Callisto Printer
User Guide

NeuraLabel
Printing Solutions

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NeuraLabel Callisto Printer User Guide

Congratulations on your NeuraLabel Callisto Printer. This User Guide will get you printing labels as quickly as possible, provide important information about printer features, and offer tips for workflow optimization and problem troubleshooting.

Note that the information in this User Guide may change as further printer development in done. Please check the NeuraLabel website for the latest updated documentation.

This User Guide provides answers to many questions about setup, operation and troubleshooting for the NeuraLabel Callisto printer. Please contact NeuraLabel support if you need further assistance.

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Acknowledgments

NeuraLabel wishes to express our appreciation for the dedication and support of engineers at Hewlett Packard for their continued support in developing the Callisto Printer.

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1. Setting up the Printer

The Callisto printer ships in a two-piece box and usually on a pallet. Unbox your Callisto printer and remove all packing materials. Make sure the printer is set on a sturdy table with plenty of room for both entrance and exit of the label media. If your printer includes a stacker or roll unit, make sure it is properly installed before printing begins. A Callisto setup video is available on the web.

The printer contains orange colored packing materials and blue packaging tape. Make sure to remove the orange ink cap and left/right orange service tray caps before turning on the printer. If these packaging materials are not removed and the printer is powered on, an error will occur and a motor stall message will be displayed on the Operator Panel. If this happens, turn the printer off and remove all packaging materials. Be sure to save all Callisto packaging materials in case you need to move or ship your printer to another location.

Once the packaging is completely removed, open the ink door and place the ink cartridges in the printer. New printers may ship with Setup cartridges that include a reduced amount of ink. Printer setup involves purging the ink lines to remove initial shipping fluid and filling the lines with ink; this step is performed at the NeuraLabel factory. Place the ink cartridges in the printer by lifting the ink door and pushing each ink into its corresponding color slot. Close the printer door when all ink is installed.

Connect the power and network cables in the back of the Callisto printer and plug them into the wall. Turn on the printer with the back power switch located next to the power port. The printer takes about 2 minutes to boot up. During this time, the blue LED power button on the printer front will blink and eventually remain solid blue. Once the back power switch is set to the ON position, the front power button should be used to turn the printer on and off.

As the printer is booting up, it will display the home screen of the operator panel shown. When the printer has finished booting, a *Printer Ready* status will appear in the lower left corner of the display. The printer is not completely booted up and ready for use until *Printer Ready* is indicated on the display.

The printer has handles on either side that allow it to be more easily carried if it should need to be moved. Keep in mind the Callisto printer weighs about 55 pounds and may require two people to lift and move it. If you need to move the printer to another location within the same room or building, no special packaging care is required. However, if you need to ship the Callisto printer, be sure to reinstall the original packaging materials.

2. Tour of the Callisto Printer

Callisto Printing Technology

NeuraLabel's Callisto Printer is based on state-of-the-art PageWide™ printing technology developed by Hewlett Packard. The 12-inch wide stationary printhead is made up of 14 individual printhead dies that work together to create a seamless print. Because the printhead is stationary, fast printing speeds, up to 18 inches per second (or 90 feet per minute), are possible. Note that speed is related to file resolution, complexity and width. Different size and complexity labels will need to be printed at different speeds. Label copies will print more quickly than unique label pages. While label copies may print at speeds up to 18 inches per second, unique or sequenced labels will usually need to print at slower speeds.

The Callisto printer also includes a precision encoder and mechanical drive system for accurate printing, a machined aluminum frame for light-weight robustness, and advanced media detection sensors and algorithms. User-printer interaction is accomplished through a 7-inch touch display or through the printer's web server visible anywhere on your local network. The Windows-based printer driver provides built-in controls such as quality and speed selection, color tuning, and ink saving.

The following sections provide an introductory tour of the Callisto Printer and its various components.

Callisto Printer Media Entrance Side

Facing the printer front, media is loaded into the printer on the right-hand side. The printer entrance has center-based adjustable guides to fit any size label media up to 12.1 inches wide. A lock nut allows the guides to be locked into place.

It is critical to allow adequate room for the media to enter the printer. Large fanfold labels such as drum labels may be stacked at least 12-18 inches away on a table next to the printer entrance, or they may be pulled from a box on the floor as long as there are no obstructions to the media path. Make sure the media box lid is completely removed and make sure there is no plastic in the box.

The Callisto Ink Door lifts out and up to access the ink cartridges. Lift the ink door to install and replace cartridges. The four high-capacity color cartridges slide into their respective slots and snap into place. Only Callisto ink, available from NeuraLabel, will work in the Callisto printer.

Once the ink is installed, the ink door must be completely closed and remain closed during printing. Note that it takes the printer a few moments to return to the *Printer Ready* state after the ink door has been open and closed.

Figure 2-1. Callisto Media Entrance Side

Callisto Printer Media Exit Side

Media exits the printer on its left side. Because the media path is short and simple, a vacuum table is used to aid in holding the media in place. It is critical to make sure there are no obstructions to the printer exit. The media must be allowed to flow freely from the printer and not back up into the printer exit. If the media is allowed to back up into the printer exit, it may hit and damage the printhead.

The 7-inch Touch Operator Panel allows the printer operator to interact with the printer. From this panel you can jog media, check ink and other status, view printer reports and version information, and even print jobs that have been stored on the printer. The Touch Operator Panel displays the printer status, printer network address and current date and time. Further details on this display are covered later in the User Guide.

The blue LED power button at the printer front indicates that the printer is turned on. Press this button to power the printer On/Off; the LED will blink during both printer bootup and printer shutdown. When printing the LED will blink each time a gap or mark passes under the printer sensor. [REPLACE PIC]

Figure 2-2. Callisto Media Exit Side

Callisto Printer Back Side

The back side of the Callisto printer contains the master power switch, the power port, and the network port. The master power switch will generally remain on because for normal operations the front power button will be accessed to turn the printer on/off. The Callisto printer is a network printer; therefore, the network port will be needed. If you wish to printer over USB, there are special USB-to-network adapters that are readily available.

The serial number of the printer can also be found on the back side of the printer. The serial number is available through the printer operator panel as well by clicking on the "?" symbol in the upper right corner of the display. All Callisto serial numbers begin with the letters CAL and

are followed by a 7-digit number.

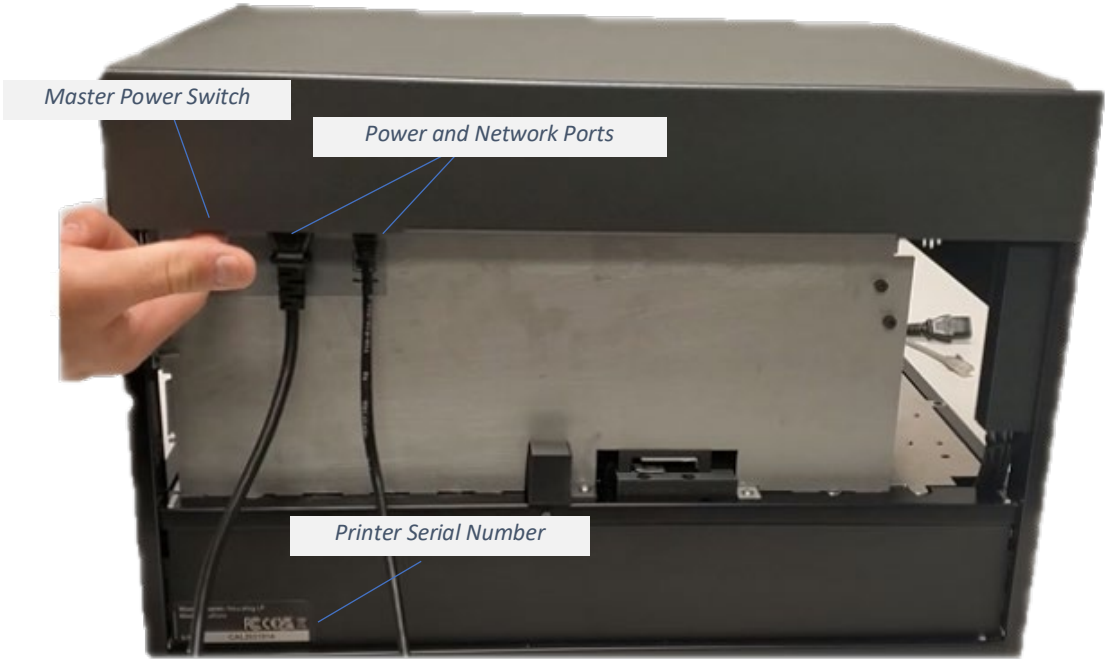

Figure 2-3. Callisto Back

3. Callisto Consumables

The Callisto printer uses four high-capacity ink cartridges to produce printed images and a replaceable service tray to absorb excess ink within the printer. Ink cartridges, the service tray, and label media make up the consumables used by the Callisto printer to create labels.

Ink

The Callisto Ink is a pigment-based water-resistant ink designed to make permanent high quality prints. Approximate ink volume is listed below. The slight discrepancy in the color ink volume is related to drop size, and all colors are expected to produce approximately the same output; a black cartridge produces roughly twice the output.

Ink Cartridge	Volume (ml)	Dimension (cm)
Yellow	225	21.1x4.7x4.4
Magenta	233	21.1x4.7x4.4
Cyan	238	21.1x4.7x4.4
Black	498	21.1x9.45x4.4

Callisto ink may be purchased from NeuraLabel Printing Solutions (Neuralog LP) through the online store or by sending your request to orders@neuralog.com.

Figure 3-1. Callisto Ink Cartridge Set

Ink Status

The status of the Callisto Ink Cartridges is available in the Supplies section of the printer operator panel. To check the cartridge ink levels:

- Touch the Supplies button on the home view of the operator panel.

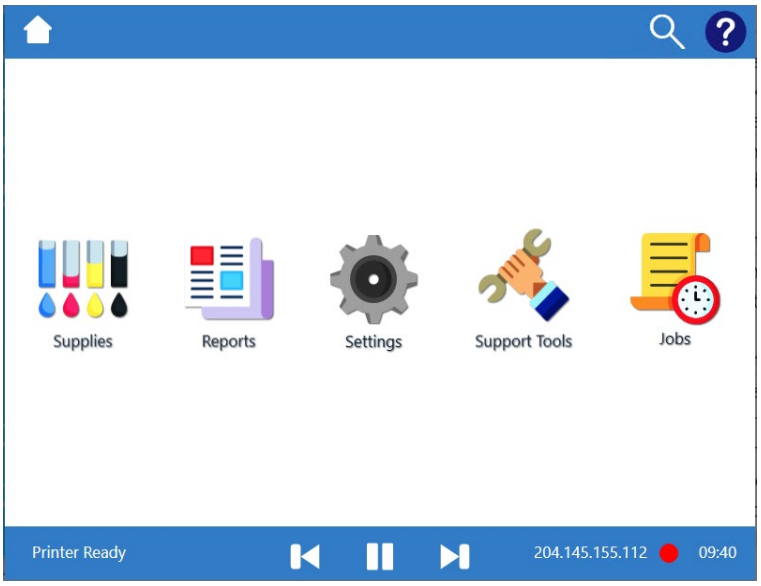

Figure 3-2. Callisto Operator Panel Home View

- Touch the Supplies Summary to see a summary view of all printer supplies.
- Notice the alert on any cartridge that is “Low on Ink”. This is a warning only.

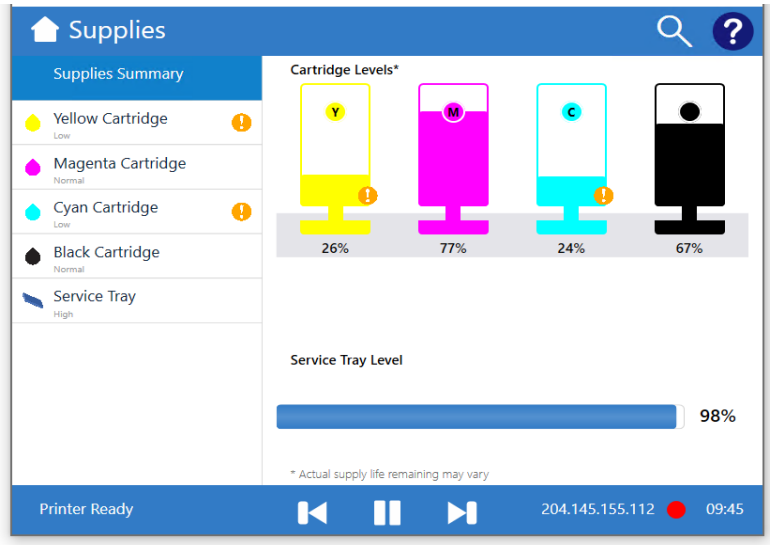

Figure 3-3. Supplies Summary View

- Touch an individual Cartridge to see a view of that ink supply.
- Notice the QR code for each supply. This code takes you to the NeuraLabel online store. You must create an account and login to the store to purchase supplies.

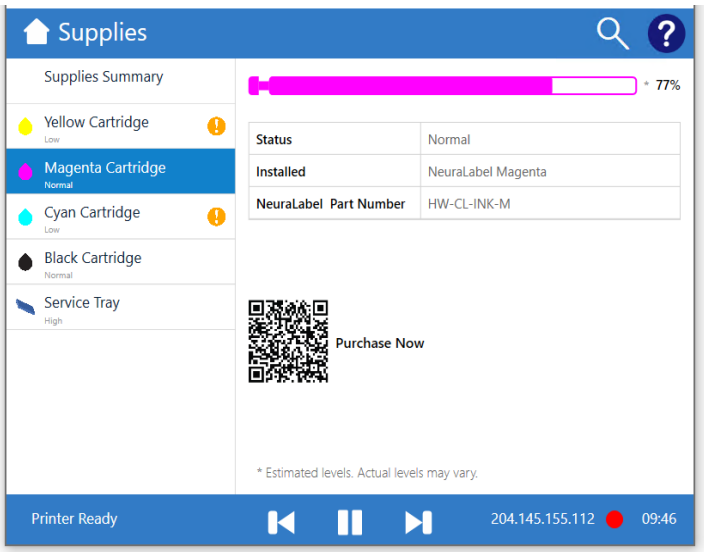

Figure 3-4. Cartridge Status

Ink Access

Callisto ink is installed in the printer by opening the printer ink door located to the right of the operator panel. Only open this door when the printer is in a ready state or powered off. Do not attempt to change Callisto ink when the printer is actively printing.

To access Callisto ink:

- With the printer in a Ready state or turned off, open the Callisto ink door by pulling up and out on the door handle. Whenever the door is open, the printer Operator panel will display an Ink Door Open status in the lower left corner.

Figure 3-5. Callisto Ink Door

- Insert cartridges by pressing in until the cartridge snaps into place.
- Remove cartridges by pressing in until the cartridge snaps out of place.

Figure 3-6. Ink Cartridge Access

- When all cartridges are in place, close the Callisto ink door by pulling down and out until the door is in place.

NOTE: Whenever the door is closed, the Callisto printer goes through an ink checking routine that may take a few moments. The Operator Panel status will change from "Ink Door Open" to "Printer Ready" when the printer is ready.

Service Tray

The Callisto Service Tray helps to keep the stationary printhead clean by wiping off and absorbing excess ink. When printing and when running printhead cleaning routines, the Callisto ink system performs "spitting" and "wiping" routines to keep the printhead healthy. The Service Tray has the job of absorbing excess ink generated from these routines.

All ink jet printers produce excess ink in a manner similar to this. The Callisto printer includes the ink collection system as a replaceable item to extend the life of the printhead and maintain print quality.

Figure 3-7. Callisto Service Tray

Service Tray Status

The status of the Callisto Service Tray is available in the Supplies section of the printer operator panel. To check the cartridge ink levels:

- Touch the Supplies button on the home view of the operator panel.
- Touch the Supplies Summary to see a summary view of all printer supplies.
- Touch Service Tray in the Supplies menu to see a view with the status of the service tray.

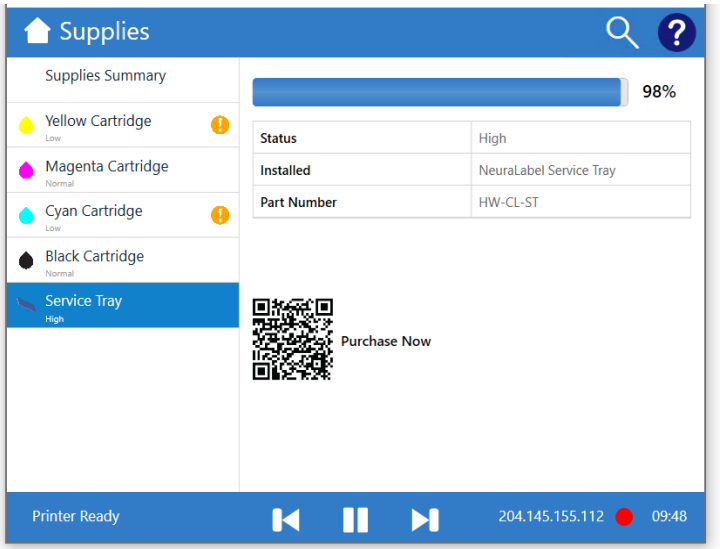

Figure 3-8. Service Tray Status

- Notice the QR code for the service tray. This code takes you to the NeuraLabel online store. You must create an account and login to the store to purchase supplies.

Service Tray Access

The Service tray will periodically need to be replaced. Follow the instructions below or watch the video to see the steps in replacing the service tray.

Figure 3-9. Replacing Service Tray Video

To remove the service tray:

- Touch the Support Tools icon on the Operator Panel home view.
- Touch Maintenance and then Service Tray in the menu that appears.
- Touch Remove.
- Follow the instructions on the panel that appears and select the Eject button when ready to remove the tray.

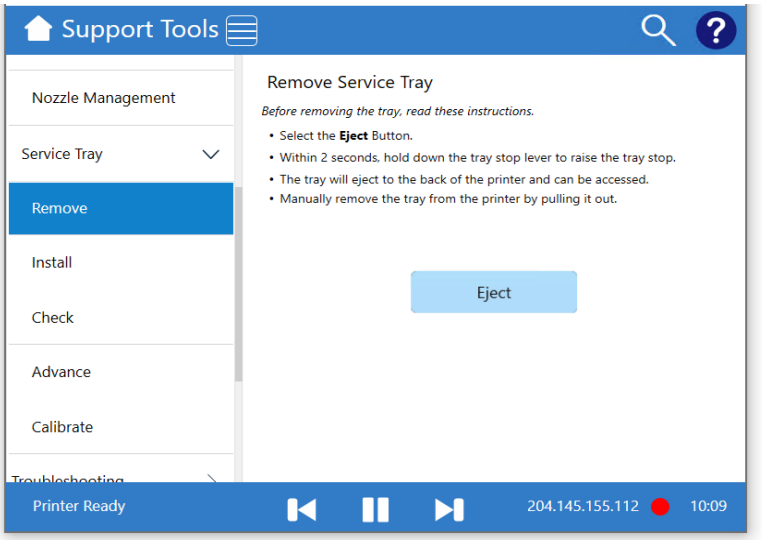

Figure 3-10. Service Tray Removal

To install a service tray:

- Touch the Support Tools icon on the Operator Panel home view.
- Touch Maintenance and then Service Tray in the menu that appears.
- Touch Install.
- Follow the instructions on the panel that appears and select the Install button when ready to install the tray.

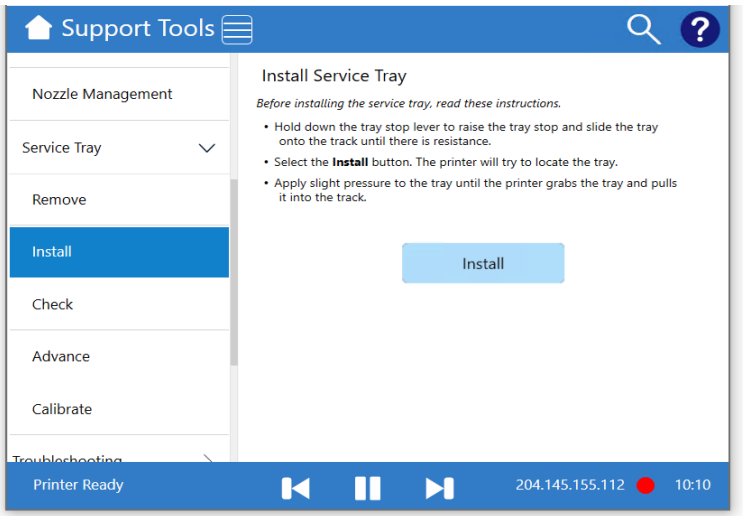

Figure 3-11. Service Tray Installation

Instructional videos can also be found on the Neuralog web site for removing and installing a service tray.

Label Media

The Callisto can use a variety of media including papers and synthetics. Matte, satin and glossy finishes are supported. Many specialty materials such as transparent or BS5609-rated materials are supported. Media should be high quality and inkjet coated. Both die-cut and unconverted media can work in the Callisto printer.

Die-cut media must have gaps between the individual labels or it may have registration marks. Do not use die-cut media if the labels are pealing away from the backing even before the media enters the printer. Using poor quality media such as this may damage the printhead and void the warranty.

NeuraLabel can supply both unconverted and die-cut media. Our sales engineers are happy to work with Callisto customers to determine the most appropriate media choice for each individual application. Some Callisto customers have pre-purchased media inventory that they wish to "use up." NeuraLabel sales engineers will make every effort to work with individual customers wishing to use pre-owned media. However, no guarantees can be made about media not specifically designed for use in the Callisto printer.

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4. Setting up the Network

The Callisto printer is a network printer and connects to your local network. By default it will use a dynamically assigned IPV4 Address. A static address may be assigned or IPV6 may be used. Once detected, the network address will be displayed in the lower right section of the printer display. The Callisto printer will also attach and print directly to your PC via a network cable. If you need to print over USB, USB-to-network adapter cables have been found to work well for this kind of printing.

The Callisto printer has a Host Name that can be used to access it over the network. By default, the Host Name will be set to the printer's serial number, however the Host Name may be changed by the end user. Accessing the printer via Hostname is convenient when using dynamic addressing since the network address can change.

To access the printer's Host Name from the Operator Panel:

- Touch the Settings icon.
- Go to Settings->Device Settings->Networking->Host Name.
- Edit the Host Name if needed and touch Apply.

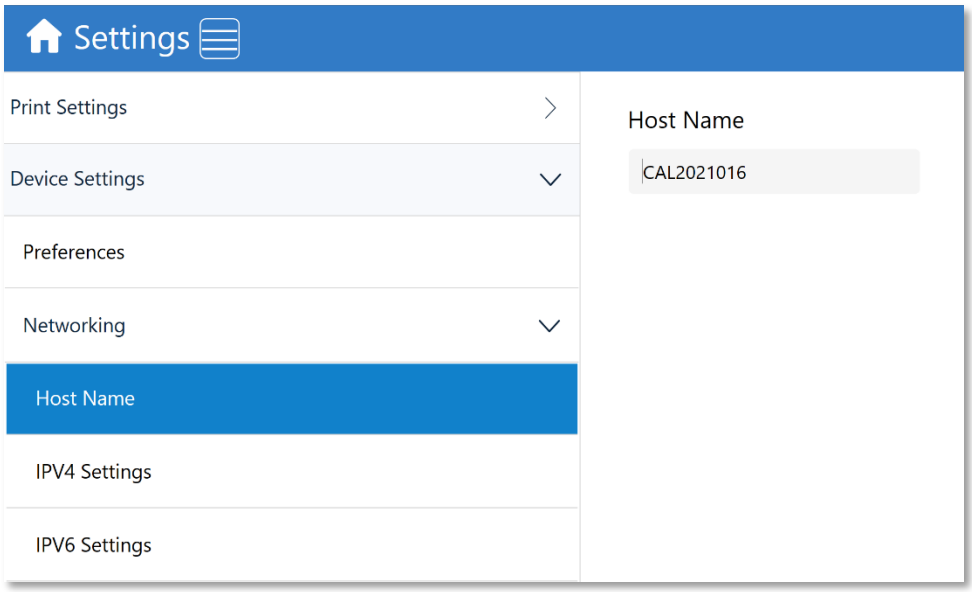


Figure 4-1. Host Name View

To assign an IPV4 *dynamic network address* simply plug in the network cable.

To assign a *static network address* do the following on the printer Operator Panel.

- Touch the Settings Icon
- Select Device Settings->Networking->IPV4 Settings.
- Select the Manual choice and enter the corresponding data for your network.
- Touch the Apply button.

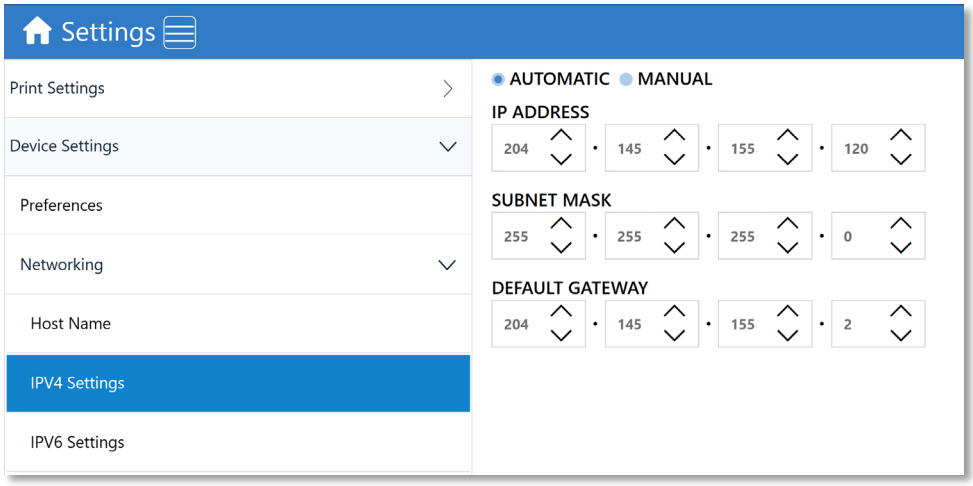


Figure 4-2. IPV4 Settings View

To use IPV6, either dynamic or static, do the following.

- Touch the Settings icon.
- Select Device Settings->Networking->IPV6 Settings.
- Enter the IPV6 settings for your network.
- Touch the Apply button.

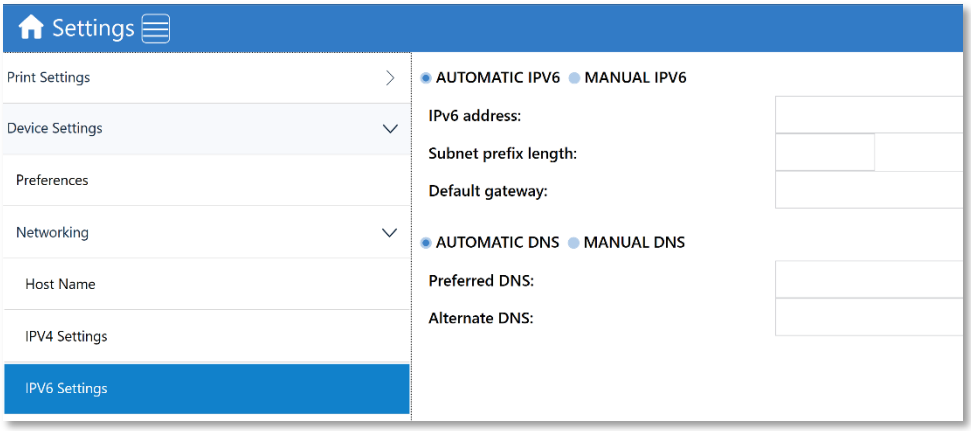


Figure 4-3. IPV6 Settings View

When connected to a network, the printer will display the network address in the right lower section of the operator panel. If no network is detected the words *No Network Detected* are displayed.

5. Working with Labels and Media

NeuraLabel provides high quality ink-jet coated label media for use with the Callisto printer. Media from other vendors is also supported, however we recommend having the NeuraLabel support team verify any media not supplied directly from NeuraLabel.

Media is loaded into the Callisto printer with the printable side up and if marked with registration marks, the marked side down. Before loading media, make sure there is adequate clearing at both the printer entrance and exit. If loading media from a box, make sure there is no plastic in the box, the lid has been removed, and the media flow is in no way restricted. If loading rolled media, make sure there is adequate room for the winding equipment and that it is properly aligned with the printer.

Loading Media

Before loading the media, make sure the Callisto printer track has been adjusted to the media width. The Callisto is a center-based printer. There is a nut-latch that tightens and releases the track guides. Loosen the latch, slide the track guides to the proper position, and retighten the latch. Load the media by grasping each side with two hands and guiding it into the Callisto track. The media should slide freely through the track, but the track should be tight enough to keep the media straight. Move the media forward until it touches the media sensor. When the media touches the media sensor, it will complete the loading process with an auto-load.

Jogging Media

Loading media does not require using the jog button, however, if you need to jog the media at any time, use the forward and backward jogging buttons. Touch and hold the jog button on the operator panel to jog the media. Avoid jogging the media backwards for distances greater than a few inches.

Unloading Media

If you need to unload or eject the media, hold the forward jog button down until the end of the media has exited the printer. As the media exits the printer and moves past the media sensor, you may hear the media wheel spin. This is normal operation and indicates the end of the media is out of the printer. Media may also be unloaded using the backward jog button if only a few inches need to moved. The Callisto track is designed to move media forward; however, jogging backward for short distances is supported.

Sending a Print

When a print job is sent to the printer with media loaded, the printer will begin to process the job and the indicator on the operator panel will begin to pulse. Once the print job has been completely downloaded to the printer, it will automatically begin to print. You can touch the *Print Queue* tab in the Jobs section to see the job processing, or if you touch the Home icon and return to the Home screen, you will see the status of the processed job displayed. The printer will print the labels and return to the *Printer Ready* state when complete.

If a print job is sent and no media has been loaded into the printer, the indicator on the operator panel will remain red, and an alert will be presented asking the user to load media into the printer. Once media has been loaded, the print will automatically start.

Use caution when loading media after the "load media" alert has been declared. As soon as media is detected, the printhead will move toward the media entrance. Keep hands clear of the printer entrance at all times during printing.

Note that the Callisto does not print on the first die-cut label on a new media load. Also the printer cannot print on the last die-cut label of a media roll or stack.

Print Job Continuation

If during the printing of labels the printer runs out of media and a new media roll or stack needs to be loaded into the printer, a media load alert will occur. The printer will keep track of the label count, allowing the user to complete the job. Note that Job Continuation is found in the Printer Features section of the operator panel under the Settings icon. It should be on by default.

Die-Cut Labels

The Callisto printer works with gapped or marked die-cut media. The sensors are near the center of the printer track. If media with registration marks is to be used, make sure the marks are accurately placed and black in color. Make sure there are no additional small (tic) marks on the center of the media. If the media does not have registration marks, the gap between labels will be used for label placement. Printing by gap will usually provide a better placement result.

Use the printer to print on die-cut labels by setting the correct modes in the printer driver or in operator panel. Die-cut label printing will use the *Labels* **Print Mode**. Die-cut label printing will use the *Black Mark* or *Gap* **Mark Mode**

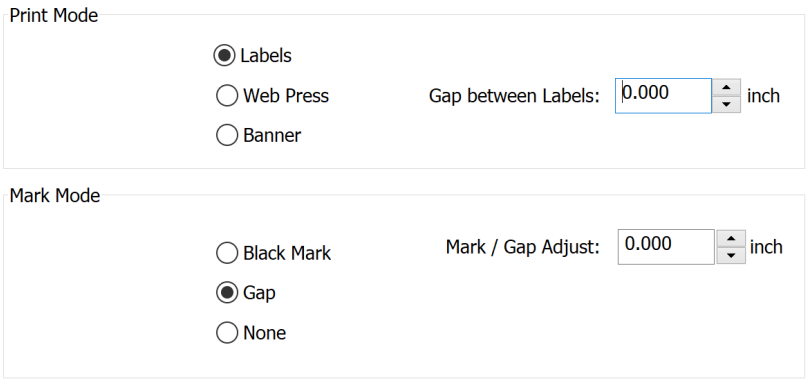


Figure 5-1. Labels Mode

The Callisto will print on die-cut labels with any gap size. However if "full-bleed" labels are needed, a special configuration will be required. For full bleed label printing in *Labels* **Print Mode** special media can be supplied by NeuraLabel to achieve full bleed printing. For printing on other non-NeuraLabel media, other print modes can be used to achieve full bleed printing. Contact NeuraLabel for more information.

Printing as a Web Press

The Callisto printer can be used as a web press on unconverted media rolls. NeuraLabel winding equipment must be used for successful operation. Use the printer to print as a web press by setting the correct modes in the printer driver or in operator panel. Web Press printing will use the *Web Press* **Print Mode** and *None* for **Mark Mode**.

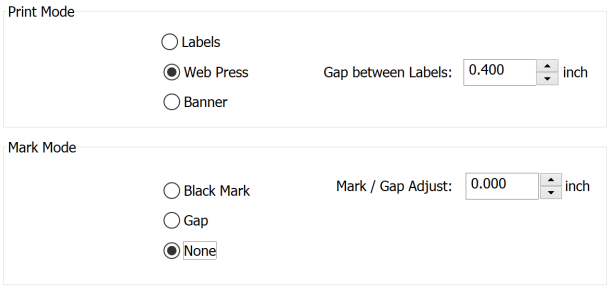


Figure 5-2. Web Press Mode

When using Callisto in the *Web Press* **Print Mode**, a gap of 0.4-0.5 inches must be set between the printed pages. *Web Press* mode requires this gap because of the characteristics of the printhead itself. However, high quality 600 DPI pages up to 14 inches in length can be printed at high speeds when in this configuration. Also, high quality 300 DPI pages up to 35.5 inches in length can be printed at high speeds when in this configuration. If quality and speed are the most important factors for the web press, this mode should be used. If other concerns are more critical, the Callisto offers another configuration called "Continuous Copies" where quality

is achieved with a smaller gap, but print speeds are slower. Continuous Copies is a printer feature that is activated through the features view. For more information about using the Callisto as a Web Press in this mode, contact NeuraLabel.

6. Installing the Printer Driver

Before you can print from your label application, you will need to install the Callisto printer driver on your computer. The Callisto printer driver is pre-installed on the Callisto printer and will automatically copy to your computer during the installation process. You do not need to download the driver from the NeuraLabel website, however if you wish to, it is available for download in the Callisto Support section of www.neuralabel.com.

To install the Callisto printer driver follow these steps to copy the driver from the printer to your host PC.

1. First identify either the printer IP address or the printer host name. On the printer Operator Panel find values similar to these examples.
   - Settings->Network->Hostname *CAL2021001*
   - Settings->Network->IPV4 *204.145.155.1*
2. On your computer launch *Control Panel->Devices and Printers-> Add a printer*
3. Select "The printer that I want isn't listed"

   NOTE: There are many ways to add a printer. This option provides one straightforward way; other choices can work as well.
4. Choose the radio button "Select a shared printer by name" and enter either network address or Host Name with printer name. Then select Next. Examples:

   \\204.145.155.1\Callisto or \\CAL2021ABC\Callisto

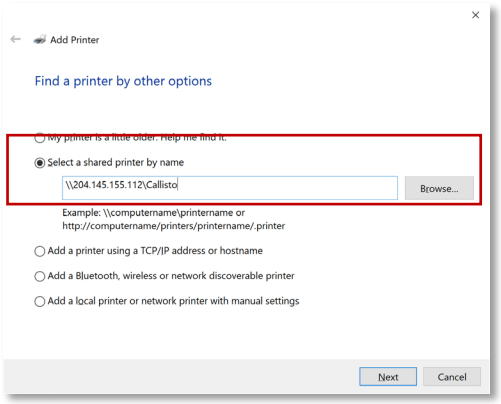


Figure 6-1. Printer Driver->Select a shared printer by name

TIP: If you are using dynamically assigned IP addresses on your company network, add the printer using the Host Name. This will preserve the printer connection even if the network address changes.

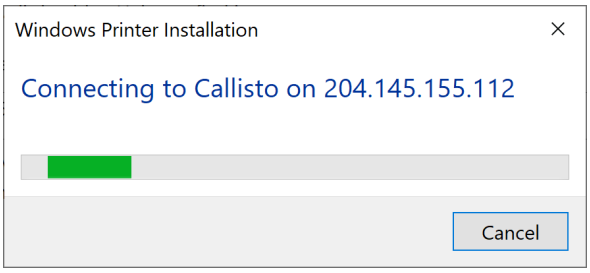


Figure 6-2. Printer Driver->Copy the Files

6. When complete, you will see the following screen.

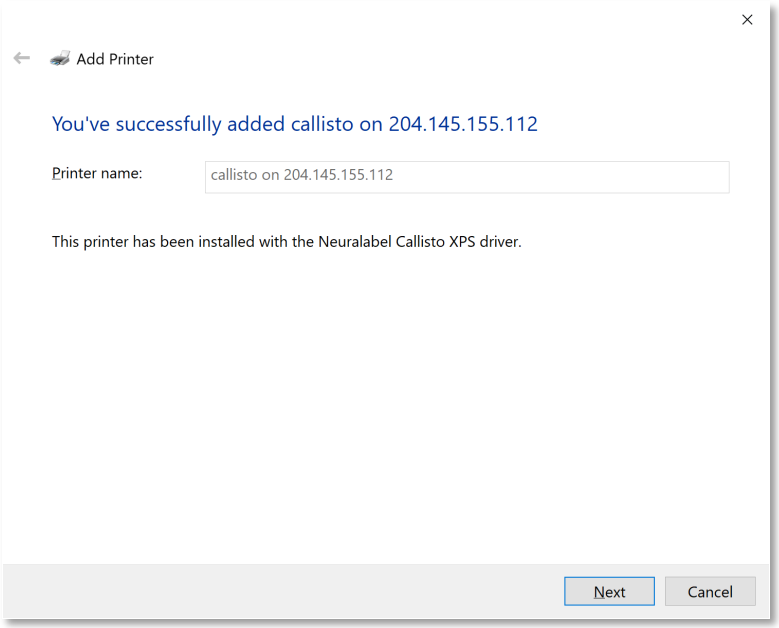


Figure 6-3. Printer Driver->Successful Installation

7. Select ***Next***. If desired, set the Callisto as the default printer.

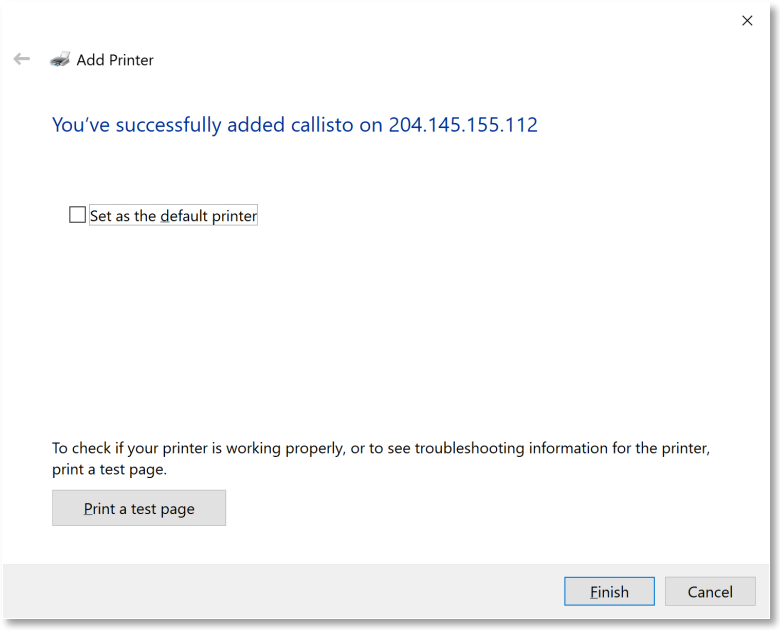


Figure 6-4. Printer Driver->Default Printer

At this point you have installed the Callisto printer driver and can access it in the Printers and Devices area of the Control Panel.

Figure 6-5. Printer Driver Callisto Installed

Special Case Driver Installation

In some cases policy settings on your network may cause the setup of the printer and the printer driver installation to fail. To set up the printer and install the printer driver in this case, you will need to create a special *CallistoPrinter* account with a unique password on the printer. This is done through the printer operator panel.

To create a *CallistoPrinter* account for your network do the following.

- On the Operator panel touch the Settings icon.
- Select the Device Settings->Networking->Password Protection
- On the Password Protection panel that appears, check **Password Protection**.
- Enter and Confirm a password for the *CallistoPrinter* account.
- Select the Apply button.

This will now allow the printer to be setup and the printer driver to install on computers attached to your network by entering the *CallistoPrinter* account and the password you created when prompted during printer setup.

Remember this password. If you are installing multiple printers on the network, the other printers will need these same steps performed.

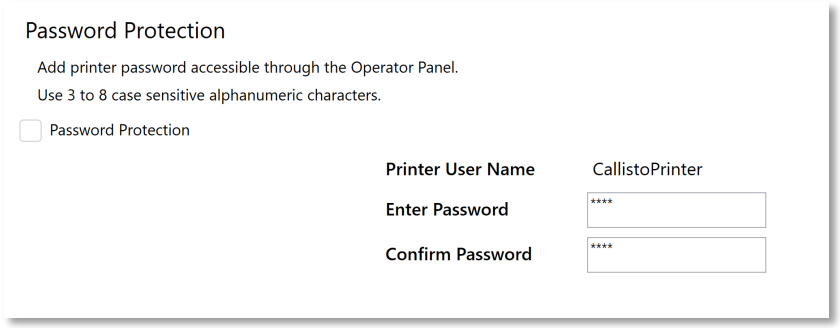


Figure 6-6. Password Protection for the Callisto

7. Setting up and Using the Printer Driver

The Callisto printer driver ships with preset defaults for many label types and sizes. However it is likely you will need to define the specific print setting such as page size and mark/gap configuration for your specific media. The following sections provide instructions for setting up the printer driver to successful print your particular labels..

Set Printing Defaults

Set up your printing defaults in the driver installation by right clicking on the Printer Icon in *Devices and Printers* and select Printer properties from the popup menu. Then select the *Advanced* tab and **Printing Defaults…** button.

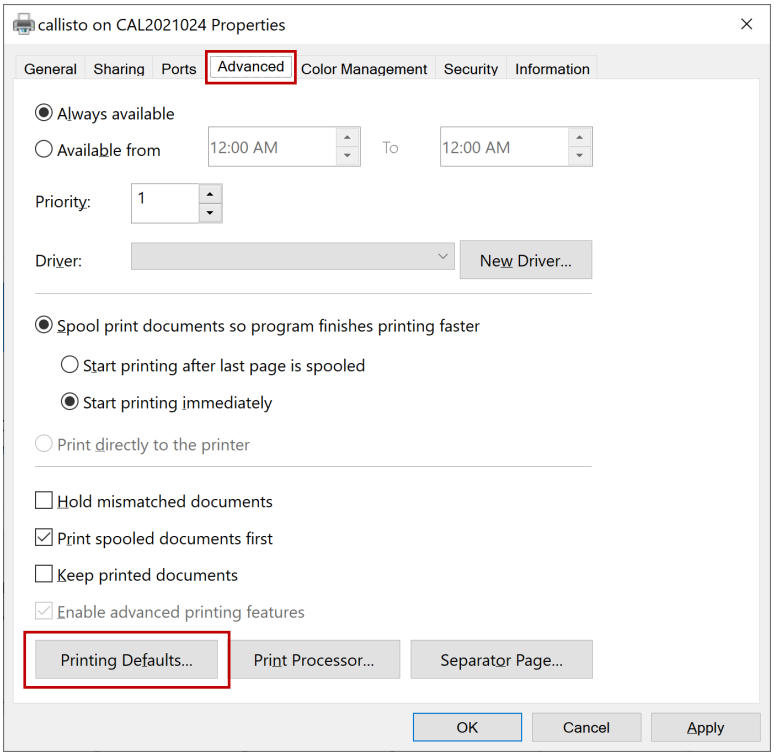


Figure 7-1. Printing Defaults

Set up the printer driver defaults to match your workflow. Printer driver settings can be selected in the driver from your label application as you print, however setting the defaults in this step in the driver installation will provide a more convenient workflow later.

Quality Tab

Set the **Print Quality**. The Callisto Quality choices are Draft, Normal, Best and Max DPI. The most appropriate quality setting depends on the types of labels you are printing. Here are some guidelines for Print Quality.

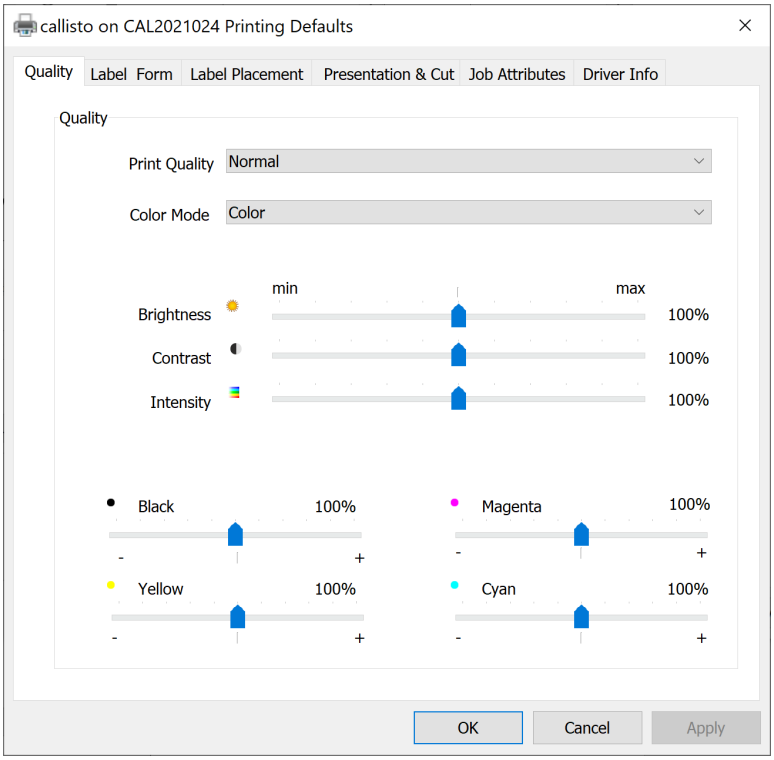


Figure 7-2. Quality Tab

Normal Print Quality

Use *Normal* print quality for most sequenced label printing or any jobs when the individual labels are unique. *Normal* quality prints at 300 DPI and is comparable to the setting of normal on NeuraLabel's other label printers. A print speed of 8-9 inches per second (ips) is recommended for printing sequenced or unique labels at normal quality, however specific print speed is based on complexity and size of the labels.

Use *Normal* print quality for printing label copies, where every page of the job is the same, where a "normal" level of quality is needed. Because the Callisto printer stores a single page label job in printer memory as it prints, speeds up to 18 ips may be achieved in this case. Note that the copy must be a single page; multi-page copies will be treated as sequenced labels.

If you intend to print at faster print speeds, make sure that winding equipment is in place and properly installed. Printing at fast speeds without proper winding equipment will quickly result

in a disorganized pile of media. Print at slower speeds until you are comfortable with the printer and have winding equipment ready.

Draft Print Quality

Draft printing is usually not recommended because *Normal* will be a better choice. However, use *Draft* print quality to achieve faster speeds for sequenced labels that require less detail. Draft quality prints at 300 DPI and is comparable to the draft setting of NeuraLabel's other label printers. *Draft* quality is often suitable for larger labels, such as drum labels, that have a primary function as information preservation and do not require superior quality. A print speed of 10-14 inches per second (ips) is recommended for printing sequenced or unique labels at draft quality, however specific print speed is based on complexity and size of the labels.

Printing label copies in *Draft* quality is not recommended because there is no additional benefit achieved. Use quality Normal or above when printing label copies.

Best or Max DPI Print Quality

Best and *Max DPI* printing delivers the highest quality prints. *Best* mode prints at 600 DPI, and offers a higher quality than *Normal* mode. Max DPI prints at *600* DPI and offers the highest quality prints. When *Best* or *Max DPI* is required for printing sequenced labels, the printer must be slowed down to account for the amount of additional data that is being processed. Depending on the size and complexity of the labels, *Max DPI* may need to be slowed down to 2-3 ips, while *Best* mode will need to be slowed to 4-6 ips.

Most label copy jobs, however can print at the higher speeds when in *Best* or *Max DPI*. This is because the printer stores the page in memory and can mass produce this page at any speed. Print speeds up to 18 ips can be achieved for label copies. However as discussed previously, having adequate winding equipment to hold the media in place will be critical when printing at top printer speeds. For production printing, we have found speeds around 14 ips to be a good choice. The printer user is invited to experiment to tune his or her specific workflow.

Print Job/Mode	**Draft**	**Normal**	**Best**	**Max DPI**
Sequenced Labels Multi-Page Copies	10-14 ips	8-9 ips Recommended setting	4-6 ips	2-3 ips
Single Page Copies	Not recommended	12-14 ips recommended Up to 18 ips possible		

Table. Print Quality and Speed Guidelines

The table summarizes the expected maximum print speeds in inches per second for selected print quality. The printer user will choose both Quality and Speed in the printer driver using this table. Note that these are only guidelines. Depending on the size and complexity of the label, some labels may print at faster speeds. Some labels may require slower speeds. Print labels at slower speeds until you are comfortable with the printing workflow.

Color Mode will be left at Color for most label printing; however, there is a "Grayscale (only black cartridge)" mode available for printing black and white pages using only black ink.

Brightness, **Contrast** and **Intensity** set the amount and way the ink is placed on the media. Use **Intensity** to fine tune the level of ink used in the print. This is equivalent to placing the printer in an "Ink Saver" mode. **Black**, **Magenta**, **Yellow** and **Cyan** sliders control the amount of ink for these individual ink colors. Use these sliders to fine tune the levels of individual ink colors used in the print.

Label Form Tab

The *Label Form* tab allows selection of predefined page sizes and new page sizes can also be created. Overspray/Underspray options allow fine tuning of fitting a label on the printed page. A media type selection provides predefined printing profiles. And Landscape, Portrait and Rotate 180 allow page orientation.

The Callisto Printer driver is unique in that it does not impose page margins like most other printer drivers. Zero margins give the user and advantage of placing their entire artwork on the printed page. Optimization of this feature will be explained in the User Guide Section Printing Labels.

Page Creation

Select one of the **Paper Sizes** that correspond with the label size you will use. Note that any media width between 1.5" and 12.1" will fit in the track and may be used with the Callisto printer. You may create a page of any width that is needed or that matches your label up to 12 inches. Use the **Manage New Sizes** button to do this. Contact NeuraLabel if you need help creating label sizes.

Physical Media Page Size	Minimum	Maximum
Width	1.5 inches (3.8cm)	12.1 inches (30.7cm)
Length	Unlimited continuous	

Table. Printer Physical Media Constraints

Virtual Driver Page Size	Minimum	Maximum
Width	0.4 inches (1.02cm)	12 inches[1] (30.48cm)
Length	0.4 inches (1.02cm)	35.5 inches[2] (90.17cm)

Table. Printer Diver Page Constraints

It is critical to create the proper label page size to work your die-cut media. Die-cut media will normally have a gap in between individual labels. This gap will be between 0.125" and 0.5". It is also possible for the die-cut media to have no gap, such as when the matrix has been left on the media. The matrix is the excess part of the die-cut media that is not part of the label. In the case that the matrix has been left on the media, the media must have a mark on the back to distinguish the individual labels. The Callisto printer has a center-based gap/mark sensor and requires a center mark for marked media.

Note that the Callisto printer itself has a "gap between pages" requirement for printing die-cut labels. This is due to the geometry of the stationary printhead. However any label within the width and length specification can be printed with the right media and page size definition.

When creating the page size in the driver for a specific die-cut media, you will need to account for the label size and the label gap. The steps for successfully creating the best label page size for any given media will be discussed in the User Guide Section Printing Labels.

[1]Actual maximum page size width is 11.99 inches.
[2] Virtually unlimited page length printing is supported in special banner mode.

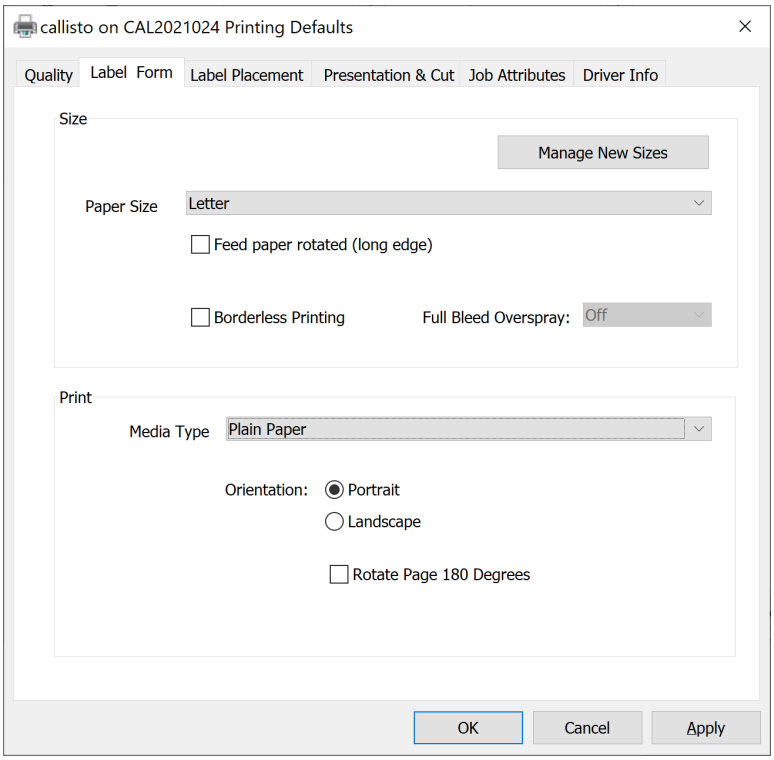


Figure 7-3. Label Form Tab

Borderless Printing, Overspray and Underspray

The Borderless Printing option included in the Callisto printer driver actually has an expanded functionality. It can be used to enlarge or reduce any individual page to more precisely fit the label media. If the printed page needs to be expanded such as when full-bleed printing overspray is needed, a positive value can be selected. If the page needs to be condensed to meet the required gap for the printer, a negative value can be selected. The Borderless Printing option is a powerful tool for fine tuning the label to fit the page.

Media Type and Orientation

The *Label Form* tab also has a selection for **Media Type**. Select the Media Type profile that best matches your printing needs. Custom media types are currently being developed. Contact NeuraLabel if you need help with this setting.

Portrait and *Landscape* Orientation option is provided, however most label printing applications set orientation automatically. Rotate Page 180 Degrees is an important feature in the case where a printed label roll will be placed on an applicator, and a specific orientation is required.

Label Placement Tab

The Label Placement tab is where the general type of printing is specified, as well as the individual parameters needed for that type of printing. Callisto printer modes include Labels used to print die-cut labels, Banner for printing continuous or stitched images, and Web Press mode. This user guide is devoted to printing die-cut labels.

Print and Mark Modes

The **Print Mode** on the *Label Placement* Tab should be set to *Labels* for printing die-cut labels. *Web Press* and *Banner* mode may be used for other special case printing scenarios. For proper placement of label images on die-cut media, Labels mode must be used. The **Mark Mode** should be set to *Gap* for most media or *Black Mark* for marked media.

Most label media will have gaps in between the individual labels, even if they have black marks on the back of the media. Gap printing is usually recommended because it ensures a better image placement and eliminates any error that may reside in the marks. Labels with gaps and marks may be printed with either mode, however gap mode is recommended.

Some media may have a mark placed in the media gap. Some media may have the matrix still attached to the media. Specialty medias such as clear media or multi-up media may have label registration marks. In these cases, *Black Mark* is an appropriate setting for **Mark Mode**.

Note that *Gap between labels* is associated with the Web Press mode and is not used in die-cut label printing. The gap between die-cut labels will be accounted for in the label page definition.

Continuous Direction Label Placement

For any given media, it is likely that image placement adjustment will be needed for continuous print direction. For both gapped and marked media, the **Mark/Gap Adjust** should be used to tune the placement of the image. For labels with both marks and gaps, keep in mind that the gaps and marks are not in the same physical position on the media. Therefore, different adjustment values would be expected if switching back and forth to try both of these settings.

Facing the printer where the printed label has exited the printer, a more positive or larger value in **Mark/Gap Adjust** will move the printed image toward the printer and down the printed page. A more negative or smaller value in **Mark/Gap Adjust** will move the printed image away the printer and up the printed page.

Mark Adjustment will be in inches or centimeters, depending on the driver setting. Mark Adjustment is commonly a positive value, however a negative value is possible. The Mark

Adjustment will depend on the media and the printed image. Printer to printer variation for Mark Adjustment will be extremely small, however some adjustment might be needed.

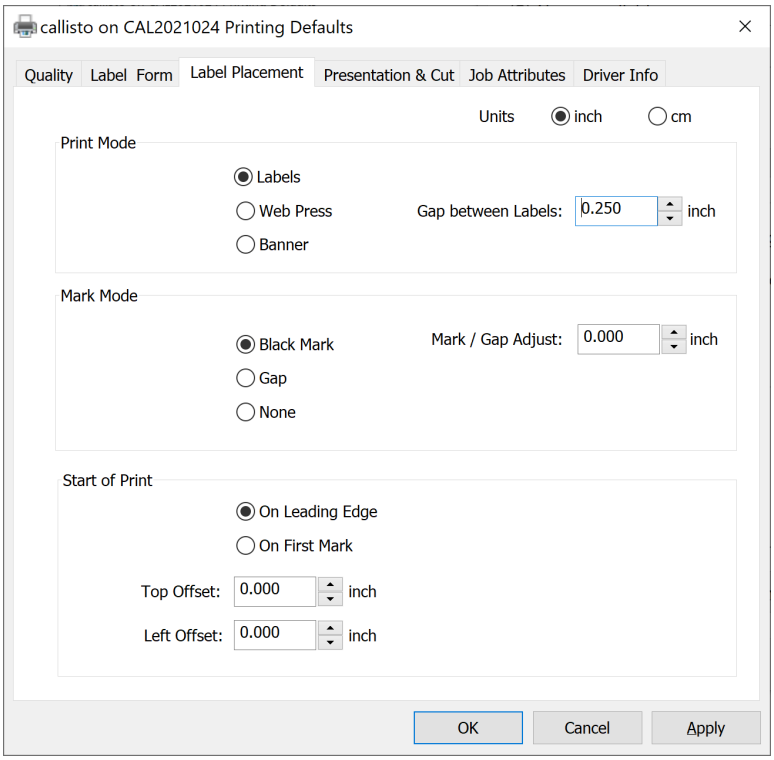


Figure 7-4. Placement Tab

Non-Continuous Direction Label Placement

Callisto is center-based, and no left-right positioning is normally needed. However, if you do need to adjust the label image in the non-continuous direction, **Left Offset** should be used.

Facing the printer where the printed label has exited the printer, a more positive or larger value in **Left Offset** will move the printed image to the left. A more negative or smaller value in **Left Offset** will move the printed image to the right.

Left Offset will be in inches or centimeters, depending on the driver setting. Normally only very small values will be needed, unless unusual media that is not center-based is used. Printer to printer variation for Left Offset will be extremely small, however some adjustment might be needed.

Start of Print

For die-cut label printing the Callisto printer prints on the gap or mark of the die-cut labels, regardless of the *On Leading Edge* or *On First Mark* setting. Die-cut label printing does not use this setting.

For die-cut label printing the Callisto printer prints on the gap or mark of the die-cut labels, regardless of the value in *Top Offset*. Die-cut label printing does not use this setting.

Presentation and Cut Tab

The *Presentation and Cut* tab provides special media handling workflows such as Auto Present, Media Cutting and Job Holding. Not all versions of the Callisto printer contain these options.

Auto Present

Auto Present moves the label completely out of the printer so that the user has access to the entire label. Presentation may occur after each job, label or copy. Presentation is turned off by default.

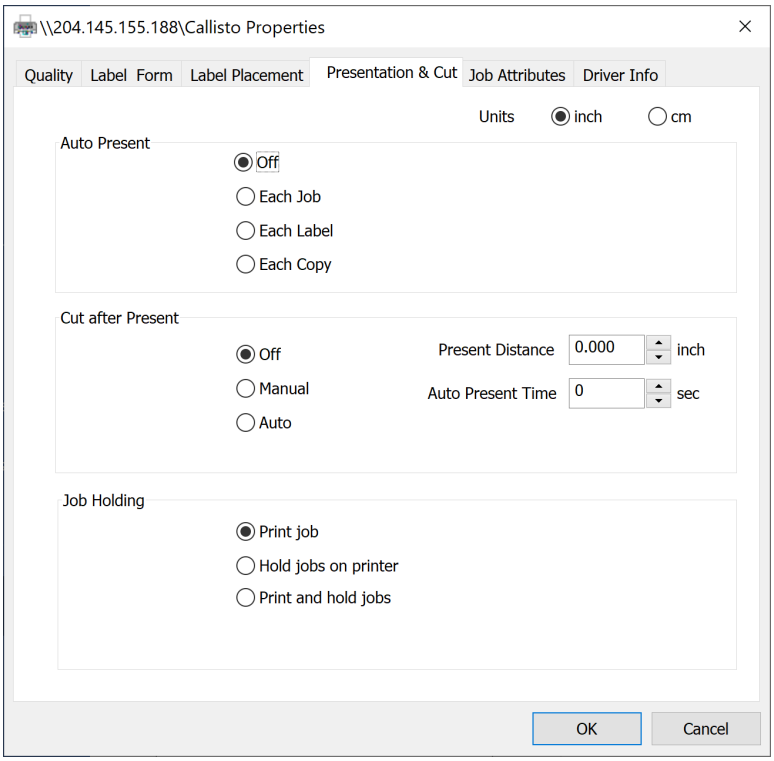


Figure 7-5. Presentation and Cut Tab

Cut after Present

Currently shipping Callisto printers do not contain a cutter, however a cutter is planned. The variables associated with this section will control the media for cutting.

Job Holding

Job Holding places the print job on the Callisto hard drive into the Permanent Held Jobs folder, accessible through the printer Operator Panel. From here the job may be reprinted or deleted. For single page jobs, the number of copies may be set from this panel. There are three options for Job Holding.

Print Job, the default, prints the job without permanently storing on the printer.

Hold Jobs on Printer sends the job to the Permanent Held Jobs folder without printing the job.

Print and Hold Jobs prints the job and sends the job to the Permanent Held Jobs folder.

Job Attributes Tab

The *Job Attributes* tab contains the **Print Speed** setting. Labels will be printed at a variety of speeds depending on label size, complexity and the selected quality setting. See the Quality Tab section within Setting up and Using the Printer Driver for guidance on setting the printer speed.

Print Head Height can be left at *Auto* for most die-cut label printing. *Auto* will usually provide the best quality result because it is the setting that keeps the printhead closest to the media, and it is the setting used for factory printer calibration. Printhead heights of Low, Medium and High may be needed for media that is slightly thicker. The height needed depends on the media used.

Note that the operator panel offers a custom printhead height that can override the printer driver setting. It is usually very thick or "wavey" media that needs a higher custom printhead height.

Background Spitting keeps the full width of the printhead active and can be used to extend the life of the printhead. It ensures that all of the dies in the printhead have a very light flow of ink, which can keep the ink from drying in the outer dies. Background Spitting is recommended for all label printing, however it is especially helpful if you typically switch between different label widths or if you typically only use the same ink colors.

If narrow labels are printed for an extended period of time, followed by wider labels, the dies that have not been used may appear to produce slightly different color ink because of dried bits of ink in the tubes and nozzles. Likewise if only certain ink colors are used, there is a similar risk. Turning Background Spitting on can help prevent this problem.

Activating Background Spitting may result in slower printer speeds because the entire width of the printhead is used. There may be tiny specs of ink on the printed image that in some cases are visible to the naked eye. NeuraLabel's previous generation inkjet printer used the Background Spitting feature. While the Callisto printer offers the feature as an option, end users should consider enabling background spitting by default or if print quality issues as described above emerge.

The Callisto printer does include periodic service routines to exercise all printer dies and colors. As-needed printhead cleanings are also useful for keeping the printhead in a healthy state.

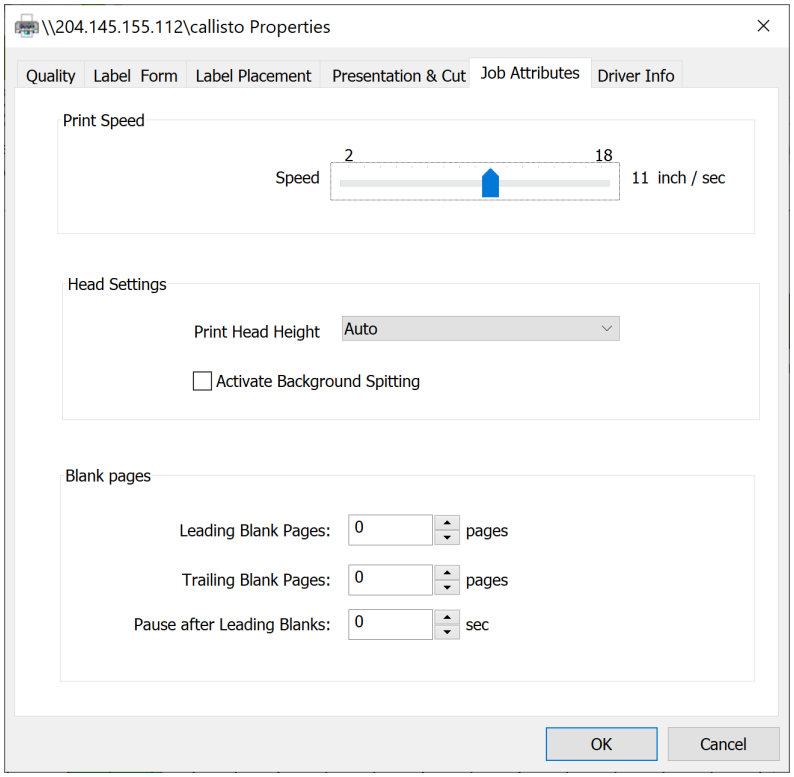


Figure 7-6. Presentation Tab

Leading Blank Pages and *Trailing Blank Pages* allow for blank media to automatically be placed on a printed roll so that the media is ready for an applicator or finishing equipment. It is also just as effective to jog the media as needed to create these pages. *Pause after Leading Blanks* is not currently used because these functions can easily be performed manually.

8. Callisto Operator Panel

The Callisto printer has a 7-inch built-in touch display to help you navigate the printer and its settings. This section will provide detailed information about the Callisto Operator Panel.

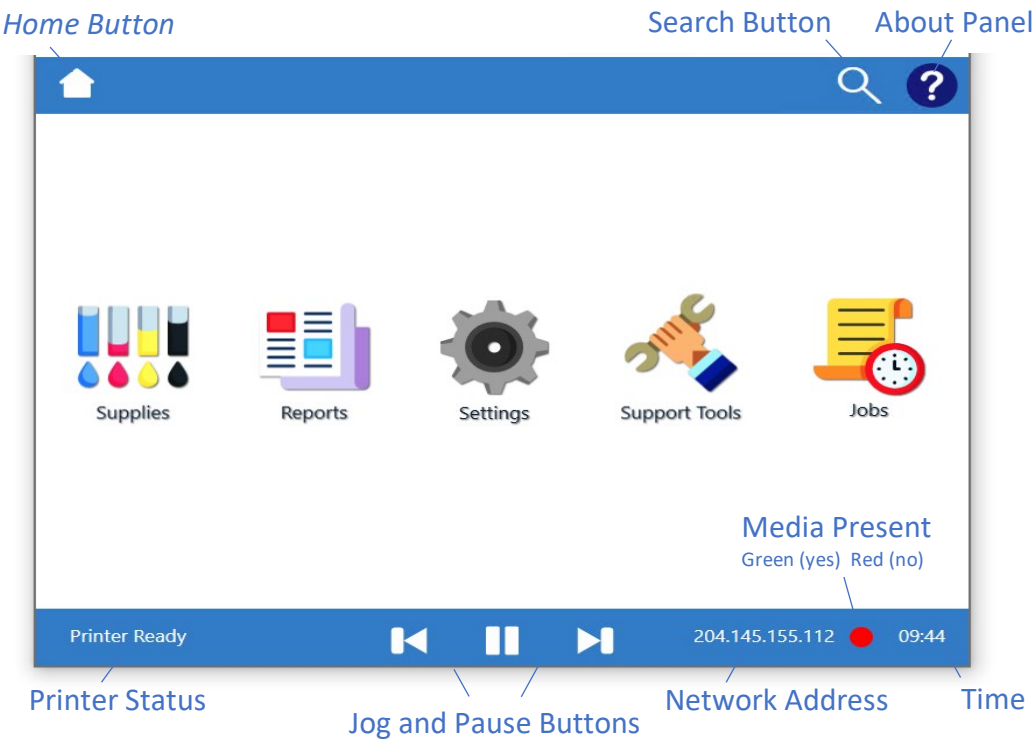


Figure 8-1. Operator Panel Home Screen

Home Screen

The Callisto Operator Panel Home Screen contains everything you need to configure your printer. Following is an overview of the Home Screen buttons.

Touch the Home icon at any time to return to the home screen. Note that if the Home icon appears with the door closed, this indicates that the printer has at least one override parameter in Settings->Print Settings that has been activated. When this is the case, the activated parameter overrides the value sent by the printer driver with the value specified in the operator panel. If the icon appears with the door open as is shown here, no overrides have been activated.

Touch the Search icon to search the Callisto Operator Panel for any keyword. An On-Screen Keypad (OSK) will appear for you to enter the search criteria.

Touch the About icon to see the current version information about the Callisto printer, as well as the printer serial number.

The current printer time. Touch this area to see the full date and time. Visit Settings->Device Settings->Preferences to set display format and time zone.

Figure 8-2. Date Time Preferences

Green light indicates media detected; red light indicates no media detected. Flashing light indicates the printer is receiving a job.

View the network address. Touch this area to go to the network address view.

Touch the left/forward (<) button to jog the media forward and out towards the printer exit. Touch the right/backward (>) button to jog the media backward towards the printer entrance. Touch the pause button to stop and end the current print job. Note the Pause/Resume functionality is scheduled to be released first quarter 2022.

View the current printer status.

When navigating any menu system, touch the Hide Menu icon to hide the menu so that the corresponding view takes up the full screen of the operator panel. Touch the Show Menu icon to return to the menu structure. Hiding the menu makes the current view larger for easier touch interaction.

Printer Icons

Supplies shows Callisto ink and service tray levels. Detailed information for each color cartridge and the service tray can be found in the Supplies View.

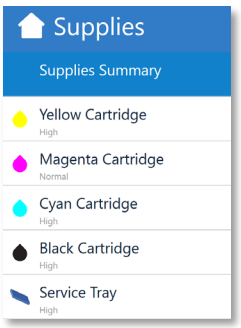


Figure 8-3. Printer Supplies Menu

Reports incudes Callisto reports such as Device Information, Device Statistics, and Quality Reports. Statistics on ink usage and pages printed are provided in Device Statistics. Event Logs which are useful for troubleshooting problems can also be found in the Reports section.

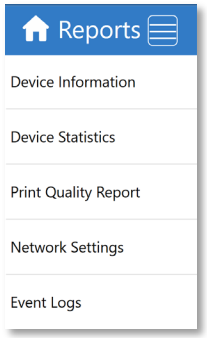


Figure 8-4. Printer Reports Menu

Device Information

Device Information contains data about the printer. Access this panel to provide information to technical support when needed.

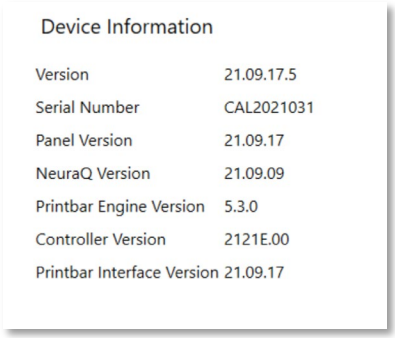


Figure 8-5. Device Information Report

Device Statistics

Device Statics contains basic statistical data about the printer. Ink Usage in Drops and Printed Pages are available.

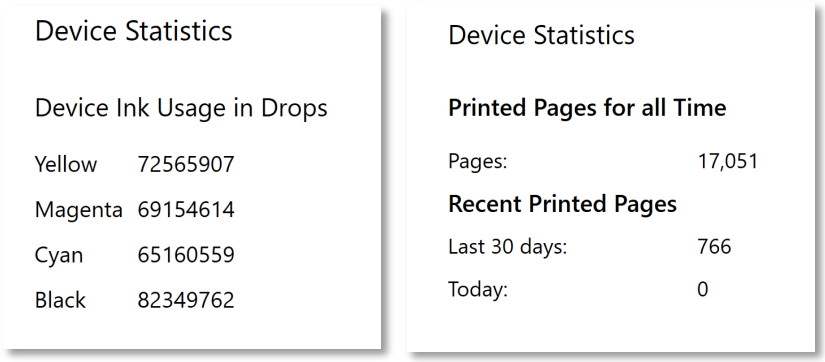


Figure 8-6. Device Statistics

Print Quality Report

Print Quality Report gives quick access to a variety of quality reports, or test patterns, that are useful for diagnosing any quality issues that the printer might have. Access the following reports through this panel.

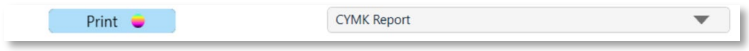


Figure 8-7. Print Quality Report

- CYMK – Cyan Yellow Magenta Black Quality Report
- ROGP – Red Orange Green Purple Quality Report
- Cyan
- Magenta
- Yellow
- Black
- Red
- Orange
- Green
- Blue
- Purple

Network Settings

Network Settings Report provides a summary of all the printer's network settings.

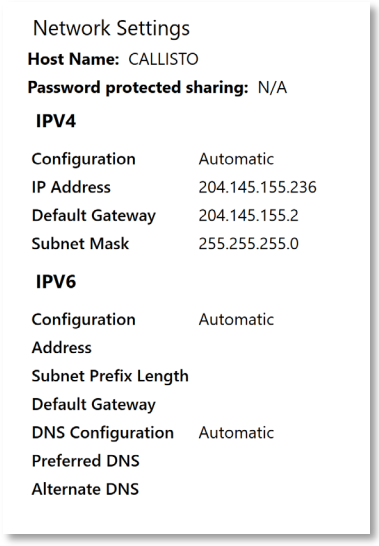


Figure 8-8. Network Settings Report

Event Logs

Event logs contains subcomponent logs that are useful if technical support is required. The following logs are available.

- *Panel logs* for the Operator Panel
- *Alert logs* for all types of printer alerts
- *Printbar Interface logs* to capture communication between the printbar and other printer components
- *NeuraQ logs* to capture NeuraQ debugging and troubleshooting information
- *Controller logs* to capture the controller' debugging and troubleshooting information

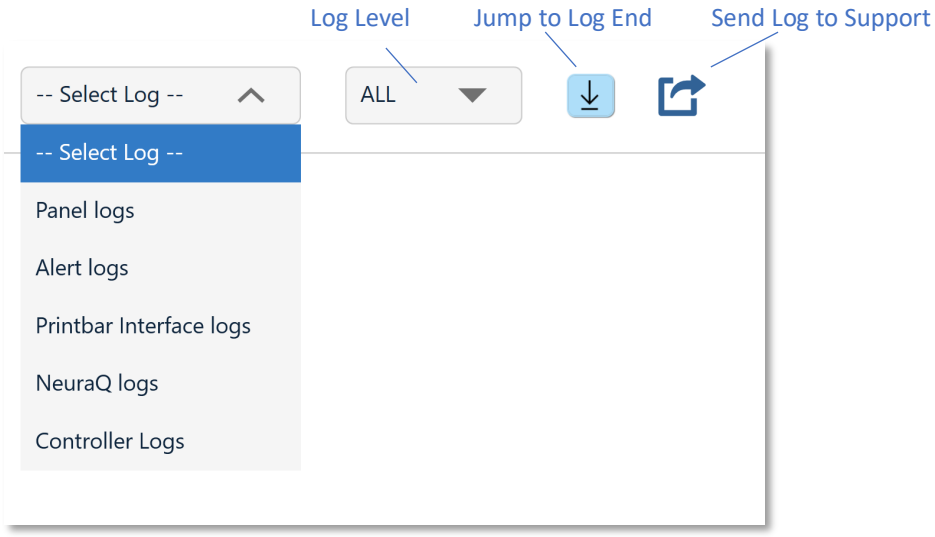


Figure 8-9. Event Logs

The logging level can be set for Callisto logs. Note that the logging level applies to all Callisto logs and will update for future logs when the value is changed. Logging levels include the following.

- ALL – most logging
- DEBUG
- INFO
- WARN
- ERROR
- FATAL – least logging
- OFF – no logging

NeuraLabel recommends keeping the logging level at WARN or ERROR. Normally the logging level would be changed by support to diagnose a printer problem. The Callisto printer saves a "rolling" set of the last few logs for each subsystem, and the most recent log is displayed. Note that the printer's web server includes a means of downloading all printer logs into a zipped file for the purpose of sending them to NeuraLabel support.

The Settings section allows configuration of Print Settings, Device Settings and Preferences, and Special Printer Features.

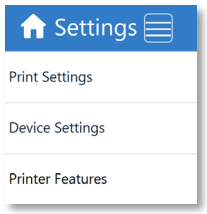


Figure 8-10. Printer Settings Menu

Print Settings

While most Print Settings come from the Callisto Printer Driver, there are several specific settings which can be overridden using the Operator Panel. These settings include Print Mode, Mark Mode, Mark Adjustment, Printhead Height, and Print Speed.

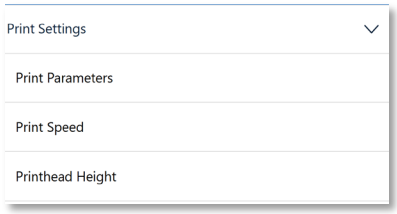


Figure 8-11. Printer Print Settings Menu

The Print Parameters View allows overriding Print Mode, Mark Mode and Mark Adjustment to values specified in this view. Normally the printer driver provides these values for the print job. Occasionally a company's network is set up such that a printer driver cannot correctly pass certain print parameters. Or in the case of using a large software management system such as SAP, sometimes printer driver settings are not correctly passed from the source printing application to the printer. The Callisto printer provides Override options for these special parameters to help overcome certain types of printing problems.

Die-cut labels are printed using *Labels* **Print Mode** and *Black Mark or Gap* **Mark Mode**. **Mark Adjustment** is in inches or centimeters and is usually close to 0. There are no other parameters on this page that need to be set for overriding label printing.

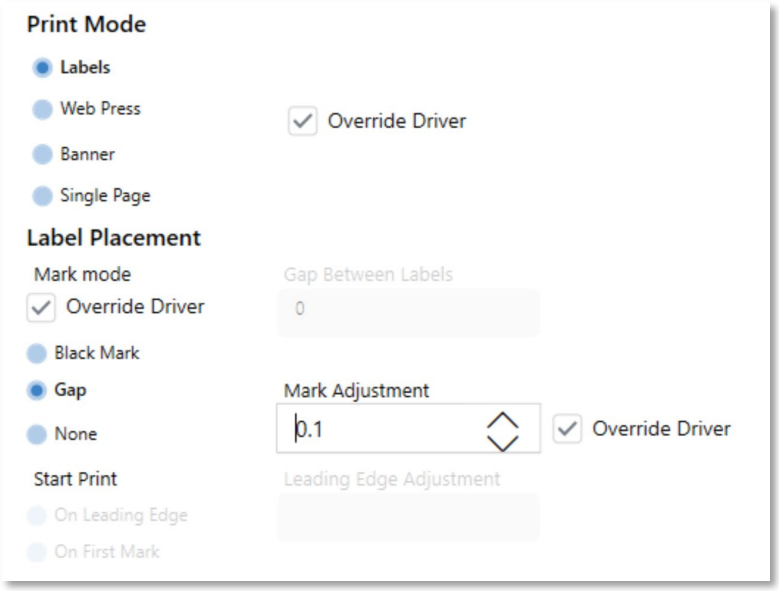


Figure 8-12. Print Parameters

Remember that normally there is no need to override the printer driver parameters. However these settings are whenever the correct configuration for printing labels seems to be failing for any reason.

Printhead Height allows the printer printhead height to be overridden with values specified in this view. A value of *Auto (0), Low, Medium* or *High* can be selected, or a *Custom* value can be selected. Selecting override on this view will ignore the printhead value in the driver and use the value specified on this panel. A value of Auto is often sufficient for most label media.

If you have thick or problematic media in the printer, and you want to ensure all users use a higher printhead setting, this override option is a good way to guarantee the specified height will be used.

Figure 8-13. Printhead Height

Max Print Speed allows the printer's maximum print speed to be overridden with values specified in this view. This is useful for preventing the printer from printing too fast and resulting in print errors. If multiple users are accessing the same printer, it is reasonable to override the print speed so that all users print at the same speed and do not print beyond the printer's capabilities.

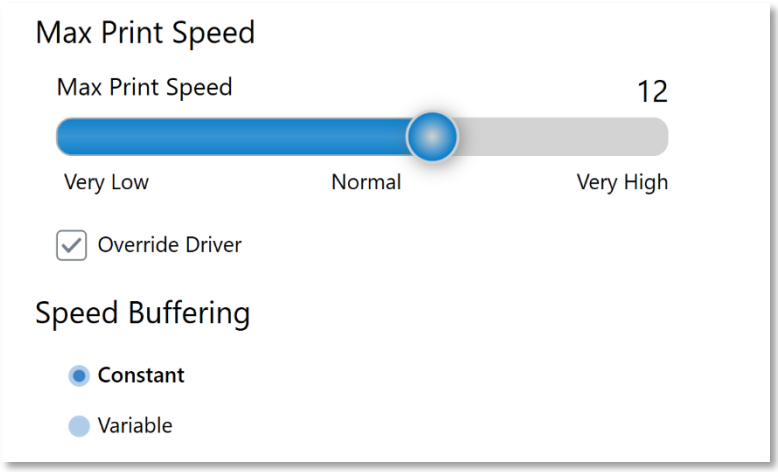


Figure 8-14. Max Print Speed

Device Settings

Device Settings include configurations for network and time. The Host Name and IPV Settings are accessed in this area, as well as a means for creating a network password for the printer. These settings are covered in the Network section of the User Guide.

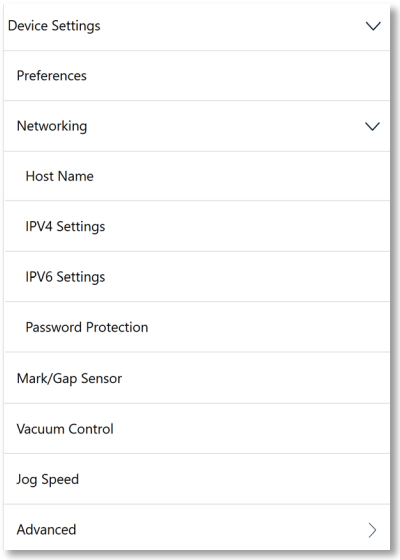


Figure 8-15. Device Settings Menu

Preferences

Set the format of the time and date displayed on the operator panel using the Device Preferences setting. Note that the time is displayed in the lower right section of the Operator Panel. Touch the time to access a popup view of the current date.

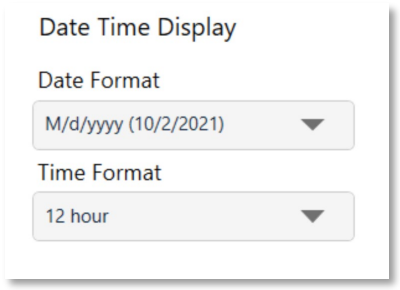


Figure 8-16. Time and Date Format

Mark/Gap Settings

Device Settings also include a control for the brightness and sensitivity settings of the printer's Mark/Gap Sensor, as well as a control for the printer Vacuum table.

For most label media the recommended setting is *Auto* mode with **Brightness** set above 85. **Sensitivity** is not used in the Auto configuration. *Manual* mode should only be used for troublesome media and with the help of NeuraLabel support. *Manual* mode may be used to diagnose label printing issues.

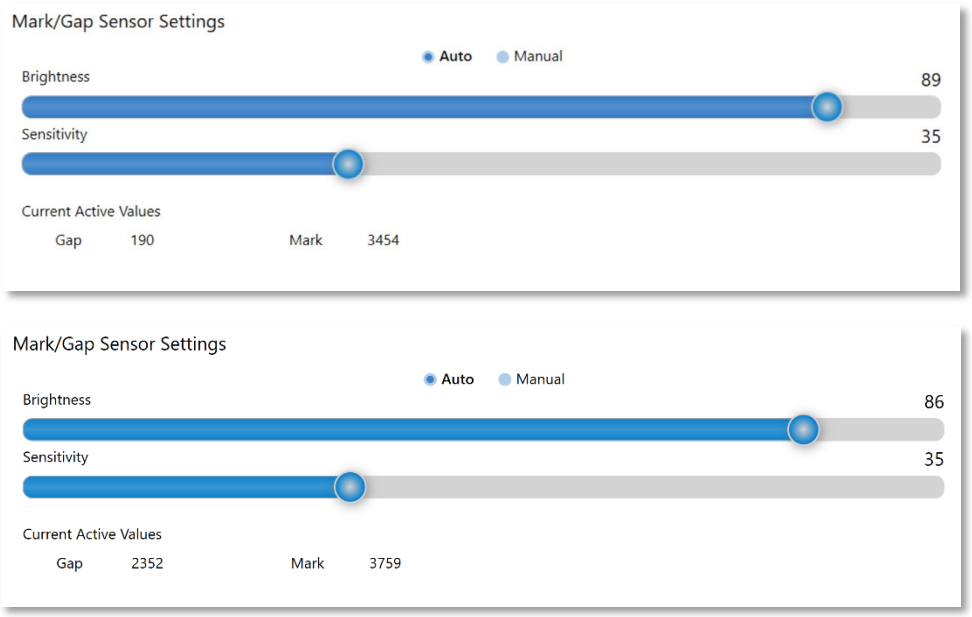
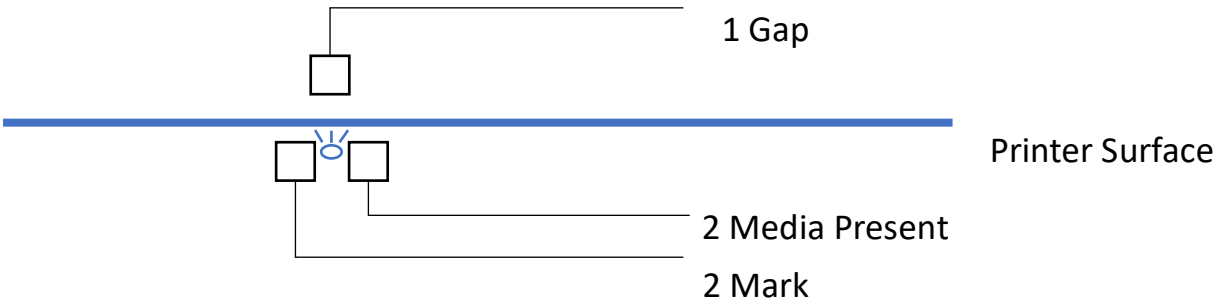


Figure 8-17. Mark/Gap Sensor Settings

Notice the Current Active Values for Gap and Mark at the bottom of the Mark/Gap Sensor Settings view. Slide the Brightness slider to see these settings change.

Guidelines for sensor readings are as follows.

- Low number means lots of light (300-700)
- High number means not much light (1200-3700)
- The gap sensor receives direct light.
- The mark sensor receives reflective light.



The first figure shows no media in the printer. Because there is no media, light is shining into the gap sensor resulting in low number (190). The mark sensor is receiving no reflective light and has a high (3454) value.

The second figure indicates that media is loaded but is over a mark. The gap sensor is receiving no light because the media is blocking it (2352). The mark sensor would receive reflective light, but because the sensor sees a dark mark it has a high value (3759)

Vacuum Control

The Vacuum table is useful for holding the label media to the printer surface. If the media is not held down, it may touch the printhead causing a smearing defect. If these defects are observed, increase the Vacuum Control.

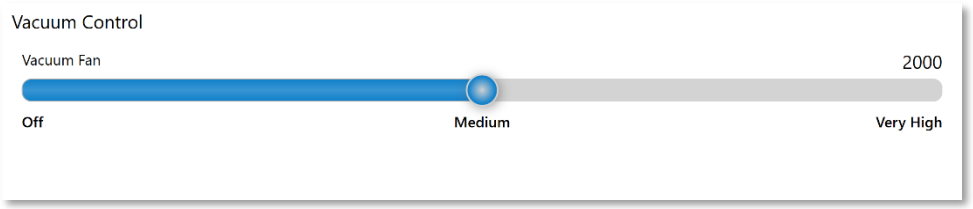


Figure 8-18. Vacuum Control

Printer Features

Printer Features include any special applications that have been deployed with your Callisto printer. Contact your Neuralog representative for a list of currently available printer features. The following printer features are released as of January 2022.

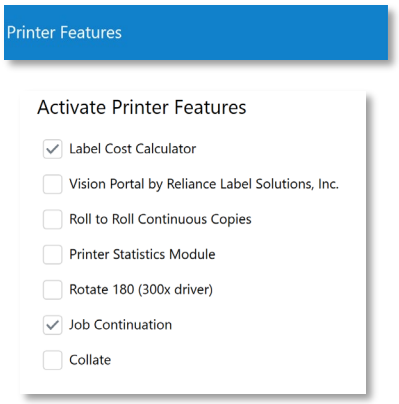


Figure 8-19. Printer Features

Label Cost Calculator

The Label Cost Calculator is a licensed feature that allows you to estimate the cost of any label or label job based on the cost of ink and label material. The values are automatically calculated based on actual printer ink usage. When activated, the label cost report is available through the job report of every printed job.

Individual label cost can be determined by entering the total number of labels printed for that job. The label count value is provided automatically, however it is up to the user to verify that all labels were printed, that is, media did not run out or the job was not cancelled prematurely.

The media cost, provided by the user as single label cost, can be entered to give a complete job cost accounting report.

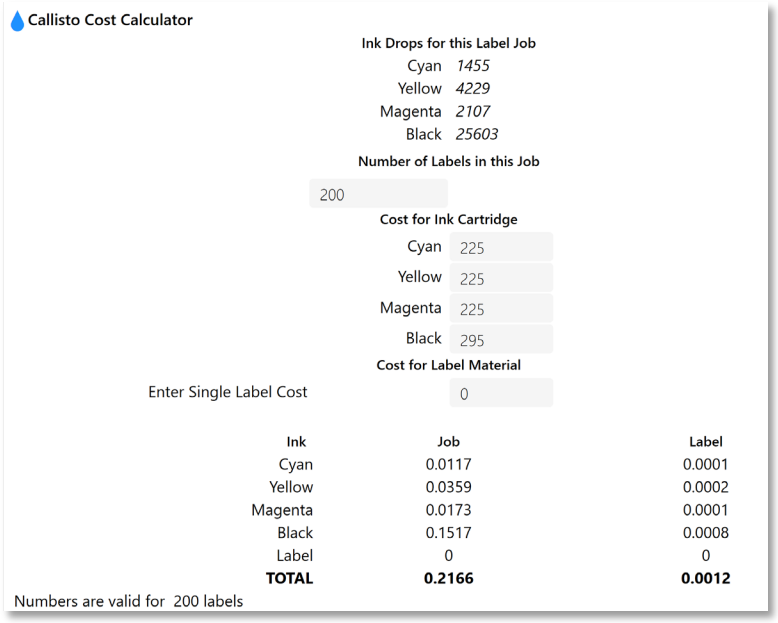


Figure 8-20. Label Cost Calculator

Vision Portal by Reliance Label Solutions, Inc.

The Vision Portal is a feature that works with the Reliance Label Solutions Vision system to print variable data over the web to the Callisto printer. Clients using this system should activate this feature and work with NeuraLabel support to print labels through the Vision system. Keep this feature unchecked unless this special configuration is needed.

Roll to Roll Continuous Copies

This feature places the printer in a special mode where a page will be repeated and stitched together. If a page of the correct size is created, the printer will stitch the pages together and a continuous banner of repeated pattern will be printed. When in this mode, the printer can be used as a web press. Note that this configuration is different than the classic printer web press mode, which can print at high speeds, but requires a gap of 0.4” between each printed page. When in Continuous Copies mode, the printer will print at slower speeds because it must present unique pages to the print engine, rather than a single copied page.

Printer Statistics Module

This feature provides basic information about printer statistics such as page count and ink usage.

Rotate 180 (300x driver)

The Callisto printer will work with the 300x printer driver. If you are using the 300x printer driver with the Callisto printer, you will need to check this Rotate 180 box to orient the labels in the same direction that the 300x driver produced. This feature might be needed for proper presentation to an applicator.

Job Continuation

Job continuation allows you to continue the current job if media runs out. When the end of a roll or stack exits the printer, an alert is generated asking the user to add more media. When the printer resumes, it will automatically restart the print job, beginning at the correct copy or label number.

Collate

The Collate feature is for use with multipage copies. Most printing applications, e.g. Adobe products, collage multi-page copies automatically. However for Uncollated multipage copies, the printer must be configured to process this special case. This feature is actually to support the case of UNcollated multi-page copies. An example when this case would be needed is for a batch of unique labels that require two copies of each label, such as when a front and back label are needed.

Contact your NeuraLabel representative for a list of currently available printer features.

The Support Tools menu has options for printer cleaning and other maintenance routines, troubleshooting tools, over-the-air updates, and an Advanced section for use by Neuralog support.

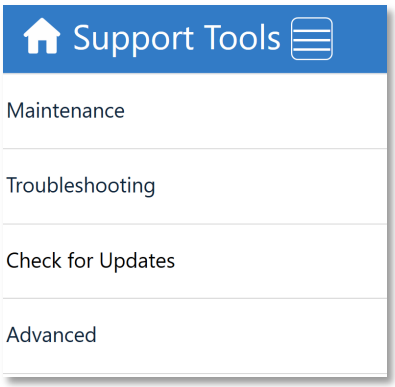


Figure 8-21. Support Tools Menu

There are several maintenance routines; the next figure shows all the Maintenance menu listings.

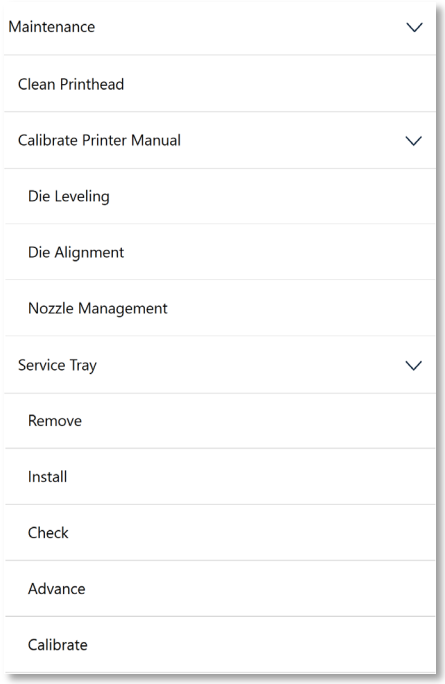


Figure 8-22. Maintenance Routines

Clean Printhead Maintenance Routine

Printhead cleaning may be run any time a quality defect is observed. It should be run whenever a printer is moved. There are several options for printhead cleaning. Try minimal cleanings before running more in-depth cleaning routines.

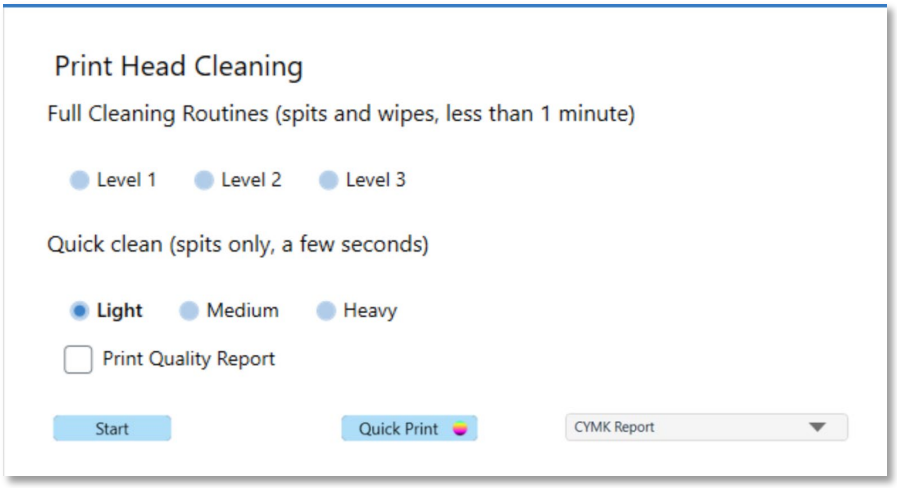


Figure 8-23. Printhead Cleaning View

The Full Cleaning Routines (Levels 1-3) are designed to alleviate minor print defects that have resulted from a printhead nozzle being clogged. Sometimes a bit of dry ink or dust will temporarily block a printhead and a white line will be seen in the printed image. Occasionally a bit of media or debris will block a printhead nozzle. When a defect like this is seen in the printed image, run Level 1, Level 2 and then Level 3 until the nozzle is clear and the defect is gone.

For very small defects and maintenance, the Quick clean routines can be used. These routines spit ink through the printhead nozzles without wiping the printhead on the service tray, whereas the printhead cleaning Level routines, spit ink and then wipe the head after the spits as part of the routine.

Do only minimal (one or two) Quick cleans without doing a Level 1, 2 or 3 cleaning. If too much ink runs through the nozzles without a wipe, additional nozzle clogging could occur.

It is not critical to run the cleaning routines in any particular order. The routines are ordered by amount of cleaning, and any routine can be used at any time. Note that some, but not all, routines require the removal of media from the printer. For these cases the user is prompted to remove media before continuing.

A quality report can be printed after cleaning routines to view the progress of the clean. A selection of quality reports is available on this page. Choose the one that best assists with resolving any printing defects.

If printhead cleaning has been performed with no improvement to print quality, look into using other maintenance routines. Contact Neuralog support if needed.

Other Maintenance tools include Die Leveling, Die Alignment and access to the printer's Nozzle Out Database. These tools will help alleviate any print quality that might appear on the printer.

Die Leveling Maintenance Routine

The Callisto printer has 14 stationary print dies. These dies are calibrated at the factory to ensure that the same levels of ink come from each die to ensure a smooth image. If one or more dies appear to be too light or too dark and a wide band (a little less than an inch) appears in the printed image, use Die Leveling to alleviate the problem.

Use Die Leveling by printing out a test pattern to determine which die(s) need adjustment. Select the corresponding color and die in the interface and adjust the element to make it darker or lighter. Reprint the test pattern to see the results. If needed print a label sample to verify the results.

To use the Die Leveling (Wide Bands) Tool:

- On the Operator panel touch the Support/Tools icon.
- Select Maintenance->Calibrate Printer Manual->Die Leveling
- Touch **Quick Print** to print the CMYK quality report to identify the color(s) and die number of the issue. This test pattern has the dies numbered and the CMYK colors separated.
- Look at the printed report to determine the die(s) and color(s) where a wide band is occurring.
- For any wide band, touch the cell in the Die Leveling grid that corresponds to the die number and color for that band. If the wide band is present across all colors, touch the die number at the top of the column to select all colors for that die. A popup box will appear that allows adjustment numbers to be entered.

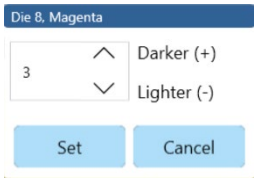


Figure 8-24. Darken/Lighten Bands

- For dark banks, touch the down arrow for a number to lighten the band.
- For light banks, touch the up arrow for a number darken the band.

TIP: Touch the number keyin to directly edit the number in the popup. An on-screen keypad will appear.

- Select **Set** in the popup to see the number update in the die leveling grid.
- Select **Apply** to temporarily apply the values, and then select **Quick Print** to review the results on the printed test pattern.
- Repeat the process as needed. Once you are satisfied with the results, touch the **Save** button to permanently save your changes to the printer.

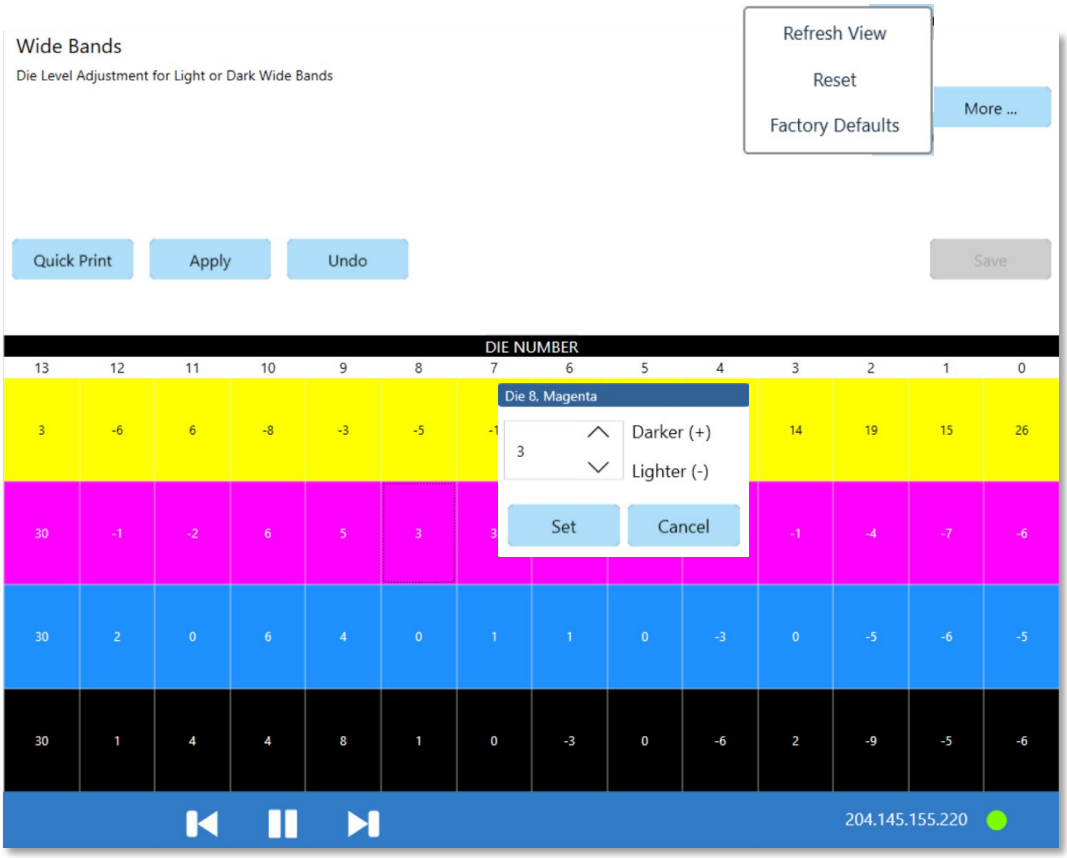


Figure 8-25. Die Leveling for Wide Bands

Notice the **More…** button. The following additional options are available.

- **Refresh View** – Refresh the view, in case the values have been changed elsewhere, i.e. the printer web server view.
- **Reset** – Reset the values to all zeroes.
- **Factory Defaults** – Reset the values to the original values set at the factory.

Die Alignment Maintenance Routine

The 14 Callisto stationary dies have an overlap of nozzles between each adjacent pair. This overlap, or alignment, is calibrated at the factory to ensure a seamless die integration. If a dark or light line appears in the image at a die seam, the die alignment may need further adjusting. Remember that die alignment is directly related to printhead height. Changing one parameter may require changes in the other.

Adjust die alignment by printing out a test pattern to determine which die seam(s) need adjustment. Select the corresponding color and die seams in the interface and adjust the element to make it darker or lighter. Reprint the test pattern to see the results. If needed print a sample label to verify the results.

To use the Die Alignment (Narrow Bands) Tool:

- On the Operator panel touch the Support/Tools icon.
- Select Maintenance->Calibrate Printer Manual->Die Alignment
- Touch **Quick Print** to print the CMYK quality report to identify the color(s) and die numbers of the issue. This test pattern has the dies numbered and the CMYK colors separated. Notice that this time you are looking for narrow lines in between the dies.
- Look at the printed report to determine the die(s) and color(s) where a narrow band is occurring.
- For any narrow band, touch the vertical line in the grid that corresponds to the die numbers and color for that band. If the narrow band is present across all colors, touch the space in between the die numbers at the top of the column to select all colors for that die. A popup box will appear that allows adjustment numbers to be entered.

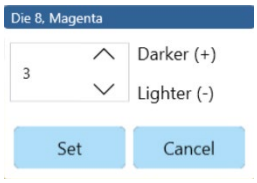


Figure 8-26. Darken/Lighten Bands

- For dark banks, touch the down arrow to set the number to lighten the band.
- For light banks, touch the up arrow to set the number to darken the band.

TIP: Touch the number keyin to directly edit the number in the popup. An on-screen keypad will appear.

- Select **Set** in the popup to see the number update in the die alignment grid.
- Note that Die Alignment does not have the “Apply Preview” that was available in Die Leveling.
- Touch the **Save** button to save the die alignment settings. Print the Quick Print to verify your results.
- Repeat the process as needed. Once you are satisfied with the results, touch the **Save** button again to permanently save your final changes to the printer.

Figure 8-27. Die Alignment for Narrow Bands

Notice the **More…** button. The following additional options are available.

- **Refresh View** – Refresh the view, in case the values have been changed elsewhere, i.e., the printer web server view.
- **Reset** – Reset the values to all zeroes.
- **Factory Defaults** – Reset the values to the original values set at the factory.

Nozzle Management Maintenance Routine

The Callisto printer has a database where it stores any faulty printer nozzles, in order to compensate for those nozzles. Nozzle Management has been done at the factory. It is not currently available for end users to edit, but it may become available as a tool at a later date.

Service Tray

The Service Tray is a Callisto consumable that absorbs excess ink. The printhead routinely wipes itself on the service tray. Eventually the service tray becomes saturated with excess ink and must be replaced. Follow these instructions to replace the service tray.

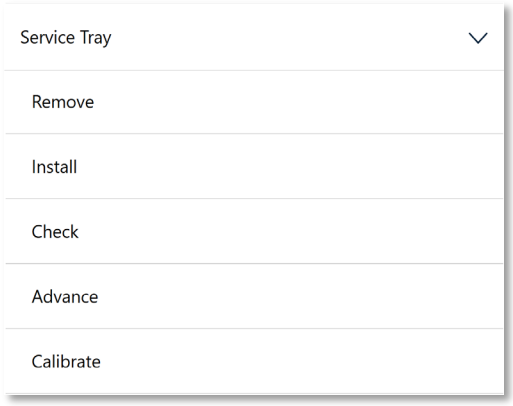


Figure 8-28. Service Tray Actions

Remove Service Tray

Instructions for removing the service tray are found directly on the operator panel. To access this view do the following.

- On the operator panel touch the Support/Tools icon.
- Select Maintenance-> Service Tray->Remove
- Follow the instructions on the Callisto operator panel. They are shown here as well.

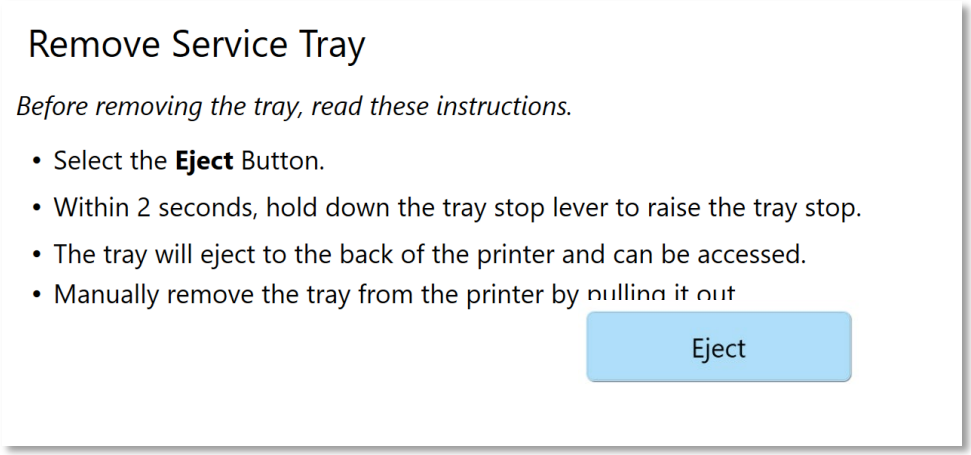


Figure 8-29. Remove Service Tray

Install Service Tray

Instructions for installing a service tray are found directly on the operator panel. To access this view do the following.

- On the operator panel touch the Support/Tools icon.
- Select Maintenance-> Service Tray->Install
- Follow the instructions on the Callisto operator panel. They are shown here as well.

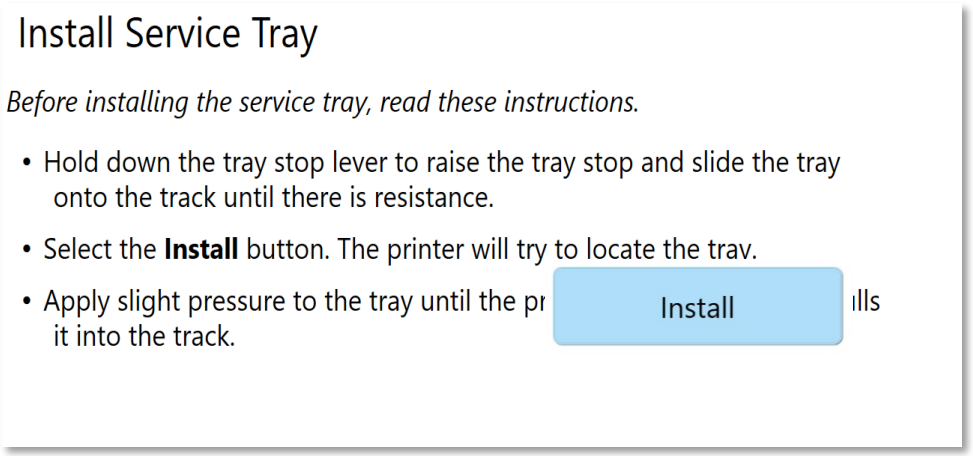


Figure 8-30. Install Service Tray

Check Service Tray

The Service Tray life is queried when the printer boots up and is shown in the supplies view. To manually check the Service Tray life and update this value, execute this command.

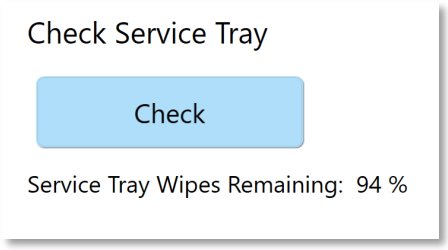


Figure 8-31. Check Service Tray

Advance Service Tray

The Service Tray automatically advances when needed so that it can properly absorb excess ink. If at any time the user wishes to advance the service tray manually, selecting this Advance button will advance the tray. Manually advancing the service tray does use the consumable, but advancing a few times will not have any significant effect on the product life.

Figure 8-32. Advance Service Tray

Callisto Troubleshooting Menu

The Callisto printer contains an extensive troubleshooting section. These printer functions are designed to help Neuralog Support diagnose any printer issues. The troubleshooting menu is listed below.

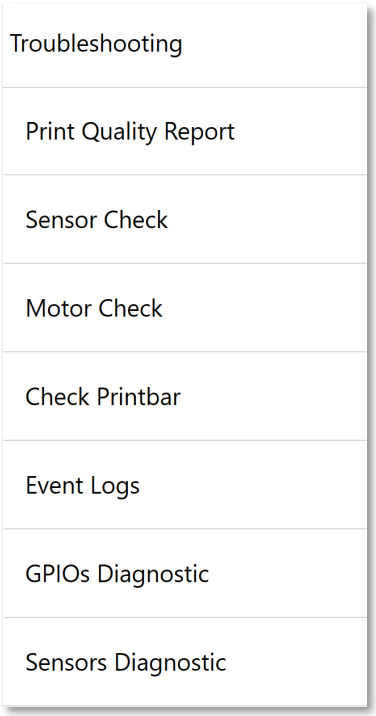


Figure 8-33. Troubleshooting Menu

Calisto Printer Updates

The Callisto printer maintenance includes over-the-air updates. These updates are accessed through the Support/Tools->Check for Updates View. Printer updates will be available for printers that have active maintenance plans.

The Updates view will show the version of printer firmware currently installed on the Callisto printer. It will also query the Neuralog website to determine the shipping firmware version, as well as the printer maintenance status.

Printer updates are downloaded directly to the printer hard drive and then automatically installed on the printer. You should always update your printer to the latest shipping Callisto firmware. Do the following to update your Callisto printer.

- On the Operator panel touch the Support/Tools icon
- Select the *Check for Updates* menu. The Updates view will appear.

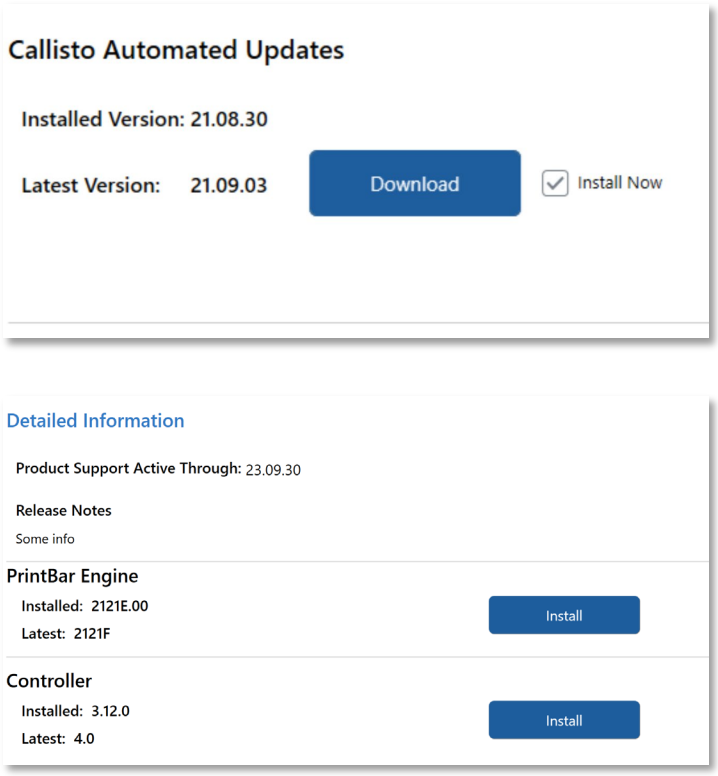


Figure 8-34. Automated Updates

From the Updates view the following information is available.

- *Installed Version* of Callisto firmware.
- *Latest Version* of Callisto firmware available for download.
- Printer's *Maintenance Date* through which product support and updates are available.

The upper section of the updates view allows downloading of all updates, and updating the printer Operator Panel and associated components. The lower section of the Updates view provides the means for installing updates to the PrintBar Engine and Controller. The PrintBar Engine is the portion of the printer that controls the printhead; the Controller is the portion of the printer that controls the mechanics of the printhead.

Be sure to update all printer components as the are available. Update one component at a time. Note that for some updates, a printer reboot may occur.

Advanced Support Tools

The Advanced area of Support Tools contains additional tools, most of which are intended to be used by Neuralog support. The Advanced menu is listed below.

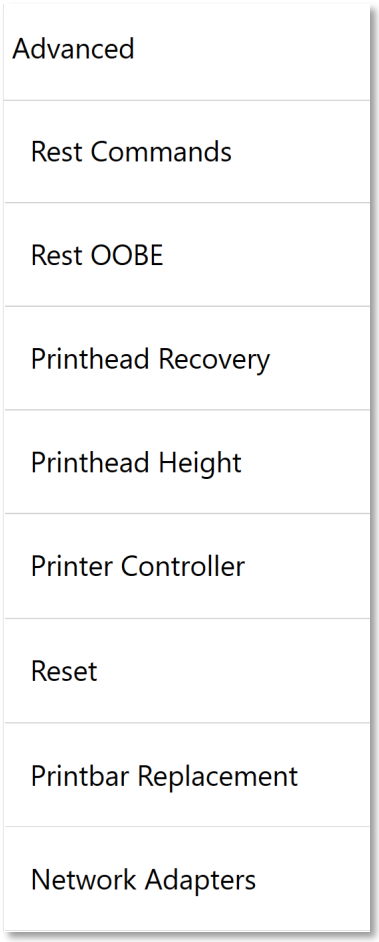


Figure 8-35. Advanced Support Tools

Rest Commands

Rest Commands will allow Neuralog support to send diagnostic queries to the printer. Use these commands only with the direction of Neuralog support.

Printhead Height

The Advanced Printhead Height menu choice may be of particular use for some users. From this view a custom printhead height can be created. This custom height will then be available in the printhead height settings view. The custom printhead height is useful if very thick media should need to be run through the printer. Also media that is wavy and not straight has been found to need a custom (higher) printhead heights.

Set Custom Printhead Height

If a custom printhead height is needed do the following.

- On the Operator panel touch the Support/Tools icon

- Select Advanced->Printhead Height
- On the view that appears, use the slider or -/+ buttons to adjust the custom height.
- Touch the Apply button to save the value.
- Note that you can touch the Auto, Low, Medium or High labels to reset the slider to those positions. Printhead heights above High should only be needed for thicker medias or medias that are wavy and have difficult traveling smoothing through the printer.

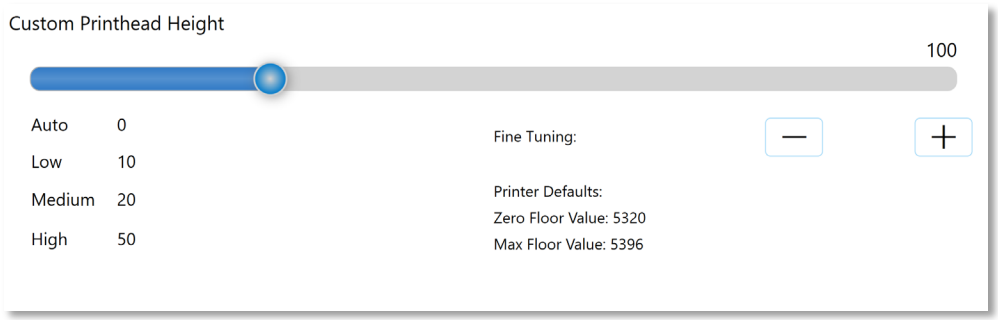


Figure 8-36. Custom Printhead Height

Use Custom Printhead Height

To use the custom printhead height that was set in this view, do the following.

- Touch the Settings icon.
- Select Print Settings->Printhead Height.
- On the view that appears select Override Driver and Custom.
- The value you set will now be used in all prints.
- Uncheck Override Driver to disable this function.

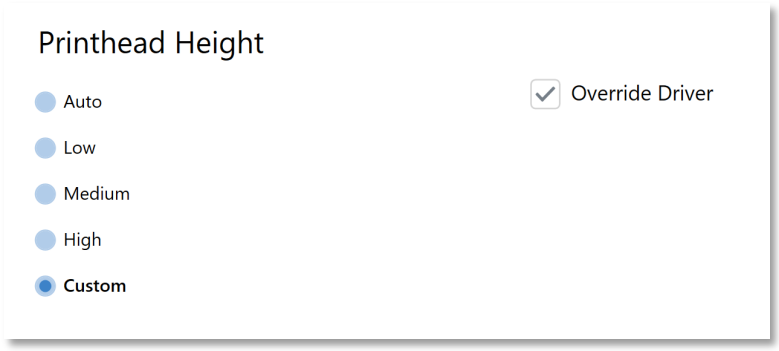


Figure 8-37. Using the Custom Printhead Height

Printer Controller

Printer Controller will allow Neuralog support to send diagnostic queries to the printer. Use these commands only with the direction of Neuralog support.

Reset

There are a set of Reset commands that can be used to reset the printer or one of its subsystems. Reset **Printer** resets and reboots the entire printer. Other menu items reset the named subsystem. Each menu item will show a view similar to the Printer Reset shown below.

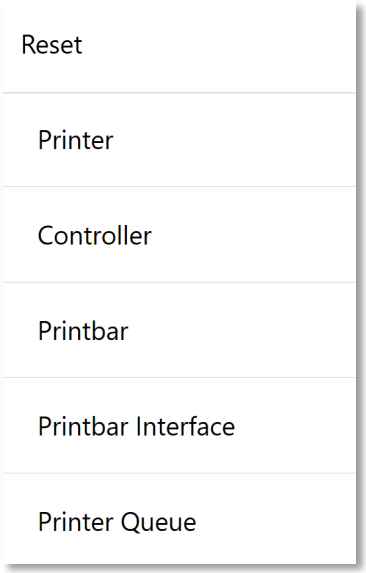


Figure 8-38. Printer Reset Menu

Figure 8-39. Printer Reset

The Jobs section of the Operator Panel contains the Job log of all printed jobs, the active Print Queue and the Held Jobs list. A job log summary is saved for every file the Callisto printer prints. It is very useful for diagnosing printer issues and verifying what was printed. The Print Queue will list any jobs that are actively in the printer. The Held Jobs list provides access to all jobs that have been saved to the printer hard drive.

Job Log

Every time a file is sent to the Callisto printer, an entry is made in the job log. Touch the Job Log tab to access this view. Each job contains a summary report with useful information about the print. Job summary includes printer driver settings, any overrides that were set, and whether or not pages were printed and media movement was seen. It may also include label cost information if that feature has been enabled.

Each job summary contains the following information.

- All printer driver settings such as quality, speed and ink levels
- Print Mode and Mark Mode – useful for verifying label jobs were correctly sent to the printer
- Job Date/Time Stamps
- Printhead height – selected and actual
- Pages printed (TOF or Top of Form count of pages that moved through the printer)

From the job log the user can do the following for jobs with the “thumbs up” icon.

- Send the job summary to NeuraLabel support

- Send the job PRN (or printable file) to NeuraLabel support
- Reprint the job
- Copy the job to Held Jobs

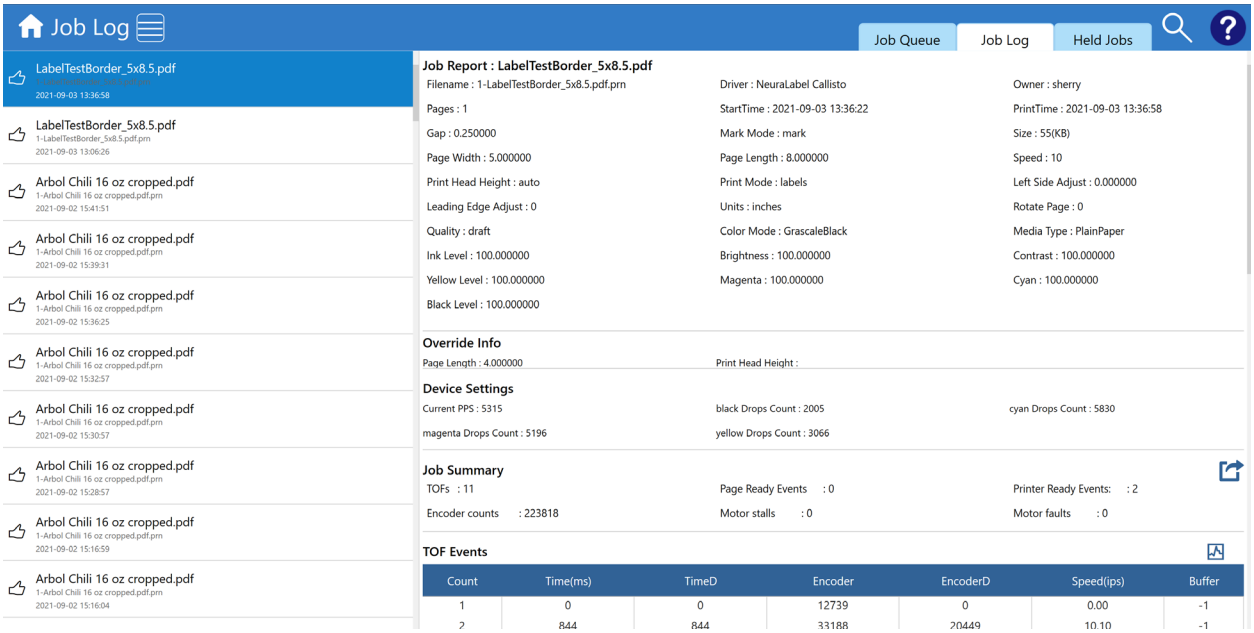


Figure 8-40. Job Log

A printer feature called Callisto Label Cost Calculator is also available from NeuraLabel that will track the ink used for each job and record a precise ink usage in the job report. A built-in calculator is available so that the user can perform cost accounting for all print jobs. Contact your NeuraLabel representative you are interested in this feature.

Job Queue

The Job Queue shows any active jobs that are currently on board the Callisto printer. Touch the Job Queue tab to access this view. If you send a job to the printer, it should appear in the Job Queue. If the job does not appear in the Job Queue or it appears only briefly, then there is a problem with Callisto Printing. It may be that the printer is not in a ready state, or it might be the case that the printing application is not properly send the job to the printer. If any unusual behavior occurs with job printing and the Job Queue, first make sure the printer says *Printer Ready* in the status area. If problems persist contact NeuraLabel support and be ready to provide the information available through the Job Log.

From the Job Queue you can see the following about a print job.

- Document Name
- Status (spooling, processing, printing, canceling)
- Owner (as reflected in the PRN)
- Number of Pages
- Number of Copies
- Size
- Time the job was submitted

Touch and hold on an entry in the Job Queue to access Cancel or Pause functionality.

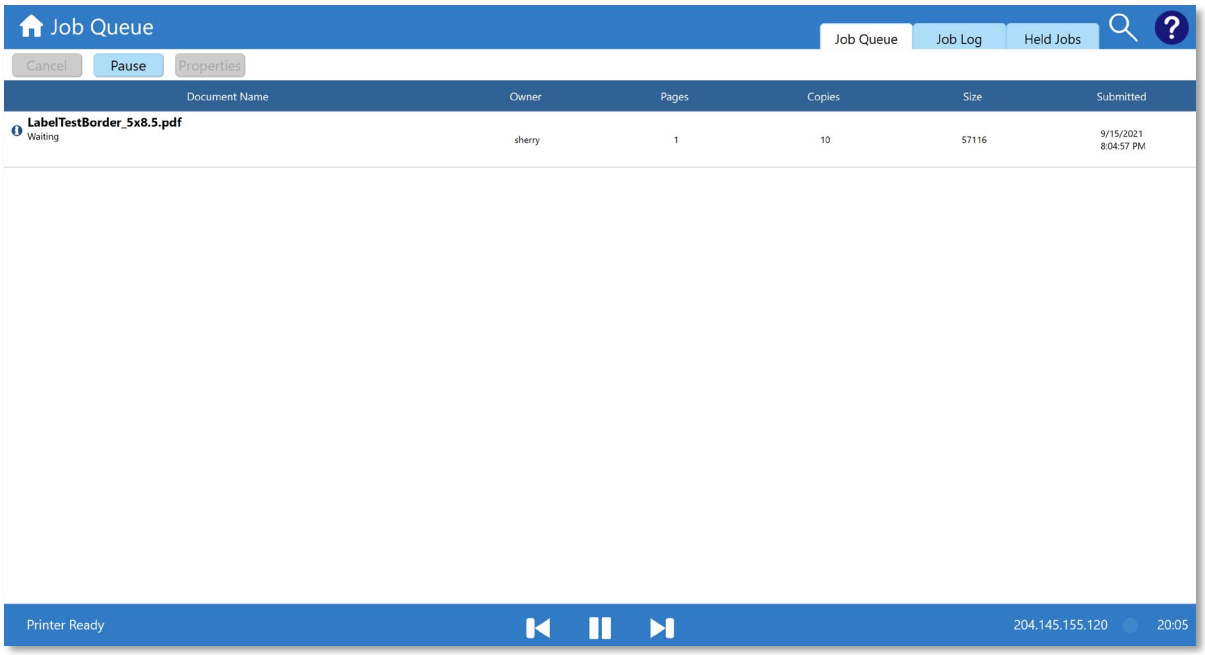


Figure 8-41. Job Queue

Held Jobs

Held Jobs allows you to store any label job (or other) print on the Callisto printer built-in hard drive. Once a job is held it can be printed at any time. The number of job copies can be changed from Held Jobs, however most other attributes of the job cannot be changed.

To add a job to Held Jobs, send the file to the printer so that it appears in the Job Log. Access the file in the job log by touching and holding on the job entry. Select “Copy To Held Jobs” to permanently move the file to Held Jobs.

From the Held Jobs list you can see the following about a held job.

- Document job name and when it was created
- Owner of the job as taken from the PRN
- Number of pages
- Number of copies
- The size of the PRN

From the Held Jobs list touch and hold any job entry to do the following.

- *Quick Print* the job with currently set number of copies
- *Print* the job with an interface to set the number of copies
- *Delete* the job from the Held jobs list
- View the job's *Properties*

Figure 8-42. Held Jobs

Held Jobs is sorted alphabetically. Touch the *Document Name* label at the top of the Held Jobs list to re-sort the job list by date, so that the most recently added job appears at the top of the list. Held Jobs are permanently stored and will remain on the Callisto printer until they are deleted.

9. Callisto Web Server

The Callisto printer has a built-in web server that mimics many of the operations found on the operator panel. The web server interface makes it possible to interact with the printer from a client machine on your local network at your desk or office. The printer interface can be accessed from any network location as long as you are able to see the network where the printer resides. Edge, Chrome or other modern web browsers are supported. Older web browsers such as Internet Explorer are not supported.

Web Interface Home

The web server home page is accessed by entering the printer's network address in a web browser. From the home page you can get *Estimated Ink Levels*, *Network Summary* and other *Printer Information*. You also have access to many of the screens available on the printer's operator panel.

Use the *Search* keyin found at the top right corner to quickly locate information about any topic. Select an item on the home page to go to a page with more information.

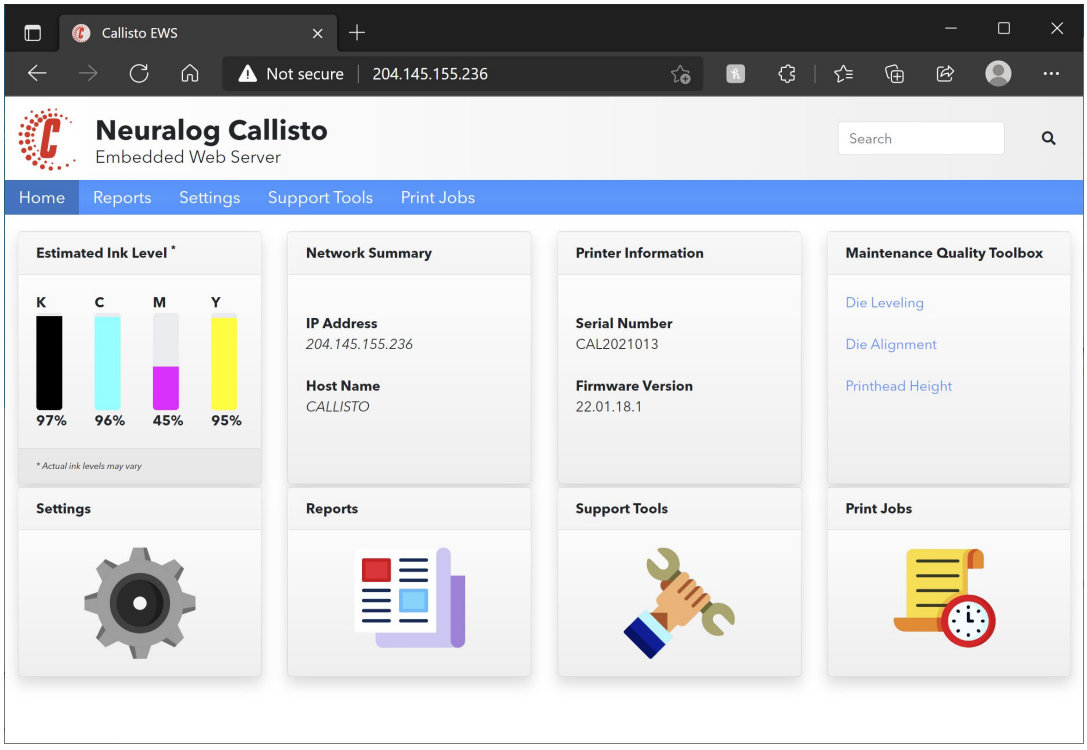


Figure 9-1. Web Server Home

Maintenance Quality Toolbox

The *Maintenance Quality Toolbox* provides links to the most commonly used printer maintenance routines.

Die Leveling

Die Leveling allows you to correct wide bands that correspond to a single die providing too much or too little ink. The web interface workflow is the same as the operator panel workflow. Review the section Die Leveling in the *Callisto Operator Panel Chapter 7* for instructions on using this page.

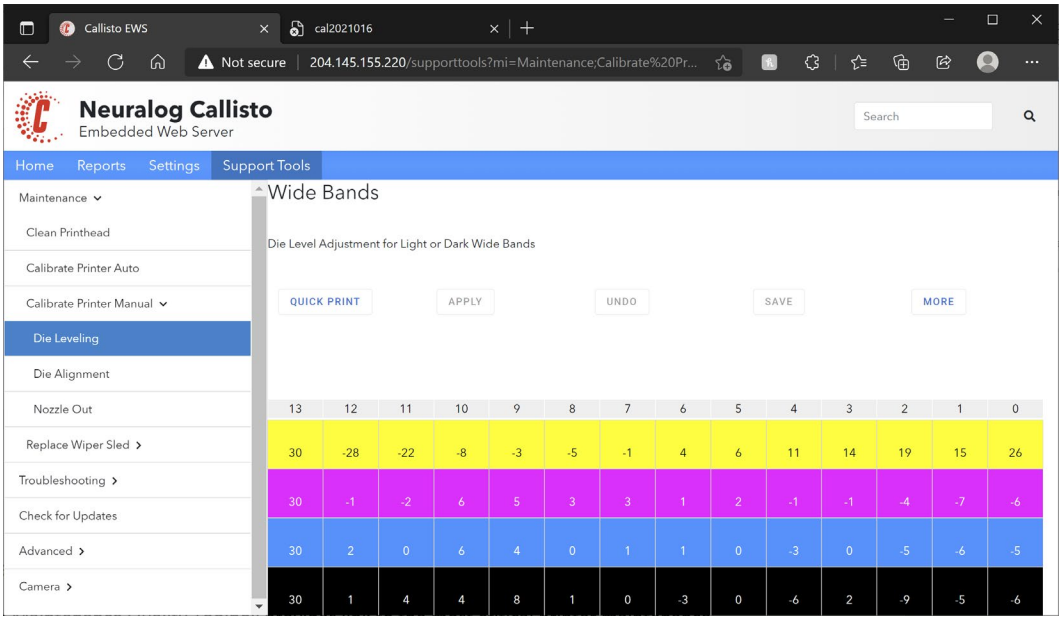


Figure 9-2. Web Server: Die Leveling

Die Alignment

Die Alignment allows you to correct narrow bands that correspond to the overlap between two dies providing too much or too little ink at the die seam. The web interface workflow is the same as the operator panel workflow. Review the section Die Alignment in the *Callisto Operator Panel Chapter 7* for instructions on using this page.

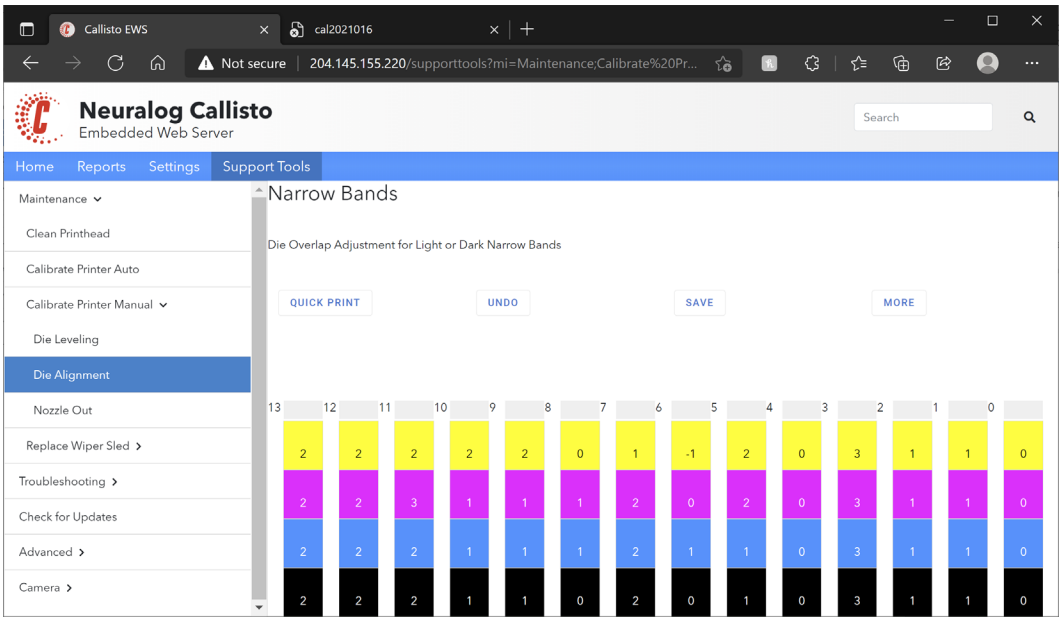


Figure 9-3. Web Server: Die Alignment

Printhead Height

Printhead Height is usually set in the printer driver. However, if the prints seem to have smears or smudges, you may need to raise the printhead height. The web interface workflow for changing printhead height is the same as the operator panel workflow. Review the section Printhead Height in the *Callisto Operator Panel Chapter 7* for instructions on using this page.

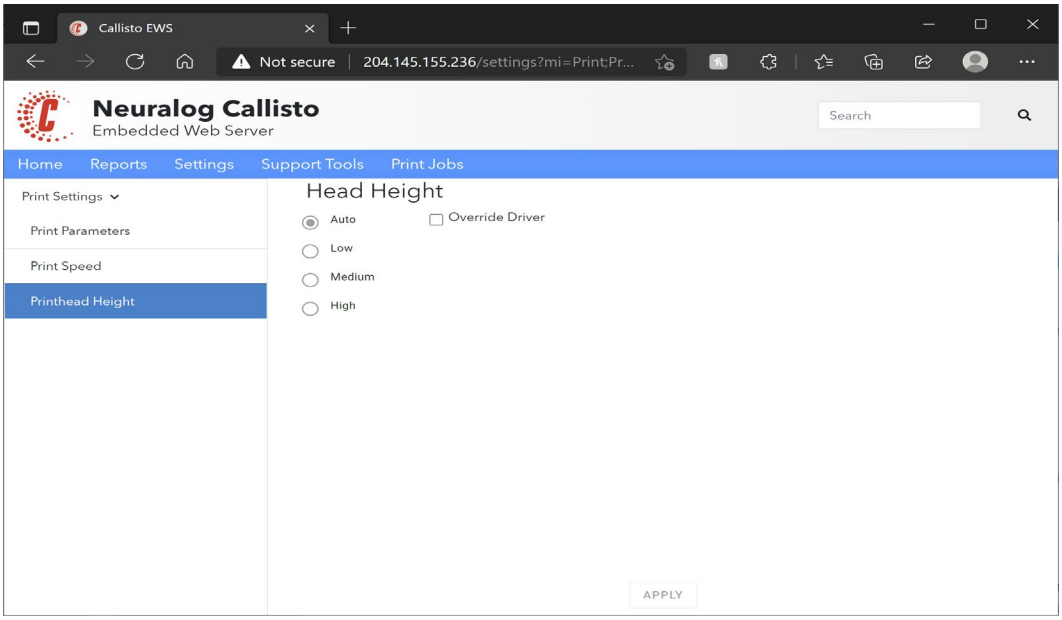


Figure 9-4. Web Server: Printhead Height

Settings

The Callisto Web Server contains commonly used printer Settings, also found on the printer operator panel*Print Parameters*, *Print Speed* and *Printhead Height* pages offer the ability to set the same parameters as the operator panel.

Print Parameters that are settable on this page include the parameters that can be overridden from values passed in by the printer driver. These include *Print Mode*, *Mark Mode, Gap Between Labels (web press mode)* and *Mark Adjustment*. In most circumstances these values will not need to be changed. These values would only need to be overridden in cases where unusual, complicated or outdated network, versions of windows or printing applications are keeping the driver values from being properly sent to the printer.

Print Speed may be overridden if desired. The speed at which labels can be printed on the Callisto printer depends of a variety of factors including print quality, file complexity and file width. Copies can be printed at faster speeds than sequenced labels.

Printhead Height, discussed in the previous section, should usually be set by the printer driver. However some label media may require special adjustments to the printhead height. Set this value in the web server or on the printer operator panel.

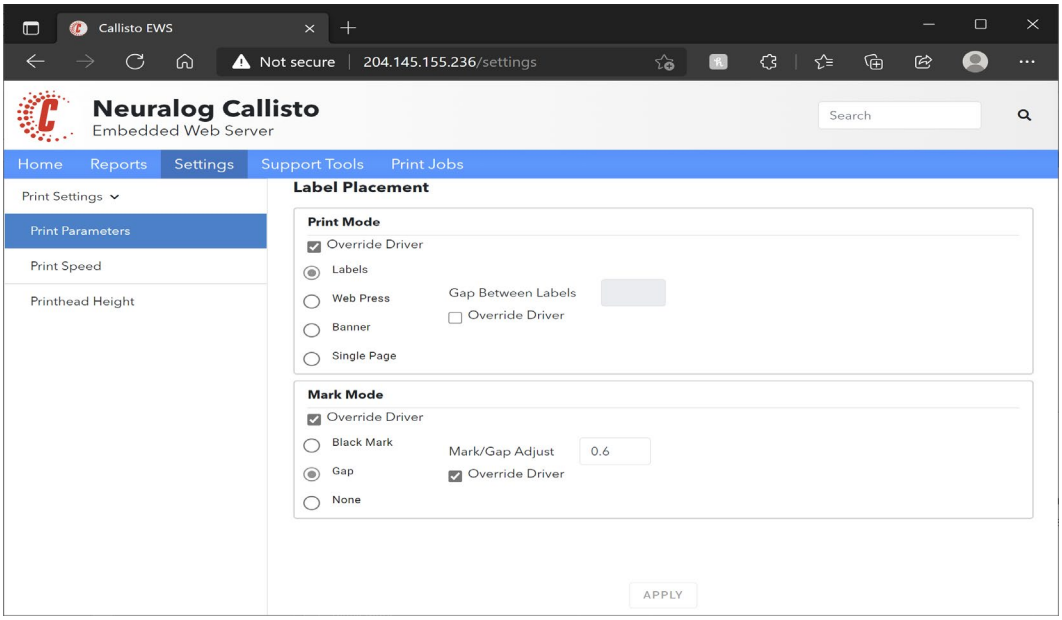


Figure 9-5. Web Server: Print Parameters

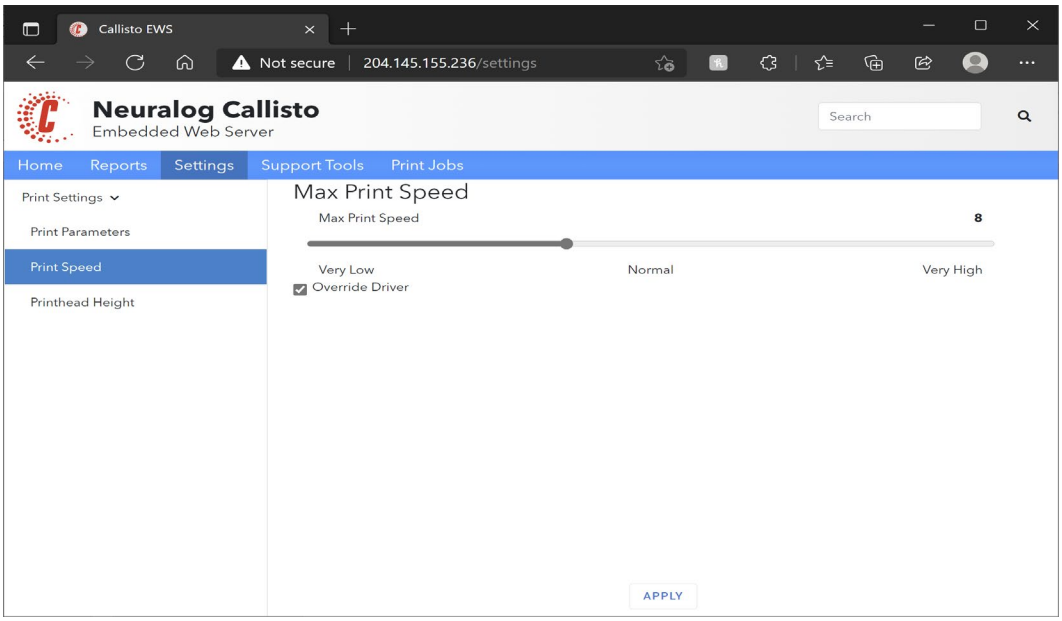


Figure 9-6. Web Server: Print Speed

Reports

The Callisto Web Server contains the reports that are found in the operator panel.

Device Information includes system versions and serial numbers of device components.

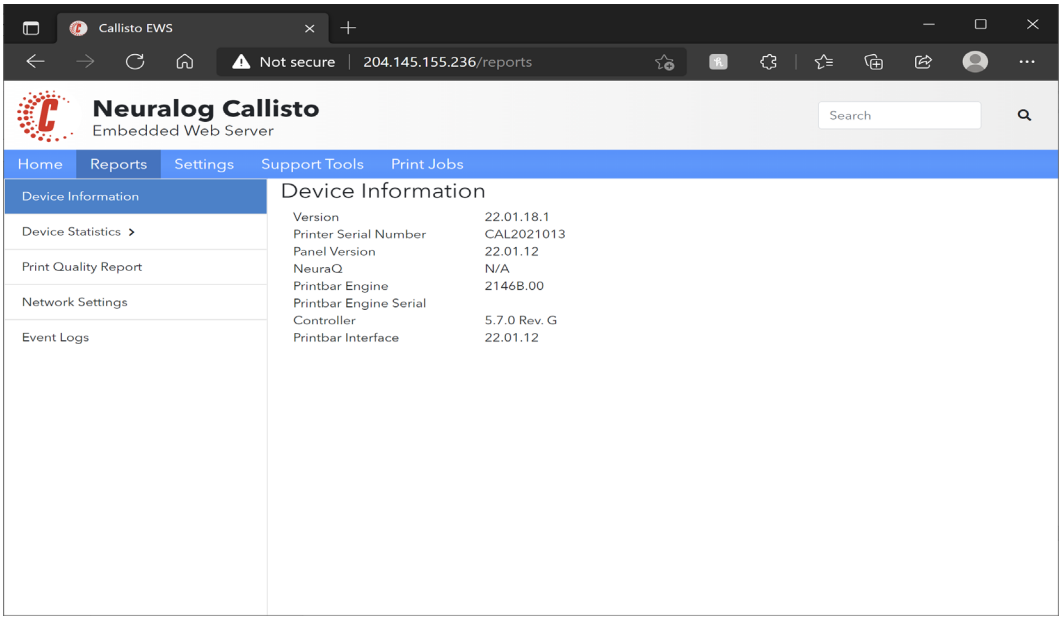


Figure 9-7. Web Server: Device Information

Device Statistics includes a report for ink usage and a report for printed pages.

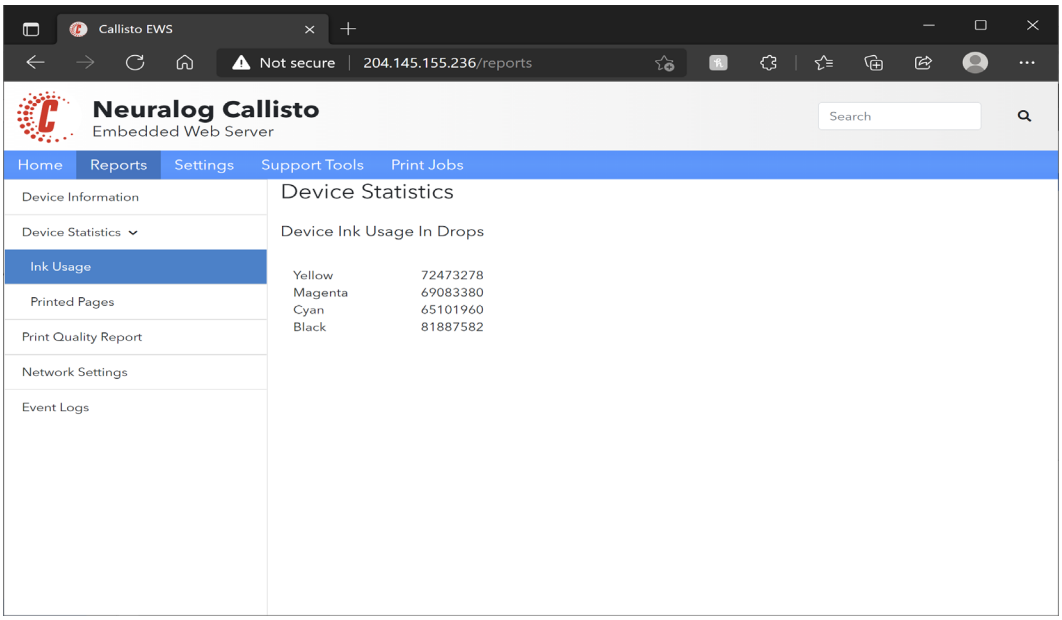


Figure 9-8. Web Server: Device Statistics->Ink Usage

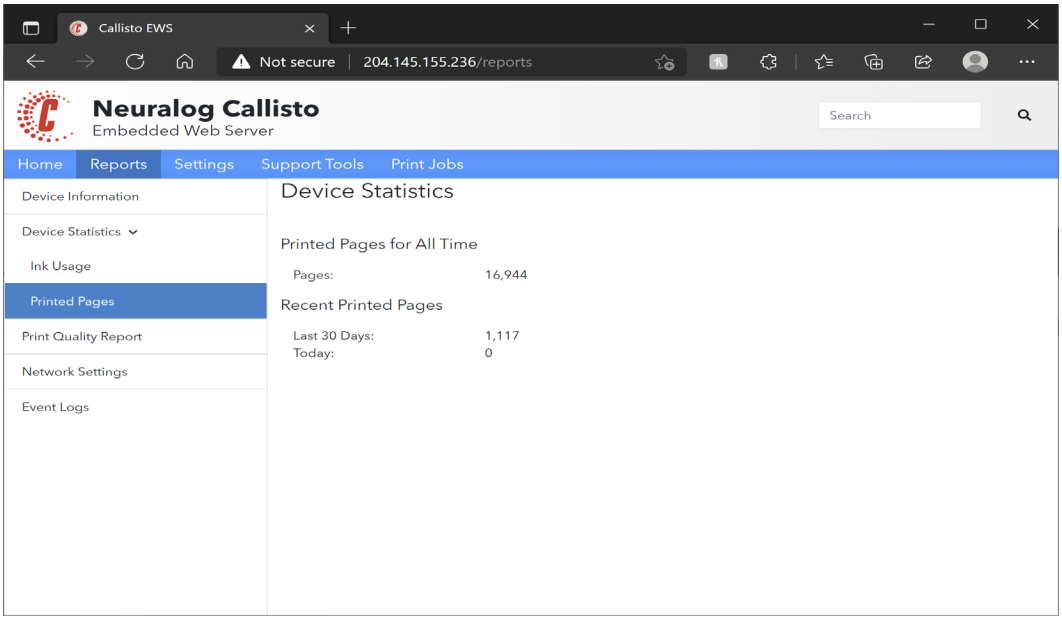


Figure 9-9. Web Server: Device Statistics->Printed Pages

The *Print Quality Report* page allows the built-in printer quality reports to be printed from the web server.

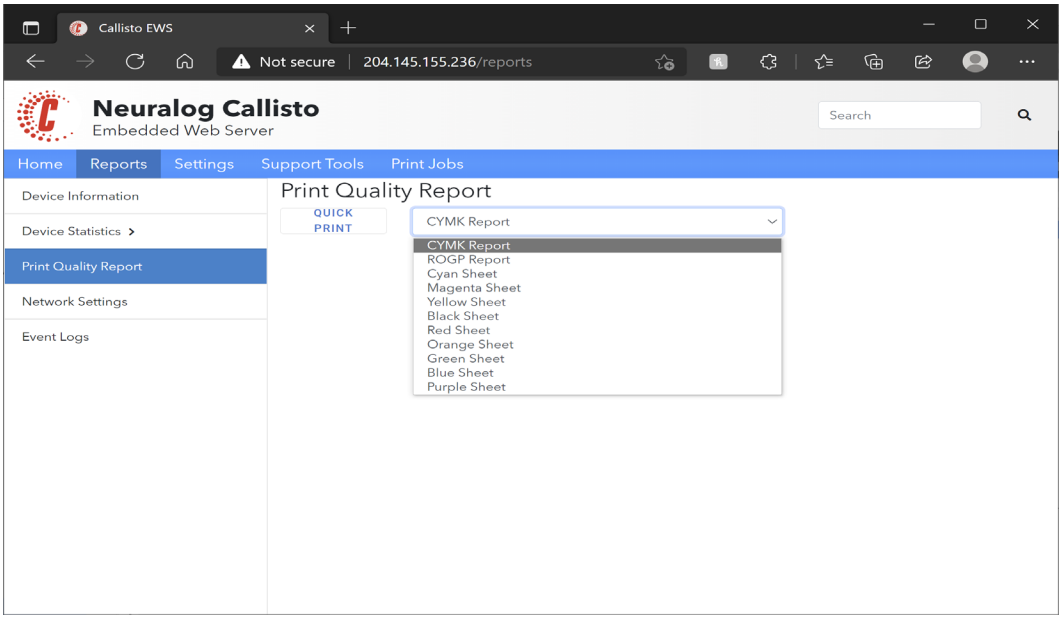


Figure 9-10. Web Server: Print Quality Report

The *Network Settings* report provides a summary of the printer's network settings.

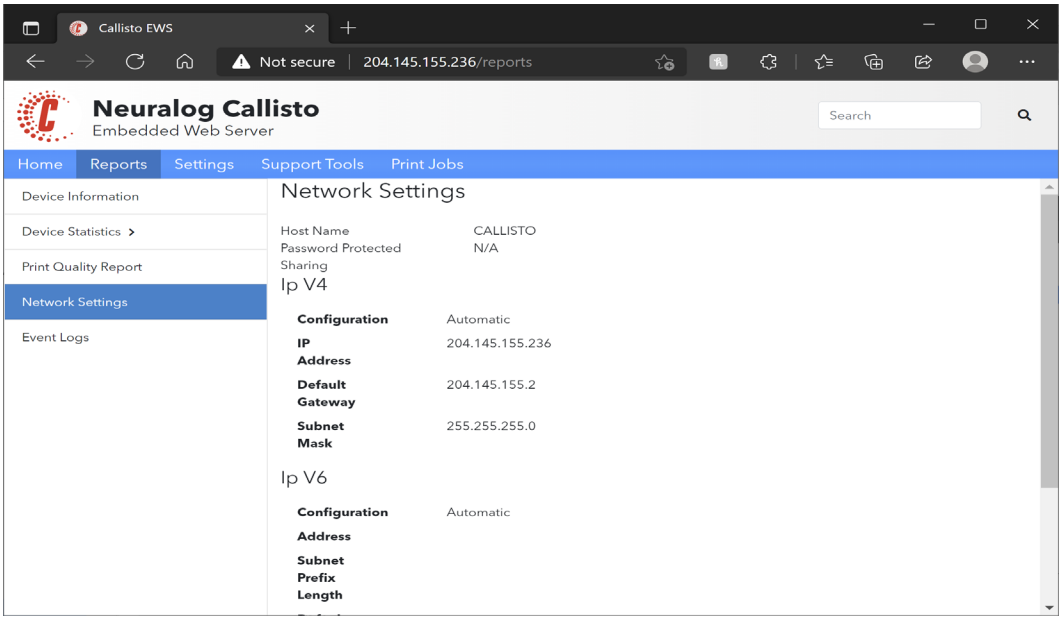


Figure 9-11. Web Server: Network Settings

The *Event Logs* page allows any of the printer's event logs to be viewed and downloaded. This can be very helpful when printer support is needed.

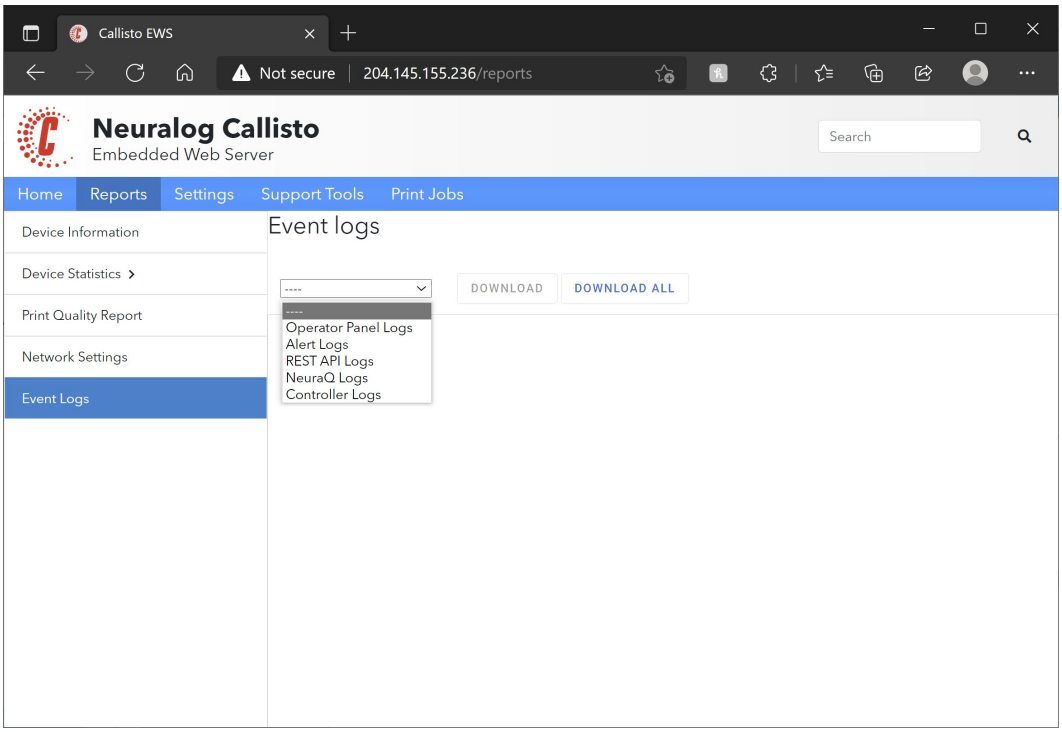


Figure 9-12. Web Server: Event Logs

Support Tools

The Callisto Web Server contains several critical Support Tools for maintaining the printer. These tools are also available through the printer operator panel.

Update Printer Firmware, found in Support Tools Maintenance section of the web server, is useful for updating Callisto printer firmware when the printer is not on the internet and cannot access cloud updates. The most straightforward way to update the Callisto printer firmware is to directly access the update through the operator panel. However, if the printer is only on a local network and not on the internet, this update functionality cannot work.

In the case that the printer is not on the internet, a firmware update may be requested by the end user by contacting Neuralog support. Once the update is received and downloaded to the user's local network, the web server may be used to directly upload the file to the printer. The update file will always be named **Callisto.zip**. Once the file is delivered to the printer, the firmware update installation can be executed from the operator panel.

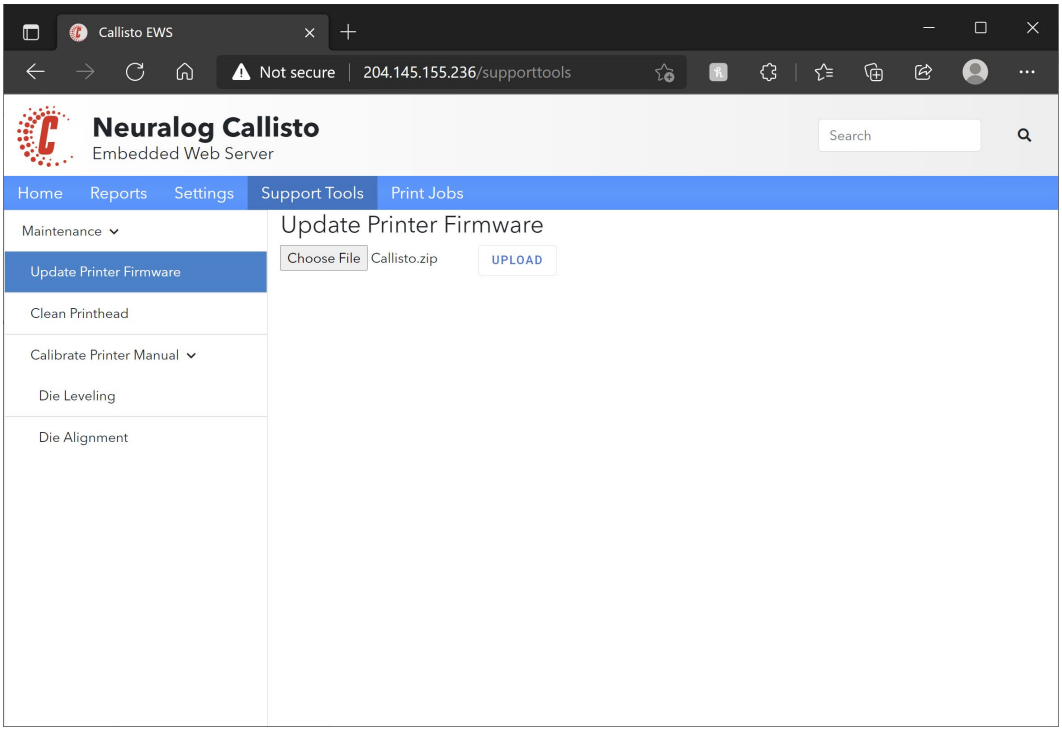


Figure 9-13. Web Server: Update Printer Firmware

The same printhead cleaning routines found on the operator panel are also available through the web server *Clean Printhead*. Be sure to be near the printer when executing these routines. Only execute these routines when the printer is in the Ready state. Do not execute these routines if the printer is actively printing or executing other routines.

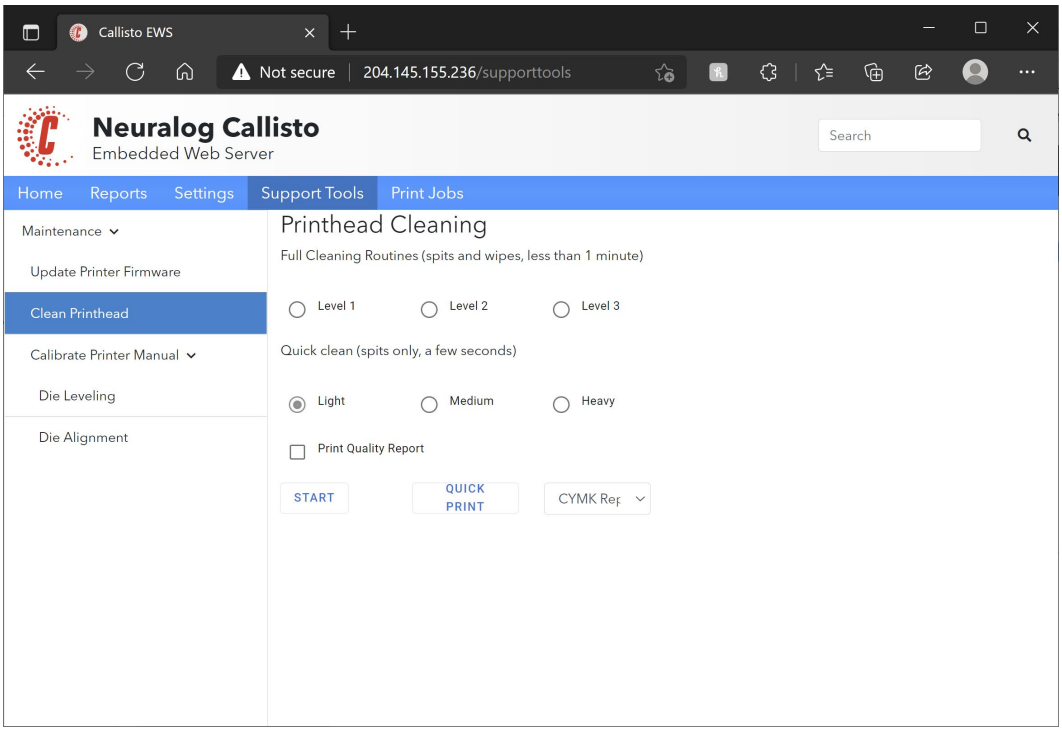


Figure 9-14. Web Server: Clean Printhead

Calibrate Printer Manual allows execution of *Die Leveling* and *Die Alignment* routines. These workflows were discussed earlier in this chapter in the Maintenance Quality Toolbox section.

Print Jobs

Several useful features are available in the Printer Web Server related to print jobs.

Send Job to Printer will send any valid Callisto print file to the printer for immediate printing. *Send Job to Held Jobs* will send any valid Callisto print file to Held Jobs to be stored on the printer. Be sure to use only valid Callisto printer files. These files normally have a **.prn** file extension. A Callisto print file can be created by printing directly to a file port, or Neuralog support might send a test file to print on the printer.

To send a file directly to the printer for immediate printing, select *Send Print File to Printer*. Browse for the file on your computer or local network by selecting the Choose File button. Select the Upload button to send the file to the printer.

To send a file to Held Jobs to be stored on the printer, select *Send Print File to Held Jobs*. Browse for the file on your computer or local network by selecting the Choose File button. Select the Upload button to send the file to the printer's Held Jobs. From Held Jobs the file can be printed at any time.

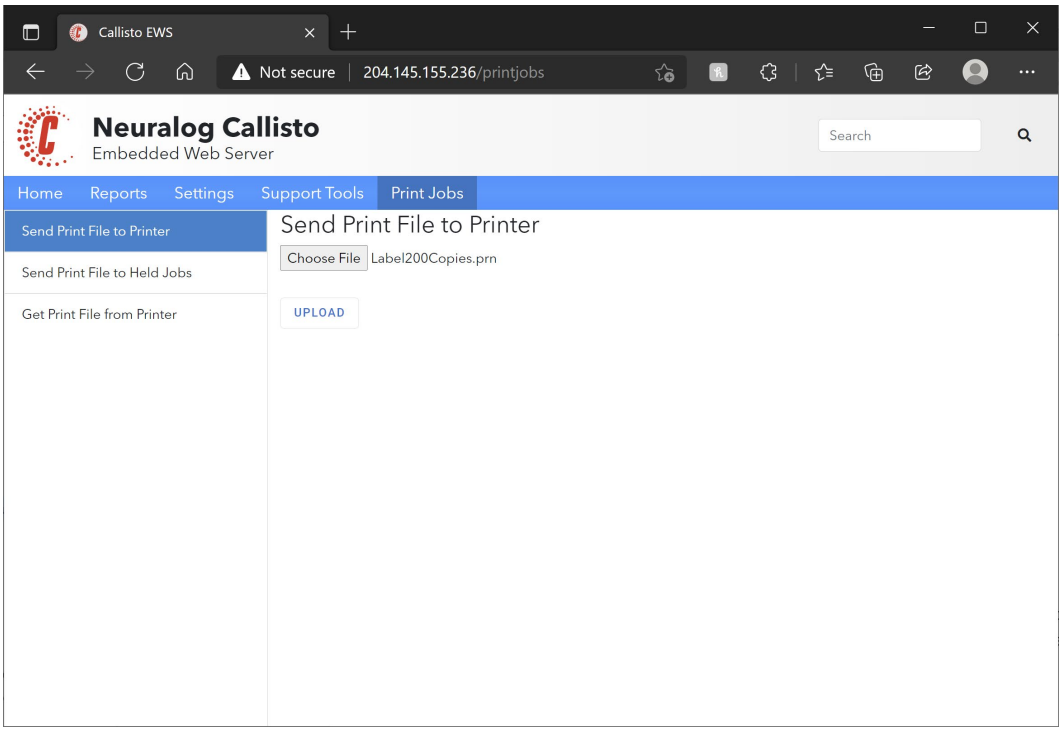


Figure 9-15. Web Server: Send File to Printer

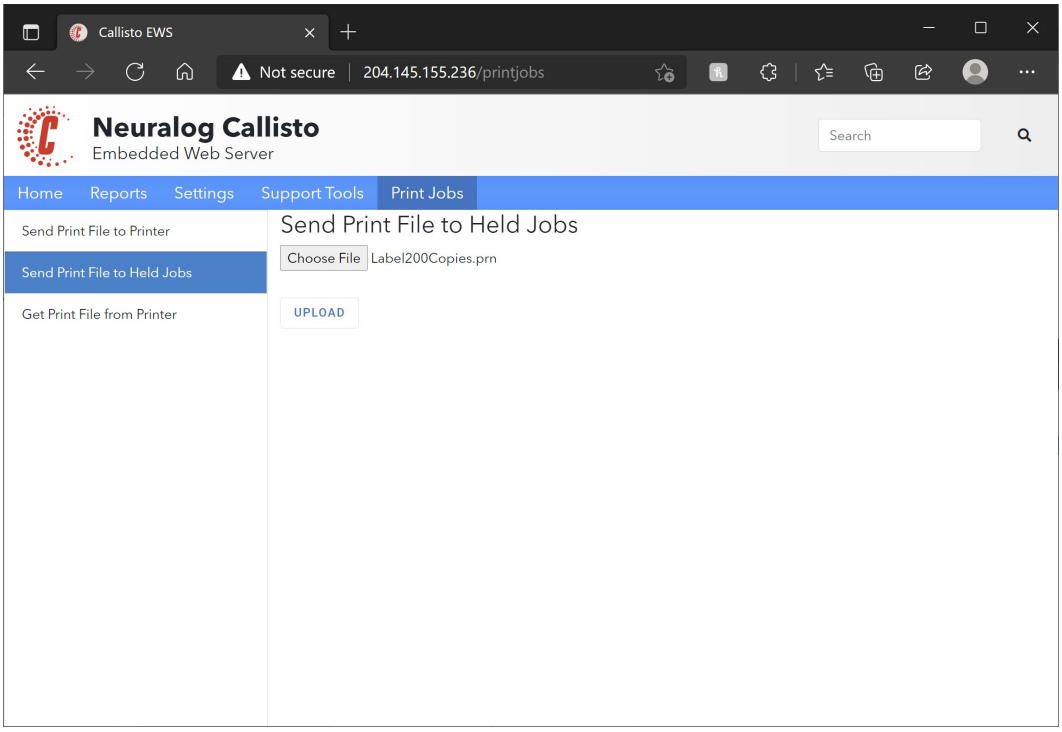


Figure 9-16. Web Server: Send File to Held Jobs

The web server also offers a means of downloading recently printed files from the printer. On the printer operator panel in the *Jobs* section there is a Job Log view showing the most recently printed jobs. The last few print files (PRNs) are always saved for reprinting. The *Get Print File from Printer* feature allows the user to download recently printed jobs.

To *Get Print File from Printer*, select this menu choice and check the file(s) you want to download to your local computer or network. Choose the *Download Selected* button. This will create a zipped file of the selected job(s) and place the file in your computer downloads directory.

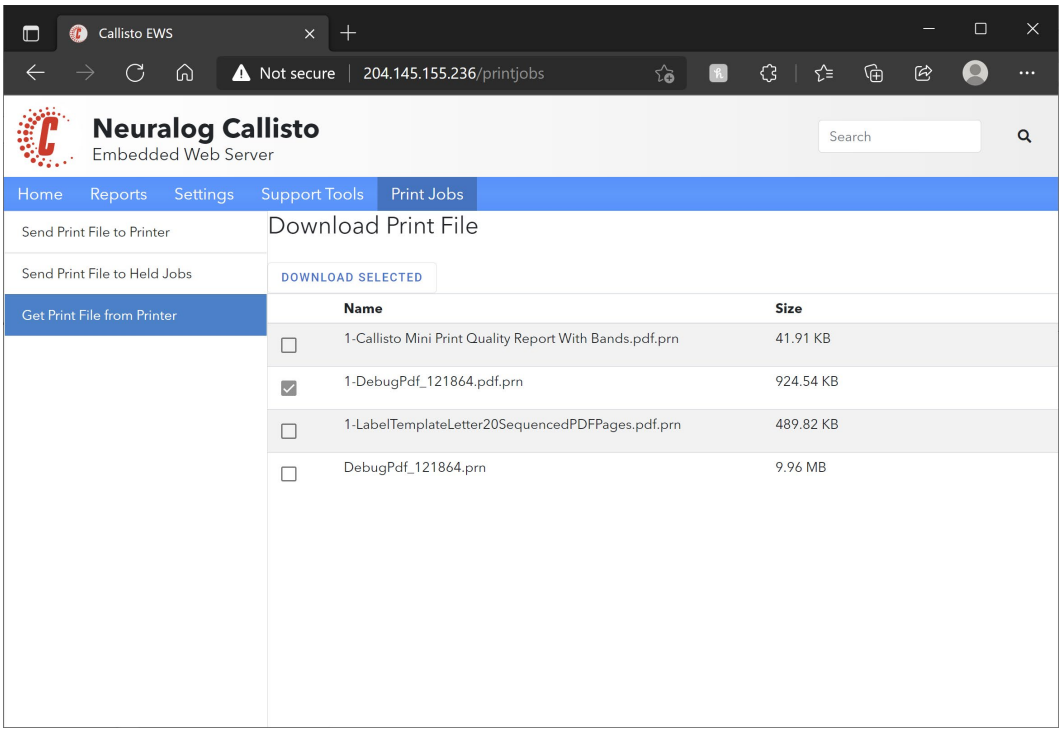


Figure 9-17. Web Server: Get Print File from Printer

10. Printing Labels

The Callisto printer will work with any industry standard label printing application that can access its Windows based printer driver. Once you have your media and printer in hand, and the application and printer driver are installed on your PC, you are ready to print your first labels.

Printing Your First Labels

While label printing on the Callisto is simple and straightforward, the number of possible different printing configurations can be overwhelming. This chapter will attempt to provide simple workflows to get the job done as quickly as possible.

Setting Up the Label

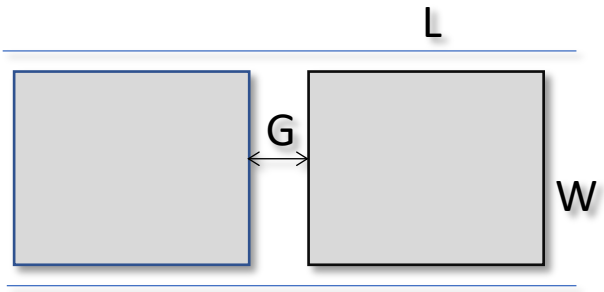
For label printing to be successful three elements must be coordinated. The image artwork in your labeling application, the die-cut media, and printer driver page size must all be in agreement so that the image is placed on the label media in the correct manner. Unconverted media used in web press printing slightly simplifies the situation, but uses the same concepts. Let's break down each of these steps individually.

Determining the media size

Determine the media size by measuring both the length and width of the label and the length of the gap. Note that if you want to print a full-bleed, or full-coverage, label, you will need a media gap of 0.5". NeuraLabel can provide you with media that meets this requirement. If you are printing labels that allow white space around the artwork, the media gap can be smaller.

Record the label media measurements:

- Media Width W
- Media Length L
- Media Gap Length G



Creating the label page size in the driver

Once you have the label measured it is easy to create a page in the Callisto printer driver.

Page Width = W

Page Length = L + G – 0.5”

If you need the labels to be full coverage then G needs to be at least 0.4” in length. Otherwise G can be any value less than 0.5 inches. Note that theoretically a 0.4” gap will allow full coverage labels, however having an additional tolerance is recommended for best results.

Determining the Image or Artwork Size

Depending on the application, most labels have a specific size within a labeling application. For example, standard letter-sized PDF pages are exactly 8.5 inches wide x 11 inches long and will present that size to the Callisto printer driver. Of course any size label can be created in applications that are designed for this purpose. Before sending a file to the Callisto printer determine the exact image size, including any white space that surrounds the image. Modify this artwork to fit on the media in your inventory.

Ordering media from NeuraLabel

NeuraLabel can make custom media to fit your label artwork. If you are interested in ordering media, provide the following information.

- Exact artwork dimensions for width and length. Be sure to specify orientation.
- Whether or not full coverage is needed or how much white space do you need for a label border.
- Type of media desired.
- Number of labels per roll.

Fine Sizing of the label page

The Callisto printer driver includes a special feature that allows fine sizing of the printed page. This feature is called Borderless printing and is found on the Label Form tab.

If you are printing a full coverage label, you may want to slightly oversize the printed page. Do the following to accomplish this.

- Visit the Label Form tab in the printer driver
- Check the Borderless Printing box
- Select a positive Full Bleed Overspray value.

This is the amount of label enlargement for overspray. The value is applied on all sides of the label. A value of 0.5mm to 1mm is usually sufficient for achieving the proper amount of overspray.

If you are printing a label and wish to shrink that page to achieve a needed gap size, you can use this same feature to underspray the page. In some cases, system restraints prohibit printer users from creating the needed page size. For example, systems such as SAP send standard-size page regardless of driver settings. This feature can overcome this obstacle by shrinking the page as much as needed to fit the printer requirements. Do the following to accomplish this.

- Visit the Label Form tab in the printer driver
- Check the Borderless Printing box
- Select a negative Full Bleed Overspray value.

Depending on the label media and the gap size within the media, you may need to select a value of -1mm to -5mm. This is usually sufficient for achieving the proper amount of underspray to fit the label onto the page.

Selecting Driver Parameters

Once the page sizes have been determined you can move on to other interesting printer driver parameters.

Set the Label Form Settings Media Type and Orientation

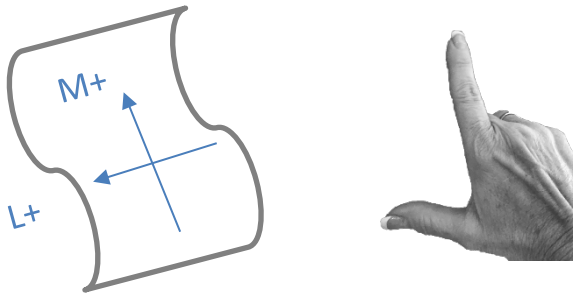
- The media type should be set to Plain Paper or another media profile setting.
- The orientation is usually auto determined.

- If the labels are to be placed on an applicator, you may need to use rotate 180 to orient them in the correct position.

Select Labels, Gap or Mark and Offsets for Label Placement Settings

All die-cut labels are printed in labels mode and use either Gap or Black Mark setting. Set the Mark/Gap adjust to set placement in the continuous direction. Set the Left Offset to set placement in the non-continuous direction. See the section Label Placement Tab for detailed instructions.

TIP: Use the following tip to remember the direction of label placement. Standing at the printer exit where the media comes out of the printer, hold up you right hand to make a backwards L. Your index finger and thumb point in the direction of positive Mark and Left adjustments.



Set the Speed

The speed setting is found on the Job Attribute tab of the printer driver. The selection of printer speed will depend on the print quality setting and the size and complexity of the media. For guidance on setting the print speed, see the section on print quality. The table is present here as well.

Print Job/Mode	**Draft**	**Normal**	**Best**	**Max DPI**
Sequenced Labels Multi-Page Copies	10-14 ips	8-9 ips Recommended setting	4-6 ips	2-3 ips
Single Page Copies	Not recommended	12-14 ips recommended Up to 18 ips possible		

Table. Print Quality and Speed Guidelines

While you are learning the Callisto printer, select a slower speed. After you are comfortable printing labels, you can try the upper end of the recommended speeds.

Select the Printhead Height

The printhead height setting is found on the Job Attribute tab of the printer driver. Most media will use the lowest value of Auto. Try the Auto printhead height setting first. If you see ink smudges or smears on the printed image, try one of the higher printhead settings. If you still see ink smears with a setting of high, create a custom printhead height to use. See the section on Printhead height.

Loading Media into the printer

Once the driver settings are in place you are ready to print. Load the media into the printer. If the guides need to be adjusted do the following.

- Loosen the lock nut on the right media guide.
- Slide the guides into place to fit the media. Make sure the media slides in and out of the guides.
- Tighten the lock nut to lock the guides into place.
- Load the media by sliding it into the guides until it touches the printer wheels.
- The media will trigger the auto-load sensor and will be pulled into place

If the media load fails, gently pull the media form the printer and reload.

Making a Sample print

Make a sample print of your label on your media. You probably need to print 2-4 labels so you can verify placement and see the media exit the printer. The table provides a summary of adjustment you might need.

Print Feature	**Parameter**
Placement in continuous direction	Mark/Gap Adjust
Placement in noncontinuous direction	Left Offset
Fit of label on page	Page Size, Full Bleed Overspray
Quality of Image - Copies usually use Best/Max DPI - Sequenced usually use Normal	Print Quality
Amount of Ink on Page	Intensity
Amount of Individual Ink Color on Page	Black, Yellow, Magenta, Cyan Ink Levels

Table: Adjustments in Printing a Label

Printing the Label Job

Once you are satisfied with the layout and quality of the sample print, you are ready to print the label batch. Print a small batch of 10-20 labels. Verify that all labels have printed successfully. The table provides a summary of issues you might see and suggested adjustment for each of those issues.

Problem in Print Feature	**Parameter**
Ink Smear/Smudge on Page	Printhead Height Set to a higher level
Ink is Too Wet on Page	Lower Intensity Slow Speed
Printer Stops in middle of print with jagged edges on sequenced print	Printer can't keep up. Lower speed or quality
Printer feeds blank media	Mark is selected for gapped media Gap is selected for marked media
Printer skips blank page in between labels	Page size is too long. - Create smaller page size, or - Use Full Bleed Overspray with a negative value. Black mark is not seen by sensor. - Make sure the mark adheres to color & placement specifications. - Try adjusting sensor brightness. - Try switching to using gaps.

Table: Adjustments in Printing a Label Batch

Printing Workflows

The following sections explain how to use the printer in basic workflow scenarios such as canceling a job, clearing a media job, changing ink and continuing a job when media runs out.

Canceling a Job

There are several ways to cancel the currently printing job. Jobs that are actively printing should stop printing as soon as cancel has been selected. However in some cases jobs that are

not printing may take a few moments to cancel because the files are locked by printing system processes. The job will cancel when the process releases the file.

From the Home View do the following to cancel the current job.

- Touch the read X to immediately cancel the current job.
- Touch the pause button to immediately cancel the current job.

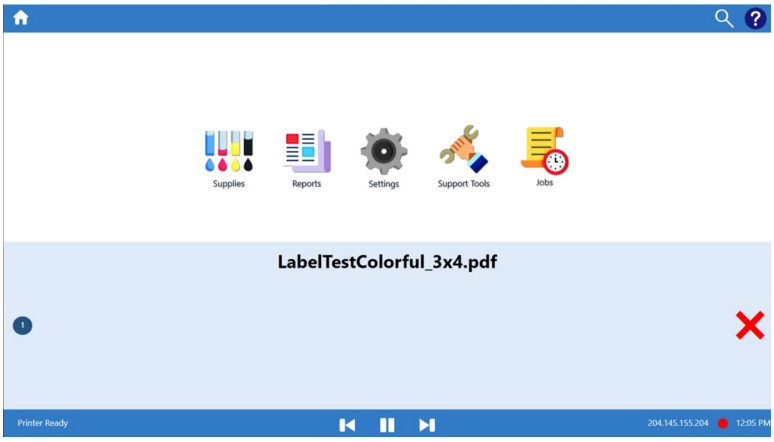


Figure 10-1. Cancel Job on Home View

From the Print Queue View do the following to cancel any job in the queue.

- Touch the Jobs icon to go to the Print Queue View
- Touch the Job to select it and then touch the Cancel button
- Alternatively touch and hold on the Job to access the job popup menu and select Cancel from the menu.

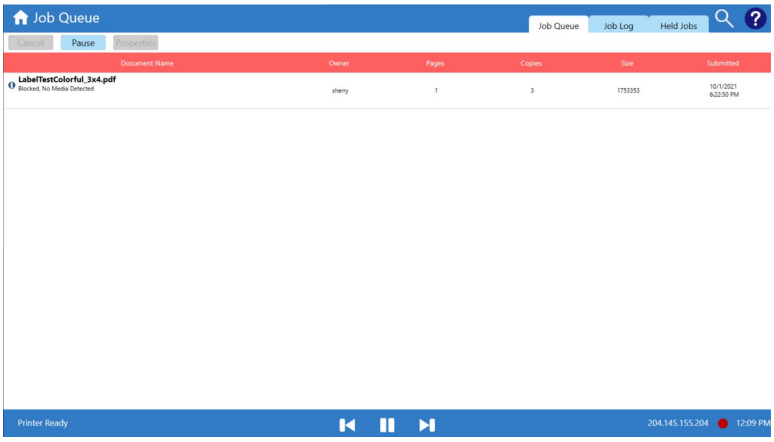


Figure 10-2. Cancel Job on Print Queue View

Never attempt to stop a job from printing by holding or tearing the media. This will not cancel the job, but can damage the printhead.

Clearing a label jam in the printer

The Callisto printer has a straight and very short media path. However it is still possible for media to get caught in the printer if the media is wrinkled or has exposed adhesive. It is also possible for the tape at the end of a media roll to get pulled off and stick inside a printer.

If media gets caught inside the Callisto printer track do the following:

- Tear or cut the media at the printer entrance. Media should be removed from the exit side of the printer.
- Try jogging the media forward.
- Try jogging the media backwards, but no more than a few inches.
- If jogging does not work, move to the printer exit. With both hands gently pull the media to remove it from the printer.

If a small fragment of media or a piece of tape gets caught inside the Callisto printer track do the following:

- Turn the Callisto printer off or unplug the network cable to make sure no one has access to communicate with the printer and cause the service tray to move. Clear any jobs from the print queue.
- Use a flashlight (cell phone light) to look inside the printer to locate the fragment. Check both entrance and exit. Usually there is more visibility from the exit side.
- Locate and remove the fragment.

If small fragment is unreachable, try removing the service tray. Steps for Replacing the Service Tray are found earlier in the user guide. Perform these steps:

- Turn the Callisto printer on.
- Remove the Service Tray (Support Tools->Maintenance->Service Tray->Remove)
- Make sure no one has access to communicate with the printer and cause the service tray mechanism to attempt to move. Unplug the network cable to do this. Clear any jobs in the print queue.

- Use a flashlight (cell phone light) to look inside the printer to locate the fragment. Check both entrance and exit. Usually there is more visibility from the exit side.
- Locate and remove the fragment.
- Replace the Service Tray (Support Tools->Maintenance->Service Tray->Install)

If the fragment is still unreachable, contact NeuraLabel support. The printer is designed such that a technician can easily completely open the printer to access the print path.

IMPORTANT: After any jam is cleared the printer will need printhead cleaning maintenance. It is likely that the debris in the printer has scraped against the printhead. This will cause light streaks to appear in the printed image.

To run printhead cleaning:

- Make sure the printer is on and the service tray properly installed.
- Touch the Support/Tools icon.
- Select Maintenance->Printhead Cleaning
- Run a printhead cleaning routine, Level 1, 2 or 3.
- Print the Quality Report to verify the printhead is in a good state.
- The printhead cleaning routines do not need to be run in any particular order. The higher number routine has increased cleaning.

Once you have verified that the printhead has been cleaned and any defects from the debris are gone, you are ready to return to printing.

Changing an Ink Cartridge

Callisto ink may be changed in between jobs when the cartridge reads low or very low. If the cartridge runs out of ink during a printing job, an “Out of Ink” alert will appear on the screen.

Access Callisto ink through the ink door. Do these steps to change the ink.

- Open the ink door by pulling up and out.
- Remove an ink cartridge by pressing it in until it snaps out of place. Remove the cartridge.
- Replace the ink with a new cartridge by pressing it in until it snaps into place.

- Close the ink door.
- NOTE: It takes about 20 seconds for the printer to register the ink. A Printer Ready message will appear in the lower left corner of the Operator Panel.

Callisto Ink must be purchased from NeuraLabel or a NeuraLabel supplier. Only NeuraLabel ink that has been designed to work with the Callisto printhead will work in the Callisto printer.

Running out of Media during the print

If media runs out during a print the printer will allow the user to continue the job. The last label may need to be reprinted. Follow the prompts on the Operator Panel to continue printing.

11. Troubleshooting

Driver Fails to Install

- Make sure you are connected to the printer over a network.
- Follow the steps in the section Special Case Driver Installation in the section on Installing the Printer Driver.

Print does not start

- Make sure the printer is in the *Printer Ready* state before printing. Remember that the printer takes about two minutes to boot up.
- Make sure the media is loaded with printable side up and marks down.
- Check to see that the media present indicator is green; red means media is not detected.
- Make sure there are no other jobs "stuck" in the print queue. Do this by touching the Jobs icon and then the Jobs Queue tab. If there is an old job in the queue, select it and cancel it.
    - Check to see that the media is properly loaded in the media track and that it has not become wrinkled in the printer.

Print does not start at correct position (top of form)

- Make sure that marked media is not loaded backwards, such that the marks are not at the top of the page.
- Use Mark Adjust to precisely place the label print.
- Make sure the image itself does not have excess white space at the top of the image.

Printer stops printing in middle of print

- If the printer stops in the middle of the print, it is likely the printer cannot keep up. Try lowering the speed. You could also try lowering the print resolution if you need to print at faster speeds.

Media will not load

- Make sure the edge of the media is not damaged.
- Make sure the media is not severely curled. Media near the end of a roll on a 3-inch core will sometimes not load. Flatten the media to load.
- Make sure the guides have been adjusted so that the media glides through them. Lock the guides into place.
- Make sure there is not media already loaded in the printer, perhaps near the exit.

Printer does not detect media

- Make sure Mark/Gap sensing is set to Auto and Brightness is set above 80. Touch the Settings icon and then Device Settings to find Mark adjustment. If needed turn the Brightness level up.
- Make sure the printer is in the *Printer Ready* state. Remember that the printer takes about two minutes to boot up.

Printer prints at wrong speed

- The printer may be printing at a slower speed due to the complexity of the log.
- The Speed override might be checked. Touch the Settings icon and then go to Print Settings->Print Speed to check the Maximum Sprint Speed override.

Width or Length is not correct

- The correct page size has not been selected. Check the selected Paper Size in the driver. Make sure the width matches the width you expect. Make sure the length matches the length you expect and that the gap has been properly accounted for

Print is too dark/Print is too light

- Use the Printer Driver to adjust the amount of ink placed on the media.

Print disappears from Job Queue

- Make sure the printing application has not run out of memory. Adobe Reader has been found to occasionally produce 0 size print files.

- Try reprinting the file. Try rebooting the printer. If the problem persists contact NeuraLabel support.

Print prints blank pages

- Make sure you have not selected marks for gapped media with no marks. Make sure you have not selected gaps for marked media with no gaps.
- Make sure if you have marked media that the marks are face down and Black Mark is selected.
- Check to make sure there are no unwanted overrides on in the Print Parameters section of the Operator Panel.
- Check to make sure there are no unwanted Printer Features selected in Settings->Printer Features on the Operator Panel.

Print prints on every other label

- Most likely the page has been defined with a length too long such that the gap is out of specification for the printer. Try reducing the page length or shrinking the page using the driver setting.

Printer is unresponsive, status says *Printing* with no activity

- First make sure there are not jobs in the print queue. Then try resetting the printer. On the operator panel touch the Support Tools icon. Then select Advanced and Reset Printer. The printer will take a few minutes to reboot.

Label is Stuck in Printer

The Callisto printer has been designed for easy removal of stuck labels and related materials. If it is determined that a label is stuck inside the printer, an operator panel routine can be run to access the print zone for direct remove of the label. This routine moves the printhead into a position where both it and the printer floor are easily accessible.

Once the label or debris has been removed, you may wish to manually clean the printhead. A printhead cleaning kit has been developed by NeuraLabel and is currently available by request. Please contact NeuraLabel support for further assistance. It should be possible for users to remove stuck labels with phone support from our technical staff.

Printing copies from Microsoft Word gives Trouble

When generating copies, Microsoft Word may create a large file with multiple copied pages, instead of a small file with a single page and a copy count flag. This is an oddity of Microsoft Word, but a workaround exists. If this occurs, set the Word print dialog to use *Uncollated Copies*, even if the copy is a single page. A single file with a copy flag will be generated and print performance will greatly improve.

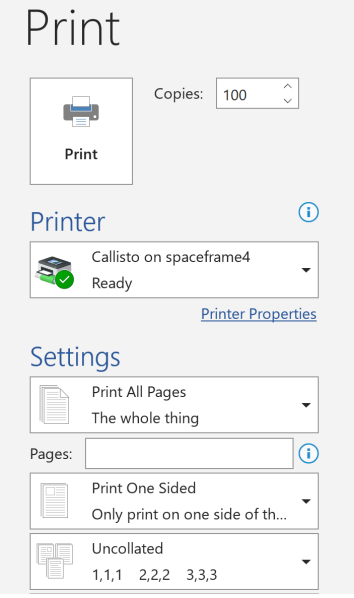


Figure 11-1. Printing from Microsoft Word

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