SONY®

Projection Manager

User's Guide

Software Version 1.1

DSMA-PM1

Thank you for downloading this software.

Please read this manual thoroughly before operation,
and retain it for future reference.

Table of Contents

NOTICE TO USERS

Trademarks

Overview

Software Features

Edge blending
When using multiple projectors to project a single image, edge blending corrects the luminance around the edges of each projector image to make the joins seamless.

Brightness and color correction
The brightness and color of each projector is adjusted to make the image between multiple projectors appear uniform.

Uniformity correction
You can adjust the color shading that arises due to the effect of the projector screen shape and image positioning.

Other
Simple menu operation, lens adjustment, and image quality adjustment are supported.

Computer Operating Environment

The following environment is recommended for the use of this software.

Supported OS
- Windows 7 Service Pack 1
- Windows 8.1
- Windows 10
  (64-bit versions)

Hardware
A computer that meets the system requirements of one of the supported operating systems

Other
- SXGA+ (1400×1050) display resolution or higher (display the taskbar vertically to increase the display range if using a display with lower resolution)
- LAN port for Ethernet connection
- USB 2.0 connector (for auto adjustment using a camera)
- Preinstalled Microsoft .NET Framework 4.51 or later and Microsoft Visual C++ +2013 Redistributable Package

Notes
- Operation is not guaranteed, even if a computer meets all the above requirements.
- Do not change the resolution of the display while this software is running.

Projector Operating Environment

Visit the following URL for the names of projector models that are compatible with this software.
http://www.sony.co.uk/pro/support/software/SET_161116_PSG

Other Required Equipment

Network hub
For details about functions enabled by purchasing a license and required products, visit the URL given in *"Activating a License" (page 6)*.

Installing and Uninstalling Software

Installing

Install the software on your computer using the following procedure.

Notes

- If an older version of the software is already installed on your computer, first uninstall the older version before installing this software.
- Log in using an administrator account to run the installer.

1 Double-click setup.exe.

The installer screen appears.
If the [User Account Control] screen appears, click [Yes].

2 Click [Next] on the installer screen.

Installation starts automatically, and the setup dialog box appears.
Follow the instructions in the setup dialog box to perform installation.

Note

Be sure to read the "End User License Agreement" that appears during installation. You can only perform installation after agreeing to the terms.

Uninstalling

Uninstall using the uninstall program function of the operating system. The following example describes the use of Windows 10.

Note

Exit the software before uninstalling.
For details about exiting the software, see *"Exiting the Software" (page 8)*.

1 Click the [Start] button.

The [Start] menu appears.

2 Click [Windows System] > [Control Panel].

The [Control Panel] screen appears.

3 Click [Programs] > [Programs and Features].

The [Uninstall or change a program] screen appears.

4 Select [Projection Manager] from the list box, and click [Uninstall].

Uninstalling starts. Follow the instructions on the screen to uninstall the software.

Activating a License

Some of the features of the software are enabled in accordance with the license configured on the projector. For details, visit the following URL.
http://www.sony.co.uk/pro/support/user-guides/1237494797673

Setup and Connection

System Configuration Diagram

This is a configuration diagram for a system using a camera for auto adjustment.
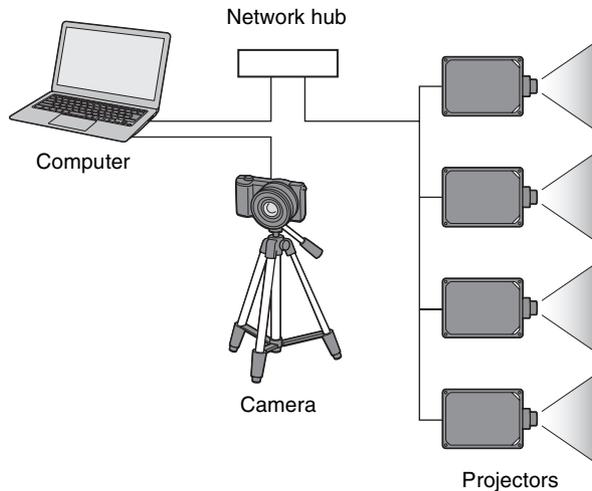
Note

For details about the types of cables that can be used, refer to the operating instructions for the projector.

Computer Settings

Set the IP address, subnet mask, and default gateway to the settings for the network environment.

Note

A warning pop-up may appear at startup alerting you that connection with the projectors may not be possible if security software or a firewall is configured on the computer. Turn the firewall settings off, and then restart the software.

Projector Settings

Refer to the operating instructions for the projector.

Camera Settings

A separate camera is required in order to use the multi-projector auto adjustment function.
For details about supported cameras and lenses, visit the URL given in *"Activating a License" (page 6)*. For details about connection with a computer, see *"Auto Adjustment of a Multi Projector System" (page 21)*.

Starting and Exiting the Software

Starting the Software

Double-click the shortcut icon on the desktop.

Exiting the Software

Click the ☒ button in the top right of the window.

System Setup and Adjustment

Software Screen Structure

Most configuration screens, excluding the auto adjustment screens, are comprised of the following parts.

Detailed settings area
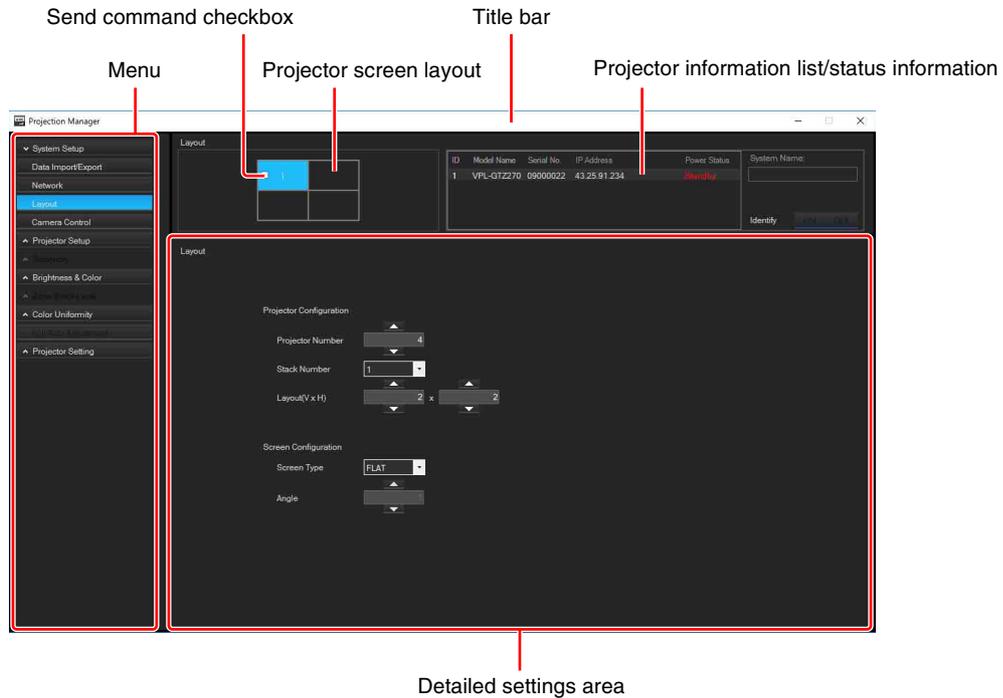
Title bar

Right-clicking the title bar displays the following menus.
Language: Switches the screen display language. (Japanese/English/Chinese)
License info: Displays license information for projectors in the screen layout.
About Projection Manager: Displays the Projection Manager version information.

Menu

Selects the configuration items.

Send command checkbox

Enables the simultaneous control and adjustment of test patterns for all checked projectors.

Projector screen layout

Displays the projector screen layout selected on the [Layout] screen.
On the [Layout] screen, you assign a projector by selecting a projector in the projector information list and dragging & dropping it into the desired frame. To cancel an assignment, select the projector in the frame, and drag & drop it out of the frame.
Click a projector in the screen layout to configure settings for that projector.

Projector information list

Displays projector information in list view.

Status information

Displays the operation status on the auto adjustment screens.

Detailed settings area

Displays the configuration items. The items that are displayed vary depending on the selected menu.

Miscellaneous items

On many of the configuration screens, a test pattern cursor can be displayed to assist configuration.
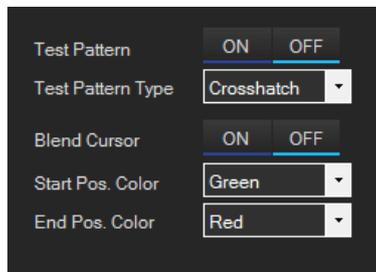
Test Pattern
Turns the display of the test pattern on/off.

Test Pattern Type
Selects the test pattern to display.

Blend Cursor
Turns the display of the blending area cursors on/off.

Start Pos. Color
Selects the display color of the blending area start cursor.

> **Note**
>
> The start position cursor may not be displayed if the resolution of the input video signal of the projector is HD.

End Pos. Color
Selects the display color of the blending area end cursor.

[Receive Projector Data] button
Receives configuration information from the projector, and updates the page contents.

System Setup

Data Import/Export

Imports/exports software screen configuration data. The existing network settings and layout settings can be used in another system or when replacing a projector.

[Data Import] button
Imports an adjustments data file from the computer into the software.
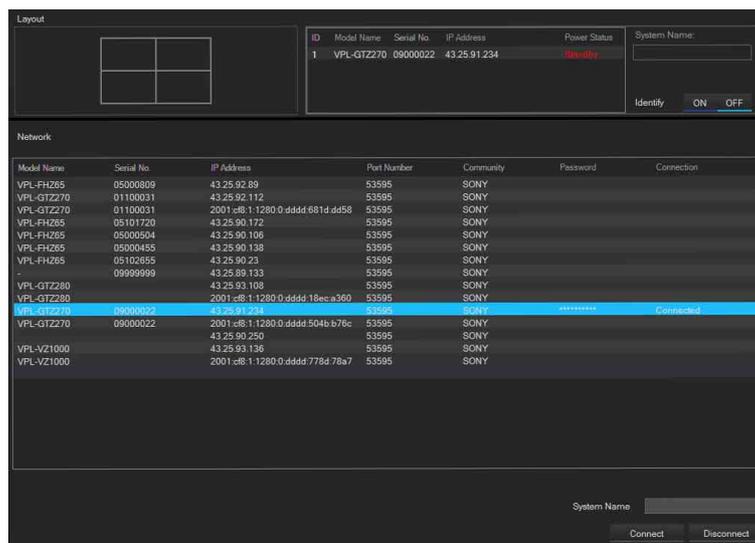
[Data Export] button
Exports an adjustments data file to the computer from the software.

Network

Configures the network settings of a projector.
Projectors connected to the network are detected automatically at regular intervals, and are displayed in list view. You can connect to the system by selecting any projector. You can add multiple projectors to the system at the same time by pressing and holding the [Ctrl] key on the keyboard, selecting a projector from the list, and double-clicking the Password field. If a projector is not detected automatically, due to firewall settings or security software, you can connect by entering the IP address and port number directly in an empty field.

System Name
Up to 30 alphanumeric characters and symbols can be entered.

[Connect] button
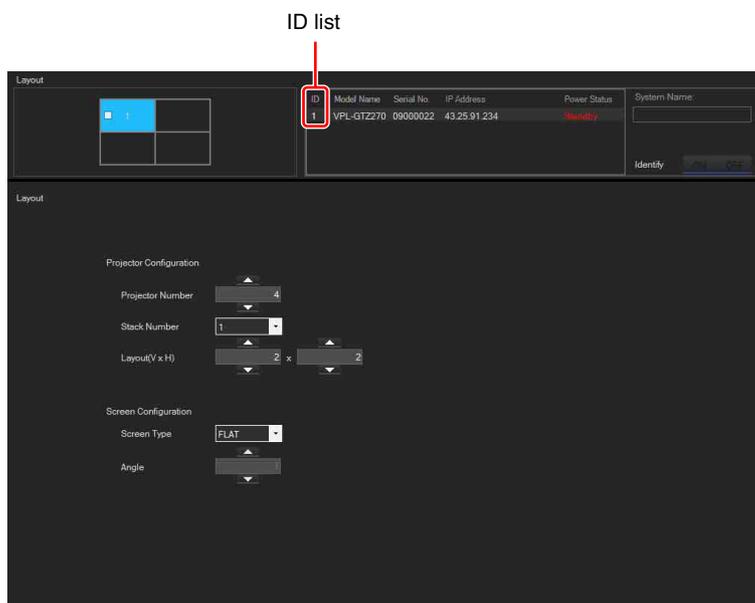Connects to the projectors selected in the list, and adds them to the system.

[Disconnect] button
Disconnects the projectors selected in the list, and removes them from the system.

Note

For password settings, refer to the operating instructions for the projector.

Layout

ID list

Sets the layout information and projector screen shape information of multiple projectors. A projector registered in the system in Network settings can be assigned to any projector screen using drag & drop.

ID list
You can edit an entry by clicking the an ID number displayed in the list.

[Identify] button
Displays the number assigned in the ID list on the projector in a test pattern. This can be used to check the physical layout of the projectors.

Projector Number
Set the number of projectors used to construct the system.

Stack Number
Set the number of projectors projecting overlapping images in any layout position.

Layout (V × H)
Set the number of projectors in the vertical and horizontal directions of the projector screen.

Note

If using only one projector, set [Stack Number] to "1", and set [Layout (V × H)] to "1×1".

Screen Type
Select the projector screen shape. If the projector screen is curved, enter the degree of curvature of the projector screen in [Angle].
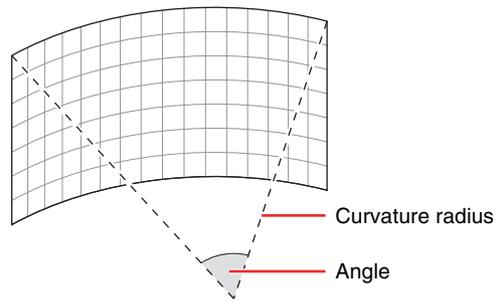
Camera Control

Used for the auto adjustment with camera function. For details, see *"Auto Adjustment of a Multi Projector System" (page 21)*.

Projector Settings

Configures the settings of the projectors.
The configuration items and adjustment items vary depending on the projectors used. For details, refer to the operating instructions for each projector.

Projector Setup

Specifies the projector preferences and turns the projectors on/off.
The settings, excluding [Input], will vary depending on the projector. Clicking the [Multi-Projector Setup] button initializes and configures settings for a multi-projection system.

Input
Select the input signal for projection.
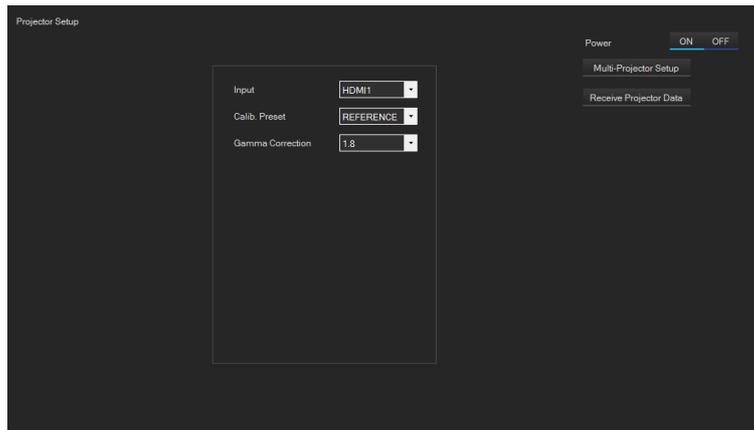
Other configuration items
You can configure the various configuration items that are displayed for each projector.

Power
Turn the selected projector on/off.

[Multi-Projector Setup] button
When using multiple projectors to project a single image, this matches the image quality of each projector to standard settings before adjustment.

Note

The viewing angle and aspect ratio, image inversion, image, mask and other settings are not reset using the buttons above. Set the adjustments using the menu of each projector.

Edge Blending
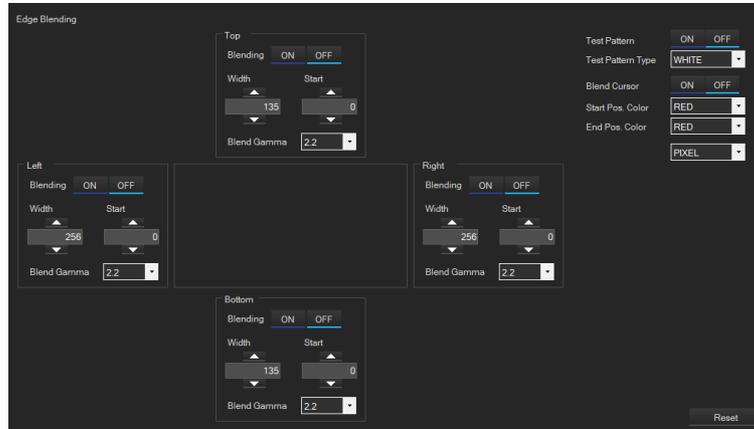
Configures the blending for the top/bottom/left/right edges.

To blend the picture along an edge, set [Blending] to "ON" and specify the blending start point and blending width. To disable blending along an edge, set [Blending] to "OFF."

You can display a test pattern, as a guide for blending, and cursors (blending start point and end point) on the projector.

Blending
Turn blending on/off.

Width
Specify the width of the blending area as a number of pixels or as a percentage of the full screen.

Start
Specify the blending start point as a number of pixels or as a percentage of the full screen.

Blend Gamma
You can fine adjustments of the luminance curve in the blending area. Under normal conditions, set to the same value as the gamma setting of the projectors. Change the settings if there are brightness variations in the blending area of adjacent projectors due to screen shape or projector positioning.

[Reset] button
Resets the edge blending settings to the factory default values.

Lens Control
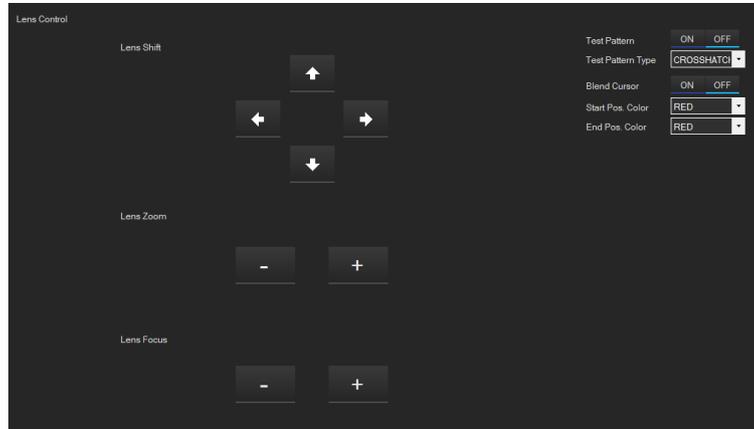
Configures the lens adjustment of the projector.

Lens Shift
Move the lens up/down/left/right.

Lens Zoom
Adjust the zoom level of the lens.

Lens Focus
Adjust the focus of the lens.

Note

A test pattern may be displayed automatically when adjusting Lens Control, depending on the type of projector. Select [Function] > [Test Pattern] > [OFF], as required.

Manual Adjustment of a Multi Projector System

Brightness and Color Adjustment

You can adjust the brightness and color of the black level, white level, and half tones of each projector within a multi projector system to match the projectors, and then adjust the color space to adjust the color reproduction.

Note

Always connect a video signal input to the projector when making adjustments. If there is no video input signal, some adjustments cannot be made. Also, correct adjustment cannot be made if a video input signal with a format that is different from the target video signal is connected.

Brightness

Light Output
Sets the light source output.

Color (Yellow/Blue)
Make fine adjustments to the color balance of the light source. This adjustment supports only projectors with a laser light source.

**White Balance Gain**
Adjusts the gain of the input video signal.

White Balance Bias
Adjusts the bias of the input video signal.

Color Space

Adjusts the color space for accurate color reproduction of the input video signal. You can adjust a target color space by selecting a color space and making fine adjustments to the chromaticity of the red, green, and blue primary colors, or improve the chromaticity accuracy by calibrating the optical native color space of the projector using a measuring device.

Adjusting a target color space
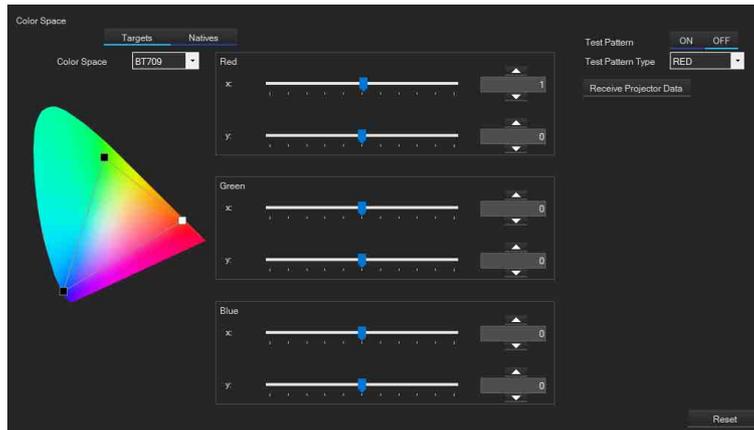
Color Space
Select the target color space to adjust.

Red / Green / Blue
Adjust the chromaticity of the three individual primary colors in the x-direction (cyan-red in the chromaticity diagram) by moving the x sliders.
Adjust the chromaticity of the three individual primary colors in the y-direction (magenta-green in the chromaticity diagram) by moving the y sliders.

[Reset] button
Resets the chromaticity of the three primary colors of the selected color space to their default values.

Calibrating the native color space
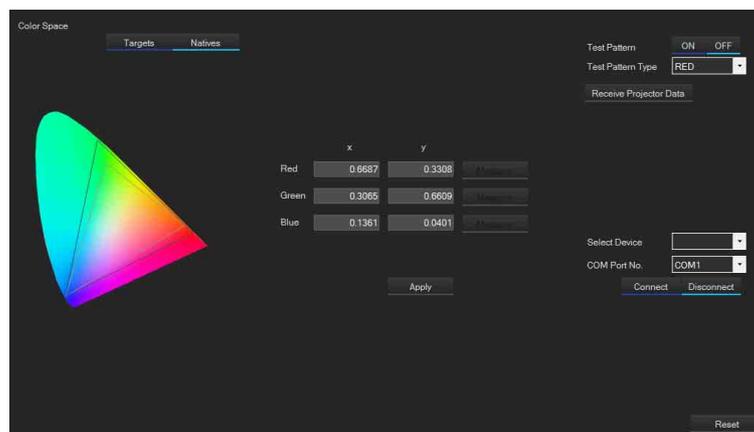
Select Device
Select the measuring device connected to the computer. The CS-100A or CL-500A measuring device made by Konica Minolta can be used.

COM Port No.
If the measuring device and computer are connected using a serial cable, select the port number in [COM Port No.].

[Connect] button
Connect the measuring device to the computer.

[Disconnect] button
Disconnect the measuring device from the computer.

Red / Green / Blue
With a test pattern displayed, measure the xy chromaticity within the black frame cursor displayed near the center of the projection area, and enter the values. Select Red, Blue, or Green in [Test Pattern Type] and click the [Measure] button for the corresponding color to automatically acquire the value from the measuring device connected to the computer. If using a measuring device not supported by this software, enter the xy chromaticity values directly.

[Apply] button
Apply the chromaticity calibration to the three primary colors for the native color space of the projector.

[Reset] button
Resets the projector chromaticity to their default values.

> **Notes**
>
> - Perform the adjustment in an environment that is not affected by outside light or lighting.
> - Switching to the native color space calibration screen temporarily cancels the color space conversion settings. To check if the color space was adjusted correctly after calibration, switch to the target color space adjustment screen, select a target color space, and check the color of the three primary colors.
> - If colors are not reproduced accurately after adjustment using a measuring device, there may be a problem with the position of the measuring device or the measurement may be affected by outside light or lighting. Check the setup conditions.
> - Depending on the projector model, multiple native color spaces may be supported (for example, BT.709 and BT.2020). In this case, switch the color space on the target color space adjustment screen, and perform the adjustment twice.

Color Matching
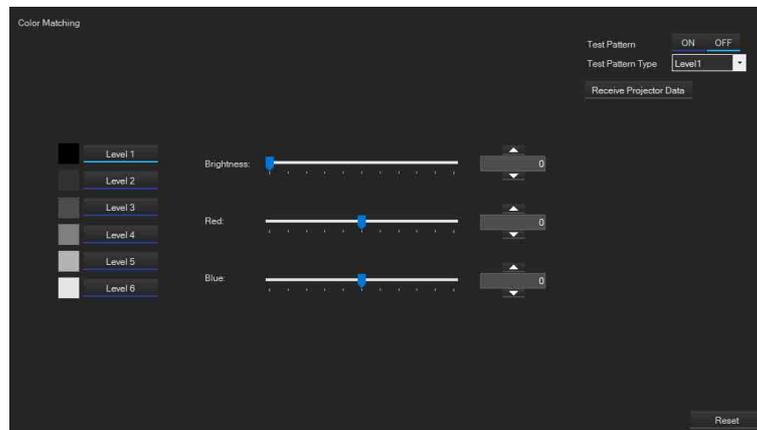
Adjusts the brightness and color tone of signal levels.
Select a level between [Level 1] and [Level 6], and specify the brightness and red/blue levels.
You can display a test pattern while making adjustments. Select a test pattern appropriate for each level.

[Level 1] to [Level 6] buttons
Select the signal level to adjust.

Brightness
Adjust the brightness level. Specify the level using a slider or numeric value.

Red
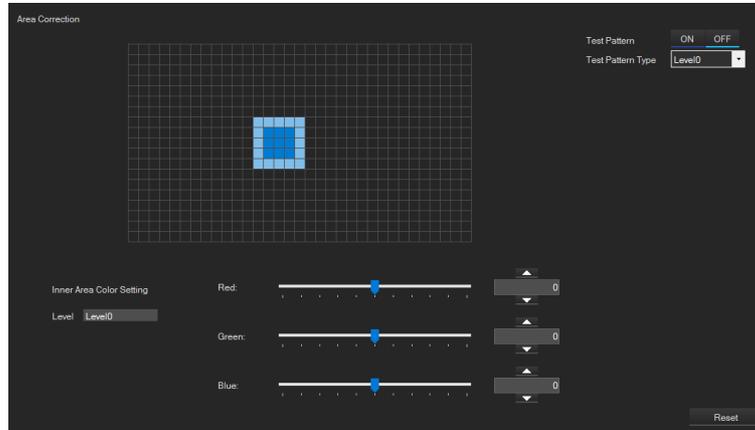Adjust the red level. Specify the level using a slider or numeric value.

Blue
Adjust the blue level. Specify the level using a slider or numeric value.

[Reset] button
Resets the color matching adjustments to their factory default values.

Color Uniformity Adjustment

Area Correction

Corrects for any color shading in specific areas of the image.
You specify two rectangular areas by dragging with the mouse. The inner area is corrected according to the specified RGB values. The outer area is blurred so that the region surrounding the corrected area is displayed naturally. A "+" cursor is displayed at the top left of the selected area.
You can also display a test pattern while making adjustments.
Adjust the uniformity using the following procedure.

1 Select the signal level to adjust in [Level].

2 Select a test pattern, as required.

3 Drag the mouse to select the inner area.

Pressing the left-button of the mouse starts the selection, and releasing the button selects the are within the rectangle. Pressing the right-button of the mouse cancels the selection.

4 Drag the mouse, as in step **3**, to select the outer area.

A region inside the area selected in step **3** cannot be selected.
Clicking outside the selected area when both the outer area and inner area are selected or right-clicking with the mouse cancels the selection of all areas.

5 Adjust the RGB values to remove any color shading in the image.

You can make the adjustment using sliders or specifying numeric values.

The [Reset] button resets only the selected test pattern level to its factory default values.

Auto Adjustment of a Multi Projector System

On projectors with an activated license, auto adjustment is supported using a camera connected to the computer. For details about supported cameras and lenses, visit the URL given in *"Activating a License" (page 6)*.

> **Note**
>
> The auto adjustment function of the software is supported in projection systems with a screen gain of "1.0" or lower. If the screen gain is high, accurate adjustment may not be possible.

Preparation

Camera shooting parameter settings

Before connecting the camera and computer, configure the basic shooting parameter settings using the menu on the camera.

> **Note**
>
> The following example settings are for the Sony ILCE-5100 camera. For details, refer to the operating instructions for the camera being used.

- **Initialize the camera shooting settings**
  [MENU] > [Setup] > [Setting Reset] > [Camera Settings Reset]
- **To set the USB connection settings to PC remote mode**
  [MENU] > [Setup] > [USB Connection] > [PC Remote]
- **To set to manual focus mode**
  [MENU] > [Camera Settings] > [Focus Mode] > [Manual Focus]
- **To set to manual exposure mode**
  [MENU] > [Camera Settings] > [Shoot Mode] > [Manual Exposure]
- **Set the image quality mode**
  The optimum image quality settings will vary with the type of auto adjustment. For details, refer to the description for each adjustment.
- **Set image stabilization to off**
 [MENU] > [Camera Settings] > [SteadyShot] > [Off]

Computer and camera connection

Connect the camera to the computer using a USB cable.

> **Notes**
>
> - Connect a single camera to a single computer. If the camera is connected to two or more computers, the software may not operate correctly.
> - If communication between the computer and camera cannot be established, switch [USB LUN Setting] on the camera from [Multi] to [Single].

Camera Control
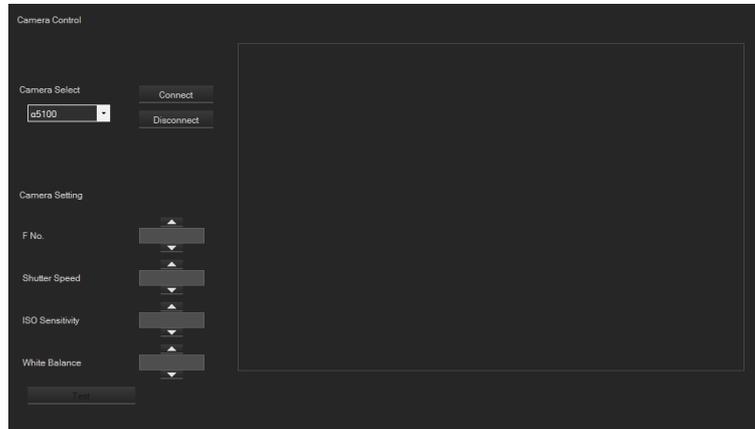
Camera Select
Select the type of camera to connect.

[Connect] button
Connect the camera to the computer.

[Disconnect] button
Disconnect the camera from the computer.

Camera Setting
Specify the [F No.], [Shutter Speed], [ISO Sensitivity], [White Balance] settings. These parameters are used for test shooting, and do not have to be strictly configured.

[Test] button
Performs test shooting of the camera. In test shooting, the captured image is displayed on the computer screen. Adjust the camera positioning until the image roughly fills the full projection area of the projectors.
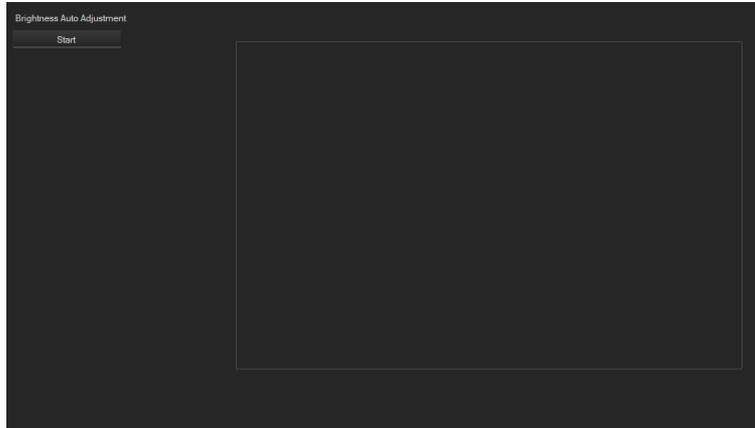
Note

The optimum positioning will vary with the type of auto adjustment. For details, refer to the description for each adjustment.

Brightness and Color Adjustment

The system can automatically adjust the brightness and color of multiple projectors.
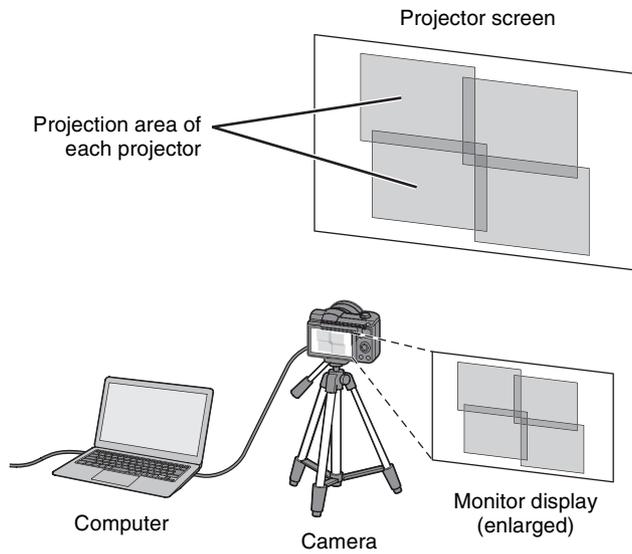
Note

Before adjustment, check that all the target projectors configured in the layout are set to the same image quality mode. If the color temperature and color space settings are different on each projector, adjustments may not be completed correctly. For details, see *"Projector Setup" (page 14)*.

[Start] button
Start auto adjustment.

Brightness and color auto adjustment setup

Adjustment procedure

1 Configure the shooting parameters of the camera.

Change the shooting parameters from the menu on the camera.

> **Note**
>
> The following example settings are for the Sony ILCE-5100 camera. For details, refer to the operating instructions for the camera being used.

- **Set the image quality to RAW**
  [MENU] > [Camera Settings] > [Quality] > [RAW]
- **Turn off lens compensation**
  [MENU] > [Custom Settings] > [Lens Comp.] > [Shading Comp.] > [Off]
  [MENU] > [Custom Settings] > [Lens Comp.] > [Chro. Aber. Comp.] > [Off]
- **Set the zoom to wide angle**
  Operate the zoom lever to set the zoom to the wide (W) position.

2 Mount the camera.

To obtain the optimum adjustment results, adjust the positioning of the camera so that the adjustment target area of all projectors fills the captured camera image as much as possible. Mount the camera on a tripod, and adjust the focus manually.

3 Start adjustment.

Click the [Start] button to start auto adjustment. The adjustment time depends on the number of projectors. For example, adjustment of two projectors may take approximately 15 minutes.

> **Note**

For accurate adjustment, perform adjustment in a darkened room so that no ambient light falls upon the projector screen. If there is any ambient light, errors may occur in the brightness and color adjustments of low gradation areas.

Color Uniformity Adjustment

The system can automatically adjust and remove color shading in the projected image from each projector.

Note

The color characteristics are not stable immediately after the projectors are turned on. Allow approximately 30 minutes for the projectors to warm up after the light sources are turned on.
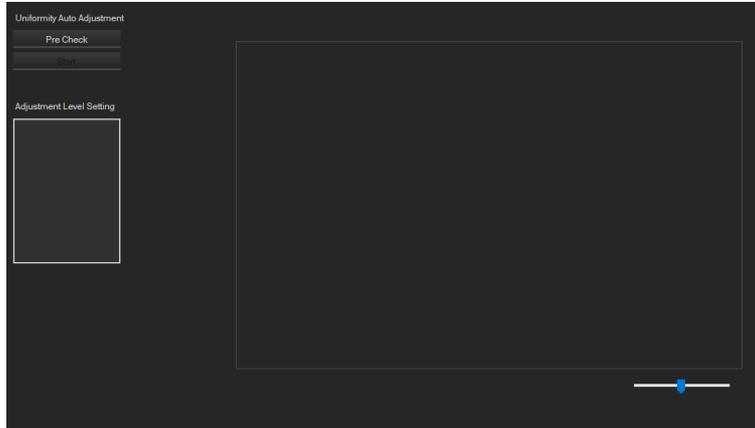
[Pre Check] button
Load the camera image into the computer so that you can check visually that the projector to adjust is within the camera shooting range. Manually specify the area in which to adjust the color shading. You can exclude an area from adjustment by placing the area off-screen or by obstructing part of the screen to prevent false identification by the camera.
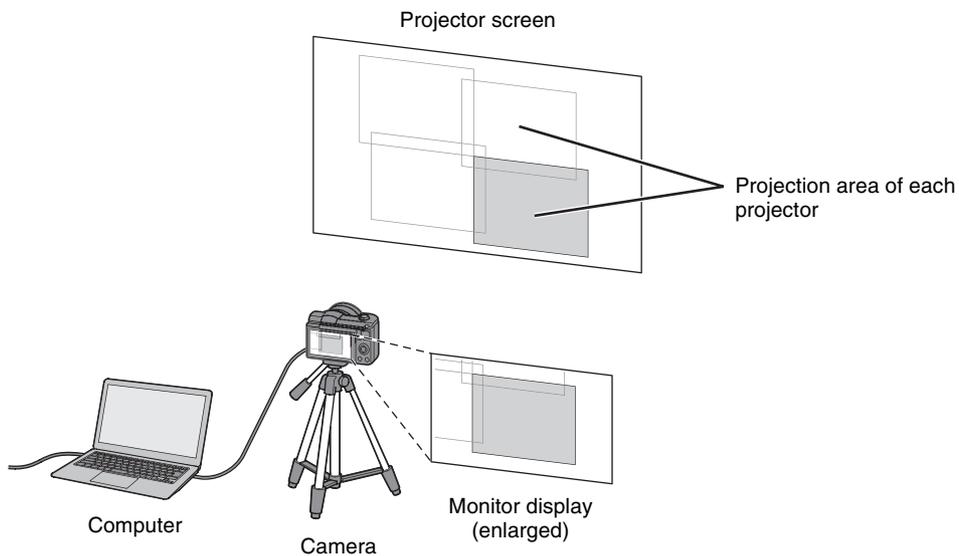
[Start] button
Start auto adjustment.

Adjustment Level Setting
Select the signal level to adjust for color shading.

Color uniformity auto adjustment setup

Adjustment procedure

1 Configure the shooting parameters of the camera.

Set the camera settings as described in *"Brightness and Color Adjustment" (page 23)*.

2 Mount the camera.

To obtain the optimum adjustment results, adjust the positioning of the camera so that the adjustment target area of a projector fills approximately half the projection range closest to the center. Mount the camera on a tripod, and adjust the focus manually.

3 Run a pre-check.

For one of the projectors displayed in the screen layout in the software, select the target projector and click the [Pre Check] button.

4 Select the area to adjust.

The following image appears on the computer when the pre-check is completed successfully.
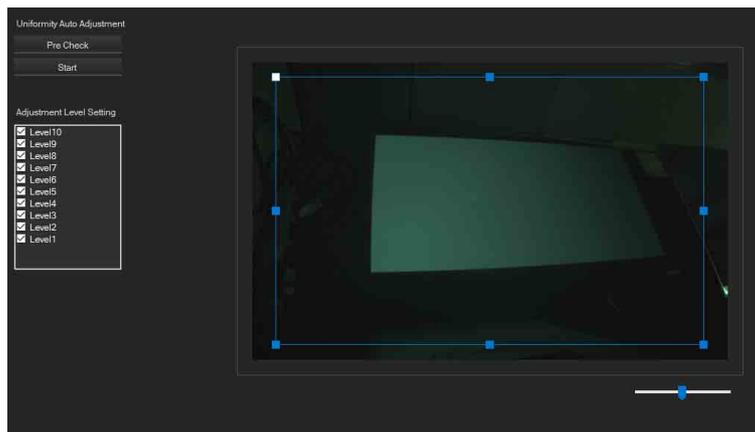
Move the adjustment range selection cursor using drag & drop to specify the area within the projection area where you want to adjust for color shading. Specify the area so that the center of the projection area of the projector is included inside the cursor selection.

Note

For accurate adjustment, turn all other projectors off or set them to blank output. Perform adjustment in a darkened room so that no ambient light falls upon the projector screen. If there is any ambient light, errors may occur in the color shading adjustment of low gradation areas.

5 Select the adjustment level.

Specify the signal level for which you want to adjust the color shading. Normally, all levels should be selected.

6 Start adjustment.

Click the [Start] button to start auto adjustment. The adjustment time depends on the number of adjustment levels. Adjustment of the uniformity at all signal levels may take approximately 30 minutes. When adjustment is completed, visually check that the color shading has been calibrated correctly.
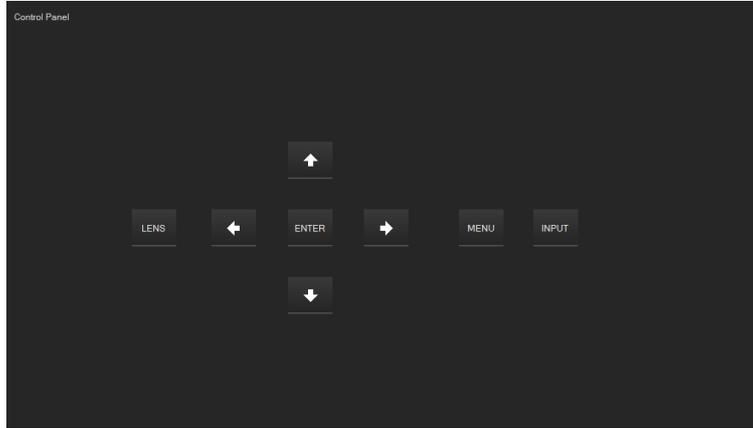
Note

If surrounding light falls on the projector screen, or the camera or screen position is not stable, the adjustment time may take longer or an adjustment error may occur.

Projector Image Quality Adjustment

Control Panel

Allows you to perform the same operations as the control panel of the projectors.

Picture

Calib. Preset
Select the picture quality to match the location used and the image matter. Clicking the [Reset] button will restore all settings to the factory defaults.

Motionflow
Configure MotionFlow settings.

Light Dynamic Control
Specify the variable range of the laser light control.

Light Output
Increase the value to make the image brighter, and decrease the value to make the image darker.

Iris Brightness
Increase the value to make the image brighter, and decrease the value to make the image darker.

Contrast Enhancer
Automatically adjusts the level of bright and dark areas to obtain the optimum contrast according to the scene.

Color Temp.
Select the color temperature.

Gain/Bias
Adjust the color temperature.

Sharpness
Sharpen the outlines in an image, making noise less noticeable.

Reality Creation
Adjusts the resolution and noise filtering to obtain a more "realistic" image (super-resolution function).

Database
Switch the database.

Resolution
Increase the value to improve the texture and sense of detail to make pictures clearer.

Noise Filtering
Increase the value to make graining and other noise less noticeable.

Contrast
Adjust the contrast of the image.

Brightness
Adjust the brightness of the image.

Color
Adjust the color saturation.

Hue
Adjust the hue.

Panel Alignment

Fine tunes the color shift of text characters and the image on the projector screen.
Select the color to adjust in [Color Select], and specify the color shift adjustment values for the horizontal and vertical directions of each zone of the panel in the table.
Use the A / D / W / S keys on the keyboard to move the adjustment position cursor left/right/up/down, respectively. Use the left/right arrow keys to adjust the value in the horizontal direction, and the up/down arrow keys to adjust the value in the vertical direction.

Advanced Gamma
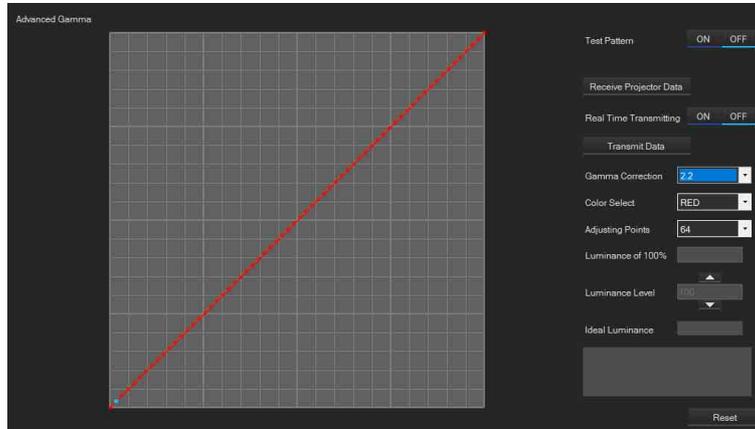
You can adjust the brightness of any input signal level by adjusting the individual red/green/blue primary colors. Specify the intervals between adjustment levels, and adjust the gamma curve by dragging target signal level points.

Gamma Correction
Select the signal gamma of the projector.

Color Select
Select one of the three primary colors as the target of gamma adjustment.

Adjusting Points
Select the division of the input signal level for gamma adjustment.

Note

The following functions can be used only when "10" is selected in [Adjusting Points].

Luminance of 100%
Measure the peak luminance of the input signal level using a measuring device and enter the value.

Luminance Level
Select an arbitrary input signal level for which you want to calculate the ideal luminance value.

Ideal Luminance
Displays the ideal luminance at any luminance level.

Troubleshooting

If an error message is displayed during auto adjustment when using a camera, check the cause to resolve the issue, then try again.

Projectors

Message	Cause and solution
Cannot connect to the projector. Please check the network settings.	Check the following, and then try again. • Check that the IP address, port setting, community, and password are set correctly. • Check that the LAN cable is physically connected.
Cannot communicate with the projector. Please check the network settings.	Check the following, and then try again. • Check that the LAN cable is physically connected. • Check that the picture image quality settings match on all the projectors.
Projector error was detected. Please correct the error.	Resolve the error state on the projector, and then try again.
Projector warning was detected. Please check the projector status.	Resolve the warning state on the projector, and then try again.
The projector is in the standby state. Please power on.	Set the projector to the power-on state, and then try again.
The input video signal of the projector cannot be detected. Please check the connection of the video signal cable and the state of the picture sending equipment.	Check the following, and then try again. • Check that the actual video signal is input correctly and is stable. • Check that the input is selected correctly.
Input video signal changed during adjustment. Please check the signal condition.	The input video signal changed during auto adjustment. • Check that the actual video signal is input correctly and is stable. • Check that the input is selected correctly.
Projector settings changed during adjustment. Please check the settings of the projector.	The projector settings changed during uniformity auto adjustment. Or the setup memory (storage location of settings) of the projector changed during auto adjustment. • Switch to the settings for use before performing uniformity adjustment. • Do not switch the projector settings during auto adjustment.

Camera

Message	Cause and solution
Cannot connect to the camera. Please check the camera settings.	Check the following, and then try again. • Check that the camera and computer are connected using a USB cable. • Check that the camera is turned on. • Check that the camera setup was performed correctly.
Cannot communicate with the camera. Please check the camera settings.	Check the following, and then try again. • Check that the camera and computer are connected using a USB cable. • Check that the camera is turned on. • Check that the camera setup was performed correctly.
Camera shooting setting is incorrect. Please check the user manual and set the camera parameters appropriately.	Check that the camera setup was performed correctly, and then try again.
Image on the screen is too bright. Please change the light source setting of the projector or change the installation position of the camera and the projector.	The light source setting of the projector is too bright and exceeds the upper limit of the camera setting range. Check/perform the following, and then try again. • Check whether auto adjustment is performed or not when three or more projectors are stacked. • Reduce the laser output of the adjustment target.

Message	Cause and solution
Image on the screen is too dark. Please change the light source setting of the projector or change the installation position of the camera and the projector.	The light source setting of the projector is too dark and exceeds the lower limit of the camera setting range. Increase the laser output of the adjustment target, and then try again.

Color uniformity adjustment

Message	Cause and solution
Cannot detect the projector image within the adjustment area. Please re-execute "Pre check" and correctly set the adjustment area cursor.	Specify the user-specified area so that the projector image area falls inside the user-specified area.
Cannot detect center of the projector image within the adjustment area. Please re-execute "Pre check" and set the configuration properly so that the center of the projector image will be in the adjustment area cursor.	Adjust the user-specified area, camera position, or projector image area so that the center of the projector image falls within the user-specified area.
An unexpected error occurred. Please check the connection on the system.	Try turning the projector and camera off and then on again, disconnecting and reconnecting the USB cable connecting the camera and computer, and then try again. If the problem persists, consult your Sony service representative.

Brightness and color adjustment

Message	Cause and solution
An unexpected error occurred. Please check the connection on the system.	Check the following, and then try again. • Check that the center of all screens of projectors in the screen layout are within the camera image field of view. • Check that the difference in white peak luminance between the projectors to adjust is 20% or lower. • Check that the camera position has not shifted during auto adjustment. If the same error occurs after checking the above, try turning the projector and camera off and then on again, and disconnecting and reconnecting the USB cable connecting the camera and computer. If the problem persists, consult your Sony service representative.

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