

Specifications

Model	With supplied lens	PT-RZ970	PT-RW930	PT-RX110	PT-RZ870	PT-RZ770	PT-RW730	PT-RZ660	PT-RW620	
	Without lens	PT-RZ970L	PT-RW930L	PT-RX110L	PT-RZ870L	PT-RZ770L	PT-RW730L	PT-RZ660L	PT-RW620L	
Projector type	1-Chip DLP™ projector									
DLP™ chip	Panel size	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)	16.5 mm (0.65 in) diagonal (16:10 aspect ratio)	17.8 mm (0.7 in) diagonal (4:3 aspect ratio)	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)	16.5 mm (0.65 in) diagonal (16:10 aspect ratio)	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)	16.5 mm (0.65 in) diagonal (16:10 aspect ratio)	16.5 mm (0.65 in) diagonal (16:10 aspect ratio)	
	Display method	DLP™ chip x 1								
	Pixels	2,304,000 (1920 x 1200) pixels	1,024,000 (1280 x 800) pixels	786,432 (1024 x 768) pixels	2,304,000 (1920 x 1200) pixels	1,024,000 (1280 x 800) pixels	2,304,000 (1920 x 1200) pixels	1,024,000 (1280 x 800) pixels	1,024,000 (1280 x 800) pixels	
Light source	Laser diodes: Laser Class 1 (Class 3R for US models)									
Brightness*1		10,000 lm (Center)*2 9,400 lm*3 8,000 lm (Quiet 1)*2 6,000 lm (Quiet 2)*2	10,400 lm (Center)*2 10,000 lm*3 8,500 lm (Quiet 1)*2 6,400 lm (Quiet 2)*2	8,800 lm (Center)*2 8,500 lm*3 7,200 lm (Quiet 1)*2 5,400 lm (Quiet 2)*2	7,200 lm (Center)*2 7,000 lm*3			6,200 lm (Center)*2 6,000 lm*3		
	Resolution	1920 x 1200 pixels	1280 x 800 pixels	1024 x 768 pixels	1920 x 1200 pixels	1280 x 800 pixels	1920 x 1200 pixels	1280 x 800 pixels		
Contrast*2	10,000:1 (Full On/Full Off, Dynamic Contrast Mode: 3)									
Screen size (diagonal)	1.27–15.24 m (50–600 in), 1.27–5.08 m (50–200 in) with ET-DLE055, 2.54–8.89 m (100–350 in) with ET-DLE030									
Center-to-corner uniformity*2	90 %									
Lens	Powered zoom	1.7–2.4:1	1.8–2.5:1		1.7–2.4:1		1.8–2.5:1	1.7–2.4:1	1.8–2.5:1	
	Powered focus	F 1.7–1.9, f 25.6–35.7 mm								
Optical axis shift*4,5	Vertical (powered) (from center of screen)	+50 %, -16 %	+60 %, -16 %	+50 %, -13 %	+50 %, -16 %		+60 %, -16 %	+50 %, -16 %	+60 %, -16 %	
	Horizontal (powered) (from center of screen)	+30 %, -10 %								
Keystone correction range*4	Vertical: ±40° Horizontal: ±15° Except ET-DLE105/085/055/03									
Keystone correction range*4,6 with optional Upgrade Kit ET-UK20	Vertical: ±40° Horizontal: ±40°									
Installation	Ceiling/floor, front/rear, free 360-degree installation									
Terminals	SDI IN	BNC x 1: 3G/HD/SD-SDI input	—	—	BNC x 1: 3G/HD/SD-SDI input	—	—	BNC x 1: 3G/HD/SD-SDI input	—	
	HDMI IN	HDMI 19-pin x 1 (Compatible with HDCP, Deep Color)								
	DVI-D IN	DVI-D 24-pin x 1 (DVI 1.0 compliant, compatible with HDCP, single link)								
	RGB 1 IN	RGB x 1 (BNC x 5): RGB/YPbPr/YCbCr/YC/VIDEO								
	RGB 2 IN	D-sub HD 15-pin (female) x 1: RGB/YPbPr/YCbCr								
	SERIAL/MULTIPROJECTOR SYNC IN	D-sub 9-pin (female) x 1 for contrast sync/shutter sync (RS-232C compliant)								
	SERIAL/MULTIPROJECTOR SYNC OUT	D-sub 9-pin (male) x 1 for contrast sync/shutter sync (RS-232C link control)								
	REMOTE 1 IN	M3 stereo mini jack x 1 for remote control (wired)								
	REMOTE 1 OUT	M3 stereo mini jack x 1 for projector connection control								
	REMOTE 2 IN	D-sub 9-pin (female) x 1 for external control (parallel)								
	DIGITAL LINK/LAN	RJ-45 x 1 for network, DIGITAL LINK connection, 100Base-TX, compatible with Art-Net, PjLink™, Deep Color, HDCP								
	Power supply	AC 100–240 V, 50/60 Hz								
	Power consumption*7		1,050 W Normal: 742 W Eco: 617 W		950 W Normal: 689 W Eco: 583 W	825 W Normal: 593 W Eco: 508 W			700 W Normal: 499 W Eco: 428 W	
		(During standby)	85 W with Quick Startup Mode set to ON, 0.3 W with Standby Mode set to Eco, 3 W with Standby Mode set to Normal							
Dimensions (W x H x D)	With standard Lens	498 x 200*8 x 581 mm (19 19/32" x 7 7/8" x 22 7/8")								
	Without Lens	498 x 200*8 x 538 mm (19 19/32" x 7 7/8" x 21 3/16")								
Weight*9	With standard Lens	Approx. 23.2 kg (51.1 lbs.)							Approx. 23.1 kg (50.9 lbs.)	
	Without Lens	Approx. 22.4 kg (49.4 lbs.)							Approx. 22.3 kg (49.2 lbs.)	
Cabinet materials	Molded plastic									
Cabinet color	Black / White									
Operation noise*3	41 dB / 37 dB [Quiet 1] / 35 dB [Quiet 2]				36 dB			35 dB		
Operating environment	Operating temperature: 0–45 °C (32–113 °F)*10, operating humidity: 10–80 % (no condensation)									
Applicable software	Logo Transfer Software, Multi Monitoring & Control Software, Geometry Manager Pro									
Supplied accessories	Power cord, wireless/wired remote control unit, batteries (R03/AAA type x 2), CD-ROM (Operating instruction, Logo Transfer Software*11, Multi Monitoring & Control Software*11), projection lens cover, lens cover (models with lens only)									

\*1 Value is for the supplied standard lens. The value varies depending on the lens. \*2 The value of the light output at the center region of the projected image is extracted based on the light output measurement method defined by the ISO/IEC 21118:2012 international standards. \*3 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2012 international standards. \*4 Figures vary depending on lens used. Please refer to Spec File or Operating Instructions. \*5 Optical axis shift is not supported on the ET-DLE055, and the optical axis is fixed with the ET-DLE030. \*6 When vertical and horizontal keystone are used simultaneously, correction cannot be made exceeding total of 55°. \*7 In conditions with an operating temperature of 25 °C [77 °F], altitude 700 m [2,297 ft], IEC62087: 2008 Broadcast Content, Picture Mode: Standard, Dynamic Contrast: 2. \*8 With legs at shortest position. \*9 Average value. May differ depending on the actual unit. \*10 When used in locations from 0 m to 4,200 m (0 ft to 13,780 ft) above sea level in Normal Mode, and from 0 m to 2,700 m (0 ft to 8,858 ft) above sea level in other modes. If the ambient temperature exceeds 35 °C (95 °F) [30 °C (86 °F) for PT-RZ970/RW930/RX110] when used in locations from 0 m to 2,700 m (0 ft to 8,858 ft) above sea level, or if it exceeds 25 °C (77 °F) when used in locations from 2,700 m to 4,200 m (8,858 ft to 13,780 ft) above sea level, the light output may be reduced to protect the projector. \*11 Not included with PT-RZ870. Please download from our global website: <https://panasonic.net/cns/projector/download/application/>

Note:  Hatch area is the numerical value of the supplied standard lens.



For more information about Panasonic projectors, please visit:  
 Projector Global Website – [panasonic.net/cns/projector](https://panasonic.net/cns/projector)  
 Facebook – [www.facebook.com/panasonicprojector](https://www.facebook.com/panasonicprojector)  
 YouTube – [www.youtube.com/user/PanasonicProjector](https://www.youtube.com/user/PanasonicProjector)

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All information included here is valid as of July 2018.

RZ970series\_G1 Printed in Japan.

# Panasonic

## BUSINESS

# RZ970 Series

1-Chip DLP™ Projectors

PT-RZ970/RW930/RX110  
 PT-RZ870  
 PT-RZ770/RW730  
 PT-RZ660/RW620



Vision realized  
 on a  
 grander scale



Worldwide Olympic Partner



Worldwide Paralympic Partner



# For High-Impact Images in Any Space, We Have the Answer








Black models  
(With supplied lens)



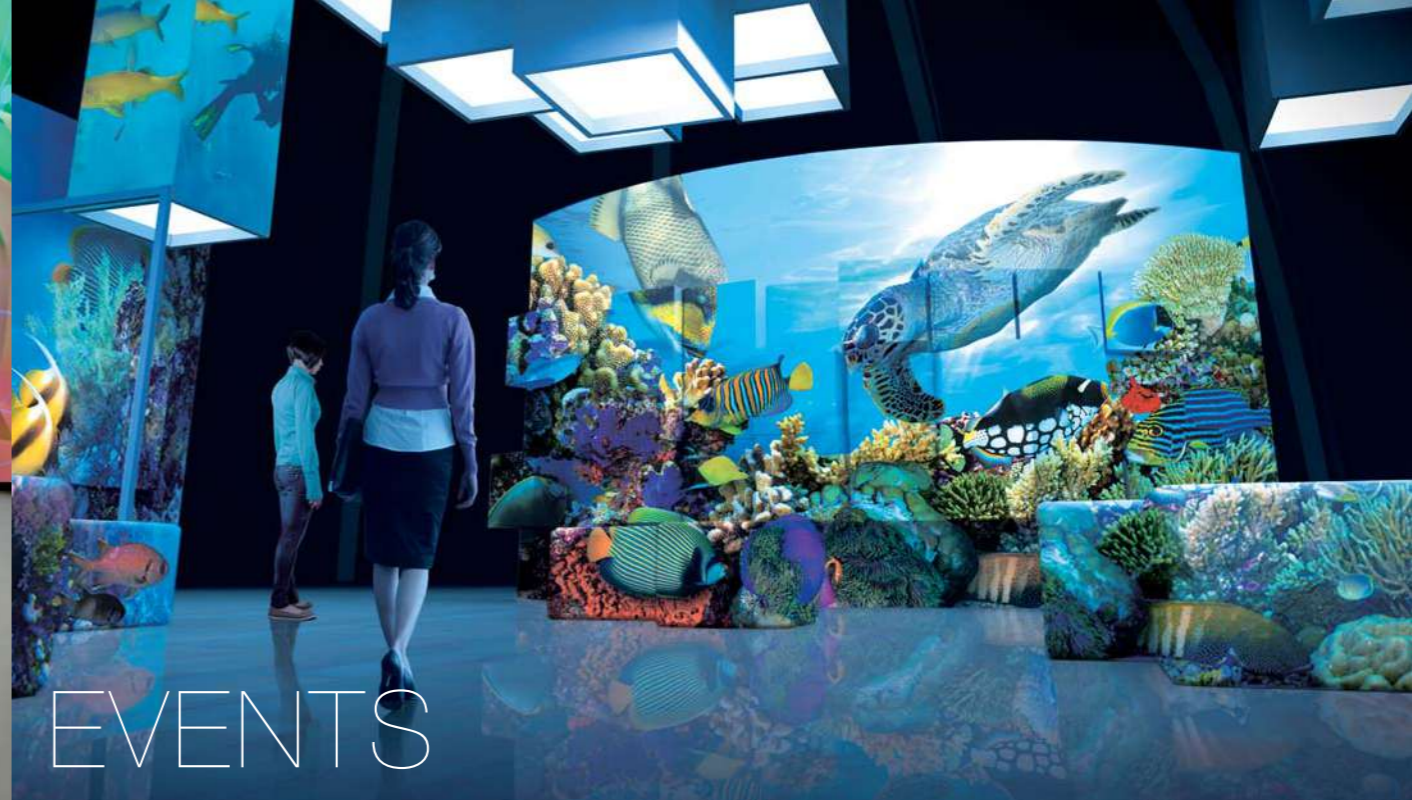
White models

Applications for our 6,000–10,000-lumen RZ970 Series laser projector lineup extend from education, exhibition, and signage through to events and staging. With a shared design philosophy, these compact 1-Chip DLP™ projectors deliver picture quality approaching that of our 3-Chip DLP™ models while retaining flexibility for a stress-free installation. The series not only leads the field in outright image quality; it also provides the stable, consistent, low-maintenance performance that professional users demand.

 High Picture Quality	 Quick Start and Quick Off	 Free 360° Install
 Dust-Resistant Optics	 Economical	 20,000 hours* Maintenance free



## MUSEUMS



## EVENTS



## BUSINESS



## EDUCATION

### PT-RZ970 Series

PT-RZ970	PT-RZ970L	PT-RW930	PT-RW930L	PT-RX110	PT-RX110L
WUXGA		WXGA		XGA	
10,000 lm (Center)*1 9,400 lm			10,400 lm (Center)*1 10,000 lm		
10,000 : 1					
With supplied lens	Without lens	With supplied lens	Without lens	With supplied lens	Without lens
Black / White cabinet					

### PT-RZ870 Series

NEW

PT-RZ870	PT-RZ870L
WUXGA	
8,800 lm (Center)*1 8,500 lm	
10,000 : 1	
With supplied lens	Without lens
Black / White cabinet	

### PT-RZ770 Series

PT-RZ770	PT-RZ770L	PT-RW730	PT-RW730L
WUXGA		WXGA	
7,200 lm (Center)*1 7,000 lm			
10,000 : 1			
With supplied lens	Without lens	With supplied lens	Without lens
Black / White cabinet			

### PT-RZ660 Series

PT-RZ660	PT-RZ660L	PT-RW620	PT-RW620L
WUXGA		WXGA	
6,200 lm (Center)*1 6,000 lm			
10,000 : 1			
With supplied lens	Without lens	With supplied lens	Without lens
Black / White cabinet			

\* At this time, brightness will have decreased to about half its original level (Dynamic Contrast: Mode 3, Image Mode: Dynamic). Panasonic recommends cleaning or checkup at point of purchase after about 20,000 hours. Light source lifetime may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required within a shorter period.

\*1 The value of the light output at the center region of the projected image is extracted based on the light output measurement method defined by the ISO/IEC 21118:2012 international standards.

## Powerful Brightness, Excellent Picture Quality, Lasting Reliability

### Superior White Balance and Color Reproduction

The Quartet Color Harmonizer wheel mechanism captures a wider color space than comparable projectors, which allows white to be reproduced realistically on screen. Some conventional projectors can't achieve an accurate white balance, so images can appear with a distracting greenish tint. Not the case with Panasonic SOLID SHINE Laser projectors.



### Dynamic Contrast Function for High Contrast

The RZ970 Series directly modulates laser power output to achieve high contrast with low power consumption. Digitally controlled frame-by-frame scene-linking modulation ensures highly precise output adjustment, while accurate 10,000:1\*1 contrast is delivered even when bright and dark scenes frequently interchange.

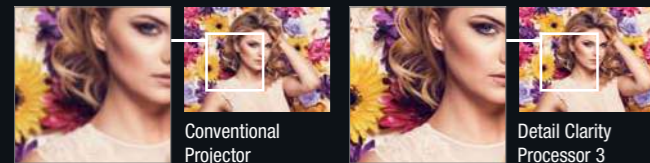


Bright Image

Dark Image

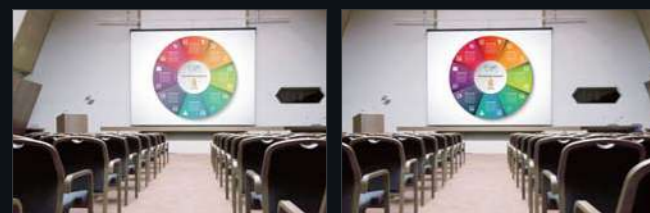
### Detail Clarity Processor 3 Sharpens the Finest Details

This unique Panasonic circuit optimizes the sharpness of each image based on the super high, high, medium, and low frequency components of the extracted image information. The resulting images are expressed with natural, convincing realism.



### System Daylight View 3 for Sharp and Vivid Images in Bright Environments

Panasonic's original System Daylight View 3 prevents images from washing out in well-lit environments and enhances brightness perception in multi-projector mapping applications by adjusting sharpness and gamma curves and correcting colors. The result is greater visual impact even in challenging conditions.



Conventional Projector

System Daylight View 3

## Consistent, Stable Performance

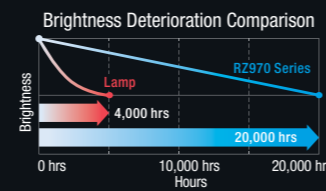
### Stable 24/7 Operation with Light-Source Failover Protection

Dual Drive Laser Optical Engine groups laser diodes into two discrete modules. A failsafe redundancy circuit works to minimize brightness- and color-uniformity loss should a laser diode fail, making the RZ970 Series ideal for mission-critical applications. Further, brightness decreases more gradually and consistently than lamp-based projectors over a 20,000-hour\*2 maintenance-free projection period.



### SOLID SHINE Laser Maintains Image Quality Longer

Two long-lasting solid-state laser modules ensure the image-color and brightness ramp is gradual, declining slowly and consistently over a far longer period than lamp-based products. And because there are no lamps to replace, maintenance cost and projector downtime is reduced. In Normal Mode, RZ970 Series projectors can work continuously for about 20,000 hours\*2. In Eco Mode, operation is extended to around 24,000 hours\*2 of continuous projection, making these units ideal for roles in education and signage.



### Dust-Resistant Airtight Optical Block

The RZ970 Series' optical block is airtight, ensuring consistent, long-lasting image quality for up to 20,000 hours\*2 without maintenance. The optical block design passed stringent testing to assure utmost reliability in environments with up to 0.15 mg of particulate matter per cubic meter (based on American Society of Heating, Refrigerating, and Air-Conditioning Engineers [ASHRAE] and Japanese Building Maintenance Association guidelines). The structure prevents brightness degradation from dust intrusion.

Clean Environment	WHO Europe Guideline for Dust Resistance	Japanese Building Maintenance Association ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers)
0.030 mg/m <sup>3</sup>	0.110 mg/m <sup>3</sup>	0.150 mg/m <sup>3</sup>
<b>CLEAN</b>		<b>DUSTY</b>
<b>Panasonic Dust Test Standard</b>		

### Up to 10 Years\*3 Operation with Constant Brightness Modes

In environments where full brightness is not necessary, such as surveillance, control, and simulation rooms, constant operation modes extend light-source replacement to up to 87,600 hours\*3 in Long Life 3 Mode—about 10 years of 24/7 projection—with consistent brightness and color.

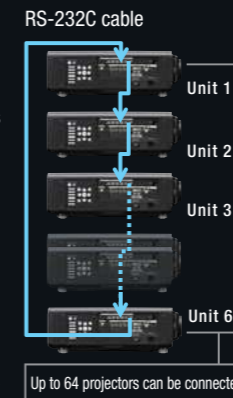
\*1 With Dynamic Contrast Mode set to 3. \*2 At this time, brightness will have decreased to about half its original level (Dynamic Contrast: Mode 3, Image Mode: Dynamic). Panasonic recommends cleaning or checkup at point of purchase after about 20,000 hours. Light source lifetime may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required within a shorter period. \*3 With Operating Mode set to Long Life 3. Long Life Mode is tested in a rear-box projection environment, which is not compliant with ASHRAE. 24 hours/day x 365 days/year x 10 years = 87,600 hours. Replacement of parts other than the light source may be required in a shorter period.

## Versatile Installation Flexibility

### Unique Contrast Sync and Shutter Sync Function

The RZ970 Series is among the world's first to feature Contrast Sync and Shutter Sync functions (Patent Pending) for multi-screen and mapping applications. Contrast Sync allows the projectors' digitally modulated contrast function to be synchronized over the network for consistent picture quality across screens, while Shutter Sync incorporates a master/slave principle to synchronize shutter on/off timing between all networked projectors. It includes simultaneous fade-in and fade-out functions.

Note: Use of RS-232C straight cable is necessary for all connections. Consult your sales representative for further information.



**Contrast Sync**

Projector A    Projector B

Average: 5%    Average: 15%

Projector A    Projector B

Average: 10%

Image luminance of all projectors is averaged for unified Dynamic Contrast, rather than each unit setting Dynamic Contrast separately. Step noise is eliminated in edge-blended areas.

**Shutter Sync**

Projector A    Projector B

Master Projector    Slave Projector

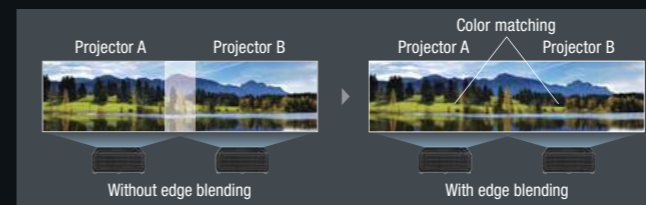
If shutter functions are not linked, shutter ON/OFF timing varies. When shutter functions of slave projectors are linked to a master, shutter ON/OFF timing is uniform\*.

\* Includes fade-in and fade-out effects. Projector shutter functions can be set to operate individually if desired.

### Multi-Screen Support System Seamlessly Connects Multiple Screens

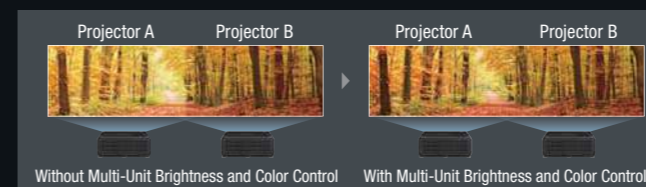
**Edge Blending** Edges of adjacent screens can be blended and their luminance controlled.

**Color Matching** Corrects for slight variations in the color reproduction range of individual projectors. PC software assures easy, accurate control.



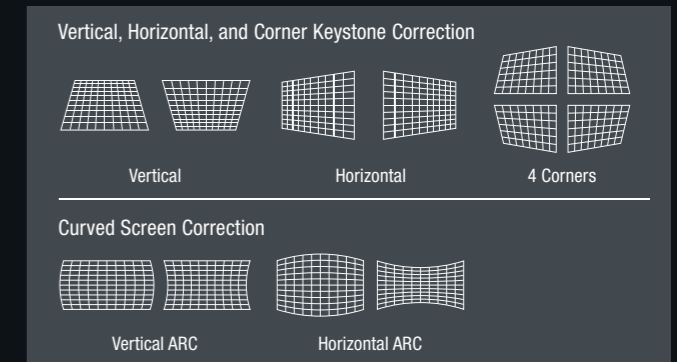
### Multi-Unit Brightness and Color Control

This function automatically corrects brightness and color fluctuations that occur over time in individual projectors in a multi-screen system. Control up to eight projectors connected via hub increasing to a maximum of 2,048 projectors with Multi Monitoring & Control Software.



## Geometric Adjustment for Custom Screen Surfaces

Geo Adjustment adapts the image for projection onto spherical, cylindrical, and other specially shaped screens. Fine-tuning is performed with the remote control, with no external equipment needed. Paired with Multi-Screen Support System, highly creative mapping presentations are possible in variety of event and staging applications.



## Geometry Manager Pro Software

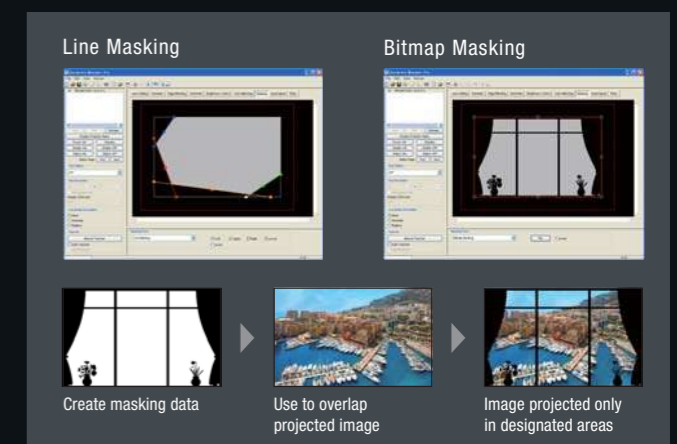
(PT-RZ970/RZ870/RZ770/RZ660 Only)

Geometry Manager Pro software expands built-in functionality and makes complex adjustments easy. The free software package includes enhanced color matching and edge blending for multi-screen projection and adjustment of multiple screens over the network.

## Optional ET-UK20 Upgrade Kit for Geometry Manager Pro

(PT-RZ970/RZ870/RZ770/RZ660 Only)

An optional ET-UK20 Upgrade Kit for Geometry Manager Pro adds creative masking capability using four lines or bitmap data as well as uniformity correction and correction area expansion.



## Optional ET-CUK10 Series Auto Screen Adjustment Upgrade Kit

(PT-RZ970/RZ870/RZ770/RZ660 Only)

This optional kit activates the Auto Screen Adjustment plug-in software for Geometry Manager Pro, allowing you to set up multiple projectors automatically and simultaneously and save significant amounts of time and money. Performing multi-screen and curved-screen projection calibration in three quick steps using a camera\*4 and PC connected to the projector network, this software encompasses geometric adjustment, edge blending, color matching, stacking, brightness, and black level.

\*4 Supported cameras: Nikon D5200/D5300/D5500.

