



EKPrint Studio

**Apparel Printing Software
(RIP Program Manual)**

User Manual

Ver. 2.0

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I. Installation

Close all programs and begin at the Microsoft Windows desktop.
Insert the EKPrint Studio installation CD into your CD-ROM drive.
The EKPrint Studio startup windows will appear.

Note: If the startup window does not automatically appear, you will need to start the setup manually as follows.

*Select **Start->Run** from the Microsoft Windows desktop and click **Browse**.
Locate your CD-ROM driver and click once to open it.
Double-click the **Setup.exe** file.*

Follow the on-screen instructions.

II. Getting License

A valid license file is needed to run EKPrint Studio software. Without a valid license file, EKPrint Studio will run under evaluation mode for 30 days. After 30 days evaluation period, the print capability of EKPrint Studio will be disabled. The following steps show you how to get a license file.

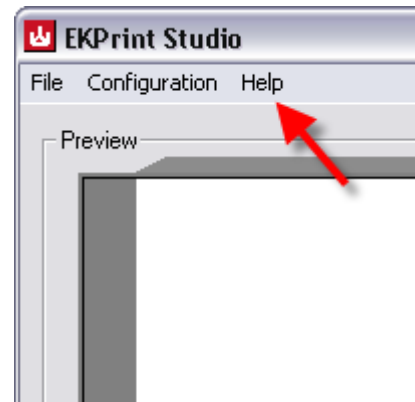
A. For PCs that are connected to the Internet:

After install EKPrint Studio software and the AnaPrint driver, Start the EKPrint Studio program, click on **OK** button to skip the license reminder. Then click on the dialog menu **Help->Product Activation**.

Click on the **OK** button, fill in the information in the License Request dialog. Note: **The product serial number is printed on the back cover of the installation CD.**

Click the **Request** button.

After the licensing process finished, exit EKPrint Studio program and then restart the EKPrint Studio.



B. For PCs that are not connected to the Internet:

1. After install EKPrint Studio software and the compatible printer driver, Start the EKPrint Studio program, click on **Help->MAC address** to get the MAC address of the PC.

2. On a separate computer that is connected to the internet, visit www.eukondigital.com or send email to license@eukondigital.com to file a license request with following information.
 - a. Name
 - b. Company Name
 - c. EKPrint Studio Serial Number (**On the back cover of the EKPrint Studio installation CD**)
 - d. Phone
 - e. Email (**Your email address, the license file will be emailed to this address**)
 - f. Network card Information (The MAC address information you have collected in step 1. above)

A license file (license.txt) will be generated and emailed back to you.

3. After receiving the license file, Start the EKPrint Studio program, click on **Help->Product Activation**.

Select **Install license file**

Browse to the license.txt file you have received and click on the **OK** button.

- 4) Restart the EKPrint Studio program.

III. Opening a File

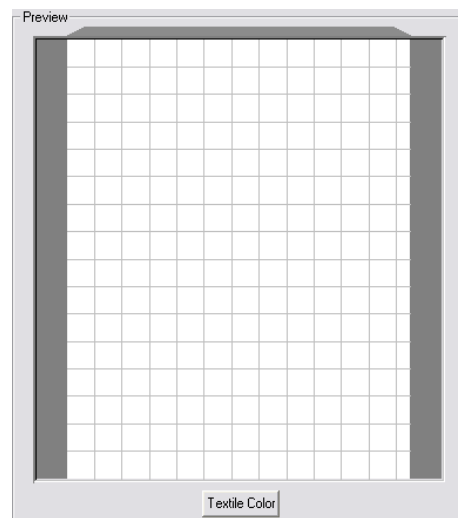
A. Supported File Types

EKPrint Studio supports the following file types: TIFF (.tif), GIF (.gif), JPEG (.jpg), PNG (.png), EXIF (.exif) and BITMAP (.bmp) [Note that TIFF or PNG files are most commonly used for dark garments, because TIFF and PNG files support transparencies.]

- B. To open a file, click the open button and browse to the file you would like to open. Alternatively, you can simply drag files into the preview screen.

IV. Scaling and Positioning an Image

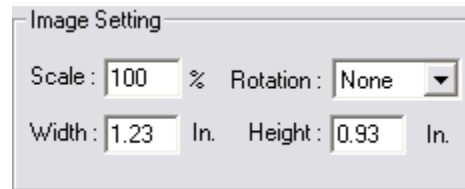
All adjustments to files position are shown in the preview window. This preview window represents the print table. The lip shown at the top represents the top triangle of the print table.



A. Scaling Print

A print can be scaled in three ways

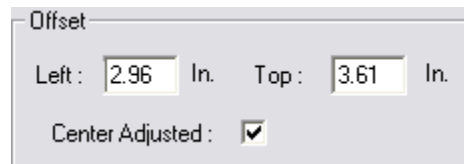
1. Using the “Scale” control changes the size of a print as a percentage of the digital image size.
2. Using the height or width controls sets a specific height or width. [Note that the ratio is fixed. If a user adjusts one value the alternate value will be automatically adjusted. Also note that the RIP does not distinguish between printable and transparent areas when listing an images scale or position.]
3. Clicking and dragging from the corner of an image in the preview screen will increase or decrease the size of a print.



B. Positioning an Image

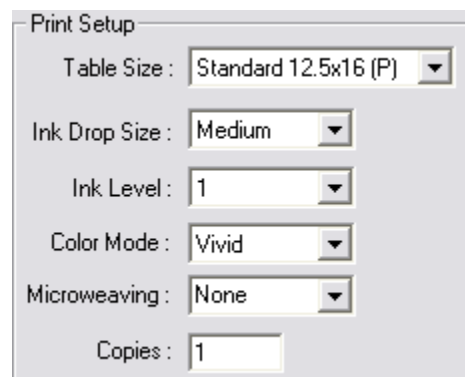
Positioning has several options

1. An image can be dragged around the preview screen. [Note that if snap to grid is enabled, it will influence this behavior. Snap to grid is described in detail in the Grid section on page 14.]
2. A print can be positioned to specific measurements by entering values into the Offset controls. The Center Adjusted checkbox will automatically be enabled. This checkbox returns the print to the center of the preview window and print table. Most tshirts look better when positioning of the image closer to the top of the preview window rather than at the center. [Note that the offset can be entered in two options: Center Based and Left Top Based. This option is described in more detail in the Axis Origin section on page 14 of this manual.]



V. Print Setup Pane

- A. Table Size: This refers to the size of print table installed in the printer. The table size also selects portrait or landscape printing. The table sizes are marked with a (P) or (L) respectively.



Portrait will position prints vertically, and landscape will prints horizontally.

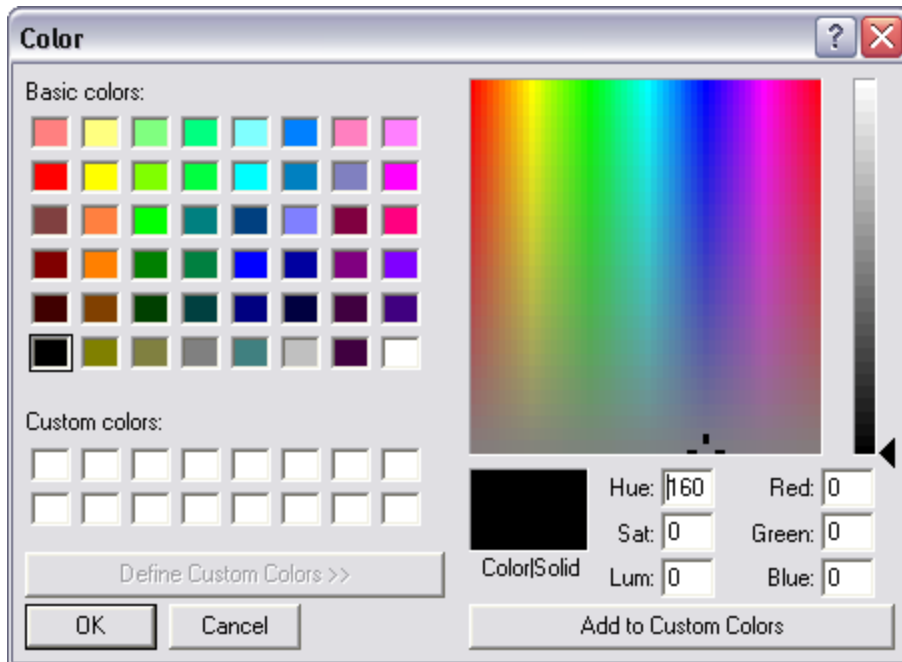
- B. **Ink Drop Size:** This refers to the size of the Ink Drop being used. A larger drop will give more ink saturation, while smaller drop will give more detail.
- C. **Ink Level:** This refers to the number of passes the printhead will do on the same line before the table moves forward. This control works together with Ink Drop size to control the amount of ink saturation. The higher the ink level, the more ink saturation will seen in a garment.
- D. **Color Mode:** Different color modes change both color profiles and dithering routines. EKPrint Print Studio's internal color profiles control the shades, tints, hue and saturation of printed colors. Dithering routines are the patterns of ink drops that are applied to substrates. [Note that color modes with stochastic dithering routines will have smoother gradients, and better simulation of photographs. Individual ink drops may appear more distinct when printed using stochastic dithering routines. Color modes using regular dithering routines will provide excellent solid colors and very small distances between individual ink drops that cause colors to appear more homogenous.]
 - 1. **Vivid:** This color mode generates artificially vibrant color values to give a lot of intensity. Note that this is not the most accurate color. (Stochastic Dithering Routine)
 - 2. **Graphics:** This color mode is highly accurate color, but does not have the same visual impact of the Vivid mode. (Stochastic Dithering Routine)
 - 3. **Photo:** This mode gives high quality flesh tones. [Note that this mode bypasses the Ink Drop Size control] (Stochastic Dithering Routine)
 - 4. **Black/White:** This mode prints only from the K black ink channel and redefines colors into grayscale. [K black may not seem as intense as the processed black of the Vivid mode](Stochastic Dithering Routine)
 - 5. **Text:** This mode is for solid colors particularly in the pastel range. It will give even tones and avoid speckling in the lighter shades. [Note that ink drops will be placed very close together, but gradients will not appear smooth](Regular Dithering Routine)
 - 6. **Text1:** This mode is very similar to Text; however, Text1 creates slightly smoother gradients and prints ink drops slightly further apart than the Text mode. (Regular Dithering)

7. **White:** This mode prints only in white ink. [Note that this mode operates in an inverse grayscale, so anything that is pure black will be printed pure white] (Stochastic Dithering Routine)
- E. Microweaving:** [Note this is a very subtle adjustment that can slow printing speeds significantly]
1. None: The None setting disables microweaving.
 2. 0: The zero setting causes the printer to print with microscopic gaps within printed areas, which are filled in on the following pass of the printhead. [Note that setting 0 has a tighter weave pattern than setting 1.]
 3. 1: The one setting causes the printer to print with microscopic gaps within printed areas; these missing areas are filled in on the following pass of the printhead. [Note that setting 1 has a looser weave pattern than setting 0.]

VI. Textile Color Button:

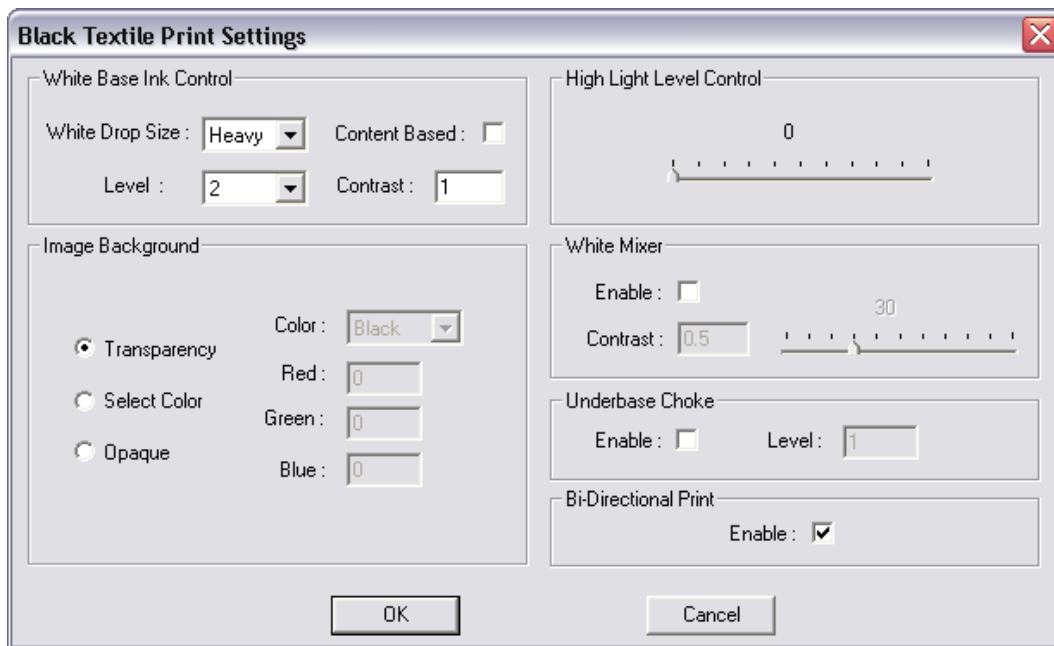
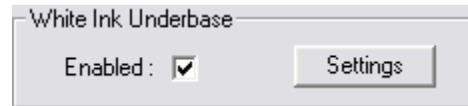
Located below the preview pane; the textile color button allows a user to preview differently colored backgrounds. You can select a default color, or you can select a custom color. This feature only affects the preview screen: printing will not be changed in any way.

- A. Custom colors can be defined by RGB value; Hue, Saturation and Luminosity controls; or by the Graphical Color Finder and Luminosity bar.



VII. White Ink Underbase

This feature allows for printing on dark garments and is not necessary for light garments. Enabling the checkbox will make the printer print a white ink underbase



before printing CMYK ink. If the Settings button is pressed, the Black Textile Settings window will appear. From this window a user is able to control all the settings for white ink.

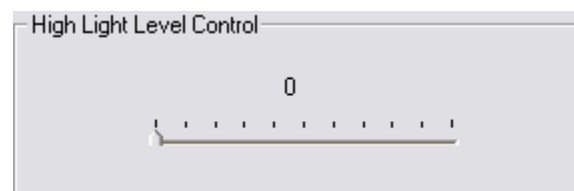
- A. White Base Ink Control: This pane is the primary control for you underbase. These controls are independent of the color ink controls.
 1. White Drop Size: This adjustment controls the size of the ink drop for the white underbase. The options for White Drop Size are Heavy, Medium, Light or Normal. Most commonly Heavy or Medium are selected, unless a distressed or specialty look is trying to be achieved. Selecting Normal can cause the underbase ink drop size to match the ink drop size of the CMYK ink controls. If the CMYK Ink Drop Size is set to Heavy, and the White Drop Size is Normal, then both the white and CMYK inks would print with Heavy ink drops.

2. Level: This adjustment controls the numbers of passes of the printhead the printer will do on the same line during the printing of an underbase.

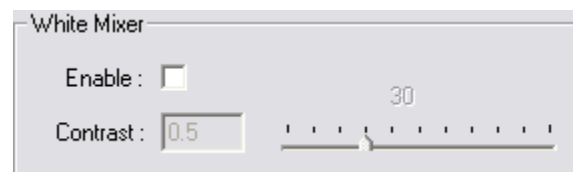


3. Contrast: This adjustment controls the level of fade in transparent gradients. The minimum value is 0.01 and the maximum value is 5.5. [Note the contrast function changes when the Content Based checkbox is checked]
4. Content Based:
 - a. If unchecked, an even underbase will be printed under all colors.
 - b. If checked, the underbase will be printed with more white ink under lighter colors and with less white ink under darker colors.
 1. Contrast: When content base is selected, this controls the amount of variance between areas that will receive the most amount of ink in a content based underbase and the least amount of ink the same underbase. The higher the value the less amount of ink the dark areas will receive and the more ink the light areas will receive proportionally. The minimum value is 0.01 and the maximum value is 5.5. [Note the contrast function changes when the Content Based checkbox is unchecked]

B. High Light Level Control: This controls the amount of white high light. If used, this causes the printer to print more white during the color printing, but exclusively in white areas of the design. [Note that white high light is influenced by the Ink Drop Size and Ink Level of color settings, rather than just the underbase settings]



C. White Mixer: This control allows a user to mix white ink into their colored inks during printing. This will lighten the shade of the colors. I.E. A red will look pinker and a blue will look more light blue. The Contrast controls the variance between the dark

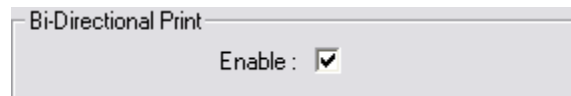


colors that receive the least amount of White Mixer and the light colors that receive the greatest amount of White Mixer. The minimum contrast level is 0.1 and the maximum contrast level is 1.5. The overall adjustment for the amount of White Mixer is controlled by the corresponding slider bar. The minimum value is 0 and the maximum value is 100. [Note that this feature is designed to compensate for the optical effects of dark backgrounds]

- D. Underbase Choke: This control compensates for swelling of garments due to wet ink. The wet white underbase can cause garments to swell. This swelling can result in the underbase spreading out wider than the top color layer. Underbase choke reduces the underbase from the edges by the number of pixels entered into the field. The possible values are integers from 1 to 20. The higher the value the farther underbase will be reduced from the edges. [Note that since this control is pixel based, higher resolution files may require a higher setting than lower resolution files.]

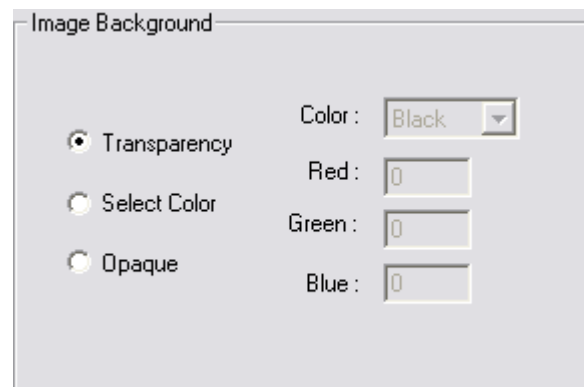


- E. Bi-Directional Print: This enables bi-directional printing of white underbases. Bi-directional printing means that the printer will print in both directions: left to right and right to left. [Note that some users use unidirectional printing to slow down the printing process to allow extra time for the drying of the underbases before the printing of CMYK ink.]



- F. Image Background: This control allows users to define areas of the file that when printed remain the color of the garment, this means that these areas within the image file will receive no ink during the dark shirt printing process.

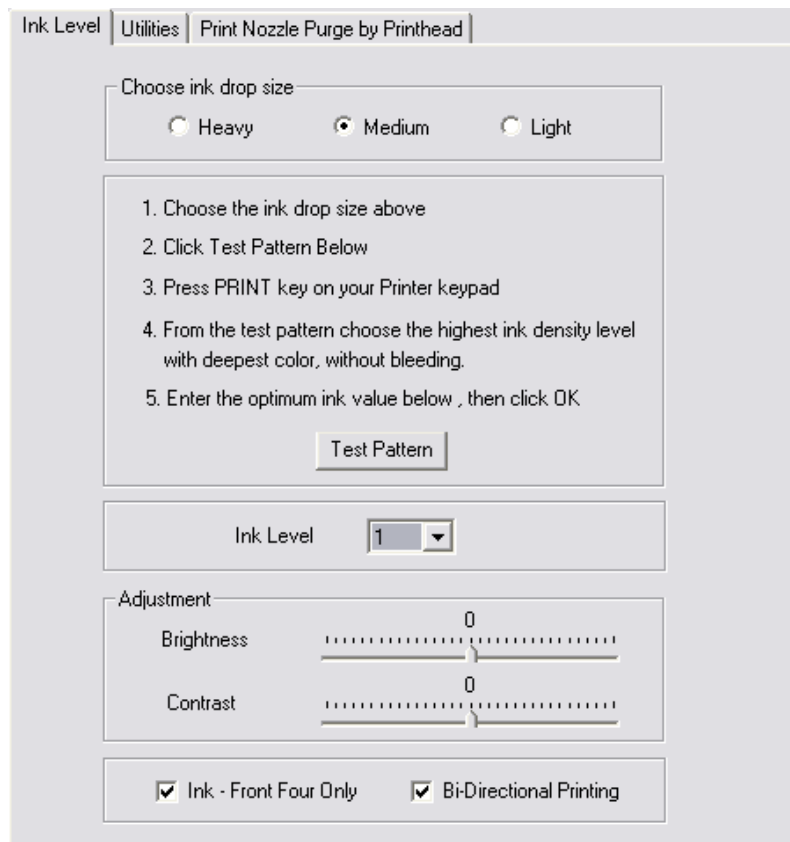
1. Transparency: When selected, the transparent areas of an image will not print. [Note that your file type must support transparencies] (This is the preferred method for preparing images)
2. Select Color: When selected, this allows a user to select a specific RGB value to not be printed. [Note that if this is used with a file that has transparent areas, those areas will be replaced with black.]



3. Opaque: When selected the entire rectangular area of the file will receive ink. An example would be a box of the background color of the image will be printed. [Note that this is the default setting for file types that do not support transparencies.]

VIII. Ink Setting Button


[Note that the following portions of the manual are no longer referring to the white ink settings.]



From the ink settings button users gain access to three tabs: Ink Level, Utilities and Print Nozzle by Printhead.

A. Ink Level Tab

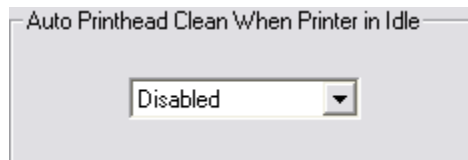
1. Choose ink drop size: This allows you to select the size of the ink drop used to print the color pass, but not the underbase. A heavier ink drop will give more coverage, and a lighter ink drop will detail. The same function can be accessed through the print setup pane mentioned on pages 5 and 6 of this manual.

2. Test Pattern:  This will print a test pattern at the assigned ink drop size at five different ink levels. This can help users choose the correct setting for a given type of garment. The optimal setting for light garments is the most amount of ink before images start to bleed.
3. Ink Level: This controls the number of passes the printhead will do on the same line before the table will move forward. [Note that the same function can be accessed the print setup pane mentioned on pages 5 and 6 of this manual.]
4. Adjustment
 - a. Brightness: This adjusts how light or dark the light sections of an image will print. To the left will darken and to the right will lighten. [Note that this adjustment is relative to the overall amount of ink being put onto a given textile]
 - b. Contrast: This adjusts how light or dark the dark sections of an image will print. To the left will darken and to the right will lighten. [Note that this adjustment is relative to the overall amount of being put onto a given textile.]
5. Ink – Front Four Only
 - a. The Ink –Front Four Only checkbox **should be checked** if the printer has four channels of CMYK ink and four channels of white ink.
 - b. The Ink –Front Four Only checkbox **should be unchecked** if the printer has all eight channels with CMYK ink, and a user wishes to print will all 8 channels at the same time. [Note that this setting is for printing exclusively light colored garments without white ink]

B. Utilities Tab

The utilities activated from this tab function the same way as from the driver and are listed in the general user manual with the exception of “Auto Printhead Clean When Printer in Idle”.

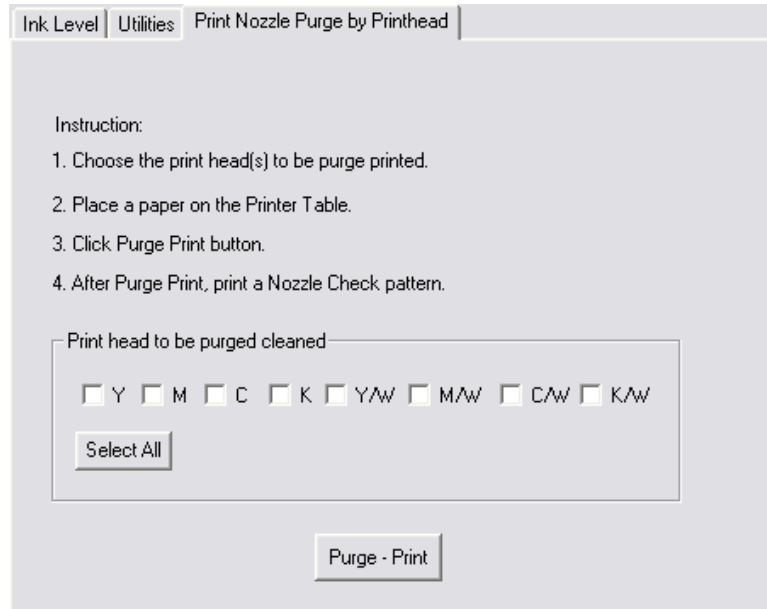
1. Auto Printhead Clean When Printer in Idle: This utility allows the RIP software to automatically perform printhead cleans without user



integration. [Note that the printer must be fully turned on, the computer must not be off or go to sleep and EKPrint Studio must remain open. Also note that this utility is not intended to be operated for more than three days, if the printer will be idle for more than three days, it is recommended that ink inside the AnaJet be replace with cleaning solution.]

C. Print Nozzle Purge by Printhead Tab

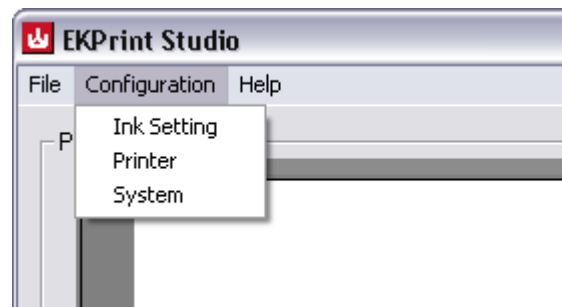
This utility prints a small amount from any single channel or combination of channels for the purposes of alleviating minor flow issues. [Often users will purge from the back four channels in order to purge overnight settlement of white ink]



IX. Configuration Menu

From the Configuration menu users can select Ink Setting, Printer, and System.

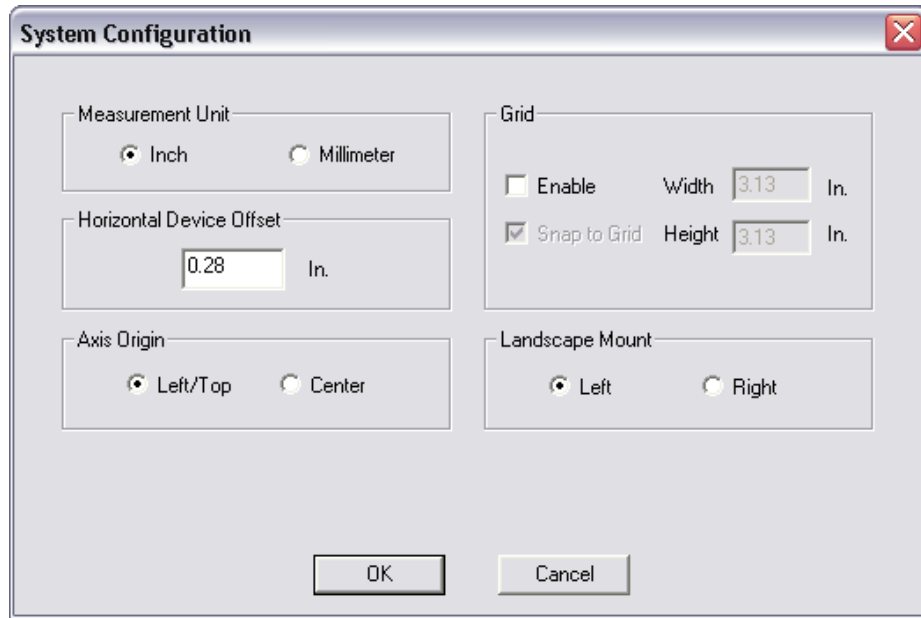
A. Ink Setting: This menu activates the same control pain as the Ink Setting Button described on page 11 of this manual.



B. Printer: This Menu selects the appropriate printer to be used with EKPrint Studio.

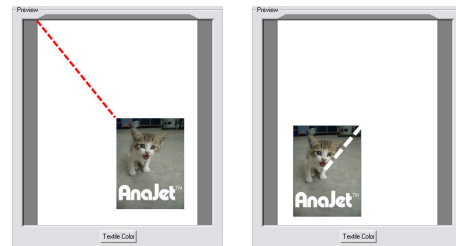
C. System: This menu opens the system configuration window.

1. Measurement Unit: This control allows users to switch between English and Metric measurement units.
2. Horizontal Device Offset: This finely adjusts the position of all prints in relation to the print table left to right by adjusting the zero point. This utility is normally only used when first setting up a printer.



3. Axis Origin

- a. Left /Top: Selecting this means that images will be offset based on the distance from the left top corner of the print table to the left top corner of the image file. This is the most common setting.



- b. Center: Selecting this means that images will be offset based on the distance from the center of the print table to the center of the image file. Some users prefer this setting for positioning of pocket drops, because it allows for placement a print based on the images center. [Note that center based offsets allow for negative values.]

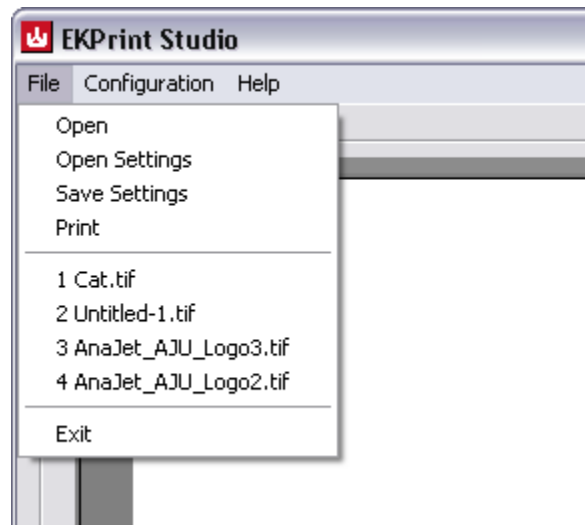
4. Grid

- a. Selecting Grid enables a gray grid on the preview screen.
- b. The Width and Height of the grid are independently adjustable once the grid is enabled.
- c. Snap to Grid: Enabling snap to grid will cause any image to move to the top left corner of the nearest grid square when being dragged with the mouse.

X. Save Settings

By opening the File menu and selecting Save Settings it is possible to save EKPrint Studio settings for later use.

- A. Notes can be saved within settings files.
- B. Settings files are stored with the extension EKS.
- C. If an image is open in the preview screen while saving settings that image will be associated with those settings. [Note that the image will load automatically once the EKS file is loaded.]



XI. Windows Vista Instructions

After installation in Vista please follow these steps.

1) Open the directory EKPrint is installed within. Most likely this will be c:\Program Files\EUKON DIGITAL, inc\EKPrint Studio.

2) Right Click on EKPrint Studio.exe



3) Select Properties.

4) Click the compatibility tab and check the run as administrator checkbox.

XII. Basic How To & Recap

How to print a white or light colored garment

- Click open and browse to the file you wish to print.
- Select the size the image will print.
- Place the image into the correct position. The most common setting is horizontally centered, and one inch from the top of the printable area.
- Select the correct Ink Level and Ink Drop Size for your garment. The most common setting for T-shirts is Ink Level 3 and Ink Drop Size medium.

- Select the appropriate Color Mode for your image type. The most common color mode is Vivid.
- Press the onscreen print button to send the job to the AnaJet printer.

How to print on a Black or Dark garments with white ink

- Click open and browse to the file you wish to print.
- Select the size the image will print.
- Place the image into the correct position. The most common setting is horizontally centered, and one inch from the top of the printable area.
- Select the correct Ink Level and Ink Drop Size for your garment. The most common setting for dark T-shirts is Ink Level: 2 and Ink Drop Size: light.
- Select the appropriate Color Mode for your image type. The most common color mode is Vivid.
- Find “White Ink Underbase” and check the Enabled check box. This will cause the printer to print white ink as underbase prior to printing CMYK.
- If you would like to adjust your white ink controls, click the Settings button. The most common setting is Level: 2 and White Drop Size: heavy.
- Press the onscreen button to send the job to the AnaJet printer.

