



Owl Manager

User Guide

English

SYSTEM REQUIREMENTS

Operating System: Windows XP/Vista/7/8 64-bit

CPU: Intel Pentium Dual Core

Memory: 2 GB

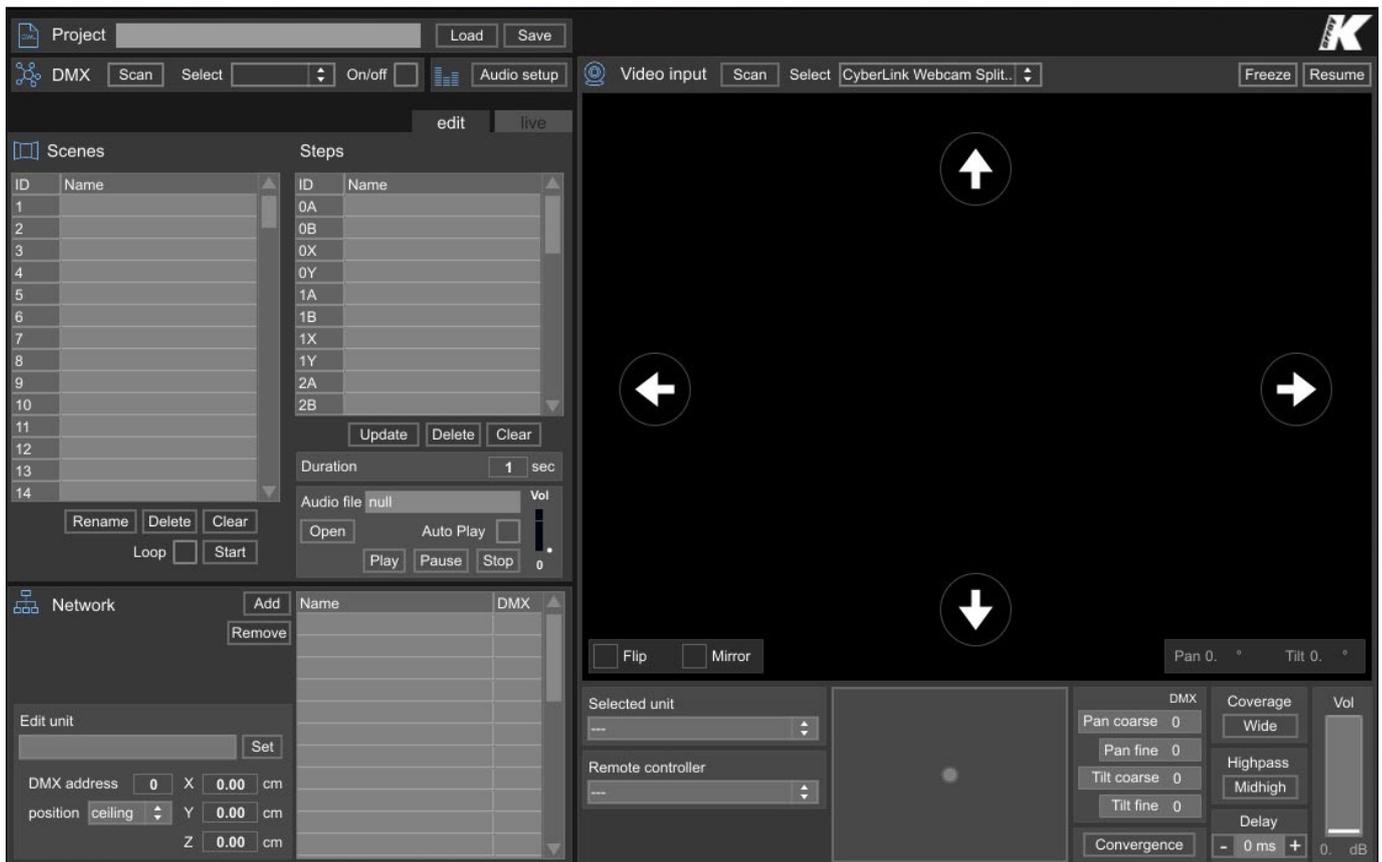
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1. SOFTWARE INSTALLATION AND SET UP

To download your free Owl Manager software, visit the K-array *Software Download* page located at: http://www.k-array.com/software_download

1. Download the latest installer, decompress the .zip file and extract the .exe file.
2. Check all the physical connections (DMX, audio and video) and ensure all KW8 units have different DMX addresses. The DMX address is not an ID number but the first DMX channel that will be recognized by the unit. Given there are 11 DMX channels per unit, setting the first unit with a DMX value of 1 means the second value should have a DMX address of 12, the third 23, the fourth 34 and so on. Refer to Chapters 7-8 of the *KW8 User Guide* for details.
3. Double click on the .exe file to launch the software.



IMPORTANT:

The current version of the Owl Manager is not compatible with the software Team Viewer. If this software is installed on your computer, we recommend closing it before opening the Owl Manager.

1.1 DMX SETTINGS

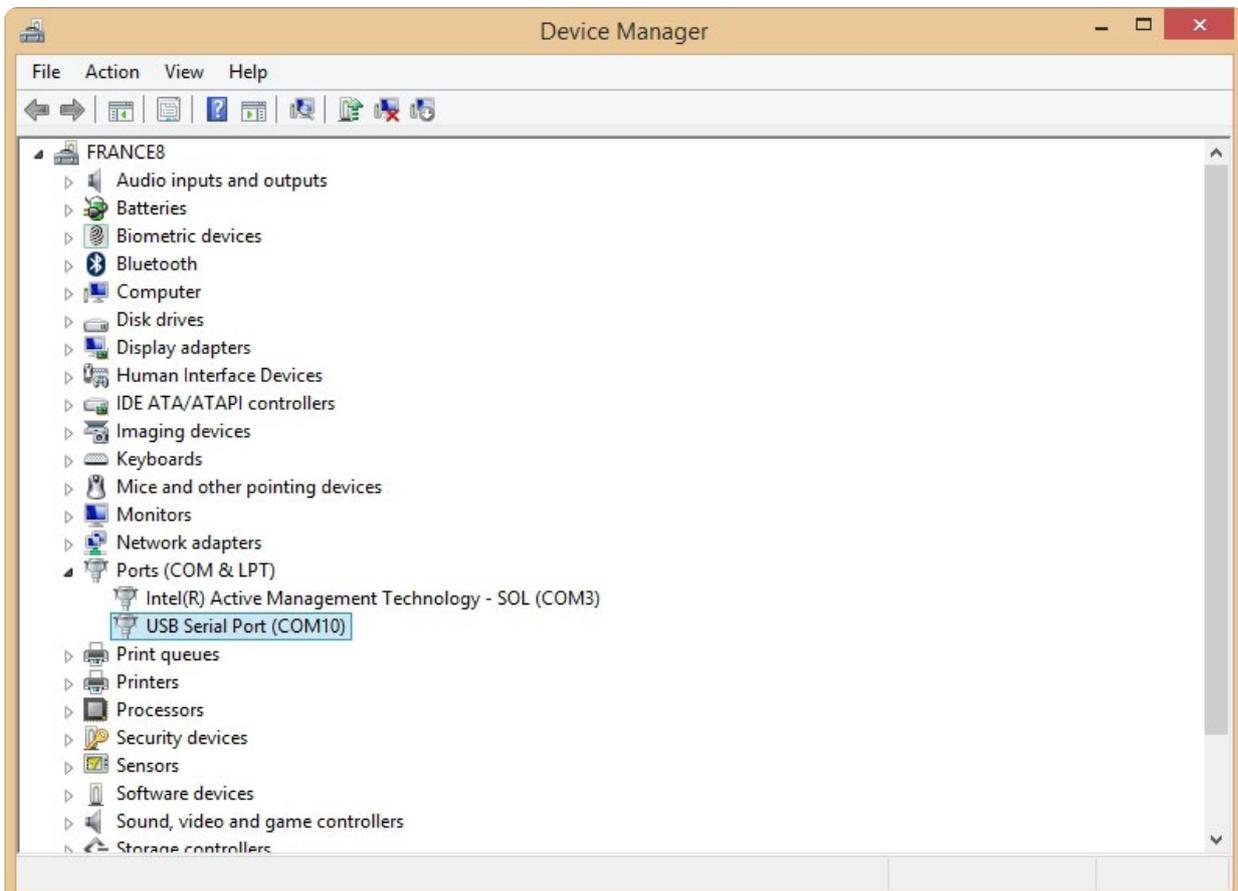
Press the *Scan* button to allow the software analyze the available serial ports on your computer. In the drop-down menu, select the COM port corresponding to the K-USB accessory you are using to send the DMX signal to the devices. Click on the *On/Off* checkbox to enable communication between the software and the devices.



DMX Settings

TIP:

To check the COM port you are using, open the *Control Panel* menu from the *Start* menu or *My Computer*. Select the *Device Manager* from and expand the *Ports* menu. Check the *USB Serial Port* number.



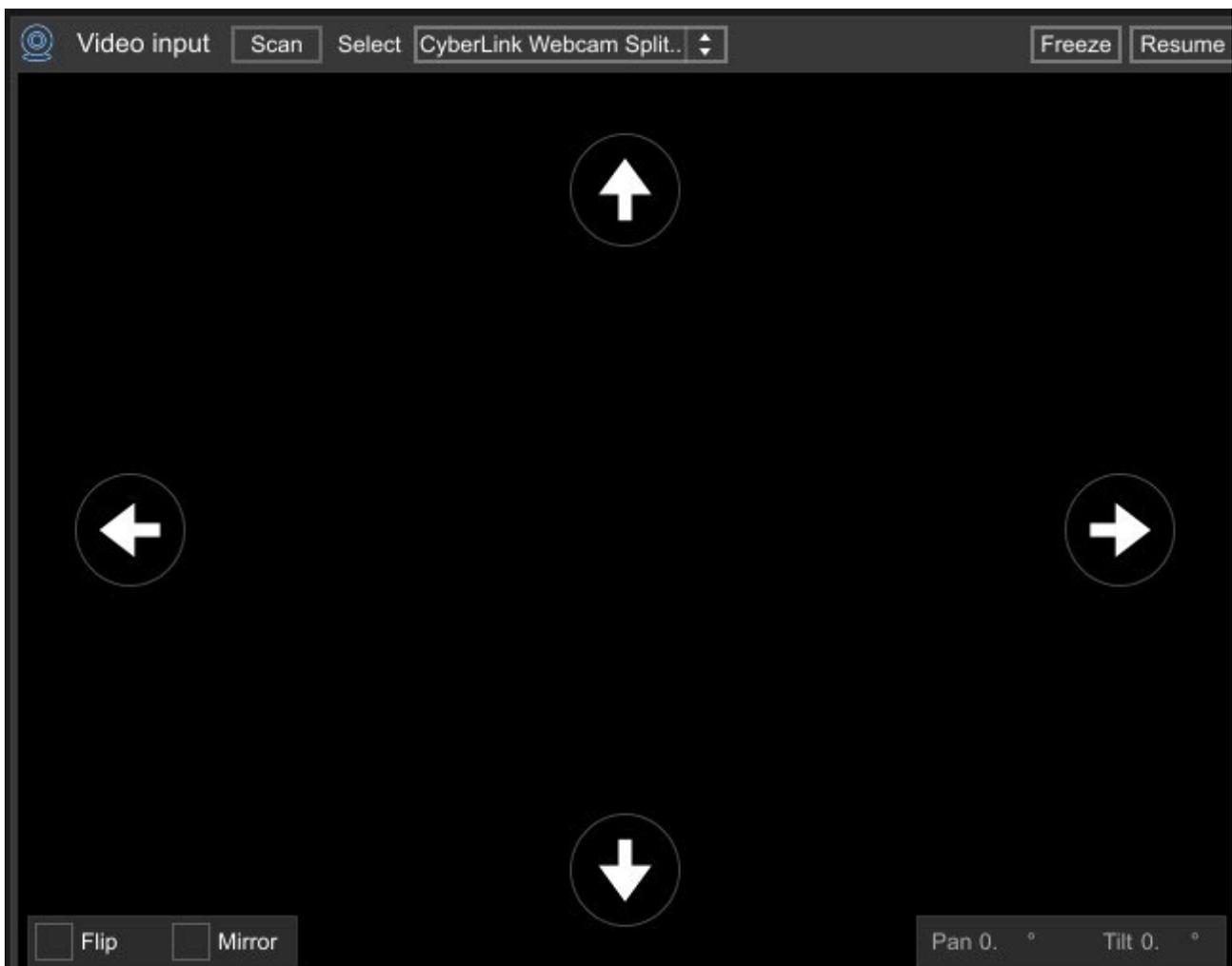
Control Panel -> Device Manger -> Ports

1.2 VIDEO SETTINGS

Press the *Scan* button to allow the software to analyze all the cameras connected to the computer. In the drop-down menu, select the video capture interface you are using to acquire the SDI video signal output of the KW8 (choose *HD-Video Capture* when using the K-USB/SDI video adapter).

The KW8 tilt range is 180° which can sometimes cause the camera to be turned upside down. Users can use the *Flip* and *Mirror* checkboxes to digitally mirror the image vertically (*Flip*) and horizontally (*Mirror*).

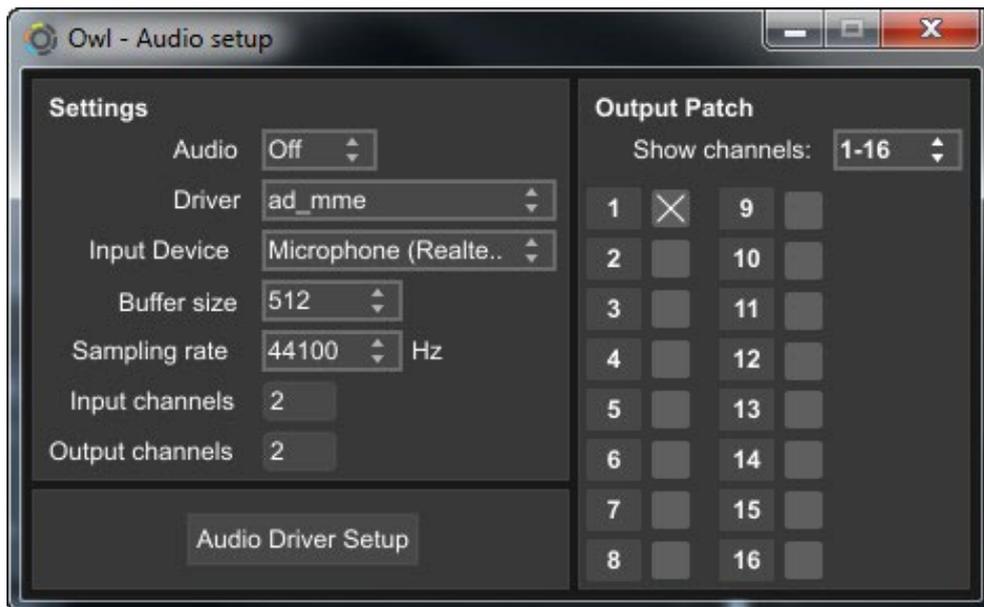
The *Freeze* button halts the software from acquiring video and the last image is frozen on the screen. Press *Resume* to reactivate the acquisition.



1.3 AUDIO SETTINGS

The Owl Manager features the ability to reproduce .wav files (see Paragraph 2.3). To play files loaded onto the software, connect an audio interface to the computer and connect one analog output to the KW8 input (see Chapter 7 of the *KW8 User Guide* for details).

The *Audio Setup* button activates a pop-up window where users can select the audio interface being used and adjust its parameters. In the *Output Patch* section, select the audio interface's output channel used to send the audio signal to the KW8.



2. DMX FUNCTIONS

The Owl Manager features the ability to control the movement and manage audio parameters of the KW8 units connected in the DMX network. First, load the devices into the *Network* window, then enable the DMX data transmission as described in the previous chapter.

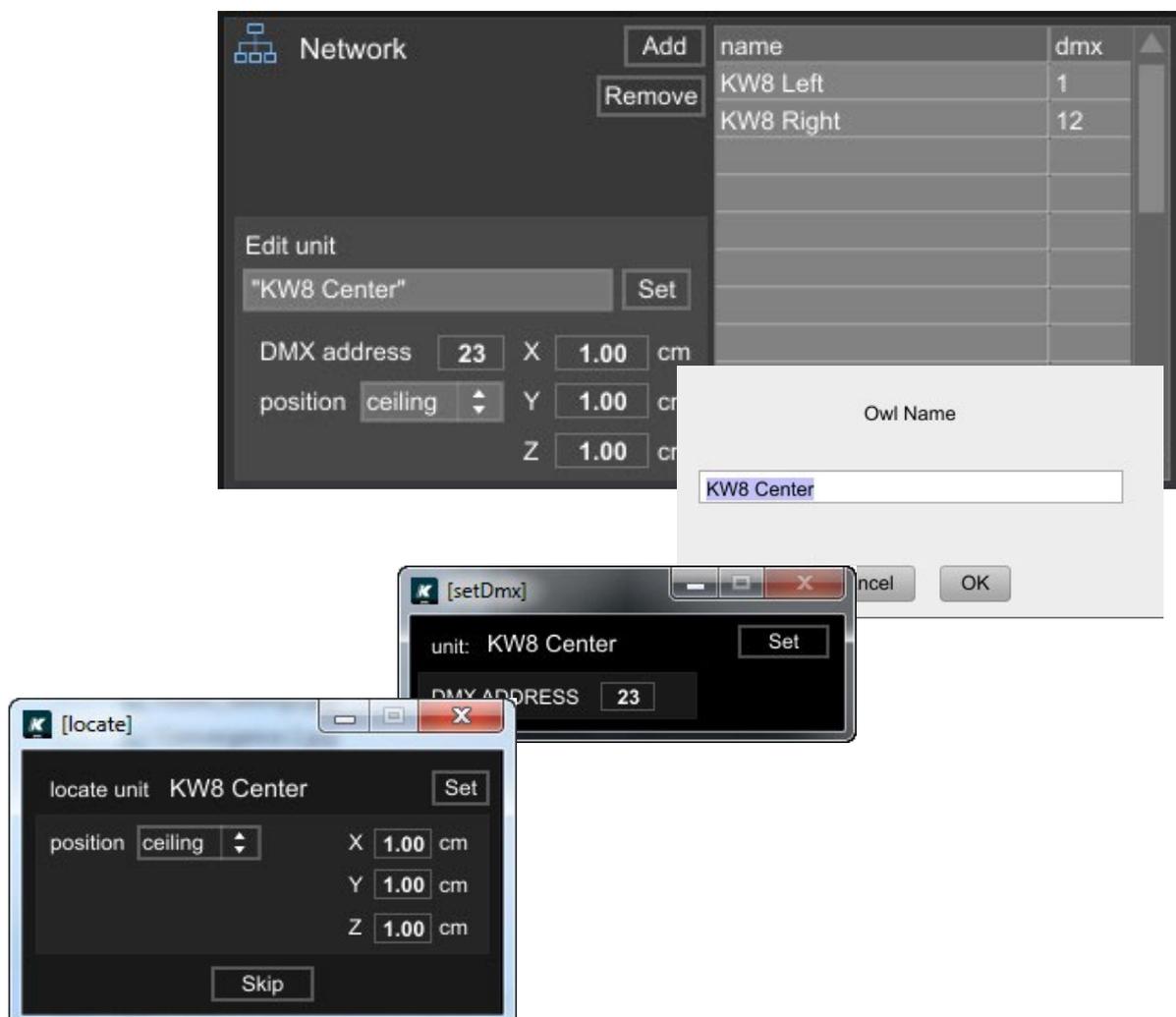
2.1 LOADING THE DEVICES INTO THE NETWORK WINDOW

To control the movement and manage the audio parameters of the KW8 units connected in the DMX network, users must load the devices in the *Network* window. Press the *Add* button, name the device and press *Ok*.

The proceeding pop up window allows users to note the DMX address of the device (refer to the *KW8 User Guide* for setting correct addresses). Press the *Set* button to confirm.

The next pop up window will set the position and the location of the device. This value must be set only if using the *Master-Slave Convergence* function described in Chapter 4. If you do not intend to use this function, select *Skip*. Repeat for all the connected devices.

To remove a device from the list, select the name of the device and press *Remove*. To change the proprieties of a device, select the name of the device and work within the *Edit Unit* section. Press *Set* to save changes.



2.2 MANAGING THE MOVEMENT

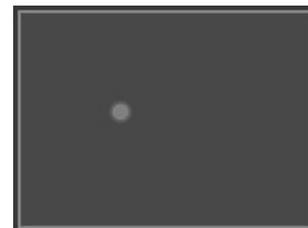
The KW8 can rotate both on the horizontal plane (*Pan*) and on the vertical plane (*Tilt*) with the maximum pan angle at 540° while the maximum tilt angle is 180°.

There are many different ways to control the device's movement through the software. In the *Select* drop-down menu, choose the unit you would like to control then select the tools described below:

- **Manual Input:** The box shown on the right allows you to manually adjust the pan and tilt DMX values. First, set the *Coarse* value to point at your target with a pan resolution of 2.1° and a tilt resolution of 0.7°. Then, set the *Fine* value to make fine adjustments with a pan resolution of 0.008° and a tilt resolution of 0.003°.



- **Graphic Pointer:** Use the mouse to drag the pointer inside the rectangular box. Moving it right/left will cause the pan angle to increase/decrease, while moving it up/down will cause the tilt angle to increase/decrease.



- **Remote Controller:** Users can connect a handheld game controller to the computer to steer the movement of the KW8. Because cannot ensure that all game pad models will work, we recommend using either the Logitech F710 or Logitech F310 which have been tested with the Owl Manager. and proven compatibility. Connect the controller and select within the *Remote Controller* drop-down menu. Moving the joystick or the D-pad right/left will cause the pan angle to increase/decrease, while moving either up/down will cause the tilt angle to increase/decrease.



2.3 MANAGING THE AUDIO PARAMETERS

This section explains how to manage KW8's audio parameters:

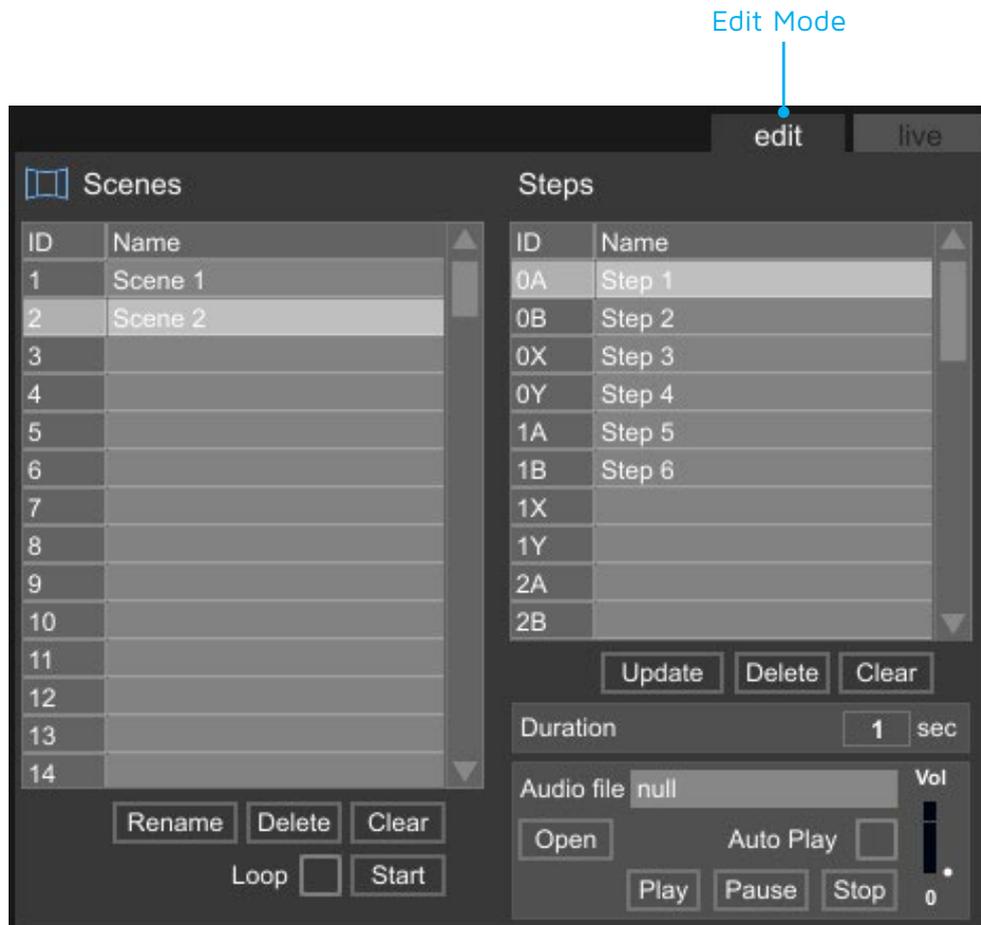
- *Vol*: Adjusts the level of the audio signal.
- *Coverage*: Changes the directivity of the KW8 between *Wide* and *Narrow*.
- *High Pass*: Changes the frequency response of the unit between *Full Range* and *Midhigh* (high pass filter at 150 Hz).
- *Delay*: Allows the input audio signal to be delayed up to 21 milliseconds.



3. CREATION OF SCENES AND STEPS

The Owl Manager allows users to create and manage up to 128 different scenes, each composed of a maximum 40 steps. With several steps, users can create a dynamic scene and reproduce all the steps in the sequence. Users can also assign audio files to the steps.

3.1 EDIT MODE - SCENES CREATION AND REPRODUCTION



- 1) To create a new scene, select a row in the *Scenes* table. When a new scene is created, the first step of the scene is created as well.
- 2) Adjust the position and the audio parameters of all the KW8 units. If you would like to reproduce an audio file, press *Open* and load a .wav file. Press *Play* to preview the audio. Adjust the volume and enable the *Auto Play* function. The audio file will be automatically reproduced when the step is loaded. If you do not enable the *Auto Play* function, the audio file will be loaded together with the step but will not be reproduced until the *Play* button is pressed.
- 3) Set the *Duration* of the step.
- 4) Press *Update* to save all the parameters in the step.
- 5) Create a new step by clicking on a new row in the *Steps* table. Adjust all the parameters, load an audio file if necessary, set the duration of the step and press the *Update* button. Repeat for all the steps in the scene.
- 6) Select a scene and press *Start* to reproduce all its steps in the sequence. Enable the *Loop* function if you would like to reproduce all the steps in loop.

To delete a scene, select it within the *Scenes* table and press *Delete*. To delete all scenes, press *Clear*. To rename a scene, press *Rename*.

To delete a step in a scene, select it within the *Steps* table and press *Delete*. To delete all the steps in a scene, press *Clear*.

3.2 LIVE MODE

In Live Mode, users are able to easily switch between the stored scenes. Select a scene to reproduce all its steps.



4. MASTER-SLAVE CONVERGENCE

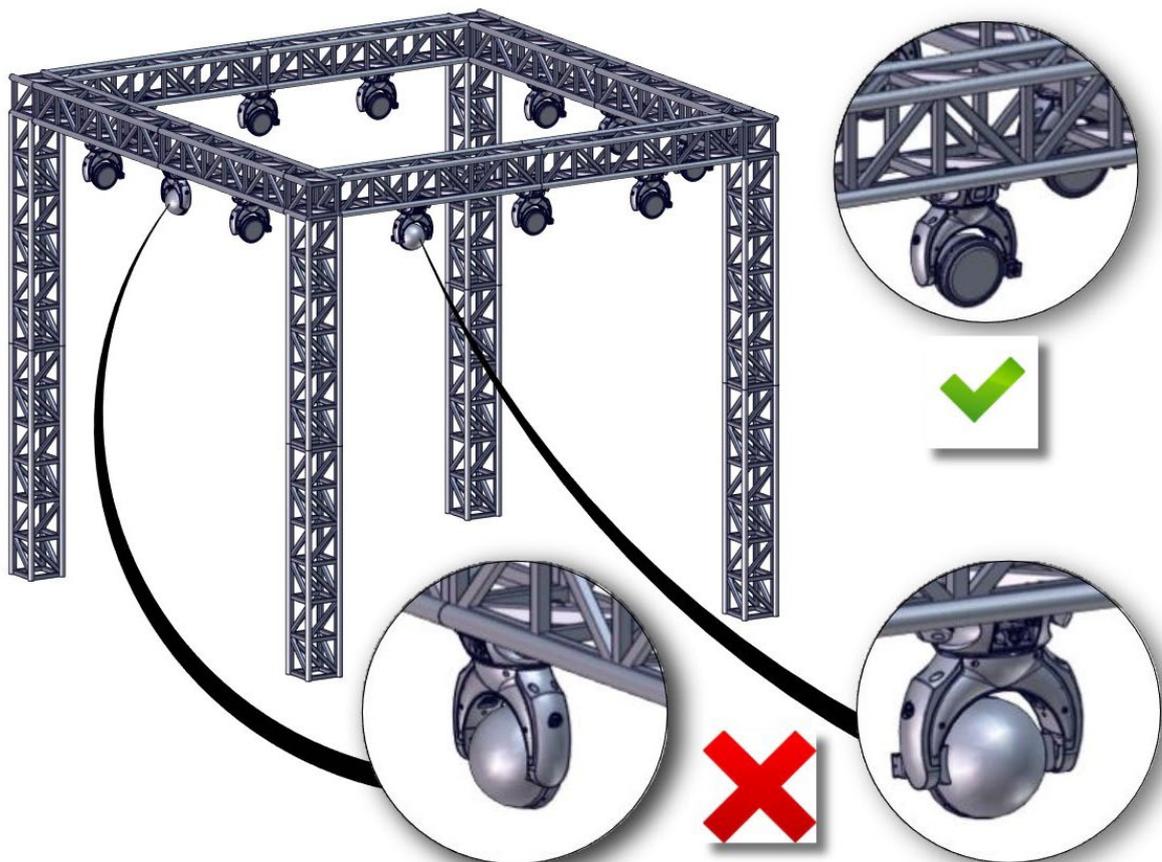
This section explains the most advanced feature of the software. We recommend reading all instructions first in order to get the best results.

The Master-Slave Convergence function allows the user to control one KW8 (Master) while the other units (Slaves) are automatically aimed at the target by the Master. Users can connect the Master KW8 video output to the computer and use that unit to aim the other units.

To do so, the Owl Manager needs to understand the position of the units with reference to an arbitrary origin as well as the height of the Ear Plane, as described in detail in the next pages. Furthermore, all the KW8 Slave units must be installed with the same orientation of the Master, as described below.

4.1 INSTALLATION

If you plan to use the Master-Slave Convergence function, install all the units with the same orientation, i.e. such a way that all their displays are parallel and oriented in the same way. In the picture below, all KW8 units are installed properly except for two units which are oriented in a different way.

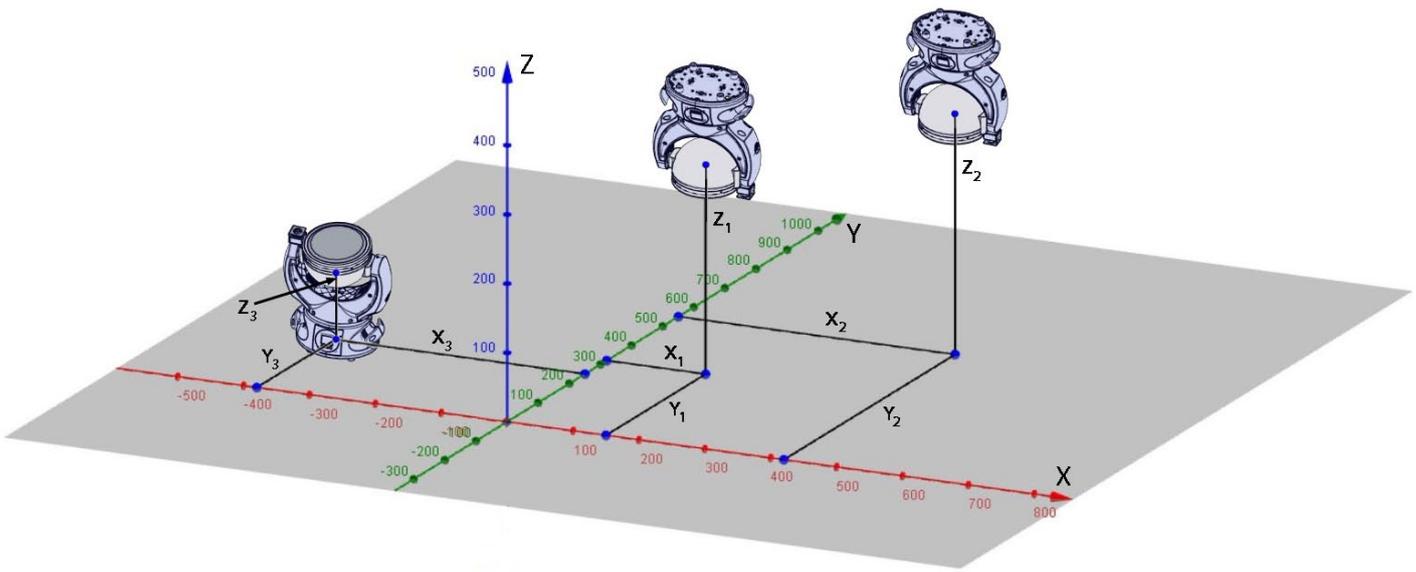


Please note that the KW8 can be either floor-mounted or ceiling-mounted. If you have a mixed installation, make sure that all units have their display in the same direction. This is especially important if you have a ceiling-mounted Master and a floor-mounted Slave or vice versa.

4.2 MEASURING THE POSITION OF THE SPEAKERS

To determine an arbitrary point for the software to reference, choose a point on the floor that will be the origin of the x-y-z axis. Choose the direction of the x-axis so that it is parallel to the KW8's display and has positive values going towards the right if the displays are oriented as shown in the picture below. In this example, the coordinate x_3 of the floor-mounted KW8 is negative.

Please note, the point which corresponds to the coordinates (in centimeters) meets the center of the transducer, as shown in the picture below.

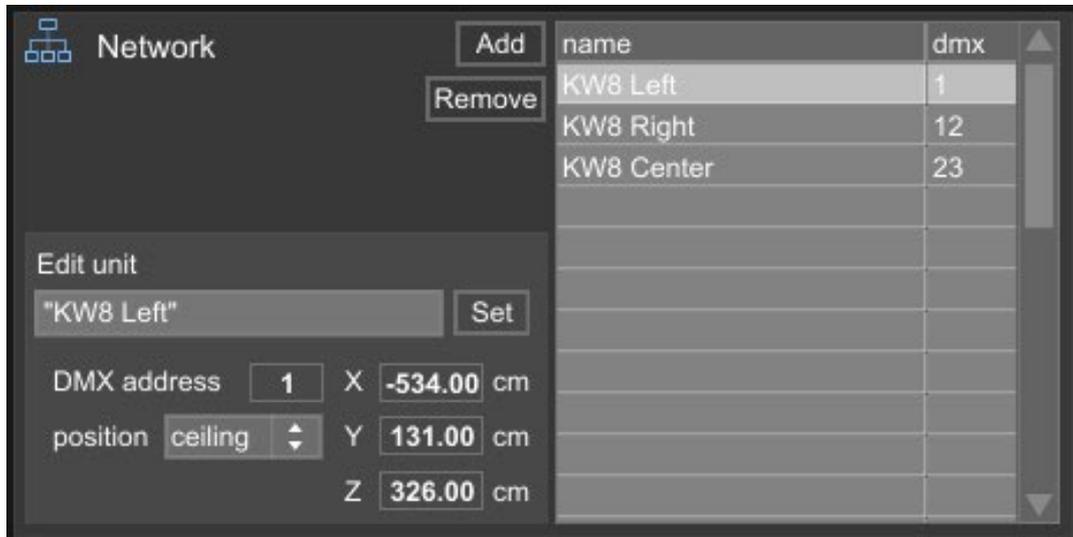


4.3 DEFINING THE LISTENER HEIGHT

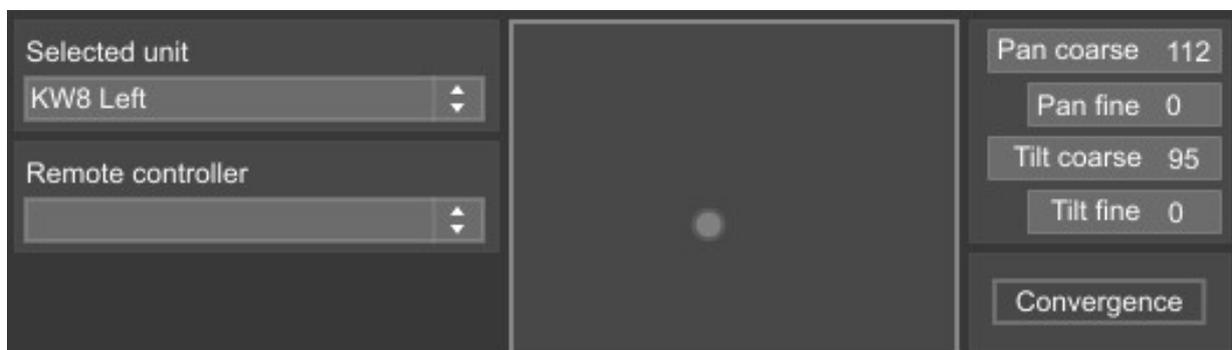
Users will see what is being captured by the Master KW8 on the screen. The direction of its focus intersecting with the Ear Plane is the Target Point, the point at which the Slave devices will be aimed when the *Convergence* function is enabled. For this reason, it is important for the Owl Manager to know the height of the Ear Plane, or *Listener Height*, which will vary depending on intall needs. For example, the typical average value is 170 cm for a standing audience and 120 cm for a sitting audience. Ensure to not set a *Listener Height* which is higher than the z-coordinate of a ceiling-mounted KW8 or lower than a floor-mounted KW8.

4.4 CONVERGENCE PROCEDURE

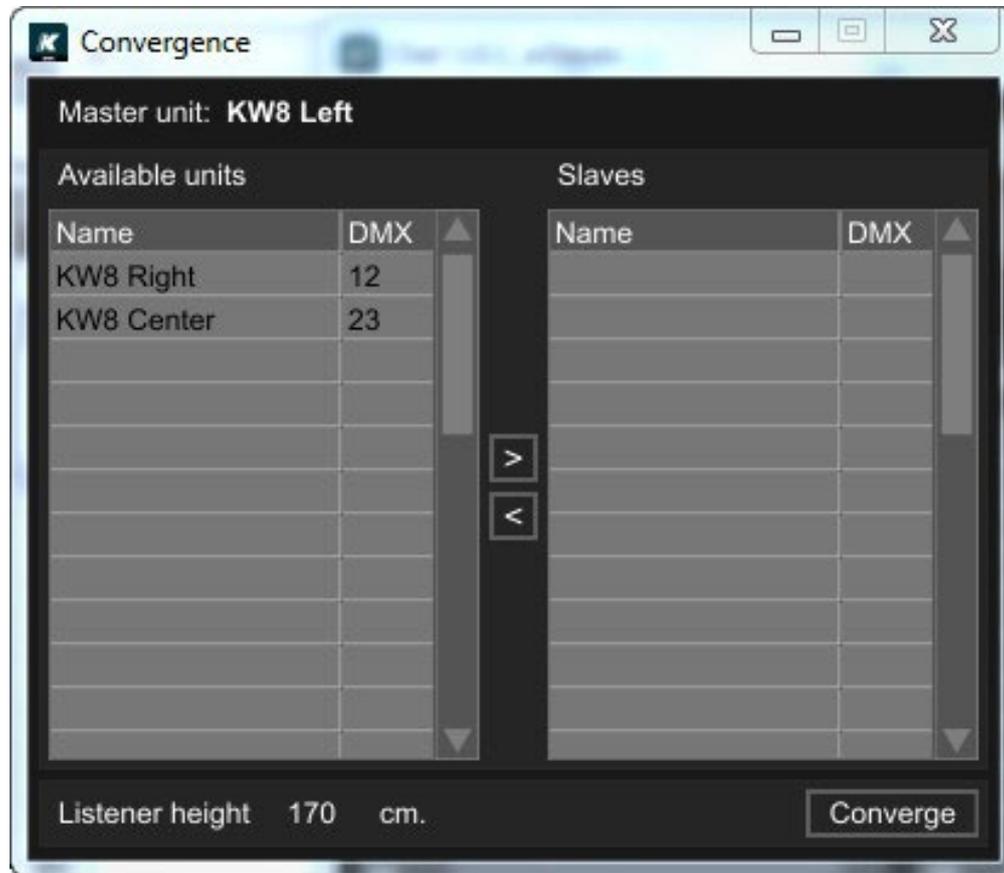
- 1) Select a unit in the table.
- 2) In the *Edit Unit* section, insert the x-y-z coordinates of the selected unit (in centimeters). Specify whether the unit is ceiling-mounted or floor-mounted and press *Set*. Repeat for all units.



- 3) In the *Selected Unit* drop-down menu select the KW8 whose camera is connected to the computer. This unit will be the Master.
- 4) Adjust the mechanical parameters of the Master so that it points to the Target Point desired for the Slave devices to point to as well.
- 5) Press *Converge*.



- 6) A pop up window will open to ask for the units designated as the Slave devices. Select a unit in the *Available Units* column and press the > symbol to add it to the *Slaves* list.
- 7) Choose the *Listener Height* as described in the previous paragraph.
- 8) Press *Converge*. All the Slaves will point to the same target as pointed by the Master.





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