

1. Overview

We redefine the Photon S file format (.photons 2.0 version) because the Anti-Aliasing feature and for better expandability.

Field	Meaning	Remarks
Header	File identification, important parameter	
PreView	Preview the image	
LayersDef	Layer definition	
LayersImage	Layers image information	

2. Sub Field

2.1 Sub Field and header

Field	Meaning	Remarks	Byte
file mark	File identification	"ANYCUBIC"	12
version	Version number	1	4
AreaNum	Area number	4	4
Header.addr	Header area starting point		4
back[0]			4
PreView.addr	Preview area starting point		4
back[1]			4
LayersDef.addr	Layer definition starting point		4
back[2]			4
LayersImage.addr	Layers image information		

2.2 Header

Field	Meaning	Remark	Byte
Header mark	marker	"HEADER"	12
HeadLen	Length of the field	Int	4
xyPixel	Pixel size	Float	4
Zthickness	Layer thickness	Float	4
NorTime	Normal exposure time	Float	4
OffTime	UV light off time	Float	4
bottTime	Bottom layer exposure time	Float	4
bottLayers	Number of bottom layers	Int	4
ZUpHeight	Z lift height	Float	4
ZUpSpeed	Z lift speed	Float	4
ZDownSpeed	Z drop speed	Float	4
Volume	Total volume	Float	4
antiCount	Anti-aliasing grade	Int	4
ResX	X resolution	Int	4

ResY	Y resolution	Int	4
Weight	Weight of the object	Float	4
Price	Price of the object given unit price	Float	4
Resin Type	Resin type	Int	4
Use Individual Para	Enable individual layer parameters	bool	4
Back[1]	Reserved space	Int	4
Back[2]	Reserved space	Int	4
Back[3]	Reserved space	Int	4

2.3 Preview

Field	Meaning	Remark	Byte
Preview Mark	Identifiers	“PREVIEW”	12
PreviewLen	Length of the field	Int	4
Width	Width of the field	Int	4
Mark	Resolution identification	‘*’	4
Height	Height of the image	Int	4
ImageData	Image information	16bits	2*len

2.4 LayersDef

Field	Meaning	Remark	Byte
LAYERDEF Mark	Identifiers	“LAYERDEF”	12
LayersDefLen	Length of the field	Int	4
LayersCount	Total layer number	Int	4
Layer0.addr	Starting point of layer 0	Int	4
Layer0.dataLen	Date length of layer 0	Int	4
Layer0.height	Z lift height of layer 0	Float	4
Layer0.speed	Z lift speed of layer 0	Float	4
Layer0.ExpTime	Exposure time of layer 0	Float	4
Layer0.back[3]	Backup parameters for layer 0		12
Layer1.addr	Starting point of layer 1	Int	4
Layer1.dataLen	Date length of layer 1	Int	4
Layer1.height	Z lift height of layer 1	Float	4
Layer1.speed	Z lift speed of layer 1	Float	4
Layer1.ExpTime	Exposure time of layer 1	Float	4
Layer1.back[3]	Backup parameters for layer 1		12
...

2.5 LayersImage

Field	Meaning	Remark	Byte
Data of layer 0	Compressed files of the layer		..
Data of layer 1	Compressed files of the layer		
Data of layer 2	Compressed files of the layer		
Data of layer n	Compressed files of the layer		

How image been compressed in coding:

Color	7bit	5bit	4bit	3bit	2bit	1bit	0bit
0	0	1	1	0	1	1	1
1	1	0	0	1	1	0	1

The highest number (or place) means color, and the following means the repeated color number.

(I have no idea what the software engineer trying to say here, hope you can understand it anyway)

Example:

0x07 means there are 7 color dots are black

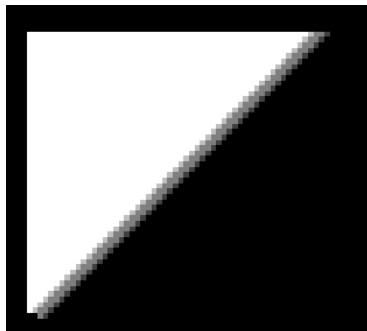
0x87 means there are 7 color dots are white



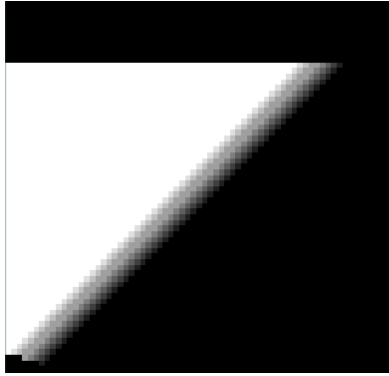
Anti-0.photons



Anti-2.photons



Anti-4.photons



Anti-8.photons