

PlayStation TIM format plug-in (4.0E) readme

1.1 08/29/1997

1 Operating environment

Adobe Photoshop 4.0, Windows 95 or NT

2 Installation

The directory to which the plug-ins installed has changed in Photoshop 3.0 or later version. Copy **TIMfmtE.8bi** into the PLUGINS\FORMATS subdirectory in the Photoshop directory. Copy **TIMfmt.ini** into the system directory (such as C:\Windows).

3 Usage

3.1 Setup of initial file: "TIMfmt.ini"

This file is located in the system directory and includes some program settings as below:

- 1 Default values: When you save a new image or other format one as a TIM file, there is no File Information to be referred to. In this case, this plug-in will refer to [DefaultValue] section of the initial file. See Table.1 for more detail.
- 2 Record masks: When you record actions, plug-ins will output whole parameters basically. Although this file format plug-in contains 15 parameters, a few parameters may be changed in most cases. Setting a parameter at 1 in [RecordMask] section allows you to disable parameter output which you did not change and therefore do not have to notice. In order to record actions with more flexibility, use less number of parameters. Record mask is a useful function to reduce the number of parameters to a minimum. The items of maskable parameters are almost same as the default values. See the initial file for more detail.

Table.1 Parameters specifiable in [DefaultValue] section of TIMfmt.ini

Entry name	Content
ColorAuto(0)	Automatic Color mode (0:Off, 1:Auto)
Indexed(1)	Color mode for Indexed color (0:4 bit CLUT, 1:8 bit CLUT)
Direct(2)	Color mode for RGB color (2:16 bit Direct, 3:24 bit Direct)
TexAddrAuto(0)	Automatic texture address (0:Off, 1:Auto)
TexX(0)	Address: X of texture
TexY(0)	Address: Y of texture
TexSizeAuto(1)	Automatic texture size (0:Off, 1:Auto)
TexW(1)	Width of texture size
TexH(1)	Height of texture size
ClutAddrAuto(0)	Automatic CLUT address (0:Off, 1:Auto)
ClutX(0)	Address: X of CLUT
ClutY(0)	Address: Y of CLUT
Lower3(0)	Rounding method (0 is compatible with version 1.2E) 0:round down, 1:round off, 2:round up
StpBitAuto(0)	Automatic STP bit control (0:Off, 1:Auto)
StpOthers(0)	Except black -> Translucent (0:Off, 1:On)
StpBlack(0)	Black -> Transparent(0:Off, 1:On)

WnModeDisagree(1)	Warn of "Color mode disagreement" (0:Silent, 1:Warn)
ReadIniFile(0)	Read initial file (0:For once at initial call, 1:At every call)

CAUTION: An entry name prefixed with ';' is ignored and the plug-in adopts the value in parentheses.

3.2 Reference to File Information

A non-image data field *File Information* has been introduced after Photoshop 3.0 . When you open a file with this plug-in, this one scans the file header and the contents of the CLUT and texture data in order to check on STP bit, and writes the results into Caption section of the File Information.

If the Caption is valid, then this plug-in can enable four "Auto" check-boxes: "Color mode", "CLUT address", "Texture address", and "STP bit" in the TIM Format Output Options dialog box. The original value will be set by choosing "Auto".

Some auto check-boxes will be disabled when the Caption does not exist or is inadequate.

You can look the contents of the File Information by choosing File > File Info from the menu bar.

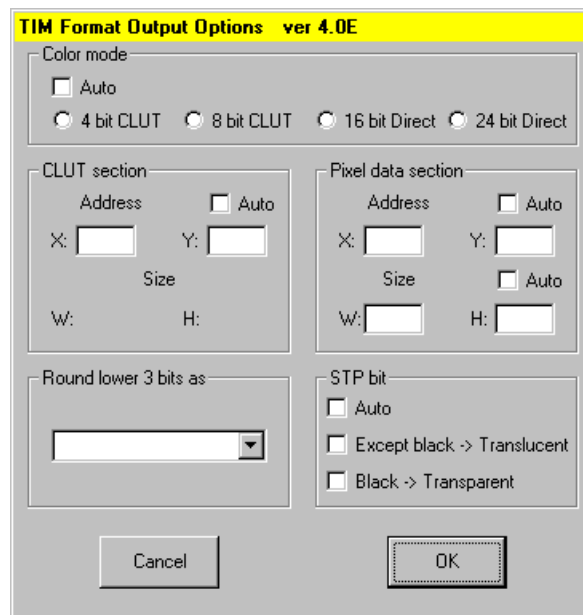
CAUTION: When you save a image with this plug-in, this one will **always** update the File Information of the target window. Suppose you made a copy from *A.TIM* to *Acopy.TIM* by selecting File > Save a Copy and changed the CLUT address of *Acopy.TIM*, the CLUT address of File Information of the target window *A.TIM* would be changed for *Acopy.TIM* too though the target window's name would be still *A.TIM*, *not change to Acopy.TIM*.

3.3 To open a TIM file

Choose File > Open, and select a TIM format file.

3.4 To save a file in TIM file format

- 1 In the "Save" or "Save As" dialog box, select " PlayStation TIM (*.TIM)" from the "File Format" list.
- 2 Type a file name, and click "Save".
- 3 TIM Format Output Options dialog box is displayed as below:



Color mode

Choose one of the following settings according to the color mode of the image:

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

CLUT section

Sets the address (from the upper left) of the CLUT in VRAM. The format plug-in fills the size fields automatically.

Pixel data section

Sets the address in VRAM (from the upper left corner) and the width and height of the texture image data. The size provided by Photoshop are usually available by clicking the "Auto" of the size.

Round lower 3 bits as

In Photoshop RGB components are represented at a resolution of 8 bits for each, but TIM format supports only 5 bits for each (except in 24 bit Direct mode). Therefore a transformation from 8 bits to 5 bits is required on saving a image data. This format plug-in allows you to select the way of round off as below:

- 1) 00000.XXX -> 00000 round down unconditionally (compatible with version 1.2E)
- 2) 00000.1XX -> 00001 round up if Bit2 is 1 (here Bit0 is LSB)
- 3) 00000.XXX -> 00001 round up unconditionally

STP bit

STP bit settings are enable except in 24 bit Direct mode.

* Except black -> Translucent

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) after 8 bits to 5 bits conversion. As a result, all colors other than black become translucent only in translucent mode.

* Black -> Transparent

Clears the transparency control bit for pixels or CLUT entries where the (R, G, B) values are set to (0, 0, 0) after 8 bits to 5 bits conversion. As a result, black becomes transparent, regardless of translucency mode.

Cancel

Cancels the save operation and keeps the values the same on recording an action again. Suppose you saved NEW.TIM with Save As command over OLD.TIM and responded "Yes" to the message that warned you to replace existing file, no change made to OLD.TIM by choosing "Cancel" at this step.

OK

Saves the image data in TIM file format.

4 A method of setting the contents displayed in Output Options dialog box

The contents displayed in the Format Output Options dialogue box will be set as shown below:

- 1 The default values in the initial file are adopted as initial setting values.
- 2 If Photoshop hands the plug-in a descriptor(*1), see below. Otherwise go to 3.
At first the plug-in will check color mode. If the color mode disagreement(*2) occurred, then the plug-in discards the descriptor. Otherwise the plug-in changes the parameters specified in the descriptor.
- *1: A descriptor is a component of a command for an Action, and is a pair of data in the form of [key value] that describes the property of an object or the parameter of an event.
- *2: The color mode specified in the descriptor disagrees with the color mode of target image data.
- 3 "Auto" check-boxes will become effective at this stage if possible.
- 4 The dialog box will be opened.

CAUTION: When this plug-in finished saving a file normally, whole parameters are handed to Photoshop as a descriptor. Photoshop keeps it, and hands again to this plug-in on re-invocation. Therefore some warnings will be caused by receiving the preceding descriptor. No descriptor will be handed to Photoshop if you cancel the save operation.

For example, when you save a RGB color image after saving another indexed color image with "Color mode: 8 bit CLUT" on condition that the plug-in outputs the color mode descriptor by setting "Color=0" in [RecordMask] section of the initial file, Photoshop hands a descriptor of "Color mode: 8 bit CLUT" to this plug-in therefore a color mode disagreement will occur.

5 IMPORTANT

- * You cannot save a single TIM file which contains both "transparent" and "translucent/non-transparent black" at the same time. For situations such as this, set all "translucent/non-transparent 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 Direct mode). Therefore, when a TIM file is opened, 0s will be inserted into the lower 3 bits.
- * Photoshop's indexed color images use 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 colors will be used.

Copyright (c) 1997 Sony Computer Entertainment Inc. All rights reserved.

This software may not be transferred or resold to any third party.

Reverse engineering of this software is forbidden.

PlayStation and the PlayStation logos are trademarks of Sony Computer Entertainment Inc.

Adobe and Photoshop are trademarks of Adobe Systems Incorporated.

Microsoft Windows and Windows NT are registered trademarks of Microsoft Corporation.