

BitMap To EPS V3.00

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BitMapToEPS History...

Version 1.0 - EPS, MacPaint, and PICT reading routines

Version 1.1 - Added Claris XTND interface to allow for external Translators.

Version 2.0 - Changed name to: "BitMapsToEPS", Added QuickTime support.

Version 2.0.1 - Fix Bounding Box bug when saving selected area as EPS file.

- Fix memory leak bug when saving PICT files
- Resize window to size of image
- cleaned up scrolling of image a little bit
- Set selection rectangle to the whole image when opened.
- added QuickTime Preview & Opening of PICT files
- added rotation of selected area, and support for B&W paste option.
- Fix menu states (eg. enable menu item only when they are valid).

Bugs reported by: John Rawnsley <jhr@maths.warwick.ac.uk>

Version 2.0.2 - Fix Suggested file names bug which occurred after open QuickTime movie.

- Added Help Item to System 7 Help menu

Suggestion/Bug report from:

Maynard Handley <maynard@helios.TN.Cornell.edu>

Version 2.1 - Added simple B&W Paint tools, and cleaned up code.

- Added internal import filter for .BMP (Windows & OS/2) BitMaps

Version 3.0 - Added EPSI (Encapsulated PostScript Independent) output code.

If Macintosh Preview is not selected EPSI is output.

- Added reading B&W TIFF images (uncompressed TIFF, LZW compressed TIFF, PackBits compressed TIFF, and CCITT 1D

compressed TIFF)

- Added reading 4 & 8bit Grey Scale TIFF images (uncompressed TIFF,

LZW compressed TIFF, and PackBits compressed TIFF)

- Added reading 4 & 8bit Palette TIFF images (uncompressed TIFF, LZW compressed TIFF, and PackBits compressed TIFF)

- Enable option not to convert to B&W.

- Added AutoSave function to aid file format conversion.

Converts the following Macintosh file formats to B&W Encapulated PostScript Files (EPSF) or B&W PICT files:

Built-in Import Translators:

- MacPaint (B&W BitMap, 576 by 720)
- StartUp Screens (B&W BitMap, 512 by 342)
- PICT files (converted all PICT's to B&W BitMaps).
- .BMP (Windows & OS/2) BitMaps.
- QuickTime Movie player (when QuickTime is installed).
- B&W, Grey Scale & Palette TIFF images
(uncompressed TIFF, LZW compressed TIFF, PackBits compressed TIFF, and CCITT 1D compressed TIFF)

See below for more detail description of file formats.

Supports XTND translators for importing graphics format as PICT's. This requires "Claris XTND System" file, which comes with all Claris products and some other 3rd Party products.

I have written a few XTND graphics translators, they are:

StartUpScreen V1.01 - Reads Macintosh B&W Bitmaps 512 by 342 startup screens.

Windows (BMP) - Reads MS-DOS's Windows BMP bitmap format.

Click and Drag the selection rectangle in the picture to mark the area to be saved or edited. Use "Select all" from the Edit menu to save the whole image.

Edit Menu

Use Cut to copy the area in the selection rectangle to PICT in the Clipboard, and erase the selected area.

Use Copy to copy the area in the selection rectangle to PICT in the Clipboard.

Use Paste to paste a PICT at the top, left corner of the selection rectangle. If the option key is depressed, the picture is scaled to the selected rectangle.

Use Clear to erase the selected area.

Use Select All to select the entire image.

Use rotate to rotate the selected area 90 degrees clockwise, the rotated image becomes the selected area. Hold down the option key to retain the old selected area.

Paint Tools:

Pen - draw in current pen pattern & width.

Erasor - Erase an area of the picture.

Line - draw lines.

Selection rectangle - select the area to cut, copy, clear or rotate.

Draw rectangles, round corner rectangles, and ovals in current pen pattern, width. If filled tool fill in current fill pattern.

Hold the option key down while painting to "Or" the line, rect, etc with background image.

Options Dialog

Use the "Preferences..." item in the Edit menu to set preferences. Defaults settings are displayed below:

his application support's System 7.0 "document dropping" feature. To use this feature, drag one or more documents you would like to view onto the application, and release the mouse button when it is hilighted.

The option to convert Color to B&W bitmap, is normally enabled. If it is not checked off, you can save a Color PICT of the image and also display the color version of the B&W image, but no editing. Holding down the Option key will scale the image to the size of the current window.

The Auto Save function is to aid in file format conversion. When select a file to be opened either by 'Drag & Drop' or Open menu item. The auto save function will automatically prompt you to save the file under the last file format you used.

Default format is PICT, if you have not saved one.

Note: Last format saved will be checked off in the save sub-menu.

Current version does NOT include:

- the option to copy EPS file in the clipboard.
- No option to convert Color PICT to Grey Scale EPS BitMaps.
- No option to save Color Windows .BMP files.

StartUp Screens

StartUp Screens are B&W bitmaps with a size of 512 by 342. The bitmap is stored on disk uncompressed.

This program converts all PICT files to B&W bitmaps corresponding to the original size. It will save the selected area of the bitmap as a EPS file or a PICT file.

Macintosh File Type of: SCRN

MacPaint - B&W BitMaps

MacPaint bitmaps are compressed black & white bitmaps with a size of 576 by 720.

This program converts all PICT files to B&W bitmaps corresponding to the original size. It will save the selected area of the bitmap as a EPS file or a PICT file.

Macintosh File Type of: PNGT

PICT

PICT file are the Macintosh native picture format. It is storable as a resource of type 'PICT' or as a data file of type 'PICT'. It is object oriented, and contains all the quick draw commands used to draw the image on the Macintosh screen (Font: Size, Style, type; Lines, circles, BitMaps, etc...).

This program converts all PICT files to B&W bitmaps corresponding to the original size. It will save the selected area of the bitmap as a EPS file or a PICT file. If QuickTime is installed, preview image can also be saved with it. Selectable from the Options Dialog box.

Macintosh File Type of: PICT

EPSF - Encapsulated PostScript Files

Encapsulated PostScript files are special PostScript programs with a special header describing the width and height of the image described by program.

Preview images on the Macintosh are stored in a 'PICT' resource ID 256 in the resource fork of the Macintosh file. Other platforms create PostScript comments with a low resolution hex dumps of bitmap as a preview image. This is what is created if Macintosh Preview image is not included. A third type of preview image, currently not supported is MSDOS Preview image using a 24 byte header. This header describes the offset and size of the PostScript program and the preview image.

The selected area of the bitmap is saved as a Black & White bitmap in an EPS file format. This program only creates Macintosh 'PICT' preview images, selectable from the Options Dialog box.

Macintosh File Type of: EPSF or TEXT

TIFF File format:

TIFF file have many formats: Black and white, grayscale, full color (24-bit), and palette color (4-bit and 8-bit) images. TIFF files support the uses of data compression using: LZW, PackBits, and CCITT 1D compression (PackBits and CCITT 1D are allowed on black-and-white images only), LZW can be used with any image type.

To complicate matters, two byte orders are supported: 'II' (intel) and 'MM' (Motorola), as indicated by the TIFF file header.

Macintosh File Type of: TIFF

X11 File format:

The width and height of the bitmap are written as preprocessor symbols at the beginning of the file. The bitmap image is then written as an array of characters.

Here is an example of a bitmap file whose image spells X11.

```
#define name_width 11
#define name_height 5
static char name_bits[] =
    0x91, 0x04, 0xca, 0x06, 0x84,
    0x04, 0x8a, 0x04, 0x91, 0x04
;
```

Macintosh File Type of: TEXT

QuickTime™

MooV - Movie file

The Open... item in the File menu will play the selected QuickTime movie, in its own window. You can use all the standard edit menu functions (Cut, Copy, Paste, and Clear), but only resources of type "Moov" can be pasted into a movie.

NOTE: This option requires QuickTime Extension to be installed in the System Folder.

Macintosh File Type of: MooV

Picture file Compression

QuickTime comes with routines for compressing files. Any application that uses PICT files on Macintosh with QuickTime installed can de-compress these files.

- The preview image is stored in the files as a PICT resource file.

I did not write the QuickTime code. Most of it is from Apple's sample code, repackaged to work with this application. The Movie playing is from "Mini Edit Movie Stuff.c" and Compression code is from "SampleCompressPicture.c" both slightly modified.

