereafter.

Application	Module	Summary
71 XEEBRA	10 - Xeebra Server	Enables the Ingest service.
	20 - Xeebra Client and Export	Enables the Client and Export application.
	30 - Xeebra Super Motion Ingest	Enables SLSM 3x ingest.
NEW !	40 - Xeebra Offside Line	Enables the Offside Line Module.

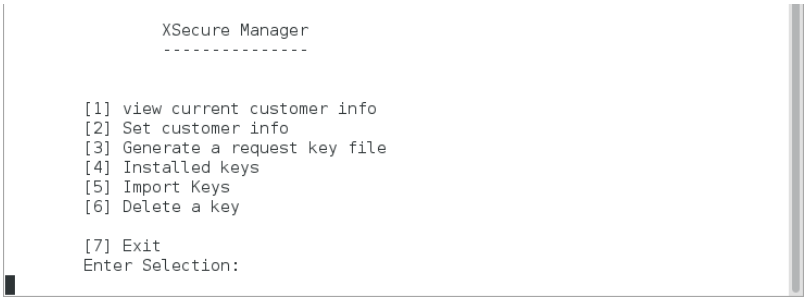
3.3.2. License Manager

Overview

The License Manager allows you to request and activate the necessary Xeebra license keys. Double-click the License Manager shortcut on your server or client workstation desktop to open the application in a terminal window.

The following system information is displayed: computer name, server serial number, customer information (company name, first and last name, email, phone), global expiry date, computer description, and a list of installed license keys. If no license keys have been installed yet, this list will be empty.

A list of options is also offered to you.



To exit the application again, type **7** and press **ENTER**.

Setting and Viewing the Customer Information

Setting the Customer Information

When you start the License Manager for the first time, the customer information will be empty. To set the customer information, proceed as follows:

1. Type **2** (Set Customer Info) and press **ENTER**.
2. Enter the following information:
   - Company Name
   - First Name
   - Last Name
   - Email Address
   - Phone

   The following fields are automatically completed
   - Serial Number
   - Computer Description

   Press **ENTER** each time you have entered a value.

   You are informed that the customer info is successfully saved.
3. Press **ENTER** again to return to the main menu.

Viewing the Customer Information

To view the customer information you just entered, type **1** (View Current Customer Information) and press **ENTER**.

Requesting and Importing a License Key

Requesting a License Key

To request a license key, proceed as follows:

1. Type **3** (Generate a Request Key File) and press **ENTER**.

   A request license key file is generated on the desktop. The naming convention for the file is: `hostname_ID_SystemID.xml`.

2. Send the request key file to the EVS Support.

Importing a License Key

To import a license key, proceed as follows:

1. Type **5** (Import Keys) and press **ENTER**.
2. Drag and drop the license key into the terminal.

   The full file path of the license key will appear in the terminal.

3. Press **ENTER** to continue.

   After importing the key, a message is displayed: 'xx out of xx keys imported'.

To view the already installed license keys, type **5** (Installed Keys) and press **ENTER**.

NOTE

When you have imported a 10 - Xeebra Server license, you need to restart all Xeebra services using the Reset script.

Deleting a License Key

To delete an installed license key, proceed as follows:

1. Type **6** (Delete a Key) and press **ENTER**.

   You get a numbered list of all the installed keys.

2. Enter the full key string of the key you wish to delete and press **ENTER**.

   The key is deleted and a message is shown: 'Key deleted'.

3.4. Mapping the Touchscreens

3.4.1. Rationale

In case you will be working with two touchscreen monitors, you first need to "map" them. This means that you will have to make sure that the touch gestures you perform on a particular half of one of your monitors, e.g. selecting an element, actually take effect on that half, and not on the same half of the other monitor.

If you do not map your touchscreen monitors, and you select an element on the left half of your secondary screen, then an element on the left half of your primary screen will be selected instead. If you select an element on the right half of your primary screen, then an element on the right half of your secondary screen will be selected instead.

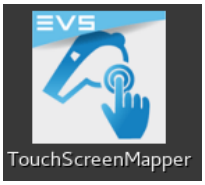
This mapping has to be performed each time:

- one of your monitors is unplugged and plugged again;
- a Xeebra server is rebooted;
- the order of the screens is changed.

In case you have only one touchscreen monitor, the mapping is automatically performed.

3.4.2. Touchscreen Mapper

The Touchscreen Mapper tool allows you to map the touch gestures. It should only be used in case you will be working with two touchscreen monitors. It has a shortcut on the server or client workstation desktop.

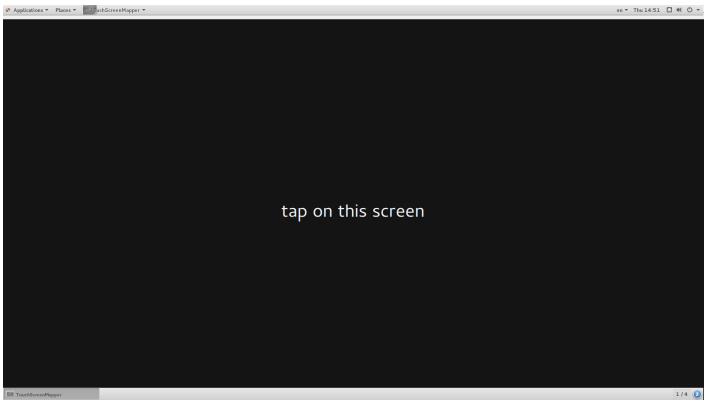


3.4.3. Procedure

To map your touchscreens, proceed as follows:

1. Double-tap or double-click the TouchScreenMapper shortcut on your server or client workstation desktop.

   You are prompted to tap your main screen.



2. Tap your main screen to start the mapping.

   You are notified when your screens have been successfully mapped.

3.5. Synchronizing the Time of the Xeebra Servers

3.5.1. Introduction

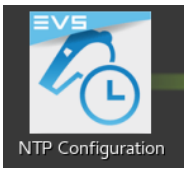
In Xeebra, synchronization is achieved by time stamping every image ingested in the server. When two images are ingested on two different servers at the same time, they must have the same timestamp. This is achieved by synchronizing the time of all the Xeebra servers and clients by a protocol called NTP (Network Time Protocol).

The NTP Configuration tool allows you to configure one of your servers as NTP server and all the other servers and clients in the same network as NTP client. The NTP server will function as time reference point for the other Xeebra servers and clients, i.e. their time will be synchronized with the time of the NTP server.

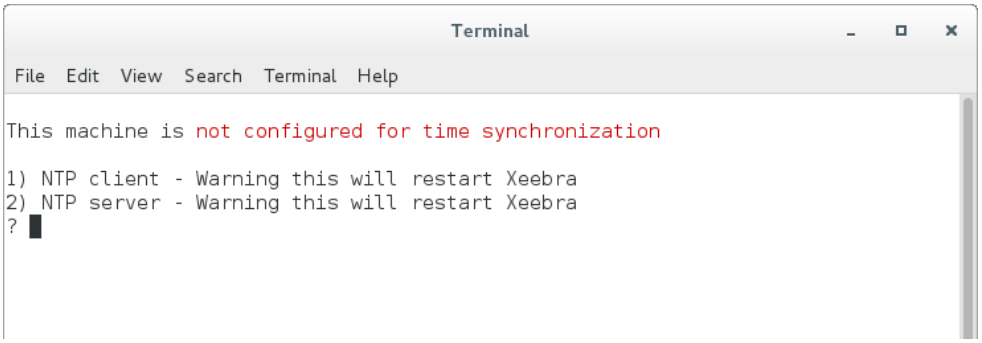
3.5.2. Configuring the NTP Server

To configure one of your Xeebra servers as NTP server, proceed as follows:

1. Configure the time on the server that will function as NTP server.
2. Double-click the NTP Configuration shortcut on your desktop.



The NTP Configuration script opens in a terminal window. If the server has not been configured yet as NTP server, the following message will be displayed: 'This machine is not configured for time synchronization'.



3. Enter **2** and press **ENTER**.

   The Xeebra services are stopped, the Time Service is installed and the Xeebra services are restarted again.

   You are prompted to clear all tracks.

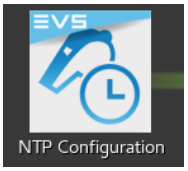
4. Press **ENTER** to continue.

   Information is displayed about the synchronization status of the server, e.g. UTC reference time, number of seconds slow of the UTC time, etc. You also get the confirmation that the server is configured as time server now.

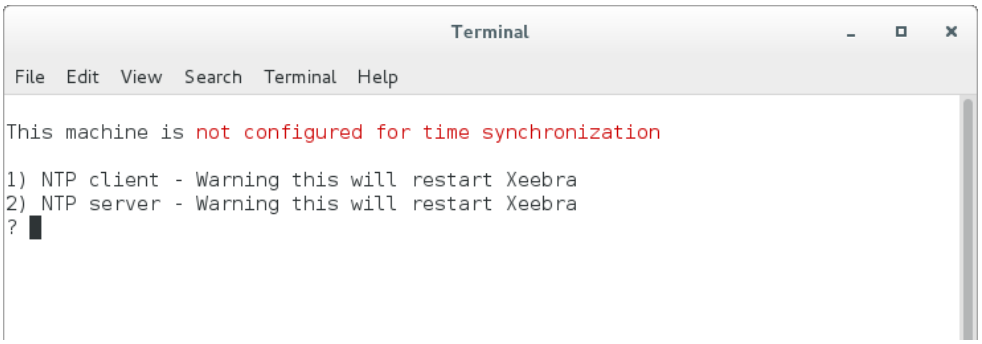
3.5.3. Configuring an NTP Client

To configure one of your servers a NTP client, proceed as follows:

1. Double-click the NTP Configuration shortcut on your desktop.



   The NTP Configuration script opens in a terminal window. If the server has not been configured yet as NTP client, the following message will be displayed: 'This machine is not configured for time synchronization'.



2. Enter **1** and press **ENTER**.
3. Enter the IP address of the NTP server you want to use as reference point and press **ENTER** to continue.

   The Xeebra services are stopped, the Time Service is installed and the Xeebra services are restarted again.

   You are prompted to clear all tracks.
4. Press **ENTER** to continue.

   Information is displayed about the synchronization status of the server, e.g. synchronization with the NTP server, UTC reference time, etc. You also get the confirmation that the server is configured to use a time server now.

When you start the ingest on a server, there is a check to see if there are frames existing on the storage in the future. If there are any, the ingest will not start and a message is shown: 'Ingest could not start, a time stamp in the future exists on the storage. Please clear all tracks'.

3.6. Customizing the BEPlay Remote Controls

NEW ! It is possible to change the default action assignation of the white BEPlay buttons (operational block 2 and 3) by modifying the `remoteConfig.json` file in the `/home/xeebra/bin/` directory.

The configuration file consists of two parts.

The first part lists the names of the available buttons and the actions that can be assigned to each button.

The available buttons are:

TOP_1	BOTTOM_4
TOP_2	BOTTOM_5
TOP_3	LEFT_1
TOP_4	LEFT_2
TOP_5	LEFT_3
BOTTOM_1	LEFT_4
BOTTOM_2	LEFT_5
BOTTOM_3	

The available actions are:

MARK	MARK_LIVE
DELETE_EVENT	IN
OUT	SAVE_EVENT
PLAY_PAUSE	GO_TO_LAST_EVENT
PREVIOUS_CAMERA	NEXT_CAMERA
LIVE_GO_TO_HOME	LIVE_KEEP_CAMERAS
GO_TO_HOME	NEXT_PRESET_ON_MAIN_SCREEN
NEXT_PRESET_ON_SECOND_SCREEN	TAKE_ON_SECOND_SCREEN
TAKE_ON_MAIN_SCREEN	PAUSE
MINUS_10_SECONDS	MINUS_ONE_FIELD
PLUS_ONE_FIELD	MINUS_TEN_FIELDS
MINUS_ONE_THIRD_FIELD	PLUS_ONE_THIRD_FIELD
PLUS_TEN_FIELDS	LOOP
PLAY_16_PERCENT	PLAY_25_PERCENT
PLAY_33_PERCENT	PLAY_50_PERCENT
PLAY_100_PERCENT	PLAY_200_PERCENT
PLAY_300_PERCENT	PLAY_500_PERCENT
PLAY_800_PERCENT	PLAY_1600_PERCENT
PLAY_MINUS_16_PERCENT	PLAY_MINUS_25_PERCENT
PLAY_MINUS_33_PERCENT	PLAY_MINUS_50_PERCENT
PLAY_MINUS_100_PERCENT	PLAY_MINUS_200_PERCENT
PLAY_MINUS_300_PERCENT	PLAY_MINUS_500_PERCENT
PLAY_MINUS_800_PERCENT	PLAY_MINUS_1600_PERCENT
SHOW_HIDE_OVERLAY_CAM	SHOW_HIDE_TIMECODE
SHOW_HIDE_EVENT_LIST	SHOW_HIDE_VIDEO_BROWSING
LOAD_PRESET_1_ON_MAIN	LOAD_PRESET_2_ON_MAIN
LOAD_PRESET_3_ON_MAIN	LOAD_PRESET_4_ON_MAIN
LOAD_PRESET_5_ON_MAIN	LOAD_PRESET_6_ON_MAIN
LOAD_PRESET_7_ON_MAIN	LOAD_PRESET_8_ON_MAIN
LOAD_PRESET_1_ON_SECONDARY	LOAD_PRESET_2_ON_SECONDARY
LOAD_PRESET_3_ON_SECONDARY	LOAD_PRESET_4_ON_SECONDARY
LOAD_PRESET_5_ON_SECONDARY	LOAD_PRESET_6_ON_SECONDARY
LOAD_PRESET_7_ON_SECONDARY	LOAD_PRESET_8_ON_SECONDARY

The second part contains the configuration of each button. The configuration file contains a section for each button. Each section contains three fields:

- **key:** Name of the button.
- **press:**Name of the action that gets executed when pressing the button.
- **shift**: Name of the action that gets executed when pressing the button in combination with the SHIFT button.

Example of the default configuration for the Live button:

{

"key": "BOTTOM_5",

"press": "LIVE_GO_TO_HOME",

"shift": "LIVE_KEEP_CAMERAS"

}

NOTE

The configuration file is read at startup. Changes while the Client application is running will be taken into account at the next restart.

NOTE

To reset the buttons to their default assignation, you can delete the `remoteConfig.json` file. Xeebra will automatically regenerate it at the next Client application restart.

WARNING

If the format of the configuration file is not valid, a warning message will appear at the startup of the Client application: 'Invalid format for BEPlay configuration file. Please correct the file and restart Xeebra client.

4. Upgrading the System

4.1. Installing a New Image

4.1.1. Prerequisites

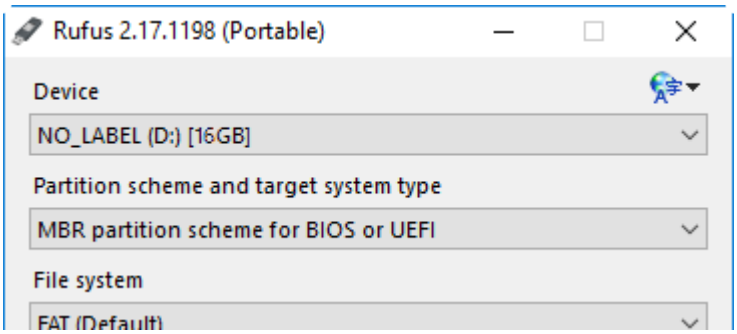
To be able to install a new Xeebra image, the following prerequisites should be fulfilled:

- a Xeebra hardware with RAID (XEE-2U-4 or PMX-2U-4)
- an EVS network connection (with DHCP)
- a good quality USB drive 8 GB or higher

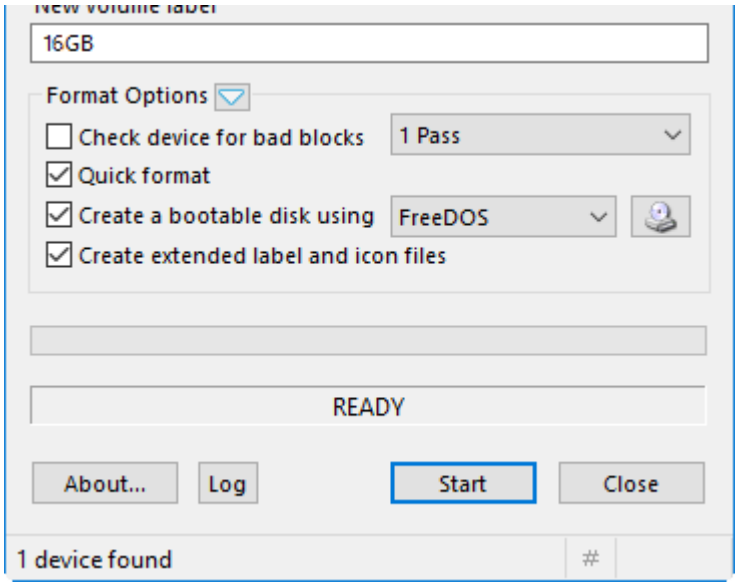
4.1.2. Preparing the USB Drive

NEW !

1. Connect an USB drive to a Windows 7/10 machine.
2. Launch the Rufus utility using the following link:
   `https://rufus.akeo.ie/downloads/rufus-2.xp.exe`.
3. In the **Device** field, select the appropriate USB drive.

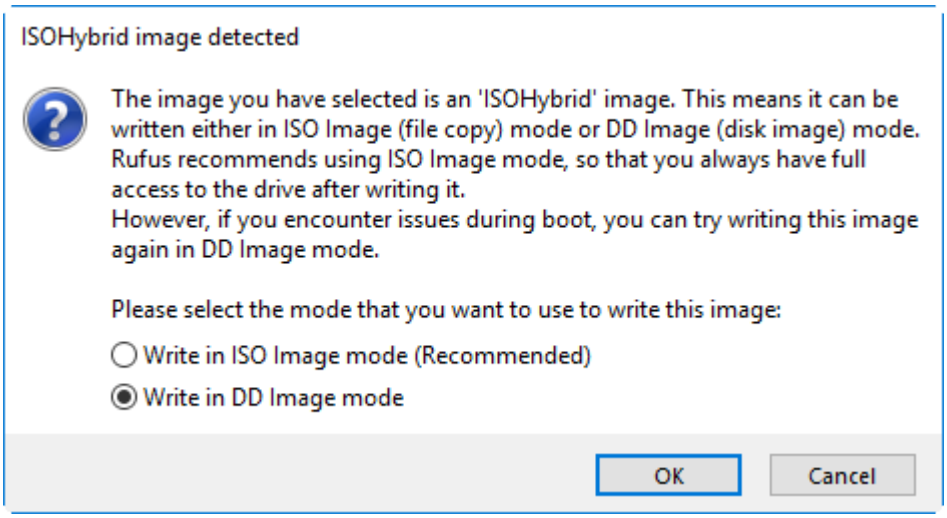


4. Click the **Click to Select an Image...** button and browse for the Xeebra image file.



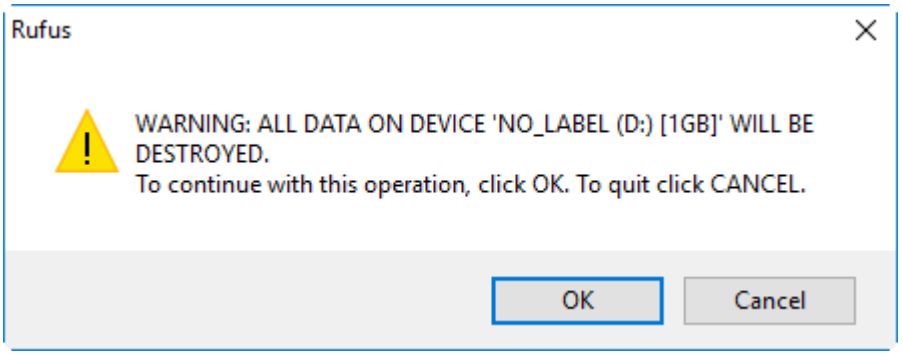
5. Click **Start**.

   You are prompted to select the appropriate write mode.



6. Select the option **Write in DD Image mode** and click **OK**.

   You will be notified that all data already on the USB drive will be overwritten.



7. Click **OK** to continue.

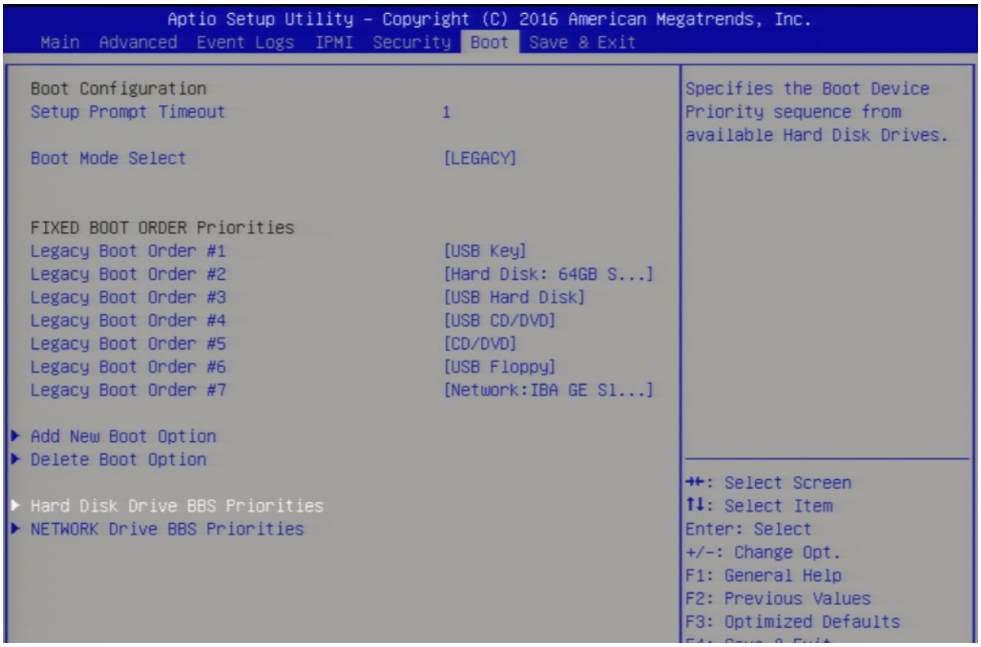
   Wait until the Xeebra ISO file has been completely written to the USB drive.

4.1.3. Changing the Boot Order

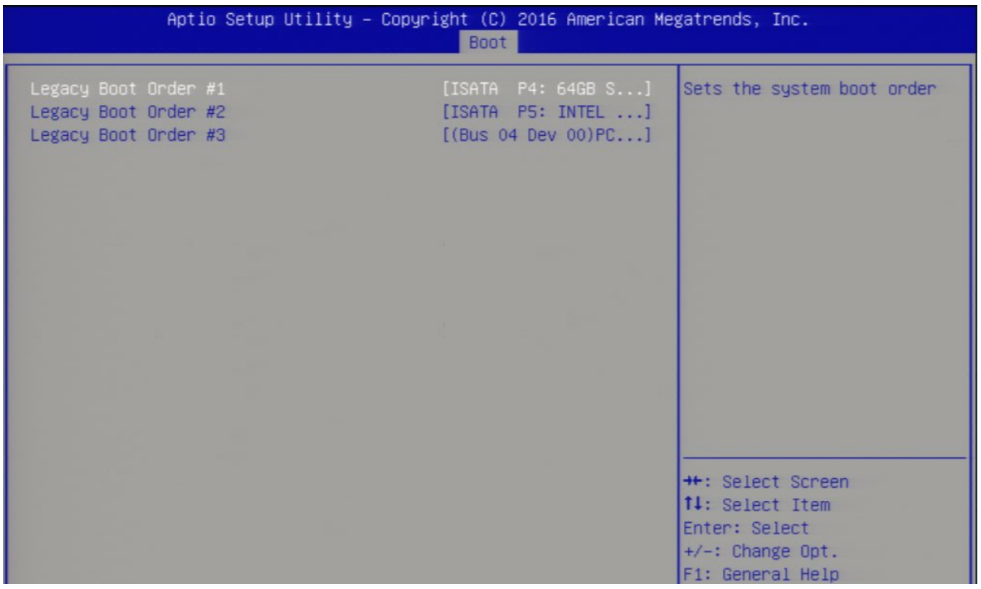
To be able to boot a Xeebra server or client workstation from your USB drive, you need to change the boot order in the BIOS settings. To do this, proceed as follows:

1. Start up your Xeebra server or Xeebra client workstation.
2. Press the **DELETE** key to enter the BIOS Setup utility.

   You will enter the Main setup screen.
3. Open the Boot tab.
4. In the **Boot Mode Select** field, select the option **LEGACY**.
5. In the Fixed Boot Order Priorities area, set up the boot order as follows:
   - Legacy Boot Order #1 [USB KEY]
   - Legacy Boot Order #2 [Hard disk]



6. Select the **Hard Disk Drives BBS Priorities** option and press] **ENTER**.
7. Set the boot order as follows:
   - Legacy Boot Order #1 [ISATA P4: 64 GB SATA Flash]
   - Legacy Boot Order #2 [ISATA P4: INTEL]
   - Legacy Boot Order #3 [Disabled]



NOTE

P5 needs to be the INTEL and P4 needs to be the 64 GB SATA. If it is the other way around, it means the cabling is not correct.

8. Press **F4** to save the settings and exit the BIOS Setup utility.

4.1.4. Installing the Image

NEW !

To install a new image on a server, proceed as follows:

1. Insert your USB drive in the USB slot at the back of the server.
2. Reboot your server.
3. Press **F11** several times to get access to the boot menu.
4. Enter the password for the boot menu: **evsdvb**.
5. Select your USB drive as boot device and press **ENTER**.
6. From the EVS USB Key Clonezilla menu, select the appropriate Ansible install.
7. Press **ENTER** to confirm the Linux CentOS license.
8. Enter the EVS serial number of the machine when asked for.

   The serial number should be formatted as follows: 'Axxxxxx'.

WARNING

Your keyboard is in Qwerty Mode at this stage.

The server will reboot and automatically move to the next steps.

It takes approximately two and a half hours before the installation is finished.

5. Support

5.1. Resetting Xeebra

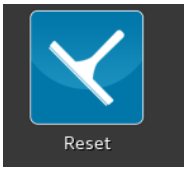
Use Cases

If your Xeebra system has crashed and you can no longer restart it, or if you have imported new license keys and you want them to take effect, you will have to reset your Xeebra system making use of the Reset script.

Reset Script

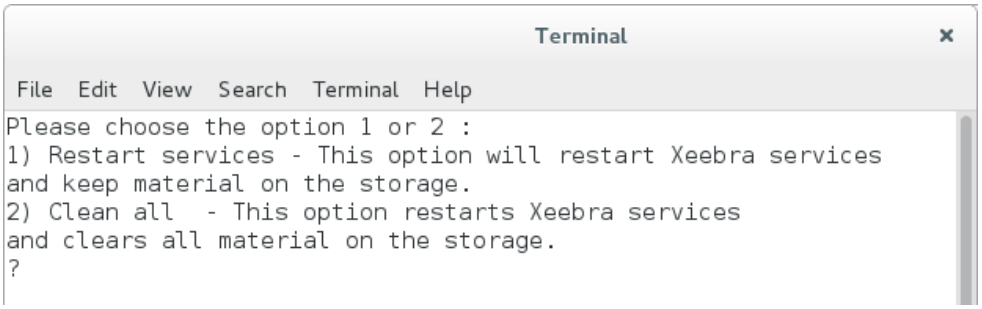
The Reset script is a script that stops and restarts the Xeebra services. It also cleans the video content stored on the Xeebra server if requested by the user.

To open the script, double-click the **Reset** shortcut on your Xeebra server desktop.



The script contains two options:

1. **Restart Services:** If you choose this option, the script will restart the Xeebra services and leave the video content stored on the Xeebra server untouched.
2. **Clean All:** If you select this option, the script will restart the Xeebra services, removes all video content stored on the Xeebra server and delete all tracks. The tracks will have to be recreated afterwards.



5.2. Consulting Xeebra System Log Files and Crash Dumps

Log Files Folder

The Xeebra system log files are stored in the following directory: `/var/log/evs`.

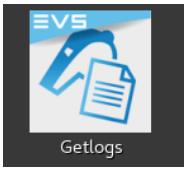
Crash Dump Folder

NEW ! Crash dumps are available in the following directory: `/var/crash/`.

Exporting System Log Files

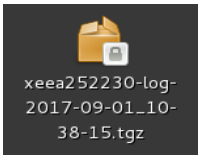
To generate and export the latest Xeebra system log files, proceed as follows:

1. Double-click or double-tap the **GetLogs** icon on your Xeebra server or client workstation desktop.

   A terminal window is opened.

   The various system log files are generated and exported to your desktop in the form of a .tgz file with the following filename format: hostname- log-YYYY-MM-DD_HH-MM-SS.tgz.

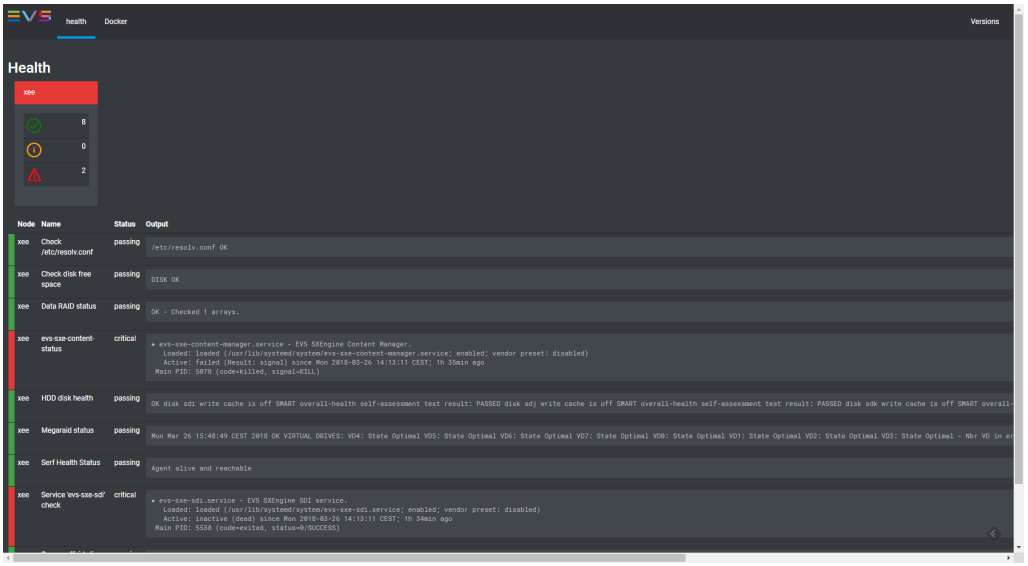
   You get the option to remove or keep all log files.
2. Enter **Y** and press **ENTER** to remove all logs. Enter **N** and press **ENTER** to keep all logs.
3. Tap or click **X** to close the terminal window again.

5.3. Monitoring the Services

NEW ! The monitoring tool can be accessed via the following link: `http://<serverip>:8081`.

Health Page

The Health page displays the status of your Xeebra system.



The following checks are performed:

- **Check /etc/resolv.conf:** It checks if the DNS servers referenced in `/etc/resolv.conf` are accessible. If not, then you should change your `/etc/resolv.conf` (do not suppress it), because having a wrong `/etc/resolv.conf` is known to cause timeouts and can negatively impact the stability of the stack.
- **Check disk free space:** It checks if you have enough disk space. If not, then some files must be deleted, for example crash dumps can fill the `/var/crash` folder and can safely be deleted. For other file systems, it might be needed to ask support from EVS.
- **Data RAID status:** It checks the software RAID. If this check fails, then the RAID is degraded and it is likely that one disk is damaged and it might need to be replaced. It is recommended to take action because if you lose another disk then you will lose the content and the system will not be available.
- **HDD disk health:** It checks the state of the internal disk.
- **Megaraid status:** It check if there is a problem with the LSI megaraid. If there is a problem, please contact EVS support.
- **Serf Health Status:** It checks a low level service. It should always be passing. If not, then you can try to restart it in a Terminal.

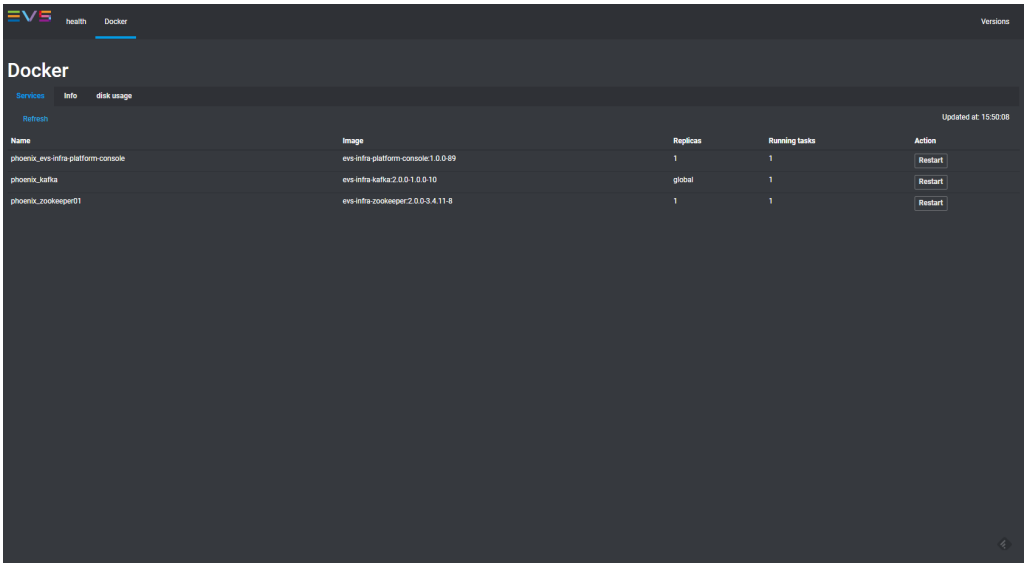
  ```
  sudo systemctl restart consul
  ```

- **evs-sxe-sdi / evs-sxe-content / evs-sxe-playout / evs-sxe-resource status:** It checks the status of these services.
- **Soccer offside line service health:** It checks the status of the offside line service.
- **Thinpool free space:** It checks the space available for the Docker backend storage. If this check is not passing, then please call the EVS support as we might need to either free some spaces or to allocate more disk space.

Docker Page

Services Tab

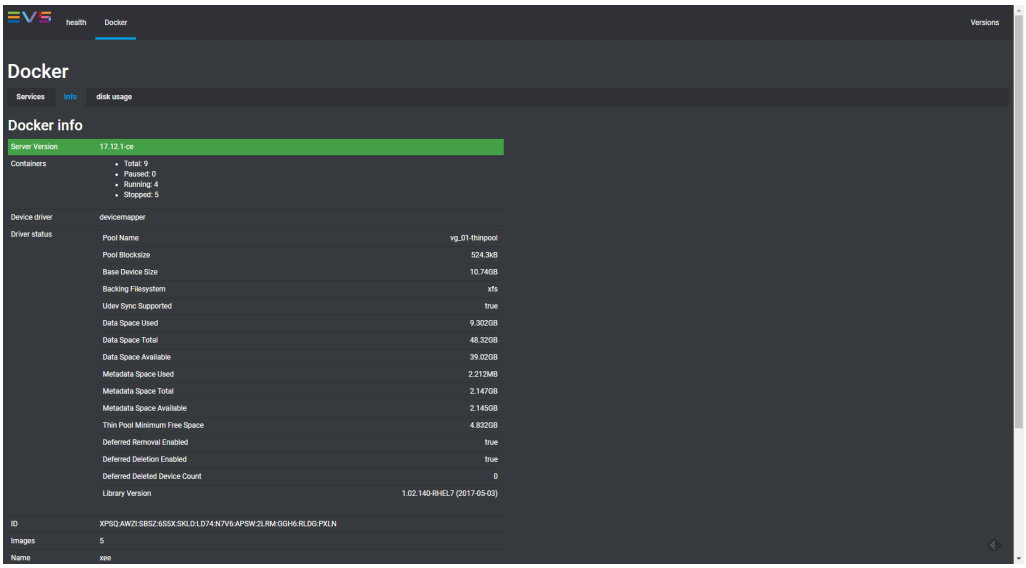
The Services tab displays the docker services (and containers in a next version) that are currently running. With the **Restart** button a service can be re-created.



Note that the platform-console service is the application being documented here, Kafka and zookeeper are infrastructure components.

Info Tab

The Info tab simply shows the outputs of the docker info command. It gives various informations about the version of the docker used, the backend storage, etc.



Disk Usage Tab

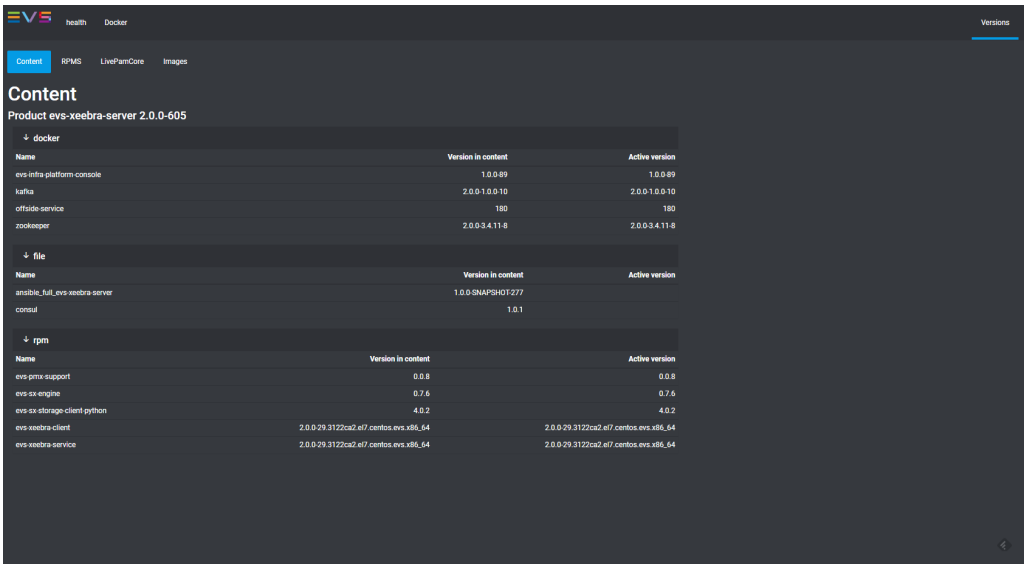
The Disk Usage tab displays information about the various docker images stored on the server. Note that this request can take very long time.

Versions Page

The Versions page gives information about the versions stored on the system.

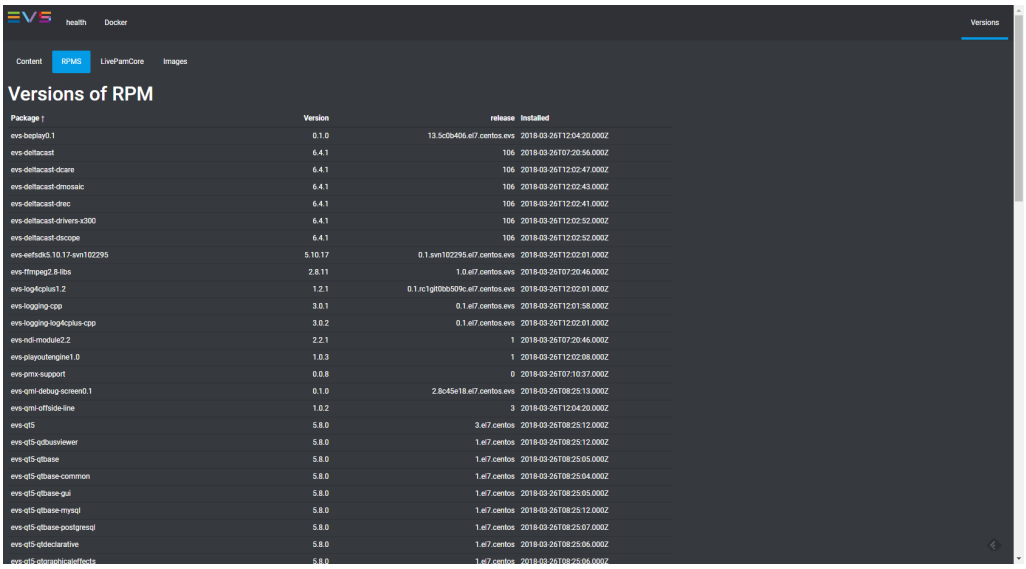
Content Tab

The Content tab shows the file `/etc/evs/versioninfo/content.yml`. It lists the components and their versions that were installed either during the installation or during the last software upgrades.



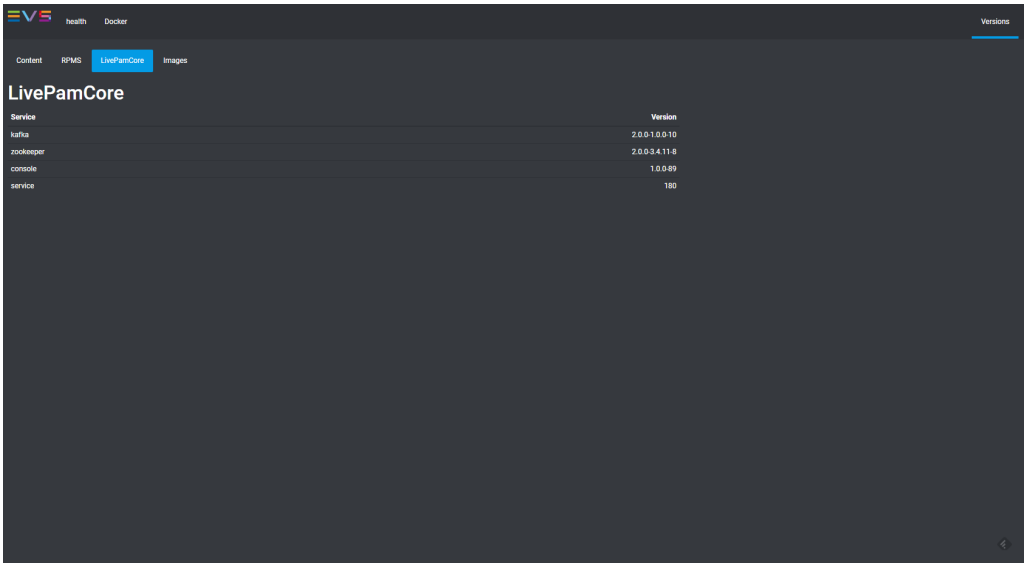
RPMS Tab

The RPMS tab shows the versions installed on the system for the various evs packages (for the components that are delivered as rpms).



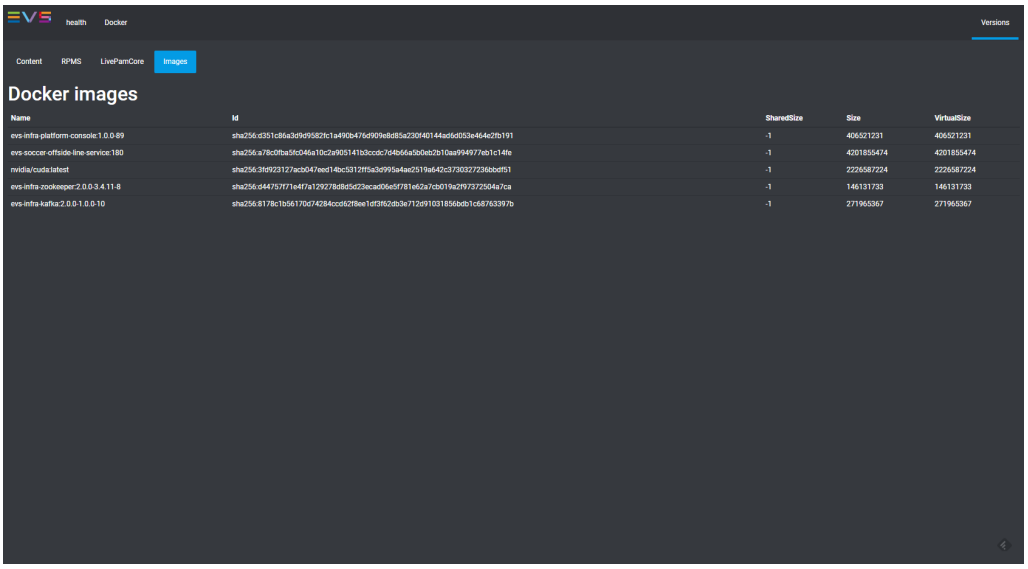
LivePamCore Tab

The LivePamCore tab shows the version of the docker images used in Xeebra (for the components delivered as docker images).



Images Tab

The Images tab lists the docker images installed on the system and their version.



5.4. Monitoring Video Inputs

Using a Terminal Window

To monitor the Deltacast I/O board in case of input issues, you must execute the following commands:

```
cd /var/log/evs/sdi-engine
tail -f deltacast.log
```

Using the Deltacast dCARE Tool

To check the status of the incoming video signals of a particular Xeebra server, you can make use of the DELTACAST dCARE tool. To do this, proceed as follows:

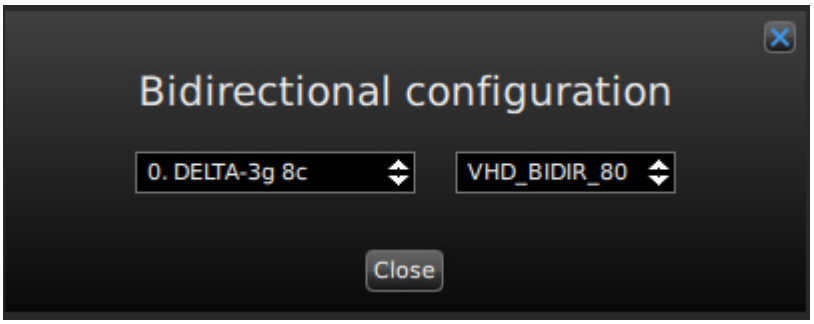
1. Open a Terminal window on the Xeebra server.
2. Stop the evs-sxe-ingest-manager by entering the following command:

   ```
   sudo systemctl stop evs-sxe-ingest-manager
   ```
3. Access the dCARE binaries directory by entering the following command:

   ```
   cd /opt/evs/evs-deltacast/dCARE/bin
   ```
4. Run the dCARE application by entering the following command:

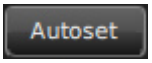
   ```
   ./dCARE
   ```

   The Bidirectional Configuration dialog box opens.

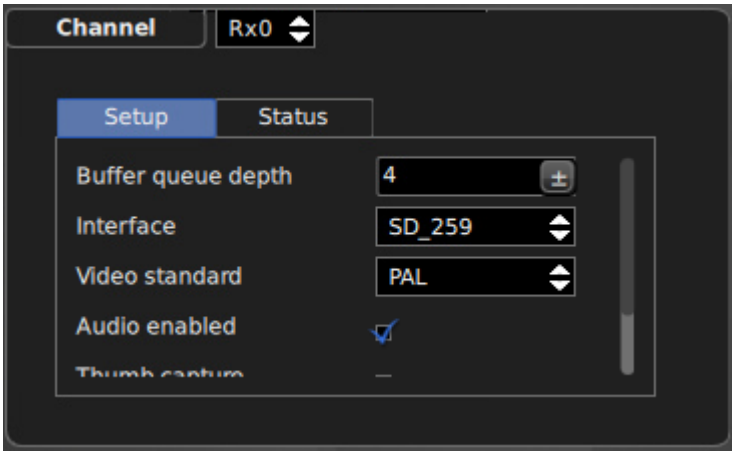


5. Close the dialog box without changing the settings.
6. In the main window of the dCARE application, click the **IO Control** button in the bottom toolbar.

7. In the Channel area to the right, select the appropriate incoming video signal from the drop-down box. For example, select Rx0 for the first incoming signal.
8. Click the **Autoset** button.

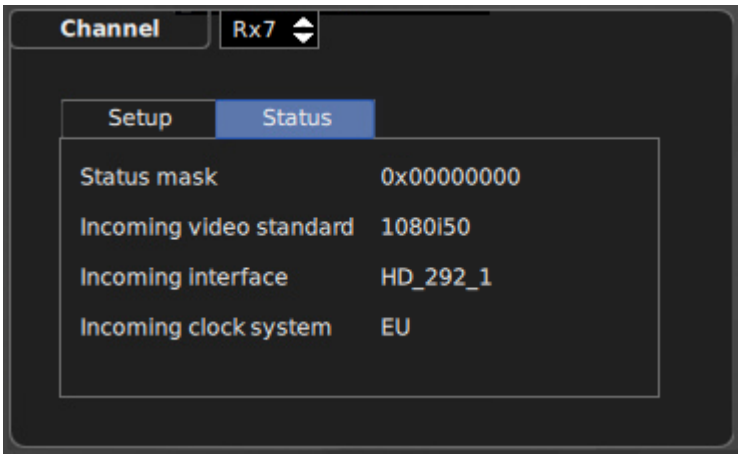


The Setup tab of the Channel area will be updated with the data of the selected incoming signal.



9. Click the **Start** button to see the incoming video signal.

10. Repeat steps 8 and 9 for all other incoming video signals.
11. To check the status of a particular incoming signal, select it from the drop-down list and open the Status tab.



12. Close the dCARE application.
13. Restart the the evs-sxe-ingest-managerby entering the following command:

```
sudo systemctl start evs-sxe-ingest-manager
```

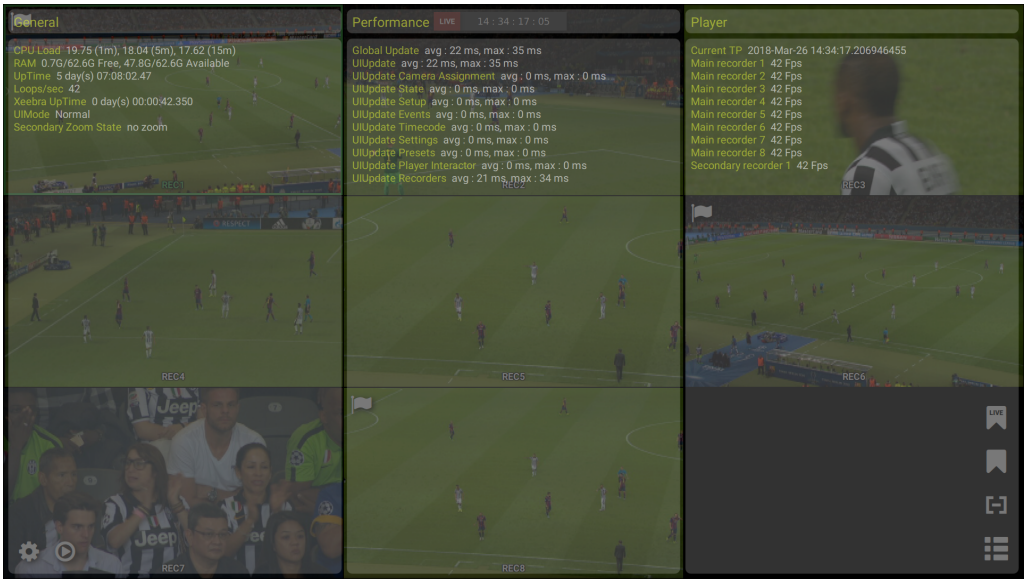
5.5. Monitoring Server Record Tracks

NEW ! To monitor the tracks recording, you must execute the following commands:

```
cd /opt/evs/sx-storage/bin
watch ./GetTrackInfos localhost 11000
```

5.6. Monitoring the Client

NEW ! To access the Client monitoring, press **CTRL + ALT + D**.



5.7. Enabling TeamViewer

To be able to remotely connect to a Xeebra server using TeamViewer, you have to make sure that on the server the TeamViewer daemon is running and the TeamViewer GUI is open.

You can enable and start the TeamViewer daemon using a terminal window. You can open the TeamViewer GUI using the **Applications** menu.

To start the TeamViewer daemon, open a terminal on the server and proceed as follows:

1. To check the status of the TeamViewer daemon, enter the following command:

   ```
   sudo systemctl status teamviewerd
   ```

2. To enable the TeamViewer daemon, enter the following command:

   ```
   sudo systemctl enable teamviewerd
   ```

3. To start the TeamViewer daemon, enter the following command:

   ```
   sudo systemctl start teamviewerd
   ```

In case of connection problems, you can also check if the firewall service is enabled and stop it if needed.

1. To check the status of the firewall service, enter the following command:

   ```
   sudo systemctl status firewalld
   ```

2. To stop the firewall service, enter the following command:

   ```
   sudo systemctl stop firewalld
   ```

5.8. Support & HealthCheck Tool

The Support & HealthCheck tool is a small tool which can be used for the following support tasks:

- to collect the logs from all Xeebra servers and client workstations that are currently connected to the same Xeebra network, and to save them in one central location.
- to detect if the Xeebra system has been set up properly, and to see if there are no issues preventing the system from functioning.
- to shut down the Xeebra Client application of all Xeebra client workstations, and this from any client workstation in the same network.
- to shut down all client workstations and servers in the network in a safe and timely manner.

For more information about how to install, set up and use the Support & HealthCheck tool, see the Xeebra Support Tool application note.

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