Image Polarity

Overview

Image Polarity allows the user to invert (or reverse) the image data. For grayscale images, reverse polarity maps black to white, and vice-versa. The polarity feature also applies to color images, mapping colors to the complementary color.

Description

Image Polarity is implemented as an extension to the Gamma setting. Negative Gamma values indicate that images received by the printer should be inverted. When a negative Gamma value is set either through the Front Panel or via User/Job Preferences from Logical Device 0, the printer will first invert the image, then apply the Gamma setting as if it were a positive Gamma value.

Example:

If Gamma is set to -2.5 and the original image received by printer is:



The printer will first invert the image. (Note: the image is very dark after inverting).



Then apply a Gamma correction of 2.5.



The Gamma is always applied as a positive Gamma correction. In this example, the 2.5 Gamma lightens the image which produces the desired final output.

Considerations

The image polarity feature was primarily added for medical applications which print grayscale images on either film or paper. It will work for all media types and images.

The polarity setting <u>only</u> applies to images which are received by the printer when a negative Gamma value is specified. This applies to all logical devices on the printer.

Image polarity does not affect special settings such as VMF or FMF commands which define the canvas, cell or fill color. Those items will not be inverted. Only images received by VMF or FMF when a negative Gamma value is set will be inverted.

Captions will not be inverted on any prints that are made when a negative Gamma value is set. The exception is when a caption is received while a negative Gamma in specified, it will be inverted and all subsequent prints will have the inverted caption regardless of the Gamma setting at the time.

Specifying a Gamma value of -1.0 will only invert the image, and not apply any Gamma compensation to the image data. This is consistent with a Gamma value of 1.0 which leaves the original image data uncompensated.

The current Gamma setting can be viewed by running the **stat** command from a telnet session, or by creating a test print using the **T1** key from the front panel.

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