

Understanding TROY’s Flash-File Feature

TROY Security Printing Solutions contain a non-volatile flash-file system that can be used to store printing resources (company logos, forms, macros, etc.). TROY MICR Secure printers, MICR Secure *EX* printers, and MICR Secure DIMM/Memory Card Kits have a flash-file system that is divided into a *secure* and *public* memory area. Digitized signatures, logos, and other proprietary printer resources are typically stored in the *secure* area of the flash-file system to prevent unauthorized access to these resources. If user names and passwords are set up by the administrator, each user must log in to the printer using a valid user name and password to obtain access to these secure resources.

Public resources, such as commonly used company logos, forms, macros, or other non-proprietary printer resources, can be stored in the *public* memory area of the flash-file system for access by all users without requiring valid user login. All TROY Security Printing Solutions (except the MICR Font DIMM/Memory Card Kit) contain a public flash-file system.

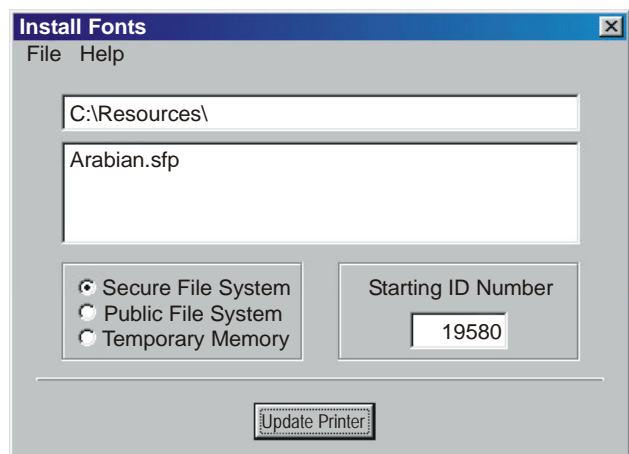
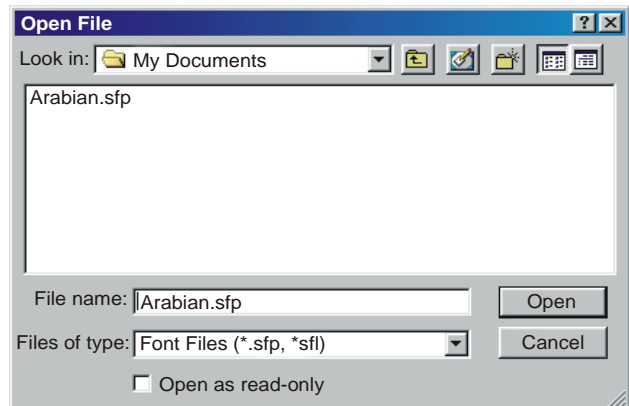
By entering a valid administrator password, the administrator can use the TROY Printer Utility to add or delete these resources from the secure and/or public memory areas of the flash-file system.

NOTE: Resources stored in the printer’s flash-file system will remain resident even when the printer power is switched OFF.

NOTE: Only “clean” PCL macros can be saved and executed from the flash-file system. The macro cannot contain any PJL (Printer Job Language) or Esc E (reset) commands. If a macro was created in Windows by printing to a file using a PCL 5e printer driver, then you must open the macro file in a Hex editor and manually remove all PJL and Esc E commands before the macro can be used with the printer. Please refer to the Hewlett-Packard PCL (Page Control Language) manual for additional information.

TO ADD PRINTER RESOURCES:

1. From the **Main Window**, click on **Resources**, and then click on **Install New Resources**. Select either **Fonts** or **Macros/Forms**.
2. Click on the desired font or macro/form file(s), and then click on **Open**. The selected file(s) will be displayed in the installation screen. Choose either **Secure File System** or **Public File System** to load the selected file(s) in the desired memory area of the flash-file system. A **Starting ID Number** will be automatically generated for each file loaded into the flash-file memory.
3. Click on **Update Printer** to send the printer resource file(s) to the printer. Click on **OK** to finish.



Using TROY Digital Image Fonts for Microsoft® Windows™

The TROY Digital Image screen fonts are **not** displayed as the actual digital image. The screen fonts are displayed as text (a generic font is used). By entering the pattern of characters, supplied on the **TROY Digital Image Data Sheet**, the image is generated from within the printer's resident fonts. This feature was developed to prevent unauthorized printing using the digital image screen fonts on other Windows-installed printers. The pattern of characters can be used to simulate the size and spacing of the digital image.

1. Review the **TROY Digital Image Data Sheet** for the section labeled **Windows Support Information**, and note the **Font Name** and **Point Size**. Also, take note of the **pattern of characters**. Remember, this pattern is used to generate the digital image.
2. Launch a Windows-based application.
3. From the Windows application, access the font (typeface) list, and select the font name as noted from the **TROY Digital Image Data Sheet (Font Name)**.
4. Select the correct point size as noted from the **TROY Digital Image Data Sheet (Point Size)**.

NOTE: Using another point size will not increase/decrease the size of the digital image but will distort the image spacing (white gaps within the image will appear). Remember, the digital images are fixed in size and are **NOT** scalable.

5. Enter the **pattern of characters** found on the **TROY Digital Image Data Sheet**. Once again, this pattern is used to generate the digital image. Example: abcdef
6. Print the Windows document. Remember, the image on the screen is displayed as text but the digital image will be generated when printed to the TROY Security Printer.

Programming TROY Digital Images (non-Microsoft Windows)

- Please have the TROY Digital Image Data Sheet available for this process. Information from this documentation will be needed to complete the installation.
- As explained above, the digital images are stored as a font (Hewlett Packard format); therefore, the images are selected in the same method as other printer-resident fonts. This requires some basic programming knowledge of HP PCL 5e (Hewlett Packard Printer Command Language). The programming information provided in this document will provide the necessary information for selecting, positioning, and printing the digital images. For further information on programming HP PCL 5e, please obtain the Hewlett Packard PCL / PJP Technical Reference Bundle. This set of documentation can be purchased directly from Hewlett Packard.
- Commands within PCL begin with the non-printable escape character (ASCII 27 / HEX 1B). For this document, the escape will be represented as **<esc>**.

Using TROY Digital Image Fonts (non-Microsoft Windows)

1. Review the **TROY Digital Image Data Sheet** for the section labeled **PCL Image Selection Sequence**, and note the **pattern of characters**. This pattern is used to generate the digital image.
2. Send the **PCL Image Selection Sequence** to the printer. Remember to replace the <esc> character with the non-printable escape character (ASCII 27 / HEX 1B). This PCL command is a font selection command, which selects the digital image within the printer.
3. Position the printer's cursor (the printer has an invisible cursor, all dots addressable) to the desired area of the page. There are three methods for cursor positioning; decipoints, rows/columns, and PCL units (dots). PCL units are used for this example. The PCL units are usually defined at 300 DPI (Dots Per Inch) but may vary. Experimentation may be necessary for your application. To position the cursor, calculate the desired X (horizontal) and Y (vertical) position for the image placement. For this example, the values are in PCL units (dots); therefore, if the units are set to 300 DPI, 1 inch = 300 dots. The following PCL positioning command will move the cursor 6 inches horizontally from the left edge of the logical page (6 x 300 = **1800**) and 3 inches vertically (3 x 300 = **900**) on the page. The command is: **<esc>*p1800x900Y**.

The difference between horizontal and vertical positioning is that the horizontal value originates from the left-edge of the logical page, but the vertical positioning value originates from the top margin, which can be adjusted. Therefore, if the top margin value is changed, the image will shift vertically. The printer also supports the print and space method of printing, which means the printer's cursor will move when it receives control codes such as a space bar, carriage return, line feed, etc. With this in mind, if you create a PCL positioning command, the text/data must immediately follow the command. If the positioning command is sent separately followed by a carriage return/line feed, the cursor will now move to the next row and first column, resulting in the loss of the desired position.

4. Enter the **pattern of characters** found on the **TROY Digital Image Data Sheet**. Once again, this pattern is used to generate the digital image. Example: abcdef. If the pattern of characters is more than one line, you must enter a separate position call for each line of characters.
5. Print the document. A standard form feed may be used, or send the PCL command <esc>&I0H (prints the current page).

Programming Example for TROY Digital Image Fonts (non-Microsoft Windows)

<esc>(201Q<esc>(s0p2h72v0s0b201T	' select the Digital Image.
<esc>*p1800x900Yabcdef	' cursor position followed by the pattern of characters.
<esc>&I0H	' print the current page.

Obtaining Technical Assistance

If you experience any difficulties with the installation process, call TROY Technical Support at (800) 332-6427, 8:00 AM and 8:00 PM, Monday through Friday, Eastern Standard Time. Customers outside the United States, please call (304) 232-0899.