



A UTC Fire & Security Company

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File Submission Guidelines

Supported Transfer Media

Physical Media:

Zip (100MB), Jaz (1GB and 2GB), SuperDisk (120MB), and CD/DVD (CD-ROM, CD-R, CD+/-RW, DVD-ROM, CD+/-R, and CD+/-RW), and 3.5" floppy disk. Media can be formatted for Mac OS HFS, Mac OS HFS+, DOS FAT, FAT32, NTFS, or ISO-9660 ("PC Format") as appropriate.

Electronic Media:

Email, FTP, and WamNet! Please send Email with attached files (attachments greater in size than 10MB are not recommended for Email transmission) to the CSR handling your job. Our general-use FTP site can be accessed with the following settings in your FTP client application (Fetch, Interarchy, WS-Ftp, etc):

Host: IP=12.172.99.209
Username: ftpfiles
Password: nv%ftp

You can also access the site via a web browser using the following URL:

<ftp://ftpfiles:nv%ftp@12.172.99.209> for all web browsers except Internet Explorer.

<ftp://ftpfiles@12.172.99.209> for all web browsers including Internet Explorer; The browser will display a dialog box to enter the password.

Please Email your CSR to inform them that you have uploaded something. Please provide the names of the file(s)/folder(s) that you are uploading so that they can be more easily located on the FTP server.

Please contact your CSR for information regarding WamNet! File submissions.

File Compression/Archiving Recommended:

When sending files electronically, the use of file-level compression/archiving can greatly increase the chances of a file or group of files retaining their integrity during the transfer process. If you are sending several files and/or a number of files organized into folders, it is recommended that you archive the files and folders using a compression/archiving utility like Stuffit Deluxe or WinZip.

Stuffit and Zip formats are available on both the Macintosh and Windows platforms both in the form of payware and shareware utilities. Macintosh computers with Mac OS 8 or later installed already include Stuffit utilities in the default/stock installation.

Stuffit Deluxe (pay- and share-ware editions) can be downloaded from <http://www.allume.com/>.

WinZip (pay- and share-ware editions) can be downloaded from <http://www.winzip.com>.

We can also accept tar (.tar), gzip (.gz), tar-gzip (.tgz), .rar, and other file compression/archiving file formats.

Preferred Applications

Please contact your customer service representative regarding use of applications and versions not listed below. If you are unsure of the application used to create a file, please contact your customer service representative.

Mac OS (Classic/Mac OS X)	Windows
QuarkXPress 6, 7	Corel Draw X3
Pagemaker 6.5	Acrobat 4*
Illustrator CS3 ("13")	Acrobat 8*
InDesign CS3	
Freehand MX ("10")	
Photoshop CS3	
Acrobat 4*	
Acrobat 8 *	

* Special note regarding PDF submissions:

- PDFs should normally be supplied only for use as reference or FPO artwork.
- PDFWriter-generated PDFs are severely limited in the quality of data they contain. These types of PDFs should be avoided unless the PDF is intended only for reference or FPO.
- If PDFs are sent for use as original artwork ("Production-Quality," see next bullet point), steps must be taken by to ensure that the PDF contains high-resolution images and/or vector artwork, as appropriate.
- Production-quality PDFs must be created using Apogee Normalizer, Apogee Create, or correctly a configured Acrobat Distiller application.
- Some Production-Quality PDFs may still be unusable because of flattening processes that will take place when there are transparency or dynamically-generated filter effects (e.g. drop shadows).
- PDFs, in general, do not contain as much information as EPS files of the same artwork. PDF is a simpler format than EPS and may contain resolution- and/or quality-compromised artwork when compared to an EPS file.
- We have the ability to "scavenge" PDFs for the artwork we need for a given job. Our success will be determined by the quality of the PDF. Our preflight process will identify any deficiencies and we will request replacement artwork if necessary.

Gathering/Collecting Files

Please make sure to send all files and fonts required to output your job. Failure to include needed fonts and/or images will delay production of your job.

Fonts

Whenever practical, please convert your type to outlines. Text supplied as outlines are vector graphics and do not require that we have the font(s) on-hand for output purposes. Please note that the drawback to supplying text in this manner is that we will not be able to make copy changes if you determine that your supplied text needs correction.

If you need to send fonts, please ensure that they are in any of the following formats: PostScript Type 1, PostScript Type 3, OpenType (.otf), or TrueType (.ttf). When sending PostScript Type 1 and Type 3 fonts, you must send the bit-map font file ("font suitcase") and the printer font file(s).

Image Specifications

Our **minimum** resolution for most image types is 300dpi. Our **preferred** resolution is 350dpi. There are two exceptions:

- Black and white (line-art or “1-bit”) images should be provided at a minimum resolution of 1200dpi. These resolutions assume that you are providing the image at the final, “full” size. Supply 1-bit images at lower resolutions will result in reduced print quality on the end-product.
- Copy-dot scans must be provided at exactly 2400dpi and cannot be enlarged or reduced.

Use the following guidelines to determine the “appropriate” resolution for black and white, grayscale and color images:

- If an image is to be printed at 100% (i.e., same-size), it must be supplied at the minimum or preferred resolution for its image type as stated above.
- If an image is to be printed at less than 100% (i.e., a reduction of the supplied image), it can be provided at a resolution lower than the minimum or preferred resolutions. For example, an image printed at 50% of supplied size should be 150dpi to 175dpi.
 - Use this formula: Supplied Resolution, in dpi = (Reduction Percentage) x (Minimum or Preferred Resolution).
- If an image is to be printed at greater than 100%, (i.e. an enlargement of the supplied image), the image must be provided at a higher resolution than the minimum or preferred resolutions. For example, an image printed at 200% of supplied size should be 600dpi or 700dpi.
 - Use this formula: Supplied Resolution, in dpi = (Enlargement Percentage) x (Minimum or Preferred Resolution).

Reduced, enlarged, over- or under-resolution images may not produce the desired results and may cause complications during production.

If you are re-purposing art intended for larger form-factor (e.g. letter-size sales slicks or poster-size pages), please consider downsampling these images so that their effective resolution is either our minimum or preferred resolution at CR80 or CR50 size. If you send a full-resolution file intended for a larger form-factor, it will take longer to process your files and there will be little or no benefit.

Be aware that if you “build” a layout at a size other than actual/same-size, we will have to reduce or enlarge it as appropriate so that it will fit in our standard production template. If you do not honor the position of safety- and trim-line, and/or supply insufficient bleed, those conditions could be made worse by our standard production process. To correct these problems, elements of your layout may need to be repositioned or the edge of images cloned to create bleed. This will delay processing of your job and you may be charged for these corrections.

Image Formats

Images should be supplied in either TIFF, EPS, or JPEG (see note below) format. Please set the color mode of your files to CMYK, grayscale, duotone (includes monotone, tritone, and quadtone), or multi-channel as appropriate.

Note about JPEG images:

JPEG compression will create “artifacts” in an image which affect both the overall image quality and color. “Artifacts” are discrete areas of an image, usually small with respect to the size of the image which are not part of the original scan or photograph and appear to be spots, dirt, or mirage-like distortions in the image. The undesirable effects of artifacts are inversely proportional to image resolution—i.e., lower resolution images will be affected by artifacts more than high resolution images. Regardless of the resolution, please use the highest quality (i.e. lowest compression) setting when creating original JPEG files. If the JPEG was supplied to you with a low quality setting, it is not possible to improve the JPEG by re-saving it with a higher quality setting. Re-saving a JPEG file will incur a compression-cycle which will introduce new artifacts.

Note about BMP/GIF/PCX images:

BMP, GIF, and PCX are inappropriate formats for full-color images because these file-formats use indexed color palettes. We do not use these formats directly and have to convert them into TIFF or EPS format for production.

Adobe Photoshop™

If available, you should supply original, layered Photoshop files to supplement the “final” TIFF and/or EPS images you send. Photoshop files with all layers intact allow us to make alterations to your artwork that might be required to accommodate a printing-process issue you might not be aware of.

Do not use the “16-bits/channel” setting for images in Photoshop.

If you use the Text layer feature of Photoshop make sure that you include the fonts you use in the text layers. If you do not supply these fonts, we will be required to rasterize the Text layer as-is which will convert the object-oriented text to image-form at the resolution of the rest of the file. This may not produce acceptable-quality text.

TIFF Images

Delete any alpha channels present in the TIFF file unless they are used as a mask in QuarkXPress. Please name the alpha channel appropriate, e.g. “Mask Channel,” “For Masking,” et al.

EPS Images

Do not save EPS images with JPEG image compression.

Delete unused alpha channels or path. This prevents the use of the incorrect alpha channel or path for clipping/masking purposes and also reduces file size and complexity.

Low- to moderate-complexity clipping paths can use flatness settings down to 0.2. High-complexity clipping paths may also use that value. If we encounter problems at RIP-time, we may adjust that flatness setting appropriately.

If using DCS format, please use DCS 2.0 and either single-file or multi-file and either PICT or TIFF color preview files.

If you are using a transfer curve in your image, please inform us of this fact so that we can retain this curve throughout our production workflow.

Re-Purposed or Web-Originated Images

Files taken from web sites or prepared for use on the World-Wide-Web will most likely be low-resolution RGB images (72dpi typically) with some form of lossy-compression and/or restricted color palette. Use or re-purposing of these types of images will most likely result in disappointing printed-results. Use of these types of images should be avoided unless no other options are available. Up-sampling (increasing the resolution through interpolation of existing image data) will not improve the reproduction quality of low-resolution images.

Foil Die Images

If you are supplying an image to be used to create a foil die, be aware that properties inherent in the foil material and the foil-stamping process will limit the amount of detail that can be shown. Small features, very thin lines, or fine line-screen halftone dot patterns cannot be retained.

Images should be supplied as high-resolution (1000dpi or higher) line art (i.e. black & white or 1-bit images). The foil stamping process can retain hard-edge detail so if you supply a low-resolution image (e.g. 72dpi), the “jagged” appearance of the image will be preserved in the foil stamping.

ColorSync™ and ICC Profiles

Where applicable, do not embed ColorSync™/ICC profile information. ColorSync™/ICC profiles are only meaningful in a closed-loop color management environment that must be established long before the exchange of image data.

Vector/Object-Oriented Artwork

Vector, object-oriented, or “illustration” artwork is resolution independent and so can be placed within a layout at any reduction or enlargement percentage without compromising the output quality of the artwork. Company logos and other forms corporate identification should be supplied as vector artwork whenever possible to maximize reproduction quality. Vector artwork supports the assignment of spot-colors (e.g. PANTONE color) to various elements of the artwork enabling a layout to print in colors other than four-color process. Artwork supplied as “image” data rather than vector data can be difficult or impossible to reproduce using spot-colors.

Output Resolution:

Some versions of Adobe Illustrator and Macromedia Freehand have the ability to define the output resolution of the illustration. You may use even multiples of 1200 for this resolution. The ideal value is 2400 but can be as low as 1200 and as high as 4800. If you supply your illustration with an output resolution of 300 or 600, the output may appear jagged when output to film or plate even though your internal proof prints to a laser printer (color or black & white) appear fine.

Text and Graphics

Unless specifically called for by your design, we recommended that all text should be typeset in a vector- or object-oriented application like QuarkXPress, InDesign, Pagemaker, Illustrator, Freehand, et al. You will have greater control over the quality of the typesetting within such an application. More importantly, the quality of the type on the final film- or plate-output will be significantly higher than with text typeset within an image-editing application like Photoshop or PaintShop Pro.

If you choose to do your typesetting within Photoshop (or any image-editing application), be aware that high-quality type rendering requires high image resolution (1000dpi or higher for “typeset” quality) which increases file size and processing time dramatically.

If you typeset your text using Photoshop’s Live Text feature, then your text will be handled as vector data and will be output with the same quality as you would expect if you typeset your text in QuarkXPress, Illustrator, etc. However, when combined with Layer Effects, it may be necessary to rasterize the text which will limited the resolution of the text to the resolution of the image.

For example, a CR-80 card with a full-bleed, 4/c process, 350dpi image is about 4MB in size Type created in an object-oriented application will not add to the file size significantly but will still result in sharp, well-defined text. If, instead, you use an image-editing application to typeset your text, at the minimum resolution of 1000dpi the same image is almost 33MB in size!

At 300 to 350dpi, most images will reproduce very well but most type will not. Readability will be very poor at sizes less than 10pt. Overall quality of the type will suffer even at sizes up to 14pt depending on the typeface. Only very large type, say, 36pt or larger will render well but even then, jagged curves will be evident.

Plastic Card Specifications

ISO Designation	Final (Trim) Size (in.)	Live Area ^A (in.)	Bleed Area ^B (in.)
CR50	3.500 x 1.730	3.375 x 1.605	3.750 x 1.980
CR80	3.375 x 2.125	3.250 x 2.000	3.625 x 2.375

You do not need to show rounded corners in your artwork. Be sure to provide bleed when appropriate. If you fail to provide bleed, preparation of your job may be delayed.

Images that fall outside the live area but within the trim size run the risk of being cropped when the card is punched. The “Live” area is also referred to as the “Safe” area since any image that is in the “safe” area is safe from cropping when the card is trimmed.

Bleed area is the final size plus an additional 0.125” all around the borders of the card. Your bleed elements should extend at least 0.125” beyond the border of the card.

We have available, upon request, Adobe Illustrator template files that you can use to build your job. The templates provide guidelines for all critical dimensions of CR50 and CR80 cards as well as providing FPO artwork of Track 2 and Track 3 magnetic stripes. Please contact your CSR to request a copy of the template file for your job.

Magnetic Stripe Considerations

If your card has a magnetic stripe and printing near the stripe then you must make allowances in the artwork to account for fact that the position of the magnetic strip will vary slightly from card to card. Artwork that should not normally touch the magnetic strip should be kept back from magnetic stripe edges by at least 0.0469” (3/64th inch) to allow for this variation in position. If your design includes an overall color (a.k.a. a “flood”), or overall image, it can “under-lap” the magnetic stripe without compromising its integrity.

Track 2 (ISO 7811-2)	Track 3 (ISO 7811-2)
Minimum Width: 0.25” Top of Card to Top of Stripe: 0.218” Max. Top of Card to Bottom of Stripe: 0.468” Min.	Minimum Width: 0.405” Top of Card to Top of Stripe: 0.218” Max. Top of Card to Bottom of Stripe: 0.623” Min.
For art preparation purposes, consider a Track 2 mag-stripe to be 0.375” wide.	For art preparation purposes, consider a Track 3 mag-stripe to be 0.5” wide.

Within the maximum and minimum values given above, the magnetic stripe can vary in width and vertical position and still adhere to the ISO specifications. These specifications take into account the variation that normally occurs during the production process.

We have available, upon request, Adobe Illustrator template files that you can use to build your job. The templates provide guidelines for all critical dimensions of CR50 and CR80 cards as well as providing FPO artwork of Track 2 and Track 3 magnetic stripes. Please contact your CSR to request a copy of the template file for your job.

CR80-Based Cards + Tags

We have several standard CR80 + Tag styles available. These typically consist of a CR80 card with an additional “tag” or a CR80 card subdivided into smaller sections. Here is a partial list:

Name	Description
CR80 + Key tag	Overall size: 4.5” x 2.125” Consists of a CR80 (3.375” x 2.125”) and a single key tag (1.125” x 2.125”)
CR80 2 Key tags + 2 Dog tags	Overall size: 3.375” x 2.125” A CR80-sized card sub-divided into four, die-scored sections. Consists of two Key tags (1.125” x 2.125”) and 2 Dog tags (1.125” x 1.0625”).
CR80 3 Key tags	Overall size: 3.375” x 2.125” A CR80-sized card sub-divided into three, die-scored sections. Consists of three Key tags (1.125” x 2.125”).

Other variations are available. Please discuss your requirements with your CPI Sales Representative.

Signature Panel/Foil Stamp Considerations

If your card has a signature panel and/or foil stamp, there are tolerances in position that you must be aware of. Given these tolerances, you should position your artwork accordingly. If you place artwork too close to a signature panel/foil stamp, the positional variation of the signature panel/foil stamp may be great enough that on some cards that the artwork will be obscured by the signature panel/foil stamp.

Signature Panel	Foil Stamp
+/- 0.010" Vertical	+/- 0.010" Vertical
+/- 0.015" Horizontal	+/- 0.015" Horizontal

Equipment

Workstations

PowerMacintosh G5 Dual 1.8GHz (2) and Single 1.8GHz (1), Mac OS X Tiger (10.4.x)
IMac Intel Core Duo 2GHz, Mac OS X Tiger (10.4.x)
PowerMacintosh G4 Digital Audio (2), Mac OS X

Server

HP/Compaq ProLiant DL380 G4, Windows 2003 Server

Scanning

Epson Perfection 3170 desktop scanner

Imposition and Output

AGFA Apogee Series 3 Workflow
AGFA Apogee Pilot Workstation, Windows 2000 Server
AGFA Apogee PDFRip (2), Windows 2000 Server
AGFA Apogee PrintDrive (2), Windows 2000 Server
AGFA Avantra 30 Filmsetter
AGFA Galileo VXT Platesetter

Proofing

HP Color LaserJet 3800dtn
Latran PolaProofer Gold 1420 Halftone Proofing System