

smart VR-Wall

 **schneider**
digital
Professional 3D-Hardware

Operating Manual



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1. Assembly

1.1. Unpacking and assembling the screen

- a. Carefully remove the frame sections and screen and place to one side.
- b. Unpack and assemble the frame sections. Make sure that the longitudinal section is attached with the Dalite logos at the bottom. The side sections have "TOP" markings on them. Screw in two screws and two press studs at each corner, following the markings.
- c. Thoroughly clean the floor.
- d. Slide the sheet out of the box and roll it out on the floor so that the visible side is facing upwards. Look for the "TOP" markings on the rear of the black frame.
- e. Slightly turn in the foam padding so that the press studs can be accessed.
- f. Place the frame over the unrolled screen and button on the sheet from below all the way around.
- g. Carefully place the screen to one side.

1.2. Preparing vertical frame assembly

- a. Carefully remove the roller mount and housing panels and place to one side.
- b. Sort out all the parts and make sure that the screws and tools are within easy reach.

1.3. Assembling the vertical frame

- a. Unpack the vertical frame from the box, remove the 4 cast brackets with the size 13 T-wrench and place to one side. Remove the 4 connecting sections and place to one side.
- b. Remove the beamer modules in turn and fit on the vertical frame. Pay attention to the labelling (letters) and slide the module into the connectors until the frame and module stand level on the floor. (Make sure that the rears are flush.) Tighten the connectors securely.
- c. Set up the vertical frame, place in the correct position and level.

1.4. Connecting the vertical frame

- a. Connect the vertical frame sections **BC** and **DE** with the intermediate frame section **CD**. (Engage in adjusting bolts and guide lugs, screw 2x from rear.)
- b. Connect the vertical frame sections **DE** and **FG** with the intermediate frame section **EF**.
- c. Assemble the roller frame and mounting base. Observe markings 1- 4 and screw tightly (sliding blocks in beamer frames).

1.5. Completing the screen bracing

- a. It is assumed that the plastic screen bracing plates on the vertical frame have not been removed for transportation.
- b. Remove the intermediate frame sections **AB** and **GH** from the box.
- c. Fit the intermediate frame section **AB** on the left of the vertical frame section **BC** (engage plastic guides in the groove and the bolt in the hole and screw on from the rear).
- d. Fit the intermediate frame section **GH** on the right of the vertical frame section **FG** (engage plastic guides in the groove and the bolt in the hole and screw on from the rear).

1.6. Wiring

- a. Route all cables appropriately and connect the WLAN. The cables to the projectors are combined into cable harnesses.
- b. You have 1 HDMI, 1 Cat6, 1 power and 1 USB-B cable per projector.
- c. Each HDMI cable from the projector runs to the pixel processor (DVI).
- d. Cat6 cables are routed on the left-hand side to a network switch.
- e. USB cables run on the right-hand side to a USB hub.
- f. Power cables run together to a connector strip on the rear.
- g. Connect the access point to the network switch and secure it on the rear of the **smart VR-Wall**.
- h. Run the USB cable from the USB hub to the pixel processor.
- i. Run a Cat6 cable from the network switch to the pixel processor.
- j. Secure all cables on the rear in cable ducts and using cable ties. Make sure there is sufficient strain relief, particularly on the projectors.

1.7. Positioning the wall

- a. Lower the rollers until the smart VR-Wall is easy to slide.
- b. Move the wall to the intended position using the rollers.
- c. Lift the rollers so that they can rotate freely.
- d. Use the adjusting feet to align the wall correctly vertically and horizontally.
Start in the middle at the rear and work outwards, then set up the front and check everything again. Make sure that there is no tension between the vertical frame sections caused by different heights of the frames.

1.8. Assembling the screen

- a. Suspend the screen at the top (**CAREFULLY**).
- b. Align the screen centrally (extends around 695mm to the frame on the left and right).
- c. Engage the screen in the brackets at the bottom (push down the lower section to the height of the frame, starting in the centre).
- d. Fit the cast brackets below the screen with the smooth side upwards, so that around 2mm of space is left to the screen. This is where the housing will subsequently be fitted. The hammer head bolts with cap nuts are in box 1.

1.9. Connecting and switching on the wall

- a. Connect the wall to the power and make sure that all hubs, projectors and the access point are running.
- b. Connect the projectors to the pixel processor with **Active Display Port set to DVI Adapters**.
- c. The LAN and USB are also connected to the pixel processor.
- d. Now switch on the pixel processor. The projectors should then start up automatically and display a blue screen showing **"No Signal"**.

1.10 Aligning the projectors

- a. Use the two large screws on the left and right of a projector and a central screw behind the projector to align the projectors.
- b. Make sure that the projectors produce a consistent image.

1.11. Fitting the housing

- a. Slide the cover for the projectors between the cast brackets and the screen frame. Rest the cover on the projectors.
- b. Then secure the two side panels (observing the marking and countersink). The screws M5x12 are screwed in and the sliding blocks must be at the markings.
- c. The front cover panel is fitted from below using 2 knurled nuts (remove knurled nuts, fit panel in place, press on left and right of side panel, fit knurled nuts).
- d. Repeat this process at the top. Note that the projector cover must be screwed onto the projector frame. Place the cover on the screen frame and then use screws to attach the cover to the projector frame. Pay particular attention to shadows cast.
- e. Then secure the two side panels (observing the marking and countersink). The screws M5x12 are screwed in and the sliding blocks must be at the markings.
- f. The top cover panel is simply fitted at the top.

2. Care and operating instructions

2.1. Screen

- a. Prevent any mechanical damage to the screen.
- b. Do not allow any sharp or chemical objects to come into contact with the screen.
- c. If the screen gets dirty, clean it very carefully with a damp microfibre cloth. If you have any concerns, contact the manufacturer.

2.2. Projector

- a. Make sure a special 16A fuse is used to ensure a consistent and stable power supply to the smart VR-Wall. Power failures can damage the projector bulbs.
- b. Sometimes, dust can accumulate on the projectors over their operating life. Do not use any chemicals for cleaning them. Use either optical cleaning agents or soft cleaning cloths.
- c. Only trained specialist personnel are to carry out repairs to the projectors.
- d. The filters in the projectors may only be cleaned by specialist personnel.

2.3. Housing

- a. The housing is painted in a **resistant colour (DB703)** and has a metallic finish.
- b. Avoid damage caused by sharp objects.

3. Pixel processor



The pixel processor is the heart of the smart VR-Wall, acting as an interface between your workstation and the smart VR-Wall itself. The system uses passive stereo, for which it needs 2 Dual Link DVI inputs from your workstation (left and right eye).

To control the smart VR-Wall, the **"Wall Manager"** software is installed on the control tablet. For further information, refer to the **Wall Manager Manual**.

Repairs to the pixel processor may only be carried out by the manufacturer.

To connect devices to the pixel processor, use only high quality **Dual Link DVI cables**.

If the system is running and is not receiving any input from the client, the smart VR-Wall shows a blue screen with the message **"No signal"**.

4. Key assignment on the pixel processor

Various test modes can be operated by pressing particular keys on a keyboard connected to the pixel processor. If the pixel processor does not respond to the keyboard, you can left-click with the mouse.

4.1. Calibrated output

This smart VR-Wall mode is normally used after starting the smart VR-Wall. Pressing the "C" key takes you back to this mode.

4.2. Uncalibrated output

If you want to display the **smart VR-Wall** in uncalibrated condition, press "U".

4.3. Enlarging a segment of the smart VR-Wall

Pressing the "1" to "4" keys reduces the corresponding segment. Pressing the "o" key shows the entire display, consisting of all four segments.

4.4. Exchanging the eyes for stereoscopic output

Pressing the "X" key enables you to exchange the left and right eye for stereoscopic output.

4.5. Switching between different test modes

If you press the "T" key, the pixel processor shows a "Left" image on the left eye and "Right" on the right eye. You can use this to check whether the left and right eye are exchanged in stereoscopic mode.

If you press "T" again the pixel processor shows a stereoscopic test image.

Pressing the "T" key in conjunction with "Shift" displays the test images on each individual segment.

The "C" key takes you back to calibrated mode.

4.6. Manually closing the pixel processor software

If you want to close the pixel processor software, all you have to do is press "ESC". You can restart the software by double-clicking on "VRWall".

4.7. Synchronising the smart VR-Wall

To obtain a satisfactory stereoscopic image, all segments have to be synchronised. The smart VR-Wall re-synchronises each time the inputs are changed. If the image appears asynchronous, briefly switch through the inputs to give the smart VR-Wall the opportunity to synchronise itself.

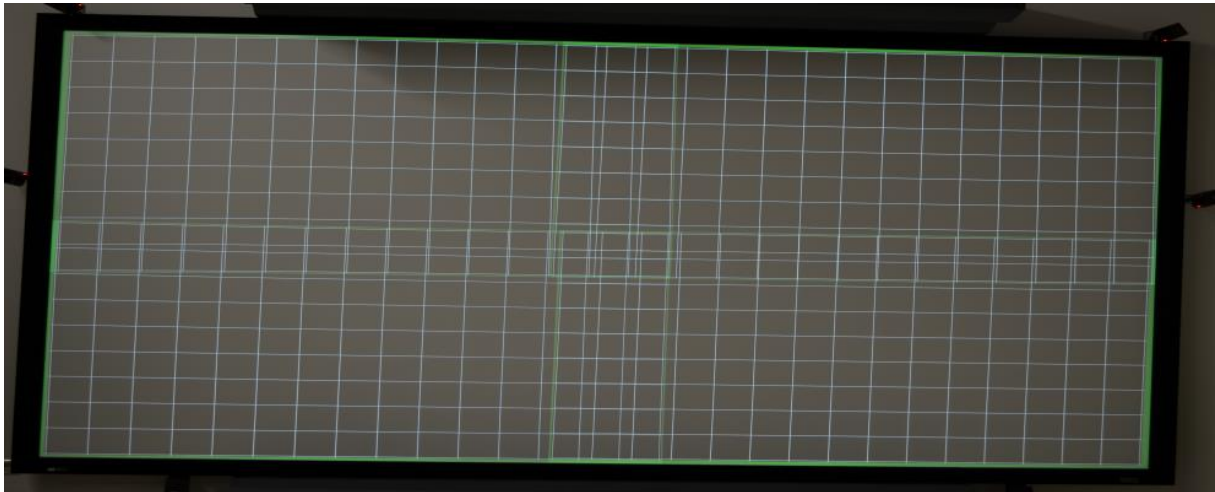
5. Automatic calibration

This option describes calibration using a keyboard with a webcam or as an emergency option if a tablet or computer with Wall Manager installed is not available.

You can start automatic calibration using a keyboard connected directly to the pixel processor by pressing the "Enter" key.

The preferred calibration method is to use the tablet and a DSLR camera, as described in the "**Wall Manager Manual**".

5.1. Adjusting the projector offset parameters



The offset parameters determine the position of a projector on the screen. It is important to ensure that all projectors produce a symmetrical image. Also pay attention to shadows.

You can influence the offset parameters for each segment by pressing the "S" key on the calibration screen.

You can use the "Page Up" and "Page Down" keys to switch between the individual segments. You can navigate through the segments using the arrow keys. Use the "Left" and "Right" keys to switch between the segments, and "Up" and "Down" to change the values. Press the "Enter" key to save your settings.

5.2. Setting up the camera

The camera should be mounted securely and stably on a tripod. Make sure that all locking mechanisms are securely fastened. If you are on the calibration mode home screen, you can check whether the camera can see the entire wall. To do this, press the "S" key to go to the Setup menu. Press "T" to obtain a continuous video stream from the camera.

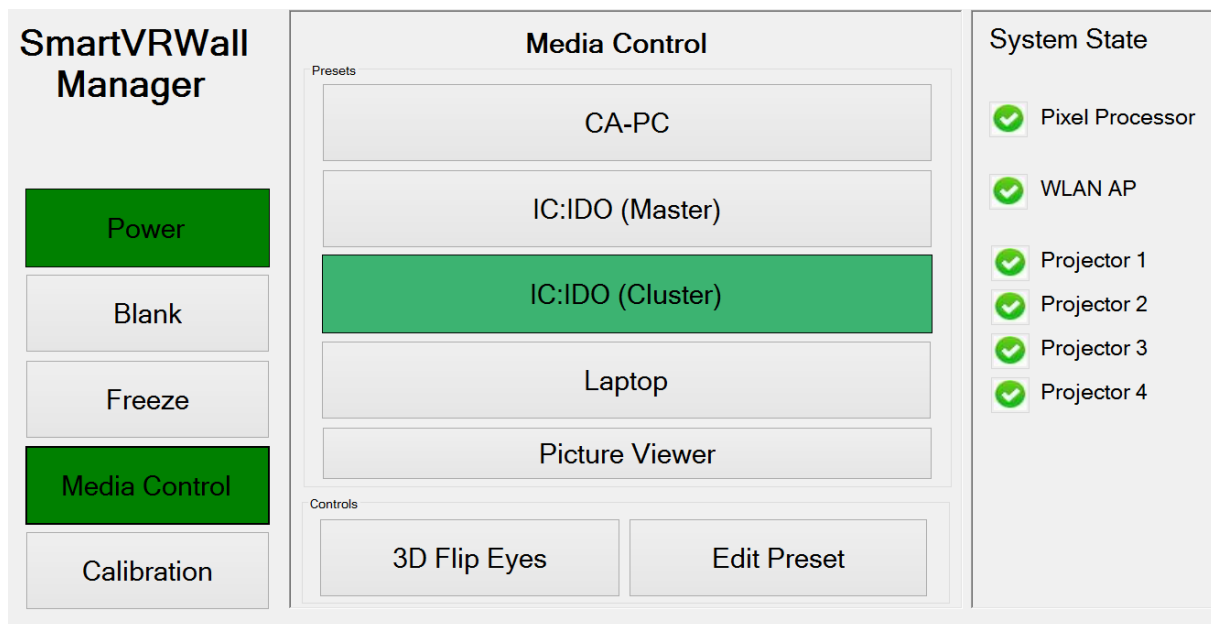
6. Tablet

The smart VR-Wall is controlled using a tablet. This communicates by WLAN with an access point located on the rear panel. The name of the WLAN network is "InsightAir" and it is secured using the password "minivrwall".

The tablet is booted up by pressing the power button. After booting up, Wall Manager is run automatically by the Autorun function.

The tablet can be used in conjunction with the docking station or the touch-screen display. To prevent crashes, do not change the system settings on the tablet.

Wall Manager uses green indicators to show whether all projectors and the pixel processor are online (System State). Further details can be found in the **Wall Manager Manual**.



Handle the touch-screen display with care. Avoid contact with sharp objects.

7. Camera and accessories

The **smart VR-Wall** is calibrated using a photographic method. Therefore, a Nikon DSLR camera with a high-end Nikon fish eye lens is required. During calibration, the camera is set up in front of the wall on a tripod a sufficient distance away. The "**Wall Manager Manual**" contains information about correct positioning.

Handle the camera and the lens with care.

The camera and lens can only be cleaned using special cleaning equipment for optical devices. In case of doubt, consult a specialist.

Only use UC-E6 USB cables from Nikon, which are supplied with the Nikon camera. These are specially designed for the camera's SDK and are not recognised by the camera or tablet when using normal USB cable.

8. Wireless LAN

The tablet communicates with the smart VR-Wall via wireless LAN. There is an access point on the rear of the smart VR-Wall for this purpose.

The access point IP address is **192.168.100.1**.

The configuration interface can be accessed using a browser at <http://192.168.100.1>. The user name for administration purposes is "**admin**". The password is "**minivrwall**". The SSID is "**InsightAir**". This is WPA2 protected. The password is also "**minivrwall**".

Do not change the settings on the access point. This can lead to malfunctions on the smart VR-Wall.

9. Tracking

The smart VR-Wall can optionally be supplied with 4 tracking cameras from ART. For further information please enquire with Schneider Digital.

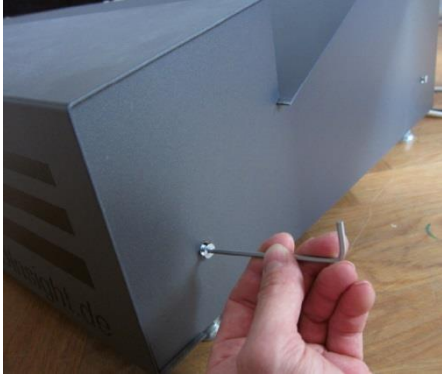
Tracking is an optional add-on to the **smart VR-Wall** and is connected directly to the client PC.

Avoid damage to the tracking cameras and treat them with care

10. Projector replacement

10.1. Switching off the system

10.2. Removing the side panel



- a. Loosen the two side panels on the corresponding projection housing (top or bottom) and then remove the side panel.

10.3. Removing the front housing



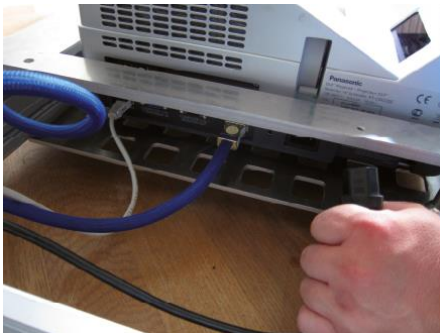
- a. Loosen the knurled nuts on the bottom and on the top.
- b. Then remove the front section of the housing.

10.4. Removing the cover panel



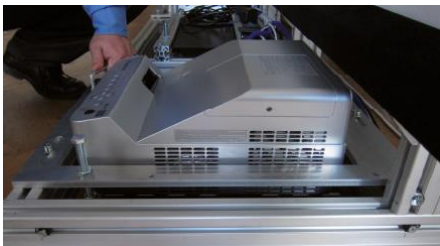
- a. Top: Loosen the screws on the left and right of each projector while holding the cover securely; then pull it out forwards, with another person if possible.
- b. Bottom: Carefully pull out the cover panel forwards by lifting it over the screws for the rollers.

10.5. Removing the cables



- a. Remove all connecting cables (power, HDMI, network and USB).

10.6. Loosening the projector support panel



- a. Loosen the three fastening screws (using hexagon socket key or size 13 screwdriver).
- b. **IMPORTANT:** Top: Hold the projector support panel securely.

10.7. Removing the projector



- a. Remove the entire projector unit.

10.8. Fitting a new projector



- a. Ensure precise alignment (marking for optical axis).
- b. Righten the screws again (step 11.6).
- c. Connect the cables (step 11.5).
- d. Switch on the system and check that it is functioning correctly, then recalibrate.
- e. If necessary, carefully adjust the projector using the long screws.



10.9. Fitting the housing



- a. Finally, fit the housing (steps 11.4, 11.3 and 11.2).
- b. Make sure that the cover panel is fitted properly on the projector housing to prevent shadows being cast.

11. Supplementary documentation

11.1 Wall Manager Manual

11.2 Access Point Manual

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Q: One of the projectors is flickering or failing.

A: If the image in one segment of the system suddenly goes dark but the system is otherwise behaving normally, first of all check whether there is a defective bulb.

To do this, press the menu key on the projector. If the menu is displayed, this error can be ruled out.

The next error source to rule out is the display port adapter at the output from the pixel processor.

To do this, shut down the pixel processor by pressing the illuminated blue power button.

The display port adapters are marked according to the projector numbers.



A spare display port adapter with the same version is located in your small rack.

Only use the same version active display port adapters to ensure that they function without errors.

If there has been no change after restarting the pixel processor, the error is likely to be due to a loose cable connection at the HDMI input on the projector.

Q: Projectors cannot be switched off

A: If the projectors do not switch off when shutting down the smart VR-Wall, even though the pixel processor is already shut down, there is probably a USB problem.

Restart the pixel processor. After successfully restarting the pixel processor, use the ESC key to exit the blending software so that you can access the pixel processor device manager. Under "Ports", check whether all 4 projectors (as COM ports xx) are displayed.

If no COM ports or too few COM ports are displayed, one of the following errors may have occurred:

- Failure of a USB port on the USB hub.
- Loose USB cable connection on the projector or USB hub
- Defective USB interface on the projector

If no COM ports at all are displayed in the device manager:

- Loose USB cable connection on the pixel processor or USB hub
- USB hub power supply is loose or disconnected
- Defective USB hub

If necessary, open the cover on the smart VR-Wall and check the errors described above. Use the cable diagram to assist you.

A USB cable is used to connect each projector to the USB hub and the USB hub to the pixel processor. Each error in this chain leads to problems shutting down.

If you suspect a defect in the USB interface on the projector, you should carry out the following steps:

Disconnect all connections on the projector, including the 230 Volt mains connection.

Wait for around one (1) minute.

Then connect ONLY the mains connector.

Use a USB printer cable (USB-A to USB-B) and connect it to any tablet PC. - If the plug&play detection feature in Windows finds a new device, it means that the reset has been carried out successfully.

If plug&play detection does not respond, contact the manufacturer with a description of the fault.

Q: Stereo image is incorrectly displayed.

A: Each time the input modes are changed in the media control, the colour wheels are resynchronised. In rare cases it is possible that the colour wheels have not been synchronised correctly immediately. In this case, change the input on the tablet to a non-3D stereo input and then back to 3D stereo mode. The colour wheels are resynchronised each time. If the problem persists, contact the manufacturer.

Q: The projectors for the smart VR-Wall no longer start up.

A: If the projectors do not start within 3 minutes after starting up the pixel processor, this indicates a network problem:

- Power supply to the network switch in the rack.
- Power supply to the smart VR-Wall.
- Duplicate IP assignment.
- Network connection from the pixel processor to the network switch.

The following possible solutions can be implemented:

- Check whether the smart VR-Wall is connected to the power supply and is switched on. On the rear of the smart VR-Wall there is a connector strip with a switch.
- Make sure that the network switch in the rack is connected to the power supply and is functioning properly.
- If you have replaced a workstation, consult the IP plan and check whether duplicate IP addresses have been assigned.
- Check the network connections from the pixel processor to the network switch in the rack and to the network switch in the smart VR-Wall. Use the cable diagram to assist you. If you suspect that the error is in the smart VR-Wall itself, open the housing and first check the network switch installed there.

If these attempts do not resolve the issue, contact the manufacturer.

Q: The pixel processor no longer starts up.

A: If the pixel processor - and therefore the entire system - can no longer be started up using the command on the tablet, run through the following one point at a time:

- Make sure that the entire system and pixel processor itself are connected to the power supply. Normally, the pixel processor is connected to a different power circuit to the smart VR-Wall.
- Check whether you can see the WLAN network for the smart VR-Wall on the tablet and that it is connected.
- Attempt to start the pixel processor manually by pressing the button on the housing.
- If it does not start, notify the manufacturer immediately.
- If the pixel processor does start, the problem needs to be identified in the network.
- Make sure that the pixel processor is connected to the VR-Wall network.
- To do this, open the system as described in 11.2.
- Consult the cable plan and go through the network connections step by step, starting with the network switch. In case of questions, contact an employee from the manufacturer.
- Make sure that the network switch and the access point are connected to the power supply.

If this is unsuccessful, contact the manufacturer.

Q: Eyes are reversed in stereo mode.

A: If the eyes are reversed, this can be corrected very easily using the tablet. To do this, go to Media Control and use the "3D Flip Eyes" button.

Q: How do I change the service PIN for Wall Manager?

A: The passwords for the tablet are stored in calinput.ini. These can be found at C:/WallManager. You can open the file using NotePad. The set PINs can be found below the Pin, CalibPin and SavePresetsPin entries. The PIN 2345 is defined by default.

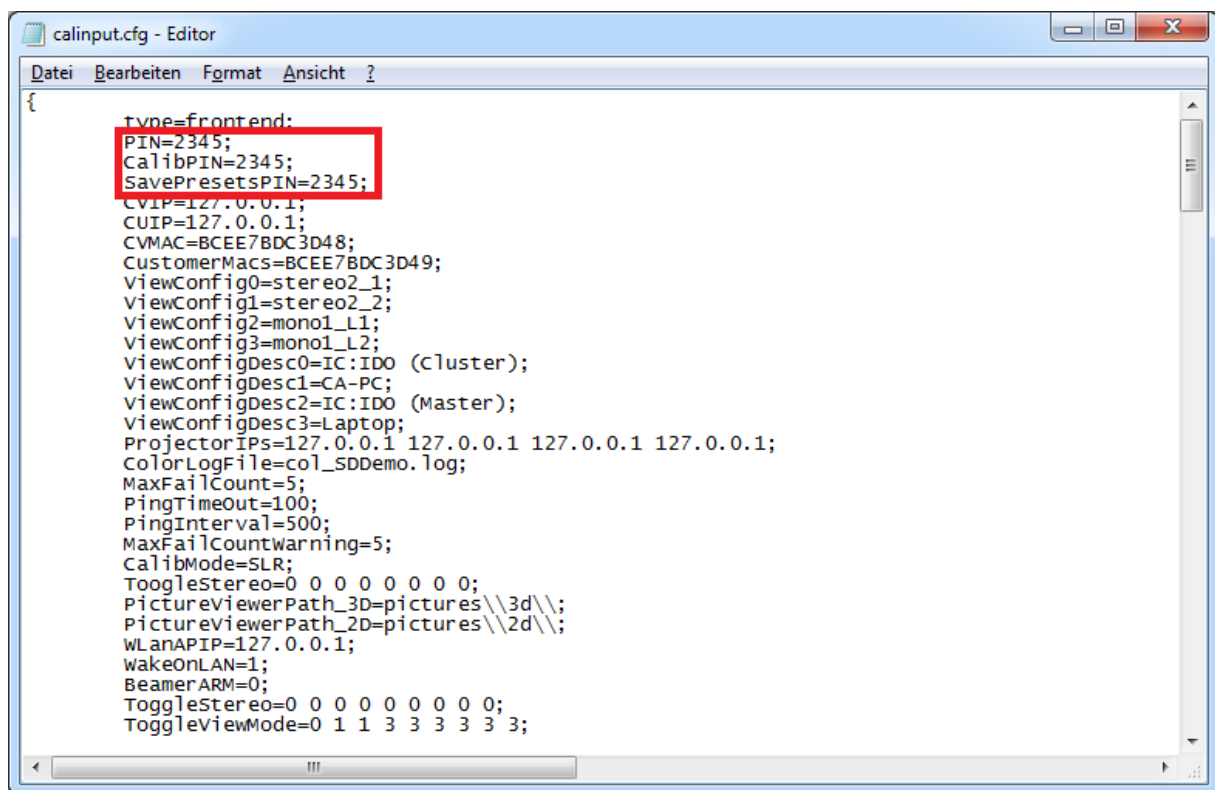
Pin=Defines the general PINs

CalibPin=Defines the PIN for the calibration menu

SavePresetsPin=Defines the PIN for saving the presets

To change these PINs, simply edit the PIN at the appropriate point.

Note that editing this file can stop Wall Manager from functioning. Therefore, you should be extremely careful.



```
calinput.cfg - Editor
Datei Bearbeiten Format Ansicht ?
{
  tvne=frontend:
  PIN=2345;
  CalibPIN=2345;
  SavePresetsPIN=2345;
  CVIP=127.0.0.1;
  CUIP=127.0.0.1;
  CVMAC=BCEE7BDC3D48;
  CustomerMacS=BCEE7BDC3D49;
  ViewConfig0=stereo2_1;
  ViewConfig1=stereo2_2;
  ViewConfig2=mono1_L1;
  ViewConfig3=mono1_L2;
  ViewConfigDesc0=IC:IDO (Cluster);
  ViewConfigDesc1=CA-PC;
  ViewConfigDesc2=IC:IDO (Master);
  ViewConfigDesc3=Laptop;
  ProjectorIPs=127.0.0.1 127.0.0.1 127.0.0.1 127.0.0.1;
  ColorLogFile=col_SDDemo.log;
  MaxFailCount=5;
  PingTimeout=100;
  PingInterval=500;
  MaxFailCountWarning=5;
  CalibMode=SLR;
  ToggleStereo=0 0 0 0 0 0 0;
  PictureViewerPath_3D=pictures\\3d\\;
  PictureViewerPath_2D=pictures\\2d\\;
  WlanAPIP=127.0.0.1;
  wakeOnLAN=1;
  BeamerARM=0;
  ToggleStereo=0 0 0 0 0 0 0;
  ToggleViewMode=0 1 1 3 3 3 3 3;
}
```


Q: The smart VR-Wall software has crashed/closed

A: If the rare situation occurs that the smart VR-Wall software has crashed, you can restart it with just a few actions.

- Press the blue power button on the pixel processor.
- Wait until the pixel processor has completely shut down.
- Press the power button again to restart the pixel processor.

If this does not work, contact the manufacturer. If crashes occur at regular intervals, log these and pass them on to the manufacturer.

Q: Wall Manager on the tablet is no longer responding

A: If your Wall Manager on the tablet crashes, you can simply re-open it using the shortcut on the desktop. Alternatively, you can launch Wall Manager on the tablet PC using the file autcalib.exe in the directory "C:\WallManager".

Make sure that the tablet is not connected to any other networks.

If Wall Manager crashes repeatedly and experiences malfunctions, send a detailed description of the errors to the manufacturer.

Q: Wall Manager cannot communicate with any projectors or the pixel processor.

A: This can have the following causes:

- The tablet is no longer in the smart VR-Wall WLAN after restarting.
- The smart VR-Wall is not connected to the power. (Two power circuits for pixel processor and smart VR-Wall)
- The WLAN access point has failed.
- A LAN component inside the smart VR-Wall has failed.

Possible solutions:

- Check whether the tablet is connected to the WLAN access point for the smart VR-Wall. The network registers as "InsightAir" and is secured using the password: "minivrwall".
- A simple visual inspection allows you to identify whether the smart VR-Wall is connected to the power supply. To do this, go to the smart VR-Wall and look at the projectors. If the system is connected to the power, a red standby LED is lit on the projectors (above the manual ON/OFF switch).
- The WLAN access point is located on the right-hand side of the smart VR-Wall. Check whether its LEDs are lit. If not, check the connections.
- If this is unsuccessful and the system and WLAN access point are connected to the power, consult the cable plan. Now open the housing as described in section 11.2. Check whether the network switch is functioning and the pixel processor is connected.

Q: One bulb is not as bright as the others.

A: If one of the projectors is noticeably dimmer than the others, we recommend cleaning the optics and then taking pictures.

- Clean the exterior of the projectors of dust. Dust deposits can accumulate on the lower projectors in particular. Follow the procedure in section 2.2.
- Take your camera and tablet.
- Exit Wall Manager on the tablet PC and launch the NikonQS application, which is located in the directory "C:\WallManager".
- If this application is not on your desktop, contact the manufacturer. They will be able to send the application to you.
- Connect your camera to the tablet. The NikonQS application should recognise it immediately.
- Make sure that your camera and the lens are set to AUTO.
- Press the "Auto Calib" button. All buttons now switch to busy.
- As soon as the application has made all the settings, you can continue with "Test Images".
- The application will now automatically take a full series of pictures.
- While the series is being taken, all buttons switch to busy until the process is complete.
- All the pictures are saved in a directory: C:\WallManager\Test Images.
- Copy this folder and then put it onto a USB stick.
- A further image showing the bulb running time display is also required, where possible from more than just the affected projector. To view this, open the menu on the projector.

Menu button > Information > Bulb running time.

Send these pictures to the manufacturer with a description and specifying the time since when the image quality has no longer met your standards.

Q: A projector always shuts down after a certain time.

A: If individual projectors repeatedly shut down after a certain time, the reasons could be as follows:

- The projector has shut down to protect itself from overheating.
- A micro switch on the projector cover has come loose.
- The USB connection on the base of the projector has come loose or is defective.
- The HDMI or power connector has come loose.

Solution:

- Wait until the projector has cooled down and restart it manually. Use the Menu button to go to the settings and check the fan control. It should be set to "OFF". If the system is exposed to an increased ambient temperature (hot summer, no air conditioning), change the setting to "L1". You should clearly hear the fan start up.
- On the top of the projector is a service flap that can be used to change the bulb. To do this, remove the housing cover. Follow the procedure described in 11.2. Below the flap is a micro switch, which checks whether this flap is closed during operation. By exerting a slight pressure on the flap, you can tell whether the relay opens and closes. If you can hear the relay while exerting a slight pressure on the cover, contact the manufacturer with a description of the fault.
- A USB-A connection is located at the level of the projector base. Check whether it is connected. You can also check this on the USB hub inside the smart VR-Wall. If you suspect a defect in the USB interface on the projector, you should carry out the following steps:

- Disconnect all connections on the projector, including the 230 Volt mains connection. Wait for around one (1) minute.
- Then connect ONLY the mains connector.
- Use a USB printer cable (USB-A to USB-B) and connect it to the tablet PC supplied with the smart VR-Wall. - If the plug&play detection feature in Windows finds a new device, it means that the reset has been carried out successfully.
- If plug&play detection does not respond, contact the manufacturer with a description of the fault.
- Power, HDMI and the network are connected on the side of the projector. Check that all cables are inserted securely and have not come loose. These cables are equipped with strain relief and should not come loose.

Q: The camera cannot connect to the tablet PC.

- Make sure that the camera is charged and switched on.
- Use a USB stick to check that the USB input on the tablet is working.
- Completely restart the tablet using Start > Shut Down.

If this is unsuccessful, consult the operating manual for your Nikon camera or contact the smart VR-Wall manufacturer.

Q: The calibration I carried out this morning seems to have disappeared at lunchtime.

A: Because of heat dissipation from the projectors, computers and other electrical consumers in the vicinity of the smart VR-Wall, as well as from persons in the room, the display quality can deteriorate due to thermal expansion, particularly in the blend zones (an air conditioning system can significantly reduce this effect).

Calibrating the system several times at different temperatures can compensate for the effect.

- Cold calibration approx. 15 minutes after starting the system
- Warm calibration after approx. 3 h of operation
- Second warm calibration in case of significant temperature fluctuations (e.g. hot summer day or cold winter day)

Save these calibrations in the calibration menu on the tablet to enable you to respond to these external conditions.

Q: When I came back from my lunch break, the system had shut down.

A: The system automatically shuts down after 1h if the feed computer or cluster has not provided any images. (Control Panel / Power Options / Choose when to turn off the display)

Before the smart VR-Wall shuts down, the shutdown process is displayed using a timer and can be interrupted at any time by the user, e.g. by switching to a different signal source under Media Control or by activity on the feed computer that leads to it outputting a monitor signal again.

The time after which the VR system automatically shuts down can be individually adjusted.

Contact the manufacturer for details. They will set the desired time for you using TeamViewer.

Q: One side of the screen acts as though it had never been tensioned.

A: The screen itself is attached to the frame and tensioned using push buttons. The frame is attached to the smart VR-Wall and can be detached at the top and bottom using hooks.

- Make sure that there is no damage to the screen.
- Make sure that the screen is securely positioned on the smart VR-Wall.
- Check whether the push buttons on the right and left of the frame have come loose.
- If the frame has come loose from the mount, you can re-attach it to the hooks by pressing firmly downwards.

To do this, first remove the smart VR-Wall housing. Press the screen frame straight down onto the smart VR-Wall until the frame re-engages in the intended groove.

Contact the manufacturer for details.

Q: The infra-red (IR) shutter glasses flicker.

A: Flickering of the shutter glasses can be caused by discharged batteries.

Make sure that the shutter glasses used have fully charged batteries. The battery compartment is located on the underside of the left temple.

You require a button battery, type CR2032 Li-Mn 3V. Replace the battery with a new one and then test the shutter glasses.

With a new battery, IR shutter glasses should work for 500 hours.

Q: We have to move the smart VR-Wall to a new position in the room.

A: If you want to move the smart VR-Wall to a different position in the room, this is very easy to do.

- Remove the housing as described in section 11.2.
- Between 2 projectors you will find 4 hexagon head bolts, which can be turned using a size 22 spanner.
- Screwing them down extends the wheels on the underside of the smart VR-Wall.
- Lift the smart VR-Wall by 0.5 to 1 cm depending on the floor covering.
- Make sure you lift the smart VR-Wall evenly to prevent it tipping over.
Ideally, this should be done by at least two people. One person should turn the bolts and the other should stabilise the smart VR-Wall by supporting the wall by the screen frame.
- Move the smart VR-Wall to the position you want it to be in. Make sure that the cables from the smart VR-Wall to the pixel processor are not damaged.
If necessary, disconnect the pixel processor BEFORE the planned action.
- Lower the smart VR-Wall again at the destination position and completely retract the rollers.
- Make sure that the smart VR-Wall is standing upright (spirit level) and does not wobble.
- If necessary, tighten the feet again slightly.
- Make sure that all cables are reconnected and then switch on the system.
- Recalibrate the system. (This is essential after any mechanical movement.) To do this, consult the Wall Manager Manual, section 5.4, and follow the instructions provided.

Q: The infra-red (IR) shutter glasses still flicker despite a new battery.

A: If replacing the battery does not deliver the desired effect, open the front of the smart VR-Wall and check the blue long range IR emitter.

The emitter can be found close to the central projector (bottom centre). Check whether the emitter is connected to the AMD graphics card in the pixel processor using a 3 pin BNC cable, and whether this cable has any damage.

The emitter has LEDs.

- Constant green signal: Emitter and pixel processor are synchronised (the green LED switches at 120Hz)
- Flashing green signal: The emitter is not receiving a signal from the pixel processor.
- Red LED continuously lit: Emitter is connected to the power supply and active.

If everything is OK with the emitter and you still experience flickering of the infra-red glasses, disconnect the power from the emitter and place the shutter glasses within the range of vision of the emitter. Wait for 3min and then reconnect the emitter to its 24 Volt DC supply.

After this reset, the emitter should synchronise with the shutter glasses.

If this does not happen, contact the manufacturer.

Q: The wireless (RC) shutter glasses flash when switched on.

A: If the shutter glasses flash alternately when switched on, the battery in the glasses is not charged.

Connect your 3D glasses to your charging station using the micro-USB cable supplied or use a USB port on your computer to charge them.

Q: The wireless (RC) shutter glasses do not synchronise.

A: If the shutter glasses cannot establish a connection to the emitter, make sure first that the glasses are charged and the emitter is connected to the AMD graphics card in the pixel processor.

The emitter has a small blue LED on the side, which flashes quickly twice as soon as it is connected to the graphics card.

If this is unsuccessful, hold down the on button on the shutter glasses for around 3 sec. (A small red LED in the centre of the glasses will flash briefly)

If this does not solve the problem, contact your manufacturer.

Q: An error occurs when calibrating the smart VR-Wall.

A: If errors occur during calibration, refer to section 5.4 of the Wall Manager Manual. Note the error messages in Wall Manager.

If you come across an error that is not described, contact the manufacturer.



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