Program Overview

imagENGine is a collection of image related modules, integrated in to one uniform environment. imagENGine is not an image creation program, but is a perfect companion for your image creation program, you digital or video camera, your scanner or your Internet downloaded images. imagENGine is powerful enough for the professional and friendly enough for the beginner.

In fact, if you have more than 2 images on your computer or on your WEB site, you will find a lot of benefits using imagENGine.

imagENGine consists of the following modules:

a. An image viewer – explorer allowing you to organize and manage all images located on your computer
b. A single image editor, that you can launch from every program point for a fast image editing
c. A batch image editor, that will help you to process in batch mode a group of images
d. An HTML pages generator, for the instant creation of html pages with image thumbnails and links to the actual images
e. An image archivist where you can store, manage and search any image located on any media (removable, fixed or network).

Program Workspace

When imagENGine starts, loads a main menu and a main toolbar. Main menu's commands are the following:

"**Actions**" à "**Image Browser**"
Use this command to activate Image Browser.

"**Actions**" à "**Image Editor**"
Use this command to activate Image Editor

"**Actions**" à "**Batch Image Editor**"
Use this command to activate Batch Image Editor

"**Actions**" à "**HTML pages generator**"
Use this command to activate HTML pages generator

"**Actions**" à "**Image Archives" à "Open**"
Use this command to open an existing archive database

"**Actions**" à "**Image Archives**" à "**New**"
Use this command to create a new archive database

When you load Batch Image Editor or HTML pages generator, you are not in able to work with other imagENGine module, till you finish your work.

When you are working with any other module, imagENGine main menu is replaced with module's menu. But you can activate any other module, by pressing the appropriate button on program's main toolbar.

To terminate the application, choose "**Exit Application**" command.

General Program Options

With this command you can define imagENGine general options.

First you can instruct imagENGine to load a specific module when starts. For example, if you are working mostly with Image Browser, you can define that imagENGine loads Image Browser automatically on startup.

Second you can define if folders tree that Image Browser use, is created from the beginning or is created on demand when users double clicks on a folder. If your disks are full of directories and files use the second option – cause it is time consuming to build the whole tree from the beginning.

To use this command, choose "**Actions**" à "**General Program Options**" from imagENGine main menu.

Viewer - Explorer

With the Viewer – Explorer module you can explore, view and manage all images located on your computer. Select a topic to learn more.

Image Archivist

With "Image Archivist" you can store on a central database, thumbnails and information for every image located on a fixed disk, network disk, CD ROM or any other removable media (floppy disk, zip disk, etc.). So you can browse these images or search for a specific image, without the original media being present.   For every image, "Archivist" stores the label of the original disk and whenever you need access to the original image, the program will prompt you to enter the proper disk if necessary.

For every stored thumbnail you can enter comments and keywords to characterize the image. Comments and keywords can be used later to create complex criteria for image searching.

Create a new archive

Select from imagENGine main menu "**Actions**" à "**Archive**" à "**New**" commands. Enter the archive's name and press "Open" button

Open an existing archive

Select from imagENGine main menu "**Actions**" à "**Archive**" à "**Open**" commands, or press the appropriate button on program's main toolbar. Enter the archive's name and press "Open" button

Compact an archive database

Use this command to compact an archive file and decrease its size. Select from imagENGine main menu "**Actions**" à "**Archive**" à "**Compact**" commands. Enter the archive's name and press "Open" button. The program will create for backup purposes a database file with the same name and a "$" as last character. For example if you compact the archive Samples.dbf, imagENGine will create first a backup copy with the name Samples$.dbf and then will start the compact procedure.

Add images to archive

Use this command to add new images to the active archive, or to refresh already stored images.

To activate this command, choose "**Thumbnails**" à "**Add Images**" command from Archive's Window menu or press the appropriate toolbar button.

On the left side of the window there is a "folders" tree. You select a folder when you double click on folders name. Selected folder's image files are appearing in the middle of the window, under the name "Available". To select all of them, press the left double arrow button. To select some, highlight the proper files and press the left single arrow button. All currently selected files are appearing on the right of the window, under the name "Selected".

Press the right double arrow button to clear selected files or the right single arrow button to clear only highlighted selections.

You can select all image files from current folder and its subfolders, if you press "Select all files from current path ad subfolders" button.

There isn't any restriction to select only images placed on the same folder.

If you set **refresh** flag to true and a file exist on the archive, imagENGine will create a new thumbnail for this file and will overwrite the old one. So if the image is changed you will store a thumbnail for the new image. If refresh flag is off, imagENGine will not overwrite any existing thumbnail.

Enter additional information for every image

For every stored image you can enter additional information. Click on image thumbnail, or select the thumbnail   and choose "**Thumbnails**" à "**View/Edit info**". You can assign to the stored image keywords and comments.

Selecting thumbnails

To select one thumbnail, click with your mouse the image caption (place your mouse pointer over image filename – under image thumbnail – and press the left mouse button).   To deselect a selected thumbnail click again on image caption.

You can select more than one thumbnail, holding down the control key (<Ctrl>), while you click on the image caption.

You can select all thumbnails, using the following commands:

    Main Menu à "**Thumbnails**" à "**Select All**"
Or
    Press **<Ctrl> A**
Or
    Context sensitive menu à ""**Select All**"

You can deselect all thumbnails, using the following commands:

    Main Menu à "**Thumbnails**" à "**Unselect All**"
Or
    Context sensitive menu à   "**Unselect All**"

Finally you can revert your current selection, using the following commands:

    Main Menu à "**Thumbnails**" à "**Invert Selection**"
Or
    Context sensitive menu à   "**Invert Selection**"

In the status bar   (the last line of the window) you can see always the number of currently selected thumbnails.

Add common keywords to archive

When you want to enter a common keyword for a group of thumbnails, you can save time by entering the keyword only once. Select all the thumbnails that you want to share this keyword. Then select "**Thumbnails**" à "**Add Common Keyword**" command from main menu. Enter one or more keywords and press "Ok" button. These keywords will be assigned to every selected thumbnail.

View/Edit original image

With this command you can view and possibly change the original image. Select image thumbnail and then choose "**Thumbnails**" à "**View/ Edit original**". If original image is stored on a not present disk, the program will prompt you to insert the right disk to any drive. Then you can view and if you want change the original image.

Copy archive thumbnails to clipboard

Use this command to copy selected thumbnail to Window's clipboard. Select image thumbnail and then choose "**Thumbnails**" à "**Copy thumbnail to clipboard**".

Copy original image to clipboard

Use this command to copy an original image to Window's clipboard. Select an image thumbnail and then choose "**Thumbnails**" à "**Copy Original Image to Clipboard**". If original image is stored on a not present disk, the program will prompt you to insert the right disk to any drive.

Remove thumbnails from the archive

Use this command to remove one or more thumbnails from the archive.. Select the thumbnails you want to remove and then choose "**Thumbnails**" à "**Remove from Archive**".

Print/Preview archive thumbnails

Use this command to print or preview, one or more thumbnails from the archive.. Select the thumbnails you want to print or preview and then choose "**Thumbnails**" à "**Print**" or "**Preview**".

Search the archive

When you are looking for particular images, you can use "**Thumbnails**" à "**Search**" command from main menu. You can define a combination of criteria that includes:

1. Media type where you want to search (fixed disks, CDs, network disks, etc)
2. Image type
3. File size
4. Modification date
5. Keywords
6. Comments

Image Editor

With Image Editor you can edit an image file.   Image editor can be launched directly from imagENGine main menu. You can also launch image editor from Image Browser and Archivist modules, when you click on an image thumbnail.

Image Batch Editor Overview

With Batch Image Editor you can apply a set of processing commands to a group of images. This way you have a very easy and fast method to convert images to a different format, create image thumbnails, add borders to images, write text in every image, overlay a logo image, etc.

Batch Image Editor window contains of three tabbed windows:

Source Images . In this window you will define the images that you want to process

Final Images .   In this window you will define where the resulted images will be placed, with what name and what format

Actions . In this window you will define what will be the processing actions and with what sequence imagENGine will execute these commands.

When you entered the desired option, you can save them for later use. To do this press "**Save Settings**" button. To restore saved options press "**Load Settings**" button.

How to Launch Batch Editor

You can launch Batch Image Editor with one from the following ways:

Select from imagENGine main menu "**Actions**" à "**Batch Image Editor**"

Press the appropriate button from the main toolbox

Launch directly Batch Image Editor from image explorer

Select image files for processing

In this tab you will define which images will be included for batch processing

On the left side of the window there is the "folders" tree. You select a folder when you double click on folders name. Selected folder's image files are appearing in the middle of the window, under the name "Available". To select all of them, press the left double arrow button. To select some, highlight the proper files and press the left single arrow button. All currently selected files are appearing on the right of the window, under the name "Selected".

Press the right double arrow button to clear selected files or the right single arrow button to clear only highlighted selections.

You can select all image files from current folder and its subfolders, if you press "Select all files from current path" button.

There isn't any restriction to select only images placed on the same folder.

Final images

In this tab you define where and how the final images will be saved.

Save Format
Define the format of the resulted images.
Save in Folder
Define the folder, where the resulted images will be placed
Overwrite
This option defines how imagENGine acts when a   file with the same name exist.

     a.   Never. imagENGine leaves the original file unchanged and does not write the new one
     b.   Always. imagENGine   always overwrite the existing file
     c.   Ask imagENGine prompts you to confirm file overwriting

JPG Quality
If you select thumbnails to be saved as JPEG file, select the JPG file quality. Possible values varying from 1 to 100, with 1 stand for maximum compression and minimum quality and 100 stand for maximum quality and minimum compression. Usually a value of 75 produce an JPEG file with good quality for the WEB.
JPG Progressive
Check this box if you want to create progressive JPEG files

Actions to apply

In this tab you will define the processing actions that you want to apply on every image. For every action you will define action's details. These actions are applied in the order of appearance. You can change this order using "**Move Up**" and "**Move Down**" buttons

To add an action, press "**Add**" button. You can use any combination of the following actions:

Add Border	Adjust Brightness / Contrast	Apply Convolution Filter
Apply Filter	Apply Glass Frame	Blur
Change Color Depth	Convert to Gray Scale	Create Button effect
Flip Horizontally	Histogram Equalize	Invert Blue
Invert Colors	Invert Green	Invert Red
Median Cut	Mirror	Overlay an image
Overlay Text to image	Replace Color	Resize
Rotate	Sharpen	

To remove an action, highlight action's description and press "**Remove**" button

HTML Pages Generator

HTML pages generator will assist you to create html pages with image thumbnails and direct hyperlinks to the actual images. The generated HTML pages with the related images can be published on the WEB using an internet browser or any ftp program.

The first thing that you must define, is the **base folder**. The base folder is the main folder in which all html pages and related images will be copied on your disk. You have also the option to define later separate subfolders for images and pages. This is a good practice – cause you will save your documents in a structured way, keeping thumbnail images, actual images and html pages separately.

The main HTML generator window, consist of the following tabbed windows:

Source Images .   In this tab you will define the images that you want to include on the html pages.
Thumbnails .   Details about the thumbnails generation
Final Images . Details about the final images
Pages Location . Details about where the html pages will be placed
Tables . Details for the tables where thumbnail images will be placed
Navigation .   Details for the navigation buttons that you want to include on the pages

You can save the entered options for later use – using the "**Save**" button and you can restore these options using the "**Load**" button.

To start generate html pages press "**Go**" button.

When imagENGine finish the generation, can open the generated images with your default Internet browser. To do this, check "**Launch Internet Browser when done"** checkbox, before you press "**Go**" button.

Source Images for HTML pages generation

In this tab you will define which images will be included in html pages.

On the left side of the window there is the "folders" tree. You select a folder when you double click on folders name. Selected folder's image files are appearing in the middle of the window, under the name "Available". To select all of them, press the left double arrow button. To select some, highlight the proper files and press the left single arrow button. All currently selected files are appearing on the right of the window, under the name "Selected".

Press the right double arrow button to clear selected files or the right single arrow button to clear only highlighted selections.

You can select all image files from current folder and its subfolders, if you press "Select all files from current path" button.

There isn't any restriction to select only images placed on the same folder.

HTML generator - Thumbnails

imagENGine will create a thumbnail for every image – that is, a resized small image. This thumbnail will be placed at the proper html page and can be used as an hyperlink to the final image. In this tab you will define details regarding thumbnails generation.

Save As

Select the graphics format for thumbnail images. Be aware that Internet browsers support jpg, gif and png image formats

Save in subfolder

Define the subfolder, where thumbnail images will be placed. This is a subfolder of the base folder. If you leave it blank, thumbnail images will be placed at the base folder. If you define a subfolder that does not exist, imagENGine will create it automatically without asking you.

Resize Method

Select the method that will be used to resize the actual image and generate the thumbnail. You have the following options:

a. Best Fit – Keep Aspect Ratio. The thumbnail will keep width/height ratio and will be as large can be to fit in the specified dimensions

b. Fixed Width. The thumbnail will have a fixed width. Thumbnail's height will be adjusted to retain width/height ratio

c. Fixed Height. The thumbnail will have a fixed height. Thumbnail's width will be adjusted to retain width/height ratio

d. Stretch to Fit – The thumbnail will have the exact width and height. Original image's width/height ratio is not preserved.

Width

Thumbnail width in pixels

Height

Thumbnail height in pixels

Thumbnail name

Define how each thumbnail image will be named. You have the following options:

a. Use original name. The thumbnail will have the same name with the actual image (and maybe different extension if you define to be saved to a different format).

b. Auto Suffix. Thumbnail name will be formed as a concatenation of a base name (that you define next) and an auto sequence number, varying from 0001 to 9999.

c. Auto Prefix. Thumbnail name will be formed as a concatenation of an auto sequence number, varying from 0001 to 9999 and a base name (that you define next).

Overwrite

This option defines how imagENGine acts when a file with the same name exist.

d. Never. imagENGine leaves the original file unchanged and does not write the new one

e. Always. imagENGine   always overwrite the existing file

f. Ask. imagENGine prompts you to confirm file overwriting

Thumbnails Processing

Define additional processing commands to apply on a thumbnail. imagENGine apply these commands after image resizing. Press "**Add**" button to add a new command, or "**Remove**" button to remove the highlighted command. You can change commands execution sequence using "**Move Up**" and "**Move Down**" buttons. Press "**Details**" button to view details for the highlighted command. You can use the same commands that you can use from the Batch Editor . For example add "Buttonize" command to create thumbnails that looks as buttons.

JPG Quality

If you select thumbnails to be saved as JPEG file, select the JPG file quality. Possible values varying from 1 to 100, with 1 stand for maximum compression and minimum quality and 100 stand for maximum quality and minimum compression. Usually a value of 75 produce an JPEG file with good quality for the WEB.

JPG Progressive

Check this box if you want to create progressive JPEG files

Include file name

Check this option to include in thumbnail pages the image file name under the thumbnail

Include file size

Check this option to include in thumbnail pages the file size in Kb, under the thumbnail

Include image dimension

Check this option to include in thumbnails pages original image dimensions, under the thumbnail

HTML Generator - Final Images

imagENGine can process and/or copy actual images to create html pages for them. This way when a user clicks on any thumbnail, he will directed to another html page with the original image.

Create HTML pages with original images
Set this option to true to create html pages with actual images and hyperlinks from thumbnails to actual images. Leave it off if you want to create only thumbnail pages

Save As
Select the graphics format for final images. Be aware that Internet browsers support jpg, gif and png image formats

Save in subfolder
Define the subfolder, where final images will be placed. This is a subfolder of the base folder. If you leave it blank, final images will be placed at the base folder. If you define a subfolder that does not exist, imagENGine will create it automatically without asking you.

Final Image Name
Define how each final image will be named. You have the following options:

d. Use original name. The final will have the same name with the actual image (and maybe different extension if you define to be saved to a different format).

e. Auto Suffix. Final name will be formed as a concatenation of a base name (that you define next) and an auto sequence number, varying from 0001 to 9999.

f. Auto Prefix. Final name will be formed as a concatenation of an auto sequence number, varying from 0001 to 9999 and a base name (that you define next).

Overwrite
This option defines how imagENGine acts when a file with the same name exist.

g. Never. imagENGine leaves the original file unchanged and does not write the new one

h. Always. imagENGine always overwrite the existing file

i. Ask. imagENGine prompts you to confirm file overwriting

Final Images Processing
Define additional processing commands to apply on a thumbnail. imagENGine apply these commands after image resizing. Press "**Add**" button to add a new command, or "**Remove**" button to remove the highlighted command. You can change commands execution sequence using "**Move Up**" and "**Move Down**" buttons. Press "**Details**" button to view details for the highlighted command. You can use the same commands that you can use from the Batch Editor . For example add "Overlay Text" command to create final images copyrighted with your logo.

JPG Quality
If you select thumbnails to be saved as JPEG file, select the JPG file quality. Possible values varying from 1 to 100, with 1 stand for maximum compression and minimum quality and 100 stand for maximum quality and minimum compression. Usually a value of 75 produce an JPEG file with good quality for the WEB.

JPG Progressive
Check this box if you want to create progressive JPEG files

HTML generator - Pages Location

In this tab you can define where thumbnails and final images pages will be placed how they will be named

Save thumbnail pages in subfolder

Define the subfolder, where thumbnail html pages will be placed. This is a subfolder of the base folder. If you leave it blank, thumbnail html pages will be placed at the base folder. If you define a subfolder that does not exist, imagENGine will create it automatically without asking you.

Thumbnail Page base name

Define the base name that will be used for thumbnail html pages naming

Auto Suffix

Final name will be formed as a concatenation of thumbnail page name and an auto sequence number, varying from 0001 to 9999.

Auto Prefix

Final name will be formed as a concatenation of an auto sequence number, varying from 0001 to 9999 and the thumbnail page base name.

Save final images pages in subfolder

Define the subfolder, where final images html pages will be placed. This is a subfolder of the base folder. If you leave it blank, final images html pages will be placed at the base folder. If you define a subfolder that does not exist, imagENGine will create it automatically without asking you.

Use original name

Check this option to create final images html pages with the same name with the images. Leave it of to generate automatically names.

Final images pages base name

Define the base name that will be used for final image html pages naming

Auto Suffix

Final name will be formed as a concatenation of final image page base name and an auto sequence number, varying from 0001 to 9999.

Auto Prefix

Final name will be formed as a concatenation of an auto sequence number, varying from 0001 to 9999 and the final image page base name.

Overwrite

This option defines how imagENGine acts when a   file with the same name exist.

- j.   Never. imagENGine leaves the original file unchanged and does not write the new one
- k.   Always. imagENGine   always overwrite the existing file
- l.   Ask. imagENGine prompts you to confirm file overwriting

HTML generator - Page Properties

In this tab you will define general properties regarding the generated html pages.

Title
Define the title of the html page. This title is written centered on page's top
Use a logo image
Check this option to use an image as page logo. If you set to true, the logo image is appearing centered before page's title
Logo Image
Define the image file that will be used as logo. During html generation this file will be copied to base folder/supportim subfolder
Use Background Image
Check this option to use an image as page background
Background Image
Define the image file that will be used as background. During html generation this file will be copied to base folder/supportim subfolder
Text Color
Define the default text color of the html page
Background Color
Define the default background color of the html page
Link Color
Define the default hyperlinks color of the html page
Visited Link Color
Define the default visited hyperlinks color of the html page
Active Link Color
Define the default active hyperlinks color of the html page
Specify Top Margin
Set to true to define page's top margin
Top Margin
Page's top margin in pixels
Specify Left Margin
Set to true to define page's left margin
Left Margin
Page's left margin in pixels
Keywords
Define keywords that will be placed on "Keywords" meta-tag on every page

HTML generator - Table Properties

In these tab you will define properties for the tables where thumbnail images will be placed.

Rows
Number or rows
Columns
Number of columns
Specify Width
Check this option if you want to specify table's width
Table Width
Table width in pixels or as percent of page width
Table Alignment
Define table alignment on the page (left, center or right)
Use Background Image
Check this option to use an image as table's background
Background Image
Define the image that will be used as table's background. During html generation this file will be copied to base folder/supportim subfolder
Border Size
Define table's border size in pixels. If you don't want borders, set this to 0
Cells spacing
Define cells spacing in pixels
Cells Padding
Define cells padding in pixels
Table Color
Table's default color
Border Color
Table's border default color
Cells Color
Table cells default color

HTML generator - Navigation

In this tab you will define if you want to include navigation buttons in the generated html pages

Create Master Index

Set this option to true if you want to create a master index page. A master index page is a page that contains reference to all thumbnail pages.

Link to home

Set this option if you want to include in your html pages links to your home page. You have the option to place a text or a button link and you have to specify your home URL. If you specify an image to be used as a button link, during html generation this image will be copied to base folder/supportim subfolder

Link to Next Page

Set this option if you want to include in your html pages links to next page. You have the option to place a text or a button link. If you specify an image to be used as a link, during html generation this image will be copied to base folder/supportim subfolder

For a thumbnail's page, next page is the next in sequence thumbnails page. For a final image page, next is the page with the next image.

Link to Previous Page

Set this option if you want to include in your html pages links to previous page. You have the option to place a text or a button link. If you specify an image to be used as a link, during html generation this image will be copied to base folder/supportim subfolder

For a thumbnail's page, previous page is the previous in sequence thumbnails page. For a final image page, previous is the page with the previous image.

Link to Up Level

Set this option if you want to include in your html pages links to up level. You have the option to place a text or a button link. If you specify an image to be used as a link, during html generation this image will be copied to base folder/supportim subfolder

For a thumbnail's page, up level is the master index page (if exist). For a final image page, up level is thumbnails page where the thumbnail image exist

Quick Start

Create a new archive and add images

a. Close all imagENGine windows
b. Choose "Actions" à "Archivist" à "New" commands from main menu
c. Enter archive's name and press "Open" button
d. Choose "Thumbnails" à "Add Images" commands from the menu
e. Select the images that you want to archive and press "Ok" button

Open Batch Editor

a. Press Batch Editor's button from main toolbar or select "Actions" à "Batch Editor" commands from main menu
b. Selected on the first tab the images you want to process
c. Define on the second tab, where final images will be placed
d. Add any desired editing command on the third tab

Image Browser

a. Press Image Browser button from main toolbar or select "Actions" à "Image Explorer" from main menu

b. On the folders tree (located on the left of the window) double click on drive's or folder's name to expand it. Select any folder to view folder's image thumbnails on the right part of the window.

How To . . .

This section attempts to give quick answer to the most common questions that you may have.

1. [Save images to a different format](#) .
2. [Write copyright text to a group of images](#)
3. [Overlay a logo image to a group of images](#)
4. [Create image thumbnails](#)
5. [Add border to a group of images](#)
6. [Create image with button effect](#)
7. [Create a contact sheet](#)
8. [Split an image to smaller parts](#)
9. [Print image thumbnails](#)

Convert images to a different format

Open Batch Editor.
Select on the first tab the images you want to process
Select on the second tab where final images will be placed and with what format
Press "Go" button

Write copyright text to a group of images

Open Batch Editor
Select on the first tab the images you want to process
Select on the second tab where final images will be placed and with what format
Go to the third tab (Editing commands) and press ''Add'' button. Choose ''Overlay Text'' command and press ''Ok''
Enter the desired text, font, color and text position
Press ''Go'' Button

Overlay a logo image to a group of images

Open Batch Editor
Select on the first tab the images you want to process
Select on the second tab where final images will be placed and with what format
Go to the third tab (Editing commands) and press "Add" button. Choose "Overlay Image" command and press "Ok"
Select image file you want to overlay, overlay position and opacity
Press "Go" button

Create image thumbnails

Open Batch Editor
Select on the first tab the images you want to process
Select on the second tab where final images will be placed and with what format
Go to the third tab (Editing commands) and press "Add" button. Choose "Resize" command and press "Ok"
Choose resize method, width and height.
Press "Go" Button

Add border to a group of images

Open Batch Editor
Select on the first tab the images you want to process
Select on the second tab where final images will be placed and with what format
Go to the third tab (Editing commands) and press "Add" button. Choose "Add Border" command and press "Ok"
Choose border size and color
Press "Go" Button

Create images with button effect

Open Batch Editor
Select on the first tab the images you want to process
Select on the second tab where final images will be placed and with what format
Go to the third tab (Editing commands) and press "Add" button. Choose "Buttonize" command and press "Ok"
Choose button size and color
Press "Go" Button

Create a contact sheet with images

Open Image Browser
Select the image files you want to process
Choose ""Edit" à "Create Contact Sheet" commands from main menu.
Enter the desired parameters and press "Ok"

Split an image for web publishing

Open Image Browser
Select the image you want to split
Choose ""Edit" à "Split Image" commands from main menu.
Enter the desired parameters and press "Ok"

Print a group of thumbnails

Open Image Browser
Select the image files you want to print/preview
Choose ""File" à "Print" (or "Preview") commands from main menu.

Supported Image Formats

imagENGine can read and write the following image file formats:

1. Windows Bitmap (extension bmp)
2. Windows enhanced metafile (extension emf)
3. Zsoft Paintbrush (extension pcx)
4. CompuServe GIF (extension gif)
5. Portable network graphics (extension png)
6. Tagget Image Format (extension tif)
7. JPEG Compressed (extension jpg)
8. Targa true vision (extension tga)
9. Windows metafile (extension wmf)

imagENGine can read animated GIFs, but currently cannot save in this format.

The above information is accurate for imagENGine Ver. 1.00.00 (Sep. 1999). We expect that we will add support for more image formats soon, so for the latest information check our WEB site (http://www.insyse.com)

Viewer Workspace

The Viewer window is divided in two sub-windows, one on the left and one on the right side. The size of these windows is variable and you can change it by dragging the line between them.

One the left window you will see the drives, the folders and the subfolders of your computer. Each time the ''**current folder**'' is the selected folder on this window. On the right window you will see thumbnails for all images located on this folder. The appearance and the arrangement of these thumbnails are fully customizable.

It is possible to display on the thumbnails window, only a subset of images for the current folder, if you have define a filter .

The last line of the Viewer window is the status bar. On the left of this status bar you will see a progress bar, every time you change the current folder as long the program creates the thumbnails. On the right of the status bar you will see the total number of files that the current folder contains, the number of currently selected files and an indicator showing if a filter is applied or not.

Once you activate the Viewer window, the main program menu is changed to display the Viewer's menu. For your convenience, you can use two additional menus.   One menu contains only folder commands and is activated when you press the right mouse button, while the mouse pointer is located inside folder's window. The other menu contains image and file commands and is activated when you press the right mouse button, while the mouse pointer is located on the thumbnails window.

The most often used commands can be found also on Viewer's Toolbar, and they have associated shortcuts.

Select a directory to browse

On the folders window, the tree that represents the folders structure is initial filled only with the available drives. The reason for this is to make the program fast, avoiding disks scanning on every initialization. You can expand each node (drive or folder) to the child nodes by double click on drive's or folder's name.

You can select a folder to view the contained images, by clicking once on folder's name.

The viewer toolbar

The Viewer toolbar is placed on the top of the viewer window. This toolbar is offering a quick method for execution of the most common commands.
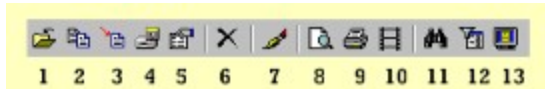
1 – Close explorer
2 – Copy files
3 – Move files
4 – Save files as
5 – File properties
6 – Remove selected
7 – Edit/View selected image
8 – Preview selected files
9 – Print selected thumbnails
10 – Slide show selected files
11 – Find image
  12 – Apply/Remove filter
  13 – Full screen view

Define thumbnails appearance

You can change at any time the thumbnail's appearance. In fact you can change their size, the horizontal and vertical distance between them and the order of their appearance .

To change the thumbnail's size, choose from the menu "**View**" à "**Thumbnails Sizes**" commands. There are three predefined sizes (50 x 50 pixels, 100 x 100 pixels, 150 x 150) and a user defined size, where you can enter your own dimensions.

To change the gap between thumbnails, choose from the menu "**View**" à "**Thumbnails Spacing**" and enter the desired horizontal and vertical distance in pixels.

Select one or several images

To select one image, click with your mouse the image caption (place your mouse pointer over image filename – under image thumbnail – and press the left mouse button).   To deselect a selected image click again on image caption.

You can select more than one image, holding down the control key (<Ctrl>), while you click on the image caption.

You can select all images, using the following commands:

　　Main Menu à "**Edit**" à "**Select All**"
Or
　　Press **<Ctrl> A**
Or
　　Context sensitive menu à "**File**" à "**Select All**"

You can deselect all images, using the following commands:

　　Main Menu à "**Edit**" à "**Unselect All**"
Or
　　Context sensitive menu à "**File**" à "**Unselect All**"

Finally you can revert your current selection, using the following commands:

　　Main Menu à "**Edit**" à "**Invert Selection**"
Or
　　Context sensitive menu à "**File**" à "**Invert Selection**"

In the Viewer status bar   (the last line of the window) you can see always the number of currently selected files.

Change thumbnails arrangement

You can sort thumbnail's arrangement according to their name, extension, size and last modification date. Choose from the main menu "**View**" à "**Arrangement**" and then the appropriate command. Use can also choose if the order will be ascending or descending

Apply - Remove filter

You can filter the images of the current folder, applying a filter. Choose from the main menu "**View**" **à "Thumbnails Filter**" command. You can filter images by name, last modification date or extension. Then press "Apply" button. The program will re-scan the current folder and will display only images that satisfy this filter.

An indicator on the status bar will remind you that the a filter is active.

To remove an applied filter, choose from the main menu "**View**" **à "Thumbnails Filter**" command and press "Remove" button

Adding - Renaming folders

You can add a new folder choosing from the main menu "**Folders**" à "**New**", or from the folders context sensitive menu "**New Folder**" command. The new folder will be created under the current folder.

If you want to rename an existing folder, select the folder and choose from the main menu "**Folders**" à "**Rename**", or from the folders context sensitive menu "**Rename Folder**" command.

Refresh folders

When you select a folder from image explorer, the program reads and display the subfolders of this folder. If you <u>create or rename a subfolder</u> from imagENGine, the explorer automatically will refresh the folders tree. However if you create or rename a folder using an external program (i.e. windows explorer), the folders of imagENGine will not be refreshed, unless you choose from the main menu the command "**Folders**" à "**Refresh**"

Copy files

With this command you can copy selected files to a new folder.

Choose from the main menu "**File**" à "**Copy**" command, or choose from the images context menu "**File**" à "**Copy**" command, or press **F2**,   or press the appropriate toolbar button

A new window will appear with the available drives of your system and the folders of each drive. To expand any folder to subfolders, simply double click on folder's name. Select the destination folder and press "Ok" button. (If you want, you can create a new folder, by choosing "New Folder" command from the context sensitive menu).

If there are in the destination folder, files with the same name, you will be asked if you want to overwrite these files.

Move files

With this command you can move selected files to a new folder.

Choose from the main menu ''**File**'' à ''**Move**'' command, or choose from the images context menu ''**File**'' à ''**Move**'' command, or press **Shift F2**, or press the appropriate toolbar button

A new window will appear with the available drives of your system and the folders of each drive. To expand any folder to subfolders, simply double click on folder's name. Select the destination folder and press ''Ok'' button. (If you want, you can create a new folder, by choosing ''New Folder'' command from the context sensitive menu).

If there are in the destination folder, files with the same name, you will be asked if you want to overwrite these files.

Rename a file

With this command you can rename one selected file. If you select more than one file and you ask to rename the files, you will get a warning message. In this case the program will allow you to rename only the first one from the selected files.

Choose from the main menu "**File**" à "**Renave**" command, or choose from the images context menu "**File**" à "**Renave**" command, or press **Control F2**.

Enter the new file name and press "Ok" button

Remove files

With this command you can remove selected files permanently.

Choose from the main menu "**File**" à "**Remove**" command, or choose from the images context menu "**File**" à "**Remove**" command, or press **Del**, or press the appropriate toolbar button

You will be asked to confirm the deletion, and if you do so selected files are removed.

Warning! After removing files using this command you have no option to recover them (not even using windows trash folder)

View file properties

When you select a file you can view file's properties. Choose from the main menu "**File**" à "**Properties**", or from the context sensitive menu "**File**" à "**Properties**", or select the appropriate toolbar button, or press **<Ctrl> P.**

A new   window will appear. This window contains information about the selected image properties.

Preview / Print thumbnails

With this command you can preview or print thumbnails for the selected images. The thumbnail's appearance can be defined using Page Setup command.

To preview selected thumbnails choose from the main menu "**File**" à "**Preview Thumbnails**", or from the context menu "**File**" à "**Preview Thumbnails**", or press the appropriate toolbar button, or press **F7**.

To print selected thumbnails choose from the main menu "**File**" à "**Print Thumbnails**", or from the context menu "**File Thumbnails**" à "**Print**", or press the appropriate toolbar button, or press **Shift F7**.

If you ask a preview, you can print directly from the preview window, by pressing the printer button.

Once you choose to print or preview thumbnails, you have the option to define the order in which selected images will be printed (or previewed). A new window will appear with all the selected images. If you want to change the order of any image, select this image and press "Move Up" or "Move Down" button. When you are ready press "Ok" button.

Print/Preview Image

With this command you can preview or print thumbnails   the **selected** image. The image can be printed in the actual size or in a size that fits in page using **Page Setup** command.

To preview selected image choose from the main menu "**File**" à "**Preview Image**".

To print selected image choose from the main menu "**File**" à "**Print Image**".

If you ask a preview, you can print directly from the preview window, by pressing the printer button.

Define print options

With this command you define the printout layout.

Top Margin
Set printer's top margin in pixels
Left Margin
Set printer's left margin in pixels
Orientation
Set Printer's paper orientation to portrait or landscape

These options are enabled when you want to print a single image
Starting Row
Define printer row where the print will begin in pixels
Starting Column
Define printer columns where the print will begin in pixels
Fit's in Page / Actual Size
Select if you want to print an image to image's actual size, or to possibly resize image to fit in paper's width

These options are enabled when you ask to print multiply images
Starting Row
Define printer row where the print will begin in pixels
Starting Column
Define printer columns where the print will begin in pixels
Width
Define each image width in pixels
Height
Define each image height in pixels
Horizontal Distance
Define the horizontal distance between images in pixels
Vertical Distance
Define the vertical distance between images in pixels
Number of Columns
Define number of images per row

View a slide show

With this command you can view a full screen slide show   for the selected images.   You have also the option to define the time interval (in seconds) between image changing and if the show   will run once or will loop until you press a mouse button.

Choose from the main menu ''**File**'' à ''**Slide Show**'', or from the context menu ''**File**'' à ''**Slide Show**''.

Then you have the option to define the order in which selected images will be showed. A new window will appear with all the selected images. If you want to change the order of   any   image, select this image and press ''Move Up'' or ''Move Down'' button. When you are ready press ''Ok'' button.

You can terminate a slide show by pressing any mouse button.

Find images

When you are searching for a particular image, you can use the find command. Choose from the main menu "**File**" à "**Find**", or from the context menu "**File**" à "**Find**", or press the appropriate toolbar button, or press **F6**.

Define the starting search folder and if you want imagENGine to recursive search the subfolders click the appropriate option.

Enter the desired criteria and press "Find" button. All the images that meet the specified criteria will appear and you will have the option to preview each image if you click on image's name. You can also copy, move, remove or view image properties for any image that meets search criteria. To do this, select the image, press right mouse button and choose the appropriate command.

View/Edit an image

You can view or edit any image by clicking the image's thumbnail, or by selecting the image and choosing from the main menu "**Edit**" à "**Image**", or from the context sensitive menu "**Image**" à "**Edit**", or by pressing the appropriate toolbar button.

View editor's help topics for the available commands and options on image editing.

Full screen image

You can view any <u>selected</u> image in a full screen mode. Choose from the main menu "**View**" à "**Full Screen View**", or from the context menu "**Image**" à "**Full Screen**", or press the appropriate <u>toolbar</u> button.

You can return to the program by pressing any mouse button

Launch Batch Editor

Once you <u>select</u> one or more images, you can launch directly the batch editor to apply the same processing commands to these images.

Choose from the main menu "**Edit**" à "**Launch Batch Editor**"

Or

From context sensitive menu "**Image**" à "**Launch Batch Editor**"

The Batch Editor window will appear and the selected images will be placed automatically to this window for processing. For more details of how to use Batch Editor, refer to the topic: <u>Using Batch Editor</u>

Launch HTML pages generator

Once you <u>select</u> one or more images, you can launch directly the HTML pages generator to create HTML pages for these images.

Choose from the main menu "**Edit**" à "**Launch HTML pages generator**"

Or

From context sensitive menu "**Image**" à "**Launch HTML pages generator**"

The HTML pages generator window will appear and the selected images will be placed automatically to this window for processing. For more details of how to use HTML generator, refer to the topic: <u>Using HTML pages generator</u> .

Copy an image to clipboard

When you want to copy an image to the windows clipboard, <u>select</u> this image and choose from the main menu "**Edit**" à "**Copy Image to Clipboard**", or from the context menu "**Image**" à "**Copy Image to Clipboard**". You can paste this image to any windows program.

Copy an image thumbnail to clipboard

When you want to copy an image thumbnail to the windows clipboard, <u>select</u> this image and choose from the main menu "**Edit**" à "**Copy Thumbnail to Clipboard**", or from the context menu "**Image**" à "**Copy Thumbnail   to Clipboard**". You can paste this image to any windows program.

Create a Contact Sheet

A contact sheet is an image that contains thumbnails of other images. You can use contact sheets as online or printed image catalogs, for presentations etc.

Select the images you want to include in the contact sheet. Then choose from the main menu "**Edit**" à "**Create Contact Sheet**", or from the context menu "**Image**" à "**Create Contact Sheet**".

Define then the order in which selected images will be arranged in the contact sheet. A new window will appear with all the selected images. If you want to change the order of   any   image, select this image and press "Move Up" or "Move Down" button. When you are ready press "Ok" button to proceed to the main window.

Enter the contact sheet's options (size, thumbnails size, colors, contact sheets file name, graphics format, etc..) and press "Ok" button.

Split an image

When you want display a large image on the WEB, is preferable to split this image to smaller parts. These parts can be used in an HTML table to form the final image. The web surfer will not notice that the image consist from smaller parts, but you will have two advantages:

1. Parts of the image will start to appear immediately (otherwise the image is appearing when the whole image is downloaded).   So your visitors are not waiting in front of an empty screen.
2. Many Internet browser users, sets as an option to not download large images. But even in this case, your image will appear because consists of smaller images that are not filtered from the browser.

Select the image you want to split and choose from the main menu "**Edit**" à "**Split Image**", or from the context menu "**Image**" à "**Split**".

Define in how may rows and columns the image will be splited, the location and the format of smaller parts image files. You have also the option to ask from the program to create automatically html code for assembling image parts to one image again and to place this code to an html file, text file or windows clipboard.

Press "Ok" button to start the procedure. The program will create the image parts files using as file name the image file name extended by the row and the column. For example if you split an image with name "MyImage.jpg" to 3 rows and 3 columns, imagENGine will create nine files. If you want to reassemble the whole image, you have to put in an html table the file names with the following order:

MyImage0101.jpg	MyImage0102.jpg	MyImage0103.jpg
MyImage0201.jpg	MyImage0202.jpg	MyImage0203.jpg
MyImage0301.jpg	MyImage0302.jpg	MyImage0303.jpg

We recommend leaving imagENGine to do automatically this job.

Save an image to a different format

You can save a [selected](#) image to a different format. . Choose from the main menu "**File**" à "**Save As**", or from the context menu "**File**" à "**Save As**", or press the appropriate [toolbar](#) button, or press **<Ctrl S>**

If you want to save more than one images, to a different format use [Batch Editor](#)

Editor Workspace

When you are working with Single Image Editor, you have the option to open:

a. Toolbar window – In this window there are buttons for the most common used command. Use the "**View**" à "**Toolbar**" command to open/close this window

b. Histogram Window – A histogram is a graph of the distribution of RGB and/or luminance values in an image. Each of the four values appear on the horizontal axis from dark to light (left to right). The vertical axis indicates the number of pixels of that value at each point. At a point where there are many pixels of a value, the corresponding line spikes; where there are no pixels, it lies at the bottom of the graph. To see the distribution of the red, green, blue, or lightness value, select its check box at the bottom of the histogram window. Use the "**View**" à "**Histogram**" command to open/close this window

Image Size Zoom In/Out

If you want to zoom in or zoom out an image, choose from main menu "View" à "Zoom In" or "Zoom Out" command. Choose "View" à "Normal View" to display the image in the actual size.

Undo Capabilities

Program maintains for every image a 2 MB undo stack, to hold previous image instances. If you want to undo last change, choose "**Edit**" à "**Undo Last Change**" commands from Editor's menu, or press **Ctrl Z**

Choose "**Edit**" à "**Undo Stack**" command to view and possibly undo all the operations that are currently in stack.

Overlay Text to image

Use this command to overlay text on any image. Select "**Edit**" à "**Overlay text**" commands from Single Image Editor menu, or add "Overlay Text" action to Batch Image Editor's actions.

Overlay an image

Use this command to overlay an image on any image. Select "**Edit**" à "**Overlay Image**" commands from Single Image Editor menu, or add "Overlay Image" action to Batch Image Editor's actions.

Rotate

To rotate an image, select "**Image**" à "**Rotate**" commands from Single Image Editor menu, or add "Rotate" action to Batch Image Editor's actions.

You can choose to rotate image to the left (-90 degrees), to the right (90 degrees), or with a general angle. In this case define the desired angle.

Mirror

To "Mirror" an image, select "**Image**" à "**Mirror**" commands from Single Image Editor menu, or add "Mirror" action to Batch Image Editor's actions.

This command reverses the image horizontally, so that what was the left side becomes the right side, and vice-versa.

Flip Horizontally

To "Flip" an image, select "**Image**" à "**Flip**" commands from Single Image Editor menu, or add "Flip" action to Batch Image Editor's actions.

This command reverses the image vertically, so that what was the top becomes the bottom, and vice-versa.

Resize

To resize an image, select "**Image**" à "**Resize**" commands from Single Image Editor menu, or add "Resize" action to Batch Image Editor's actions.

Resize method
At first you have to choose the resize method. You have the following options:

Best Fit – Keep Aspect Ratio. The resized image will keep width/height ratio and will be as large can be to fit in the specified dimensions
Fixed Width. The resized image will have a fixed width. Height will be adjusted to retain width/height ratio
Fixed Height. The resized image will have a fixed height. Width will be adjusted   to retain width/height ratio
Stretch to Fit – The resized image will have the exact width and height. Original image's width/height ratio is not preserved.
Width
Enter desired width in pixels
Height
Enter desired height in pixels

Create Button effect

Use this command to apply a "Button" effect an image. To apply this command to an image, select "**Image**" à "**Button**" command from Single Image Editor menu, or add "Button" action to Batch Image Editor's actions.   Choose the button color, width in pixels and press "Ok" button

Apply Glass Frame

Use this command to apply a "Glass Frame" effect an image. To apply this command to an image, select "**Image**" à "**Glass Frame**" command from Single Image Editor menu, or add "Glass Frame" action to Batch Image Editor's actions.   Choose the border width in pixels and press "Ok" button

Add Border

To add a border to an image, select "Image" à "Add Border" command from Single Image Editor menu, or add "Add Border" action to Batch Image Editor's actions.

Enter the size in pixels for top, left, right and bottom border.

Check "Symmetric" option if you want to create a same size border.

Choose the color of the borders, by pressing the "**Change**" button.

When ready press "Ok" button.

Be aware that this command increment image size by border's size

Blur

Use this command to blur an image. To apply this command to an image, select "**Image**" à "**Blur**" command from Single Image Editor menu, or add "Blur" action to Batch Image Editor's actions. Choose blur value and press "Ok" button.

Sharpen

Use this command to sharpen an image. To apply this command to an image, select "**Image**" à "**Sharpen**" command from Single Image Editor menu, or add "Sharpen" action to Batch Image Editor's actions. Choose blur value and press "Ok" button.

Median Cut

Use this command to apply a "Median Cut" effect an image. To apply this command to an image, select "**Image**" à "**Median Cut**" command from Single Image Editor menu, or add "Median Cut" action to Batch Image Editor's actions.

Filters

With this command you can apply arithmetic filters to images. Each filter is actually a 3 x 3 matrix of numbers that change each pixel value, according to a mathematical formula. To apply a filter to an image, select "**Image**" à "**Filters**" command from Single Image Editor menu, or add "Filter" action to Batch Image Editor's actions.

Details:

With this command you apply a 3 x 3 matrix to any image pixel. The resulting value is pixel's new value.

Suppose that we have a matrix P. imagENGine performs the following calculations for every pixel (x,y):

1. A = (p[1] * pixel(x-1, y-1) + p [2] * pixel(x, y-1) + p[3] * pixel(x+1, y-1) + p[4] * pixel(x-1, y) + p[5] * pixel(x, y) +p[6] * pixel(x+1, y) + p[7] * pixel(x-1, y+1) + p[8] * pixel(x, y+1) + p[9] * pixel(x+1, y+1))

2. A = A * k (or A = pixel(x,y) * (1.0 - k) +(k *A) if you use feedback option

3. A = min (A, 255)

4. A = max (A, 0)

5. Final Pixel's value = A

Convolution Filters

With this command you can apply arithmetic convolution filters to images. Each filter is actually a 7 x 7 matrix of numbers that change each pixel value, according to a mathematical formula. To apply a filter to an image, select "**Image**" à "**Convolution Filters**" command from Single Image Editor menu, or add "Convolution Filter" action to Batch Image Editor's actions.

Details:
With this command you apply a 7 x 7 matrix to any image pixel. The resulting value is pixel's new value.
Suppose that we have a matrix P. imagENGine performs the following calculations for every pixel (x,y):

t = sum (M[i] * P[i])   [for all elements of the matrix]
outPixel = curPixel - (k * t)

Brightness / Contrast

The Brightness/Contrast command brightens or darkens an image and the range of light (the contrast) within it. The Brightness control is a quick way to adjust everything at once, such as when you have a picture that is too dark after being scanned. Contrast increases the difference in shading between areas. The brightness and contrast values are expressed as percentages, with 0% being the current setting.

To apply this command, choose "**Brightness/Contrast**" from "**Colors**" menu of Single Image Editor or add "Brightness/Contrast" action on Batch Editor's actions .

Gray Scale

The Grey Scale command removes the colors from an image and replaces them with greys matching their luminance values. The effect is similar to a black-and-white photograph. Because a grey scale image can only display 256 shades of grey, converting a 16 million color image to grey scale automatically reduces it to 256 colors.

To apply this command to an image, select "**Colors**" à "**Gray Scale**" command from Single Image Editor menu, or add "Gray Scale" action to Batch Image Editor's actions.

Invert Colors

The Invert Colors command replaces the color value of each color with its opposite on the 0-255 scale. The effect is similar to a photographic negative, and the function can be used to create a positive image from a scanned negative.

To convert an image, choose "**Invert Colors**" from "**Colors**" menu of Single Image Editor or add "Invert Colors" action on Batch Editor's actions.

Invert Red

With this command you change the red channel of the image. For each pixel the value of red is replaced with the value: $255 -$ current red pixel's value.

To execute this command, "**Invert Red**" from "**Colors**" menu of Single Image Editor or add "Invert Red" action on Batch Editor's actions.

Invert Green

With this command you change the green channel of the image. For each pixel the value of green is replaced with the value: 255 − current green pixel's value.

To execute this command, "**Invert Green**" from "**Colors**" menu of Single Image Editor or add "Invert Green" action on Batch Editor's actions.

Invert Blue

With this command you change the blue channel of the image. For each pixel the value of blue is replaced with the value: 255 − current blue pixel's value.

To execute this command, "**Invert Blue**" from "**Colors**" menu of Single Image Editor or add "Invert Blue" action on Batch Editor's actions.

Histogram Equalize

The Equalize Histogram command smoothes out the image so that it is more evenly distributed across the spectrum. To equalize the histogram, choose "**Histogram Equalize**" from "**Colors**" menu of Single Image Editor or add "Histogram Equalize" action on Batch Editor's Action

Replace Color

Use this command to replace an image's color with another color. Define the color you want to replace and the new color and press Ok button. If the color that you want to replace is not pure you have the option to define a tolerance range.

Here is how tolerance works: Suppose that you want to replace a gray color with Red 128, Green 128 and Blue 128. If you define as tolerance range 5, you instruct the program to replace all colors with Red from 128-5 to 128 + 5 value, Green from 128-5 to 128 + 5 value and Blue from 128-5 to 128 + 5 value.

To apply this command to an image, select "**Colors**" à "**Replace Color**" commands from Single Image Editor menu, or add "Replace Color" action to Batch Image Editor's actions.

Swap red and blue

Use this command to swap red and blue values for every image pixel.

To apply this command to an image, select "**Colors**" à "**Swap red and blue**" commands from Single Image Editor menu, or add "Swap red and blue" action to Batch Image Editor's actions.

Change Color Depth

Use this command to change image's color depth. You can set image colors to any number between $2-256$ or to true color.

To apply this command to an image, select "**Colors**" à "**Change Color Depth**" commands from Single Image Editor menu, or add "Change Color Depth" action to Batch Image Editor's actions.