User Guide

020-001384-01

Christie Mystique Install 1.2

Mapping a Playing Surface

CHKISTIE®

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Content

Mapping a playing surface

The ProVenue, Premium, and Large Scale Experience editions of Christie Mystique Install include advanced alignment features that support the deployment and maintenance of content on a playing surface.

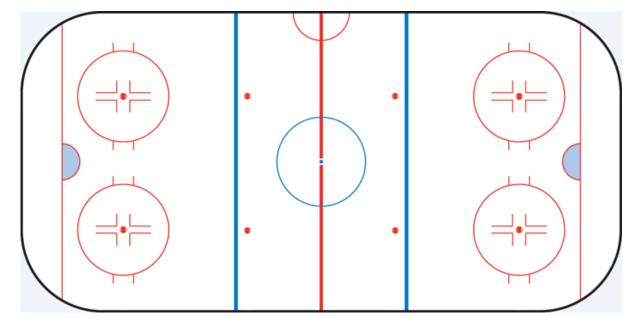## Requirements: Mapping a playing surface

Before you begin an installation, ensure the following is complete.

- **Camera position**—Identify where the camera will be mounted in the facility. The camera must be in a position where it can see the entire playing surface. Christie recommends placing the camera as high as possible, for example by the broadcast booth, for the widest field of view in the camera image.

  Typically, one camera is required for mapping a playing surface.

  For information on advanced multi-camera workflows, see the *Christie Mystique Install User Guide (P/N: 020-001134-XX)*.

- **Projectors and projector layout**—Confirm the number of projectors required for the installation, and identify where and how they will be mounted above the playing surface.

- **Reference image**—Christie recommends using an image of the arena surface to align the projectors. The image that is used must match the aspect ratio of the playing surface. Any markings on the surface, such as face-off circles or goal lines, should be accurately positioned in the image. This image must be in .png format.

- • **Media server channel information**—To complete the configuration in Mystique Install, you must know how the content will be sliced and sent to each projector. You must also know the projector layout and determine whether blend sizes are calculated in pixels or as a percentage.

To arrange a site survey, contact Christie technical support.

System recommendations

Understand the hardware requirements for Christie Mystique Install.

Computer

Minimum	Recommended
Intel i5 or compatible processor	Intel Core i7-4700 or higher
5GB of free disk space	10GB of free disk space
4GB RAM	• 8GB RAM (up to eight HD or four 4K projectors) • 16GB RAM (up to 24 HD or 12 4K projectors) • 32GB RAM (up to 48 HD or 24 4K projectors)
A true color (32 bit) display with a minimum resolution of 1024 x 768	A true color (32 bit) display with a resolution of 1920 x 1080
1 Gbps Ethernet port	1 Gbps Ethernet port
• Microsoft Windows 7 64-bit SP 1, or • Microsoft Windows 8 64-bit, or • Microsoft Windows 10 64-bit	Microsoft Windows 10 64-bit

Minimum	Recommended
If using Microsoft Windows 7, you may need to install Microsoft .NET Framework 4 or higher in order to run Point Grey camera utilities.	

Network

- 1 unmanaged Gigabit Ethernet switch

  Typically, managed switches are compatible with Mystique Install, however, they may be challenging to configure when placed between the control computer and an Ethernet camera. Christie provides support only for managed networking equipment supplied by Christie.

- 1 Ethernet cable for each network device (computer, projectors, camera)

- 1 Power over Ethernet (PoE) injector or a PoE switch (if using a PoE camera)

Supported projectors

ProVenue, Premium, and Large Scale Experience editions of Mystique Install support an unlimited number of projectors.

Use Mystique Install with at least one of the following supported projectors or with Pandoras Box.

- Christie M series projectors must have Main Software version 2.3.0 or later installed

- Christie J Series projectors must have Main Software version 1.1.0 or later installed

- Christie D4K series projectors must have Main Software version 1.4 or later installed

- Christie D4KLH series projectors must have Main Software version 1.2.0 or later installed

- Christie Boxer projectors must have Main Software version 1.3.2 or later installed

- Pandoras Box 6.0 or later

  Black level blending is not supported by Pandoras Box. When using Pandoras Box, blend quality is dependent upon projector support for gamma 2.2.

Supported software

- Adobe Reader 11 or later

- Christie Twist 2.4 or later

Christie recommends that you use Christie Twist Premium with the ProVenue edition of Mystique Install, and Christie Twist Pro with the Premium and LSE editions of Mystique Install. For more information about the features of Christie Twist, see the *Christie Twist User Guide (P/N: 020-101380-XX)*.

Camera recommendations

Christie Mystique Install must be used with one of the following cameras.

When mapping a playing surface, Christie recommends placing the camera as high as possible, for example by the broadcast booth, for the widest field of view in the camera image.

- 3.2MP USB3 Point Grey Flea 3 USB FL3-U3-32S2M-C (recommended)

- 5.0MP Mono GigE PoE Point Grey Blackfly BFLY-PGE-50H5M-C (recommended)

To use the Power over Ethernet (PoE) functionality of this camera, a PoE injector or a PoE-enabled hub or router is required. If the camera cannot be located on the network, use a PoE injector to connect the camera to the control computer, or connect the camera to a PoE-enabled hub or router.

- 5.0MP GigE Point Grey Flea 3 FL3-GE-50S5M-C

- 1.2MP USB2 Point Grey Chameleon CMLN-13S2M

- 2.0MP GigE Point Grey Flea 3 FL3-GE-20S4M-C

Connecting the control computer to a projector and a camera

One camera and a minimum of two Christie Mystique Install-enabled projectors must be connected to the control computer.

Each projector requires a unique IP address and must be added to the same network subnet as the control computer. For more information, see the projector user manual.

1. Connect a computer to a network switch with an Ethernet cable.

   A wireless connection is not recommended with network (GigE) cameras.

2. Connect an Ethernet cable from each projector to the network switch.

3. If you are using a network camera, connect the camera to the network switch.

   For optimum performance, connect the network camera to an unmanaged switch. Do not connect network cameras to a managed switch.

Connecting the camera

To use Christie Mystique Install, one camera and at least two Mystique Install-enabled projectors must be connected to the control computer.

The camera is connected to the control computer with an Ethernet cable or a USB connection. Camera drivers are loaded by the Mystique Install Setup Wizard.

When an Ethernet connection is used, the camera and the control computer are typically connected to an unmanaged switch. Cameras connected with a USB connection are typically connected directly to the control computer, but a high quality USB hub or repeater can also be used.

If a camera is connected to the control computer with an Ethernet connection it must have a valid IP address and be accessible on the local network.

When connecting to a camera over a USB connection, use the cable supplied with the camera or a high quality equivalent. To determine what extenders or hubs are supported, see the supplier website.

Flea3 GigE cameras come with a power supply that must be connected, while other camera models receive power through a USB or a POE connection. If a Qalif camera is being used, verify it is operating in Remote mode.

Typically, cameras work correctly with Mystique Install without modifying their settings. If you need to modify camera settings, see the documentation provided by the camera manufacturer or visit their website. Software tools provided by the camera manufacturer are installed in the Mystique Install folder in the Windows Start menu.

Loading Christie Mystique Install

To load Christie Mystique Install, complete the following steps.

If there is an existing Christie AutoCal or Mystique Install installation on the computer, Christie recommends that you uninstall the application prior to loading the latest version of Mystique Install, unless the older installation is required for compatibility with older hardware.

If an existing AutoCal or Mystique Install installation is uninstalled after loading the latest version of Mystique Install, Mystique Install may need to be removed and reinstalled to correctly restore all drivers and dependencies.

If a restart prompt appears before the installation is complete, select **No**.

1. Insert the Christie installation media in to the USB drive on the computer.

   If the installation does not start automatically, click **Start** > **Computer**. Browse to the Mystique Install installation media, and double-click the **MystiqueInstallSetup.exe** file that corresponds to the installed version of Windows.

2. Do one of the following.

   - To install Christie Mystique Operate Lite at the same time as Mystique Install, *verify that port 80 is not in use on your computer* (on page 10). Then, in the Setup Wizard, click **Options**.

   - To proceed without installing Mystique Operate Lite, in the Setup Wizard, click **Next**.

3. Select **I accept the terms in the License Agreement** and click **Next**.

4. Click **Install**.

5. When the installation is complete, restart the computer.

Mystique Operate Lite provides remote management of Mystique Install. To install Mystique Operate Lite at a later time, on your computer, browse to `C:\Program Files\Christie Digital Systems \Mystique Install 1.2\Mystique Operate`. To run the installer, double-click the **MystiqueOperate.msi** file. For more information about Mystique Operate Lite, visit *www.christiedigital.com*.

Related information

Ensuring port 80 is not in use (on page 10)

Ensuring port 80 is not in use

Christie Mystique Operate Lite installs a web server on port 80. Verify that no other programs are using port 80 before you install Mystique Operate Lite.

There are two known services that might use port 80—the World Wide Web Publishing Service, and the Web Deployment Agent Service. If either service is running on your system, stop the service and change the startup type of the service to Manual before you install Mystique Operate Lite.

1. On your computer, click **Start** > **Control Panel** > **Administrative Tools** > **Services**.

2. Locate the **World Wide Web Publishing Service**.

3. Right-click the service and then click **Properties**.

4. In the Startup type list, select **Manual**.

5. In the Service status area, click **Stop**.

6. Click **Apply**.

7. Repeat steps two to six for the **Web Deployment Agent Service**.

Starting Christie Mystique Install

After the installation is complete, open Christie Mystique Install.

1. On your computer, click **Start** > **All Programs** > **Christie** > **Mystique Install 1.2** > **Mystique Install 1.2**.
2. To complete a quick configuration setup, click **Guided Setup**.
3. To create a new configuration, click **New**.

Uninstalling Christie Mystique Install

Remove Christie Mystique Install from the Windows Control Panel.

Bonjour, Microsoft Visual C++ 2010, 2012, and 2015 Redistributables, and Microsoft .NET Framework 4 may be in use by other programs and are not uninstalled by the wizard.

1. On the computer, click **Start** > **Control Panel**.
2. Click **Programs and Features**.
3. Right-click Mystique Install and click **Uninstall**.
4. Click **Yes**.

Adding devices to a configuration

Learn how to add a camera and projectors when mapping a playing surface.

Searching for a projector

Search by port number when adding a projector to the configuration.

1. Click **File** > **New**.
2. In the left pane, click **Projector**.
3. Click **Add**.
4. Click **Search**.
5. Select a projector.
6. Click **OK**.

Manually adding a projector to a configuration

If a projector is not automatically detected, or if it is not on the same subnet as other projectors in a configuration, you can manually add the projector to the configuration by entering the projector IP address and port number.

To manually add a projector to a configuration, you must know the IP address and port number of the projector. To find the IP address of a projector, refer to the projector documentation.

1. Click **File** > **New**.
2. In the left pane, click **Projector**.
3. Click **Add**.
4. On the Manual tab, type the **IP Address** and **Port** number of a projector.
5. Click **Search**.
6. Select the projector.
7. Click **OK**.

Connecting a Pandoras Box Manager as a projector

Learn how to add a Pandoras Box Manager as a projector in Mystique Install.

When you connect to a Pandoras Box Manager, each output in a Pandoras Box project appears as a projector in Mystique Install. While Mystique Install can connect to one Pandoras Box Manager at a time, multiple Pandoras Box Clients can be connected to a single Manager.

Mystique Install, the Pandoras Box Manager, and all Pandoras Box Clients must be configured for, and on, the same network.

If your configuration uses 4K projectors, change the graphics card settings on your computer to Mosaic or Surround mode, so that the entire display is a single camera and a single output in the Pandoras Box Manager. Then, in Mystique Install, connect to the Pandoras Box Manager.

For a blend for Pandoras Box to appear as expected, Christie recommends using projectors that can support a gamma curve of 2.2, such as Christie 3-chip DLP projectors. Otherwise, blend quality can vary.

1. In Pandoras Box Manager, verify that the project file containing the content is open.
2. In Mystique Install, in the left pane, click **Projector**.
3. Click **Add**.
4. Do one of the following.
   - If the Pandoras Box Manager is installed on the computer used to run Mystique Install, from the Search Results list, select **PB Devices**.
   - If the Pandoras Box Manager is installed on another computer, or PB Devices does not appear in the Search Results list, click the **Manual** tab. Type the IP address of the Pandoras Box Manager and click **Search** or **Clear & Search**.
5. Click **OK**.

Once you connect to a Pandoras Box Manager, canvases for warping, blending, and test patterns are created in the Pandoras Box project. Establishing a consistent communication stream might take longer than expected.

When Mystique Install is run, warps and blends are added to the output and activated in Pandoras Box Manager.

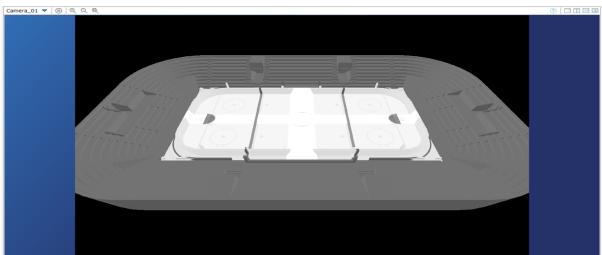Some projector controls, such as power and shutter controls, are unavailable when connected to a Pandoras Box Manager.

Adding a camera to a configuration

To add a camera to a configuration, complete the following steps.

1. Open or create a configuration file.
2. In the left pane, click **Camera**.
3. Click **Add**.
4. Select the camera.
5. To see a recently connected camera, click **Refresh**.
6. Click **OK**.

When a camera is added, a preview of the camera image appears in the Camera View.

Defining the layout

A channel is a slice of content that is sent to a projector. When you define the layout, you define the location of each channel, and where the pixels land within each channel in a configuration.

Values that are entered must match the parameters of the content or image generator. If a configuration includes projectors that are stacked, channel extent values must be identical for each projector in the stack.

Define the channel extents for a configuration using one of the following methods:

- Wallpaper (Simple)
- Wallpaper (Advanced)

Warps are automatically generated so that the projected image matches the layout specified in Christie Mystique Install.

Defining the Wallpaper (Simple) layout

If using a standard projector layout, such as a 2x2 or 2x3 stacked or a simple blended layout, select Wallpaper (Simple).

Channel layouts are defined by the overlaps between adjacent channels. Once defined, the projected area of all channels fills the playing surface.

1. In the left pane, click **Layout**.
2. In the Type list, select **Wallpaper (Simple)**.
3. Select a projector orientation.
4. In the Setup list, select a grid layout.

   The options in this menu vary depending on the number of projectors in an installation.
5. In the Content Overlap area, enter the horizontal and vertical blend overlap widths in percentages or pixels.

   If connected to a Pandoras Box Manager, the content overlap values must be entered in percentages. Verify that the percentage values entered in Christie Mystique Install align with the channel extent values entered in Pandoras Box.
6. To further inset the projected image, specify the inset percentage values.

   A positive inset value creates a black border around the final full image.
7. To make changes to any of the channel extents, click **Push Layouts to Wallpaper Advanced**.

Specifying the properties of the Wallpaper (Advanced) layout

If the projector layout is complex, or if content spacing is not uniform across the configuration, select Wallpaper (Advanced).

1. In the left pane, click **Layout**.
2. In the Type list, select **Wallpaper (Advanced)**.
3. In the Projector Orientation list, select a projector orientation.
4. Enter the channel extents for each channel in screen-relative percentages.

    If connected to a Pandoras Box Manager, the percentage values entered in Christie Mystique Install must align with the channel extent values entered in Pandoras Box.
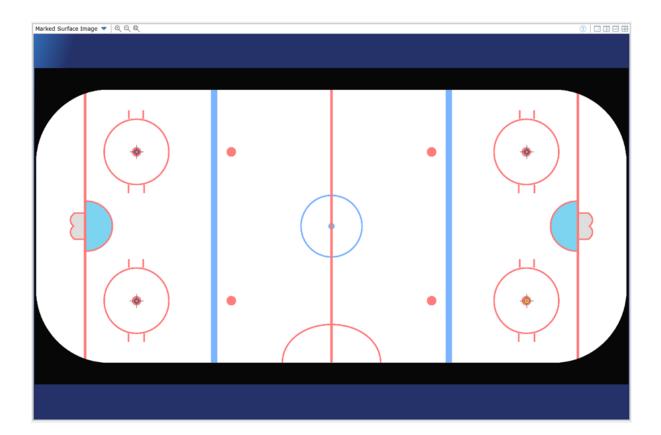
Mapping the marker points on a playing surface

Before calibrating a configuration of a playing surface, identify the features on the playing surface you want to calibrate to.

When using a reference image to align the projectors, the reference image must match the aspect ratio of the playing surface. Any markings on the surface, such as face-off circles or goal lines, should be accurately positioned in the image. This image must be in the format of a .png file.

1. In the left pane, click **Screen**.
2. In the Shape list, select **Flat**.
3. In the Determine Size list, select **From Image**.
4. In the Marked Surface Image field, browse to the reference image.
   The reference image appears in the Marked Surface Image view, with marker points appearing at the corners of the image.
5. In the Marked Surface Image view, move the marker points to four features of the playing surface visible to the camera that you want to calibrate to. For example, if mapping a hockey rink, you can move the marker points to the face-off circles.

Calibrating the camera

When mapping a playing surface, match the marker points on the reference image to the corresponding points on the physical playing surface in Camera View.
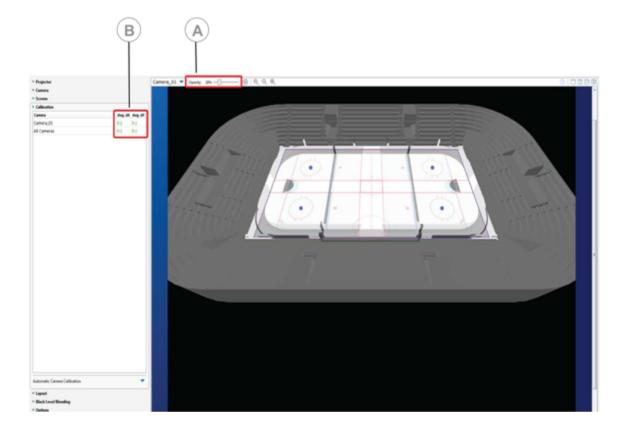
There are two camera calibration methods that can be used.

- **Manual calibration**—When using this method, calibration data is saved as part of your .cal file, however, the calibrated camera image is not saved. If the camera is unintentionally moved out of position, the camera must be recalibrated manually using the original reference image.

- **Image-based calibration**—After calibrating the camera, using the calibrated camera image, take a new reference image. When using this method, if the camera is unintentionally moved out of position, it can automatically be recalibrated to align with this new reference image.

Calibrating a playing surface configuration manually

After mapping the marker points of a playing surface in the Marked Surface Image View, match the marker points what the camera sees in Camera View.

1. In the left pane, click **Calibration**.
   The Camera View appears with a transparent overlay of the mapped reference image.

2. In the Camera View, zoom out until the marker points are visible.

3. Adjust the marker points so that the transparent overlay of the reference image matches the camera image of the playing surface.

4. To increase or decrease the opacity of the transparent overlay, move the **Opacity** slider to the right or to the left (A).

5. To make fine adjustments to the corner points, press and hold the CTRL key, and move the calibration points as required.
   The dX and dY values turn green when the corner points are correctly calibrated (B).

6. To perform a manual calibration, click **Run**. The calibration data is saved as part of your .cal file, however the camera image is not saved.

Performing an image-based calibration

After calibrating the camera, take a new reference image so that if the camera is unintentionally moved out of position, it can automatically be recalibrated to align with the new reference image.

Christie recommends only performing image-based calibrations in settings where lighting conditions are consistent. If lighting conditions change between calibrations, manual camera calibration might be required.
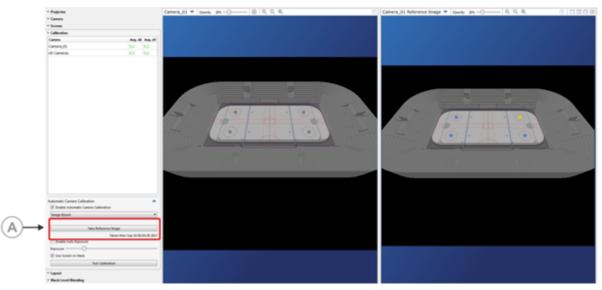
1. In the left pane, click **Calibration**.
2. In the Camera View, zoom out until the marker points are visible.
3. Adjust the marker points so that the transparent overlay of the reference image matches the camera image of the playing surface.
4. To increase or decrease the opacity of the transparent overlay, move the **Opacity** slider to the right or to the left.
5. To make fine adjustments to the corner points, press and hold the CTRL key, and move the calibration points as required.
   The dX and dY values turn green when the corner points are correctly calibrated.
6. Expand the Automatic Camera Calibration area then select **Enable Automatic Camera Calibration**.
7. Select **Image-Based** from the list.
8. If required, do any of the following.

- To set the camera exposure manually, clear the **Enable Auto Exposure** checkbox, and move the slider.
- When mapping a playing surface, to mask moveable features visible to the camera that are outside of the screen and not covered by the marked surface overlay, such as non-fixed seating or advertising, select **Use Screen as Mask**. This option is available only with the ProVenue edition of Mystique Install.

9. To take a new reference image, click **Take Reference Image** (A).

10. Click **Run**.

   Christie Mystique Install saves this new reference image and uses it for automatic recalibration each time you click **Run**.

Testing image-based recalibration

Validate whether a camera can be sucessfully recalibrated to a reference image if it is accidentally moved out of place.
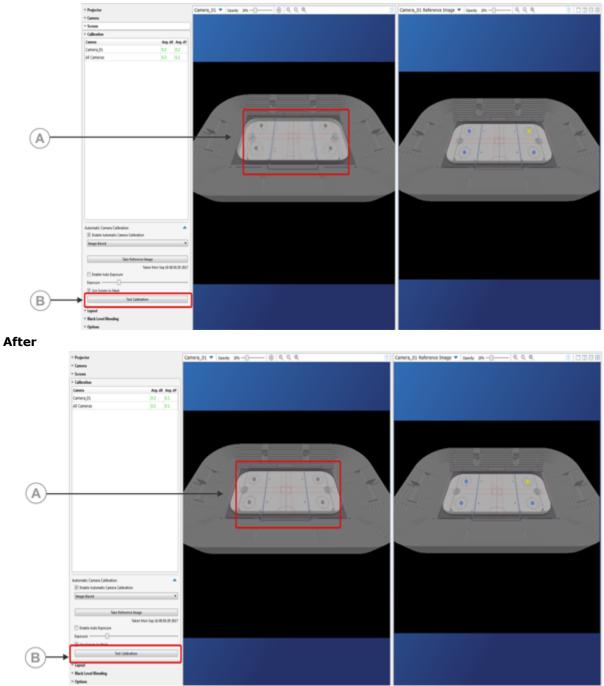
To recalibrate a camera using this method, a reference image of the configuration must have been previously taken using Christie Mystique Install.

Christie recommends this method of recalibration when correcting for small motions of a fixed camera, such as a building vibration. If the camera is moved to a new location or its view is significantly altered, manually realign the camera for the new configuration and take a new reference image.

1. Open a configuration file.
2. In the left pane, click **Calibration**.
3. Select **Enable Automatic Camera Calibration**.
4. Select **Image-Based** from the list.
5. To test recalibration of the camera, click **Test Calibration** (B).

If recalibration is successful, the alignment of the marked surface overlay matches the image in the Camera View (A). If recalibration is unsuccessful, try adjusting the exposure or enable the **Use Screen as Mask** setting.

Before

After

Troubleshooting

Learn about common issues and their solutions.

Viewing and exporting diagnostics

Each time Christie Mystique Install is run, a new folder for diagnostics files (such as log files or images) is created.

When helping troubleshoot issues with Mystique Install, the Christie technical support team might ask you to open and read diagnostic files, or to send those files to Christie for further analysis.

Viewing diagnostic files

Learn how to view diagnostic files.

1. Click **Help** > **Diagnostics** > **View** and select one of the following:
   - Crash
   - Data
   - Images
   - Logs

Exporting diagnostic files

Learn how to export diagnostic files.

1. At the top of the screen, click the **Help** tab.
2. Click **Export**.
3. Select a Christie Mystique Install session and click **Export**.
4. Browse to where the .zip archive file is to be saved and click **Save**.
5. Find the file on your computer.
6. Send the .zip archive file to the Christie technical support team.

I am unable to load Mystique Install on my computer

In some cases, computers running the Windows 7 or Windows 8 operating systems are unable to install the Bonjour Service.

Resolution

If your computer is running Windows 7 or Windows 8, install the following updates, then try loading Mystique Install again.

- If your computer is running Windows 7, install the update located here: *https://www.microsoft.com/en-us/download/details.aspx?id=49093*.

- If your computer is running Windows 8, install the update located here: *https://www.microsoft.com/en-us/download/details.aspx?id=49082*.

If your computer is running Windows 8.1, verify that all recommended Windows updates are installed, then complete the following steps.

1. Install the update located here: *https://support.microsoft.com/en-us/help/2919355/windows-rt-8.1,-windows-8.1,-and-windows-server-2012-r2-update-april-2014*.

2. Install the update located here: *https://www.microsoft.com/en-us/download/details.aspx?id=49082*.

3. Load Mystique Install again.

Christie Mystique Install is unable to locate a camera or a projector

To locate a camera or a projector, try any of the following.

Resolution

- Confirm that the computer is connected to a network.

- Check the cable connections (computer, camera, projectors, etc.)

- Make sure that the computer is on the same subnet as the camera or projector.

- Try to access the projector's web interface. From the Select Projectors dialog, in the Manual tab, type the IP address of the projector.

- On the projector, check the version of the Ethernet firmware.

- On the computer, check that no other Christie software application is running.

- On the computer, verify that the Bonjour application is installed and that it is operating as expected.

I am unable to connect a camera

To connect a camera to a configuration, try the following.

Resolution

Make sure the camera is connected to a dedicated router with DHCP enabled. The camera should automatically be assigned an IP address.

If the Point Grey Flea3 camera cannot be detected on the network, try the following:

1. Disable all wireless network connections.

2. Connect one end of an Ethernet cable to the camera.

3. Connect the other end of the Ethernet cable into the network port of the computer running Christie Mystique Install.

4. Click **Start** > **Programs** > **Christie** > **Mystique Install** > **Point Grey Utilities** > **GigE Configurator**.

5. In the left pane, select your camera.

    If the camera isn't recognized, for diagnostic information, see the documentation provided by the camera manufacturer.

6. Click **Automatically Force IP**.

7. Set the IP address and subnet for the camera.

    *   If the cameras use static IP addresses:

        *   Enter the network settings for the camera.

        *   Select **LLA & Persistent IP**.

        *   Click **Set IP Address /Subnet**.

    *   If the cameras use dynamic IP addresses:

        *   Select **LLA & Persistent IP**.

        *   Select **DHCP**.

        *   Click **Set IP Address/Subnet**.

8. Click **Test Camera Connection**.

9. Reconnect the camera to the network.

10. Click **Test Camera Connection**.

An intermittent camera connection issue is occurring

If the live camera preview is intermittently replaced by a checkerboard pattern, and the Christie Mystique Install calibration is also failing, you might be experiencing an intermittent camera connection issue.

Resolving an intermittent camera connection issue if a network (GigE Point Grey) camera is installed

If you experience an intermittent camera connection issue and a network (GigE Point Grey) camera is installed, complete the following.

Before you begin, complete the *I am unable to connect to a camera* (on page 24) procedure.

Resolution

Make sure that the Point Grey filter driver is installed.

1. On your computer, open **Control Panel** > **Network and Sharing Center** .
2. In the left pane, click **Change Adapter Settings**.
3. Right-click the **Ethernet** or **Local Area Connection** icon and select **Properties**.

   If installed, the filter driver appears as **Point Grey Lightweight Filter Driver** and, if enabled, the checkbox next to the driver is selected.

If the the filter driver is not installed, from the Properties window, complete the following:

1. Click **Install**.
2. In the Select Network Feature Type window, select **Service** > **Add**.
3. In the Select Network Service window, click **Have Disk**.
4. In the Install From Disk window, click **Browse**.
5. Navigate to `C:\Program Files\Christie Digital Systems\Mystique Install 1.2\PointGrey`.
6. Select **pgrlwf.inf**, then click **Open**.
7. In the Install From Disk window, click **OK**.

   The Select Network Service window is updated to indicate that you selected the Point Grey Lightweight Filter Driver network service.
8. Click **OK**.

   The Properties window is updated to indicate that the Point Grey Lightweight Filter Driver is installed.
9. Click **Done**.

If you cannot install the filter driver, complete the following:

1. Click **Start**.
2. In the Search Programs and Files field, type `regedit` and click **Enter**.
3. Browse to `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Network`.
4. In the right pane, double-click **MaxNumFilters**.

5. In the Value Data field, type `14`.

6. Click **OK**.

Resolving an intermittent camera issue if a Point Grey USB camera is installed

It is recommended that the computer is restarted after each troubleshooting attempt.

Resolution

- Verify that the USB camera is not in use by the Point Grey Fly Capture application or another instance of Christie Mystique Install.

- Move the USB cable side to side and up and down. If this causes dropped frames, verify that the USB cable is correctly attached or replace it altogether.

- On the control computer, connect the USB cable to a different USB port.

- Replace the USB cable.

- Install a shorter USB cable.

- Install a USB hub between the control computer and the camera.

The camera performance is slow

For optimal results, you should have a minimum of a 1.0 Gigabits per second (Gbps) network connection.

Resolution

If an Ethernet camera is being used, Mystique Install reports the network health of the camera. To identify factors that might be contributing to poor camera performance, you can view the summary in the Mystique Install status bar, or view camera information under **Camera** > **Details** > **Network Health**.

To confirm the speed of the network connection:

1. Click **Start** > **Control Panel** > **Network and Sharing Center**.

2. To view the network settings, click a network connection.

The projector is unresponsive

If the projector is unresponsive, try any of the following.

Resolution

- Check that the power source is turned on.

- Verify that all cables are connected.

- Check that the control computer can search for projectors.

The calibration file is invalid

To verify that a .cal file is valid, check the following.

Resolution

- The selected camera is connected to the network.
- The screen is defined.
- All projectors in the configuration are connected to the network.

High dx, dy values occur during camera calibration

If you experience high dx, dy values during camera calibration, do not attempt to lower the calibration error by moving calibration points away from the marker in the camera image.

Resolution

If the dx, dy values are greater than 1.0, try the following:

- In the image preview, adjust the 2D calibration points so that they match the markers or screen corners.

If the tolerance remains greater than 1.0, try the following:

- Verify that the screen dimensions are correct.
- Verify that the 3D calibration points are correctly defined.

The camera and reference image do not align

If the camera and reference images do not align, try any of the following.

Resolution

- Verify that the camera image is not inverted.
- Turn off any test patterns in the Projector Control tab to verify that Christie Mystique Install sees the true image and not the projected image.

Mystique Install test patterns appear as expected but alignment is poor

Test patterns generated by Christie Mystique Install appear as expected but alignment on the playing surface is poor.

Details

This can occur if the layout in the media server does not match the layout specified in Mystique Install. For example, if a 300 pixel overlap is specified in Mystique Install but the content is rendered with 295 pixels, a misalignment of at least five pixels occurs.

Resolution

- Confirm your layout, and update the layout information in either the media server or in Mystique Install.

A camera has drifted out of position

If a camera drifts over time, and Christie Mystique Install cannot recalibrate based on the existing reference image, you receive a dialog message indicating the camera must be repositioned.

Resolution

If you are unable to physically access the camera, or are unable to reposition it, try one of the following options.

- Disable automatic camera calibration. If you have a marked surface image, manually move the calibration points to fit the live camera image, and then run a manual calibration. This does not create a new reference image.

- Set new calibration points and then create a new reference image. This discards all settings associated with the previous reference image.

Projector undershooting is causing distorted blends

Projector undershooting can occur if a projector undershoots the screen or content boundary. This creates a region upon which only one projector can project an image.

Resolution

To correct this issue, in either the Wallpaper (Simple) or the Wallpaper (Advanced) layout, try one of the following:

- To ignore projector undershoot around the border when performing blend calculations and improve blend quality, in the left pane, expand **Options** > **Twist**. Select the **Smart Undershoot Handling** checkbox.

- If you have an irregular projector or content arrangement, in the left pane, expand **Options** > **Twist**. Clear the **Smart Undershoot Handling** checkbox. The other projector fills the undershoot area and modifies the blend so that it transitions smoothly in to the undershoot region.

An obstruction is appearing in the path of the projector image

If an obstruction appears between a projector and the projection surface, create a mask to hide the obstruction. Where possible, when creating a mask, Christie Mystique Install blends the content around the obstruction.

Resolution

To create a mask:

1. At the top of the screen, click the **Home** tab.
2. To open , click **Twist**.
3. In the left pane, click the **Mask** layer tab.
4. On the canvas, click the projector window for the projector that is obstructed.
5. To adjust the shape of the mask, move one or more points toward the center of the projector window.
6. To add a point, right-click on a grid line then select **Add Point**.
7. To send the mask to a projector, on the canvas, right-click a projector window then select **Send Mask**.

   The updated setting is saved to the projector memory.
8. On the projection surface, verify that the mask removes all projected light from the obstruction. If it does not, repeat steps 5-7.
9. Repeat steps 4-8 for any additional projector impacted by an obstruction.
10. To save the mask as a configuration file, click **File** > **Save**.

If the blend zone between two or more projectors is blocked by an obstruction, you can copy the Mask layers to the Blend Mask layers for all impacted projectors.

1. In the left pane, click the **Mask** layer tab.
2. Right-click a projector window then select **Copy Mask**.
3. In the left pane, expand the **Blend Mask** layer tab.
4. Click **Blend Mask**.
5. Right-click a projector window then select **Paste Mask to Blend Mask**.

   The Blend layers for each projector are updated when Blend Masks are changed.
6. To send the updated blend to a projector, in the left pane, click **Send**.

To avoid overwriting the mask the next time you run Mystique Install, do the following:

1. In the left pane, expand **Options**.
2. In the Masking list, click **From Twist File**.

3. To prevent Mystique Install from calibrating against masked out obstructions in a configuration, select **Masked Mappers**.

I am receiving an error message

The following topics are common error messages might be received when installing or configuring Christie Mystique Install.

Christie Mystique Install failed to determine a channel ordering

Channel ordering is only required with the Wallpaper (Simple) layout.

Resolution

- Verify that the layout settings are correct. The channel layout must match the projector output.
- Verify that every projector is calibrated by the camera.
- Try High Contrast or Manual mode. In the left pane, click **Camera**. Expand the Exposure & Binarization area. In the list, select **High Contrast** or **Manual**.
- Try using the Wallpaper (Advanced) layout. The Wallpaper (Advanced) layout is not available with the Essentials edition of Christie Mystique Install.

The mapper generated no data

If you receive an error indicating that the mapper generated no data, try any of the following.

Resolution

- Verify that each projector is calibrated by at least one camera.
- Remove the lens cap from all cameras.
- If you are in a dark room, a low aperture setting can result in a black image. To increase or decrease light levels, adjust the camera aperture.
- Verify that the camera is pointing at an illuminated surface.
- Try to view the camera image using the software provided by the camera vendor. For example, use FlyCapture with Point Grey cameras. The FlyCapture application is included with Christie Mystique Install.
    - If you see a clear image with the camera software, but not with Mystique Install, verify that the camera and firmware are supported, and contact the Christie Technical Support team.
    - If the image is visible but unclear, manually focus the camera.

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