Index

For Help on Help, Press F1

CONVERSION ASSISTANT™ for WINDOWS

Conversion Assistant[™] is a true Drag-and-Drop Windows application. Once you select the images files you want to convert, Conversion Assistant[™] will convert those files to the selected target image format regardless of their original format. You can also view and get detailed information about the image file.

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The following Help Topics are available:

How to convert image files VIEW button INFO button PATH button Information on image formats

VIEW button

When an image file is highlighted in the list box, this button allows you to view the selected image. A view window will appear allowing you to also perform minor image editing to further enhance the quality of the image. You can change the contrast, brightness and invert the image among other things. These changes do not physically change the image. There are only available to help you correctly view the image.

INFO button

When an image file is highlighted in the list box, this button displays detailed information about the image including size, date last modified and bits per pixel.

PATH button

This button is used to select the directory where you want to store your converted files.

Information on image formats

For Help on Help, Press F1

GIF PCX BMP TARGA DCX DCX TIFF WPG WMF TIFF G3 TIFF G4 PICT JPEG TIFF LZW TIFF LZW

GIF

| Format originator: | CompuServe, Inc. |
|--------------------|----------------------|
| Image type: | Bitmap (raster) |
| Latest revision: | GIF89a, 31 July 1990 |
| File extension: | GIF |
| Maximum colors: | 256 |

GIF - The graphics interchange file format. Uses <u>LZW</u> compression used in the <u>TIFF</u> file format except that the bytes are reversed and the string table is upside down. GIF files can only be 3,4,5,6,7 or 8 bits per pixel. All GIF files have a palette. Some GIF files can be interlaced in that raster lines appear every 4 lines then every 8 lines than ever other line. This is due to GIF files usually being received from a modem.

Because of the popularity of the CompuServe Network, GIF is supported on numerous platforms from personal computers to UNIX workstations. It is an excellent format for cross-platform exchange and good for storage.

PCX

| Format originator: | Zsoft Corporation |
|--------------------|-------------------|
| Image type: | Bitmap (raster) |
| Latest revision: | 1991 |
| File extension: | PCX |
| Maximum colors: | 16.7 million |

PCX is one of the oldest and most widely supported bitmap formats for the personal computer. Current versions support 24-bit color, implemented either as a palette of up to 256 colors or full 24-bit RGB, with image sizes of up to 64K x 64K pixels. PCX however has not provisions for storing greyscale or color correction tables. PCX files can use a variety of palette techniques due to the age and evolution of PCX. PCX is commonly supported, therefore good for exchange in the PC environment.

BMP

| Format originator: | Microsoft Corp |
|--------------------|-------------------|
| Image type: | Bitmap (raster) |
| Latest revision: | Windows 3.0, 1991 |
| File extension: | BMP |
| Maximum colors: | 16.7 million |

BMP files can be compressed or uncompressed. It is well supported under Microsoft Windows, therefore supported in theory by anything that runs under Windows. The compressed mode is similar to PCX run length encoded technique with minor variations.

TARGA

| Format originator: | Truevision Inc. |
|--------------------|-------------------|
| Image type: | Bitmap |
| Latest revision: | Version 2.0, 1991 |
| File extension: | TGA |
| Maximum colors: | 16.7 million |

Supporting applications include Truevision TIPS, RIO, Logo Editor, Tempra, TOPAZ, and many image processing and ray tracing applications. Widely used in high-end image capture and processing. TARGA however has many different subformats, not all supported by all applications.

DCX

| Format originator: | Intel |
|--------------------|----------------------|
| Image type: | Bitmap (raster) |
| Latest revision: | GIF89a, 31 July 1990 |
| File extension: | DCX |
| Maximum colors: | 16.7 |

This file type is simply multiple \underline{PCX} image files in a single file. The file contains a header with contain offsets to the location of the various pages, Used primarily for FAX communications.

TIFF

Format originator:Jointly developed by Aldus and MicrosoftImage type:Bitmap (raster)Latest revision:Revision 5.0, 8/8/88File extension:TIFMaximum colors:16.7 million

Platforms include Macintosh, PC, and UNIX workstations. Applications include desktop publishing and graphic arts. Similar to <u>GIF</u> in use of tagged fields and <u>LZW</u>. Highly effective for storage and exchange between graphic media but often unreliable for exchange between unrelated applications or platforms.

Among the advantages are its suitability for a wide range of applications and its independence from a computer's architecture, operating system, and graphics hardware. It handles black-and-white, greyscale, and color images well. The versatility of TIFF on the other hand also creates some problems. It requires significant programming effort to fully decode.

Vendors can register proprietary, undisclosed data field formats with Aldus' Developers Desk. This feature has the unfortunate effect of allowing vendors to claim TIFF compatibility while maintaining a closed format.

WPG

| Format originator: | WordPerfect Corp. |
|--------------------|-------------------|
| Image type: | Bitmap (raster) |
| Latest revision: | N/A |
| File extension: | WPG |
| Maximum colors: | 256 |

This is the WordPerfect metafile format.

WMF

| Format originator: | Microsoft Corp. |
|--------------------|-------------------|
| Image type: | Display list |
| Latest revision: | Windows 3.0, 1990 |
| File extension: | WMF |
| Maximum colors: | 16,7 million |

Supporting applications include Visual Basic, Word for Windows, PagaMaker, Ventura for Windows, Corel Draw, Drafix Windows CAD.

WMF is the best device-independent format under Windows. Files can be much smaller that corresponding bitmaps due to higher-level feature descriptions.

TIFF G3

Group 3 fax machines use black-and-white format defined by CCITT recommendation T.4. As computer fax modems have become popular, T.4 images have started to appear on computer systems. Fax images are almost always 1728 pixels wide, and of a varying height depending on the size of the paper. Group 4 fax, recommendation T.6 uses a similar but more complex 2-D encoding scheme that can transmit just the differences from one line to the next.

<u>TIFF</u> 5.0 includes both Group 3 and Group 4 format as compression options.

TIFF G4

Group 3 fax machines use black-and-white format defined by CCITT recommendation T.4. As computer fax modems have become popular, T.4 images have started to appear on computer systems. Fax images are almost always 1728 pixels wide, and of a varying height depending on the size of the paper. Group 4 fax, recommendation T.6 uses a similar but more complex 2-D encoding scheme that can transmit just the differences from one line to the next.

<u>TIFF</u> 5.0 includes both Group 3 and Group 4 format as compression options.

PICT

| Format originator: | Apple Corp. |
|--------------------|---|
| Image type: | Vector and bitmap; binary page description language |
| Latest revision: | Color QuickDraw Version 2.0 |
| File extension: | PCT |

Primarily used on Macintosh platforms but with some support on PC's and UNIX workstations. Valuable for simple bitmap or vector data exchange with Macintosh. PICT for Color QuickDraw Version 2.0 supports 8-bit (256 color) images.

JPEG

Format originator:Joint Photographic Experts GroupImage type:Compressed bitmapLatest revision:1991File extension:JPG

JPEG is soon to be a dominant format for storage of digitized photographs. It is by far the best compression scheme for photographic images. It is however, slow in software compression and decompression. The standard is still evolving.

TIFF LZW

LZW is a more recent compression algorithm developed by a Sperry researcher named Welch, and building work by Lempel and Ziv. LZW encoding provides typical compression rations between 1:1 and 3:1.

TIFF HUFFMAN

Huffman encoding is a common scheme for compression. It works by substituting more efficient codes for data. This approach was created in 1952 for text files and has spawned many variations.

How to convert image files

For Help on Help, Press F1

Once the images you want to convert are in the list box, you can do several things. Using the mouse, you can highlight a image file name in the listbox. Once highlighted, you can select the $\underline{\text{VIEW}}$ button to look at the image or you can select the $\underline{\text{INFO}}$ button to get further detailed information regarding the image.

To convert the images, just check the target image format type from the list on the left-hand side of the dialog box. Only one image format can be selected at one time. To start the conversion, select the START button. When the files are converted, you are returned back to the convert dialog so that you can select another file format or select a different save path for your converted files.

When you are done converting your files, press the DONE button. This will minimize the application. To convert other files, just drag-and-drop the file(s) or directory onto the minimized icon and repeat the process.

Conversion options

Conversion Options

Warn overwrite Save directory path Pause for errors

Pause for errors

This option will direct the application to display a message when there is a problem converting the image file.

Warn overwrite

This option will direct the application to warn you if you are overwriting an existing file in the save directory path.

Save directory path

This option allows you to select the directory to save your converted files.