

**IFFTrasher**

COLLABORATORS

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## Chapter 1

# IFFTrasher

### 1.1 IFFTrasher v1.00

```
=====
      D E V O T i O N   P R E S E N T S
=====

      IFFTRASHER v1.01~
      For OCS/ECS/AGA Chipsets.
      Coded in 100% Assembly By REVENGER
      AGA/NTSC Debugging By Brute Force
=====

      Read  Changes&Bugs   For Update Info"

1. General Info.                2. Picture Options.
   Information                  Load   Format
   Disclaimer                   Save   Format
   Changes&Bugs                 Color  Format
   Key Functions                Sprite Format
   ToolWindow                   Add     Word

3. Other Options.               4. Action Gadgets.
   Size Comment                 Load Pic
   File Suffix                  Save Pic
   Save Mask                    Save Brush
   24Bits RGB                   View Pic
   Sprite Colors                 Save Pref
```

### 1.2 The ToolWindow

When you are looking at the picture you can press F10 to open a little window at the bottom of the screen. (F10 to close it again)  
 This screen displays some info about the picture and shows the size of the brush (if you have one) the width is shown in two different ways. Pixels and words!.

There is also a checkbox called ABN (Add Brush Number) if you activate this, a number is added to the filename when saving a brush. That is useful when you want to save more than one brush from one picture, because you don't have to ↵ change

the name each time. The number of brushes saved are displayed in the "Frames" window. In the future, when IFFTrasher will support ANIM files, this window will show the number of the frame you are displaying. ←

SSF is for the ANIM support also.

If you have opened the toolwindow and close the picturewindow with SPACE or RMB, you can press "Save Pref" to save the status of the ToolWindow so the next time you run IFFTrasher and display a picture the ToolWindow will open automatically.

## 1.3 Bugfixes & Changes

----- Changes From v0.975 To v0.98 -----  
(Not released)

\*BUG

IFFTrasher freaked out when started from an icon. FIXED!

\*BUG

If a new SizeComment was bigger than the one before, the comment didn't work all right. FIXED!

\*BUG

The memory allocated for the IFF BODY data was not deallocated when the unpacking was done. Only when you loaded a new picture or quit IFFTrasher this was done. FIXED!

\*BUG

The GetDir function didn't work sometimes. FIXED!

\*BUG

The Spritel6 function told you that the size was wrong even when it really was as correct as it could ever be! I had typed the same size for spritel6 and sprite4. My misstake, sorry.. FIXED! (Sprite routines are completly NEW)

\*BUG

I use RTpatch v1.1c and I discovered that if an I/O error occur (NOT A DOS DISK, DISK FULL, ETC.) IFFTrasher crashes! But this comes and goes so maybe it's a bug in RTpatch? It works excellent when I remove RTpatch...

\*NEW

24Bit's RGB is now in use.

Set this when you want to use IFFTrasher for AGA pictures!!!.

All cmap's will be saved in a 'AGA format'

See Color Formats for more info.

\*NEW

Added the BH,BF code to the sizecomment function.

They are added when the colormap is attached behind or before the RAW data.

IFFTrasher loads the colors no matter which Color Format is chosen.

---

---

\*CHANGED

The 'ToolWindow' on the picture screen is now opened with F10 not HELP, as before.

\*CHANGED/NEW

The sprite save process is now really easy. You only have to set the save format gadget to "SPRITE" and press the save button. If the picture is not in a valid sprite size you will be told so. It can save sprite in 4/16 color and 16/32/64 pixels wide. (32/64 for AGA).

--Changed in V1.0-----

\*BUG

When showing a picture the code was pumping values into the stack until a IEvent occured. (Thanks Brute Force.)

\*CHANGED

The buffers for file-/pathnames are changed to 50/70 bytes.

\*NEW

The word width of a brush is now displayed in the toolwindow.

\*CHANGED

Now you have to press R-Amiga key together with the underscore char to change the gadgets with the keyboard. If you press shift it cycles backwards.

When you are moving or changing the size of the marked area you can hold down shift to move it 16 pixels each time.

When you are changing the size holding shift, it will in-/decrease to the nearest even word size.

When you move the area with the arrow keys shift just increases the speed to 16 pixels/keypress.

\*NEW

In the "toolbox" window there is a checkbox named ABN (Add Brush Number). If you activate this a number is added to the filename. The number increases for each brush you save, so you don't have to change the name yourself when saving more than one brush from the same picture.

-----  
----- BUGS FIXED IN V1.01 -----  
-----

When the cmap was saved behind/before the picture or if no cmap was saved at all, IFFTrasher crashed on some machines. NOW FIXED!!!

Something happens if you change the 24 bits rgb button after you have "viewed" the picture, don't do that :) it's no use because the color data is already converted to 12bits and it wont be converted back!!!.

I have't fixed this because i gonna change the way of handling 12/24/32 bits color RGB's.

---

#### STUFF ON THE DRAWING BOARD\*

1.  
Unpacking the IFFbody to either RAW or RAWBLITT.  
Now it always unpacks it to RAWBLITT and if the picture is big you need a lot of memory to convert it to RAW. This wont be a problem if you can unpack it to RAW directly.
2.  
A new decrunch routine that uses VERY little memory. I removed the one I used before because it was too slow.  
The one that is fitted in IFFTrasher now uses a lot of memory but it's FAST.
3.  
Save copperlists and sprites in C source
4.  
ANIMx support. (So much to do and yet so little time.)
5.  
And some surprises...

## 1.4 Key Functions

#### MainWindow.

-----

RAMIGA+Q - Exit IFFTrasher  
RAMIGA+D - Change Load Format  
RAMIGA+A - Change Save Format  
RAMIGA+C - Change Color Save method (Color Format)  
RAMIGA+P - Change Sprite format  
RAMIGA+W - Change Add Word on/off  
RAMIGA+R - Change sprite color bank  
RAMIGA+F - Save all settings (Save Pref)  
RAMIGA+V - Show picture (View Pic)  
RAMIGA+B - Save marked area (Save Brush)  
RAMIGA+O - Load a picture (Load Pic)  
RAMIGA+T - About IFFTrasher (About)  
RAMIGA+S - Save picture (Save Pic)

(On cycle gadgets you can press shift to cycle backwards.)

#### Picture Window.

-----

SPACE/RMB - Close Picture Window  
F10 - Open/Close ToolWindow  
DEL - Remove/Display mouse pointer  
ARROW KEYS - Move brush area  
4 - Decrease brush width  
6 - Increase brush width  
8 - Increase brush height

---



2 - Decrease brush height  
SHIFT+ARROWKEYS - Move brush area 16 pixels/keypress  
SHIFT+4 - Decrease brush width to the nearest width even by 16  
SHIFT+6 - Increase brush width to the nearest width even by 16

## 1.5 Info About SavePref

This button saves all the settings of the IFFTrasher to a file called "S:IFFTrasher.Pref". This file is then loaded in the startup of the IFFTrasher, so you can have your own paths etc.

## 1.6 Info About ViewPic

This button displays the picture.  
If the picture is bigger than the screen, you can scroll it by moving the mouse pointer to the edges.  
Pressing RMB or SPACE will close the screen.

When you press LMB the cut function starts. Keep LMB down and move the mouse to change the Brush size. Release LMB when done.  
Now you can move the marked area with the arrow keys and you can change the Brush size with 2,4,8,6 if you aren't pleased with the size/position.  
Press F10 and you can see the Brush size in the ToolWindow

!IMPORTANT!

The Xsize that you see here (in the ToolWindow) is the Brush size, the size displayed in the MAIN WINDOW (Brush Xsize: xxx) is the REAL width that will be saved.  
As you probably know the brushwidth must be even by 16, if you clip 12 pixels wide the other 4 pixels are cleared and the converter saves a 16xYY brush.

Press 'DEL' button to remove/display cross.

## 1.7 Info About Save Brush

If you have marked an area of the picture you can save it with the 'Save Brush' button.  
If you have marked a bigger area then the original picture you have to press the 'Save Brush' button which appears when you press F10 on the picture screen otherwise it wont work.

## 1.8 Info About Save Pic

---

When you press Save Pic the action begins and you have recieved the converted picture in the specified savepath.  
 If you have selected to save a mask and colormap then they will be saved at the same time.

## 1.9 Info About Load Pic

Opens a filerequester where you can select the file/files! To convert.  
 Hold shift and you will be able to select more than one file!  
 As soon as you press OK, IFFTrasher begins to convert & SAVE! the selected files.

## 1.10 Sprite Colors

With this button you select which color register to start on when saving a colormap for a sprite.  
 This is for the guys/gals with an AGA computers because they can select color range for the sprites. Older Amigas have to use \$1a0-xxxx.  
 So if the 24Bits RGB is not activated the colormap for sprite always starts on \$1a0!.

The number means:

```

    _Palette nr
    /      _color reg start & stop (if 16 colors sprites)
    /      /
    "0,$180-$19e,00-15"
    \__color numbers
  
```

NOTE!

It have no function when saving in other formats than SPRITE.

## 1.11 Info About 24 Bits RGB

If this is checked, IFFTrasher will not convert the color data to 12 bits, all color values will be treated as 24/32 bits (AGA), so you can use it with AGA pictures.  
 The colormaps will also be saved for AGA use when this is checked.

Look up Color Formats for more info

\*NOTE\*

You have to change this before you load the picture!!  
 Nothing happens with the colors if you change this when a picture is already loaded. except that LoadRGB32 will be used when you displays the picture.

## 1.12 Info About SaveMask

If this is checked IFFTrasher will Save a mask of the picture. If the picture is saved as raw the mask will be in 1 bitplane and if the picture is saved as raw blitt then it will have the same depth and format (raw blitt) as the picture.

## 1.13 Info About SizeComment

If this checkbox is checked IFFTrasher will, during the conversion to raw/rawblitt, write the picture size as a file comment to the converted file!

It looks like this "Size WIDTHxHEIGHTxDEPTH". And if a cmap is attached to the rawdata ",BH" or ",BF" is added to the comment. Where BH stands for cmap behind picture and BF, Before picture. When you load a file that have this comment IFFTrasher will read it to get the information it needs to display the raw picture and read the colordata that is attached.

## 1.14 Info About File Suffix

If this is checked IFFTrasher will add the suffix to the converted file name.

```
ColorMap File = .CMAP
Sprite   File = .SPRT
Mask     File = .MASK
Raw      File = .RAW
RawBlitt File = .RAWB
Iff ilbm File = .IFF
```

NOTE.

The suffix for cmap, mask and sprite files will always be added.

## 1.15 Info About AddWord

This option adds a word on the right or left side of each line in the picture, so it can be shifted with the blitter.

## 1.16 Different Sprite Formats

These are the different sprite save methods.

```
ASM SOURCE
DATA
```

---

## 1.17 Info About ASM SOURCE Sprite Format

Saves the sprite data in ascii for an assembler, like this.  
(If the sprite is 16 pixels wide)

```

    /--VSTART
    / /--HSTART
    / / /-VSTOP
dc.w  $0000,$0000 ;control words.
dc.w  $xxxx,$xxxx ;Sprite data.
dc.w  $xxxx,$xxxx ;plan1data,plane2data
dc.w  $xxxx,$xxxx
dc.w  $0000,$0000 ;End Of Sprite

```

And for the 16 colors sprite (Attached) it will look like this.

```

    /--VSTART
    / /--HSTART
    / / /-VSTOP
dc.w  $0000,$0000 ;control words1.
dc.w  $xxxx,$xxxx ;Sprite data, bitplan 1 & 2, line 1
dc.w  $xxxx,$xxxx
dc.w  $xxxx,$xxxx
dc.w  $0000,$0000 ;End Of Sprite1
dc.w  $0000,$0080 ;control words2 + attached bit set
dc.w  $xxxx,$xxxx ;Sprite data, bitplan 3 & 4
dc.w  $xxxx,$xxxx
dc.w  $xxxx,$xxxx
dc.w  $0000,$0000 ;End Of Sprite2

```

The VSTART,HSTART,VSTOP must be set to the same values in both control words1 and control words2.

## 1.18 Info About The PURE DATA Sprite Format

Saves the sprite data as pure data (no ASCII). The format will be the same as in ASM SOURCE mode.

## 1.19 Info About Different ColorMap Save Methods

These are the different colourdata save methods.

When working with AGA pictures you have to set the '24Bits RGB' checkbox otherwise the color value will be converted to 12Bits RGB.  
You must set it BEFORE you load the picture!!

```

COPPER USE
ASM SOURCE
PURE DATA
BEHIND PIC

```

```
BEFORE PIC
NONE
```

## 1.20 none

Hum, do you need help with this one??  
OK, NO color data is saved.

## 1.21 About The Before Pic Option

This button just puts the colors before the picture data and saves it together with it.

A code (,BF) is added to the file comment so you and IFFTrasher knows that the colors are attached 'Before' the picture.

If the "24Bits's RGB" checkbox was checked the file will look the same except that all high bits are placed first and the low bits last.

Ex.

```
Colors: $121212,$343434
```

```
        color0
        /      \
$0111,$0222,$0333,$0444,PICDATA.....
```

I think this is the best way to do it.  
Do you have a better way? If you do, let me know.

## 1.22 About The Behind Pic Option

This button just puts the colors behind the picture data and saves it together with it.

A code (,BH) is added to the file comment so you and IFFTrasher knows that the colors are attached to the picture.

If the "24Bits's RGB" checkbox was checked the file will look the same except that all high bits are placed first and the low bits last.

Ex.

```
Colors: $121212,$343434
```

```
        color0
        /      \
PICDATA.....,$0111,$0222,$0333,$0444
```

I think this is the best way to put it.  
Do you have a better way? If you do, let me know.

---

## 1.23 About The PURE DATA Color Format

Saves the colors as a pure data file WITHOUT the color regs.  
The file has .CMAP as suffix.

If the 24Bit's checkbox is checked it will save a "copper use" colormap and it's not ASCII so you can use incbin in your copper programs.

## 1.24 About The ASM SOURCE Color Format

Saves the colors as assembler code without the color regs.  
The file has .CMAP as suffix.

Ex.

```
dc.w  $0rgb,$0rgb,$0rgb,$0rgb
dc.w  $0rgb,$0rgb,....
```

And if the "24Bits's RGB" checkbox was checked the file will look the same but the high bits are placed first and then the low bits last.

Ex.

```
Colors: $121212,$343434
```

```
        color0 color1
        /      \      /      \
dc.w  $0111,$0222,$0333,$0444
```

I think this is the best way to put it.  
Do you have a better way? If you do, let me know.

## 1.25 About The COPPER USE Color format

Saves the colors for copper use. (As ASCII)  
The file has .CMAP as suffix.  
The file will look like this.

```
dc.w  $0180,$0rgb,$0182,$0rgb,$0184,$0rgb,$0186,$0rgb
dc.w  $0188,$0rgb,$018a,$0rgb,$018c,$0rgb,$018e,$0rgb
dc.w  ....
```

NOTE.

If the picture data was saved as a sprite the color regs in the cmap file will start on \$01a0.

And if the "24Bits's RGB" checkbox was checked it will look like this.

```

4 colors ex.
  colors are: $fefefe,$121212,$343434,$565656
              RRGGBB
              high bits first
              /
dc.w  $0106,$0000,$0180,$0fff,$0182,$0111,$0184,$0333,$0186,$0555
dc.w  $0106,$0200,$0180,$0eee,$0182,$0222,$0184,$0444,$0186,$0666
              \
              Low bits last.

```

## 1.26 About Save Methods

These are the different save methods you can select.

```

RAW BLITT
RAW
IFF ILBM
SPRITE
NONE

```

## 1.27 Save as NONE

Doesn't save the picture data at all.  
Useful if you only want to save the color map.

## 1.28 Save as Sprite

Saves the picture/brush as a sprite.

The sizes must be 16/32/64 pixels wide and in 2 or 4 bitplanes

```

For OCS/ECS/AGA_ / / /
For AGA_ / __ /

```

You select save method with the "Sprite Format" gadget.  
AsmSource or Data.

You can also set the Color Format gadget on COPPER USE  
PURE DATA or ASM SOURCE to save the sprite colors.

## 1.29 About Save AS IFF

Saves the picture as a IFF file.  
The picture data will not be compressed.  
Comes in a later version.

### 1.30 About Save As RAW

Saves the picture as ordinary raw, the bitplanes lies behind each other

Ex.

```
line1plane1,line2plane1  
line1plane2,line2plane2
```

### 1.31 About Save As RAWBLITT

Saves the picture as RAW BLITT (InterLeaved).

Ex.

```
line1plane1,line1plane2  
line2plane1,line2plane2
```

### 1.32 Different Load Formats

These are the picture formats the converter can read.  
You can select multiple files in the Filerequester.  
If you do so all the files will be converted and saved without pressing the "SAVE" gadget!! So make sure that the settings are as you want them.

```
IFF ILBM  
RAW  
RAW BLITT  
AUTO CHECK
```

### 1.33 AUTO CHECK Load Format

If this option is selected the IFFTrasher will try to recognize the picture format with help from the file Suffix.  
IFF pictures are recognized by the ILBM header in the file.

It checks for .RAW & .RAWB in the file name to recognize the raw format, if you don't have a suffix you have to use RAW or RAW BLITT as load format.

### 1.34 IFF Load Format

Reads the picture as a standard IFF file.

It will soon be possible to read ANIM files.

---



### 1.35 RAWBLITT Load Format

Reads a picture in RAW BLITT format (InterLeaved)

Ex.

```
line1plane1,line1plane2,line1plane3,...
line2plane1,line2plane2,line2plane3,....
```

See RAW for more info.

### 1.36 RAW Load Format

Reads a picture in the ordinary raw (bitmap) format.

If the picture file has a 'size comment' it will be loaded at once, otherwise the IFFTrasher will ask you for the size of the picture.

The file comment also tells the IFFTrasher if a colormap is attached (only in v0.980+) so you don't have to worry about that.

### 1.37 info

```
=====
IFFTrasher V1.00 Copyright © 1993 By DEVOTiON, All Rights Reserved
```

```
Written By REVENGER
```

```
&
```

```
AGA/NTSC Debugging By BruteForce
```

```
=====
This program is an IFF converter.
```

If there is anybody who doesn't know what an IFF converter is then you should read the lines below.

An IFF converter is a program for converting IFF ILBM pictures to pure bitmap data (RAW).

the converted pictures can then be used in demos, games or where else you need the picture to be in bitmap format.

You need at least OS2.04 to run it.

Some features in IFFTrasher:

- ```
-----
```
- Loading RAW pictures as if they were IFF's (with help of the size comment).
  - Supports multiple file selections. means that you can select all pictures you want to convert & IFFTrasher converts them all in a row.
  - Support for OCS, ECS and AGA chipsets.
  - Saving sprites in OCS,ECS,AGA format.
  - Saving color lists in many different ways, both for 4BitsPerGun (OCS,ECS) & 8BitsPerGun (AGA)
-

- Selectible color bank when saving sprite+colormap in AGA format.
- Advanced brush cutting funktion, no longer a pain to get the righth size on the frame.
- + A lot more

-----  
I have desided to relese the complete version, and hopes that you pays the shareware fee, if you use it. (ofcoz you will, or?)  
("It's not any inhumane 'Expensive-is-good!'-Microsoft-policy-prices!" SPiFF's comment)

Anyway.. some adjustment and some new features are gonna be inplanted in a new version.. and it will only be sent to registered users.  
Soo support a broke coder...

To REGISTER send 100SEK or \$15 and 1 WORKING disk to this address: (Cash only!!)

DEVOTiON SoftWare Development  
Drottninggatan 40  
66233 amal  
SWEDEN

Type your name,address and whitch computer equipment you use and if you have found some bugs etc..  
You will get the next version with the mail when it's ready.  
(ONLY registered users will get the updates!!)

If you find any bugs or have some sugestions for improvments please call the this BBS.

^OLYMPIA^ +46 (0)532-10510, 16k8DS and leave a mess to REVENGER  
^-----CLOSED DON'T CALL THiS NUMBER

## 1.38 disclaim

IFFTrasher ©1993 DEVOTiON SoftWare  
-----

This piece of software is ShareWare, thats means that if you use it regulary you haft to "register" and pay the shareware fee.

It's freely distributable as long it's not sold in any form without my permission.

This software is provided "AS IS" without any warranty of any kind.  
The programmers are not responsible or liable for loss of data, or any other kind of information while using IFFTrasher.

---

If you want to know how to register read the [Information](#) .