

Automatic Image File Recognition

The Codonics NP-1600 printer incorporates Codonics ImageSense™ technology which analyzes incoming print requests and determines the image type automatically. This allows a wide variety of image formats to be sent to the printer without first converting them to a standard format, such as PostScript. ImageSense reduces print time and avoids color loss by working with images in their native form. This feature is particularly useful in heterogeneous network environments where PC's, Macintosh's and UNIX systems will share a printer.

The NP-1600 automatically identifies the transmitted image's file format by recognizing header information embedded in the file. The printer will automatically uncompress compressed files.

File Formats Supported

The printer currently recognizes and processes 12 standard image file formats including PostScript. The specifics of each format are summarized here (the printer also recognizes a number of proprietary image formats which are not listed):

Tag Image File Format (TIFF)

Origin:	Aldus Corporation and Microsoft
Versions Supported:	Version 6.0
Image Type:	Bitmap
Color Representation:	Monochrome, Greyscale, Palette Color and Full Color.
Compression:	LZW, Huffman, run-length, others.
Comments:	TIFF is hardware and OS independent, but some vendors include proprietary data fields rendering the file unportable. JPEG compression is not currently supported.
Activation Key:	Not required

Graphics Interchange Format (GIF)

Origin:	Compuserve, Inc.
Versions Supported:	89a
Image Type:	Bitmap
Color Representation:	Monochrome, Color table.
Compression:	LZW compression.
Comments:	Multiple images and text overlays are not supported.
Activation Key:	Not required

Microsoft Windows Bitmap (BMP)

Origin:	Microsoft
Versions Supported:	Version 1
Image Type:	Bitmap
Color Representation:	Monochrome, Color lookup table, RGB.
Compression:	None and run-length encoding.
Comments:	A variant of the BMP format comes from OS/2 Presentation Manager 1.X. The printer supports both variants.
Activation Key:	Not required

SUN Raster (RAS)

Origin:	Sun Microsystems
Versions Supported:	All
Image Type:	Bitmap
Color Representation:	Monochrome, Color table RGB, RGB, and XRGB.
Compression:	None and run-length encoding.
Comments:	The Sun Raster format is supported mainly on Sun Workstations. The printer discards the alpha channel in 32-bit images.
Activation Key:	Not required

Silicon Graphics RGB Format (SGI)

Origin:	Silicon Graphics, Inc.
Versions Supported:	All
Image Type:	Bitmap
Color Representation:	Greyscale, RGB, and RGBA.
Compression:	None and run-length encoding.
Comments:	The alpha channel in RGBA format is discarded.
Activation Key:	Not required

X Window Dump (XWD)

Origin:	MIT X Consortium
Versions Supported:	X10, X11
Image Type:	Bitmap
Color Representation:	Color table; RGB.
Compression:	None
Comments:	XWD is supported by many X Window applications, but suffers from little support outside of X. The printer also supports a special variant of XWD used by DEC Alpha systems.
Activation Key:	Not required

Portable "Anymap" File (PBM, PGM, PPM)

Origin: Jef Poskanzer
Versions Supported: All
Image Type: Bitmap
Color Representation: Monochrome, Greyscale, RGB.
Compression: None
Comments: The Portable Anymap (PNM) utilities define three formats: Portable Bitmap for Monochrome images, Portable Greymap for greyscale images and Portable Pixmap for color images. All of these variants are supported by the printer. A PNM file is very simple to read and write, but can be very bulky when dealing with high resolution 24 bit images.

Activation Key: Not required

Truevision Targa (TGA)

Origin: Truevision, Inc.
Versions Supported: 1.0
Image Type: Bitmap
Color Representation: Color table (Pseudo-Color); separate color table for each RGB (Direct-Color) and XRGB (True-Color).
Compression: None and run-length encoding
Comments: The TGA format is a very competent format that can be easily parsed with a small amount of program memory. Some applications produce TGA files with RGBA or ARGB pixel byte order. These files do not meet the specifications and will produce incorrect colors when printed. The printer discards the alpha channel in 32-bit images.

Activation Key: Not required

Joint Photographic Experts Group (JPEG)

Origin: Joint Photographic Experts Group
Versions Supported: 1991
Image Type: Compressed bitmap
Color Representation: None specified.
Compression: Predictive for lossless encoding and Discrete Cosine Transform for lossy encoding.

Comments:

JPEG is an encoding format and not an actual file format. It does not include the standard information associated with raster images. The printer supports the JPEG File Interchange Format encapsulation (JFIF). Compression and decompression of a JPEG image can be slow, but high compression ratios can be achieved with high image fidelity. This slowly evolving standard offers numerous options which can cause incompatibilities.

Activation Key:

Not required

PCX

Origin: Zsoft Corporation
Versions Supported: All
Image Type: Bitmap
Color Representation: Monochrome, Color table (16 or 256 entries).
Compression: Run-length encoding.
Comments: PCX is a well supported format, but due to its age and the way it evolved, palette implementation techniques vary widely which can cause problems with some PCX readers. Scanned and video images do not compress well.

Activation Key:

Not required

CATIA Image Design

Origin: Dassault Systems
Versions Supported: CATIA Version 4
Image Type: Bitmap
Color Representation: Indexed, True Color.
Activation Key: Required

PostScript

Origin: Adobe Systems
Versions Supported: Postscript Level 1 and Level 2.
Image Type: Vector and bitmap; Page-description language.
Activation Key: Required

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