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Axialis IconWorkshop 6.1

Corporate Edition / Tryout Version

Getting Started Guide

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1 Introducing IconWorkshop™

What is Axialis IconWorkshop™?

Axialis IconWorkshop™ is a powerful tool designed to work with Windows® and Macintosh® icons. It has a fully integrated workspace which permits you to work efficiently and create professional icons in minutes.

What can I do with IconWorkshop™?

- Create, read and save Windows Vista™ icons up to 256x256 with alpha channel and PNG compression.
- Create, read and save Windows® XP icons up to 256x256 with alpha channel.
- Create, read and save Macintosh® icons up to OSX 10.4 and 10.5 (including the latest 256x256 Tiger format and 512x512 Leopard Format).
- Modify, add, remove icons in EXE and DLL files. This is very useful to compress 256x256 icons for Windows Vista™ in programs (MS VS 2005 does not support compilation of compressed icons in resources).
- Creating attractive icons in seconds using ready-to-use Image Object Packs.
- Composing icons in seconds using mouse drag & drop and a powerful built-in image editor.
- Create icons with several built-in formats from images (BMP, PNG, JPEG 2000, PSD...) in one operation.
- Convert icons from Windows® to Macintosh® and vice versa.
- Apply automated operations to several icons at once (batch procedures) : Conversion Win <-> Macintosh; Icon creation from images; Image creation from icons; Icon format normalizing...
- Work easily with Adobe Photoshop® using a transfer plugin. With ready-to-use Photoshop templates, create icons in one step with several formats.
- Work easily with Adobe Illustrator ® using a transfer plugin.
- Manage your icons using a built-in Librarian.
- Browse your computer for icons and images using a built-in explorer with preview.
- Customize your Windows® icons.
- Compile icon libraries and distribute them.

What formats are compatible with Axialis IconWorkshop™?

Axialis IconWorkshop™ is the only icon tool to support creation, reading and writing of **Windows® XP, Windows Vista™**, (ICO, ICL) and **Macintosh®** (ICNS, RSC, BIN) icons. Axialis IconWorkshop™ supports Windows® XP Icons with alpha channel images (smooth transparency) and Macintosh® icons up to Macintosh® OSX v10.4 (Tiger) and 10.5 (Leopard).

This new version supports creation of Windows Vista™ icons with PNG compression and image sizes up to 256x256.

Why choose Axialis IconWorkshop™?

Because Axialis IconWorkshop™ is the most complete icon tool available on the market. It has powerful features and is easy to use.

Create quality Windows® XP and Macintosh® icons

Windows® XP and Macintosh® OSX come with a new generation of icons using variable transparency. This feature permits to create beautiful icons with smooth borders and shadows. You need a professional tool to create such icons. Axialis IconWorkshop™ has been designed with one goal in mind: "Icon Quality". Enjoy the powerful editor which permits to create the various image formats of an icon from an original drawing without quality loss. Axialis IconWorkshop™ is the only icon editor to create icons for both Windows® and Macintosh® systems.

Create icons for Windows Vista™

Windows Vista™, the next version of Windows® to arrive, includes a new PNG compressed icon format. It permits to create icons up to 256x256 with alpha channel with smaller file size. Axialis IconWorkshop™ now fully supports this new format in all features: edition, automatic format creation, batch creation, batch conversion, format normalization... Don't wait and create today your icons for Windows Vista™. To get more information about Windows Vista™ icons, read this topic: "Introducing Windows Vista™ Icons".

Make program files containing Windows Vista™ compressed icons

Microsoft Visual Studio versions 6 to .NET 2005 do not support creation of executables with PNG-Compressed 256x256 icons for Windows Vista™. Axialis IconWorkshop permits to compress icons directly in EXE/DLL files.

Create icons the professional way using ready-to-use Photoshop templates

Create icons the professional way using ready-to-use Photoshop templates - 10 ready-to-use Photoshop® templates are provided with Axialis IconWorkshop™. Load templates in Photoshop® directly from IconWorkshop™, draw your icons in several formats and transfer the whole work in IconWorkshop: Your icon is created in one step. You can even create your own template using an easy to use XML descriptive format.

Create attractive icons from Image Objects in seconds

The first Axialis Object pack for icons has been included in Axialis IconWorkshop™. It is a library of 150 graphical objects which will permit you to create an unlimited number of icons with various glossy effects and shapes simply using drag & drop. The images come in 256x256 high-quality PNG format. It permits to create icons containing various sizes up to 256x256 for Windows® XP, Windows Vista™ and MacOS®. To read more about this exclusive feature, read this topic: "Creating Icons from Image Objects".

Convert icons between Macintosh® and Windows® formats

Macintosh® designers are prolific, especially when it comes to icon creation. Use Axialis IconWorkshop™ to read Macintosh® icons and convert them to Windows®. It reads all kind of Macintosh® icons up to OS-X. You can also convert your Windows® icons for the Macintosh®.

If you're a software developer, you'll enjoy the ability to create applications for both Windows®and Macintosh® platforms by converting your icons. If you're simply a Windows® user you'll be able to use your icons on both systems.

Automatically create icons from images

Axialis IconWorkshop™ features a powerful editor. But sometimes it's easier to create an icon from an existing image. Basically, you can import all kind of existing images: PSD, PNG, BMP, JPEG, GIF, JPEG 2000...

An exclusive feature permits to create an icon, with its several image formats, in just one operation! All is done automatically: Alpha channel is preserved, palettes are calculated for 256 color formats and even 16 color formats with transparency are generated.

Export icons to images to illustrate your applications

If you create applications, you know that images are required to create an attractive user interface. Axialis IconWorkshop™ permits to export any image included in an icon (Windows®/Macintosh®) to an external bitmap file. You'll be able to easily use these images in your program to create beautiful toolbars for example.

Redistribute your icons

A compilation feature permits you to create professional installation packages to redistribute your Icon Libraries. It produces a compressed install program (the result is up to 70% smaller) convenient for Web distribution. Also, an advanced system, based on activation codes, permits you to protect your Icon Libraries. The user will be prompted for a personal code to proceed with the installation. An activation code generator is also provided.

Customize Windows® icons

A built-in feature permits you to customize many Windows® icons. It works with all Windows® version up to Windows® XP. This new version permits you to customize each folder icon individually.

What's New in Version 6.10?

This version includes several major improvements:

- Compatible with Windows Vista™ - Many Windows Vista™ compatibility issues have been fixed in this version.
- New Interface for Windows Vista™ - The application automatically detects Windows Vista™ and propose a new user interface compatible with the new Aero™ visuals.
- Make program files containing Windows Vista™ compressed icon - Microsoft Visual Studio versions 6 to .NET 2005 do not support creation of executables with PNG-Compressed 256x256 icons for Windows Vista™. Axialis IconWorkshop permits to compress icons directly in EXE/DLL files and use Windows Vista™ icons in your software projects.

- Create icons the professional way using ready-to-use Photoshop templates - 10 ready-to-use **Adobe Photoshop® Templates** are provided with Axialis IconWorkshop™. Load templates in Photoshop® directly from IconWorkshop™, draw your icons in several formats and transfer the whole work in IconWorkshop. Your icon is created in one step. You can even **create your own template** using an easy to use XML description file.
- Support for 512x512 Macintosh icons for OSX 10.5 Leopard - Create extra large 512x512 icons for the new MacOS 10.5. Axialis IconWorkshop now fully support this size.
- New Object Pack #2 for Icons (Realistic Buttons) - This pack is composed of 500 hi-res **image objects** which have been designed to create icons in the style of Windows Vista™. Using this pack you can easily create beautiful sets of buttons to be used in your projects (websites, application GUI, toolbars, dialog boxes...). With 156 symbols included and many shape effects (circle, rounded square, octagon, triangle) you can create a large variety of icons. The full set of objects is available for download on our web site to registered customers only.
- New Object Pack #3 for Icons (Quick Toolbars) - A collection of 256 **image objects** which permits to quickly create program toolbars. Using drag & drop, you can create in seconds icons and buttons for your toolbars by associating basic objects and overlays symbols. The objects do not contain details and have thick borders to allow the creation of small icons suitable for toolbars (32x32, 24x24, 16x16). The objects, which are provided in 256x256 format with alpha channel, permit to easily create icons containing various sizes for Windows XP®, Windows Vista™ & MacOS®. The full set of objects is available for download on our web site to registered customers only.
- New Object Pack #4 for Icons (Web 2.0 Icons) - This pack is composed of 601 **image objects** which permits to quickly create icons in the style of Web 2.0. Using drag & drop, you can create in seconds icons and buttons for your websites and applications by associating background shapes, glossy effects, shadows and various ready-to-use texts and symbols. The icons can also be saved as optimized GIF, JPEG or PNG images for inclusion in your websites. To permit you to work faster, more than 500 ready-to-use derived symbols and texts have been added to the pack, including effects like outer light glow, soft shadow, emboss and 15° rotation. The full set of objects is available for download on our web site to registered customers only.
- Other enhancements and bug fixes.

Features included since version 6.0

This version includes several major improvements:

- Full Windows Vista™ icon support with PNG compression - Axialis IconWorkshop™ now loads, creates, edits, saves **Windows Vista™ icons**. Windows Vista™ the next version of Windows® to arrive, includes a new PNG compressed icon format. It permits to create icons up to 256x256 with alpha channel with smaller file size. Axialis IconWorkshop™ now fully supports this new format in all features: edition, automatic format creation, batch creation, batch conversion, format normalization... Don't wait and **create today your icons for Windows Vista™**.
- Object Pack for Icons (Glossy Buttons) - The first **Axialis Object Pack** for icons has been included in Axialis IconWorkshop™. It is a library of 150 **image objects** which will permit you to create an unlimited number of icons with various glossy effects and shapes simply using drag & drop. The images come in 256x256 high-quality PNG format. It permits to create icons containing various sizes up to 256x256 for Windows® XP, Windows Vista™ and Macintosh® OS.

- Illustrator® to Axialis IconWorkshop™ transfer plug-in - Now you can import vector images with transparency directly from Illustrator into Axialis IconWorkshop™ through memory. You don't need to create a temporary file anymore. Read More...
- Full tutorial on how to use Image Objects - Creating icons from image objects is easy and produce hi-quality results. This tutorial will learn you how to create attractive icons in minutes using Image Objects.
- Background floating selection - Using this command you can easily place a floating object in background of your icon. This is useful to add a shadow or a colored halo around an icon.
- Copy/Paste Alpha Channels as Masks - Now you can use a grayscale mask image to apply it as Alpha Channel to an icon. Also, you can extract an alpha channel from an icon to create a grayscale mask image.
- 256x256 and floating Preview Window - The preview window is now adjustable (256x256 or 128x128). It can also be set as a floating window (easier to move in 256x256 mode).
- Other enhancements and bug fixes.

Object Packs - Terms Of Use

This is a legal agreement between you (the "User") and Axialis Software Corporation ("Axialis"). This agreement refers to the image objects (the "Objects") included in the product or packs downloaded from our website: http://www.axialis.com/objects. By using the objects, the user agrees to the following terms.

IMPORTANT: This agreement does not refer to the sample icons provided in the product. To get more information on the sample icons terms of use, read this page: "Sample Icons - Terms of Use".

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Axialis grants the User a non-exclusive, non-transferable, royalty-free license to use these objects as indicated herein. The objects, which cannot be used "as is". The Objects must be assembled together to create icons (the "Icons").

You MAY: (a) assemble the Objects to create Icons using an Axialis product only; (b) use the Icons in personal or commercial projects; (c) use the Icons in softwares, documentations or websites; (d) redistribute, loan, rent, sell the Icons created using the Objects as long as they have been created with an Axialis product.

Restrictions

You MAY NOT: (a) use the Object "as is" without assembling them using an Axialis product; (b) redistribute, loan, rent, sell the Objects "as is"; (c) use the Icons to create pornographic, immoral, illegal or defamatory material

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Disclaimer of Damages

AXIALIS assumes no liability for damages, direct or consequential, which may result from the use of the Objects, even if AXIALIS has been advised of the possibility of such damages. Any liability of the seller will be limited to refund the purchase price if any.

Sample Icons - Terms Of Use

In version 6.10 and more, the sample icons have been created by the Axialis Team. As a result, you can freely use and/or redistribute them in any projects as long as you've purchased Axialis IconWorkshop (see User License Agreement).

If you use these images on a website, please add the following HTML tag:

```
<a href="http://www.axialis.com/icons/">Icons</a> by <a
href="http://www.axialis.com">Axialis Software</a>
```

IconBuffet copyrighted icons

Icons in folder "Librarian/Icons/Tutorials/Redmond - ©2006 IconBuffet" are copyrighted and cannot be used. Please contact the authors at http:/www.iconbuffet.com.

Acknowledgments

Icons and Images used in the program

Thanks to these great icon artists for giving us permission to include some of their icons and images in the program (toolbar buttons, icons, dialog illustration):

. **Foood** - Some images in dialog boxes, (Iconaholic.com).

. **IconBuffet** - Toolbar icons courtesy of IconBuffet, part of Mahattan and Redmond icon set (IconBuffer.com)

. **Jairo Boudewyn** - Special thanks to Jairo who made the IconWorkshop™ icon (JairoBoudewyn.com)

. **Marvilla** - Some images in dialog boxes (Iconica)

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Thanks to Ivan Stambolic for the **Serbian** translation (Website).

VisiBone Color Swatches

Thanks to **Bob Stein** for his great "Web Safe by VisiBone" color swatch (located in application data > Color Swatches > Web Safe by VisiBone.axco).

Compression Support

Thanks to **Jean-loup Gailly** and **Mark Adler** for writing the fantastic and free ZLIB compression/decompression library which is used in Axialis products. Visit the official ZLIB Web page at: http://www.gzip.org/zlib/

PNG Support

Thanks to the creators of the PNG graphic file format and its related source code. Visit the official PNG Web page at: http://www.libpng.org/pub/png/

JPEG Support

Thanks to **Thomas G. Lane** and the **Independent JPEG Group** for the JPEG graphic file format and its source code. Visit the official JPEG Web page at: http://www.ijg.org

JPEG 2000 Support

Thanks to the **Joint Photographic Experts Group** for defining the JPEG 2000 graphic standard. Visit the official JPEG 2000 Web page at: http://www.jpeg.org/jpeg2000/index.html

Thanks to **Michael D. Adams**, creator of JASPER. This JPEG 2000 C library is used in Axialis products. Official JASPER website: http://www.ece.uvic.ca/~mdadams/jasper/

System Requirements

Axialis IconWorkshop™ has been designed to work with Windows® 95, Windows® 98, Windows® ME, Windows® NT4, Windows® 2000, Windows® XP, Windows Vista™.

Minimum

- Pentium® class CPU - 500 Mhz
- 65536 color video card - 1024x768
- 128 Mb RAM
- Microsoft Windows® 95 (with ComCtl32 v4.72+) or Windows® NT 4.0 SP4

Recommended

- Pentium® 3/4 or AMD Athlon - 1.2 Ghz or more
- True Color Video Card (24 or 32 bits - 16,8 M colors) - 1280x1024
- 512 Mb RAM
- Microsoft Windows® ME, Windows® 2000, Windows® XP, Windows Vista™

2 Before you start...

Before you start following this IconWorkshop tutorial we strongly recommend you to read the following topics. You will learn important general information about icons and image objects. This knowledge is required to understand all the terms and notions used in this tutorial.

What is an Icon?

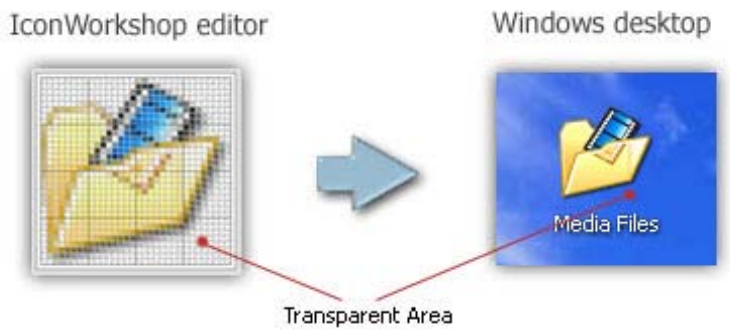
An icon is a graphic image, a small picture or object that represents a file, program, web page, or command. Icons help you execute commands, open programs or documents quickly. To execute a command by using an icon, click or double-click on the icon. It is also useful to recognize quickly an object in a browser list. For example, all documents using the same extension have the same icon.

That's almost all you need to know if you only use icons. But to create icons, which is the purpose of Axialis IconWorkshop™, you need to more about them. What's the difference between a standard image and an icon image? What's the structure of an icon? How to create an icon which will display correctly on all screen configurations (size, colors...)? Can we save an icon to a file? Can we assemble several icons into one file? What about the new Windows® XP icon format?

What are the differences between an image and an icon?

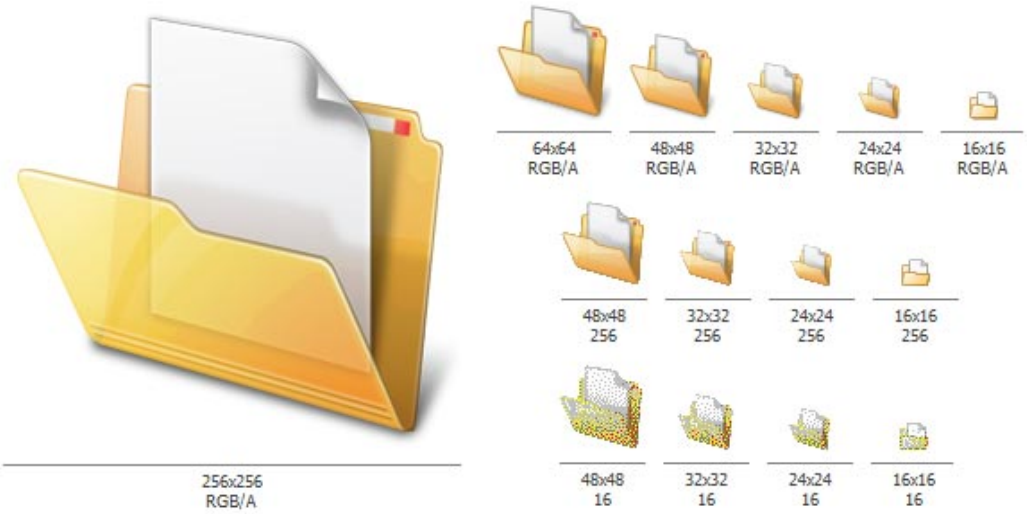
A computer image is a bitmap (composed of pixels) or vector (composed of drawing paths) picture, which can be saved using various formats (BMP, PSD, GIF, JPEG, WMF...). All these formats have several different properties (bitmaps, vectors, compressed, layered, animated...) and can be used to store pictures at any sizes and resolution.

Icons are different from standard images. They are have standard sizes (usually small): 16x16, 32x32, 48x48... One icon is composed of several images. Each of them with a different size and number of colors (mono, 16 colors, 256 colors, 16.8M...). And the most important property of an icon is the ability to include transparent areas. This allows seeing the screen background behind the icon within its square image (see illustration below).



What is the structure of an icon?

An icon is a group of images of various formats (size and colors). Furthermore, each image can include transparent area. That's why you'll find a transparent color in the drawing palette for 16 or 256 color images and a variable opacity parameter using an alpha channel for the new RGB/A image format (opacity = 0 means transparent).
You need to include several images in an icon to permit Windows® or Macintosh® OS to choose the appropriate format when displaying it on screen. It may change based on screen number of colors and display location. For example, in the Windows® task bar icons are displayed using 16x16 image format and on the desktop, they are displayed at larger sizes (48x48, 96x96, 256x256). In Windows Vista™, some intermediate sizes are used (24x24, 32,32, 48x48 and 64x64). If a size does not exist in the icon, Windows Vista™displays it automatically by resizing "on the fly" the largest size 256x256.
The Macintosh® OSX uses the large formats 128x128, 256x256 and even 512x512 in OSX 10.5. All those formats include an alpha channel to create smooth transparency and permits nice resize effects .



An icon contains several images formats (size and colors)

This is very important to create several image formats in an icon (especially if you wish to redistribute it) in order to be compatible with all screen configurations. Axialis IconWorkshop™ includes a powerful feature which permits to create new formats based on existing images in a few clicks.

The image format 128x128 is used under Macintosh® OS 10.0 or more only. OSX 10.4 (codename "Tiger") supports icons up to 256x256. OSX 10.4 (codename Leopard) supports icons up to 512x512. Axialis IconWorkshop™ fully supports creation and edition of OSX icons up to 256x256 and 512x512.

Windows® XP does not display 128x128 icon formats in normal mode. By default, icon display in Windows® versions prior to Microsoft Vista™ is limited to 48x48 icons. Microsoft Windows Vista™ supports icon formats up to 256x256 with compression. Axialis IconWorkshop™ fully supports creation and edition of Windows Vista™ icons. To know more read this topic: "Introducing Windows Vista™ Icons".

Which image formats should I include in my icons?

To be compatible with all display cases and screen configurations, you must consider creating icons containing various image formats. See below the minimum and recommended formats for different OS versions:

Windows® 95, Windows® 98, Windows® ME, Windows® 2000

- Recommended: 48x48 (256 colors, 16 colors), 32x32 (256 colors, 16 colors), 16x16 (256 colors, 16 colors).
- Minimum: 32x32 (256 colors, 16 colors), 16x16 (256 colors, 16 colors).

Windows® XP

- Recommended: 48x48 (RGB/A, 256 colors, 16 colors), 32x32 (RGB/A, 256 colors, 16 colors), 24x24 (RGB/A, 256 colors, 16 colors), 16x16 (RGB/A, 256 colors, 16 colors).
- Minimum: 32x32 (RGB/A, 256 colors, 16 colors), 16x16 (RGB/A, 256 colors, 16 colors).
- Optional: 128x128 (RGB/A).

Windows Vista™

- Recommended: 256x256 (RGB/A), 64x64 (RGB/A), 48x48 (RGB/A, 256 colors, 16 colors), 32x32 (RGB/A, 256 colors, 16 colors), 24x24 (RGB/A, 256 colors, 16 colors), 16x16 (RGB/A, 256 colors, 16 colors).
- Minimum: 256x256 (RGB/A), 48x48 (RGB/A, 256 colors), 32x32 (RGB/A, 256 colors), 16x16 (RGB/A, 256 colors).
- Optional: 256x256 (256 colors, 16 colors), 64x64 (256 colors, 16 colors), other formats are possible to deal with HIDPI screens (see below).

If you create an icon for recent versions of Windows®, the compatibility is ensured with previous versions. For example, if you create an icon containing a 256x256 image for Windows Vista™, it will display fine under Windows® XP. Based on our tests, the only exception we've found is: If you add 24x24 image formats in your icon, it won't be compatible with Windows®98 and Windows®2000. The icon displays correctly in IconWorkshop™ but will be considered invalid by Windows®.

Windows Vista™ for HI-DPI screens

On hi-dpi screens (high DPI resolution LDC screens), Windows Vista™ code will downscale the images for sizes between 64x64 and 256x256. If you want your icon to be compatible with future screens, we recommend you to add the following sizes:

- **Recommended: 256x256** (RGB/A), **64x64** (RGB/A, 256 colors), **48x48** (RGB/A, 256 colors), **40x40** (RGB/A, 256 colors), **32x32** (RGB/A, 256 colors), **24x24** (RGB/A, 256 colors), **22x22** (RGB/A, 256 colors), **16x16** (RGB/A, 256 colors).

Examples of scaling ratios applied to some common icon sizes:

DPI	Scale Factor	16x16 Icon Size	32x32 Icon Size	48x48 Icon Size
96	100%	16x16	32x32	48x48
120	137%	22x22	40x40	66x66 (scaled by code)
144	150%	24x24	48x48	72x72 (scaled by code)
192	200%	32x32	64x64	96x96 (scaled by code)

Macintosh® OSX

- **Recommended: 128x128** (RGB/A), **48x48** (RGB/A, 256 colors, 16 colors), **32x32** (RGB/A, 256 colors, 16 colors, mono), **16x16** (RGB/A, 256 colors, 16 colors).
- **Minimum: 48x48** (RGB/A, 256 colors), **32x32** (RGB/A, 256 colors), **16x16** (RGB/A, 256 colors).

Macintosh® OSX 10.4 Tiger

- **Recommended: 256x256** (RGB/A), **128x128** (RGB/A), **48x48** (RGB/A, 256 colors, 16 colors), **32x32** (RGB/A, 256 colors, 16 colors, mono), **16x16** (RGB/A, 256 colors, 16 colors).
- **Minimum: 128x128** (RGB/A), **48x48** (RGB/A, 256 colors), **32x32** (RGB/A, 256 colors), **16x16** (RGB/A, 256 colors).

Macintosh® OSX 10.5 Leopard

- **Recommended: 256x256** (RGB/A), **128x128** (RGB/A), **48x48** (RGB/A, 256 colors, 16 colors), **32x32** (RGB/A, 256 colors, 16 colors, mono), **16x16** (RGB/A, 256 colors, 16 colors).
- **Minimum: 128x128** (RGB/A), **48x48** (RGB/A, 256 colors), **32x32** (RGB/A, 256 colors), **16x16** (RGB/A, 256 colors).
- **Optional: 512x512** (RGB/A).

Below is a summary of the standard image formats that should be included in icons. If an image format is missing, Windows® displays the nearest existing image. The resulting image is generally blurred and distorted.

	512x512	256x256	128x128	64x64	48x48	32x32	24x24	16x16
RGB/A	○	● *	◌	●	●	●	●	●
256 Colors	○	◌	◌	◌	●	●	●	●
16 Colors	○	◌	◌	◌	●	●	●	●
Mono	○	◌	◌	◌	◌	◌	◌	◌

Windows® standard icon image formats

(*) PNG compressed Windows Vista™

	512x512	256x256	128x128	64x64	48x48	32x32	24x24	16x16
RGB/A	● ***	● **	●	○	●	●	○	●
256 Colors	○	○	○	○	●	●	○	●
16 Colors	○	○	○	○	●	●	○	●
Mono	○	○	○	○	◌	●	○	◌

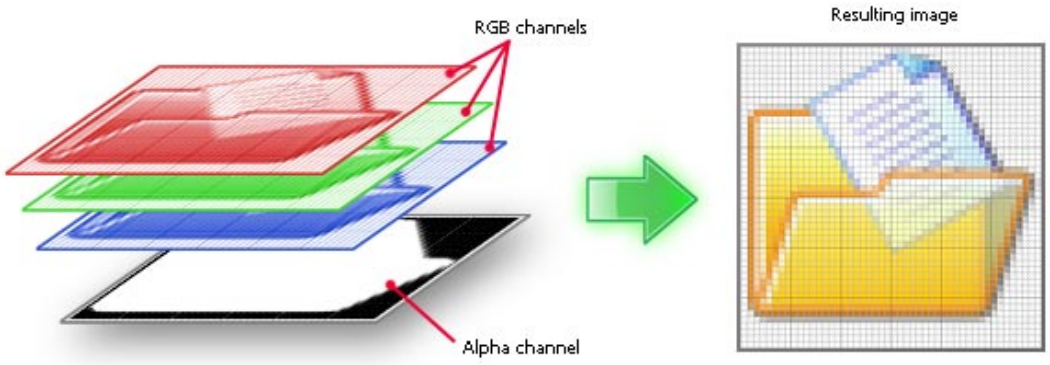
Macintosh® OS standard icon image formats

(**) Jpeg2000 compressed OSX 10.4
(***) Jpeg2000 compressed OSX 10.5

● Recommended ◌ Optional ○ Not Available

What is the RGB icon format with Alpha Channel?

Also called RGB/A, this image format contains 16.8M colors coded in RGB plus an additional opacity channel. This channel is called the "Alpha Channel". Each channel is coded using 8 bits per pixel. As a result each pixel is coded in 32 bits (32 BPP - Bits Per Pixel). See the illustration below to understand how channels are organized in an RGB/A image.

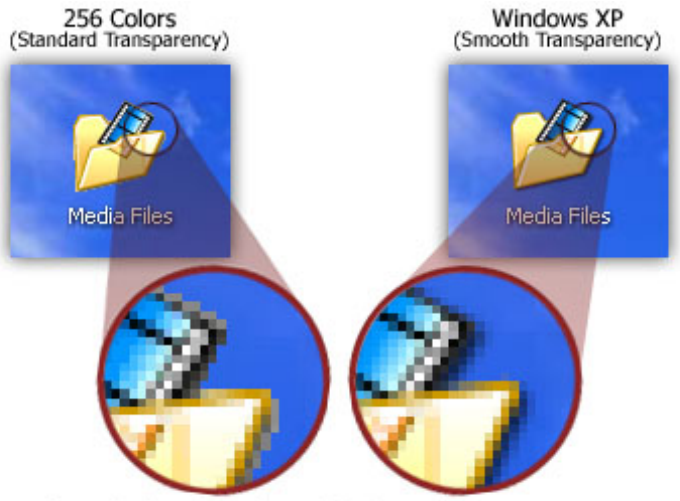


Structure of an image with Alpha Channel (RGB/A)

This is a new image format that you can find in new generation of icons. This image format is called Windows® XP RGB/A by Axialis IconWorkshop™.

The main advantage of this image format is that it permits to display a smooth transparency in icons. The resulting image is displayed with smooth contours on all backgrounds. It permits also to create dropped shadows behind icons. This interesting effect, which is recommended by Microsoft, is usually used in Windows® XP icons.

The following illustration shows the difference between a standard image format transparency (in 256 color formats for example) and the new Windows® XP smooth transparency:



Standard vs Windows XP Smooth transparency

Windows® and Macintosh® icons support RGB/A images. These icons can be displayed in Windows®XP, Windows Vista™ and in Macintosh®OS 10 or more. Older systems does not support RGB/A icons. That's the reason why you need to include other standard formats in your icons.

Can we save an icon to a file?

Yes, the extension for a Windows® icon file is "ICO". The extensions for Macintosh® icons are "ICNS", "RSC", "RSRC" and "BIN". Only one icon can be saved in an icon file. If you want to group several icons in a file you must create a library (see below).

Axialis IconWorkshop™ fully support Windows® and Macintosh® icon files. You can create, read and save icons using those file formats. The MacBinary format "BIN" is used to transfer icons between Windows® and Macintosh® preserving Macintosh®resource forks (see "Macintosh® vs Windows® icons" topic to read more).

Can we save several icons into one file?

Yes, you can assemble several icons in one file called an Icon Library. The extension for a standard Icon Library is ICL.

Axialis IconWorkshop™ fully supports ICL files. It can create, read and save ICL library files. Furthermore, ICL is fully supported by all versions of Windows®. For example, you can customize a Windows® shortcut by selecting a new icon in an ICL file. If you manage a large number of icons, we recommend you to store them in ICL files. ICL file size is limited to 64MB.

Creation of Macintosh® icon libraries is not yet supported by Axialis IconWorkshop™. However you can read RSRC files with several icons embedded as well as Icontainer libraries. Additionally you can save Macintosh® icons in ICL files. A small overlay image permits to distinguish them in Axialis IconWorkshop™. However you won't be able to open those ICL files under Macintosh®OS. Future versions of Axialis IconWorkshop™ will support Macintosh® icon library creation.

What's New with Windows Vista™ Icons?

Microsoft Windows Vista™ comes with a new format of icons supporting PNG compression and sizes up to 256x256. The standard Windows Vista™ icons now includes the following image formats (grayed formats are optional):

256x256 - RGB/A	64x64 - RGB/A	48x48 - RGB/A	32x32 - RGB/A	24x24 - RGB/A	16x16 - RGB/A
256x256 - 256c	64x64 - 256c	48x48 - 256c	32x32 - 256c	24x24 - 256c	16x16 - 256c
256x256 - 16c	64x64 - 16c	48x48 - 16c	32x32 - 16c	24x24 - 16c	16x16 - 16c

The problem is: if you simply make the icon and save it in standard Windows® XP ICO format, the resulting file will be 400Kb on disk. The solution is to compress the images. Only the 256x256 images are compressed. The compression scheme used is PNG (Portable Network Graphic) because it has a good lossless ratio and supports alpha channel. The compressed icon sizes are 100Kb to 150Kb.

Axialis IconWorkshop™ permits to create Windows Vista™ icons. To read more about Windows Vista™ icons and how to create them using Axialis IconWorkshop™, read this article: "Introducing Windows Vista™ Icons".

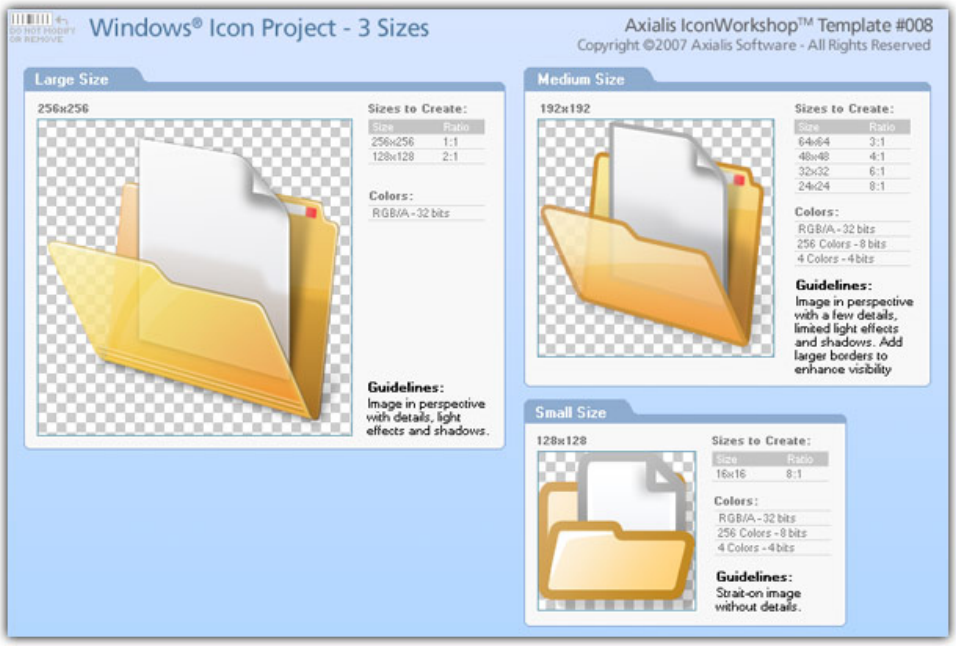
How to create an icon?

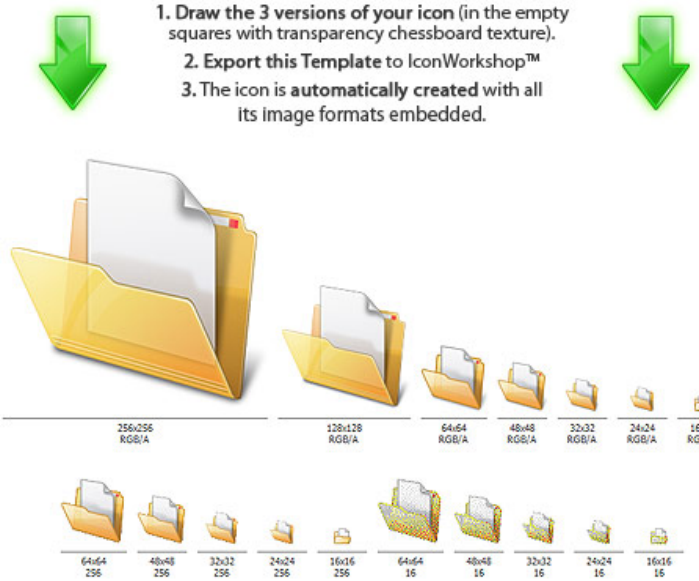
Graphics are among the primary ways of advertising the sale of goods or services. This is true for computing when designing software or website interfaces. The primary solution is to draw icons using either an image or vector editor. Then, when the image is done, use Axialis IconWorkshop™ to convert this image to an icon. If you don't use an external image editor, Axialis IconWorkshop™ contains some drawing tools that permit you to draw your own icons.

Axialis IconWorkshop™ offers alternate solutions for Adobe Photoshop® users and programmers who don't have drawing skills.

Using Project Templates for Photoshop®

If you work with Adobe Photoshop®, a new feature has been added which permits you to draw your icon at different sizes and automatically export it into IconWorkshop™. The resulting icon is automatically created with all its formats. Several ready-to-use templates have been added for Windows® and Macintosh® icon creation. See below how the templates work:

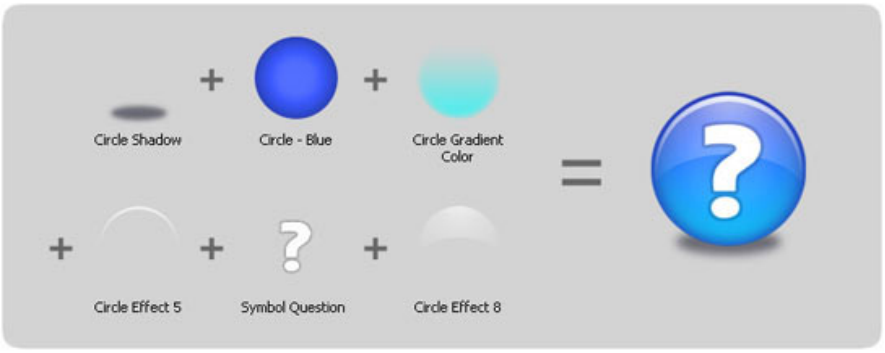




Using Image Objects

Most of us are not graphic designers and we have a problem when it comes to create attractive icons or web graphics. The question is: "**How to create attractive custom icons without drawing skills?**" Image Objects are the answer.

The solution is to use a set of image objects already done by a skilled computer graphic artist, and assembling them together to create a final artwork that will match your needs. Using a set of existing image objects the possibilities are almost infinite. You can create many different icons or graphics simply by adjusting various parameters of each object like Hue (tint), Saturation, Brightness, Contrast, Size, Opacity and more:



This association can be easily done with Axialis IconWorkshop™ using a few mouse clicks and drag-and-drops. Creating different versions of an icon is very easy with an object pack. See below some examples of the help icon made in a few minutes simply using the mouse and without drawing one pixel (non-exhaustive list of course!):

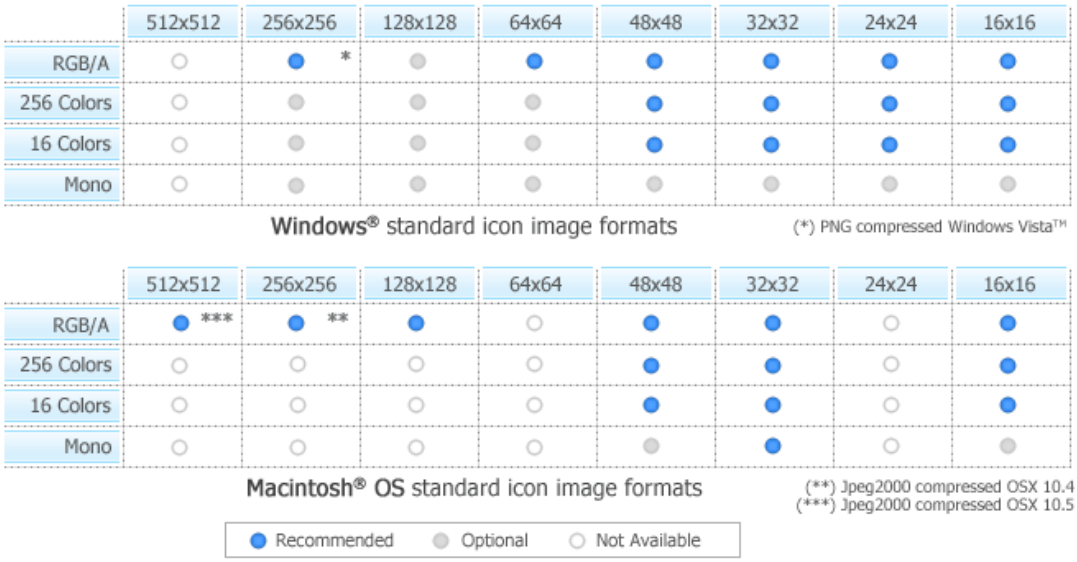
Macintosh® vs Windows® icons

What are the differences between Windows® and Macintosh® icons?

Microsoft Windows® and Apple Macintosh® icons are very similar. They both have several image formats embedded in the same icon. But the file format is totally different. You cannot use Macintosh® icons as is under Windows®. The file format is not compatible. You must convert them to Windows® ICO file format (with Axialis IconWorkshop™ of course!). This is the same under Macintosh® OS which cannot read Windows® icon files.

Axialis IconWorkshop™ supports the following Macintosh® icon files: ICNS, RSC and BIN. You can easily open them into the Icon Editor and save them as Windows® ICO format. During this operation, we recommend you to remove special Macintosh® formats which are useless under Windows®. You can also read a Windows® icon and save it as Macintosh® format.

Recommended image formats embedded in icons are slightly different in Windows® and Macintosh®. See the comparison tables below:



Some image formats are unavailable in Macintosh® icon specifications. Therefore IconWorkshop™ won't event permit you to create them. If you try to save or convert a Windows® icon to Macintosh®, some format will be removed. Note that all image formats can be created in Windows® icons, even custom formats not listed above.

Image formats included in Macintosh® icons

Only a limited list of image formats are available in Macintosh® icons (no other or intermediate formats can be defined):

Macintosh® OSX

- Recommended: **128x128** (RGB/A), **48x48** (RGB/A, 256 colors, 16 colors), **32x32** (RGB/A, 256 colors, 16 colors, mono), **16x16** (RGB/A, 256 colors, 16 colors).
- Minimum: **48x48** (RGB/A, 256 colors), **32x32** (RGB/A, 256 colors), **16x16** (RGB/A, 256 colors).

Macintosh® OSX 10.4 Tiger

- Recommended: **256x256** (RGB/A), **128x128** (RGB/A), **48x48** (RGB/A, 256 colors, 16 colors), **32x32** (RGB/A, 256 colors, 16 colors, mono), **16x16** (RGB/A, 256 colors, 16 colors).
- Minimum: **128x128** (RGB/A), **48x48** (RGB/A, 256 colors), **32x32** (RGB/A, 256 colors), **16x16** (RGB/A, 256 colors).

Macintosh® OSX 10.5 Leopard

- Recommended: **256x256** (RGB/A), **128x128** (RGB/A), **48x48** (RGB/A, 256 colors, 16 colors), **32x32** (RGB/A, 256 colors, 16 colors, mono), **16x16** (RGB/A, 256 colors, 16 colors).
- Minimum: **128x128** (RGB/A), **48x48** (RGB/A, 256 colors), **32x32** (RGB/A, 256 colors), **16x16** (RGB/A, 256 colors).
- Optional: **512x512** (RGB/A).

The 32x32 Monochrome format is recommended for Macintosh® icons to ensure display compatibility on old Macintosh® systems with B/W screens.

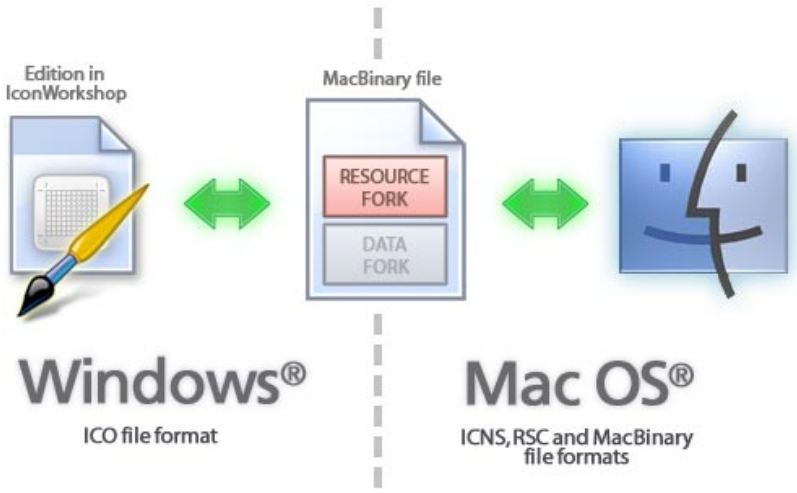
Various Macintosh® file types

Macintosh® icons can be saved using two different file formats: "ICNS" and "RSC" (or "RSRC" is used). A third format MacBinary "BIN" is used for transfer purpose between Windows® and Macintosh®.

- ICNS - This is the standard Macintosh® icon file format. Only one icon (with several formats) can be saved in this format. This format is the most commonly used.
- RSC or RSRC - This is the Macintosh® resource file format. It is used mainly by developers. This format can contain several icons. Axialis IconWorkshop™ support reading of RSC files with several icons but can write only RSC files with one icon.
- BIN - MacBinary format. This format permits to easily transfer files between Macintosh® and Windows®. For more information on this format, visit this website: http://en.wikipedia.org/wiki/MacBinary.

To transfer and icon between Windows® and Macintosh®, the easiest method is to use the MacBinary format. This format permits to generate an icon compatible with the Macintosh® OS forks.

The MacBinary format permits to merge the 2 forks in one file handy for transfer, mail attachment or Web publishing. When IconWorkshop™ saves an icon in MacBinary format, it writes the icon in the resource fork. The data fork is left empty. As a result, as soon as you receive or see the file in Macintosh®, the icon appears automatically. Then, you can handle it using the standard Finder/MacOS user interface.



Use of MacBinary format to transfer an icon between Macintosh® OS and Windows® OS

Information about the new 256x256 format for Tiger (OS-X 10.4)

The new Macintosh® OS version 10.4 (Tiger) introduces a new icon format which permits to create 256x256 icons. In the upcoming months a new generation of flat LCD displays will have much higher resolutions. The screens won't be larger but the number of pixels per inch (DPI) will increase. This will result in smaller items on screen including icons. To compensate this effect, Apple® has planned to create a new resolution-independent user interface and the ability to display icons with higher definition in Tiger.

This format is highly compressed and permits to create large 256x256 icons using less than 100 KB. The compression is based on JPEG 2000. This format is similar to JPEG but can include a transparency channel (Alpha Channel). However, JPEG 2000 has an additional option which permits to compress the image without quality loss (unlike JPEG which "destructs" the original image to increase the compression ratio). In OS-X 10.4 icons, the icons are compressed using this lossless method, keeping the original image quality. The resulting compression ratio is about 1:2 (similar to PNG).

Keep in mind that a 256x256 icon is 28 times the size of a 48x48 icon! It will change deeply the way you'll create icons in the future. But be sure we'll add many features to help you in future versions. To get an idea of things to come, see an icon snapshot comparing sizes from 256x256 to 16x16:

Information about the future 512x512 icon format for Leopard (OS-X 10.5)

This is preliminary subject to change (August 2007)

The next Macintosh® OS version 10.5 (Leopard) introduces an extra large icon format which permits to display 512x512 icons on future HI-DPI screens. This format uses the same compression format as 256x256 format for Tiger (see above).

A 512x512 icon is 4 times the size of a 256x256 icon and 114 times the size of a 48x48 icon! Keep this in mind when you're designing the image. The 512x512 image can be complex with a high level of details. To get a better idea, see an icon snapshot comparing sizes between 512x512 and 256x256 image formats:

Introducing Windows Vista™ Icons

Microsoft Windows Vista™ include many new features and enhancements. The most visible evolution will be the new Graphical User Interface (GUI). A first look at Aero (the codename for the Windows Vista™ user experience) reveals a slicker interface with sharper graphics.

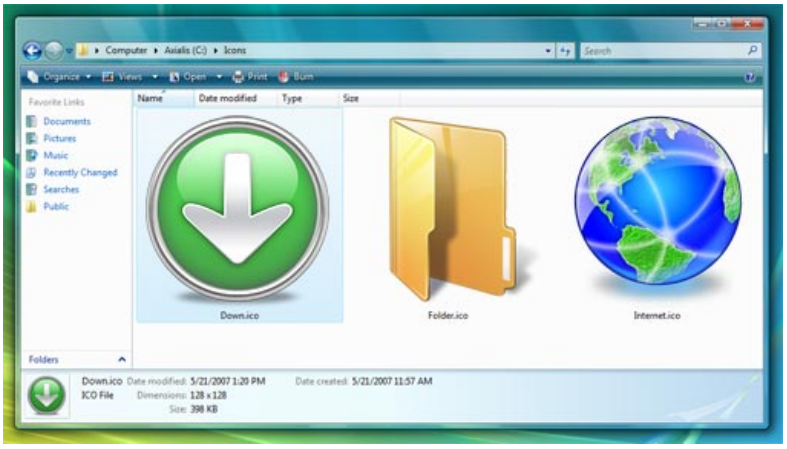
But the changes are not only visual. Aero has been designed to comply with computer technology that will be delivered over the next decade. Many new features have been implemented in Aero to support the hardware changes to come.

Windows Vista™ - A Resolution-Independent User Interface

One of the most important enhancements of Aero is its ability to deal with the high-resolution displays of the future, and that feature a resolution-independent UI. At present, monitors generally have a resolution of 96-DPI (dots/pixels per inch). Simply put, 48x48 icons are displayed on screen in a half-inch square.

Future LCD screens however will support resolutions up to 192 DPI. Therefore, to be displayed at the same size without quality loss, icons must include much larger images. That's the reason why Windows Vista™ introduces a new standard for Windows® icon size: 256x256 pixels.

The screenshot below shows the Windows Vista™ File Explorer displaying icons using the maximum resolution available: 256x256. Of course the result seems a bit "large" on a 96-DPI screen, but keep in mind that this technology has been designed for future screens. The icon files have been created with Axialis IconWorkshop™.



Windows Vista™ displaying 256x256 icons

An additional option will permit you to display icons at smaller sizes more attune to medium-res screens (say 120-DPI) screens. In such cases Aero uses the 256x256 image and shrinks it the desired size without any quality-loss. The result looks really slick with real-time zoom!

Windows Vista™ 256x256 PNG Compressed Icons

Microsoft Windows Vista™ comes with a new format of icons supporting PNG compression and sizes up to 256x256. The standard Windows Vista™ icons now includes the following image formats (grayed formats are optional):

256x256 - RGB/A	64x64 - RGB/A	48x48 - RGB/A	32x32 - RGB/A	24x24 - RGB/A	16x16 - RGB/A
256x256 - 256c	64x64 - 256c	48x48 - 256c	32x32 - 256c	24x24 - 256c	16x16 - 256c
256x256 - 16c	64x64 - 16c	48x48 - 16c	32x32 - 16c	24x24 - 16c	16x16 - 16c

The problem is: if you simply make the icon and save it in standard Windows® XP ICO format, the resulting file will be 400Kb on disk. The solution is to compress the images. Only the 256x256 images are compressed. The compression scheme used is PNG (Portable Network Graphic) because it has a good lossless ratio and supports alpha channel. The compressed icon sizes are 100Kb to 150Kb.

See below the different formats included in our sample icon **down.ico** (the 16-color formats are not displayed but are present in the icon):

Example of Windows Vista™ icon images

The PNG compression is embedded in the ICO file for the 256x256 images only. PNG compressed Windows Vista™ icons cannot be read and edited with an Windows® XP-only compatible icon editor, nor can you open them with a PNG image editor. You will require a Windows Vista™ compatible icon editor, like Axialis IconWorkshop™ , to edit such icons.

Compatibility with Windows® XP

Windows Vista™ compressed icons are compatible with Windows® XP. They can be used in Windows® XP but only using the standard formats (48x48, 32x32 and 16x16) which will be read and displayed. The 256x256 PNG formats will be ignored.

For example, if you save the **down.ico** (see link above) on your Windows® XP desktop, it will be displayed as 48x48. The most important fact is that Windows® XP won't reject Windows Vista™ icons.

Can we add other formats, such as 128x128, in Windows Vista™ icons?

Yes, but this is not recommended. 128x128 format is used by Windows® XP Desktop or Dock-Bar applications. These applications will probably support 256x256 icon format when ported under Windows Vista™.

Can we create 256x256 icons which display under Windows® XP?

Simply by creating uncompressed versions of the icons. They will work on all versions of Windows. However, if you want to display at large size under Windows® XP, you must install a Desktop Enhancer application. The drawback is the icon file size: 400Kb for an icon! Using Axialis IconWorkshop™ you can easily remove the PNG compression option.

Create a Windows Vista™ Compressed Icon with Axialis IconWorkshop™

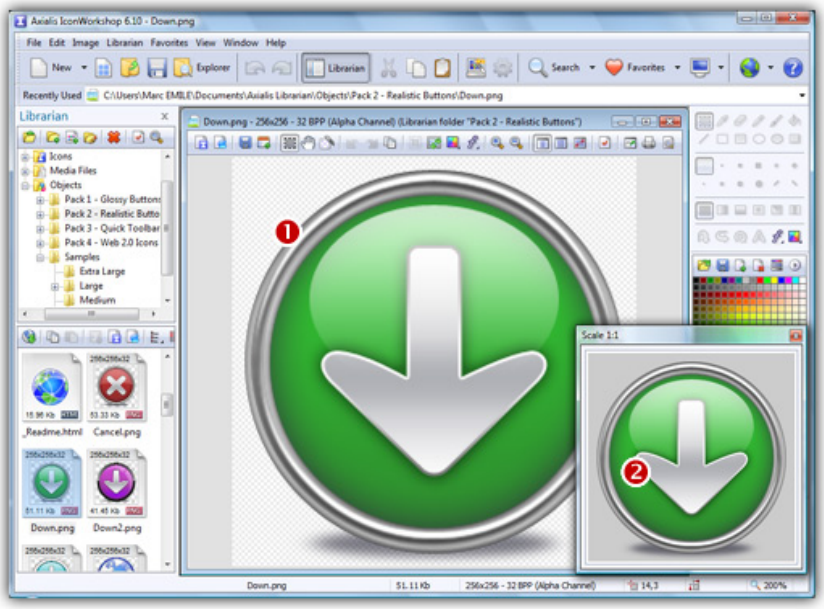
Here is a step-by-step tutorial on how to create a Windows Vista™ compressed icon using Axialis IconWorkshop™.

1. Create a 256x256 version of your icon image using any image/vector editor. Save your artwork with smooth transparency (32 BPP alpha channel) using a file format that is compatible with Axialis IconWorkshop™: BMP, PNG, JP2000, PSD.

   You can also transfer your work from **Adobe Photoshop®** using the Axialis transfer plug-in (see this tutorial) or you can create an icon by assembling several **image objects** (see this tutorial).

   In this procedure, we'll use this file: down.png (we recommend you to download it and save it on your disk - use right click and choose "Save Target As"). You can also find the file in the **Librarian**, folder "**Objects/Pack 2 - Realistic Buttons**". If this object pack is not present in the folder, you can download it from here.

2. Launch Axialis IconWorkshop™ and open the image file. It is loaded in an image document window, not an icon editor window, as shown below ():

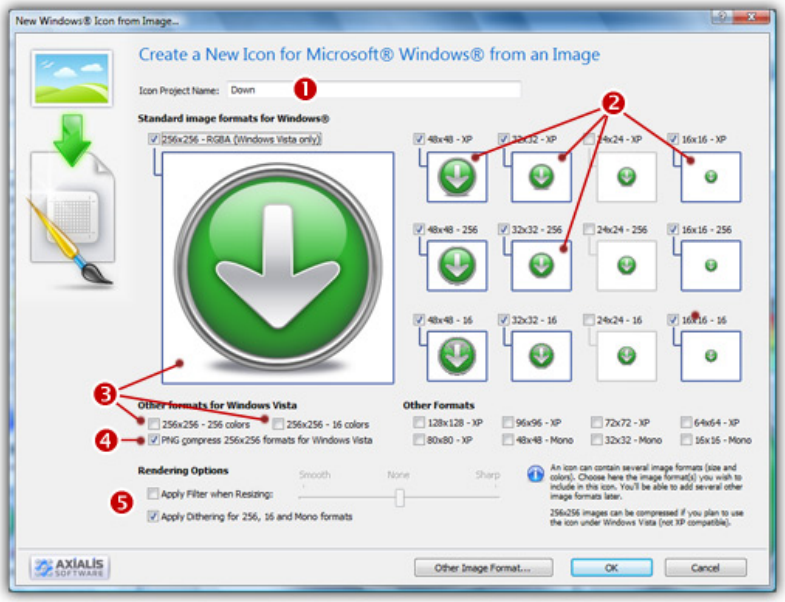


3. If the scale-1:1 preview window is not in 256x256 mode, the preview image will be cropped. It is recommended that you switch to 256x256 preview mode if you want to work with 256x256 Windows Vista™ icons. To switch to this mode, right-click in the preview window, a menu opens. Choose "**256x256 Display**". The preview window now looks as shown above in floating mode (❷).

   Use the same method to return to the previous state: choose "**128x128 Display**", remove the "Floating Window" option and use the mouse to dock the window.

4. Select the whole image. Choose **Edit/Select All** or press **Ctrl+A**. An animated selection rectangle is now drawn around the image.

5. Choose **File/Create Windows® Icon From Selection** or press "**I**". A large dialog box opens. This dialog box will permit you to create all the image formats you want to include in your icon in one simple step:



6. Type the **Name** of the new icon project (❶). The root of the image file is proposed by default.

7. Select the images formats to include in the icon (❷) by clicking on the images. To create a Windows Vista™ icon, it is recommended that you follow the Windows Vista™ specifications as specified above. Don't forget to add the 256x256 Windows Vista™ formats in RGB/A (Windows® XP), 256 and 16 color modes (❸).
8. To create a fully-compliant Windows Vista™ icon, you'll need to compress the 256x256 formats in PNG. Select the associated option (❹).
9. You can also choose to apply the dithering option to the 256/16 color images as well as add a filter effect to smooth/sharpen the resulting images in RGB/A mode (❺). View the results in the preview images.
10. When done, click **OK**. A new icon project is created in a document window:

11. The main window with the grid (❶) is the edition area where you can retouch the icon. The gray chessboard-like texture behind the icon is the transparent portion of the icon (the alpha channel info has been preserved). The scale 1:1 preview is displayed in the associated window (❷).
12. All the available formats are displayed in a list (❸). You can select them to edit (❶) or preview (❷) them. See the application built-in help (press **F1**) to learn how to add/remove formats or work with this icon project.
13. The compressed format (only the 256x256 formats can be compressed) are marked with this overlay PNG compression image: . You can add/remove this option by choosing **Draw/Compressed Image Format (Windows Vista™)** or by pressing "**K**". You can also use the local toolbar or a right-click menu.
14. When done, save the icon by choosing **Edit/Save** or pressing **Ctrl+S**.

Use of Windows Vista™ Compressed Icons in Software Projects

Windows Vista™ PNG compressed 256x256 icons will be supported in **Microsoft Visual Studio® 2008** (codename "ORCAS"). We've tested PNG compressed icons on **Visual C++ 6.0** and **Visual .NET 2003/2005** and they all reject the icon during the resource compilation:

```
Error RC2176: old DIB in res\app.ico; pass it through SDKPAINT
```

This is unsurprising to us since this new ICO file format introduces a new header which points to raw PNG data. Of course the compiler returns a false error message. The DIB header is not old, it is PNG. Passing it through SDKPAINT does not help.

Windows Vista™ compressed icons have also been reported as not functioning in the **Delphi** programming environment. New components will no doubt be developed in the future that identify these shortfalls.

Compiling a Program with a 256x256 PNG icon using Visual C++ 6.0 and .NET 2003/2005

Create a 256x256 icon with all formats embedded as recommended for Windows Vista™. Save your icon **without compressing** your 256x256 formats (approximately 400Kb icon file). Once the icon is created, work on your project as usual. The compiler will handle correctly the image since it won't be a PNG image.

When your project is finished and before releasing the program file, follow the procedure below:

1. Open the EXE file containing the uncompressed icon in IconWorkshop.
2. The file opens in a document window with all the embedded icons displayed. Be sure to display all the formats in raw: choose "**View/Display Icons/All Formats In Raw**".
3. Double-click on the icon you want to compress. It opens in another document window.
4. In the list of available formats (vertical list on left), right-click on the first "256x256 RGB/A" format, a menu opens. Choose "**PNG Compressed Image Format (Windows Vista)**". A small overlay icon indicating the compression is displayed ().
5. Repeat step 4 with the other 256x256 image formats (if any).
6. Save the icon "**File/Save**". Close the icon window.
7. Back in the EXE document window, you see the compression overlay icon () displayed on all the 256x256 formats. Repeat steps 3 to 6 for all the other icons containing 256x256 images (if any).
8. Save your EXE document, close the window.
9. You're done! The EXE file size is smaller indicating that the compression is made.

Conclusion

Windows Vista™ icons deliver a new framework of icon presentation for high definition monitors and operating systems while remaining compatible with Windows® XP and lower definition screens. The larger 256x256 icon format provides additional opportunities for icon designers to explore more subtle and detailed development in their aim to create visual symbols that aid the user in their use of the computer environment.

What is an Image Object?

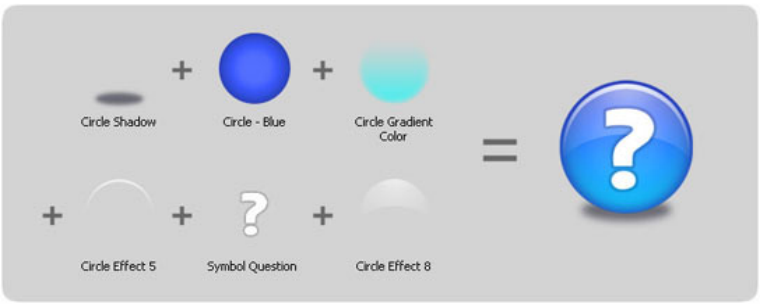
Image objects are simple, basic graphical elements which are assembled together to create more complex artworks like icons, buttons, sprites and more. Image objects permit you to be creative without drawing one pixel, just by using mouse drag & drop and applying effects. In the near future all Axialis products will support Image Objects.

Why Image Objects?

Graphics are among the primary ways of advertising the sale of goods or services. This is true for computing when designing software or website interfaces. The primary solution is to draw icons using either an image or vector editor. Then, when the image is done, use Axialis IconWorkshop™ to convert this image to an icon. Also, if you don't want to use an external image editor, Axialis IconWorkshop™ contains some drawing tools that permit you to draw your own icons. But most of us are not graphic designers and we have a problem when it comes to create attractive icons or web graphics. The question is: "**How to create attractive custom icons without drawing skills?**" Image Objects are the answer.

The solution is to use a set of image objects already done by a skilled computer graphic artist, and assembling them together to create a final artwork that will match your needs. Using a set of existing image objects the possibilities are almost infinite. You can create many different icons or graphics simply by adjusting various parameters of each object like Hue (teint), Saturation, Brightess, Contrast, Size, Opacity and more.

For example, using 6 image objects from our Glossy Buttons object pack, you can easily create an attractive help icon:



This association can be easily done with Axialis IconWorkshop™ using a few mouse clicks and drag-and-drops. Creating different versions of an icon is very easy with this pack. See below some examples of the help icon made in a few minutes simply using the mouse and without drawing one pixel (non-exhaustive list of course!):

Specifications of an Image Object

An image object is a simple raster or vector image which can be saved as standard or proprietary file format. However, to comply with Axialis requirements, image objects must match the following specifications:

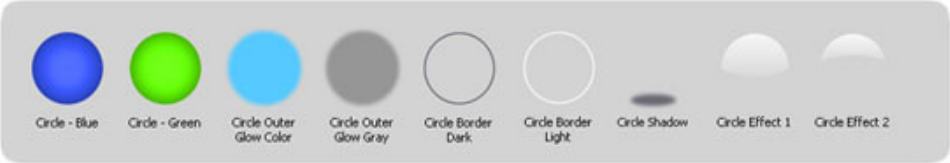
- Objects can be vector or raster images;
- Objects file format must be compatible with Axialis Software products: PNG, JPEG2000, BMP, PSD, ICO, ICNS (more formats to be supported in the future);
- Raster objects must contain RGB images and include alpha-channel transparency (RGB/A 32 bits-per-pixel format). Indexed images with color palette are not accepted.

- Raster objects size must be 256x256. Overlay objects object can be 128x128. Complex multi-resolution objects can include several versions on the same image at different sizes (useful for small icons).
- Objects can contain layers;

Different Types of Image Objects

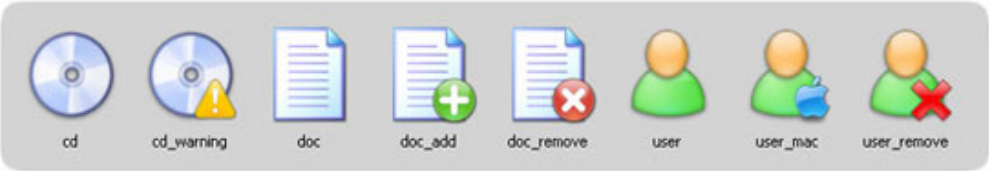
All objects are simply images. However we can separate them in three types:

- **Basic Objects** - These objects are the most simple possible. For instance, the Glossy Buttons pack contains only basic objects. Basic objects cannot be used alone. They are designed to be added as layers to other basic or simple objects. Typical basic objects are: geometric shapes, reflect effects, lightning effects, shadows and more. See below examples of basic objects (from Glossy Buttons pack):



- **Overlay Objects** - These objects can be used alone but are generally added to already-done images. The aim of overlay objects is to add a supplementary information to the image, usually actions or types. Overlay objects can be created from basic objects and added to your existing object collection. See below examples of overlay objects (from Axialis IconWorkshop™ standard objects):

- **Complex Objects** - These objects are detailed ones which can be used alone. However, they're usually used with overlays images applied to them. See below examples of complex objects (few of them with overlays):



Using Image Objects with Axialis Products

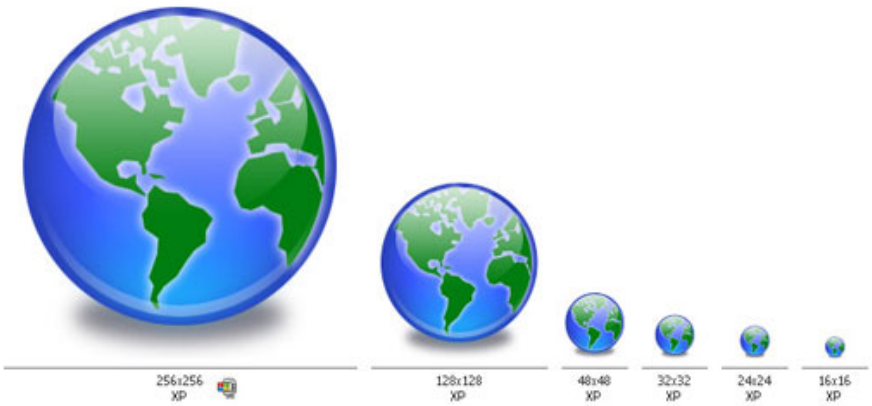
Actually **Axialis IconWorkshop™** is the only product to support image objects. In the near future, **Professional Screensaver Producer** and **CursorWorkshop** will support image objects. On a regular basis, new image object packs will be available for download on our website. Packs are free but some of them are reserved to registered customers. Additionally, third-party authors may propose their own object packs (additional fees may be required). Links to selected object packs will also be added to our website object page.

Using image objects in Axialis products is a child's play. The installation is easy and fully automated. Objects are added in the Axialis Librarian folder and appear in the associated integrated window (present in all Axialis

products). Once the pack is installed, dealing with objects is fun and intuitive. It can be done exclusively with the mouse using drag and drops.

To learn how to create icons from object we recommend to read this tutorial: Creating Icons from Image Objects

To follow this tutorial, you need to install Axialis IconWorkshop™ 6.0 (Tryout or Corporate version) or more. The Glossy Buttons pack is already included in Axialis IconWorkshop™. You'll learn how to create the following icon, containing several formats, in minutes:



A Windows® icon created with IconWorkshop using Image Objects

3 Getting Started Tutorial

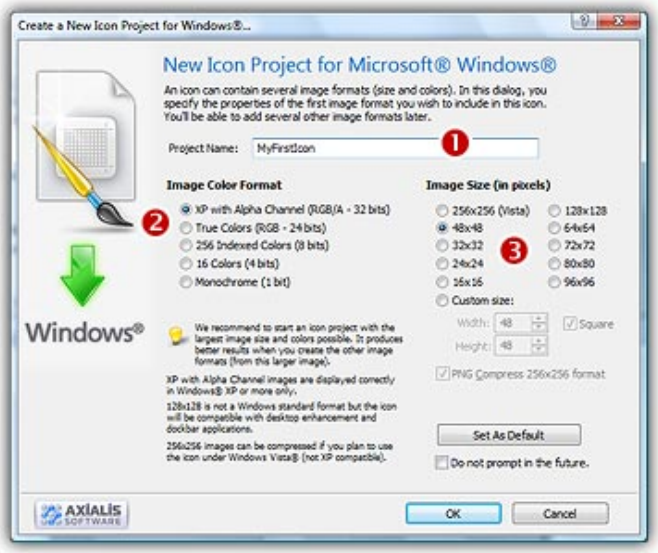
Lesson 1 - Creating a new icon from scratch

In this lesson, we'll create a new blank icon and take a look at the Icon Editor window.

Start the new icon project

1. Choose **File/New/Icon Project** or press **Ctrl+N**. A new dialog box opens:

2. Axialis IconWorkshop™ support both Windows® and Macintosh® icons (see format comparison to learn more). We'll start this tutorial by creating a Windows® icon. Select the **Microsoft Windows® Icon Project** option (❶). click **OK** (❸). A second dialog box opens.



2. In the **Project Name** edit zone (❶), enter the icon project name: "MyFirstIcon". Do not specify any extension.
3. In the **Colors** group (❷), select: **XP with Alpha Channel (RGB/A - 32 bits)**. This format will be used only if the icon is displayed under Windows® XP. This format uses an additional Alpha Channel to create smooth shades and object borders (see what is an icon to learn more).

   We strongly recommend you to always start creating your icons with this color mode.

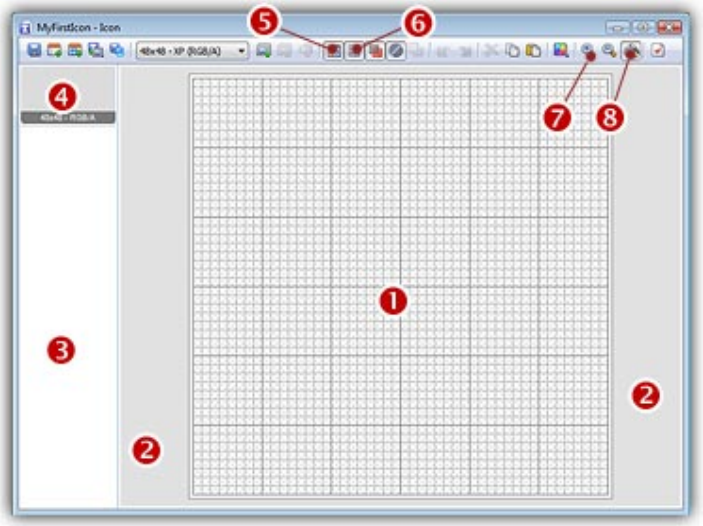
   Yes, even if you don't have Windows® XP, this is **easier to start working in this mode** then create the other image formats from this one. Also, if you upgrade to Windows® XP in the future all your icons will display using this smooth mode. Of course, if you plan to redistribute your icons, this color mode is highly recommended.
4. In the **Size in Pixels** group (❸), choose: **48x48**. In this tutorial, we start using this size since this is the largest size supported by default in Windows® XP (on the Desktop).

   We strongly recommend you to start an icon project using the largest size you plan to include in your icon.

   This is easier to draw a large image then create the other image formats from this one. Additionally, the smaller formats will be created with better results (shrinking an image always produces better results). See what is an icon to learn more about icon formats.
5. Click **OK**, the dialog box closes.

A Quick Tour of the Editor Window

6. This new **Editor Window** opens:

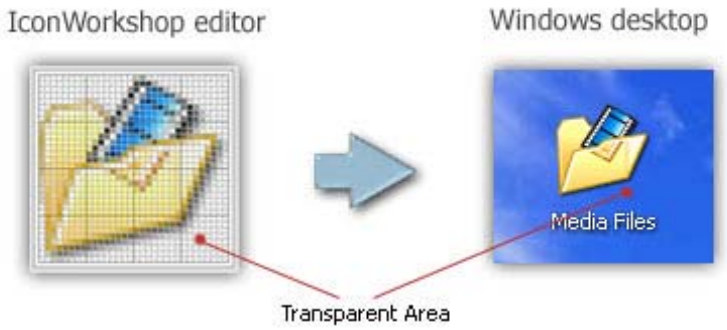


The **Drawing Area** (❶) permits you do draw your icon image. This area use the 2 mouse buttons to draw: **Left button** for the **Foreground Color**, **Right button** for the **Background Color**. As a result, you cannot right-click in the drawing area to open a local context menu. To open a local menu, right-click around the drawing area (❷) or in the Image Format list (❸).

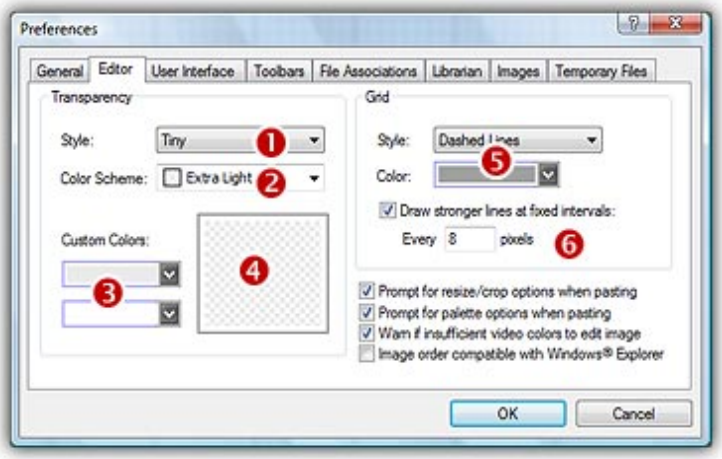
The **Image Format List** (❸) shows all the image formats available in your icon (only 1 image for the moment). The selected image (❹) format is always displayed in the Drawing Area. You can show/hide this list (Press **"I"** or choose **View/Icon Image Formats/Show**). You can also place it on the left or right side of the Edit Window (choose **View/Icon Image Formats/Left** or **Right**).

The **Local Toolbar** includes many commands. For now, just try to click the **Image Format List show/hide button** (❺). You can also show/hide the **Grid** in the drawing editor (❻). Actually the **Zoom Factor** is automatically based on the window size (❽). but you can change it manually by clicking on **+** or **-** (❼).

7. The **Drawing Area** displays a special texture (like a chessboard). This texture indicates a transparent area. Actually, as you have not drawn anything, the icon is fully transparent. Transparent areas allow to see the screen background behind the icon within its square image (see illustration below).



8. **This texture can be customized** to meet your needs. Choose **Edit/Preferences** or press **"F2"**. A dialog box opens, choose the **Editor** tab:



First, you can modify the size of the **Transparency** chessboard squares (❶). Then, to change the colors of the texture you can either select a predefined scheme (❷) or choose custom colors (❸). You can see the changes in the preview area (❹).

Changing the **Grid** aspect may also be interesting (❺). To finish, you can activate or deactivate a feature which permits to draw stronger (darker) lines at fixed intervals. By default this interval is 8 (❻).

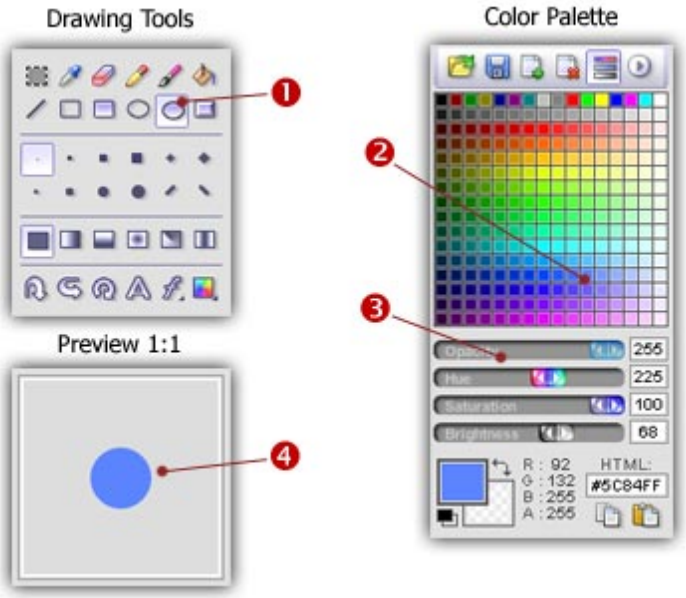
When done, click **OK**.

Lesson 2 - Drawing an icon using the built-in tools

In this lesson, we'll start drawing a basic information image (a blue filled circle with a "i" letter drawn inside), using some of the available tools.

Selecting a tool, a color and drawing

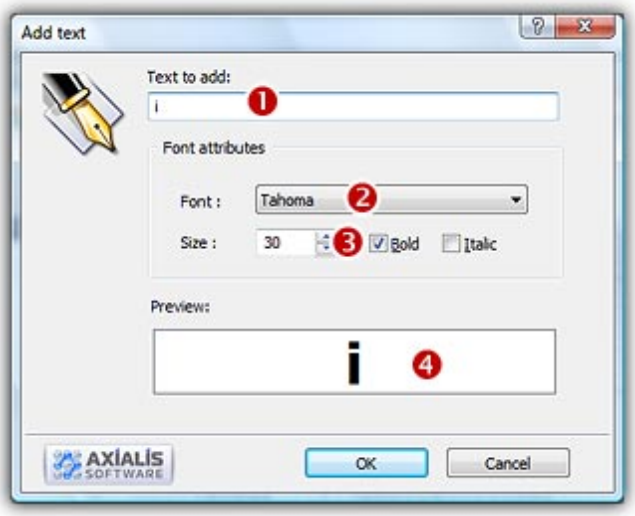
1. Click the Filled Ellipse drawing tool (❶) or Draw/Drawing Tools/Filled Ellipse:



2. Left-click the **Blue Color** (#3F6FFF) we'll use to draw the circle in the color swatches (❷). Check that the drawing **Opacity** is 255 (❸).
3. Using the **Left Mouse Button**, start drawing your circle from coordinates (3,3) to (44,44). Press SHIFT key while drawing to create a circle (width = height) rather than an ellipse. The circle is dynamically drawing while moving the mouse. When you release the mouse button, the circle border is automatically smoothed. It works only with RGB/AP image formats. It can be enabled/disabled by pressing "E" (Smooth Edges in the local toolbar).
4. When done, you see the blue circle in the drawing area and in the Preview 1:1 floating palette (❹).
5. Ooops! If you made a small error while drawing, you can **Undo** what you did. Choose **Edit/Undo** or press **Ctrl+Z** or **Alt+Backspace**. Now you can try again.

Drawing a letter in the circle

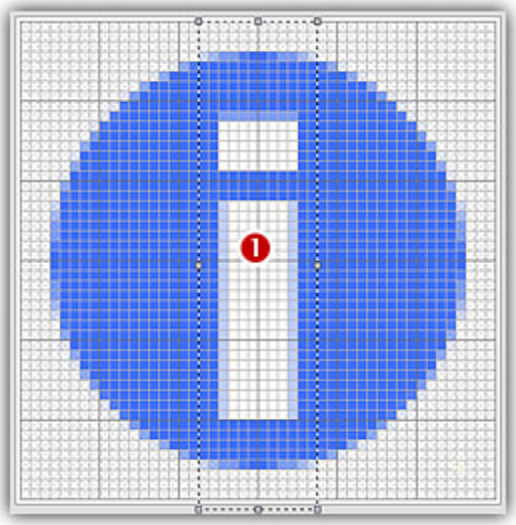
6. To do so, Axialis IconWorkshop™ includes a **Text** feature. First select **White Color** (255,255,255) in the color swatches (the procedure is similar to ❷ you did before).
7. Click the **Text tool** (a 'A' letter button at the lower-right corner of the Drawing Tools). A Dialog box opens:



8. In the **Text to add** zone (❶), type the "i" letter. In the **Font** list (❷), choose "Tahoma". In the **Size** zone, choose 30 and click Bold (❸). You can check the result in the preview zone (❹). When done, click **OK**.

9. A large **selection box** has been added in the upper-left corner on the drawing area. This selection contains the large "i" letter drawn in white. This is a floating selection that can be moved over the existing image.

10. Move the mouse pointer over this selection area. The pointer automatically switches to a four-arrow cursor (✥). Now left-click in this area (keep the button pressed) and move your mouse to the center on the Drawing Area in order to get the following result (❶):



11. You can **apply the floating selection** by click left-clicking anywhere.

CONGRATULATIONS! you've created your first icon image

Lesson 3 - Adjusting the icon image

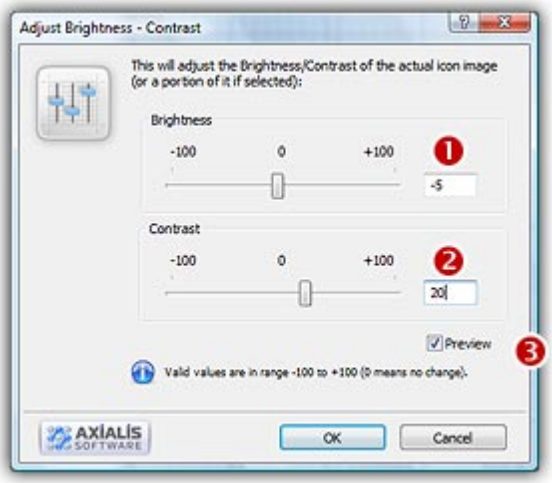
In this lesson, we'll **modify the icon image** we've drawn in Lesson 2 using some of the **Adjustment Tools** available. These tools do NOT permit you to draw something but to modify appearance of an existing image (brightness, contrast, hue, size, rotate...).

Changing the brightness and contrast of our icon

1. Select the whole image: Use the **selection tool** (upper-left button of the tool palette) and select the whole icon using Drag & Drop or Press **Ctrl+A**. When done, an animated dashed rectangle has been created.

   All adjustments apply to the selection only.

2. Choose Draw/Adjustments Effects/Brightness-Contrast or press "B". A Dialog box opens:



3. In the Brightness group (❶) specify **-5** either using the slider or the edit zone. In the Contrast group (❷) specify **20**. We recommend you to click on the **Preview** option to see the change in real time in the editor and preview windows. When done, click **OK**. The image has been adjusted (a stronger blue color).

Moving the image

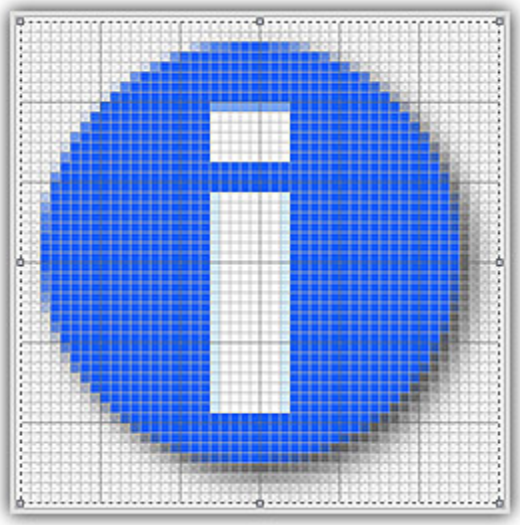
4. Select the image: Use the **selection tool** (upper-left button of the tool palette) and select the whole icon using Drag & Drop or Press **Ctrl+A**. When done, an animated dashed rectangle has been created.

5. We want to move the image by one pixel in the upper-left direction.
   Using the mouse: Move the mouse pointer over this selection area. The pointer automatically switches to a four-arrow cursor (✥). Now left-click in this area (keep the button pressed) and move your mouse by one pixel up and one pixel left.
   Using the keyboard: Press the **Up Arrow** key and the **Left Arrow** key once.

6. **Important**: By doing this, you've transformed the selected portion in a **Floating Selection**. A floating selection can be moved over the rest of the image preserving the transparent area. When you've finished moving this selection you must **apply** it by cleft-clicking anywhere in the image.

Creating a shadow behind the icon (Windows® XP style)

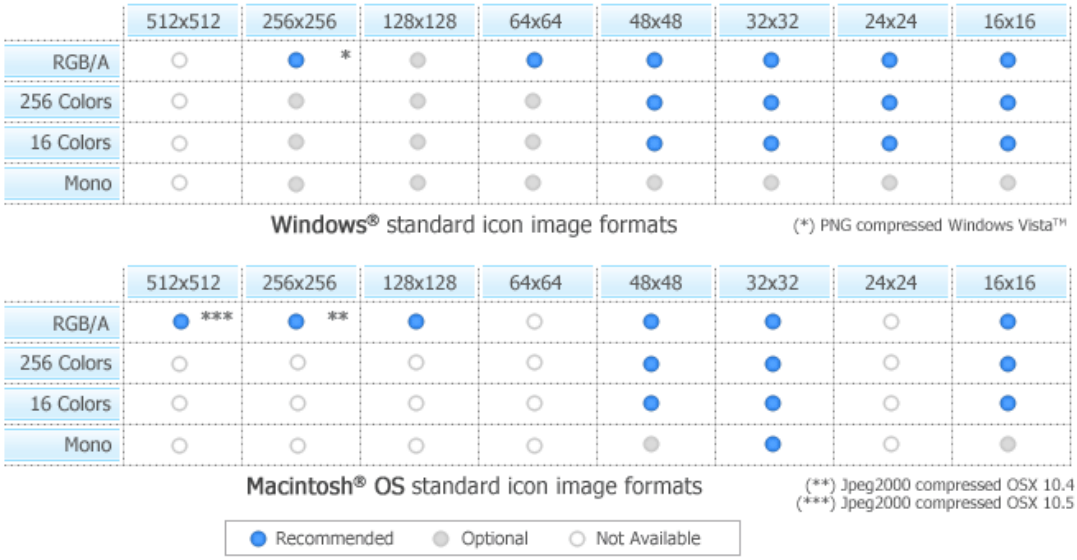
7. Select the image: Use the **selection tool** (upper-left button of the tool palette) and select the whole icon using Drag & Drop or Press **Ctrl+A**. When done, an animated dashed rectangle has been created.
8. Choose **Draw/Adjustments Effects/Drop Shadow** or press **"D"**. A shadow has automatically been added behind the icon. If you want to create a stronger shadow, just repeat the operation. In the example below we've repeated the operation twice (pressed "D" two times).



Lesson 4 - Adding new image formats

In this lesson, we'll add **New Image Formats** to the icon. This is very important to create several image formats in an icon (especially if you wish to redistribute it) in order to be compatible with all screen configurations (see What is an Icon for more info).

The following table shows the common Windows® and Macintosh® image formats:



	512x512	256x256	128x128	64x64	48x48	32x32	24x24	16x16
RGB/A	○	● *	◌	●	●	●	●	●
256 Colors	○	◌	◌	◌	●	●	●	●
16 Colors	○	◌	◌	◌	●	●	●	●
Mono	○	◌	◌	◌	◌	◌	◌	◌

Windows® standard icon image formats

(*) PNG compressed Windows Vista™

	512x512	256x256	128x128	64x64	48x48	32x32	24x24	16x16
RGB/A	● ***	● **	●	○	●	●	○	●
256 Colors	○	○	○	○	●	●	○	●
16 Colors	○	○	○	○	●	●	○	●
Mono	○	○	○	○	◌	●	○	◌

Macintosh® OS standard icon image formats

(**) Jpeg2000 compressed OSX 10.4
(***) Jpeg2000 compressed OSX 10.5

● Recommended ◌ Optional ○ Not Available

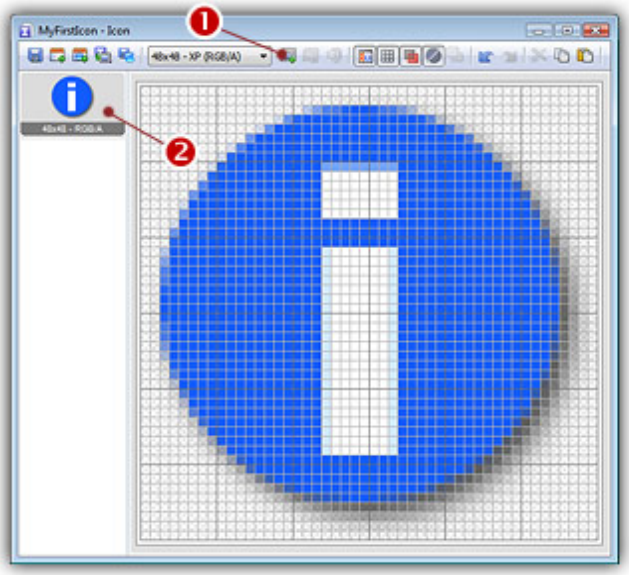
IMPORTANT - If you add 24x24 image formats in your icon, it won't be compatible with Windows® 98 and Windows®2000. If you use these Windows® versions, the icon will display correctly in Axialis IconWorkshop™ but will be considered as invalid by Windows®.

In this tutorial we'll choose to comply with Windows® XP standard icon formats. We won't add the 256x256 Alpha format which is not supported by Windows® XP (we recommend it for Windows Vista™). So we'll add the following images:

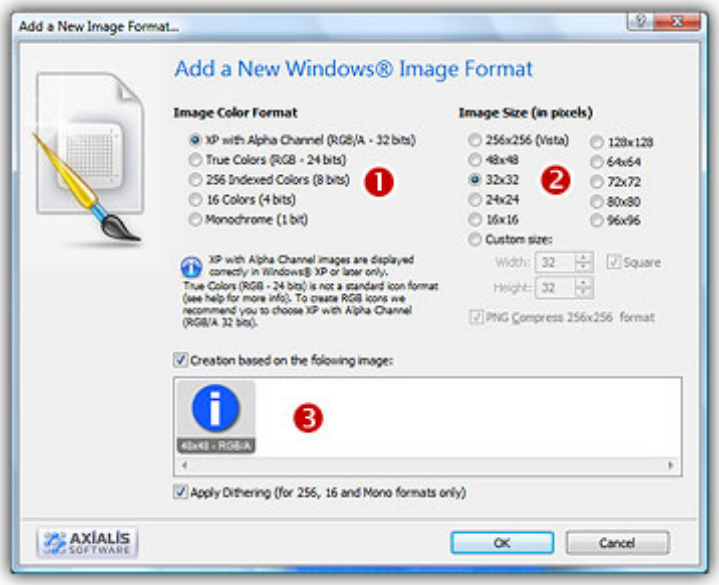
- 48x48 - Windows® XP Alpha (already done)
- 32x32 - Windows® XP Alpha
- 16x16 - Windows® XP Alpha
- 48x48 - 256 colors
- 32x32 - 256 colors
- 16x16 - 256 colors
- 32x32 - 16 colors
- 16x16 - 16 colors

Adding a new icon format based on the current image

1. Select **Draw/New Image Format** or press **Ins**. You can also click on the button (1) in the local toolbar or right-click in the Image Format List (1) then choose **New Image Format**.



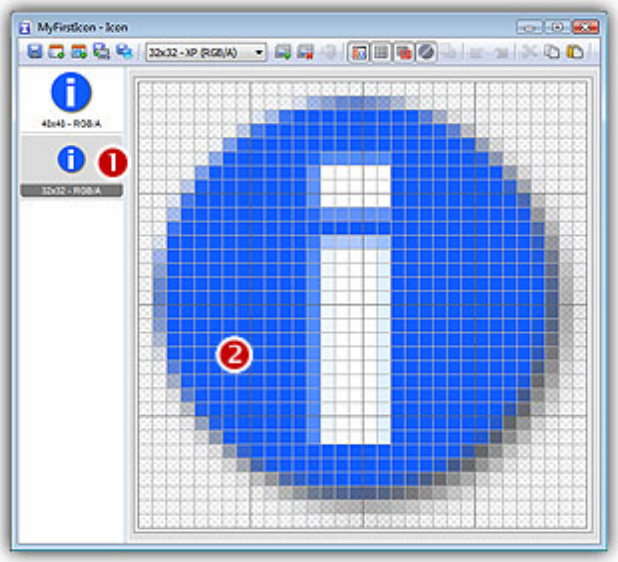
2. A Dialog box Add a New Windows® Image Format opens:



3. In the **Colors** (❶) and **Size** groups (❷), Axialis IconWorkshop™ propose you to create the next missing image format (based on the recommended Windows® image formats - see the above table). Leave the actual selection as is "XP Alpha Channel" and 32x32.

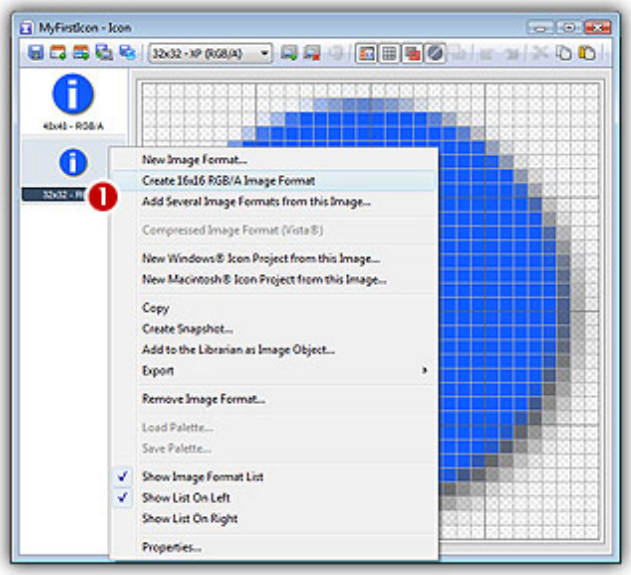
4. You can choose to create this new format based on an existing image format. By default, Axialis IconWorkshop™ choose the best existing image format to create the new one. You can change this proposal and choose your own selection (this is not recommended). Be sure the option **Creation based on the following image** is selected (❸).

5. When done, Click **OK**. The new image format is created and the previous image format has been automatically resized. The new format is selected in the list (see below ❶) and is displayed in the drawing area (❷):

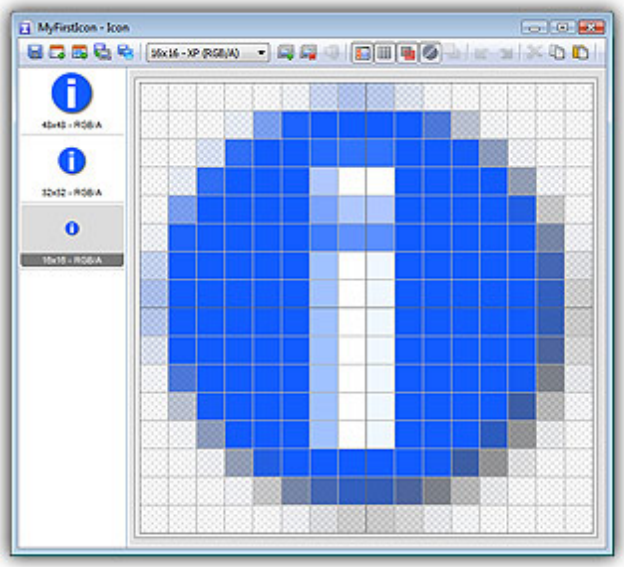


A Faster way to create a new format

4. If you want to **create quickly a new standard image format**, just right click on an image format in the list. A menu opens and proposes you to create the next missing format based on the selected image. For example, right-click on the **32x32 Windows® XP** image format and choose **Create 16x16 Windows® XP Image Format** in the menu (see below 1):



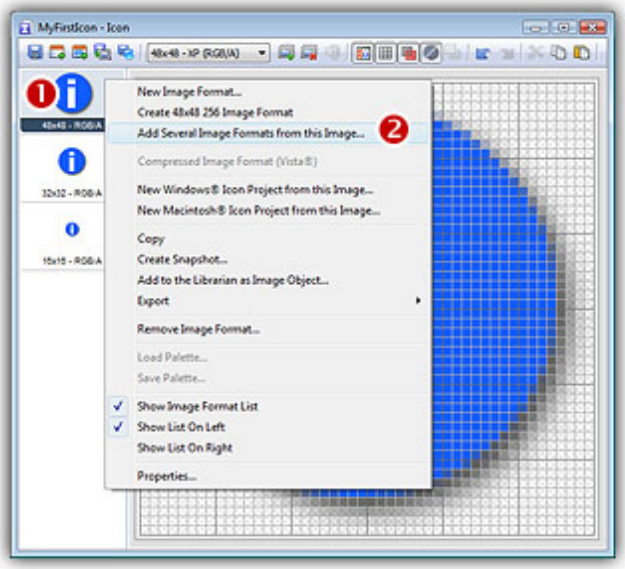
5. The new image format is **automatically created** and selected.



Of course you can repeat the same operation to create the other formats. However we prefer to learn you a faster method to create all the other formats on one operation (see below).

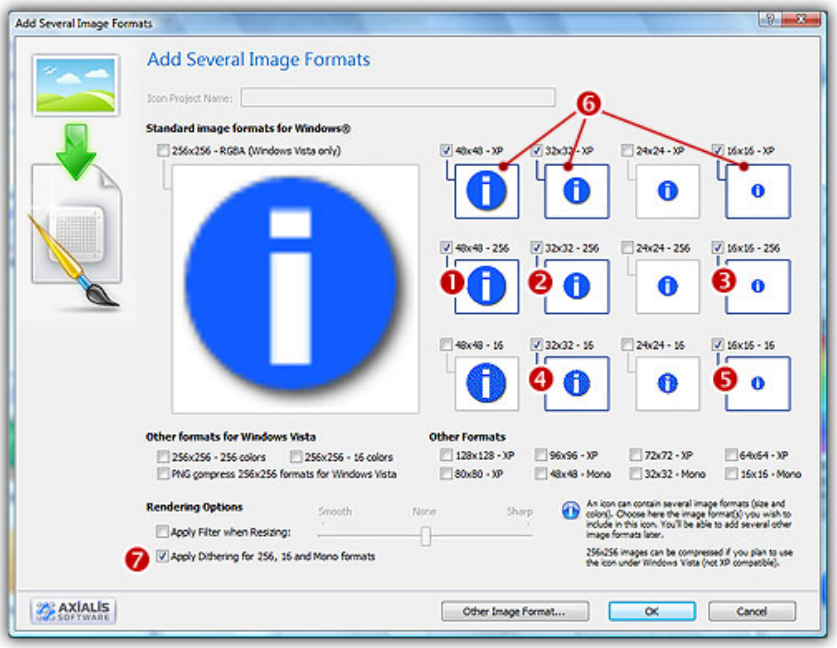
Adding several formats in one operation

6. Right-click on the **48x48 Windows® XP** format in the list of available icon formats (❶on the left of the editor window), a context menu opens, select **Add Several Image Formats from This Image** (see below ❷).



7. A new dialog box opens. This will permit you to add several formats in one step based on the image you've selected in step 6 (in our case **48x48 RGB/A**).

Remark - As you can see, the format 256x256 is also proposed but the image has poor quality. This is because it has been created from a smaller original image (48x48 RGB/A). This operation is called "**upscaling**". It always produce bad results and is not recommended.



8. Select the following formats (click directly on the preview image)
   - 48x48 - 256 Colors (❶)
   - 32x32 - 256 Colors (❷)
   - 16x16 - 256 Colors (❸)
   - 32x32 - 16 Colors (❹)
   - 16x16 - 16 Colors (❺)

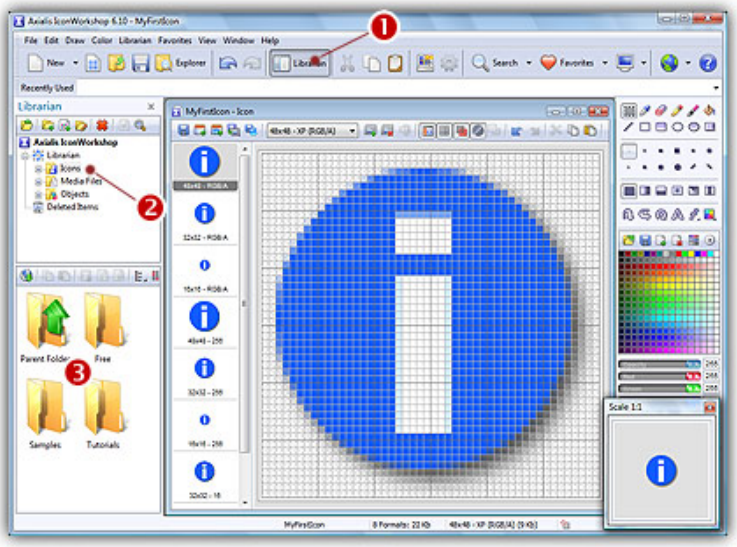
   We don't select any format larger than 48x48. You can just ignore (select or not) the image formats already present in the image (❻). You can also apply or not the dithering option to the 256/16 color images (try ❼ and see the results in the preview images).
7. When done click **OK**. The formats are automatically created.

Lesson 5 - Saving the icon, storing it in the Librarian

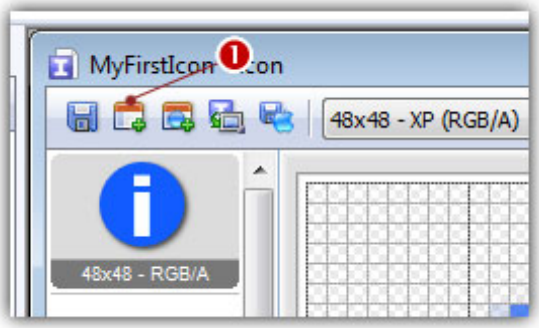
In this lesson, we'll **save the icon we've created in the Librarian**. Actually, the icon is loaded in memory but not saved. If the computer is turned off now, your work will be lost. For the moment we'll save it as an ICO file (see What is an Icon for more info regarding icon files).

Adding the icon to the librarian

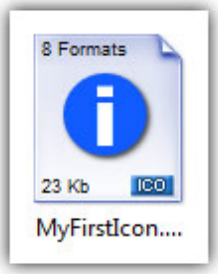
1. To save this icon to the librarian, you must **be sure that the librarian is visible**. If the librarian window is not visible (❸), check the Librarian button in the main toolbar (❶) or press **ESC**.



2. Select the folder **"Icons"** in the Librarian tree (❷). This is where we want to save the icon, its contents appears in the zone below (❸).
3. Choose the **File/Add to the librarian** or click on the command button in the local toolbar (see below ❶):



4. A dialog box **Add Icon to the Librarian** prompts you. In the **Name** edit zone be sure the name is correct (it propose you the name you gave to the icon project).
5. When done, click **OK**. The icon is **saved and added** to the librarian:



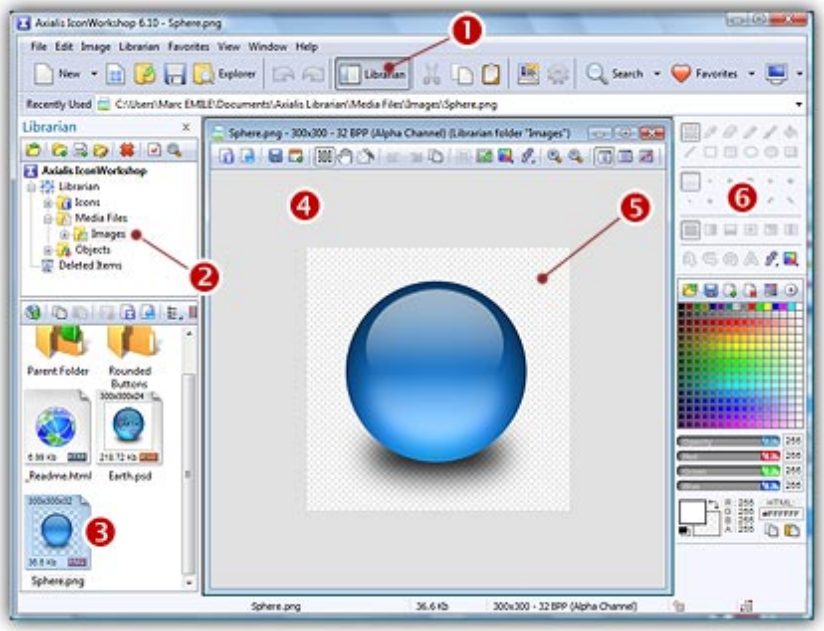
6. Now you can close the Icon Project Document window then open it again by double-clicking on the associated item in the librarian (see above picture).

Lesson 6 - Creating a new icon from an existing image

In this lesson, we'll create a new icon from an existing image. We'll create a Windows® and a Macintosh® icon.

Opening an image file in Axialis IconWorkshop™

1. First, we're going to load a file which is located in the Librarian. You must **be sure the librarian is visible**. If the librarian window is not visible (❸), check the Librarian button in the main toolbar (❶) or press **ESC**.



2. Select the **"Media Files/Images"** folder (❷). In the thumbnail preview list (below), you see a file named **"Sphere.png"** (❸). Select it and press **Enter** or just double-click on it. The file opens in a document window (❹).

   The image **"Sphere.png"** is a Transparent PNG file. It means that it includes transparent areas in the image. This is where you see the "chessboard" texture (❺).

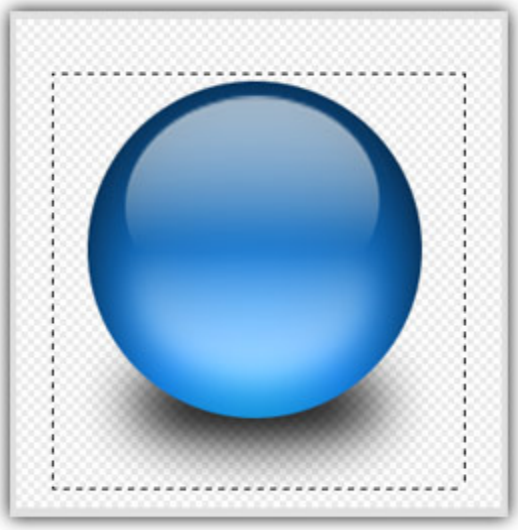
   Note that the drawing tools are grayed (❻) because Axialis IconWorkshop™ does not currently support edition/drawing of images. Drawing is supported in icons only.

It is highly recommended to create icons from transparent images. Axialis IconWorkshop™ will convert images to 32 BPP with transparency when possible. The following image formats can include transparency: Photoshop PSD, PNG, RGB, GIF, JPEG 2000 and WMF.

Creating a Windows® icon from this image

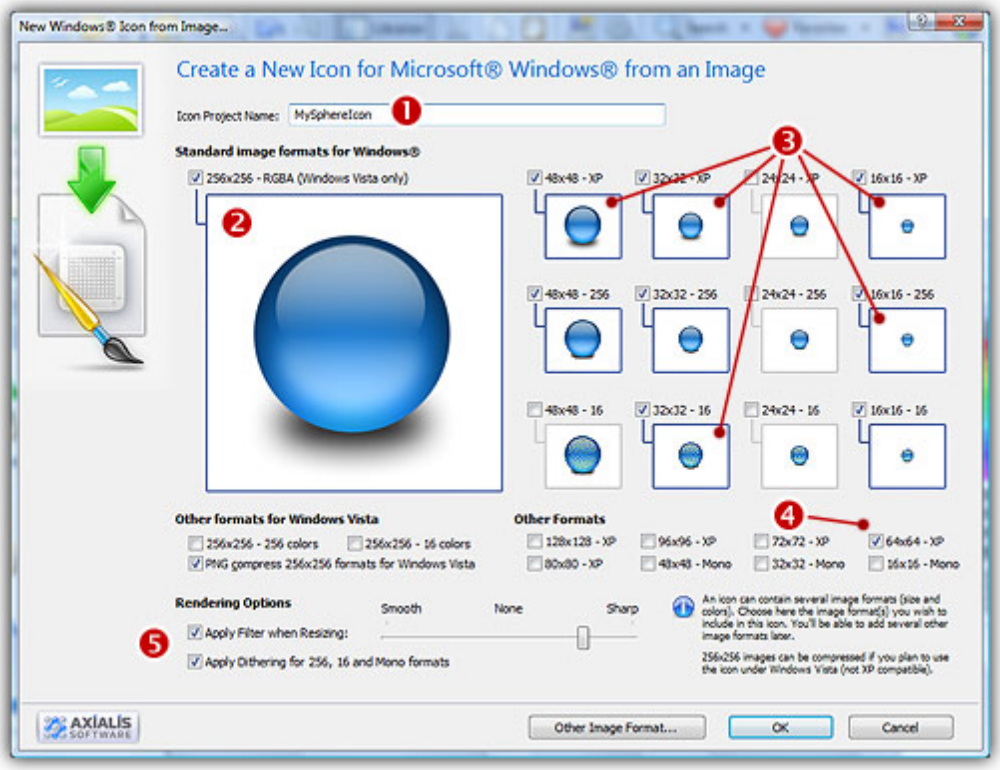
3. Before proceeding, we recommend you to **select the portion of image** you wish to use to create your icon. If you leave too many transparent area around your image (this is the case in this image), the visible part of your icon will be too small.

4. Select the portion of image: Use the **selection tool** (upper-left button of the tool palette) and select a **256x256 portion** of the image (do not cut the shadow below the sphere). This will produce the best results when creating the 256x256 formats of the icon. To track the size of the selection on-the-fly, see the **selection indicator** in the status bar (lower-right corner of the main window: 256x256). When done, an animated dashed rectangle has been created. See the result below:



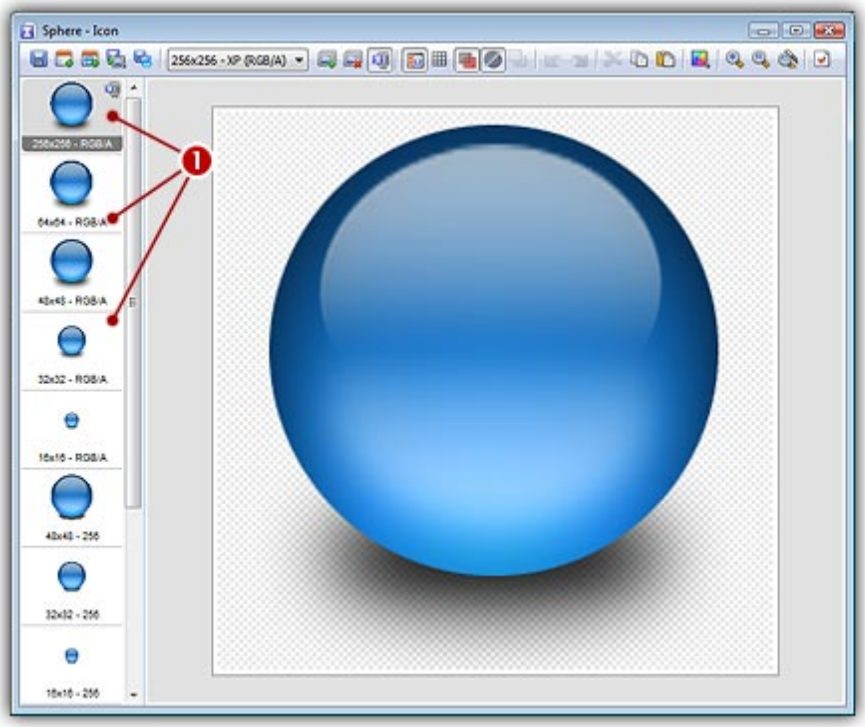
5. When the selection is done, choose **Image/Create Windows® Icon from Selection** or press **"I"**. You can also click the following command button in the local toolbar (❶):

6. A large dialog box **New Windows® Icon From Image** opens (see below). In the **Icon Project Name** zone (❶), enter the icon project name: "**MySphereIcon**". Do not specify any extension.



7. In the **Standard Image Formats for Windows** group, **select** the image formats to add in the icon (❷ ❸ ❹). Just click on the image preview to select. We recommend you to add the following formats in a Windows® icon:
   - 256x256 - RGB/A
   - 64x64 - RGB/A
   - 48x48 - RGB/A
   - 32x32 - RGB/A
   - 16x16 - RGB/A
   - 48x48 - 256 colors
   - 32x32 - 256 colors
   - 16x16 - 256 colors
   - 32x32 - 16 colors
   - 16x16 - 16 colors

   You can also apply or not the dithering option to the 256/16 color images as well as add a filter effect to smooth/sharpen the resulting images in RGB/A mode (try ❺ and see the results in the preview images).
8. When done, click **OK**. The icon is automatically created with the various image formats you've chosen. You can click on the various image formats you've created (❶) to see the results in the editor window.



9. In the preview window you see the icon displayed at scale 1:1 (or 1:2 for the 256x256 format) on a gray background. It is recommended that you switch to 256x256 preview mode if you want to work with 256x256 Windows Vista™ icons. To switch to this mode, right-click in the preview window, a menu opens. Choose "**256x256 Display**". The preview window now operates in floating mode. Use the same method to return to the previous state: choose "**128x128 Display**", remove the "Floating Window" option and use the mouse to dock the window.

10. As it could be useful to see how the icon is displayed on several type of background lightness, an easy way to change the preview background has been implemented. Just **click with the left button** of your mouse in the preview window and the background lightness will change (cycle from white to black).

By changing the background lightness of the preview window (left-click in it), you can appreciate how Axialis IconWorkshop™ has resized the image and created perfect borders around the sphere object.

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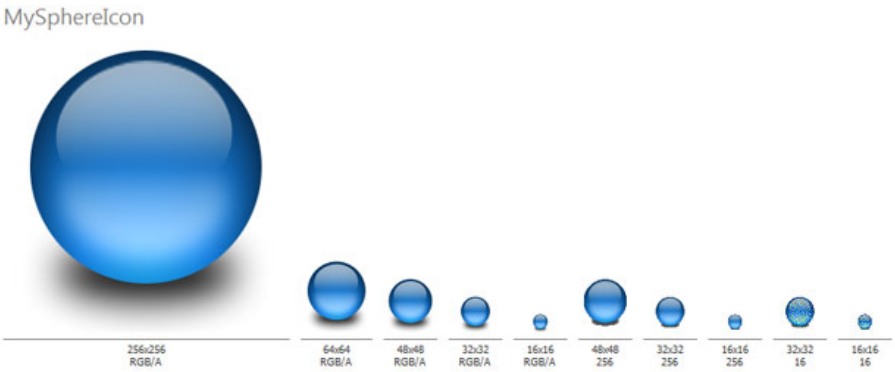
11. Why don't take a look at all the formats you've created and admire your work? This is possible to display all the format on the same document by using the "Snapshop" feature. Choose "Edit/Create Snapshot". A dialog box opens, several options are available. Select White Background and 16/2 colors (if necessary). Click OK. The following image document is created (see below). You can print it or save it for reference.



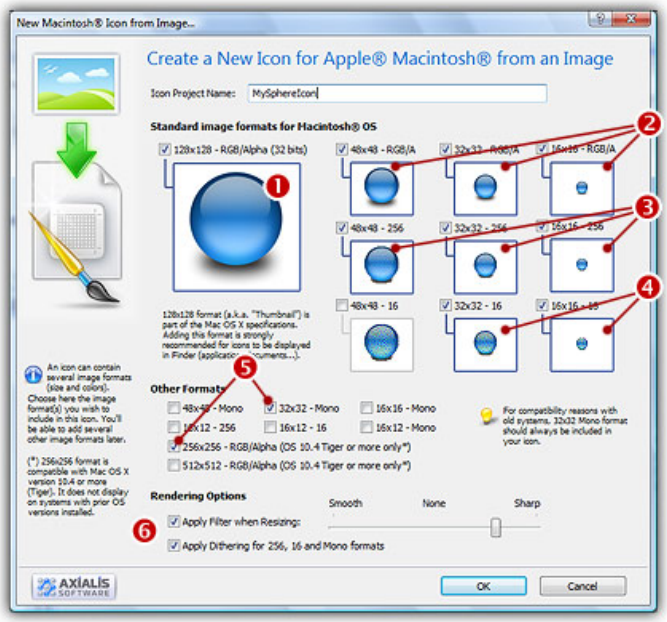
12. Don't forget that the icon is created in memory but not saved. Please save it in the librarian (in the **"Icons"** folder) as specified in Lesson 5 (name it **"MySphereIcon"**). It is saved in **ICO** format.

Creating a Macintosh® icon

Close the Windows® icon document you've just created, return to the **"sphere.png"** document and redo steps 3 & 4 of the previous topic.

5. When the selection is done, choose **Image/Create Macintosh® Icon from Selection** or press **"M"**. You can also click the following command button in the local toolbar (❶):

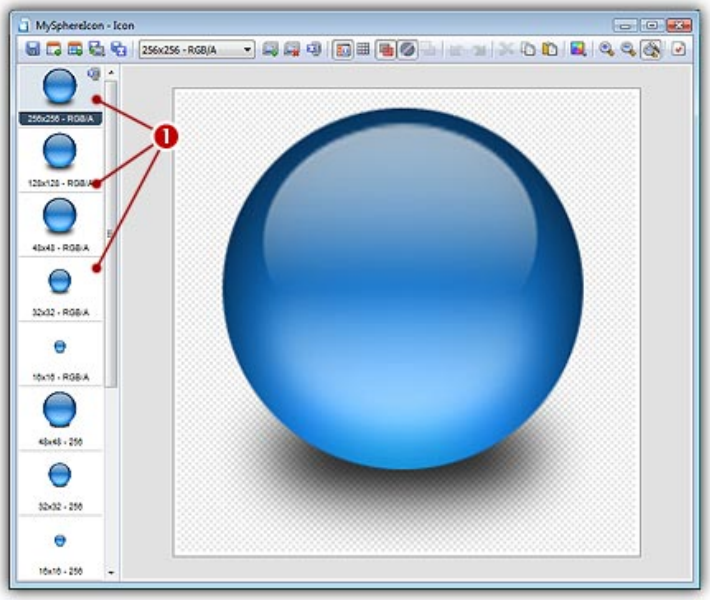
6. A large dialog box **New Icon From Image** opens (see below). In the **Icon Project Name** zone, enter the icon project name: "**MySphereIcon**". Do not specify any extension.



7. In the **Image Formats** group, **select** the image formats to add in the icon (❶ ❷ ❸❹❺). Just click on the image preview to select. We recommend you to add the following formats in a Macintosh® icon:
   - 256x256 - RGB/A
   - 128x128 - RGB/A
   - 48x48 - RGB/A
   - 32x32 - RGB/A
   - 16x16 - RGB/A
   - 48x48 - 256 colors
   - 32x32 - 256 colors
   - 16x16 - 256 colors
   - 32x32 - 16 colors
   - 16x16 - 16 colors
   - 32x32 - Mono

   You can also apply or not the dithering option to the 256/16 color images as well as add a filter effect to smooth/sharpen the resulting images in RGB/A mode (try ❻ and see the results in the preview images).

8. When done, click **OK**. The icon is automatically created with the various image formats you've chosen. You can click on the various image formats you've created (❶) to see the results in the editor window.



9. In the preview window (❷) you see the icon displayed at scale 1:1 on a gray background. **Click with the left button** of your mouse in this window to change the background lightness (cycle from white to black).

10. Save it in the librarian (in the **"Icons"** folder) as specified in Lesson 5 (name it **"MySphereIcon"** and choose the **ICNS** file format). To learn more about Macintosh® file formats, see Macintosh® vs Windows® icons.

A quick look at the icons stored in the Librarian

The two icons are now stored in the Librarian. The folder "**Icons**" should be selected and the 2 newly created icons displayed as shown below:

Note that Macintosh icons are displayed with a small overlay symbol which permits to easily distinguish their type (❶). The Windows® icons do not have any overlay symbol (❷).

»Lesson 7 - Composing an icon from several image objects

Lesson 7 - Composing an icon from several image objects

In this lesson, we'll create a **new icon from several images** (we also call these images "Objects") by assembling them in order to create a composite icon. The most famous example of composite icon is the document folder icon:

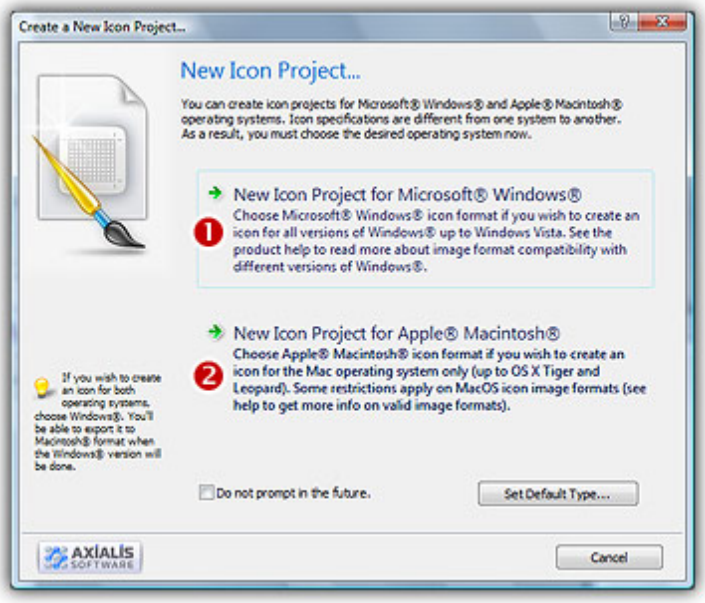
Using the three objects above, we'll make this icon in minutes using exclusively features included in Axialis IconWorkshop™. The icon will include formats from 256x256 to 16x16 in RGB/A, 256 and 16 colors (based on the recommended formats specified in What is an icon topic).

This folder image has been created by Axialis Team. It's free of charge so you can use them in your own icons (see Sample Icons Terms Of Use).

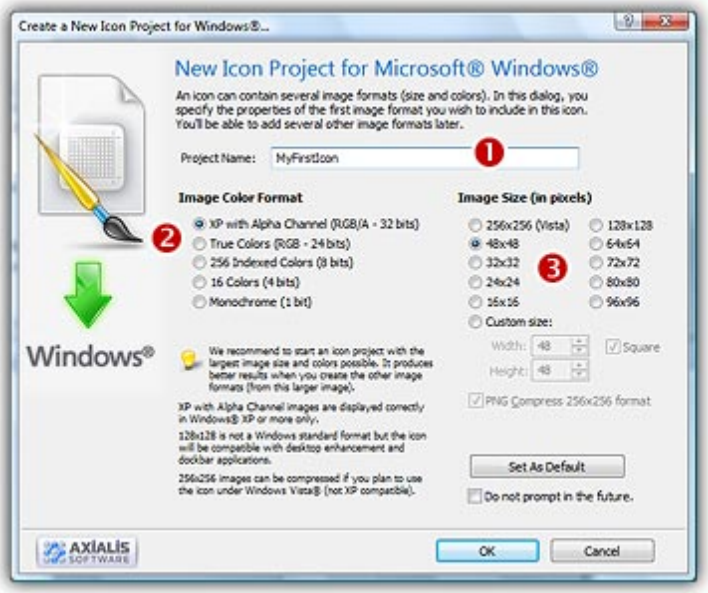
Create the new icon

First, we're going to create the new icon. When creating a new icon, we choose the first image format to insert in it (usually the largest one). The largest one will be 256x256 RGB/A, so we'll start with this format.

1. Choose **File/New/Icon Project** or press **Ctrl+N**. A new dialog box opens:



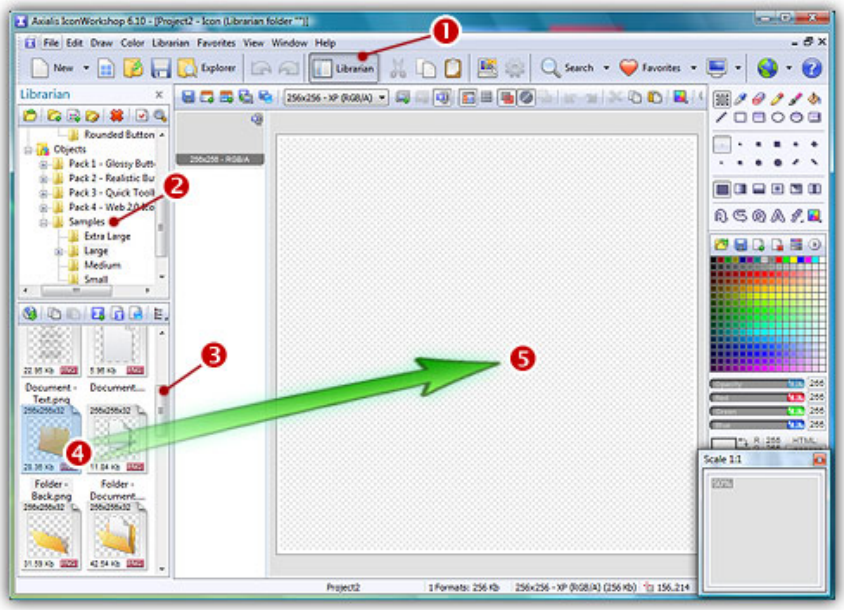
2. Select the **Windows® Icon Project** option (1). A second dialog box opens.



2. In the **Project Name** edit zone (1), enter the icon project name: "Document Folder". Do not specify any extension.
3. In the Image Color Format group (2), select: XP with Alpha Channel (RGB/A - 32 bits).
4. In the **Image Size** group (3), choose: **256x256 (Vista)**.
5. Click **OK**, the dialog box closes. The new blank icon document is created, the **256x256 RGB/A** image format is selected.

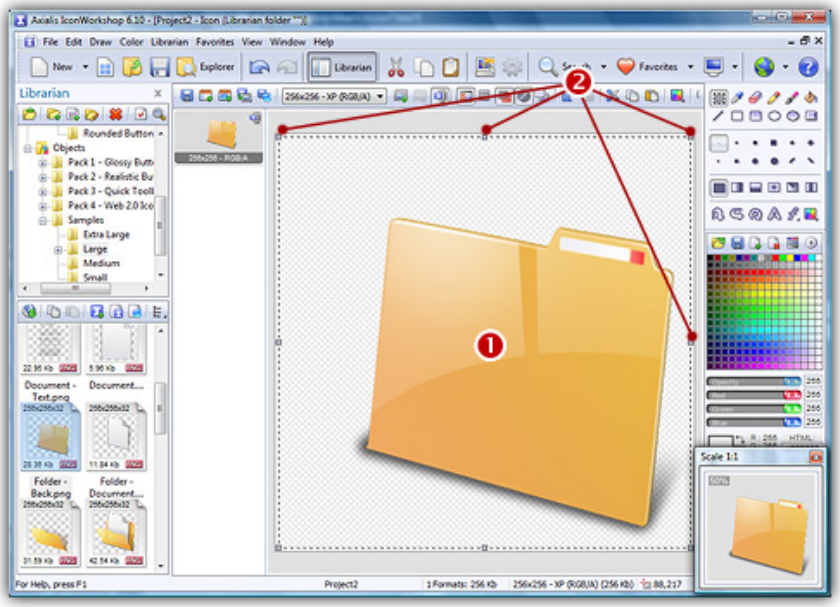
Adding the first object: The folder background

6. To add an object, you must **be sure that the librarian is visible**. If the librarian window is not visible (2), check the Librarian button in the main toolbar (1) or press **ESC**.



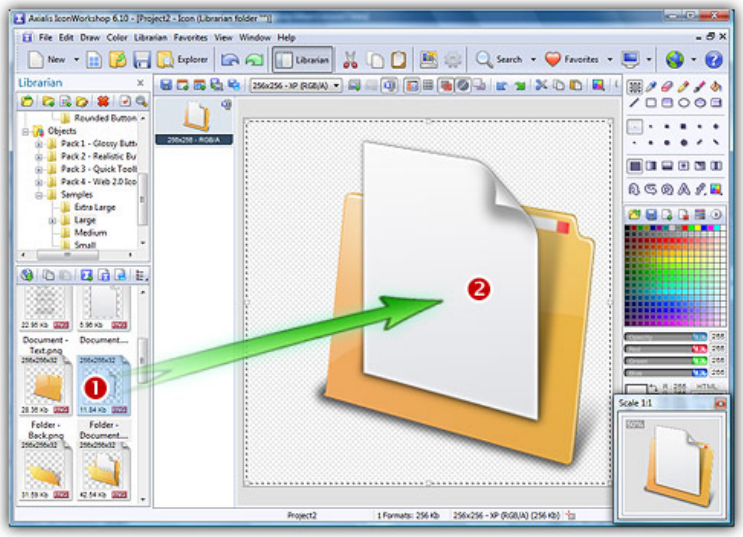
7. Select the folder **"Objects/Samples/Large"** in the Librarian tree (❷). The contents of the folder appears in the zone below. Using the slider (❸) scroll the window contents until you see the file "**Folder Back.png**".

8. Using drag & drop (❹) place the file "**Folder -Back.png**" in the editor window (❺). The object is automatically added to the icon project as a floating selection (❶below):



Adding the second object: The document

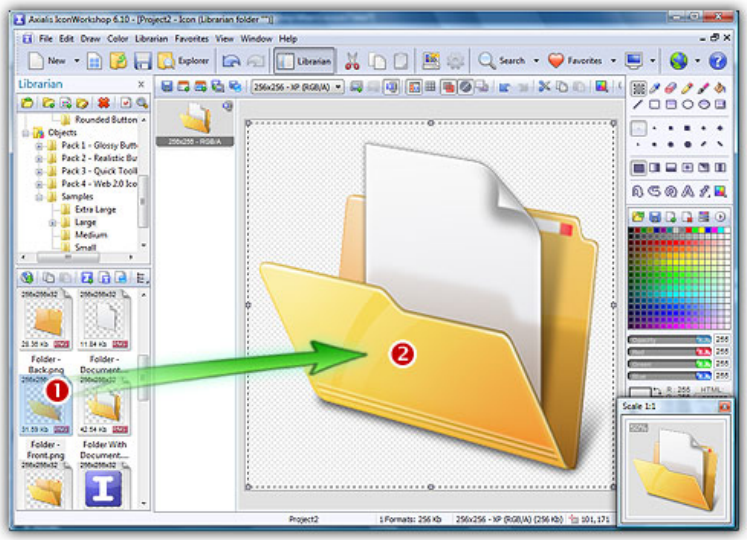
9. We'll perform a similar operation to add the document object. In the same folder, select the object named **"Folder -Document .png"**. Use mouse drag & drop from this object (❶) to the icon project window (❷):



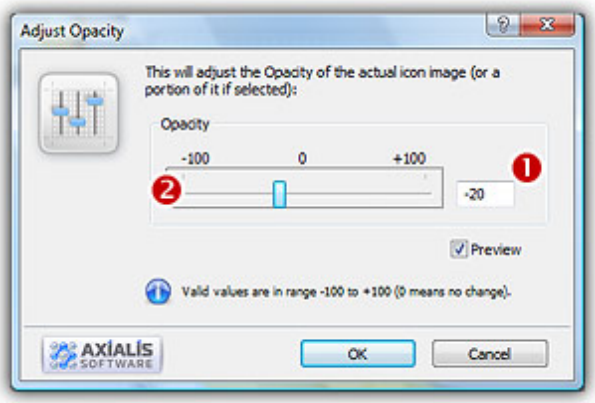
10. The document object is added onto the back pane of the folder already present. This is the way **image objects** work (click here to learn more). The transparency around the object is used to create a layer-type effect. You can add as many objects as you want on top of each other using this method. Once an object is added you can also resize / move it using the mouse or the arrow keys.

Adding the third object: The folder front

11. We'll perform a similar operation to add the document object. In the same librarian folder, select the object named **"Folder - Front.png"**. Use mouse drag & drop from this object (❷) to the icon project window (❸). The resulting icon looks like this:



12. The front folder object is opaque (we don't the document object through it). In order to get better results, we're going to make it a little transparent. Select **Draw/Adjustments Effects/Opacity** or press the **"O"** key. A dialog box opens. Set the opacity to **-20** using either the edit zone (❶) or the slider (❷):



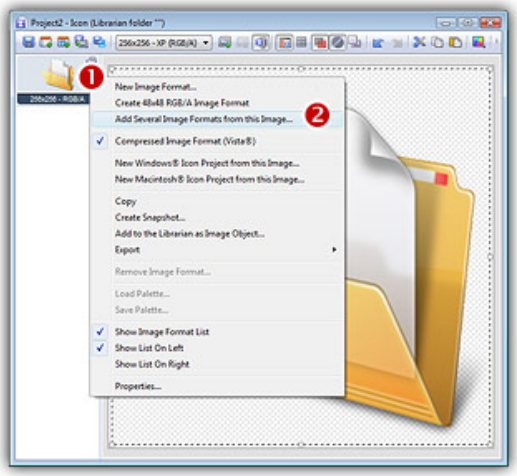
13. When done click **OK**. The transparency of the front object has been adjusted so that you can slightly see the document through the front panel.

Congratulations! The 256x256 image format is done. Now we're going to create the other formats of the icon from this one.

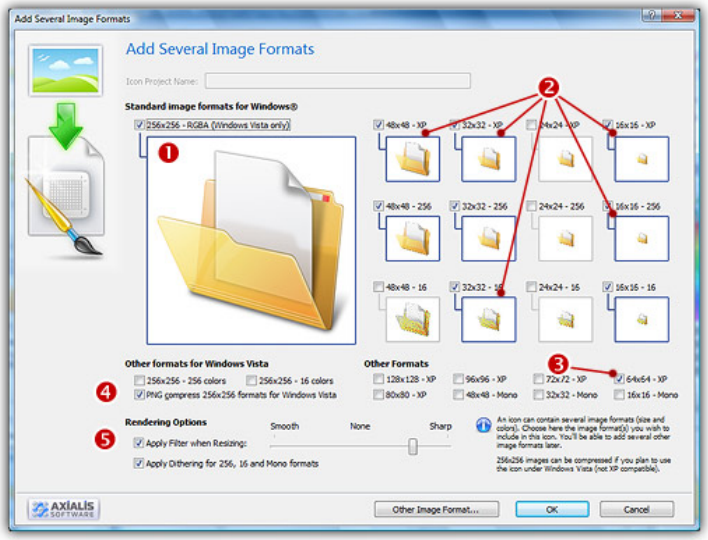
Creating all the image formats

As we've seen in lesson 4, an icon contains several formats. We'll add them using the fastest method: adding several formats in one operation.

14. Right-click on the **256x256 RGB/A** format in the list of available icon formats (1 on the left of the editor window), a context menu opens, select **Add Several Image Formats from This Image** (see below 2).



15. A new dialog box opens:



16. The format **256x256 RGB/A** (❶) is already present in the icon, so selecting it is not necessary (if selected it will be ignored).

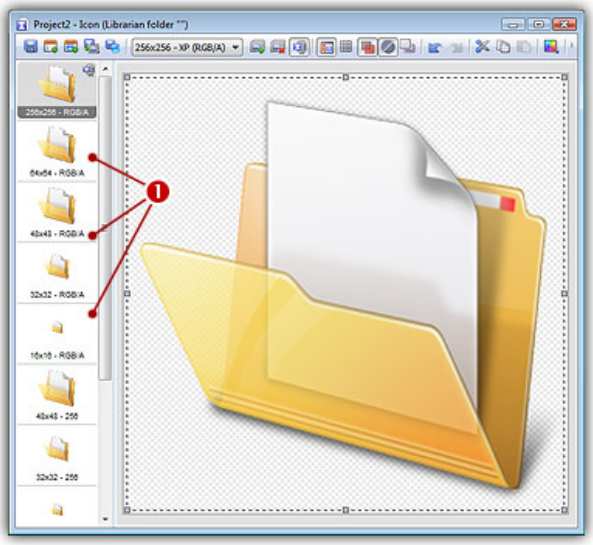
17. Select the following formats to add (click directly on the preview image)

- **48x48, 32x32, 16x16 - RGB/A** (❷)
- **48x48, 32x32, 16x16 - 256 Colors** (❷)
- **32x32, 16x16 - 16 Colors** (❷)
- **64x64 - RGB/A** (❸) is recommended for Windows Vista™

18. If you plan to use your icon under Windows Vista™, we recommend you to compress the 256x256 formats. Check the option "**PNG Compress 256x256 Formats for Windows Vista™** (❹)

19. To get the best results possible, we recommend you to apply a sharp filter while creating the small images. Select the **Apply Filter when Resizing** option and adjust the slider as shown in the above image (❺).

20. When done click **OK**. The formats are automatically created:



You're done! Congratulations! Now save/add the icon in the librarian in the **"Icons"** folder (follow the same procedure as lesson 6). If you want to compare the icon you've done with ours, you can open this file: **"Icons/Tutorials/Folder - Document.ico"** (we also added 24x24 formats).

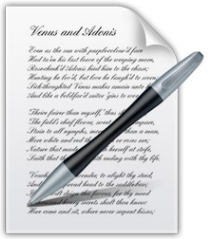
Going further...

When you make an icon by creating small sizes automatically, sometimes details are lost especially while converting the large 256x256 image into small sizes (32x32 to 16x16). You may need to retouch or simply redo these images. Check the icon we've done and saved as **"Icons/Tutorials/Folder - Document 2.ico"**. It contains different versions for sizes 64x64 to 24x24 and 16x16. You can easily do this using the same method based on objects:

1. Browse the folder "**Objects/Samples/Medium**". You'll find medium-resolution objects you can use to create sizes **64x64 to 24x24**.
2. Browse the folder "**Objects/Samples/Small**". You'll find small-resolution objects you can use to create sizes **16x16**.

Exercises

Using the following objects:
Objects\Samples\Large\Document.png
Objects\Samples\Large\Document - Text.png
Objects\Samples\Large\Pen.png
create this icon:



2. Using the following objects:
Objects\Samples\Large\Document.png
Objects\Samples\Large\File Types\PSD.png
Objects\Samples\Large\Document - Picture.png
create this icon:

3. Using the following objects:
Objects\Samples\Large\Screen.jp2
Objects\Samples\Large\Overlays\Forbidden.jp2
(resize this object in the lower-right corner),
create this icon:

Lesson 8 - Using an object pack to create an icon

This lesson it similar to previous one, but will permit you to go further: Create **hi-quality** and **attractive icons** using **basic image objects**. **Object Packs** are libraries containing a large number of image objects made by a professional designer. We regularly publish new objects packs that you can download on Internet. To create your icons, you just have to assemble basic objects together.

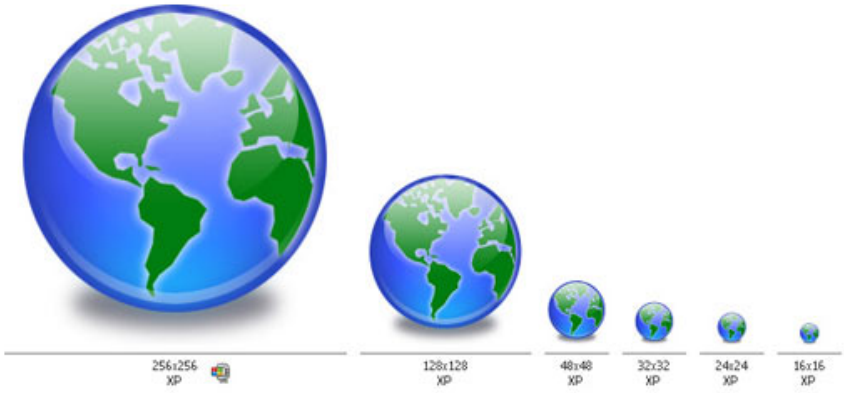
This assemblage is easily done with Axialis IconWorkshop™ using a few mouse clicks and drag-and-drops. Creating different versions of an icon is very easy with an object pack. See below some examples of the help icon made in a few minutes simply using the mouse and without drawing one pixel (non-exhaustive list of course!):

To follow this tutorial, you need to have the "Glossy Buttons" object pack installed in the librarian. Search the Librarian for the folder "Objects\Pack 1 - Glossy Buttons"). This pack is included in Axialis IconWorkshopä 6.0 or more. If you can't find the folder, download the "Glossy Buttons" pack from Internet.

Defining, Creating the Icon Project

Before using the image objects, we need to create a new icon project. An icon contains several image formats (see "What's an Icon?") so we need to define all these formats before going on.

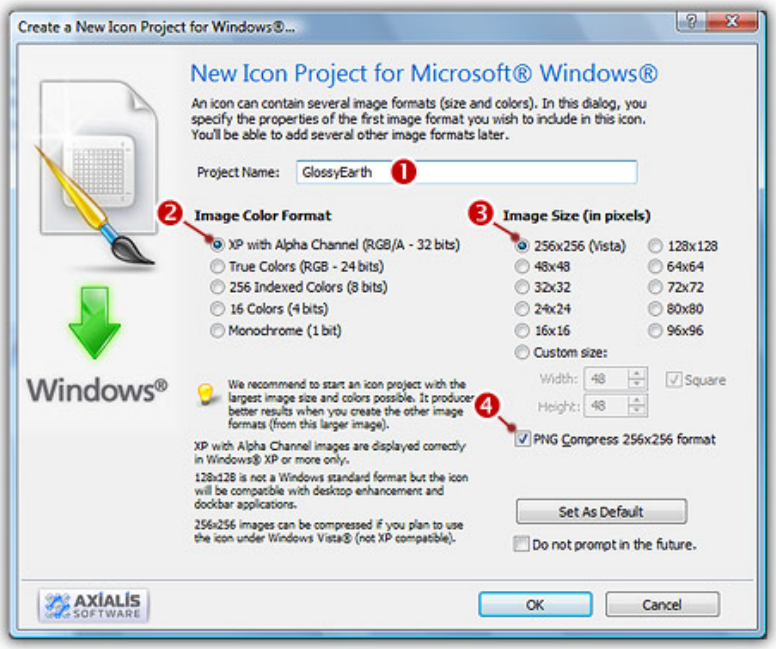
We'll create an icon compatible with Windows Vista™ (256x256, 64x64 formats), Windows® XP; (48x48, 32x32, 24x24, 16x16 formats) and Dock Bar applications (128x128 format). To simplify the project, we won't add indexed color formats (256, 16 colors). Using the objects we'll make a "Glossy Earth" icon with bottom shadow. The resulting icon will look like this:



A Windows® icon created with IconWorkshop using Image Objects

The largest image format is 256x256 XP (ie RGB with Alpha channel). To get the best results, we'll start the project with this new format and work with it to assemble the objects. When finished, we'll create all the other formats using this 256x256 format as template. Let's create our new icon project:

1. Launch IconWorkshop™. Choose **File/New/Windows® Icon Project** or press **Ctrl+W**. A dialog box opens:



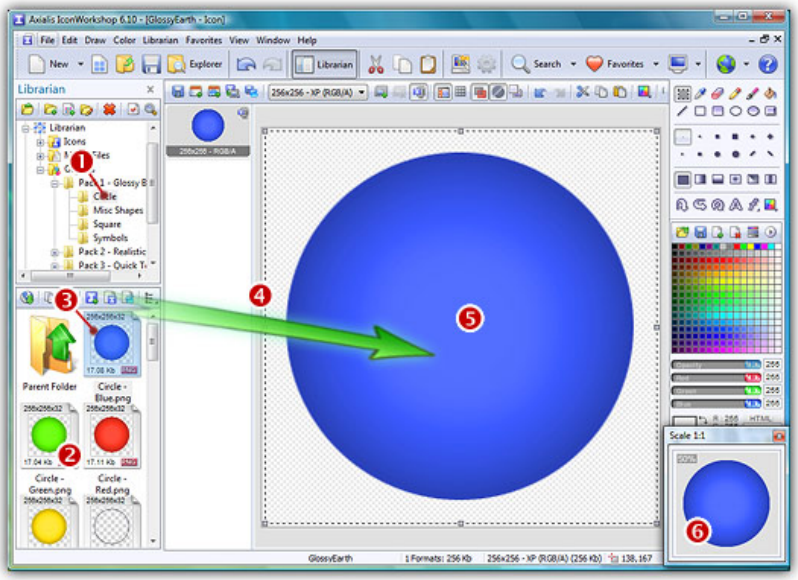
2. Type the name of the project (❶): **"Glossy Earth"**.
3. Now specify the format of the first image to add in the project: In **Image Color Format** , choose "**XP with Alpha Channel (RGB/A 32 bits)**" (❷). In **Image Size** , choose and "**256x256 (Vista™)** (❸).
4. As we want the 256x256 format to be used under Windows Vista™, we choose to compress it as PNG: Click the option "**PNG Compress 256x256 format**" (❹). To learn more about Windows Vista™ icons, read this article: "Introducing Windows Vista™ Icons".
5. When done, click **OK**. A new icon project window is created with the 256x256 format created.
6. If the scale-1:1 preview window is not in 256x256 mode, the preview image will be cropped. It is recommended that you switch to 256x256 preview mode to work with 256x256 Windows Vista™ icons. To switch to this mode, right-click in the preview window, a menu opens. Choose "**256x256 Display**". The preview window is now in floating mode.

   Use the same method to return to the previous state: choose "**128x128 Display**", remove the "Floating Window" option and use the mouse to dock the window.

Building the Icon Using Image Objects

This is the most important part of the project. The time has come to be creative! No problem it's easy and fun with Axialis IconWorkshop™. Before we start, don't forget that each step of the creation can be undone/redone (**Ctrl+Z/Ctrl+Y**) up to 16 steps back.

7. In the **Librarian** window (choose **View/Librarian** if it is not visible), select the "**Objects/Pack 1 - Glossy Buttons/Circle**" folder (❶). A list of available object is displayed in the contents window below (❷). Find the "**Circle - Blue.png**" file and select it (❸).



8. When done, use a mouse **Drag-and-Drop** to add it into the project as shown above (4). The object is added to the project as a floating selection (5). Take a look at the quality of the artwork in the **Scale 1:1 window** (6).

Congratulation! you've just added your first image object to your project! As you can see it's very easy and intuitive. Now let's continue and add other objects to build the icon.

IMPORTANT
To follow the next steps, the "Preserve Transparency" option must be set (press "T" or select Draw/Preserve Transparency). If this option is not set, the transparency will not be kept each time you add a new image object and the objects already added will be fully replaced.

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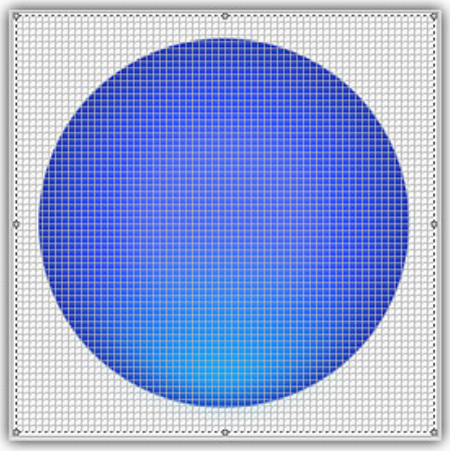
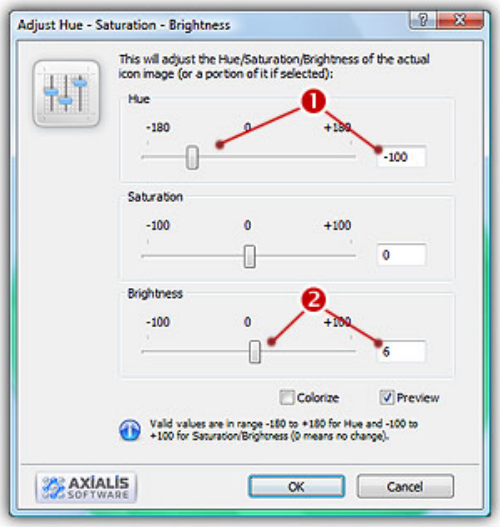
9. From the **Librarian**, select the file "**Circle Inner Light.png**" and add it to the project using the same method. The resulting image now includes a cyan light effect as shown below:



10. To create the Earth image, we now add the map object. From the librarian, select the file "**World Map.png**" and add it to the project using the same method. The resulting image looks like below:

11. The result is good but we want to make it even better. We can increase the realism by changing the color of the map to green. To do so, Axialis IconWorkshop™ has a feature to adjust the Hue/Saturation/Brightness of an image. Choose **Draw/Adjustments-Effects/Hue-Saturation** or press "**U**". A dialog box opens:



12. Set the **Hue** to "**-100**" either using the slider or by typing the value (❶). It "shifts" the colors of the floating image in the spectrum. As a result, the map is now green. Also, we slightly increase the **Brightness** of the map by specifying "**6**" (❷). You can see the results in real-time in the Preview 1:1 window. When done click **OK**. Now the map is green:

13. Do you recall the name of the icon? Yes, "Glossy Earth"! So, let's add the glossy effects. First, using the same drag-and-drop method as above, we add the object "**Circle Effect 3.png**". Then to increase the effect, we add the object "**Circle Effect 6.png**". Now it looks like this:

14. Now the final touch: the shadow. We want to add a shadow at the bottom and under the earth. This will produce an interesting effect, just like if the globe was laid on a white horizontal plan.

    First, we need to move the whole Earth 10 pixels up (just to leave more space for shadow at the bottom of the image). **Important:** To do so, we must **select the whole image**. Actually, only the last object we've added is selected. Choose **Edit/Select All** or press **Ctrl+A**. There is no visual change but now you're ready to move the whole image.

    To move the image, you can use the mouse (with a drag-and-drop) or use the arrow keys of the keyboard. To move the image 10 pixels up, hit **UpArrow** 10 times or press **Shift+UpArrow**. The resulting selection rectangle is now 10 pixels outside the top of the editor area.

15. We can now add the shadow. Select the object "**Circle Shadow.png**" in the librarian and add it to the project. The resulting image looks like this:

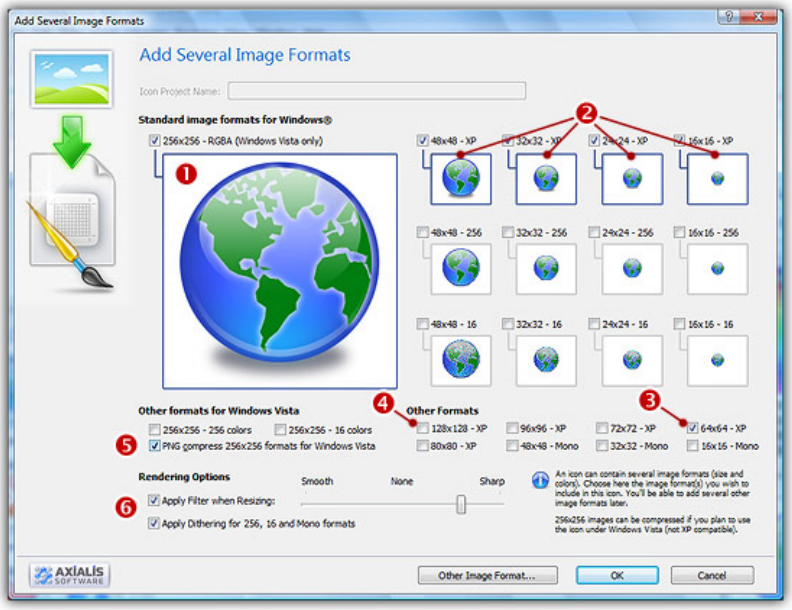
16. Obviously, there is a problem: The shadow is in front of the Earth Globe! The solution is as easy as a keystroke: Press the **End** key or choose **Edit/Set Floating Selection to Background**.

You're done! The resulting image should look like this:

Finalizing the Icon by Creating All the Formats

Now that the largest image is done (256x256 RGB/A), we'll create all the other formats of the icons from this one. This is done in one step with Axialis IconWorkshop™ Corporate Edition. Using the Personal Edition, you need to create each format manually (see product help for more info).

17. Choose Draw/Add Several Image Formats from This Image or press "V". A dialog box opens:



18. Select the images formats to include in the icon by following the specifications as we defined them above: the format **256x256 RGB/A** is already included in the icon, so it will be ignored (❶); select formats **48x48** to **16x16 RGB/A** by clicking on the associated check boxes (❷); Add the formats **128x128 RGB/A** (❸) and **64x64 RGB/A** (❹).

19. As we want our icon to be used under Windows Vista™, we can compress the 256x256 formats as PNG (❺). You can also choose to apply the smooth/sharpen filter to get better results in small formats (❻). View the results in image previews.

20. When done, click **OK**. The new formats are automatically created and added to the project (❶):

21. Take a moment to admire your work :) Click on the various formats (❶) and see the resulting icon at scale 1:1 in the preview window (❷). You can change the **background lightness** of the **Scale 1:1** window simply by clicking in it using the left button of the mouse. It will permit you to see how the icon is displayed on different backgrounds with different lightness.

22. Save your icon: Choose **File/Save** or press **Ctrl+S**. It will be saved as Windows® ICO format.

Congratulations! You've created your first icon from Image Objects. There is no limit to your creativity using these objects. You can resize them, changing their color, their opacity and more. You can even create your own objects by combining existing ones.

Creating a Macintosh® version of the icon

You can also save your Windows® icon as Macintosh® format. When the icon is finished (step 22 above), choose **File/Save as Macintosh® Icon** or press **Ctrl+Alt+S**.

By doing this, some icon formats which are not available for Macintosh® icons will be removed. In the example above, format 24x24 will be removed. An information message will be displayed.

Exercises

If you want to practice, try to recreate these sample icons made using the **Glossy Objects** pack:

Lesson 9 - Creating and Using a Windows Vista™ icon

In this lesson, we'll create an icon fully compliant with **Windows Vista™** specifications and we'll learn how to use it in a software project. Windows Vista™ includes many new features and enhancements. The most visible evolution is the new Graphical User Interface (GUI). A first look at Aero (the codename for the Windows Vista™ user experience) reveals a slicker interface with sharper graphics.

Microsoft Windows Vista™ comes with a new format of icons supporting PNG compression and sizes up to 256x256. The standard Windows Vista™ icons now includes the following image formats (grayed formats are optional):

256x256 - RGB/A	64x64 - RGB/A	48x48 - RGB/A	32x32 - RGB/A	24x24 - RGB/A	16x16 - RGB/A
256x256 - 256c	64x64 - 256c	48x48 - 256c	32x32 - 256c	24x24 - 256c	16x16 - 256c
256x256 - 16c	64x64 - 16c	48x48 - 16c	32x32 - 16c	24x24 - 16c	16x16 - 16c

The problem is: if you simply make the icon and save it in standard Windows® XP ICO format, the resulting file will be 400Kb on disk. The solution is to compress the images. Only the 256x256 images are compressed. The compression scheme used is PNG (Portable Network Graphic) because it has a good lossless ratio and supports alpha channel. The compressed icon sizes are 100Kb to 150Kb.

To get more information on Windows Vista™ Icons, we recommend you to read this topic: Introducing Windows Vista™ Icons

Creating the Windows Vista™ Icon from an existing image

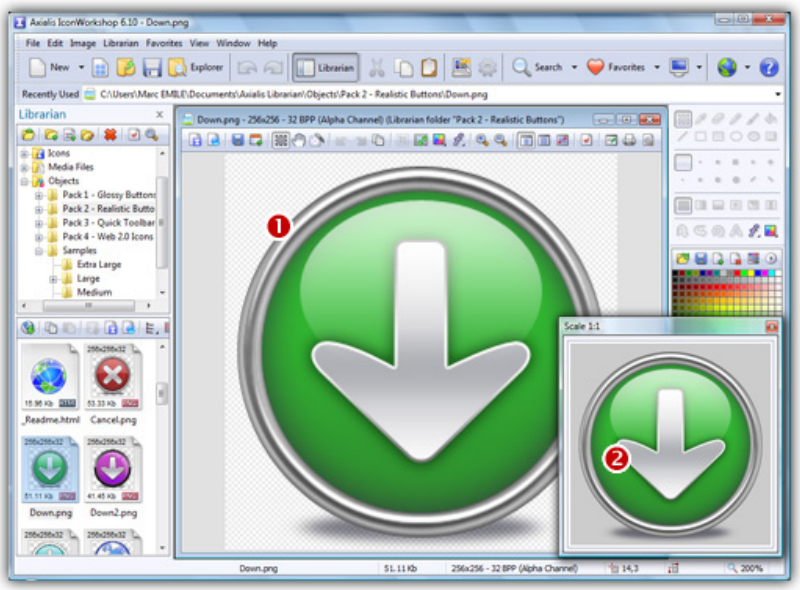
Here is a step-by-step tutorial on how to create a Windows Vista™ compressed icon using Axialis IconWorkshop™.

1. Create a 256x256 version of your icon image using any image/vector editor. Save your artwork with smooth transparency (32 BPP alpha channel) using a file format that is compatible with Axialis IconWorkshop™: BMP, PNG, JP2000, PSD.

   You can also transfer your work from **Adobe Photoshop®** using the Axialis transfer plug-in (see this tutorial) or you can create an icon by assembling several **image objects** (see this tutorial).

   In this procedure, we'll use this file: down.png (we recommend you to download it and save it on your disk - use right click and choose "Save Target As"). You can also find the file in the **Librarian**, folder "**Objects/Pack 2 - Realistic Buttons**".

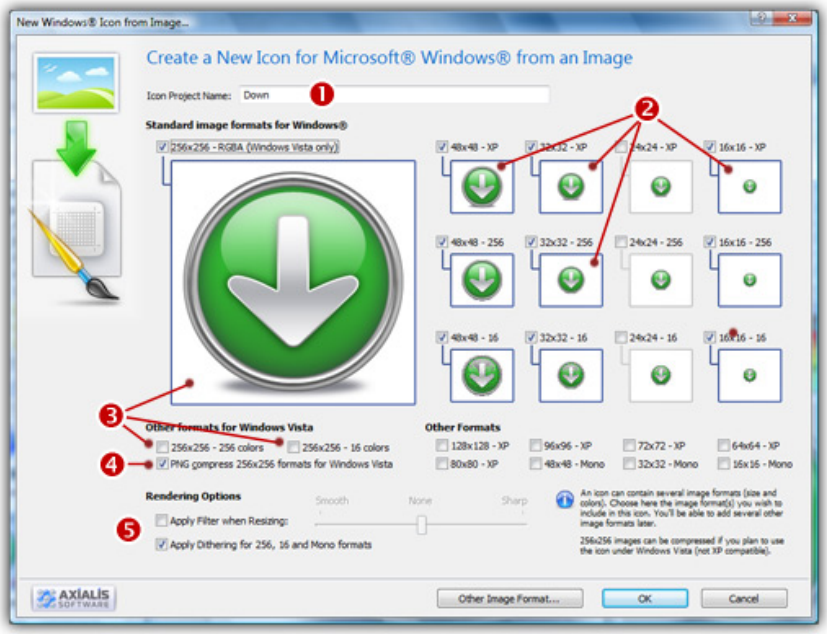
2. Launch Axialis IconWorkshop™ and open the image file. It is loaded in an image document window, not an icon editor window, as shown below (❶):



3. If the scale-1:1 preview window is not in 256x256 mode, the preview image will be cropped. It is recommended that you switch to 256x256 preview mode if you want to work with 256x256 Windows Vista™ icons. To switch to this mode, right-click in the preview window, a menu opens. Choose "**256x256 Display**". The preview window now looks as shown above in floating mode (❷).

Use the same method to return to the previous state: choose "**128x128 Display**", remove the "Floating Window" option and use the mouse to dock the window.

4. Select the whole image. Choose **Edit/Select All** or press **Ctrl+A**. An animated selection rectangle is now drawn around the image.
5. Choose **File/Create Windows® Icon From Selection** or press "**I**". A large dialog box opens. This dialog box will permit you to create all the image formats you want to include in your icon in one simple step:



6. Type the **Name** of the new icon project (❶). The root of the image file is proposed by default.
7. Select the images formats to include in the icon (❷) by clicking on the images. To create a Windows Vista™ icon, it is recommended that you follow the Windows Vista™ specifications as specified above. Don't forget to add the 256x256 Windows Vista™ formats in RGB/A (Windows® XP), 256 and 16 color modes (❸).
8. To create a fully-compliant Windows Vista™ icon, you'll need to compress the 256x256 formats in PNG. Select the associated option (❹).
9. You can also choose to apply the dithering option to the 256/16 color images as well as add a filter effect to smooth/sharpen the resulting images in RGB/A mode (❺). View the results in the preview images.
10. When done, click **OK**. A new icon project is created in a document window:

11. The main window with the grid (❶) is the edition area where you can retouch the icon. The gray chessboard-like texture behind the icon is the transparent portion of the icon (the alpha channel info has been preserved). The scale 1:1 preview is displayed in the associated window (❷).
12. All the available formats are displayed in a list (❸). You can select them to edit (❶) or preview (❷) them. See the application built-in help (press **F1**) to learn how to add/remove formats or work with this icon project.
13. The compressed format (only the 256x256 formats can be compressed) are marked with this overlay PNG compression image: . You can add/remove this option by choosing **Draw/Compressed Image Format (Windows Vista™)** or by pressing "**K**". You can also use the local toolbar or a right-click menu.
14. When done, save the icon by choosing **Edit/Save** or pressing **Ctrl+S**.

Using a Windows Vista™ Compressed Icon in a Software Project

Windows Vista™ PNG compressed 256x256 icons will be supported in **Microsoft Visual Studio® 2008** (codename "ORCAS"). We've tested PNG compressed icons on **Visual C++ 6.0** and **Visual .NET 2003/2005** and they all reject the icon during the resource compilation:

```
Error RC2176: old DIB in res\app.ico; pass it through SDKPAINT
```

This is unsurprising to us since this new ICO file format introduces a new header which points to raw PNG data. Of course the compiler returns a false error message. The DIB header is not old, it is PNG. Passing it through SDKPAINT does not help.

Windows Vista™ compressed icons have also been reported as not functioning in the **Delphi** programming environment. New components will no doubt be developed in the future that identify these shortfalls.

Creating a project using a 256x256 PNG icon with Visual C++ 6.0 and .NET 2003/2005

Create a 256x256 icon with all formats embedded as recommended for Windows Vista™. Save your icon **without compressing** your 256x256 formats. If your icon already contains PNG compression (like the one we've created in the procedure above), follow this procedure:

1. **Open the icon** file containing the PNG compressed formats icon in IconWorkshop.
2. On the left side of the document window you see all the formats available. Locate the 256x256 formats which are compressed: A small overlay icon indicating the compression is displayed (). For each of them, do the following step:
3. **Right click** on the format (in the list if available formats, not in the editor area). A menu opens, choose "**PNG Compressed Image Format (Windows Vista)**" to remove the compression.
4. Save the icon. Redo the same procedure for all the 256x256 icons of the project.

Once the icon is saved without compression, work on your project as usual. The compiler will handle the icon images correctly since they are not PNG. When your project is finished and before releasing the program file, follow the procedure below:

1. Open the EXE file containing the uncompressed icon in IconWorkshop.
2. The file opens in a document window with all the embedded icons displayed. Be sure to display all the formats in raw: choose "**View/Display Icons/All Formats In Raw**".
3. Double-click on the icon you want to compress. It opens in another document window.
4. In the list of available formats (vertical list on left), right-click on the first "256x256 RGB/A" format, a menu opens. Choose "**PNG Compressed Image Format (Windows Vista)**". A small overlay icon indicating the compression is displayed ().
5. Repeat step 4 with the other 256x256 image formats (if any).
6. Save the icon "**File/Save**". Close the icon window.
7. Back in the EXE document window, you see the compression overlay icon () displayed on all the 256x256 formats. Repeat steps 3 to 6 for all the other icons containing 256x256 images (if any).
8. Save your EXE document, close the window.
9. You're done! The EXE file size is smaller indicating that the compression is made.

Lesson 10 - Creating Icons Using Photoshop® Templates

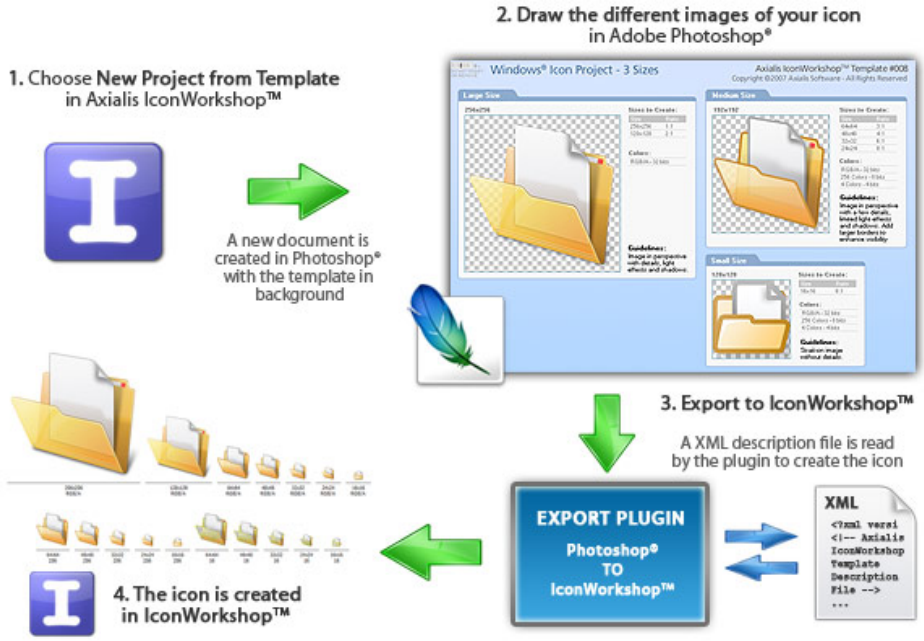
In this lesson, we'll create 2 icons using Photoshop® templates. Templates permit you to use the powerful tools of Photoshop to draw your icon in different formats, then transfer the work to IconWorkshop. Axialis IconWorkshop™ creates the icon automatically in one step.

A template is a ready-to-use image which contains enpty/transparent square areas where you can draw your icons in different formats. This image is designed to be placed in background of your drawing project. You make your artwork in layers that you add on top of this backround template. You can add as many layers as you want and you can save your project as individual files for future use or modifications. Once your work is done, just export it into IconWorkshop, the image will be temporary flatten and the icon created.

If you do not work with Photoshop®, go directly to lesson 11.

How do the Photoshop® templates work?

Select "**new icon project from template**" in IconWorkshop™. Choose one template (10 templates are provided, see below). Adobe Photoshop® is launched and a new image document is created with the template image in background. Draw your images, creating layers as necessary. You can save the work as a PSD file for later use. Choose "Export to IconWorkshop™". The Axialis plugin is launched, a XML description file is read (you can create your own, see in help) and the icon is created in IconWorkshop™. Just retouch it if you want and save it.



How many templates are included in IconWorkshop?

10 templates are included in IconWorkshop. Each template is composed of 2 files: a PNG file with transparency which is the image file on which you'll draw the different sizes of your icon; a XML file describing the template (this is a text file with the same filename, extension XML). You can create your own new templates. Files are located in [Application Data]/Axialis/IconWorkshop/Templates. The 10 templates are:

1. Windows Icon - All Formats
2. Windows Vista Icon (256x256,...)
3. Windows XP Icon (48x48,...)
4. Macintosh OSX Icon (128x128,...)
5. Macintosh OSX Tiger Icon (256x256,...)
6. Macintosh OSX Leopard Icon (512x512,...)
7. Windows Project (2 Sizes)
8. Windows Project (3 Sizes)
9. Macintosh Project (2 Sizes)
10. Macintosh Project (3 Sizes)

What is the difference between "Simple Icon" and "Icon Project" templates ?

The **simple icon templates** (numbers 1 to 6) have been designed to permit you to draw all the formats of the icon, including RGB/A, 256 and 16 colors. If a format is left blank, it will not be added to the icon.

The **icon project templates** (numbers 7 to 10) permit you to create 2 or 3 versions of your icon (based on the template you choose). Then, during the export, the formats are created according to the XML descrition file. Usually, image formats in project templates are created using the following guidelines:

- **512x512, 256x256, 128x128 to 72x72** : Image in perspective with details, light effects and shadows.

- **64x64 to 24x24** : Image in perspective with a few details, limited light effects and shadows. A border is added to enhance visibility.
- **16x16**: Flat image without details and large borders.

Install the Photoshop-to-IconWorkshop™ transfer plug-in

Before using the as detailed in next topic, you need to install it on your computer. The plug-in can be easily installed from within Axialis IconWorkshop™ in one fast and simple operation.

If you've already installed the Photoshop® plug-in with a version of IconWorkshopatr prior to 6.10, you must install it again by following the procedure below. A new export plug-in will be installed in addition to the filter plug-in. The export plug-in will be used with Photoshop® Templates

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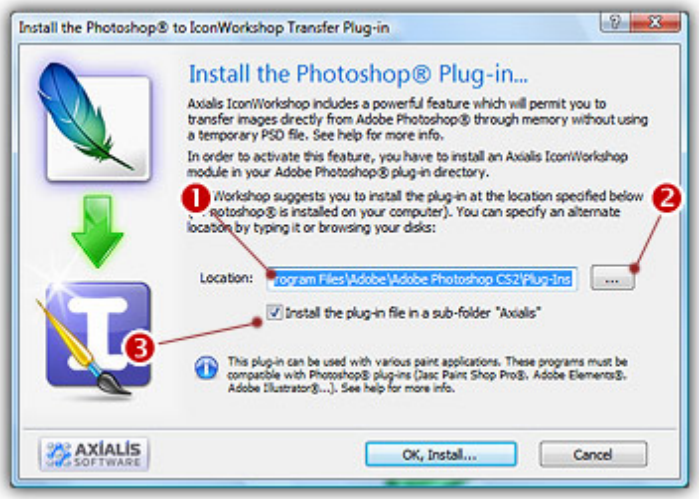
1. Before installing the plug-in you need to close the Photoshop® application (if it is opened in background). Choose **File/Install Photoshop® Plug-in...**
2. The dialog box **Install the Photoshop to IconWorkshop Transfer Plug-in** opens (see below). In the **Location** edit zone (❶), specify the Photoshop plug-in folder. If you don't know the exact folder path, click the browse button (❷) to choose the folder in a list.



3. If you want to **create a subfolder** "Axialis" to install the plug-in module (recommended to organize your folder properly), activate the option "**Install in a subfolder Axialis**" (❸). Note that creating a subfolder may fail with some compatible applications.
4. Click **OK**. When done, a message informs you that the plug-in has been installed.
5. Now you can start your Photoshop® application. The plug-in is visible in **Filter/Axialis/Transfer To IconWorkshop™** and **File/Export/Export to Axialis IconWorkshop™** menus. Read this for more info on how to use the plug-in filter.

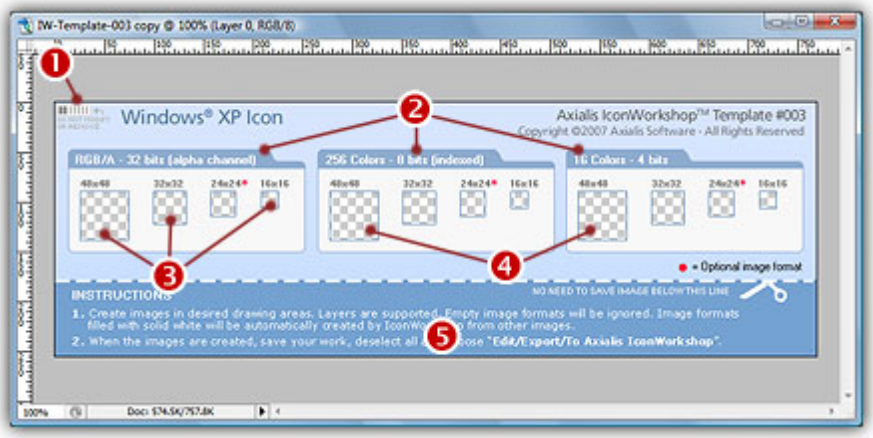
Create a Windows® XP icon

In this first part, we'll create a simple icon for Windows® XP. To do this, we'll use an "**Icon Template**". This kind of template (see above), permits you to create each format of the icon separatly. A typical Windows®

XP icon contains **9 or 12 formats**: sizes **48x48, 32x32, 16x16 (optional 24x24)**, each one in colors **RGB/A, 256 and 16**. As a result, the templates contains 12 areas where you can draw the different formats of the icon. If a drawing area is left blank, the associated format is not created.

In the procedure below, we'll create 3 RGB/A formats: 48x48, 32x32 and 16x16.

1. First, be sure the Photoshop® plug-in has been installed (see previous topic). Choose **File/New/Icon Project from Photoshop Template/Windows XP Icon (48x48...)**.
2. Adobe Photoshop® opens and a new document is created. Its name is "**IW-Template-003 copy**". The term "**copy**" means that this is a new document based on the file "**IW-Template-003**" but not linked to it. As a result, you won't overwrite the original template image by saving your over it by error (simply by pressing Ctrl+S for instance). It's like a new document containing an image at startup.

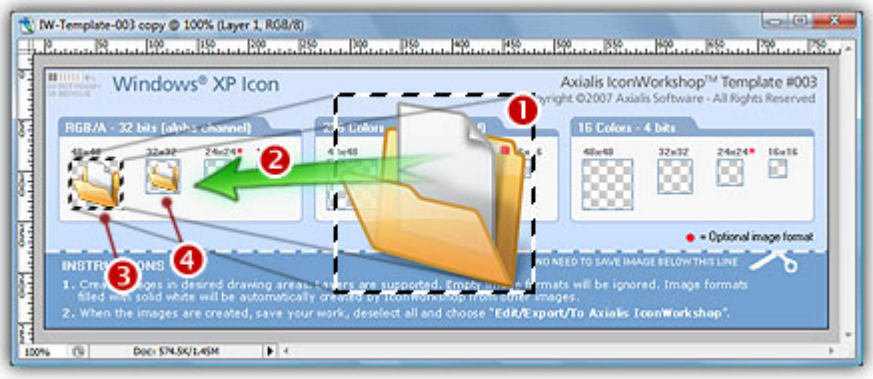


The figure above shows the document window as it has been created in Photoshop®. In the upper-left corner (❶) there is a **barcode** to let IconWorkshop identify the number of the template (this permits IconWorkshop to associate the template image with the associated XML file). **Do not modify or remove this barcode.**

The template is divided in 3 groups (❷), one per color mode. We'll draw image formats only for the RGB/A color mode in sizes 48x48, 32x32 and 16x16 (❸). We'll leave the other formats blank (❹). At the bottom of the template you'll find some instructions on how to use the template (❺). This part of the template is not used during the export into IconWorkshop™ and the icon creation. If you want to save your icon project as a separate PSD file, you can remove this part (crop the image above the doted line).
From here, you can simply draw your icons in the associated format zones and go directly to step 7. If you don't want to draw and prefer to use read-to-use sample images, follow steps 3 to 6.

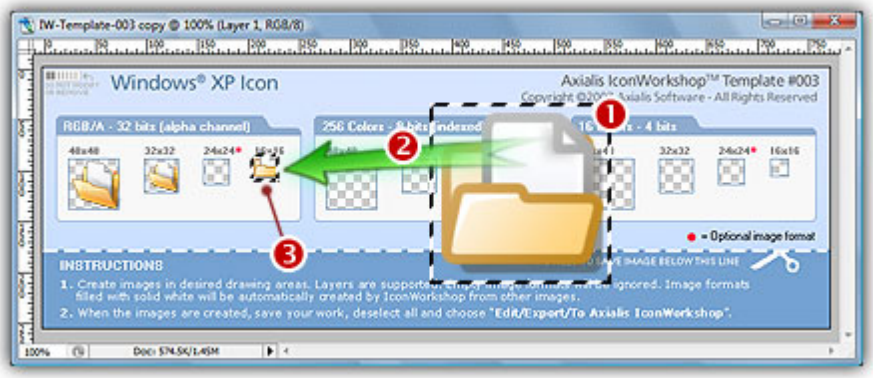
3. Open the file "**[Axialis Librarian]\Objects\Samples\Medium\Folder With Document.png**". We mean by **[Axialis Librarian]** the folder where is stored the Axialis Librarian (usually in the **My Documents** folder).

   You can also do this directly from IconWorkshop™: in the Librarian, open the folder "**Objects\Samples\Medium**", right-click on the file "**Folder With Document.png**". A menu opens, choose "**Open With/Adobe Photoshop®**". The file is opened in a Photoshop document window.
4. **Copy/Paste** the image of the Folder with Document into the Template (a new layer is created), select it (❶). Choose **Edit/Transform/Scale** and adjust the image into the **48x48 RGB/A** square (❷). The resulting image should be perfectly adjusted **inside the transparent square** (❸), not over the borders (which will not be exported).

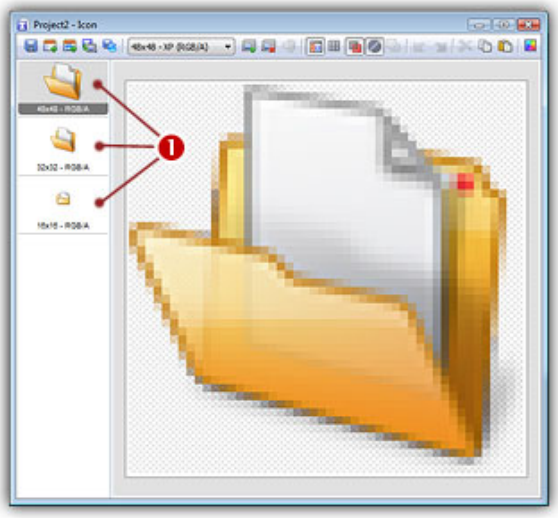


Redo the same operation for the **32x32 RGB/A** format (❹). In you're an advanced Photoshop user, you can retouch the images to enhance the final result.

5. Now let's create the 16x16 format. We'll use another image which will produce better results in very small sizes (located in subfolder "**Small**"). Open the file "**[Axialis Librarian]\Objects\Samples\Small\Folder With Document.png**".
6. Redo the operation similar to step 4 (❶) and adjust the image (❷) into the **16x16 RGB/A** square. The result must be perfectly adjusted inside the square (❸):



7. Now let's create the icon: In Photoshop, choose **File/Export/Export to Axialis IconWorkshop**. The template is automatically recognized by IconWorkshop and the icon is created with the 3 formats we've drawn (❶):

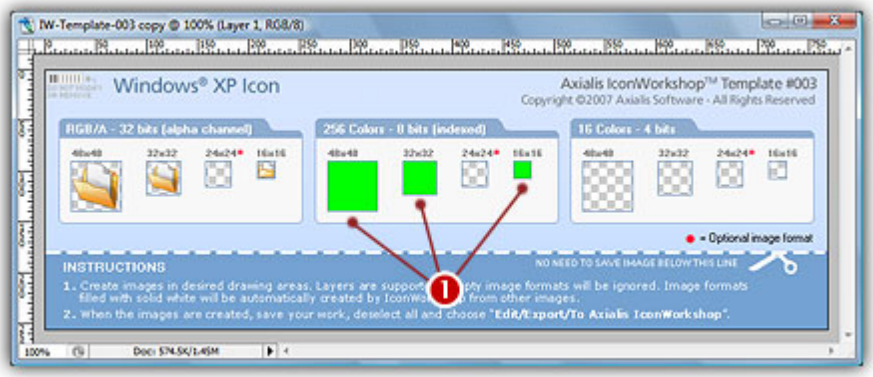


Only the squares with images generated the associated formats. Now if you want to create other formats, you can follow the same procedure as in Lesson 4.

Adding other formats using the template

You can also add new formats from the one you've drawn using the template. For example, let's add the 256 color formats from the RGB/A images we've already drawn:

8. Go back to Photoshop and select the document containing the template. Select the layer "**Layer 0**" (the one containing the template image).
9. Select the Paint Bucket tool: and using the color you want (we used pure green RGB:0,255,0), fill the 3 squares **48x48**, **32x32** and **16x16** in the group **256 colors** (1):



10. Choose **File/Export/Export to Axialis IconWorkshop**. A new icon document is created with the 256 color formats added. The formats has been automatically created from the largest and most coloured image, in our case 48x48 RGB/A. The problem is that the 16x16 format has also been created from this detailed image, not from the 16x16 image we've already created. Using Icon Project Templates (see below) will solve this problem.
11. Once you have finished to work on an icon template, we recommend you to save the document using the PSD format. This will permit to work again later on the project, preserving all your layers and effects you may have added.

Create a Windows Vista™ icon using a 3-image Project Template

This second part will permit you to go further by creating an icon using a more professional method. We've seen in previous topic that basic icon templates require to draw all the formats of the icon to get the best results. Using Icon Project Templates, you draw 2 or 3 versions of your icon (depending on the template you use) and IconWorkshop automatically creates the icon formats using pre-defined rules.

For exemple, the template "Windows® Project (3 Sizes)" lets you draw 3 images. Use the recommended guidelines below to draw the images. Then, IconWorkshop creates each format of the icon accordingly:

Original Template Image	Drawing Guidelines	Created Icon Sizes
256x256	Image in perspective with details, light effects and shadows.	256x256, 128x128

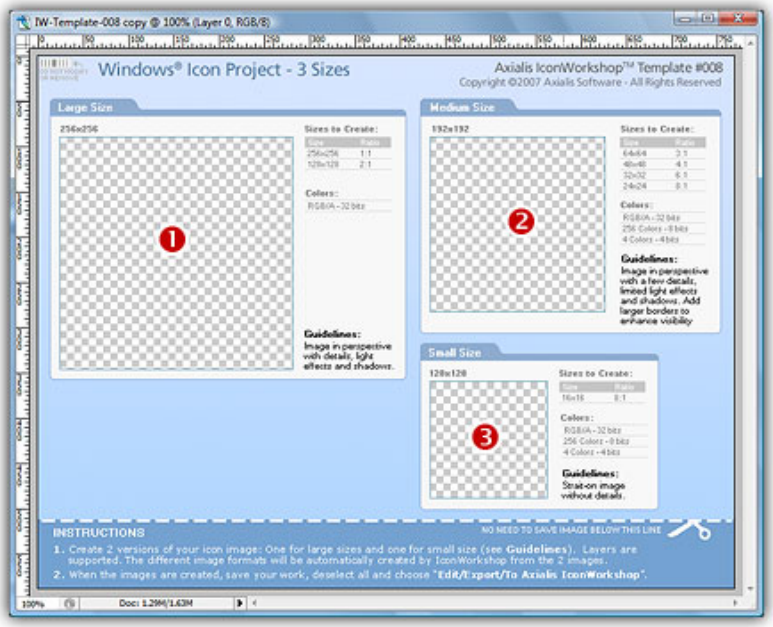
192x192 	Image in perspective with a few details, limited light effects and shadows. Add larger borders to enhance visibility	64x64, 48x48, 32x32, 24x24
128x128 	Flat image without details and a large border.	16x16

This is an advanced method for creating icons but this is the one which produces the most professional results. The final icon contains hi-res images for operating systems which support them such as Windows Vista™ or MacOS 10.4/10.5. It contains also smaller images which are easily identifiable by the user in all resolutions.

Note that the small sizes are generated from larger original images. For exemple, the 16x16 size is created from a 128x128 image (ratio 8:1). This permits an easier drawing experience and produce better results.

In the procedure below, we'll create a fully featured Windows Vista™ icon of the image "Folder With Document" that we've already used above.

1. First, be sure the Photoshop® plug-in has been installed (see topic above). Choose **File/New/Icon Project from Photoshop Template/Windows Project (3 Sizes)**
2. Adobe Photoshop® opens and a new document is created. Its name is "**IW-Template-008 copy**":



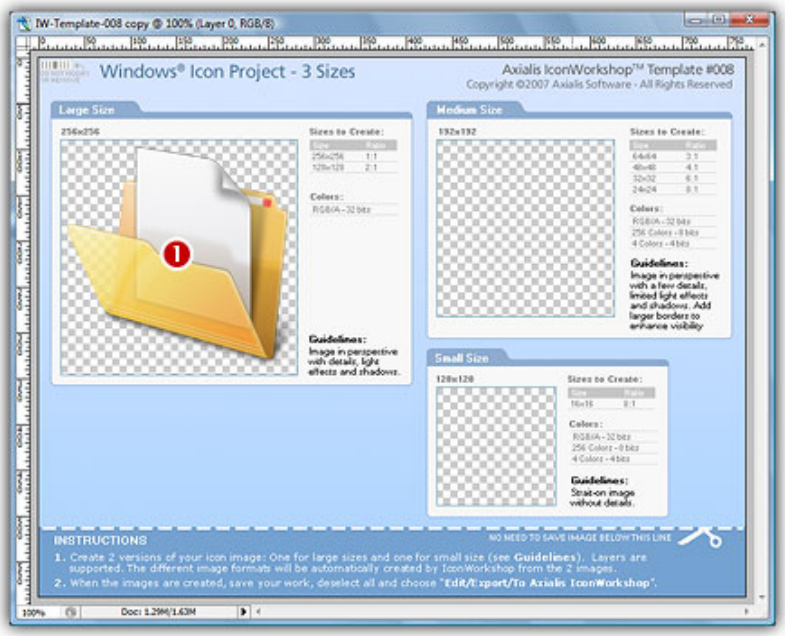
The figure above shows the document window as it has been created in Photoshop®. It contains 3 drawing areas where you'll draw the 3 images of your icon: the large size 256x256 (❶), the medium size 192x192 (❷) and the small size 128x128 (❸).

From here, you can simply draw your 3 images in the associated zones and go directly to step 7. If you don't want to draw and prefer to use read-to-use sample images, follow steps 3 to 6.

3. Open the file "**[Axialis Librarian]\Objects\Samples\Large\Folder With Document.png**". We mean by **[Axialis Librarian]** the folder where is stored the Axialis Librarian (usually in the **My Documents** folder).

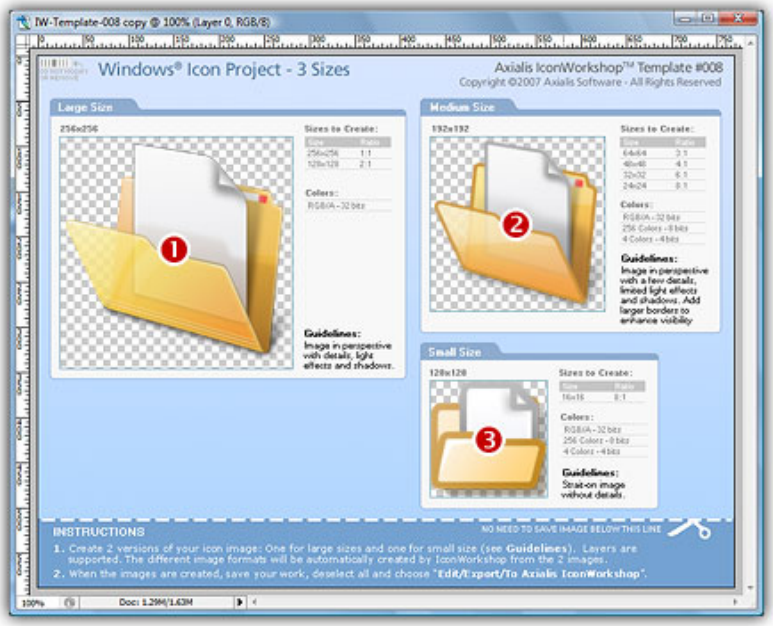
   You can also do this directly from IconWorkshop™: in the Librarian, open the folder "**Objects\Samples\Large**", right-click on the file "**Folder With Document.png**". A menu opens, choose "**Open With/Adobe Photoshop®**". The file is opened in a Photoshop document window.

4. **Copy/Paste** the image of the Folder with Document into the Template (a new layer is created), select it. Move the image in the 256x256 drawing area. The resulting image should be perfectly adjusted **inside the transparent square** (❶), not over the borders (which will not be exported). The resulting image should look like this:

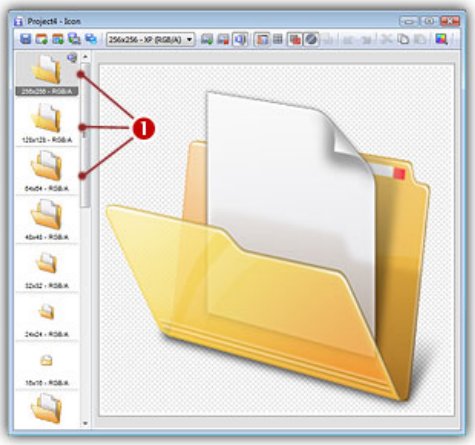


5. Repeat the procedure for the file "**[Axialis Librarian]\Objects\Samples\Medium\Folder With Document.png**". Move it into the drawing area 192x192 (❷).

6. Repeat the procedure for the file "**[Axialis Librarian]\Objects\Samples\Small\Folder With Document.png**". Move it into the drawing area 128x128 (❸). See below the resulting document window:



7. Now let's create the icon: In Photoshop, choose **File/Export/Export to Axialis IconWorkshop**. The template is automatically recognized by IconWorkshop and the icon is created with all the formats as described in the template (❶):



8. Various image formats have been created. Simply remove the formats you don't wish to include in your icon. Save the icon.
9. Once you have finished to work on an icon template, we recommend you to save the document using the PSD format. This will permit to work again later on the project, preserving all your layers and effects you may have added.

Lesson 11 - Batch creating several icons from images

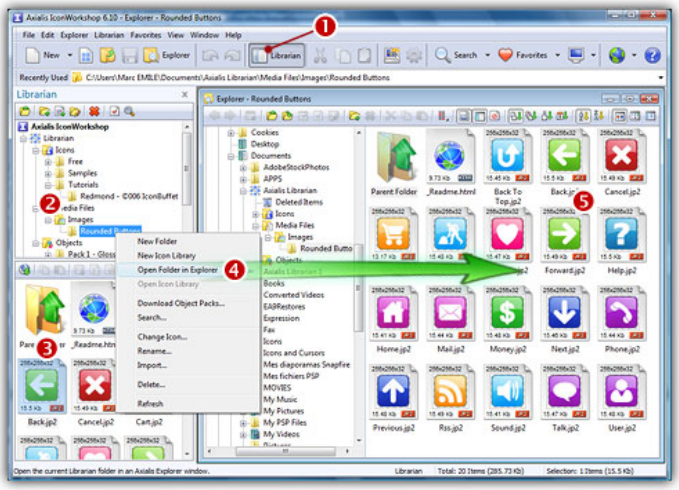
We have seen how to create one icon from an image. A more powerful feature permits to automate this operation to create several icons from a group of images. Each image will be used to produce one icon with several formats embedded. This automated operation is called a "Batch" feature.

Several batch features are included in Axialis IconWorkshop™. It permits to greatly increase productivity especially if you deal with numerous icons in your daily work. In this lesson, we'll see one of them but we strongly recommend you to test all of them to get a better idea of the power of Axialis IconWorkshop™. We'll start with a set of 18 images in 256x256 JPEG2000 format. We'll create the 9 first icons in Windows® format and the 9 others in Macintosh® format.

Opening the folder containing the image in the Axialis Explorer

Axialis IconWorkshop™, like all the Axialis products, contains a built-in file explorer that permits to do all kinds of operations on files associated with the application. We use to call this file explorer "Axialis Media File Explorer". It looks like the Windows® explorer, has different views including a great thumbnail mode with fast preview and permits various operations on files like copy/move/rename...
All the batch functions are available from the Axialis Explorer window. That's the reason why we'll start this lesson by opening the folder which contains the images in this explorer, even if those files are located in the Librarian.

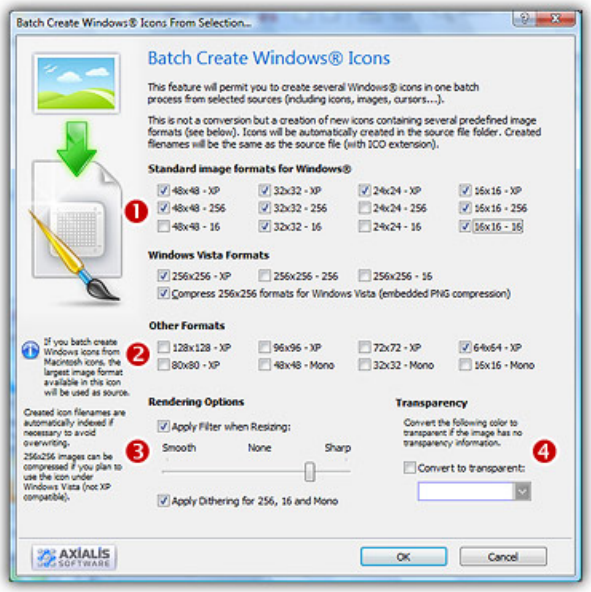
1. First, you must **be sure the librarian is visible**. If the librarian window is not visible, check the Librarian button in the main toolbar (❶) or press **ESC**.
2. Select the **"Media Files/Images/Rounded Buttons"** folder (❷). In the thumbnail preview list (below), you see all the files included in the folder (❸).



3. Right-click in the librarian tree, a menu opens. Choose the command **"Open Folder in Explorer"** (4). A new Explorer window opens in the working area (5) and the folder contents is automatically displayed. You see all the images displayed in thumbnail mode with preview. If this is not the case, be sure to select in menu: **"Explorer/Display/Large Icons"** and **"Explorer/Display/Auto Preview"**.

Creating the Windows® icons

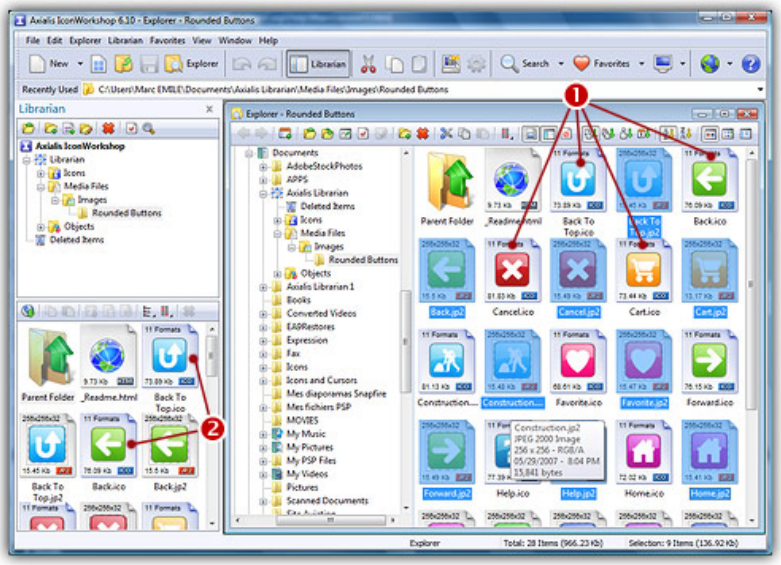
4. In the **Explorer** window, **select the 9 first images** in the list. To do this, **click** on the first image, press the **SHIFT** key (keep it pressed) and **click** on the 8th image. The images are selected.
5. Right-click on one of the selected images, a menu opens. Select the command **"Batch Create Windows® Icons from Selection..."**.
6. A dialog box opens. In **"Standard Image Formats"** (1), **Windows Vista™ Formats** and **"Other Formats"** (2) choose the image formats you wish to add in the icons.



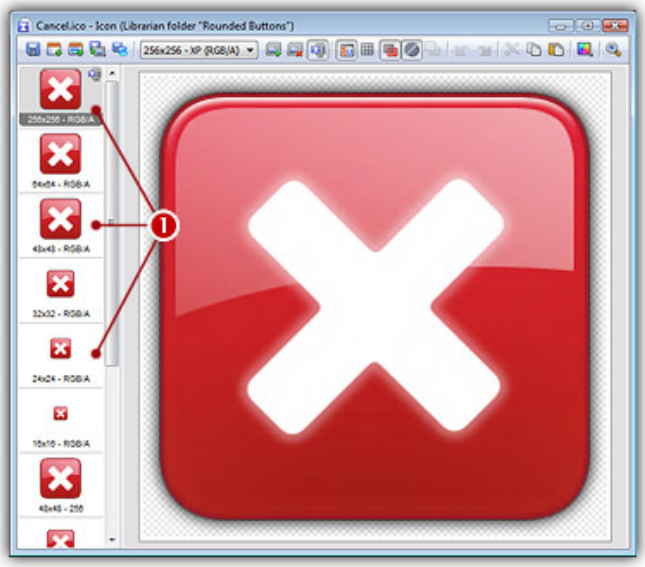
7. In **Image Adjustment** group (3), you can add a smooth or sharp filter to the image shrinking process. You can also use or not a dithering method to render image using 256 or 16 colors. In **Transparency**

group (4), an option permits to use opaque images (i.e. without transparency) and specify a color to make transparent.

8. When done click **OK**. All the icons are created and added to the same folder (see below 1). Names are preserved, only the extension is changed to ICO. The Librarian is updated accordingly since this is the same folder (2):



9. Let's take a look at a newly created icon. Double-click on a created icon, for example **"Cancel.ico"**. A document window opens as shown above with all the image formats available (1). When you've checked all the formats, close this window.



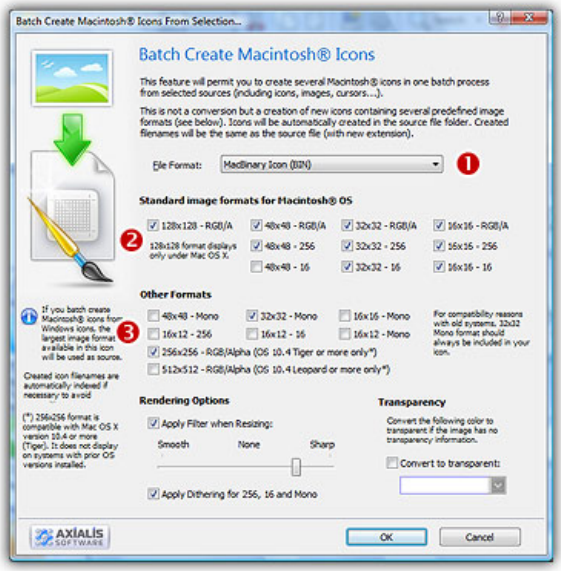
Creating the Macintosh® icons

10. In the **Explorer** window, **select the 7 last images** in the list. Use the same method as above.

11. When the images are selected, Right-click on one of them, a menu opens. Select the command **"Batch Create Macintosh® Icons from Selection..."**.

12. A dialog box opens. First we need to choose the Macintosh® file format we wish to use (there are 3 formats supported by IconWorkshop™ - see this topic to learn more). Choose **"MacBinary Icon (BIN)"**.

13. In groups **"Standard Image Formats"** (❷) and **"Other Formats"** (❸) choose the image formats you wish to add in the icons. The other options are the same as above.



14. When done click **OK**. All the Macintosh® icons are created and added to the same folder. Names are preserved, only the extension is changed to BIN. The Librarian is updated accordingly since this is the same folder.

15. Let's take a look at a newly created icon. Double-click on a Macintosh® icon, for example **"Phonea.bin"**. A document window opens as shown above with all the image formats available. When you've checked all the formats, close this window.

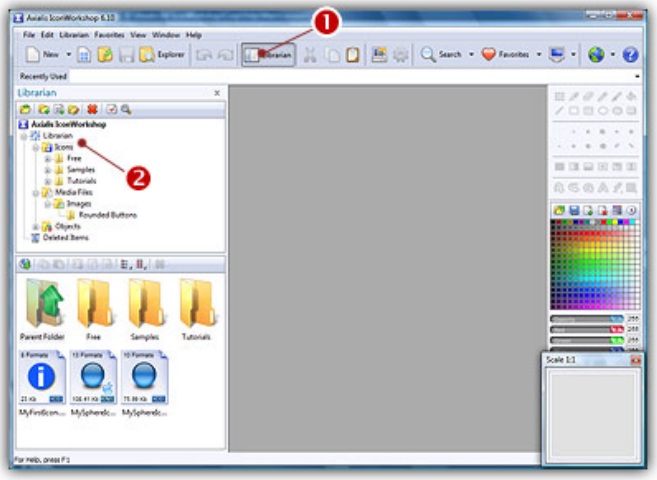
Lesson 12 - Creating a new Icon Library

If you plan to deal with a large number of icons, we strongly recommend you to create Icon Libraries to save them. You can assemble an unlimited number of icons in an Icon Library. The extension for a standard **Icon Library is ICL**. Axialis IconWorkshop™ fully support ICL files. It can create, read and save ICL library files. Also, ICL file format is fully supported by all versions of Windows®. For example, you can customize a Windows® shortcut by selecting a new icon in an ICL file.

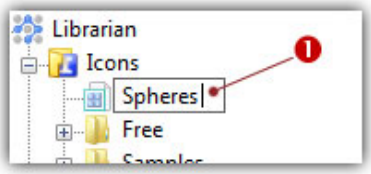
Axialis IconWorkshop™ has a powerful feature to support ICL files in its built-in Librarian that permits you to **consider ICL files as folders**. In this lesson, we'll create a new Icon Library in the Librarian.

Creating an Icon Library in the Librarian

1. To create an Icon Library in the librarian, you must **be sure that the librarian is visible** and located to the correct folder (select the **"Icons"** folder ❷). If the librarian window is not visible, check the Librarian button in the main toolbar (❶) or press **ESC**.



2. To create the Icon Library, select **Librarian/New Icon Library** or right-click on the current folder in the tree and choose **New Icon Library** in the menu or press **Ins**.



3. A new entry is inserted in the tree, type the name of the new library (❶). Enter "**Spheres**" then hit **Enter**.
4. The new Icon Library is now created. Its contents (empty for now) is displayed in the area below. Now you can add icons to this library. This is what we'll do in next lesson.

Lesson 13 - Adding icons to the Icon Library

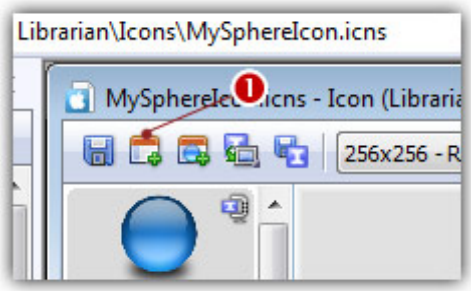
Now that we've created a new icon library (named "Spheres"), we'll add to it the 2 icons we've previously created.

Adding an icon to the Icon Library (from the Librarian)

1. **Be sure the librarian is visible** and select the **"Icons"** folder. Also, if necessary, click on the "plus icon" located on left of the folder ([+]) to expand the tree branch and show the sub-libraries (including our newly created "Spheres" library).
2. In the list below, select "**MySphereIcon.ico**".
3. Now, using the mouse, **Drag & Drop the icon** to the Icon library in the tree above. Release the mouse. The file has been copied to the Icon Library. If you want you can delete it from the folder.
4. Now, verify by selecting the Spheres library in the tree. The icon appears in the list below. Note that the aspect of the items in the list below has changed. It has been optimized to display icons only (check options in the local toolbar to display icons in this list).

Adding an icon to the Icon Library (from an opened icon document)

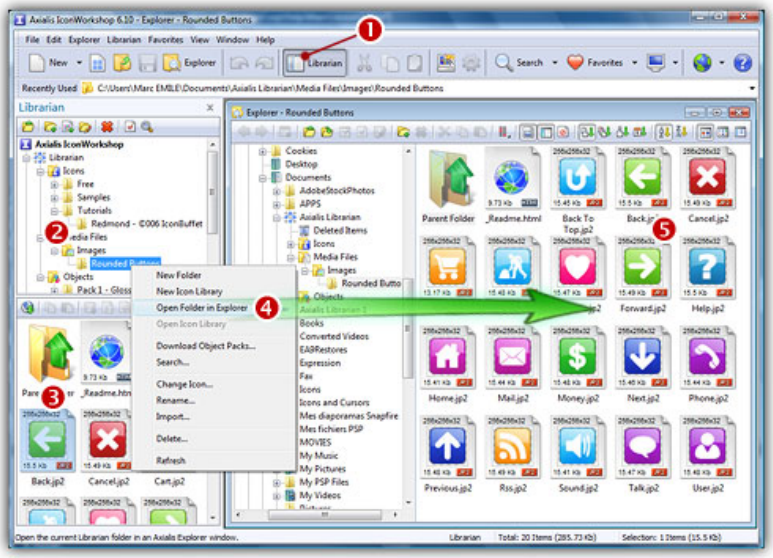
5. Be sure the librarian is visible and select the "Icons" folder.
6. In the list below, select "**MySphereIcon.icns**". Hit Enter or double-click on it. It opens in a document window.
7. Now, select the **Spheres** library in the tree (if necessary, click on the "plus icon" located on left of the folder ([+]) to expand the tree branch).
8. Return to the document window and choose File/Add to the Librarian or press F3 or click on the associated button in the local toolbar (see below ❶)



9. A dialog box **Add Icon to the Librarian** opens. Keep the proposed name, click **OK**. The icon is no added to the icon library "Sphere". The icon has been saved and inserted in the library. Now close the document. As you can see, the Apple Macintosh icons can also be added into ICL files. To identify them, a small apple overlay is displayed.

Adding icons to the Icon Library (from the Axialis Explorer)

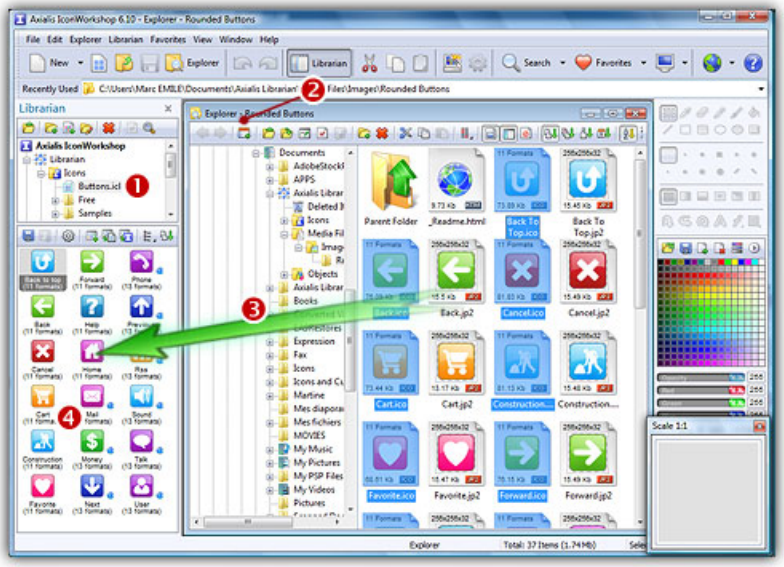
10. Select the folder **"Icons"** folder and create a new Icon Library "**Buttons**" (use the same methode as lesson 12, step 2): select **Librarian/New Icon Library** or right-click on the current folder in the tree and choose **New Icon Library** in the menu or press **Ins**.
11. Let's add the icons we've created from the button images in lesson 11. Select the **"Media Files/Images/Rounded Buttons"** folder (❷). In the thumbnail preview list (below), you see all the files included in the folder (❸):



12. Right-click in the librarian tree, a menu opens. Choose the command **"Open Folder in Explorer"** (❹). A new Explorer window opens in the working area (❺) and the folder contents is automatically displayed. You see all the images displayed in thumbnail mode with preview. If this is not the case, be sure to select in menu: **"Explorer/Display/Large Icons"** and **"Explorer/Display/Auto Preview"**.

13. Select all the **ICO** and **BIN** files. If you want to select all the ICO files in one operation, press the **"+"** key. A dialog opens, type "***.ICO**", click **OK**. Redo the same for the **BIN** files (uncheck the option "**Replace the current selection**").

14. Once the files are selected, select the Icon Library "**Buttons**" (❶)that you've just created in the librarian (it is empty). Back into the Explorer Window, click on the "**Add to the librarian**" button or press **F3** (❷).



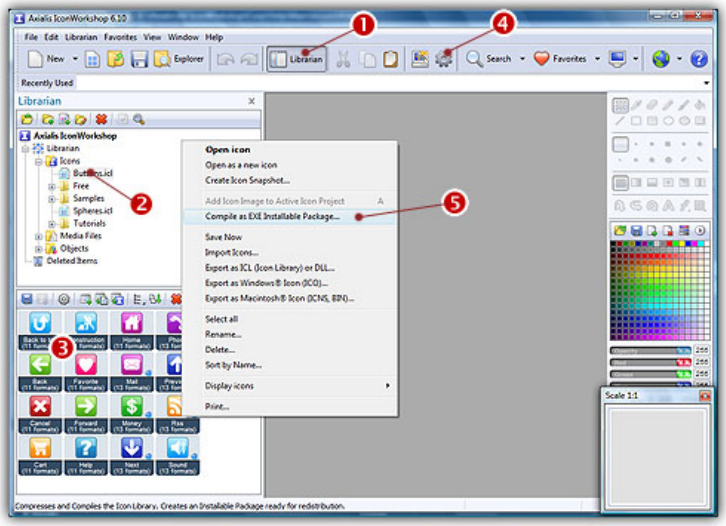
The icon files are added into the library (❸) in one step. The list is populated and you see all the icons in the librarian window (❹). Right-click on the list and choose "Save Now", or just select another folder and you'll be prompted to save the library. The library is saved into an ICL file named "**Buttons.icl**" located in the **"Icons"** folder.

Lesson 14 - Compiling the Icon Library

In this lesson, we'll compile the **"Buttons"** library we've created in previous lessons. This will produce an **EXE installable package** (one compressed file) ready for distribution.

Selecting the Library, starting the compilation wizard

1. First, we're going to select the library which is located in the Librarian. You must **be sure the librarian is visible**. If the librarian window is not visible (❸), check the Librarian button in the main toolbar (❶) or press **ESC**.



2. Select the library **"Buttons"** in the librarian tree (❷), the icons included in the library appear in the list below (❸). Select all the icons in the library or press **Ctrl+A**. Right-click in this list and choose **Compile as EXE Installable Package** (❺) or click the associated button (❹). A dialog box opens.

Specifying the compilation options using the wizard

3. The first screen of the **Compilation Wizard** opens:

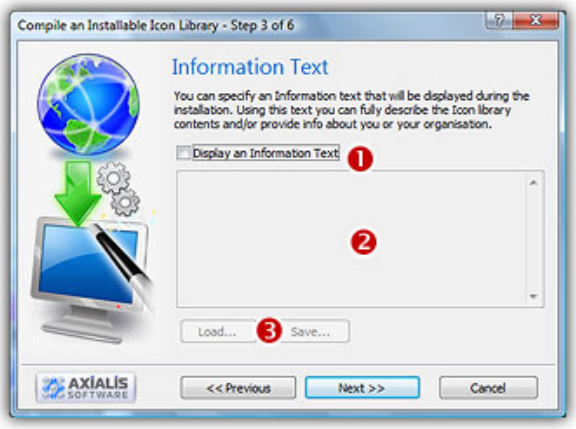
In the **Filename** zone (❶), enter the name of the **installation program file** that will be generated. For example type "**Button Icons Install**". In the **Location** zone (❷), specify the folder where you want to create the installation package, you can change this folder manually or browse your disks by clicking the "**...**" button (❸). We recommend to specify or use a well identified folder, for example the My Documents folder (recommended under Windows Vista™). If the folder does not exists, you'll be prompted to create it.

4. Click "**Next >>**". The second screen of the **Compilation Wizard** opens:

In the **Filename** zone (❶), enter the name of the **ICL file that will be created by the installation** on the end user computer. We recommend you to always keep the ICL name proposed by Axialis IconWorkshop™. In the **Title** zone (❷), specify the title that will be displayed (using large font) in the install procedure window. In the **Copyright** zone (❸), specify your copyright/property notice (it will be displayed in bold font under the title).

In the other zones (❹), specify your name, website link and a comment. This information will be added in the install procedure **About Box**.

5. When done, click "**Next >>**". The 3rd screen opens:



This screen permits you to specify an information text that will be displayed in the installation procedure. This is very useful to inform the user about the icon library, your business... If you want to specify a text, click **Display an Information Text** box (❶). The zone below activates (❷). You can type the text in this box. You can also load or save text files using the related buttons (❸). For this tutorial, we don't use this feature.

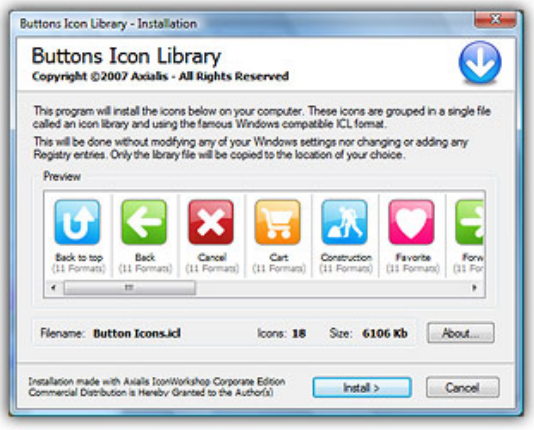
7. When done, click "**Next >>**". The 4th screen opens:

This screen permits you to specify an License Agreement text that will be proposed to the user during the installation procedure. The user will be asked to accept all the terms of this agreement before proceeding with the installation. If you want to specify a text, click **Add a User License Agreement** box (❶). The zone below activates (❷). You can type the text in this box. You can also load or save text files using the related buttons (❸). For this tutorial, we propose you to keep this standard License.

7. When done, click "**Next >>**". The 5th screen opens. It permits you to **implement an Activation feature** in your distribution package. If you choose to use this feature, the user who will install the icon library will be prompted to enter a personal Activation Code to proceed with the installation. To read more about this advanced feature, see Use an Activation Code topic. For this tutorial, we won't use this feature.
8. When done, click "**Next >>**". The last screen named Ready to Compile opens. It proposes you to read a summary of the options you selected before proceeding with the compilation. Always read in details this summary before validating. When done, click "**Next >>**". The compilation starts...

Testing the compiled installation package

9. When done, a large button appears "**Test the Installation Package Now**". Click on it to test the compiled file. It looks this:



Now follow the install procedure to see the result. Of course, the "**Button Icons Install.exe**" file has been created in the destination folder you specified above. This is a standalone EXE install file that can be copied and redistributed.

A word to finish...

This tutorial is now finished. Now that you've seen the basic features of Axialis IconWorkshop™ and understood the philosophy of use, we propose you to go further and explore the features by testing the numerous commands available in menus and toolbars.

When you need an answer about a feature, check this help in the reference section about the related command. You can also check the "How To..." section if you wish to execute a particular task.

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