

## Overview

Files that need to be copied into the Flash File System or SD Card within the printer can be done effectively through the following menu sections:

- **System > Flash File Edit** Copy items from SD cards or USB drives to Flash
- **System > SD File Edit** Copy items from Flash to SD cards
- **System > USB File Edit** Copy items from Flash to USB drives

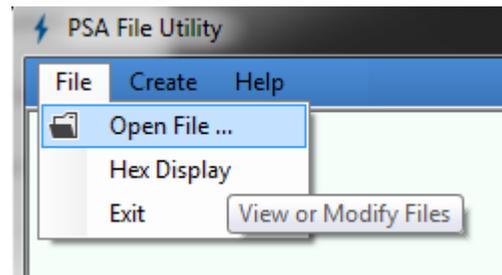
This method treats the files only as general files, accessible by the emulations as necessary. In situations where the files have dedicated or special purposes, files need a header added to the file before being sent to the printer. This header will contain the following information:

- The name of the file as it will appear in the printer File System
- The properties of the file (used to specify specific purposes)
- The target hardware the file should be used on (typically all hardware)

This document describes how to use the **PSA File Utility** to add a proper header to the target file for download into the printer.

## Open the Target File

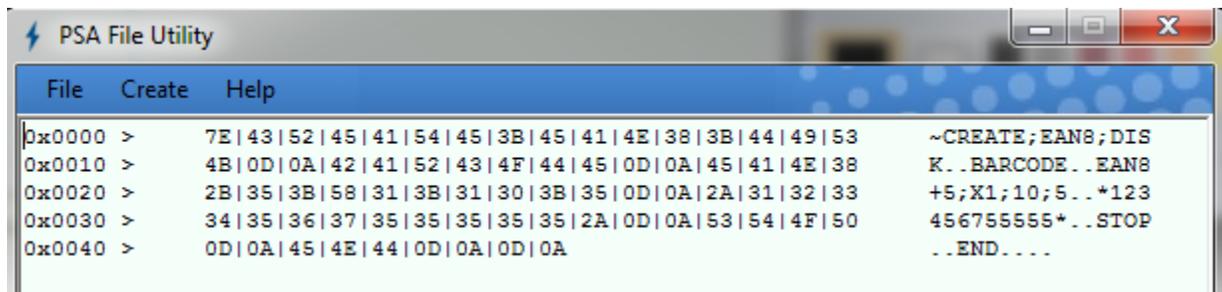
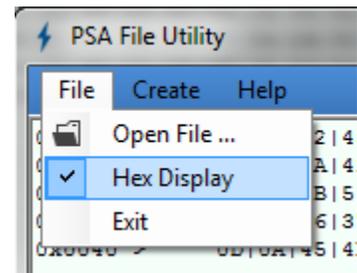
The PSA File Utility is not an editor, so opening files is for viewing the target file that will be transformed or examining the results after the conversion is done. Opening the target file is done with the **File > Open File** option as shown at the right:



## Examine the Target File

Once the file is opened, the contents will be shown in ASCII format. If the user enters an image file (BMP, PNG, or TIFF), the image will be shown instead (PCX images are supported but cannot be viewed).

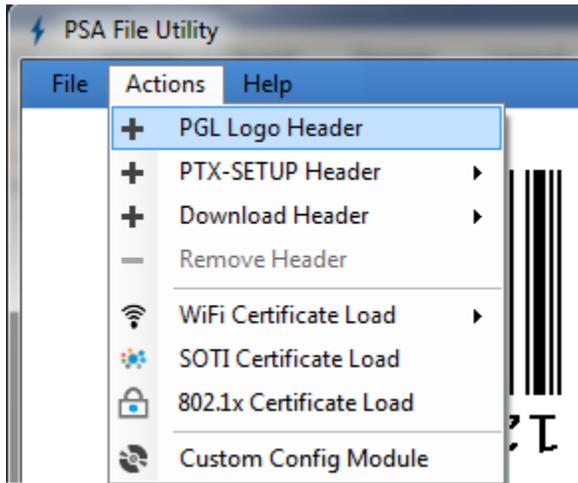
Users can also choose to view any file in Hexadecimal format by toggling the option **File > Hex Display** as shown to the right (the first 64K bytes).



Here is an example of loading a BMP image file with **File > Hex Display** disabled. Scroll bars will automatically appear for large images, allowing full inspection.



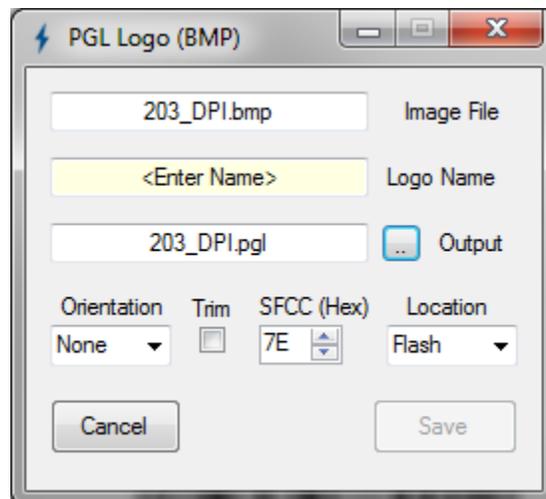
## Actions: Add PGL Logo Header



If a supported image file is loaded, then the **PGL Logo Header** option will be available. If any other file type is loaded, this option will be disabled.

This option is used to add the necessary PGL header and trailer around the image data so that the output file can be sent to the printer (while printer is online) which stores the logo into memory for later recall within PGL forms.

When **PGL Logo Header** is chosen, a dialog window will come up allowing the user to customize how the image will be transformed into a file that users can send to the printer when PGL is the active emulation:



### Image File

The image file is the name of the file that was opened. This is read-only and for reference only.

### Logo Name

The logo name is the name by which the image will be called out inside a PGL form definition. When defining a form, the LOGO command references a logo that was previously downloaded. The **logoname** in the format shown below would match the Logo Name in this dialog window. The logoname is limited to 8 characters and must match the requirements as specified in the [PGL Programmer's Reference Manual](#).

```
~CREATE;FORM;...
```

```
...
```

```
LOGO
```

```
SR;SC;logoname[:ROT] [:DISK]
```

STOP

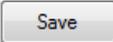
...

END

**NOTE:** When viewing files in the printer menu using **System > Flash File View** or **System > SD File View**, the logo will appear as **logoname.lgo** (the **.lgo** extension is reserved for PGL).

## Output

This is the name of the output file with the PGL commands added. The default name will be the prefix of the source file with a (.pgl) extension, but it can be changed by double-clicking on the text box or clicking the  edit button.

When all fields are valid, the Save button  will be available and will store the output file as selected here.

The output file is then sent to the printer like any other job. There is no need to put the printer into download mode. Once sent to the printer, the logo is stored in the proper place as directed by the **Location** selection.

## Orientation

This selection is used to specify the orientation of the source image. If you want the image to appear in the PGL form exactly as it is shown, then the default selection None is appropriate. However, if you want PGL to rotate the image as it is loaded, then select a rotation that reflects the source image.

**CW** Clockwise or 90 degree rotation to the right.

**INV** Inverted or 180 degree rotation.

**CCW** Counter Clockwise or 270 degree rotation.

Note also that within the LOGO command used in CREATE mode, you can rotate the image as well with the **ROT** parameter:

LOGO

SR;SC;logoname[;**ROT**] [;DISK]

STOP

## Trim

This is an option to have PGL trim out all whitespace surrounding the image when the output file is sent to the printer and PGL saves the logo to memory.

## SFCC

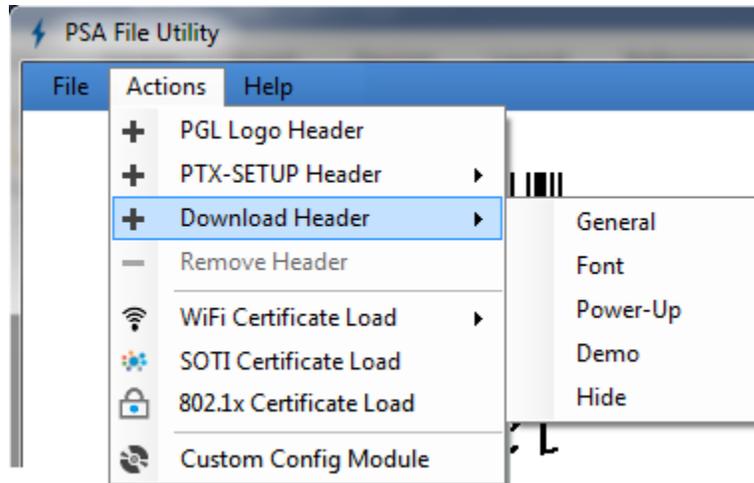
Since the output file is sent to the printer while online and PGL is the active IGP emulation, the SFCC used here must match what is set in the **Application > PGL Setup > Select SFCC** menu. The default here is the same as the default within the printer (~).

## Location

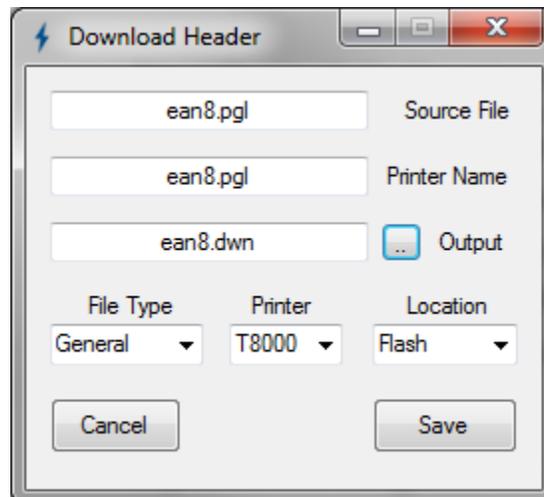
PGL Logos can generally be stored in RAM (lost upon power cycle), the (default) Flash File system, but users can also choose to store the file onto the SD card inserted in the printer.

## Actions: Add Download Header

After the file is loaded, users have the following choices under the Create section to add a download header to the target file:



When a selection is chosen, a dialog window will come up allowing the user to customize how the download header will be created:



### File Type

#### *General*

General files have no special properties and can be accessed by the system or by any emulation without restriction. These could be images or specific formats used by individual emulations.

#### *Font Files*

Font files should be either TrueType fonts (.ttf) or Intellifonts (.sf) that are recognized by the PSA Font System.

### Power-Up Files

Power-up files are emulation jobs that are executed at power-up or when the printer executes a soft reset. They must have a fixed name in the flash file system "SETUP.PTX". Uses for power-up files are typically loading form and logo templates into DRAM memory.

### Demo Files

Demo files can be used to load emulation jobs that can be executed using the **Tools > Print Tests > Run Tests** menu on the printer. The name of the file in the Flash File System will be the name that shows up under this menu. When executed, the printer will process the emulation job as if it was sent directly from the host system.

### Hide Files

Hides files can be used to load files that are hidden from users, meaning that while they are present for the system and applications to use, they will not show up in the **System > Flash File View** or **System > SD File View** menus.

### Source File

The source file is the name of the file that was opened.

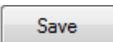
### Printer Name

This is the name of the file as it will appear in either the **System > Flash File View** or **System > SD File View** menu. For most File Types, users should limit the name to a maximum 12-character string (including extension). However, long file names up to 128 characters are accepted (including extension). By default, it will be the same name as the Source File name.

With some File Types, the File System Name is fixed and cannot be changed. This is because the printer will be looking for specific file names.

### Output

This is the name of the output file with the download header appended. The default name will be the prefix of the source file with a (.dwn) extension, but it can be changed by double-clicking on the text box or clicking the  edit button.

When all fields are valid, the Save button  will be available and will store the output file as selected via this selection.

The output file is then sent to the printer in download mode through any host I/O port. Download mode is entered when the printer is powered-up with the Left and Right soft keys are held down for the first few seconds of the boot process.



### Printer

This is the target printer for the file. For the most part, files created for download can be used on all different printer types. Fonts are an exception because some fonts are designed for little-endian printers and others for big-endian printers.

When newer printers such as the T800, T4000, T6000, or T8000 are selected, the properties of the file will be set for little-endian printers. Other selections for legacy products will use big-endian. For non-font files, this selection will not matter.

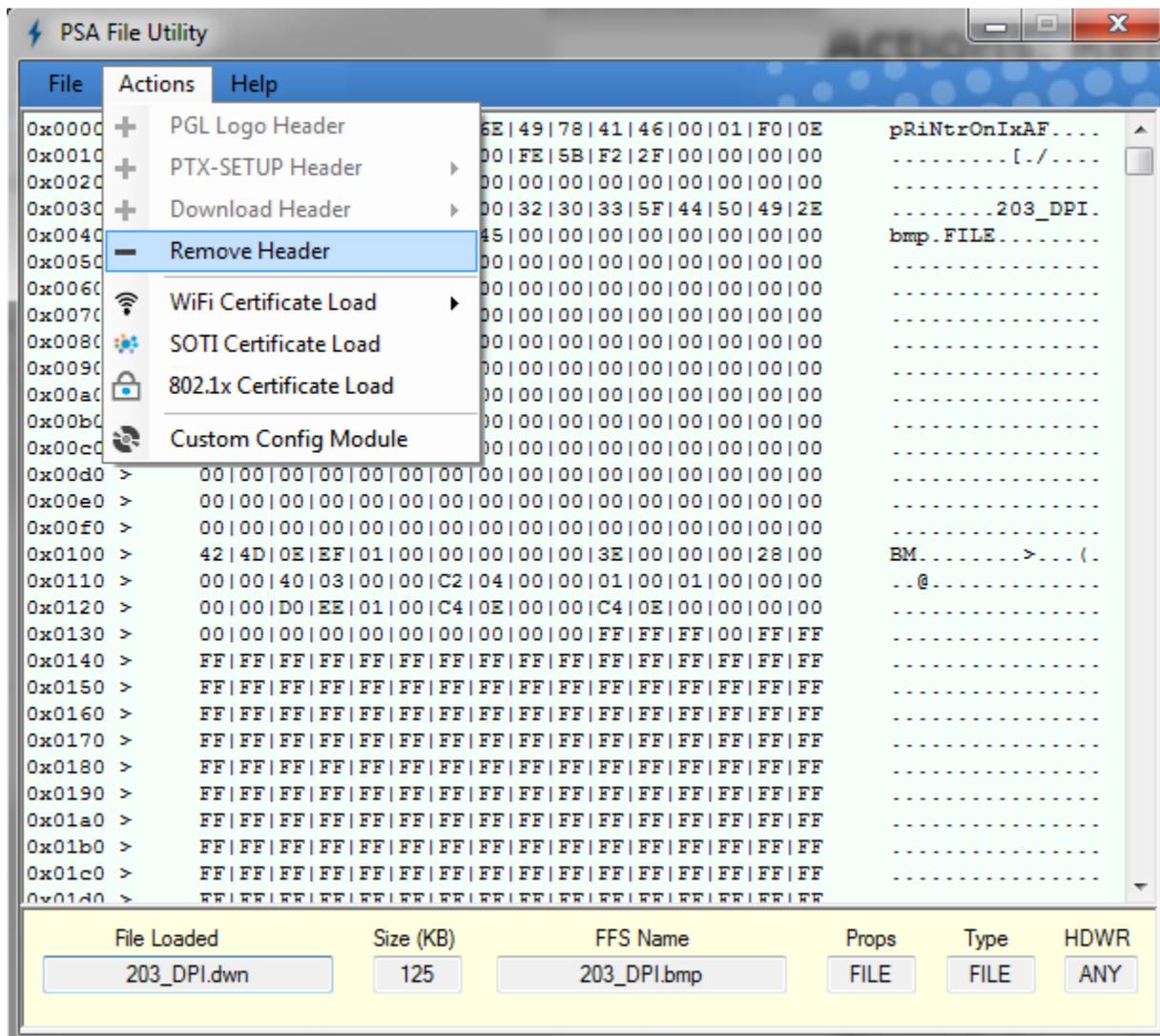
### Location

Files can generally be stored in the (default) Flash File system, but users can choose to store the file onto the SD card inserted in the printer.

With some File Types, the Location is restricted to Flash. This PSA File Utility will prevent users from changing this field in those cases.

## Actions: Remove a Download Header

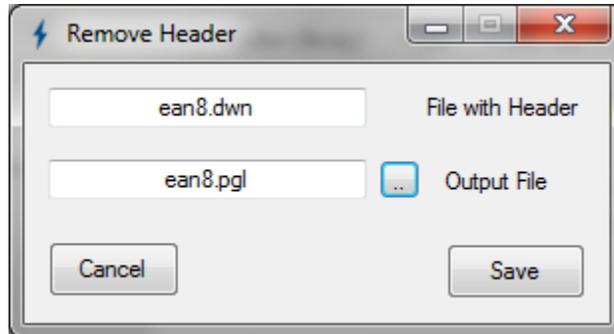
Users can also open files with Download Header and have them converted to their original Source Files if desired. The option **Remove Header** will only appear when a file with a Header is detected. Notice also the options to add a Header are not available either.

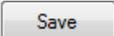


At the bottom of the **PSA File Utility**, the various key fields of the Header are also outlined:

- **FFS Name** Name of file in the Flash File System
- **Props** Properties Field
- **Type** Type of the Download File (typically FILE)
- **HDWR** Specific product or platform (typically ANY)

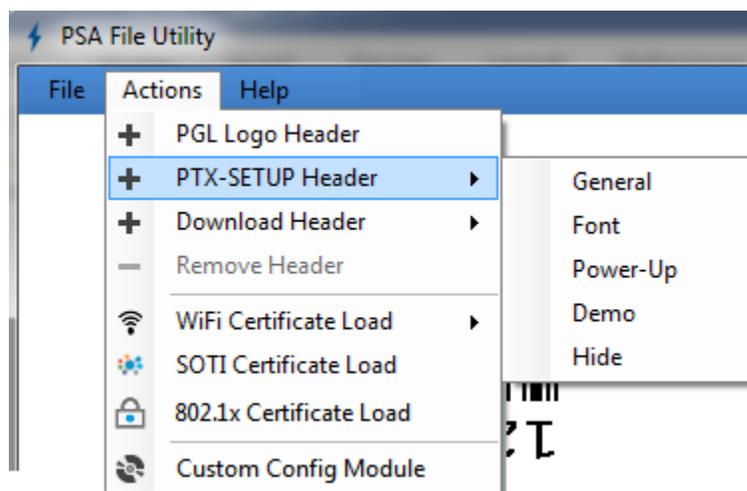
When the Remove Header option is chosen, a dialog comes up allowing the user to select an Output File as shown below:



Once the file (e.g., ean8.pgl) has been  saved, this file will be in its original state without the header or other modifications.

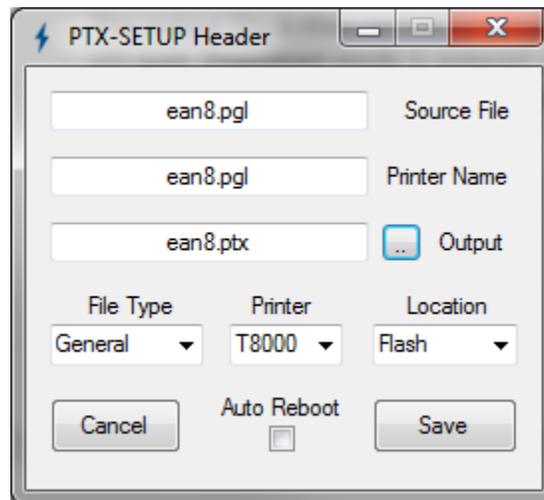
## Actions: Add PTX-SETUP Header

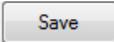
Creating a Download Header suggests that the printer must be in download mode to receive this file. However, there is an alternative method to load a file into the printer file system while the printer is Online using the **PTX-SETUP** commands:



From the PSA File Utility perspective, it works very similarly to how files are created with the **Download Header** option with the following differences:

- The Download File by default uses a (.ptx) extension because instead of a download header, the file data is encompassed in PTX-SETUP commands.
- An **Auto Reboot** option is available at the bottom of the window which forces the printer to reboot automatically after the file is processed. This might be useful for situations in which the user wants the file to be processed immediately (e.g., Demo or Power-Up).



Once the file (e.g., ean8.ptx) has been  saved, this file can be sent to any printer while Online like any other application or job and the file system will be updated.