VIOSO Anyblend

Manual for product version: 1.1

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1. Preface

We are pleased you have decided to purchase the VIOSO Anyblend^m software from VIOSO. With VIOSO Anyblend^m, you have acquired a versatile projection tool that will significantly simplify the use of your projectors and offer entirely new projection options.

This user manual will help you configure and operate the system. It describes the functions of the VIOSO AnyblendTM software.

For help with specific hardware specifications, please consult the documentation provided by the respective manufacturer.

Do you have suggestions for improvements? Do you require additional information? We are always working on our documentation and appreciate your assistance. Please send your suggestions, complaints, constructive criticism or compliments to: <u>info@vioso.com</u>.

Note:

Please be advised that this e-mail address is not intended for technical support. We take your feedback seriously and use it to improve the *VIOSO Anyblend*[™] documentation.

All the best with your projections.

Your VIOSO team

2. Installation / Setup

This chapter contains information for setting up and configuring the projectors and camera as well as installing and uninstalling *VIOSO Anyblend*[™].

2.1. Software Installation and Activation

You can install *VIOSO Anyblend*[™] by inserting the product CD, or download it directly from http://download.vioso.com. In either case, you may test our software for 30 days free of charge.

The installation wizard starts when double clicked. Please refer to the installation procedure for further details.

Activation

In order to prevent unauthorized use of *VIOSO Anyblend™*, the software you have purchased must be activated. The activation dialogue is automatically displayed when *VIOSO Anyblend™* is started.

You may choose to activate the software immediately or test it for up to 30 days. Please note that activation should take place within the 30-day trial period in order to guarantee a smooth activation process.



Note:

The VIOSO Anyblend[™] software can only be activated once! If you wish to use VIOSO Anyblend[™] on a second computer or if you delete the software, you require a new license prior to installation.

2.2. Hardware Setup and Configuration

This section contains all required information regarding the setup and configuration of the camera and projectors. Tips for optimum camera setup are also included.

Hardware Setup

In order to begin projecting or carrying out automatic image correction, all required components (notebook / PC, projectors and camera if applicable) must be connected properly and the software must be installed.



Projector Configuration

Ensure all projectors are properly connected to your PC. Focus the projectors onto the desired projection surface. The projection should be as clear as possible, and the brightness of the surroundings should be adapted according to the light output of the projectors.

Ensure that the projectors are set up so they are stable, since they should not be moved during and after calibration.

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3. Using VIOSO Anyblend™

The fundamental use of *VIOSO Anyblend*[™] is easy to explain: Simply drag & drop images, videos and PowerPoint presentations into the program pane in order to display them.

Images and videos can be output to the projectors quickly and easily.

This section of the manual explains specific *VIOSO Anyblend*[™] functions. The manual is based on the structure of the 3 main categories (Playback, Image Correction, Extras) in the user interface.

First the essential program components are first described in more detail:

Minimize Launch Close Playlist Help program program IOSO ANYBLEND × Files Multidisplay Extras Help Filename VIOSO FullHD Background VIOSO FullHD CompleteTest Start a new camera-based setup for a blended desktop VIOSO FullHD White vioso VIOSO FullHD Black Load and apply a previous saved blended desktop general manader settinas

3.1. Program Components

Playlist

With this list you can manage the media files you want to show. Drag & drop and a context menu (on right-click) are available.

Minimize program

Clicking this icon minimizes the program interface, offering you a full view of your desktop. You do not have to close the program in order to edit your projection slides or carry out other tasks on your computer.

Launch Help

Clicking this icon launches this help manual.

Close program

Please click this icon once you have successfully completed your projection or presentation and wish to close the program. You are asked to confirm this choice before the program closes.

Main menu and toolbar

Use the items in the menu to access program functions directly; the currently selected tool is identified in color. Please see Section 3.2 for more information about the toolbar.

Note: Some of the functions described here may not be available depending on the version of *VIOSO* Anyblend^M you selected.

Function area and function bar

This is the main part of the program. Various windows, buttons and input fields are displayed in this area, depending on the selected function.

3.2. Toolbar

The toolbar provides frequently used functions in the form of tools.



- Home: Overview over the main functions of VIOSO Anyblend™
- <u>Device Manager:</u> This is where you can change the settings for connected devices.
- <u>Colors:</u> This is where you can correct color rendering on the projectors.
- <u>Warping:</u> This is used to adjust the shape of the projection image.
- <u>Edge Blending</u>: This is used to adjust the blending area of the multi display manually and to adjust how far how far the geometric correction is used.
- <u>Options:</u> This is where you can change the program settings such as the language and startup behavior.
- <u>Desktop Hooking</u>: This button hooks the Windows Desktop on to your calibrated multi display

3.3. Using Devices

VIOSO Anyblend^m also allows you to access connected input devices (e.g. a live camera) for playback in addition to files. In addition, the selected output devices (projectors or displays) can be changed and adjusted.

Click the "Device Manager" tool or select "Settings \rightarrow Device Manager" from the menu to open Device Manager and display all available input and output devices. Use the mouse to select the input device (blue on the screen) and output device (green on the screen) to be used.

s soon as the corresponding device is active and the corresponding functions are available, the box below the device (3) is activated so that additional settings can be selected.



Note:

If the desired devices are not available, check the connections and ensure the drivers are properly installed. There may be a brief recognition delay after a new device is connected.

3.4. Options

In order to change general program settings, choose this tool by clicking the button on the toolbar or select "Extras \rightarrow Options" from the menu.



- <u>Screen split</u>: This setting splits a compound display created by the graphics cards into physical distinct displays for a camera –based setup (see chapter 5 for more details about splitting displays).
- Language: This is where you can change the language for the program interface.
- <u>Run minimized:</u> If activated, the program minimizes immediately after startup as a taskbar icon. This comes in handy when setting up a kiosk or installation.
- <u>Run with system startup</u> If activated, the program starts immediately after Windows startup. This comes in handy when setting up a kiosk or installation.
- <u>Check for updates at next startup</u> If activated, the program checks via internet if there is an update or patch for the current installed version. In this case an appropriate notice is displayed.
- <u>Load configuration file automatically</u> If this option is activated, the program and projector settings are automatically loaded from the specified *.sps file when the program starts.

3.5. Load and Save

The load / save function allows you to save your correction settings as a project and load them at a later date. In order to do so, select "Files \rightarrow Load settings" or "Files \rightarrow Save all settings" from the menu. File Manager opens. Please select the desired target directory.



Note:

The playback list is also saved and loaded correctly as long as the image and / or video files are still found at the location where they were upon saving.

3.6. Presentation Area

The presentation area includes a context menu displayed by right-clicking. This menu contains the main functions you require during a presentation.



Select "LIVE! off" from the context menu to close the presentation area.

4. Manual Image Correction

VIOSO Anyblend[™] offers a number of useful tools that greatly simplify the use of your projectors. For example, you can straighten the projected image in seconds or adjust specific color values to the respective environment with a few mouse-clicks. Troublesome adjustments using the projector menu (e.g. keystone settings) are eliminated.

VIOSO Anyblend[™] supports true-color, geometrically correct projections onto unconventional surfaces (e.g. masonry, painted walls etc.).* This requires connecting a digital video camera (see system requirements) to your notebook or PC in addition to your projectors.

All of the image correction functions are described below. Manual correction options are described below, followed by a more detailed explanation of automatic image correction.

Note:

- Some functions are only supported and / or activated after automatic image correction. Until this process is completed, those functions are grayed out and therefore inactive.
- To change the output device, use Device Manager as described in Section 3.5.

4.1. Warping

There are four typical cases for manual distortion correction:



<u>Case 1:</u>

The sides of the projected image are of different length, e.g. the projector is angled laterally. Drag the red corners to the smallest size of the projected image.



Case 2:

The upper and lower sides of the projected image are of different length, e.g. the projector is tilted vertically. Drag the red corners with the mouse in order to straighten the sides.



<u>Case 3:</u>

The projected image is larger than the projection surface, e.g. the projector is too far away from the projection surface. Drag the red corners to the size of the projection surface using the mouse.



Case 4:

All 4 sides of the projected image are of different length, e.g. the projector is tilted laterally and vertically. In this extreme situation, only *VIOSO Presenter™* can generate a rectangular projected image. In order to do so, drag the red corners as shown in the illustration.

Function overview:



Options via right-click on drag area:

- Grid size X/Y: Increase and decrease number of grid points for manual distortion
- <u>Interpolation and extrapolation method</u>: Toggle between linear and cubic interpolation (cubic is for projection on curved surfaces)
- <u>Reset:</u> Resets all grid points to their initial positions.
- <u>Rotate to:</u> Rotates the projected image to fixed angles.
- <u>Mirror:</u> Flips the projected image vertically or horizontally

4.2. Extended Warping Options

In addition to the basic warping functionality, *VIOSO Anyblend*^m offers additional projection warping tools. These tools allow you to adapt the projection to cycloramas, corners, stairs etc.

This extended functionality is available in two places:

Context Menu, Warping Dialogue (Right-Click)



Extended warping functionality, VIOSO Anyblend™

Right-click anywhere in the warping dialogue. The context menu is displayed. It contains the entries "Grid Points X" and "Grid Points Y" in addition to two entries to select the interpolation and extrapolation method, all of which refer to the extended warping functionality. You can also change these settings in the "warping dialogue". You will find it by selecting "Warp" and then clicking "Options".

• <u>Grid points:</u>

Use this function to insert warping support points on the horizontal and vertical axis. Support points correspond to nodes on the warping grid.



Refining the warping grid with 4x4 support points

Interpolation method:

Here you switch between linear and cubic support point interpolation. Linear interpolation is suitable for corners, edges etc. while cubic interpolation is suitable for rounded surfaces. Cubic interpolation is the default.



Linear support point interpolation: For corners, stairs etc.



Cubic support point interpolation: For cycloramas, columns etc.

• <u>Extrapolation method:</u>

This is where you select the extrapolation method used for cubic warping. The changes affect the details. Making changes to these settings is generally not required.

Directly on the Projector

Once you check off "On Projector", you can easily warp the projection image directly by using the mouse. In order to do so, select the checkbox and then use the available support points (see preceding section) visualized as red spheres in the projection image:



○ = Support point□ = Active support point

Support point visualization on the projector

Now move the mouse out of the main screen onto the projector.



The mouse pointer appears as crosshairs. Position the crosshairs close to the support point you want to move. An inverse selection shows which support point is currently active.

IMPORTANT NOTE:

Warping directly on the projector is <u>not</u> supported following camera-based calibration. However, all warping functionality in the warping dialogue remains available.

Keyboard Control Directly on the Projector

You may use the keyboard as an alternative to moving support points using the mouse. In order to do so, select the corresponding options in the "Warp" dialogue. You can also move the support points using the keyboard in this window. This is even more accurate.

The following keyboard commands are now available to you:

F1	Help
F2	Shows the user interface when hidden behind the output
F5	Reduce the horizontal control points (X-axis)
F6	Increase the horizontal control points (X-axis)
F7	Reduce the vertical control points (Y-axis)
F8	Increase the vertical control points (Y-axis)
$\leftarrow \rightarrow \land \lor$	Fine-tune the selected control point
SHIFT + ← → ↑ ↓	Coarse adjustment of the selected control point
ТАВ	Jump to the next support point
SHIFT + TAB	Jump to the previous support point

4.3. Color Settings (Manually Adjusting Projection Colors)

You can use the "Colors" tool or select "Settings \rightarrow Colors" from the menu to quickly solve typical projection color issues:



- <u>Contrast/brightness:</u> The sliders allow you to control the contrast and brightness of the projected image in detail.
- <u>Color channels</u>: Three sliders allow you to control each color channel of the projected image. This affects the overall brightness until the sliders are synchronized.

5. Screen Split Feature

Some multihead graphics cards allow the combination of distinct displays to one entire display so that the Windows desktop is spanned over all outputs. The look and native behavior of all programs is adapted on the dimension of the entire display (e.g. a maximized window is covering entire desktop).

This feature is not supported by all graphics cards and is called different by each manufacturer:

Manufacturer Product Creating an entire		an entire Desktop	
NVIDIA	GeForce	х	not supported
	Quadro	\checkmark	supported as "Mosaic"
ΑΤΙ	Radeon	\checkmark	supported as "Eyefinity Display Group"
	FirePro	\checkmark	
Matrox	Dualhead2Go	\checkmark	standard support
	Triplehead2Go	\checkmark	

VIOSO Anyblend^m enlists such entire displays as one display per default. For this reason the split-feature is available, so that the distinct displays can be used again for the camera based calibration.



The split-feature determines how many projectors were combined to an entire desktop as well as how they are arranged and to which graphic they are connected.



Examples:

Projector alignment	Windows desktop	Split setting
1 2	1	2x1 horizontal span 💌 🕨 Apply
1 2 3 4	1	2x2 grid alignment 💽 🕨 Apply

Important Hint:

In order to use the split-feature all projectors must be set to the same resolution.

6. Camera-based Multi Display Setup

*VIOSO Anyblend*TM allows you to create a projection out of multiple displays. The program is able to identify the position and overlap of the used displays and blends them to create a big single display. Please ensure that both the projector and your camera are properly connected to your PC or notebook.

6.1. Important Hints and Considerations

The visual result of a projection onto a non-white and non-even surface will not ever match the result as if projecting onto a white canvas because of physical reasons. Please consider this fact whenever you plan to project onto an unusual surface.

There are some limitations regarding suitable projection surfaces:

- The projection surface and projectors have to remain motionless.
- The surface must not be so dark that the projectors are unable to create an image of sufficient brightness and contrast.
- Reflecting surfaces such as shimmering or gleaming synthetic materials cannot be used. Metal and glass surfaces are also unsuitable.
- Ambient light must be reduced to a minimum. The correction effect becomes more pronounced as ambient light is reduced.

6.2. Executing camera-based setup for edge blending

Before starting the calibration, the projectors should be adjusted manually so that the overlap of the projectors is as accurate as possible.

Choose menu item "Settings \rightarrow Wall Correction" in the main menu. Click button (1) in order to launch the calibration wizard.



1. Select your projectors

Choose the projectors you want to combine to a entire display by selecting them from the list shown. Click on the "Continue" button in order to proceed with calibration.



2. Select surface and calibration type

Select your surface as described in the "Select surface" window. The options "proceeding setup" and "manual setup" will be explained in chapter 6.3 and 7. Further options for the Calibration are available under "More options" Click on the "Continue" button in order to proceed with calibration.



3. Select camera

Choose from the list of connected cameras the one you want to use for the calibration. Click on the "Continue" button in order to proceed with calibration.



4. Align your camera with the projection surface

The camera is an essential component for whole calibration process. Configure the camera so that the entire surface being used is visible and the entire projection is captured by the camera:



Correct camera image

Incorrect camera image

Incorrect camera image

Important considerations regarding the use of a camera:

The more realistic the camera image, the better the calibration results. In many cases, automatic calibration fails as the result of incorrect camera settings. To adjust the camera right, use the "Options" and "Options 2" Button:



Deactivate the camera's auto-focus feature and focus the camera manually. Deactivating other automatic camera settings such as white balance or brightness adjustment is also essential. Experiment with different brightness levels on your camera in order to achieve optimum correction results.

Some examples and hints to verify the settings:

•	Automatic focus	= off
•	Automatic white balance (AWB)	= off
•	Exposure	= manual set
•	Shutter speed	= manual set
•	Shutter speed	= set to the lowest value (e.g. 1/50)

Hint:

How to test whether "Autofocus" or "AWB" is deactivated: Move your hand up and down right in front of the camera. If the camera does not automatically adjust the image, automatic settings are disabled, which is mandatory for camera-based wall correction.

You also should mask the live picture shown in the alignment window with the tools on the left side, so that the camera only recognizes the important areas.



Click on the "Continue" button in order to proceed with calibration.

5. Adjusting the camera brightness

You can manually adjust the brightness using the corresponding control. The color of the surface visible in the camera image must be optimized for color rendering that is as realistic as possible – not too dark or too bright.



Click on the "Continue" button in order to proceed with calibration.

6. Adjusting the camera interference level

In the next step, select the interference level used for rastering the test patterns. The objective is to obtain continuous lines with no visible camera interference (see illustration below). Experiment with the controls in order to achieve optimum results.



Note regarding the "*Line Weight*" control:

The line weight should primarily be selected so that the lines are continuous. However, thin lines are preferable since thick lines are related to the risk of excessive camera brightness.

Note regarding the "Level Control":

Set the level control so that all lines are easily visible at the edges and in the corners of the test image (striped pattern). However, be sure to avoid visible interference patterns!

Click on the "Continue" button in order to proceed with calibration.

7. Inspecting the test pattern size

Adjust the dot size to make sure all of them can be identified correctly. Avoid red dots these mean mismeasurement. Click on the "Continue" button in order to proceed with calibration.



8. Processing the calibration

The calibration process is fully automated. The progress bar visualizes the current status of the calibration process. The process of sampling the entire surface takes approximately 1 ½ minutes per projector used in the multi display.

Click on the "Continue" button in order to proceed with calibration.

IMPORTANT NOTE:

The projectors and camera must not be moved while calibration is in progress (indicated by the output of moving test patterns from the projector). In addition, the measurement process must not be interrupted by external influences (e.g. changes in ambient light, persons between the projector and projection surface).

9. Calibrating further projectors

are errors in the displayed image simply go back to the adjustment of the parameters and optimize them for the next measurement. Repeat until the result is satisfying.



Continue by clicking the next button. The calibration assistant will pause after each projector. So the adjustments of the parameters can be optimized for each projector individually.

The evaluation window contains the tools known from chapter 4. All changes to the virtual canvas taking place her with these tools will not affect the compound display to be created.

Evaluating the result of each projector scanning singly is helpful on the creation of a compound displays on difficult surfaces.

With the option "proceed hands off" activated the parameters for the calibration will be set once for all projectors. The assistant will not pause after the calibration of each projector.

To achieve the blended multi display steps 5 to 8 must be repeated for every projector contained in the multi display.

After the calibration of the first projector the assistant will pause and show you the result of the measurement. If there

10. Adjusting the calibration results

You can test the contrast and brightness before completing the calibration process. Also you can decide how far the geometrical corrections are used. Furthermore there are the tools known from the "Warping" window, to adapt the calibration to the canvas. The settings established at this point are retained.



11. Finishing the calibration process



After calibration is complete, you have to assign your input to the new "camera based" output in the "device manager".



Assign designated input to "display compound" output and apply

After that you can play back your digital content as usual by dragging your images or videos under the menu item "*Pics/Videos*" or directly from the desktop via "Device Manager".

During playback, you can manually adjust the brightness and color of the displayed content as required under the menu item "*Color Settings*". You can also format the shape of the projection as desired via "Warping".

6.3. Creating a compound display from singularly calibrated projectors

When creating a multi display on difficult surfaces it can be helpful to handle each projector individually. To do so simply choose only one of the available projectors form the list of the calibration assistant. Proceed as described in chapter 6.





After all projectors are calibrated a compound display can be created. Therefore start the calibration assistant choose the singularly calibrated displays, now marked with an asterisk. Select "preceeding setup" on the next window.

VIOSO Anyblend[™] will now calculate a compound display out of the selected prior calibrated projectors. The result will only be satisfying if the camera and the projectors were not moved during the whole calibration process.



Calibrating each projector one by one allows you to optimize your for each projector more efficient without having to run the calibration for the other ones. Besides it offers the chance to enhance the calibration of a distinct display in a compound display without having to run the calibration for all included displays again.

This feature is very helpful when you want to create a compound display on difficult surfaces.

7. Manual Multi Display Setup



Sometimes it is not possible to use a camera for the calibration, e.g. if the camera is not able to capture all the projectors or the canvas reflects too much interfering light.

Therefore a calibration can be accomplished manually without camera.

Start the calibration assistant as described in chapter 6. After selecting the target displays on the next window the manual calibration type can be chosen by selecting "manual setup" and clicking next.

This window then will show up:



This window contains the tools know from the "warping" chapter. In addition there is the *"mouse invert button"* that should be activated when working looking at the projected image. The test image must be arranged in position and size so that aberrations in the overlap area of the projectors can be identified easily.





Use the tools to position the test image for an optimal better visualization of the alignment of the projectors





Use the tools to position the projectors so that the test image is aligned on all projectors; the overlapping area is visible with higher brightness.

As soon as the alignment is done click on "calculate blending" to create the compound display. This manual calibration can be reworked as often as required.

Please note: Every time the alignment is touched the softedge blending has to be calculated anew.

8. Applying softedge blending on a Windows 7[™] desktop

VIOSO Anyblend[™] is intended to create compound displays out of multiple projectors and comes with an integrated player to show images and videos on such compound displays. But VIOSO Anyblend[™] additionally allows you to use a wide range of applications on the whole blended, corrected and calculated compound display.

Therefore the soft edges (with content duplications) and all corrections are embedded into the render chain of the Windows 7^{TM} desktop. This is called "Desktop Hooking".

8.1. Desktop Hooking

After accomplishing the calibration as described in chapter 6 and 7 the compound display is found in the display list of the "device manager".



After the desktop hooking is enabled you can start your applications on the whole blended display.

Please note:

For an optimal user experience the display management should be set to a spanned display (ATI: "Display Group", NVIDIA: "Mosaic").

VIOSO ANYBLEND

8.2. Defining a Region of Interest (ROI)

When combining multiple displays to a "Display Group" or "Mosaic" the graphic card adds the resolution of the single displays. Since we have an overlap between the projectors the resolution the graphic card sends is higher than the actual resolution.



This difference between the output resolution and the native resolution causes a deformation of the hooked Desktop. The option "Desktop ROI" allows you to prevent the deformation effect by cutting parts of the desktop content.

The field "Left" and "Top" describe the starting point of the region to be displayed. Thus the value "0/0" means the upper left corner. The next two fields specify the number of pixels in height and



width that are to be displayed.



Principle of ROI: Original content without ROI

Cropped content with ROI activated



Changes to the ROI parameters are applied instantly if desktop hooking is activated. The changes must be confirmed within 15 seconds.



Hint:

- Make sure that important areas like the taskbar not get cut out.
- If accidently the ROI was set to values so that nothing can be identified anymore or applications can not be reached press "Ctrl + Alt + Del" and restart your system.

9. Program automation

Command line parameters can be used to modify the startup behavior of *VIOSO Anyblend*^m. This allows you to adapt the program behavior at startup to local conditions, for example in case of fixed installations.

The following description of command line parameters is based on calling the program using the Windows prompt. Consult your Windows documentation for other ways to call the program using command line parameters.

9.1. Calling the Program File from Commandline

By default, the VIOSO Anyblend[™] program files are located under "C:\Program Files\VIOSO Anyblend". If you selected a different directory during installation, the program files will be found there.

First switch to the program directory (example):

cd C:\Programme\VIOSO\VIOSO Anyblend

The name of the executable file that launches the program is **"anyblend.exe"**. A simple program start is accomplished with the following command:

anyblend

9.2. Overview of Command Line Parameters

The following command line parameters are available and may be combined as desired:

Parameter	Description	Example
/c [FILE]	Applies the configuration file [FILE] (file type: *.sps)	anyblend /c config.sps
/m [FILE1] [FILE2]	Displays the media file [FILE1] (video or image file) in Media Manager; additional files are added to the list	anyblend /m movie.avi
/h	Minimizes the program's user interface at startup	anyblend /h
/s [repeat]	Content playback as a slideshow, [repeat] plays the show unlimited times	anyblend /s repeat
/f	Shows the content in fullscreen at startup	anyblend /f
/z	Shows the media file "zoomed in". <u>Note:</u> It's mandatory to specify one or more media files to show (use /m or /c)	anyblend /z

Examples of command line parameter combinations:

anyblend /h /m movie.avi

VIOSO Anyblend^m is minimized on startup (/h) and launched in LIVE mode (/r); the video file "*movie.avi*" is played back once.

anyblend /f /z /h /c config.sps /s repeat

VIOSO Anyblend[™] starts in fullscreen mode (/f) and fully zoomed in without 3D-effect, it's userinterface is minimized on startup (/h) and the previously saved configuration file *"config.sps"* is applied (/c confic.sps); the playlist specified in the configuration file is played back continuously (/s repeat).

Note:

The command line parameters may be used in any sequence.

9.3. Control via TCP/IP Network (HTTP Interface)

A basic control interface via HTTP interface (Ethernet) is available. During the program's runtime a TCP/IP server is opened on port 9013 and listening to HTTP requests.

Syntax for the URL is

http://[ip]:9013/control.htm?settings=[x]

[ip] is the IPv4 address of the particular machine running VIOSO Anyblend[™].

This interface allows to change the program's behavior by loading a *.sps save-file from the "/data" folder within the programs application directory. Such *.sps files have to be named "settings[x].sps", [x] = numbers from 0 – 9.

Parameters of the HTTP Interface:

Parameter	Description	Example
Method	Type of HTTP request (use GET)	GET
URL	URL to the controller which loads a predefined *.sps file	/control.htm?settings=1
Version	HTTP version (use 1.0)	HTTP/1.0

Example of a HTTP request:

GET /control.htm?settings=1 HTTP/1.0

This command instructs *VIOSO Anyblend*[™] to load and apply "data/settings1.sps" within the applications directory (e.g. C:\Program Files\VIOSO\VIOSO Anyblend\data\settings1.sps). Use this syntax e.g. to program third party media control devices or other control interfaces.

Example of a local HTTP request via Browser (e.g. Internet explorer):

http://127.0.0.1:9013/control.htm?settings=1

Enter this text in the address bar of an internet browser (e.g. Microsoft Internet Explorer) to accomplish the same task. Use this procedure if you have to control *VIOSO Anyblend*TM without a third party control device.

Note:

Currently all requests return an HTTP status of 200 (OK), regardless of its effect to VIOSO Anyblend™.

10. Overview of Keyboard Shortcuts

Here you will find all *VIOSO Anyblend™* keyboard shortcuts.

10.1. Keyboard Commands for the Program and Projection Interface

These keyboard shortcuts are available when the focus is on the program window.

g	Puts the program interface in the foreground (only available in the presentation area)		
F2	Same as 'g' (puts program interface in the foreground)		
F5	Launches the projection with the first element in the playback list		
SHIFT + F5	Launches the projection with the selected media file		
F6	Launches the slideshow		
← → IMAGE↑ IMAGE↓	Displays the previous / next element in the playback list		
↑↓ + -	Switches the display of the current image between full screen mode / presentation view		
SPACEBAR RETURN	Displays the next element in the playback list		
CTRL + + -	Changes the magnification level		
CTRL + ← → ↑ ↓	Shifts the area of the image selected for magnification		
ESC	Closes VIOSO Anyblend™		

10.2. Direct Warping Keyboard Commands (Projector or Display)

These keyboard shortcuts are available when the mouse pointer is over the output display (i.e. over the content being presented). This is indicated by the mouse pointer, which changes into red crosshairs. The "Direct Warping" option also has to be selected.

F1	Help
F2	Shows the user interface when hidden behind the output
F6	Increase the horizontal control points (X-axis)
F7	Reduce the vertical control points (Y-axis)
F8	Increase the vertical control points (Y-axis)
$\leftarrow \rightarrow \land \checkmark$	Fine-tune the selected control point
SHIFT + ← → ↑ ↓	Coarse adjustment of the selected control point
ТАВ	Jump to the next support point
<shift> + <tab></tab></shift>	Jump to the previous support point

12. VIOSO contacts

Should there be any questions which cannot be answered in the help section, please tell us about them. If you have any questions or suggestions, you can reach also us on the phone on weekdays from 9.00 am to 17.00 pm. Please have the serial number of your copy protection dongle ready.

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