

Plug-in's for PhotoShop 2.5 and 3.0 - Readme

Contents of the directory

This directory contains plug-ins for Adobe Photoshop, versions 2.5 and 3.0. This file contains a consolidated set of instructions for using the plug-in's. Most of these instructions are also applicable to Adobe PhotoShop 4.0 owners, with the use of the plug-in's in the directory "\3rdParty\Adobe\PhotShp4.0" of the Graphic Artist Tools CD-ROM.

TIMEXPE.8BE (version 1.2E) Export module for the DTL-H201. This allows you to create or edit files in Photoshop, and output the image directly to the DTL-H201 (Artist Board) for viewing on the screen. Indexed color and RGB color files may be output. Compatible for Adobe PhotoShop 2.5 and 3.0 users.

TIMFMTE.8BI (version 1.2E) TIM format module. Allows importing files with a ".TIM" file extension. Compatible only with Adobe Photoshop 2.5.

TIMformatE.8BI (version 1.3E) TIM format module. Allows importing files with a ".TIM" file extension. Compatible only with Adobe Photoshop 3.0

This software may not be transferred or resold to any third party. Reverse engineering of this software is forbidden.

Installation instructions

Adobe PhotoShop 2.5 users:

Copy **TIMFMTE.8BI** into the "PLUGINS" sub-directory, found in the directory that PHOTOSHP.EXE is located in.

Copy **TIMEXPE.8BE** into the "PLUGINS" sub-directory, found in the directory that PHOTOSHP.EXE is located in.

Adobe PhotoShop 3.0 users:

Copy **TIMformatE.8BI** into the sub-directory: Plugins\Formats

Copy **TIMEXPE.8BE** into the sub-directory: Plugins\Export.

Opening and saving TIM files within PhotoShop

Opening TIM format files

To open TIM format files, choose "File / Open..." from the menu bar, and select a file with the ".TIM" extension.

Saving TIM format files

Follow these steps to save to TIM formatted files:

1. In the "Save" or "Save As..." dialog box, select "TIM (*.TIM)" from the "File Format" list.
2. Enter an appropriate file name, and click "OK".
3. The warning message "Some picture information cannot be saved" will be displayed. Click "OK".
4. The TIM Format Output Options dialog box is displayed. The texture CLUT address and texture page address from the last file opened (or saved) remain saved.

The items on the dialog box are explained as follows:

Image data modes

Sets the PMODE of the TIM format file.

Set as follows according to the source image mode:

Indexed color: 4 bit or 8 bit CLUT

RGB color: 16 bit or 24 bit Direct

CLUT section

Sets the address (from the upper left) of the CLUT in VRAM.

You may set the width (W) and height (H) as follows:

4 bit CLUT: Width: 16 (fixed), Height: 1-16 (as need)

8 bit CLUT: Width: 256 (fixed), Height: 1 (fixed)

Pixel data section

Sets the address (from the upper left) of the pixel data in VRAM.

The image width (W) and height (H) is displayed, but cannot be changed.

Except black -> Translucent

In conversion to TIM format, sets the transparency control bit for pixels or CLUT entries other than those where the (R, G, B) values are set to (0, 0, 0).

As a result, these become translucent only in translucent mode.

(This check box is unchecked by default).

Black -> Transparent

In conversion to TIM format, clears the transparency control bit for pixels or CLUT entries where the (R, G, B) values are set to (0, 0, 0).

As a result, black becomes transparent, regardless of translucency mode.

(This check box is checked by default).

Cancel

Cancels the save operation.

Default

Sets the standard addresses for the CLUT section and Pixel data section.

This operation cannot be undone.

OK

Saves the image data as a TIM format file.

Important Notes

- The TIM format, except when in 24 bit mode, has a bit for transparency control, but this is not supported by Photoshop. Therefore, when files are imported into Photoshop the transparency control bit is lost, and "Transparent" and "Translucent black/Opaque black" attributes become the same in the Photoshop format. This is manipulated when saving through the two check boxes found in this plug-in module which set the transparency control bit. However, you cannot save a single TIM file which uses both "Transparent" and "Translucent black/Opaque black" attributes at the same time. For situations such as this, set all "black" pixels to an alternate value such as (R, G, B) = (0, 0, 1) in the TIM format.
- RGB components in Photoshop are used at a resolution of 8 bits each, but the TIM format only uses 5 bits for each (except in 24 bit mode). Therefore, when a TIM format file is opened, 0s will be inserted into the lower 3 bits, and when the file is saved only the upper 5 bits are retained.
- Photoshop's indexed color images use a 256-entry CLUT, so even for 4-bit CLUT TIM files up to 256 colors may be maintained. However, when the image is displayed in Photoshop only the first 16 CLUT will be used.

Sending image data to the Graphic Artist Board (DTL-H201)

If your Graphic Artist Board is properly installed, you can send your PhotoShop images directly to the television screen – especially useful since a television's pitch and aspect ratios can produce a different result than what you see on a television screen.

1 Use ABORD.EXE to set the address of the DTL-H201.

You can confirm the address in the About Box by choosing "Help / About plug-ins / TIM export..." from the menu bar.
(The default address is 0x1340)

2 Choose "File / Output plug-ins / TIM export" from the menu bar.

3 The TIM Export Options dialog box is displayed. The check boxes are set according to the results of the last time the module was used. The contents of the dialog box are explained as follows:

Image data modes

Sets the pixel format to be used with the DTL-H201.

Choose one of the following settings according to the screen type:

Indexed color: 4 bit or 8 bit CLUT
RGB color: 16 bit or 24 bit Direct

Screen resolution

Sets the vertical (V) and horizontal (H) resolution of the DTL-H201.
By changing the coordinate offset, you can display from any given address of VRAM.

Display area

Sets the address in VRAM (from the upper left corner) and the width and height of the rectangle to be texture mapped. This is ignored when in Load Only mode.

Texture page

Sets the address in VRAM (from the upper left corner) and the width and height of the texture data. This is automatically set to (0, 0) when in Load Only mode.

CLUT section

Sets the address in VRAM (from the upper left corner) of the CLUT.
This is ignored when the image mode is set to 16 or 24 bit.

Except black -> Translucent

In Photoshop format, sets the transparency control bit for pixels or CLUT entries other than those where the (R, G, B) values of the upper 5 bits are set to (0, 0, 0), and draws the polygons in the display area in translucent mode.
As a result, all colors other than black become translucent.

Black -> Transparent

In Photoshop format, clears the transparency control bit for pixels or CLUT entries where the (R, G, B) values of the upper 5 bits are set to (0, 0, 0).
As a result, black becomes transparent, regardless of translucency mode.

Load only

Sets the Load Only mode. In this mode, texture data is only sent to VRAM, and mapping of the display area is not performed. Transparency control bits are therefore ignored. This mode is automatically selected when the color mode is set to 24 bits.

Clear screen

All of VRAM is first cleared.

Cancel

Cancels drawing.

OK

Sends picture data to the DTL-H201.

Important Notes

- RGB components in Photoshop are used at a resolution of 8 bits each, but the DTL-H201 only uses 5 bits for each (except in 24 bit mode). Therefore, on output the lower 3 bits will be truncated.
- Transparency control bits are only valid in the display area where the texture mapping is drawn.

- The "Transparent" and "Translucent black/Opaque black" attributes in the TIM format are the same as those in the Photoshop format. This is manipulated through the two check boxes found in this plug-in module which set the transparency control bit. However, you cannot perform mapping in a single display area using both "Transparent" and "Translucent black/Opaque black" attributes at the same time. For situations such as this, set all "black" pixels to an alternate value such as (R, G, B) = (0, 0, 1) in the TIM format.

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