

Christie PowerTool 3.1

User Manual

020-100035-04

Christie PowerTool 3.1

User Manual

020-100035-04

NOTICES

COPYRIGHT AND TRADEMARKS

© 2014 Christie Digital Systems USA Inc. All rights reserved.

All brand names and product names are trademarks, registered trademarks or trade names of their respective holders.

REGULATORY

The product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a commercial environment. The product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

CAN ICES-3 (A) / NMB-3 (A)

이 기기는 업무용 (A 급) 으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다.

GENERAL

Every effort has been made to ensure accuracy, however in some cases changes in the products or availability could occur which may not be reflected in this document. Christie reserves the right to make changes to specifications at any time without notice. Performance specifications are typical, but may vary depending on conditions beyond Christie's control such as maintenance of the product in proper working conditions. Performance specifications are based on information available at the time of printing. Christie makes no warranty of any kind with regard to this material, including, but not limited to, implied warranties of fitness for a particular purpose. Christie will not be liable for errors contained herein or for incidental or consequential damages in connection with the performance or use of this material.

The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This

symbol  means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in.

Canadian manufacturing facility is ISO 9001 and 14001 certified.

GENERAL WARRANTY STATEMENTS

For complete information about Christie's limited warranty, see the Christie website (www.christiedigital.com) or contact your Christie dealer. In addition to the limitations that may be specified in Christie's limited warranty, the warranty does not cover:

- a. Problems or damage occurring during shipment, in either direction.
- b. Projector lamps (See Christie's separate lamp program policy).
- c. Problems or damage caused by use of a projector lamp beyond the recommended lamp life, or use of a lamp supplied by a supplier other than Christie or an authorized distributor of Christie lamps.
- d. Problems or damage caused by combination of a Product with non-Christie equipment, such as distribution systems, cameras, DVD players, etc., or use of a Product with any non-Christie interface device.
- e. Problems or damage caused by the use of any lamp, replacement part or component purchased or obtained from an unauthorized distributor of Christie lamps, replacement parts or components including, without limitation, any distributor offering Christie lamps, replacement parts or components through the internet (confirmation of authorized distributors may be obtained from Christie).
- f. Problems or damage caused by misuse, improper power source, accident, fire, flood, lightning, earthquake or other natural disaster.
- g. Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.
- h. Problems or damage caused by use of a Product on a motion platform or other movable device where such Product has not been designed, modified or approved by Christie for such use.
- i. Problems or damage caused by use of a projector in the presence of an oil-based fog machine or laser-based lighting that is unrelated to the projector.
- j. For LCD projectors, the warranty period applies only where the LCD projector is in "normal use." "Normal use" means the LCD projector is not used more than 8 hours a day, 5 days a week.
- k. Except where the Product is designed for outdoor use, problems or damage caused by use of the Product outdoors unless (i) such Product is protected from precipitation or other adverse weather or environmental conditions and the ambient temperature is within the recommended ambient temperature set forth in the specifications for such Product and (ii) if the Product is an LCD flat panel, such LCD flat panel is not exposed to direct sunlight.
- l. Image retention on LCD flat panels.
- m. Defects caused by normal wear and tear or otherwise due to normal aging of a Product.
- n. Products where the serial number has been removed or obliterated.
- o. Products sold by a Reseller to an End User outside of the country where the Reseller is located unless (i) Christie has an office in the country where the End User is located or (ii) the required international warranty fee has been paid.
- p. Products when there is failure to perform maintenance as required and in accordance with the maintenance schedule.
- q. This warranty does not obligate Christie to provide any on site warranty service at the Product site location.

PREVENTATIVE MAINTENANCE

Preventative maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

Software Licensing Agreement

1. This Software License Agreement (the "Agreement") is a legal agreement between the end user, either an individual or business entity, ("Licensee") and Christie Digital Systems USA, Inc. ("Christie") for the software known commercially as Christie® PowerTool that accompanies this Agreement and/or is installed in the server that Licensee has purchased along with related software components, which may include associated media, printed materials and online or electronic documentation (all such software and materials are referred to herein, collectively, as "Software"). If Licensee does not accept the terms of this Agreement, Licensee will return the Software to Christie in accordance with Christie's standard return policy in place from time to time. BY DOWNLOADING, INSTALLING, ACTIVATING OR USING THE SOFTWARE, THE LICENSEE IS AGREEING TO BE BOUND BY THE TERMS OF THIS AGREEMENT.
2. The Software contains third party software programs which require notices and/or additional terms and conditions. Such required third party notices and/or additional terms and conditions are located in the Software install location (C:\Program Files (x86)\Christie Digital Systems\PowerTool 3.0\Licenses). By accepting this Agreement and using the Software, you are also accepting any such additional terms and conditions applicable to the third party software programs. To the extent any license for third party software programs requires an offer to provide source code for those third party software programs, this Agreement constitutes such an offer. You may request more information or a copy of such source code by contacting Christie at open.source@christiedigital.com. In conjunction with such request, provide the Christie Product Number, the Software version and the Product Serial Number (if applicable). If applicable, a nominal cost to cover shipping and media charges will be charged.

License and Restrictions

3. **Ownership of Software:** Christie retains title and ownership of all rights, including copyright and all other intellectual property rights, in and to the Software and all copies thereof, regardless of form or media. This license is not a sale of any rights in or to the Software or any copy thereof. Licensee acquires no right whatsoever to the Software except the right to use the Software in accordance with the terms of this License.
4. **Grant of License:** Christie grants to Licensee a single license providing a nonexclusive and non-transferable right to use, for personal or internal business purposes, the executable version of the Software, as long as Licensee complies with the terms and conditions of this License. Christie reserves all rights not expressly granted to Licensee.
5. **Copy Restrictions:** Where the Software is provided for download onto a personal computer or similar device, Licensee may make as many copies of the Software as is reasonably required for Licensee's own use with the Device. Licensee may also make a backup copy of the Software which may be used only for reinstallation of the Software. Where the software is pre-installed on a server, Licensee may keep one copy of the Software solely for backup or archival purposes. Unauthorized copying or distribution of the Software is expressly prohibited unless agreed to in writing by Christie. Licensee must reproduce and include the copyright notice on any backup copy of the Software. Licensee may not remove or alter any proprietary rights or copyright notice or identification which indicates the ownership of the Software.
6. **Use Restrictions:** Licensee will not (a) modify, adapt, decompile, disassemble, reverse engineer, or otherwise attempt to derive the source code for the Software, or create derivative

works based on the Software; (b) assign this Agreement or redistribute, encumber, sell, transfer, lease, or grant a sublicense of the Software or the license granted herein or otherwise transfer rights to the Software to any person or entity except as and when expressly permitted by this Agreement; (c) directly or indirectly, export or transmit the Software, either alone or bundled with other software, to any country to which such export or transmission is restricted by any applicable laws without the appropriate prior written consent of the applicable government entity or department; and (d) publish or otherwise disclose the Software for others to copy. Licensee will make reasonable efforts to prevent any unauthorized use of the Software by third parties and will advise Licensee's employees of the restrictions upon use restrictions herein.

7. **Upgrades and Updates:** While Christie is not required to do so, Christie may provide Licensee with upgrades or updates to the Software, including but not limited to files that are delivered to Licensee via online transmission or otherwise to "patch" or otherwise modify or enhance the software program. This Agreement covers any upgrades or updates to the Software that Licensee may obtain from Christie or one of its authorized vendors, unless the upgrade or update comes with its own license agreement. If Licensee decides not to download or install an upgrade or update provided by Christie, Licensee understands that this could put the Software at risk to serious security threats or cause the Software to become unstable. Christie may, at its option, cause an upgrade or update to apply automatically.

Maintenance and Support

8. Christie may, in its sole discretion and without any obligation, provide maintenance and support services related to the Software ("Support Services"). Support Services are governed by Christie's policies and programs described in materials available from Christie. Any supplemental software code provided to Licensee as part of the Support Services will be considered part of the Software and subject to the terms and conditions of this Agreement.

Warranty and Limitation of Liability

9. **No Warranties:** The Software is provided "as is" and Christie makes no warranty of any kind with regard to the Software. Christie will not be liable for errors contained in the Software or in connection with the performance or use of the Software. Christie does not warrant that the Software is free from any defects or that it will operate uninterrupted. Christie warrants that the media on which the Software is distributed will be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery. Christie will replace any defective media returned to Christie within the ninety (90) day period. The foregoing is Licensee's sole and exclusive remedy for breach of the warranty given pursuant to this Section. Christie does not make any other warranties, either express or implied, including, but not limited to, implied warranties of merchantability, fitness for a particular purpose, title and non-infringement with regard to the Software.
10. **Limitations of Liability:** IN NO EVENT WILL CHRISTIE BE LIABLE TO ANY PARTY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, LOST REVENUES AND LOST DATA ARISING OUT OF THE USE OF THIS SOFTWARE AND ITS DOCUMENTATION, EVEN IF CHRISTIE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

CHRISTIE SPECIFICALLY DISCLAIMS ANY WARRANTIES OR CONDITIONS, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS

FOR A PARTICULAR PURPOSE. THE SOFTWARE AND ACCOMPANYING DOCUMENTATION, IF ANY, PROVIDED HEREUNDER IS PROVIDED "AS IS". CHRISTIE HAS NO OBLIGATION TO PROVIDE MAINTENANCE, SUPPORT, UPDATES, ENHANCEMENTS, OR MODIFICATIONS.

CHRISTIE FURTHER DISCLAIMS ANY AND ALL REPRESENTATIONS RELATING TO THIRD PARTY SOFTWARE WHICH IS EMBEDDED IN THE SOFTWARE. Some jurisdictions do not allow exclusions or limitations of certain conditions or warranties. Only those exclusions or limitations that are lawful in Licensee's jurisdiction will apply to Licensee and, in such instances, Christie's liability will be limited only to the maximum extent permitted by law.

Termination

11. Christie may terminate this Agreement at any time and for any reason. Christie may also terminate this Agreement if the Licensee breaches or is in default of any obligation of Licensee under this Agreement. Upon termination of this Agreement, the Licensee will immediately (i) cease using the Software and (ii) uninstall the Software from any personal computers, servers or other devices (to the extent it is installed thereon). The Licensee's obligation under this provision will survive the termination of this Agreement.

General

12. **Notices:** Unless otherwise set forth in this Agreement, all notices, or other communications hereunder will be deemed to have been duly given when made in writing and delivered in person, by courier or deposited in the mail, postage prepaid, and registered mail, return receipt requested, and addressed to Licensee at the billing address supplied to Christie by Licensee, and addressed to Christie at Christie Digital Systems USA, Inc., c/o Christie Digital Systems Canada, Inc. at 809 Wellington Street North, Kitchener, Ontario, Canada N2G 4Y7, with a copy (which will not constitute notice) to Christie's Legal Department at the same address.
13. **Severability and Waiver:** Any provision of this Agreement which is held by any court to be unenforceable or invalid will be deemed severed from this Agreement, without affecting any other provision of this Agreement. No waiver by Christie of any particular default or omission committed by Licensee will affect or impair the right of Christie in respect of any subsequent default or omission of the same or a different kind. No delay or failure by Christie to exercise any rights in connection with any default or omission committed by Licensee will affect or impair Christie's rights in respect of that particular default or omission or any subsequent default or omission of the same or different kind. In any event, time will continue to be of the essence without the necessity of specific reinstatement.
14. **Governing Law:** This Agreement is governed by the laws of the State of California, without regard to its conflict of law principles. Any suit or action arising out of or in connection with this Agreement will be brought in the federal or state courts located in Orange County, State of California. Each of Licensor and Licensee hereby irrevocably submit to the jurisdiction of such courts for the purpose of such suit or action and expressly and irrevocably waive, to the fullest extent permitted by law, any objection it may now or hereafter have to the venue of any such suit or action in any such court and any such claim that any suit or action has been brought in an inconvenient forum.

Table of Contents

Introduction	1
Recommended Computer Hardware and Software	1
Wired Network Hardware Requirements	1
Sample Wired Network Topology	1
Wireless Network Hardware Requirements	2
Sample Wireless Network Topology	2
Install the PowerTool Software	2
Start the PowerTool Software	2
Uninstall PowerTool	3
The PowerTool Interface	5
The File Tab	5
The Home Tab	5
Projector List Pane Status Icons	6
The Status Pane	6
Device Information	6
Device Temperatures	7
The Input Signal Pane	7
The Test Pattern Pane	8
The Lens Pane	8
The Lamp Pane	9
The Image Pane	10
The Color Pane	11
The Color Matcher Pane	12
The Picture In Picture Pane	13
The Backup/Restore Pane	14
Work With Configuration Files	15
Save a Configuration File	15
Open a Configuration File	15
Add a Projector to a Configuration File with the Search Function	15
Add a Projector to a Configuration File Manually	16
Manage Projector Groups	17
Create a Group	17
Rename a Group or Projector	17
Move a Group or Projector Up or Down in the Hierarchy	17

- Add or Remove a Projector from a Group 17
- Remove a Group or Projector 18
- Control Projectors 19**
 - View Projector Information 19
 - Adjust Projector Settings 19
 - View the Projector Web Interface 19
 - Control the Projector with the Virtual Remote 19
- Back Up and Restore Channels and Preferences 21**
 - Back Up Projector Channels or Preferences 21
 - Restore Projector Channels or Preferences 21
 - Preferences List 22

Introduction

This document provides information and procedures for using Christie PowerTool. You can use Christie PowerTool to manage the settings of multiple projectors.

For information about specific projector functions, see the projector User Manual.

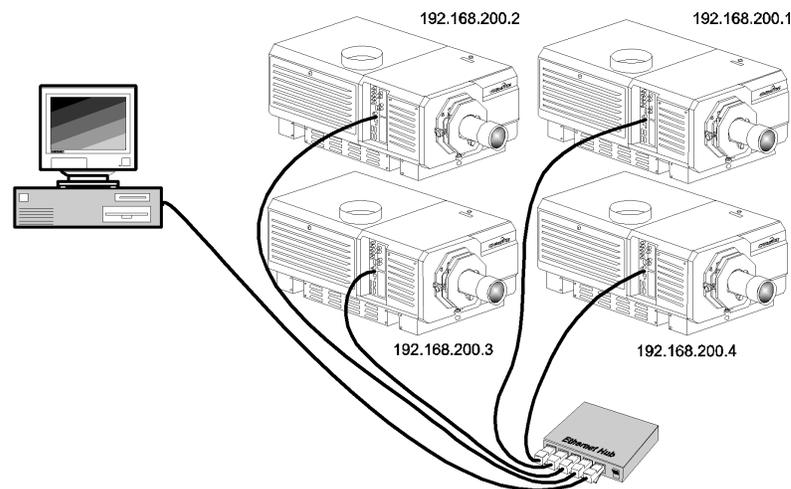
Recommended Computer Hardware and Software

- Computer requirements:
 - An Intel or a compatible processor
 - Windows XP SP3+ (32-bit only) or Windows 7 (32- and 64-bit)
 - 256 MB of free disk space
 - 256 MB of RAM (512 MB recommended)
- A physical or a wireless Ethernet connection
- One or more projectors with firmware version 1.2f or later installed
- Xport firmware version 3.1.2.0 or later installed on each projector

Wired Network Hardware Requirements

- 1 network hub
- 1 Ethernet cable to connect the computer to the network hub
- 1 Ethernet cable for each projector

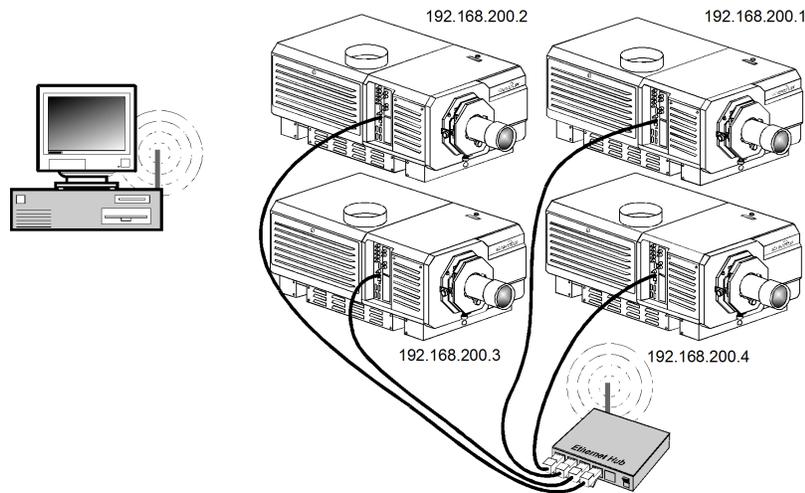
Sample Wired Network Topology



Wireless Network Hardware Requirements

- 1 wireless network hub
- 1 wireless-enabled computer
- 1 Ethernet cable for each projector

Sample Wireless Network Topology



Install the PowerTool Software

1. Insert the PowerTool installation CD in the CD-ROM drive of the computer you will use to manage your projectors.

If the installation wizard does not start:

- a. Click **Start**.
 - b. Enter **Run** in the **Search programs and files** field.
 - c. Click **Run** below **Programs**.
 - d. Enter <CD-ROM Drive Letter>\AutoRun.exe. For example, D:\AutoRun.exe.
 - e. Click **OK**.
2. Complete the installation wizard.
 3. Click **Finish** when the software is installed.

Start the PowerTool Software

Click **Start > All Programs > Christie > PowerTool 3.1 > PowerTool 3.1**.

Uninstall PowerTool

1. Click **Start > Control Panel > Programs and Features**.
2. Right-click **Christie PowerTool** and select **Uninstall**.
3. Click **Yes**.

The PowerTool Interface

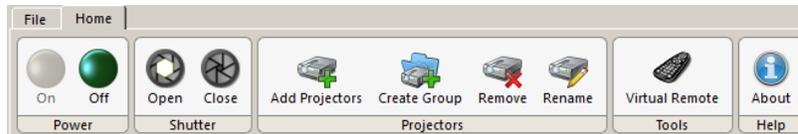
This section provides information about PowerTool interface controls and functions.

The File Tab



Control	Description
New	Creates a new configuration.
Open	Opens an existing configuration
Save	Saves the current configuration.
Save As	Saves the current configuration with a new file name.
Add Projectors	Adds projectors to the configuration.
Create Group	Creates a new projector group.
Remove	Removes groups or projectors from a configuration.
Rename	Renames a group or a projector.

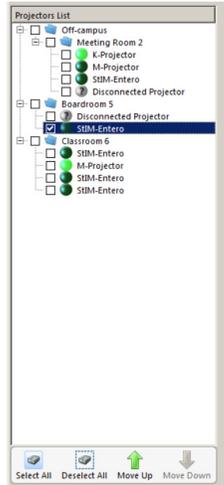
The Home Tab



Control	Description
On/Off	Turns a projector on or off. Both buttons are active when some of the selected projectors are off. Click On to turn all of the projectors on.
Open/Close	Opens or closes the projector shutter,
Add Projectors	Adds projectors to the configuration.
Create Group	Creates a new projector group.
Remove	Removes groups or projectors from a configuration.
Rename	Renames a group or a projector.
Virtual Remote	Opens the Virtual Remote application.
About	Opens the PowerTool help file.

Projector List Pane Status Icons

The Projector List pane lists all of the projectors managed by the PowerTool application.



This table provides descriptions of the status icons assigned to each projector.

Icon	Description
Dark green circle	The projector is off.
Light green circle	The projector is on and you can manage it with PowerTool.
Question mark	The projector cannot communicate with the PowerTool application.

The Status Pane

The status pane displays projector status information.

Device Information

The Device Information area lists the model name, model number, firmware, and operational hours for the lamp and projector. Errors are also displayed here.



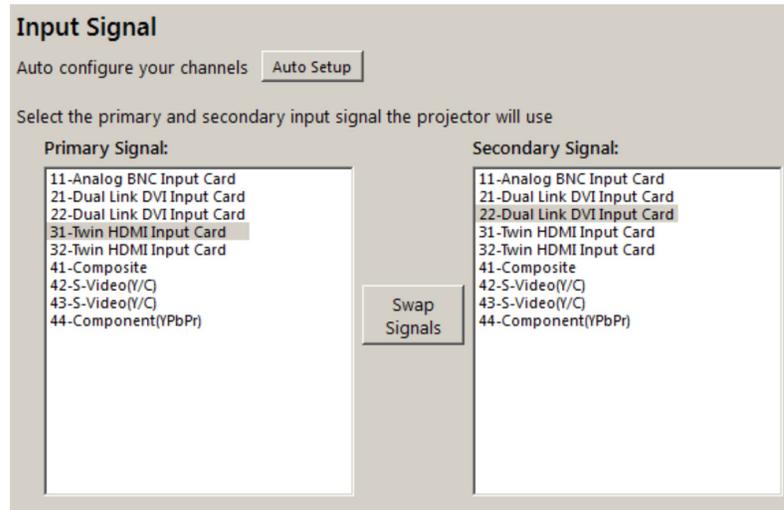
Device Temperatures

The Device Temperatures area lists the operating temperatures of projector components.

Device Temperatures ▲	
Image Processor temperature	44
Panel Driver temperature	38
Backplane Temperature	N/A
Option slot 1 temperature	N/A
Option slot 2 temperature	N/A
Post processing module temperature	N/A
Warp Module Temperature.	N/A
PHM temperature	N/A

The Input Signal Pane

Use the Input Signal pane to assign input sources to a projector. If you select multiple projectors, only the sources supported by all of the projectors are listed.

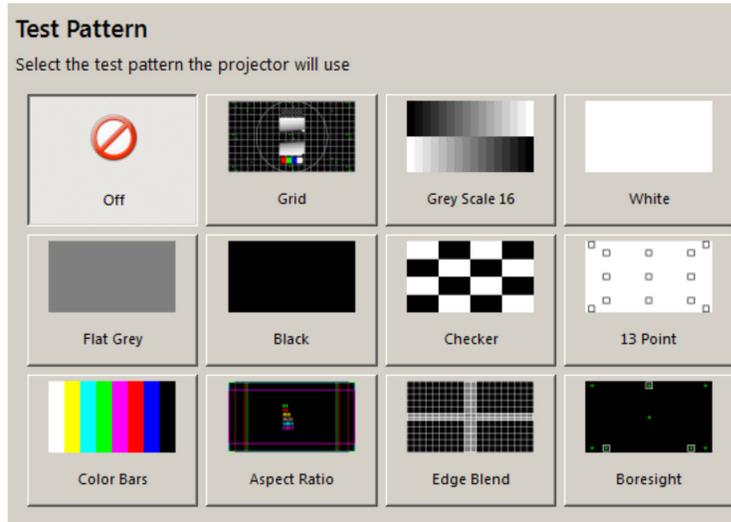


Click **Auto Setup** to optimize the settings for the selected input source. Selecting **Auto Setup** overrides all manually configured settings. To use auto setup, the channel must be unlocked. If you select multiple projectors, auto setup is run on each of the projectors in succession. Auto setup cannot be run if the input source is inactive. These are the settings modified by auto setup:

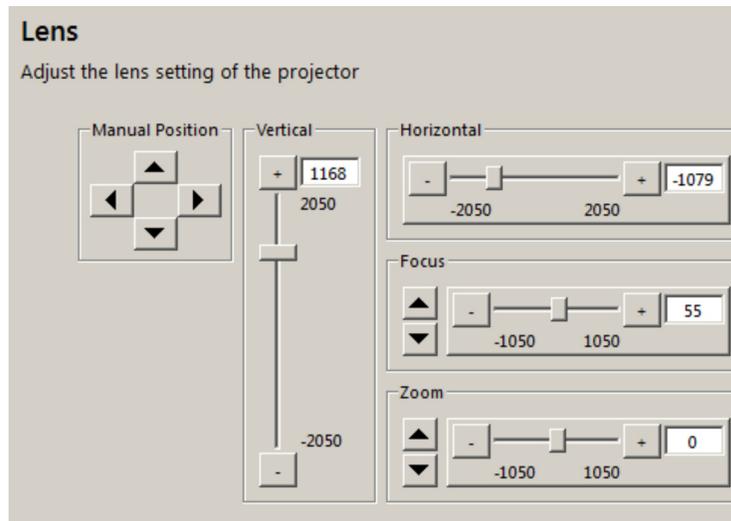
• Pixel tracking	• Contrast
• Pixel phase	• Brightness
• Size and blanking	• Auto input level - off
• Vertical stretch	• Detail (video sources only)
• Position	• Filter
• Input levels	• Luma delay

The Test Pattern Pane

Open the Test Pattern pane to display a test pattern.



The Lens Pane

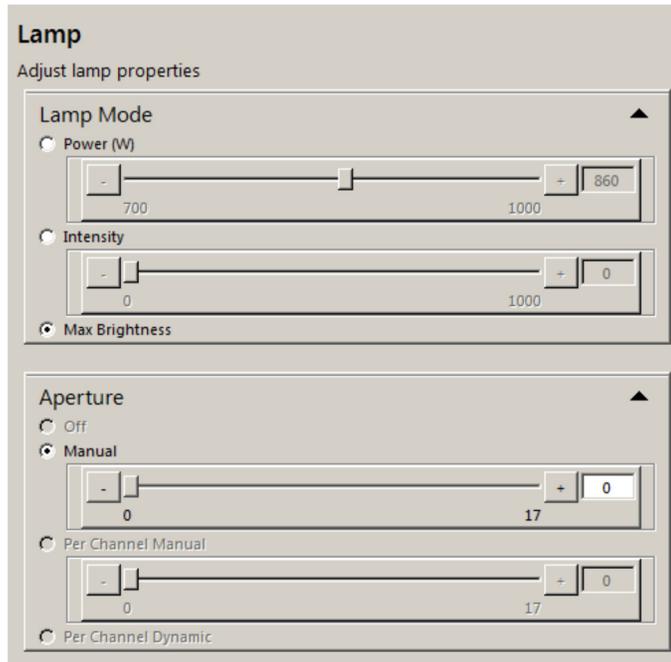


Only a single lens can be adjusted at a time. This table provides descriptions of the options available on the Lens pane.

Control	Description
Manual Position	Manually adjusts the lens position.
Vertical	Adjusts the vertical lens offset.

Control	Description
Horizontal	Adjusts the horizontal lens offset.
Focus	Adjusts the lens focus.
Zoom	Increases or decreases lens zoom.

The Lamp Pane

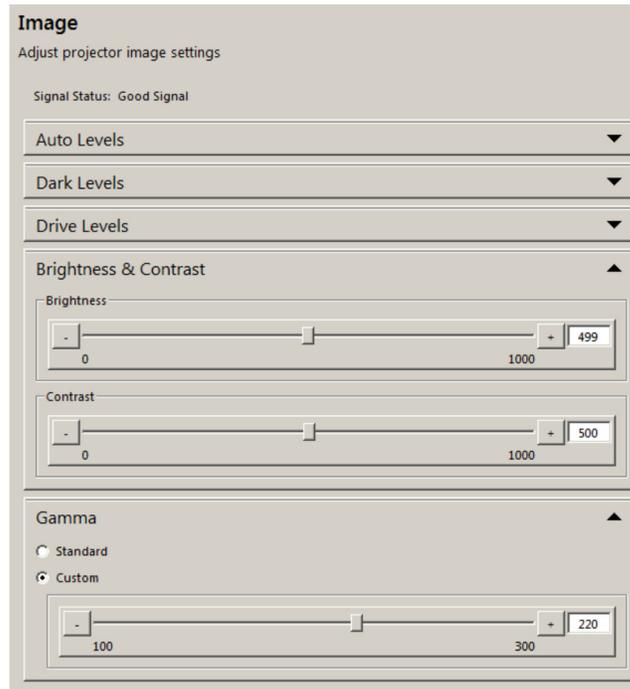


This table provides descriptions of the options available on the Lamp pane.

Control	Description
Power	Sets the lamp power.
Intensity	Sets the intensity (brightness) of the projector lamp. As the lamp ages, the intensity automatically increases to compensate.
Max Brightness	Sets the lamp to its maximum brightness value. This value decreases as the lamp ages.
Off	Turns aperture control off.
Manual	Adjusts the aperture.
Per Channel Manual	Adjusts the aperture setting on a specific channel.
Per Channel Dynamic	Automatically adjusts the aperture setting on a specific channel.
Lamp History	Displays the lamp history for the projector.

The Image Pane

Use the Image pane to adjust the projector image. Typically, the automatic settings on the projector optimize image settings for all input sources correctly. You can only adjust the image settings of a single projector at a time. The **Auto Levels** option is not available when multiple projectors are selected. You cannot adjust image settings if a test pattern is displayed.



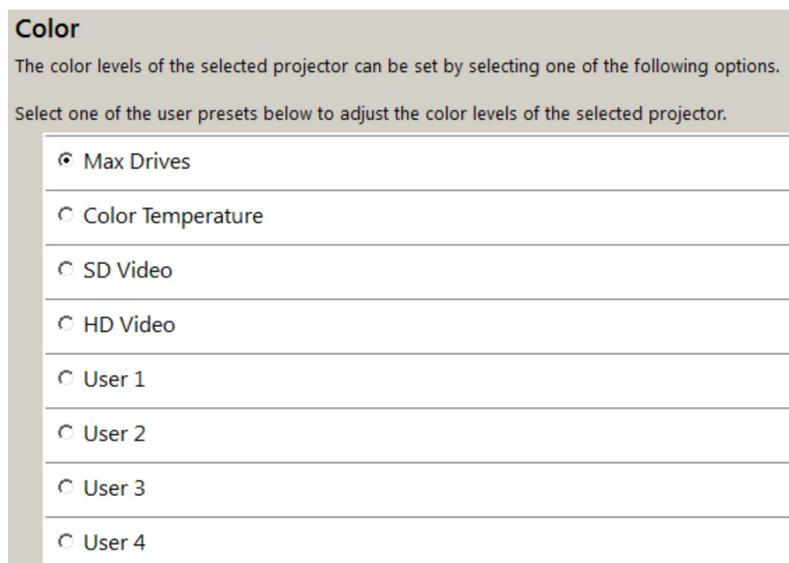
This table provides descriptions of the options available on the Image Setting pane:

Control	Description
Enable Auto Levels	Automatically adjusts the BNC and DVI-A input dark and drive levels. Select this option if one of your signals is weaker than normal for one particular color. When selecting this option, make sure the contrast and brightness settings are near 50 and color temperature is properly configured with an internal gray scale test pattern. Clear this option before closing PowerTool.
Dark Levels	Adjusts the red, green, and blue dark levels of the selected projector input. Adjustments can help improve noisy sources with black level fluctuations. Adjustments can also help improve image input levels and eliminate overshoot and undershoot conditions.
Drive levels	Adjusts the drive levels of poorly mastered source material.

Control	Description
Contrast	<p>Increases or decreases the perceived difference between light and dark areas of the image. The adjustment range is 0 to 100 and the recommend setting is 50.</p> <p>If you set contrast too high, the light parts of the image lose detail and clarity. If you set contrast too low, the light areas are not as bright as they could be and the overall image is dim. For best results, start with a low value and increase so that whites remain bright, but are not distorted or tinted, and that light areas do not become white (crushed). If the environment lighting changes, adjust the gamma setting.</p> <p>This control is not available when multiple projectors are selected, if a test pattern is running, or if there is a video signal error.</p>
Brightness	<p>Increases or decreases the amount of black in the image The adjustment range is 0 to 100 and the recommend setting is 50.</p> <p>For best results, start with a high value and decrease it so dark areas do not become black (crushed). A high brightness setting changes blacks to dark gray.</p> <p>This control is not available when multiple projectors are selected, if a test pattern is running, or if there is a video signal error</p>
Gamma	<p>Determines what gray shades are displayed between minimum input (black) and maximum input (white) for all signals. The adjustment range is 1 to 3. The default is 2.2.</p> <p>Adjust the gamma setting manually to optimize blacks and whites, and smooth transitions of the values used in other colors. You can lighten or darken the overall tone of your images without changing the extreme values. Images will be more vibrant, and show good detail in dark areas.</p> <p>Lower the gamma setting when excess ambient light washes out the image and it becomes difficult or impossible to see details in dark areas. Increase the setting when the image is washed out and unnatural, with excessive detail in black areas. In high ambient light conditions, a lower gamma setting can produce better results than a higher gamma setting.</p>

The Color Pane

The options available on the Color pane are determined by the output color selection.

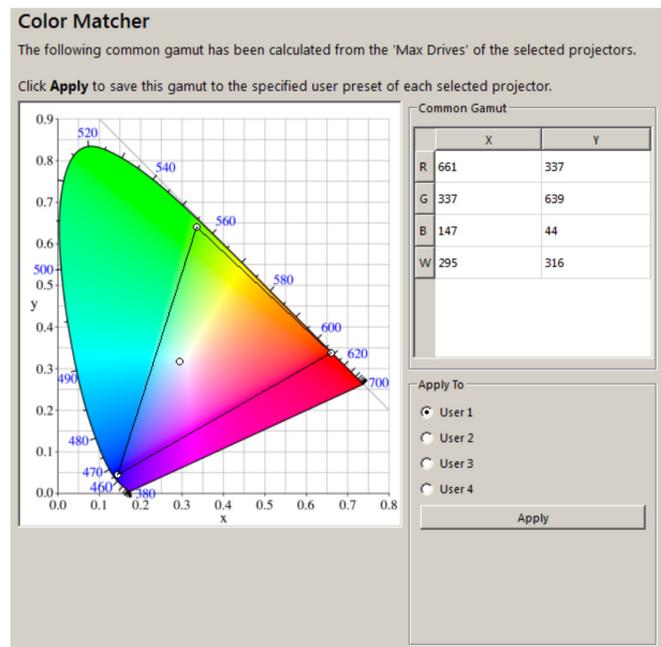


This table provides descriptions of the options available on the Color pane:

Control	Description
Max Drives	Adjusts all colors to their maximum values.
Color Temperature	Adjusts the color gamut in degrees Kelvin (3200-9300K). A higher value adds a reddish cast to the image. A lower value adds a bluish cast to the image.
SD Video	Optimizes the color settings for standard video sources.
HD Video	Optimizes the color settings for high definition video sources.
User 1 to 4	Select these options to adjust these settings: <ul style="list-style-type: none"> • Color saturation- adjusts the color saturation of the image • Color XY - adjusts the red, green, blue, and white colors with a RGB color model

The Color Matcher Pane

The color matcher pane displays a color gamut chart that represents the color gamut that the projector can display. Multiple projectors must be selected to apply or remove color gamut values.



This table provides descriptions of the options available on the Color Matcher pane:

Control	Description
Apply	Applies common color gamut values to the selected projectors.

The Picture In Picture Pane

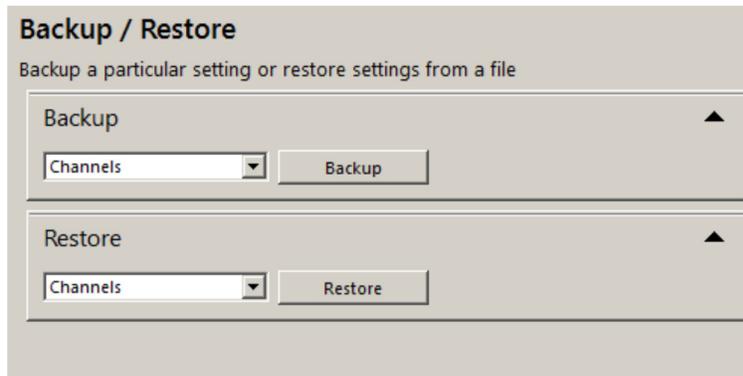


This table provides descriptions of the options available on the Picture In Picture pane:

Control	Description
Picture in Picture	Displays one image on top of the other and enables the controls. This option is only available when there is an active signal and a test pattern is not displayed.
Picture By Picture	Displays two inputs side by side. The Size and Position controls are not available.
Main Input Signal	Sets the source for the primary input.
PIP Input Signal	Sets the source for the PIP window. For a good quality image: <ul style="list-style-type: none"> • Avoid using two sources from the same decoder. • Use two different signal types if composite and S-video signals are on the same decoder. • Do not specify an interlaced source for the PIP window. • Use a setting of less than 165 MHz when using two digital signals or a single analog and digital signal. • Use a setting of less than 90 MHz if you are using two analog signals. • Avoid seamless switching when possible.
Swap	Moves the main image to the PIP window and makes the PIP image the primary image.
Preset	Moves the PIP window to a preset position. These are the available options: <ul style="list-style-type: none"> • Top Right • Top Left • Bottom Left • Bottom Right Select Custom to move the PIP window to a location you define.

Control	Description
Vertical	Adjusts the vertical position of the PIP window. The measurement unit is pixels.
Horizontal	Adjusts the horizontal position of the PIP window. The measurement unit is pixels.
Size	Sets the width of the PIP window in pixels. The default aspect ratio of the input image determines the window height.
Border Width	Sets the PIP window border width.
Contrast	Adjusts the contrast setting of the PIP window.
Brightness	Adjusts the brightness setting of the PIP window.
Gamma	Adjusts the gamma setting of the PIP window.

The Backup/Restore Pane



This table provides descriptions of the options available on the Backup/Restore pane:

Control	Description
Backup	Backs up projector channels or preference settings.
Restore	Restores projector channels or preference settings.

Work With Configuration Files

This section provides information and procedures for working with PowerTool configuration files.

You can create configuration files to store custom projector settings. When you open PowerTool a new, empty configuration is automatically created. You can use the default configuration and save it later, or you can open an existing configuration.

Save a Configuration File

1. Click **File** > **Save As**.
2. Browse to a location where you want to save the file.
3. Enter a name for the configuration file in the **File name** field.
4. Click **Save**.
5. Click **OK**.

Open a Configuration File

1. Click **File** > **Open**.
2. Browse to the location of the configuration file.
3. Select the configuration file.
4. Click **Open**.

Add a Projector to a Configuration File with the Search Function

To locate a projector with the search function, the projector must be on the same subnet as the computer on which PowerTool is installed. In addition, the projector must be connected to the network.

If the error message COMM ERROR appears, verify the correct port is specified. The error message can also appear during periods of high network traffic, or when the projector is not functioning correctly.

If auto detection fails, make sure every projector is assigned a unique identification number and IP address and verify the firewall and router settings are correct.

1. Click **File** > **Add Projectors**.
2. Click the **Broadcast** tab.

3. Select **Default** to search all ports.
- or -
Select **Custom** and specify a specific port on which to perform the search.
4. Move the **Network Impact** slider to **Fast** to search the network quickly using maximum bandwidth.
- or -
Move the **Network Impact** slider to **Safe** to limit the amount of bandwidth used to perform the search.
5. Click **Clear & Search** to clear previous search results and start a new search.
- or -
Click **Search** to start a new search.
6. Click a projector in the **Search Results** list.
To select multiple projectors, click the left mouse button and press **CTRL**.
7. Click **OK**.

Add a Projector to a Configuration File Manually

1. Click **File > Add Projectors**.
2. Click the **Manual** tab.
3. Select **Single** in the **IP Address** list to search for a single projector with a specific IP address.
- or -
Select **Range** to search for all projectors within the specified IP address range
4. Enter the IP address.
5. Select a port number in the **Port** list.
6. Enter a password in the **Password** field if a password is required to access the projector.
7. Click **Clear & Search** to clear previous search results and start a new search.
- or -
Click **Search** to start a new search.
8. Click a projector in the **Search Results** list. To select multiple projectors, click the left mouse button and press **CTRL** while making multiple selections or click **Select All**.
9. Click **OK**.

Manage Projector Groups

This section provides information and procedures for creating and managing groups.

Adding projectors located in the same room or building to a group allows you to apply global settings.

Create a Group

1. Select a projector in the **Projectors List** pane.
2. Click **File > Create Group**.
3. Select the group and click **Rename**.
4. Enter a name for the group.
5. Press **Enter**.

Rename a Group or Projector

1. Select a projector or group in the **Projectors List** pane.
2. Click **Rename**.
3. Enter a name for the projector or group.
4. Press **Enter**.

Move a Group or Projector Up or Down in the Hierarchy

1. Right click a group folder or a projector in the **Projectors List** pane.
2. Select **Move Up**.
- or -
Select **Move Down**.

Add or Remove a Projector from a Group

To add a projector to a group, click and drag the projector to the group folder.

To remove a projector from a group, click and drag the projector from the group folder to the projector list.

Remove a Group or Projector

1. Right click a group folder or a projector in the **Projectors List** pane.
2. Select **Remove**.
3. Click **OK**.

Control Projectors

This section provides information and procedures for controlling projectors.

View Projector Information

1. Select a projector in the **Projectors List** pane.
2. Click **Status** in the **Projector Controls** pane.

For more information about the Status pane, see *The Status Pane* on page 6.

Adjust Projector Settings

1. Select a projector in the **Projectors List** pane.

View the Projector Web Interface

Access the projector web interface to manage an individual projector or view status information.

1. Right-click a projector in the **Projectors List** pane.
2. Select Open Web Page.
3. Enter your user name and password and click **Login**.

Control the Projector with the Virtual Remote

The virtual remote application emulates the functionality of a physical remote control. Clicking a button on the virtual remote selects the same function as pressing the button on the physical remote control.

If the virtual remote fails to appear, it is not supported by the selected projector.

1. Select a projector in the **Projectors List** pane.
2. Click **Home > Virtual Remote**.

If the virtual remote fails to appear, it is not supported by the selected projector.

3. Click a button on the remote control image.

Back Up and Restore Channels and Preferences

This section provides information and procedures for backing up and restoring preferences and settings.

Back Up Projector Channels or Preferences

1. Select a projector or a group in the **Projectors List** pane.
2. Click **Backup/Restore** in the **Projector Controls** pane.
3. Select **Channels** in the **Backup** list.
- or -
Select **Preferences** in the **Backup** list.
4. Click **Backup**.
5. Browse to a location where you want to save the back up file.
6. Enter a file name for the back up file in the File name field or keep the default file name.
This is the format of the default file name:
 - channel_projector ID_MAC address-dd-mm-yyyy-hh-mm.chl
 - channel_projector ID__yyyy_mm_dd_hh_mm.tar
 - preferences_projector ID_MAC address-dd-mm-yyyy-hh-mm.tpr
 - preferences_projector ID__yyyy_mm_dd_hh_mm.tar
7. Click **Save**.
8. Click **OK** when the prompt appears.

Restore Projector Channels or Preferences

1. Select a projector or a group in the **Projectors List** pane.
2. Click **Backup/Restore** in the **Projector Controls** pane.
3. Select **Channels** in the **Restore** list.
- or -
Select **Preferences** in the **Restore** list.
4. Click **Restore**.
5. Browse to the location of the back up file.

6. Select the file and click **Open**.
7. Click **OK** when the prompt appears.

Preferences List

This table list the preference settings that are included in a preferences back up file.

Preference	Preference	Preference	Preference	Preference
Shutter	3D Stereo Select Sync	Test Pattern Grey	Focus	Language
Picture Mute	3D Stereo Sync Delay	Freeze Image	Internal Test Pattern	Screen Orientation
On screen Display	Frame Delay	Level Detector	Select Source	Broadcast Keys
Picture-in-Picture	Brightness Uniformity	Color Enable	Select Input	Projector Number
Active Projector	Edge Blending	Lamp Message Enable	Source/Channel Name	Password Enable
Auto Setup	Edge Blend Select	Lamp Limit	In Menu	Fan Sensor Enable
Size-Position Presets	Select Output Color	Lamp Mode	Source Memory Lock	PIP Border Width
Size	Warp Select	Lamp Power	Auto Source	Br. Uniformity Select
Vertical Stretch	2D Keystone Corners	Lamp Intensity	Delete Source	PIP Horizontal Position
Pixel Tracking	Warp Prefilter H	Lamp Changed	Baud Rate	PIP Vertical Position
Pixel Phase	Warp Prefilter V	Optical Aperture	Baud Rate Secondary	PIP Horizontal State
Horizontal Position	Warp Sharpness	LampLOC Module	Projector Number	Blue Odd Gain
Vertical Position	Warp Latency	Lamp Size	Broadcast Keys	Dark Interval
Top Blanking	Noise Reduction	White Boost	Network Routing	3D Stereo Sync Mode
Left Blanking	Motion Filter	Color Wheel Delay	Keypad Enable	Auto Power UP
Bottom Blanking	Film Mode Threshold	2nd Color Wheel Delay	Backlight	Sliderbar Enable
Right Blanking	Ten Bit Processing	Lamp Conditioning	Screen Orientation	Error Message Enable
Plug & Display Modes	Output Resolution	Lamp Orientation	Keystone	Menu Font
Contrast	Output Format	Red Black Level	2D Keystone H Offset	Lamp Message Enable
Brightness	DHDM Loop Thru Setting	Green Black Level	Auto Power Up	Keypad Enable
Base Gamma Curve	DHDM Dual Link Format	Blue Black Level	Language	Output Color Default

Preference	Preference	Preference	Preference	Preference
Color	Frame Lock Enable	Red Drive	Source Dialog Enable	2D Keystone Throw Ratio
Tint	Splash Select	Green Drive	Slidebar Enable	Numbers Select Image
Detail	LiteLOC Calibration	Blue Drive	Error Message Enable	Splash Select
Input Filter	PIP Border Color	Auto Input Levels	Menu Location	Parameter Lockout
Copy Comprehensive CLR	Image Optimization	Clamping	Menu Shift Horizontal	2D Keystone V Offset
Interpolated Color	Numbers Select Image	Peak Detector	Menu Shift Vertical	Comprehensive Color Adj
Color Space	Aspect Ratio Overlay	Red Odd Offset	Menu Font	Gamma
Video Standard	Edge Blend Black Levels	Red Odd Gain	Time & Date	Warp Select
Chroma/Luma Delay	Intelligent Lens System	Green Odd Offset	XPort IP	2D Keystone H Offset
Video Black Level	Lens Calibrate	Green Odd Grain	Lens Vertical Offset	Output Format
Zoom	Automatic Gain Control	Blue Odd Offset	Lens Horizontal Offset	2D Keystone Center
Fade Time	Output Resolution	2D Keystone Zoom	General Input/Output	PIP Border Color

Corporate offices

USA – Cypress
ph: 714-236-8610

Canada – Kitchener
ph: 519-744-8005

Consultant offices

Italy
ph: +39 (0) 2 9902 1161

Worldwide offices

Australia
ph: +61 (0) 7 3624 4888

Brazil
ph: +55 (11) 2548 4753

China (Beijing)
ph: +86 10 6561 0240

China (Shanghai)
ph: +86 21 6278 7708

Eastern Europe and
Russian Federation
ph: +36 (0) 1 47 48 100

France
ph: +33 (0) 1 41 21 44 04

Germany
ph: +49 2161 664540

India
ph: +91 (080) 6708 9999

Japan (Tokyo)
ph: 81 3 3599 7481

Korea (Seoul)
ph: +82 2 702 1601

Republic of South Africa
ph: +27 (0)11 510 0094

Singapore
ph: +65 6877-8737

Spain
ph: + 34 91 633 9990

United Arab Emirates
ph: +971 4 3206688

United Kingdom
ph: +44 (0) 118 977 8000

