# **Creating Icon (ICO) Files:**

# **Using CorelDRAW Graphics Suite & Microangelo Studio**

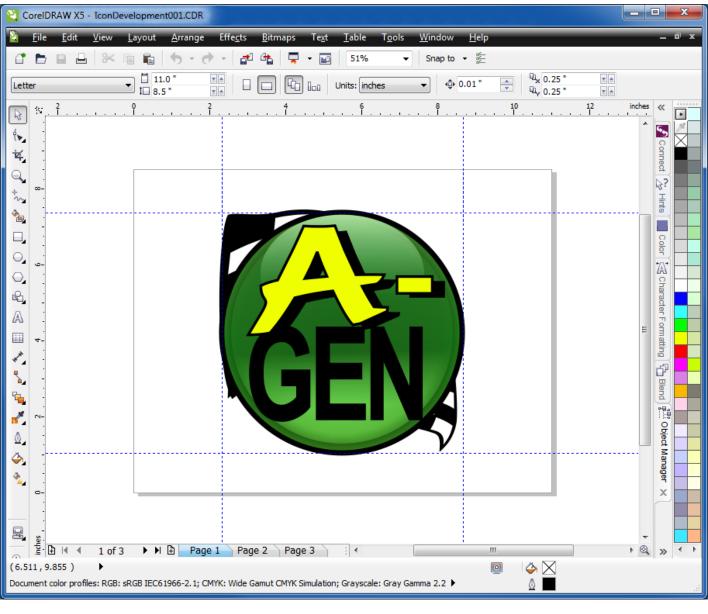
Process Documentation: 2012-02-01

**General Purpose:** The purpose of this document is to record an effective means of creating ICO files for desktop development and aid others in a similar pursuit. This particular process is not well/widely documented.

**Specific Use:** The intention of this document is to assist desktop developers in creating professional icon files to be included in any application installation package. This specific guide pertains to the use of two licensed graphics software: **CorelDRAW** (professional graphics suite) and **Microangelo Studio** (ICO-creation software).

**Note:** This guide is not version-specific; however, for this demonstration, the following software versions were used: CorelDRAW X5, packaged within CorelDRAW Graphics Suite X5 (Corel Corporation, 2012); and Microangelo Studio, within Microangelo Toolset 6 (Microangelo, 2012), all under the Microsoft Windows 7 Operating System (OS) (Microsoft Windows, 2012).

1. Create your graphic in a CorelDRAW CDR file: This is a huge time-saver. Believe me, you will not want to be forced into using Microangelo Studio (or similar ICO creation app) to create your graphic from scratch; ICO-creation software is not a suitable substitute for a professional vector graphics application, in which you can create and manipulate objects (such as text, shapes, fills, etc). In general, ICO-creators are limited bitmap/raster applications, which are unable to easily manipulate objects (generally limited to pixel-manipulation only, with very basic shape editing tools included). Shown below is an example graphic created for this demo doc (Figure 1):



## 2. Export to PNG Format: Select "File" > "Export for Office" to export to PNG.

Note: This file-format will include a transparent background, saving time in future steps.

Figure 2: Example Exporting Option Used in CorelDRAW to PNG:



<u>3. Open ICO-Creation Software:</u> Now, Open *Microangelo Studio* (or similar ICO file creator software). This will be used to create a standard icon file (ICO format) from the previously created graphic file. Once created, standard ICO files can then be integrated into software develop projects and distributed in installation distributions.

**4.** Create a New Icon File Within the ICO-Creation Software: Select "Create" > "New Icon" to begin a new file.

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<u>5. Import the PNG File Previously Created in Steps 1 & 2:</u> On the "*New Image Format*" Dialog box shown below, select the "*Import*" button on the left-hand side and browse to the PNG file you created earlier.

Figure 3: Importing a PNG file into a New ICO File Within Microangelo:



**<u>6. Begin Editing New ICO File as Desired:</u>** Select the "**OK**" button shown in Figure 3 above to complete the process of importing a PNG into a new ICO within the Microangelo Studio interface.

Figure 4: Microangelo Studio Opens the PNG in its GUI shown below:



IMPORTANT: Notice that the PNG imports and recognizes the transparent background, saving a LOT of time editing the file.

**7. Finalize ICO File by Adding Additional Image Format Sizes:** Continue to add new image sizes for the icon file, based on the first image. The standard ICO file format allows for multiple image sizes to be included; each specific image size is used by the overall Operating System and/or software application, for which the ICO file is designed to be used, depending on OS user-settings and the particular situation in which it's represented in the OS environment (such as a shortcut to the target app on the desktop, or a file listing within Windows Explorer (WE). For most applications, you will want the following image sizes included in "XP"-annotated color-pallet support (although the annotation is not limited to XP-application only; includes newer OS application as well, such as MS Win2000, MS VISTA, and MS Win7):

- √ 256 X 256 pixels
- √ 48 X 48 pixels
- √ 32 X 32 pixels
- √ 16 X 16 pixels

Figure 5: Adding Additional Image Sizes to File - i.e. 48 X 48 - XP Shown: New Image Format Format Project template 0K Current template: Win2K-WinVista 48 x 48 - XP Project templates... Use manual format controls Cancel Prefill Image New Image Existing images: Resample: View: Sharpen: 256 x 256 - XP Bicubic Import... 100% ▼

Continued ...

**8. Save Completed ICO File:** Save the completed ICO file, once all additional image sizes have been added - at least the four standard sizes shown below (listed in actual size thumbnails on right-hand side of the interface window in Figure 6).

Figure 6: Completed ICO File Design, Including Four Standard Image Sizes Shown on Right Side:



Use resultant ICO formatted file as desired in software development projects, personal use, etc.

Continued ...

Figure 7: Completed ICO file image as shown within the Win7 OS Windows Explorer file manager:



### **Conclusion:**

By utilizing the power of a very good, professional graphics application such as Corel Corporation's CorelDRAW app and all available graphics tools built in, it is possible to create much more professional-looking icon graphics for software development and distribution projects. Most ICO-file-creation software is very limited in capability, available editing tools, and can be quite frustrating to work with when limited to individual pixel manipulation. Consequently, it is to the developer's advantage to use better graphics software to create the initial graphic prior to using the ICO-creation software for what it is best designed - creating standard ICO formatted files. By exporting an original/native graphic to the PNG format, the developer will save even more time, since the ICO creator should recognize and transfer the transparent background after importing; this tip alone will save much time and frustration dealing with the limited ICO creator interface and manually integrating background transparency.

#### References

Corel Corporation. (2012, February). CorelDRAW Graphics Suite X5. Retrieved February 1, 2012 from the Corel Corporation Web site:

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