Visual QR Code Generator

User Manual
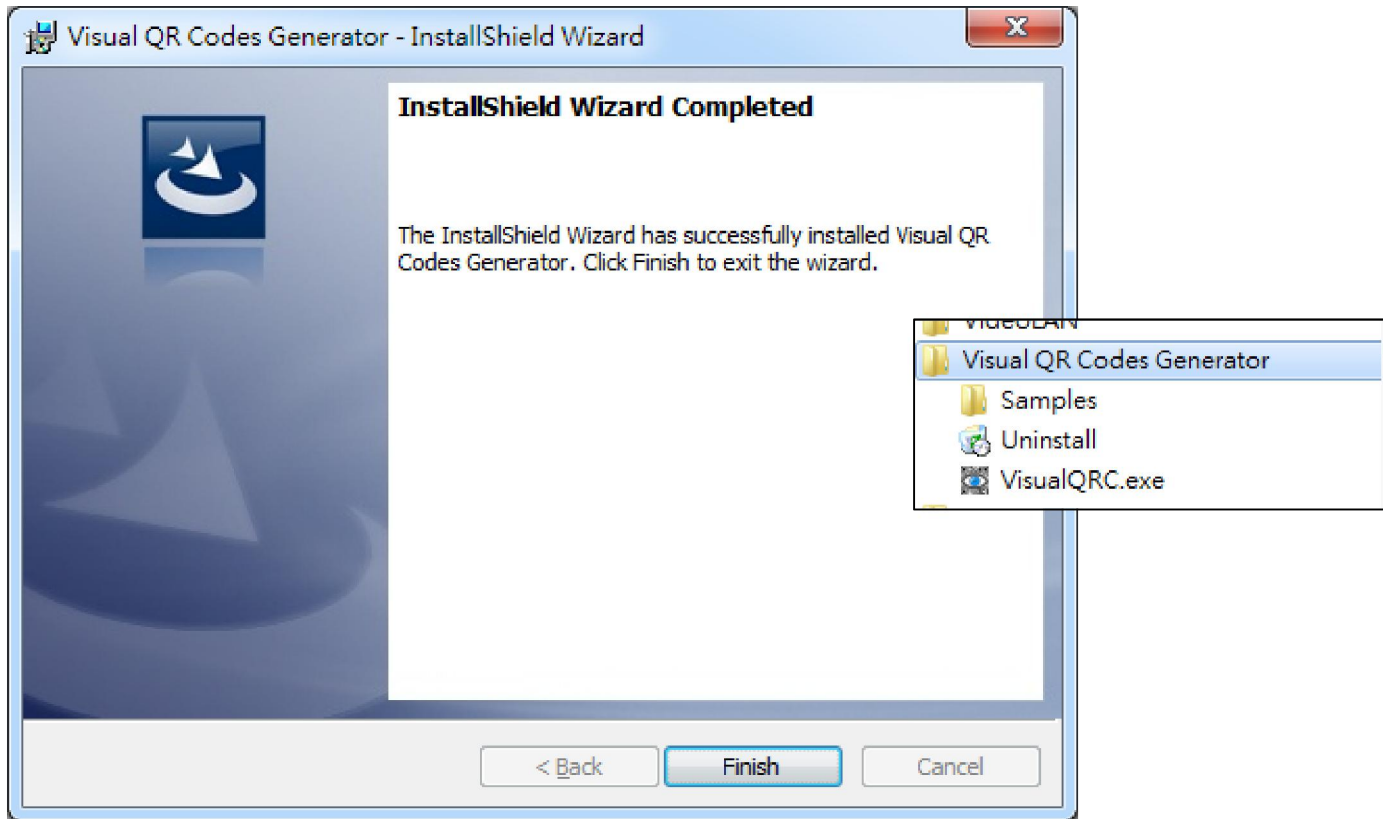
Table of Contents

INSTALLATION

Installation

- Run "Setup.exe"

- Tested platforms
  - Windows XP (32 bits)
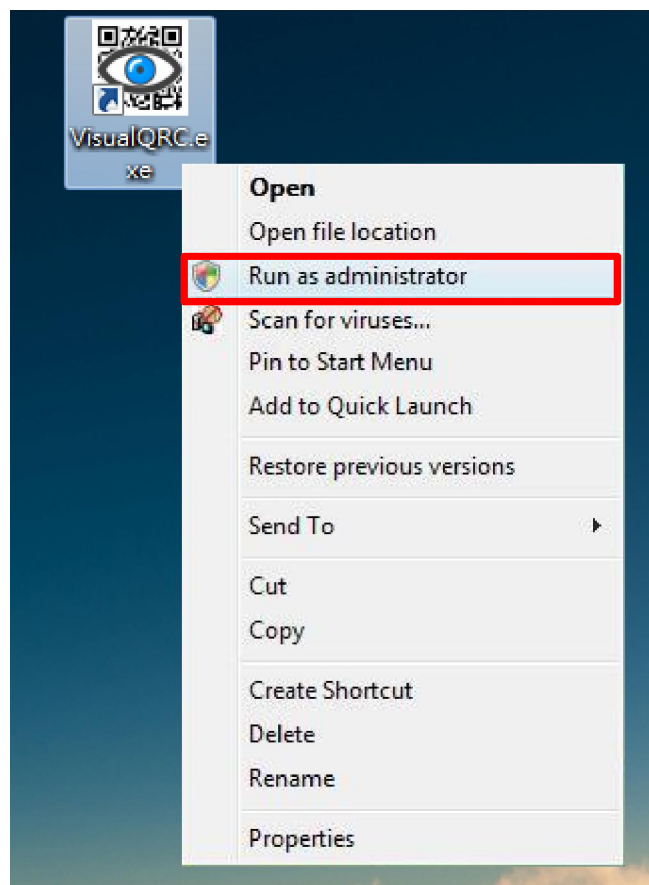 - Windows 7 (32/64 bits)

RECOMMENDED BARCODE READERS

Barcode Readers

- NeoReader:
  - [iTunes App Store](#)
  - [Google Play](#)
  - [Windows Marketplace](#)
  - [Blackberry App World](#)
- ZBar:
  - [iTunes App Store](#)
- i-Nigma
  - [iTunes App Store](#)
  - [Google Play](#)
  - [Windows Marketplace](#)
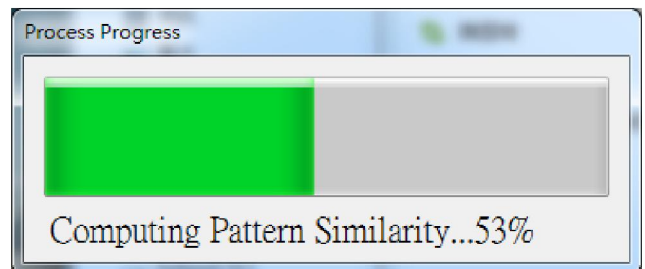 - [Blackberry App World](#)

Before we get started…

- To run the program, right click the icon and select "Run as administrator".

In the beginning…

- Please wait for few seconds until system finishes the pair-wise pattern similarity distance computation.
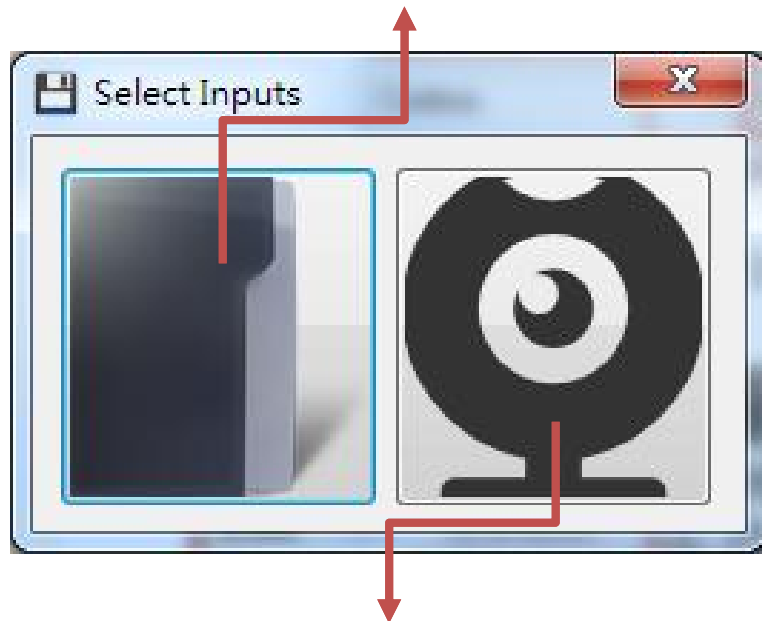
A QUICK START

Select Inputs

- Determine the visual content (image/video) you want to embed in the QR code

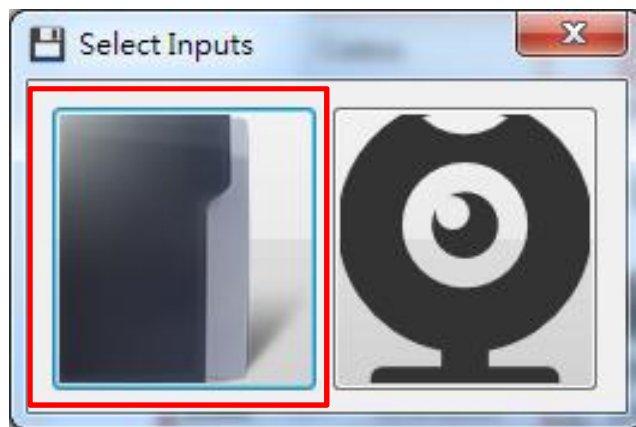Open a file or drag-and-drop a file to the button.
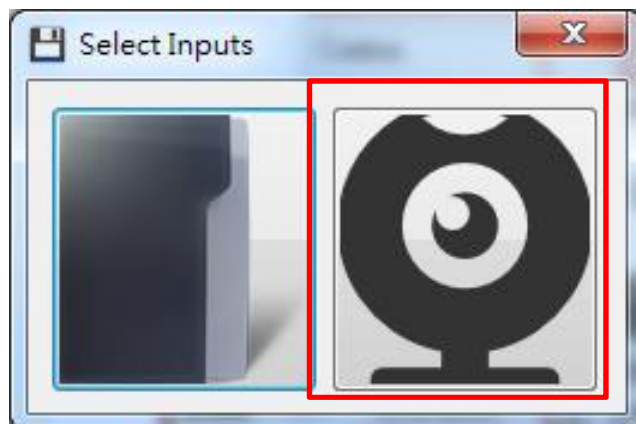

Open the default USB camera device

- Support following file extensions
  – bmp, jpg, png, tif, avi, wmv

Options

- Click the left button to open the image/video from file. (Go to p.12)
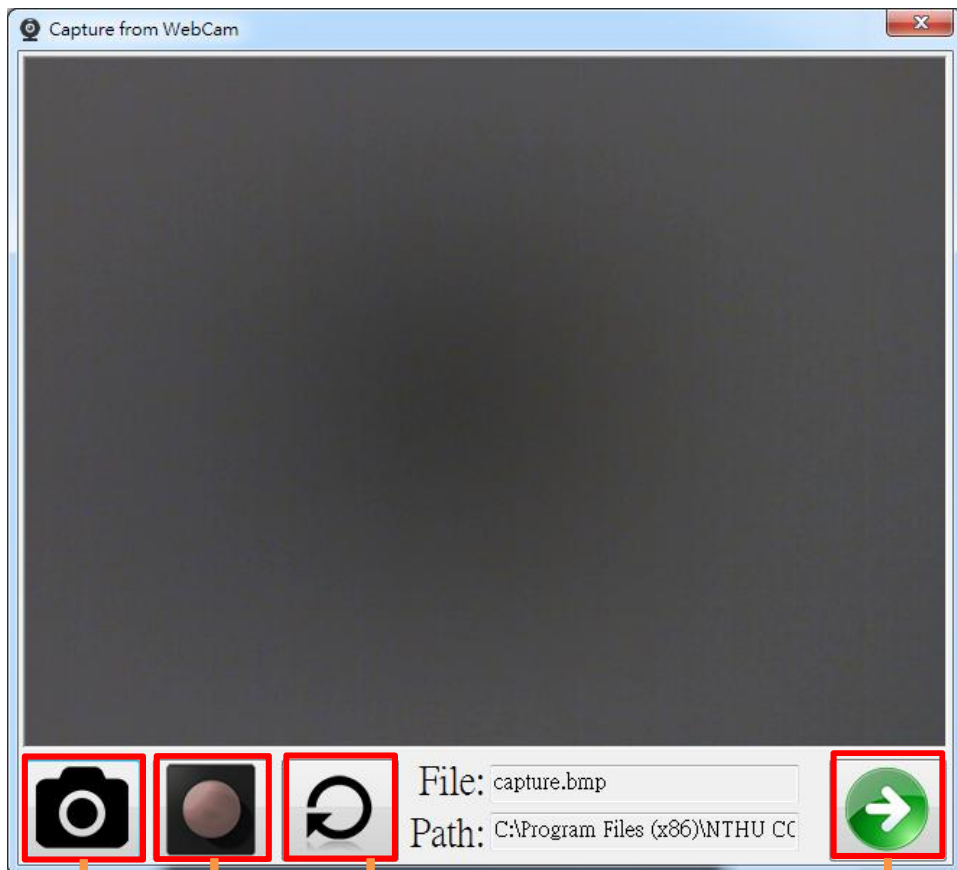

- Click the right button to open the image/video from file. (Go to p.11)

Capture from WebCam

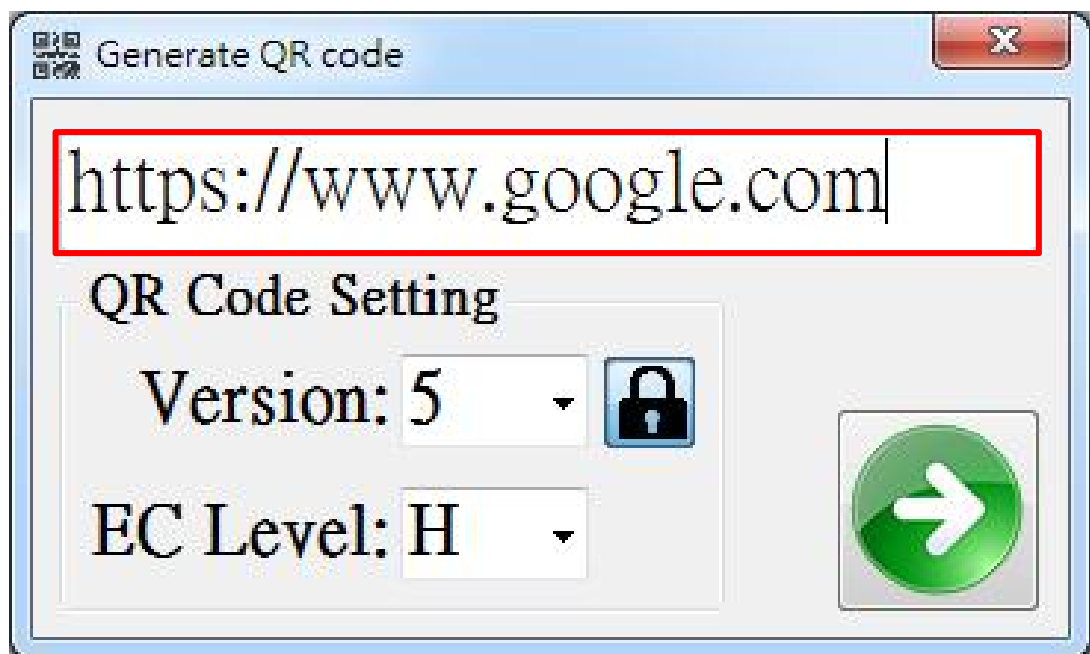- After capturing a frame or recording a video clip, please click the "Go to next step"

Reset
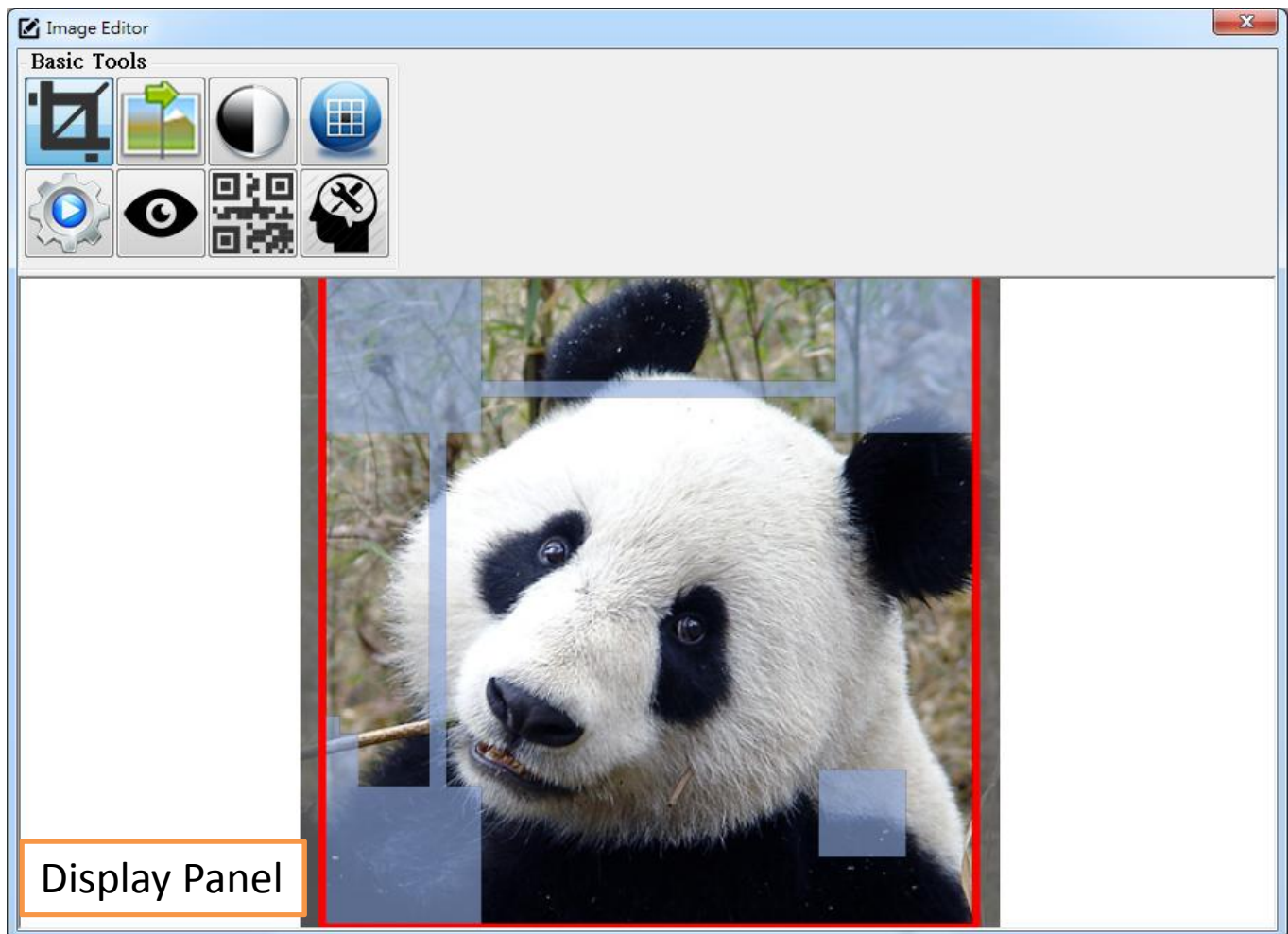
Go to next step

Recording the frames

Capturing a frame

Generate QR Code

- Specify QR code parameters
  - Data string, QR code version and error correction level
- Click the "Go to next step" button

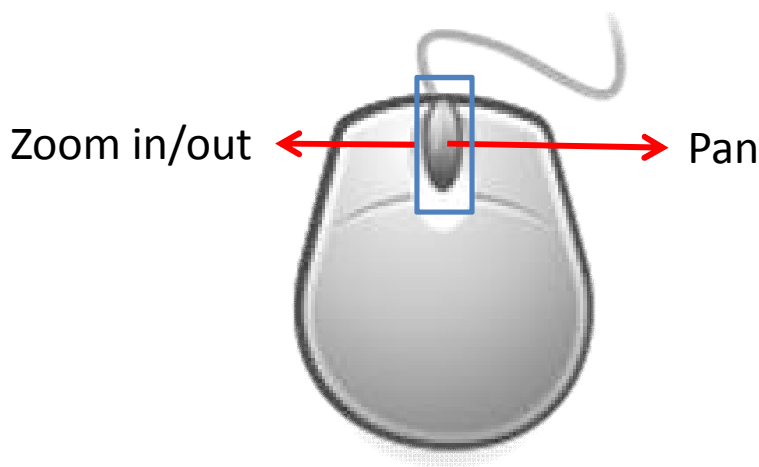# Image Editor

Display Panel

- Zoom in/out:
  - Mouse wheel.
- Panning:
  - Press **middle** mouse button and move the mouse.

Zoom in/out ← → Pan

Basic Tools

Generate halftone QR code

Enter cropping mode:
Operation "mouse right click + move" : Resize the ROI
Operation "mouse left click + move" : Move the ROI

Apply constrast enhancement
(Right click the button to call the parameters dialog)

Apply unsharp mask filter
(Right click the button to call the parameters dialog)

Enhance the result based on image features and
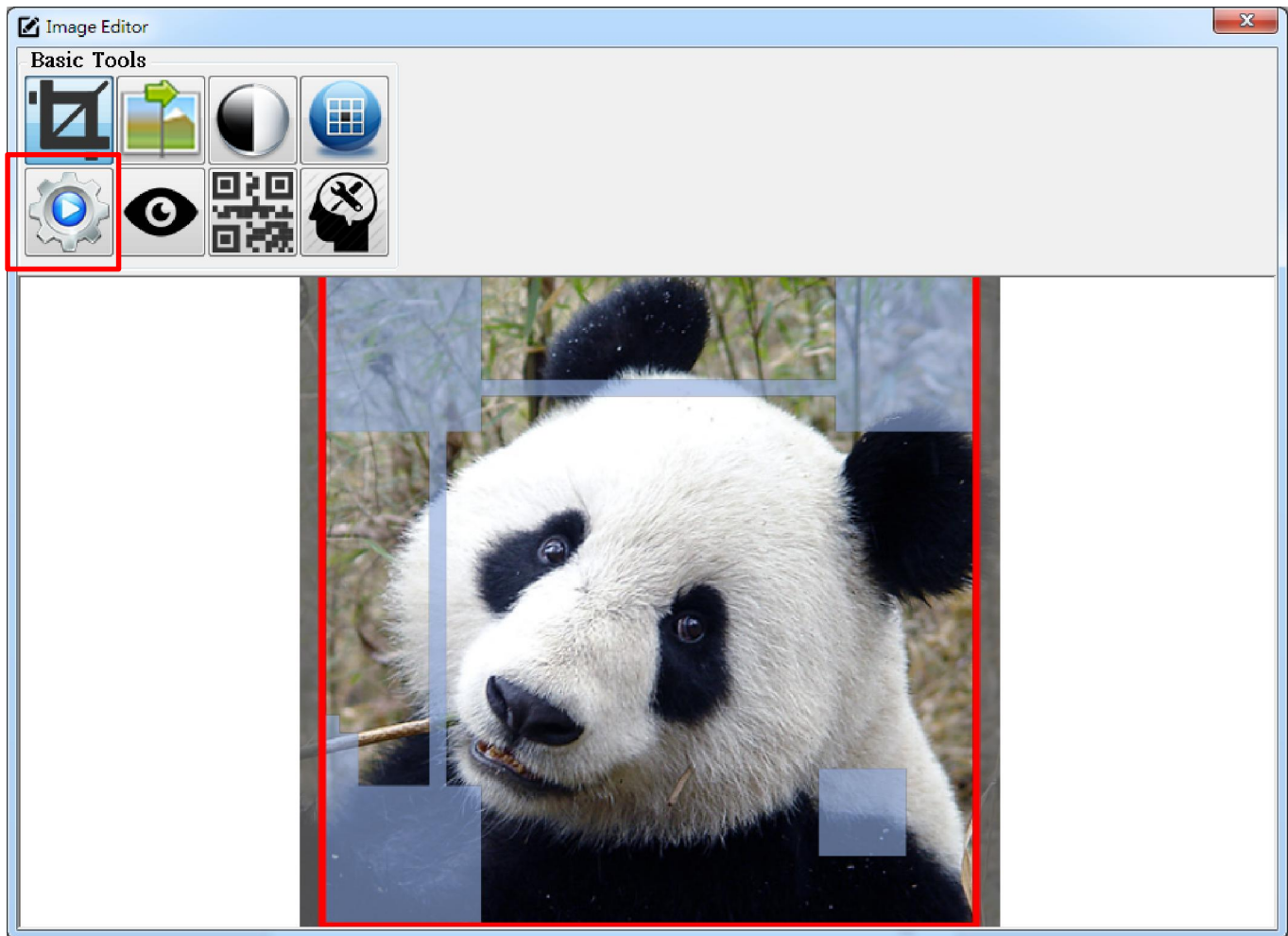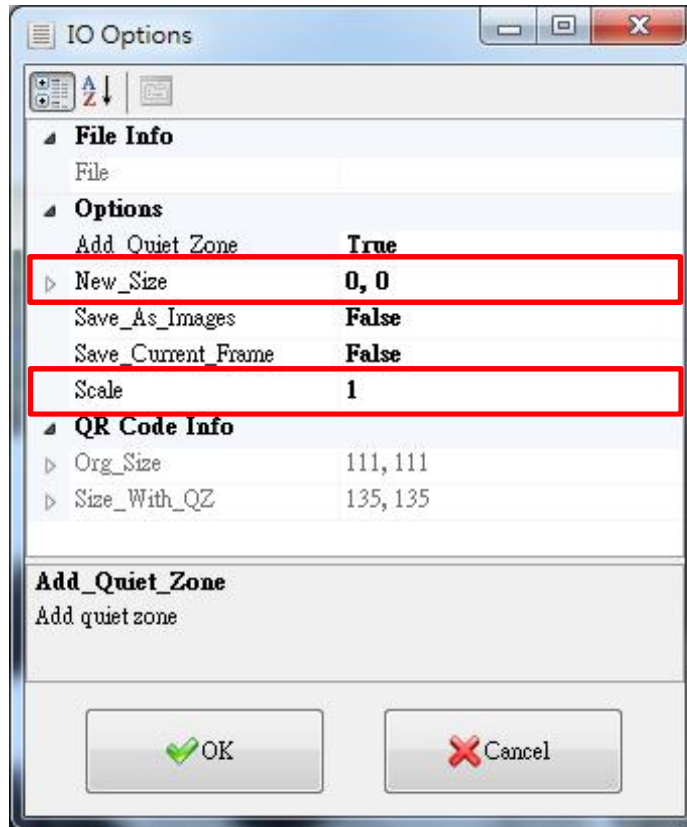user strokes (see p.23)

Go back to QR code generator

Enter expert mode (see p.19)

Image Editor

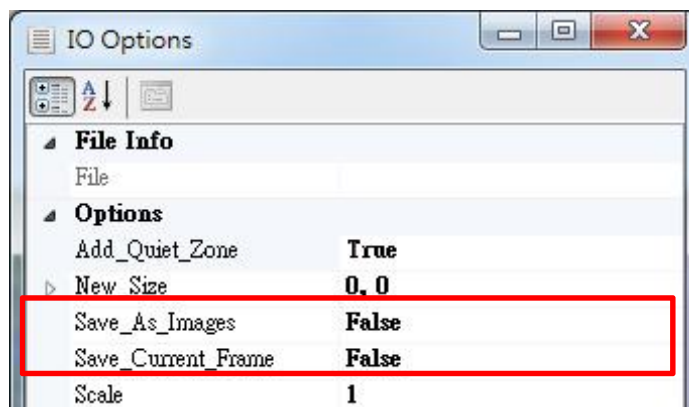- Click button to generate a result.

I/O Options

- Specify the target image size via "New_Size" or "Scale"
- Click "OK" button
- Save as a target file

I/O Options

- If the input is a video clip.

- Enable "Save_As_Images" to save resultant QR codes as sequence of images.

- Enable "Save_Current_Frame" to save just the result generated by current video frame.
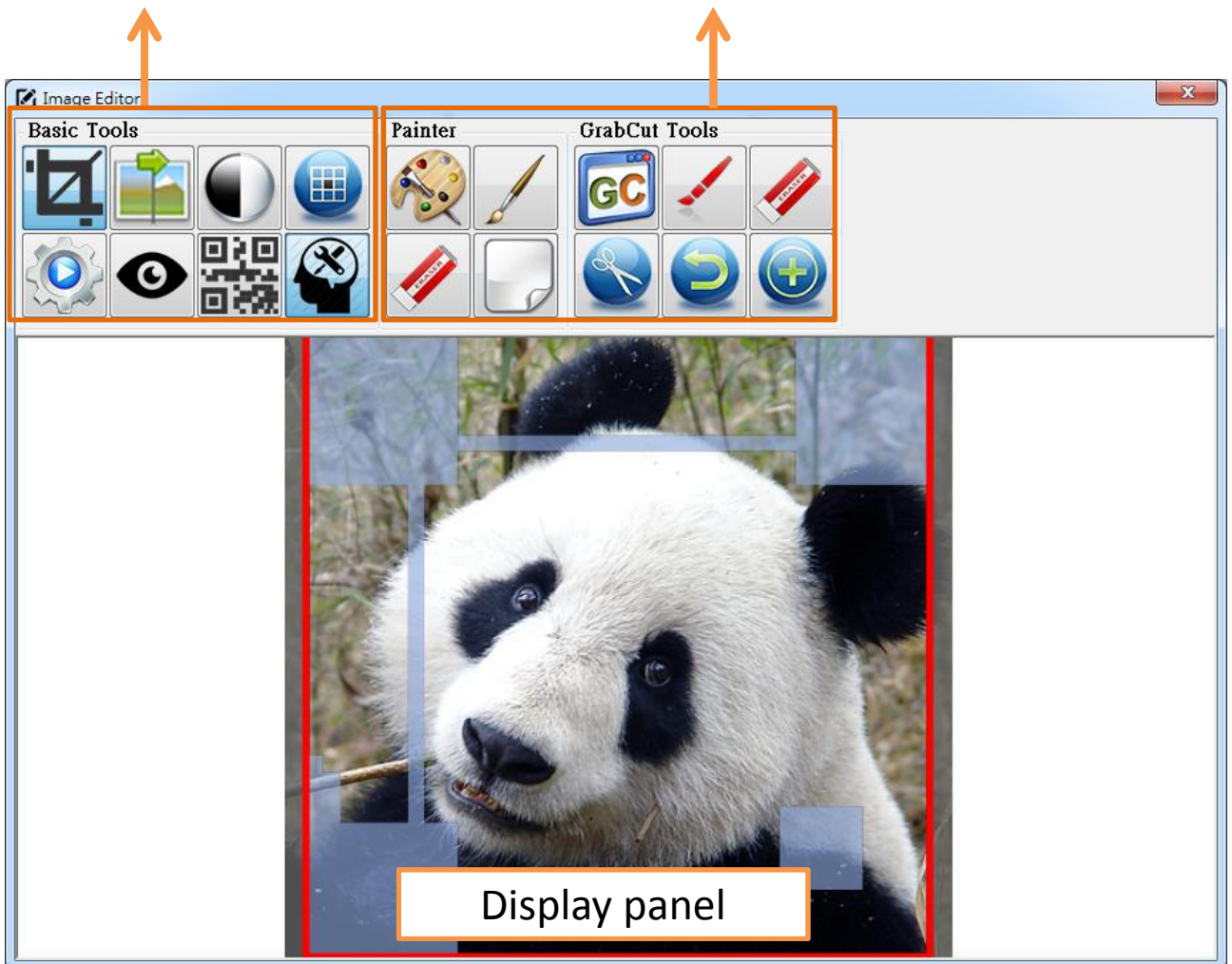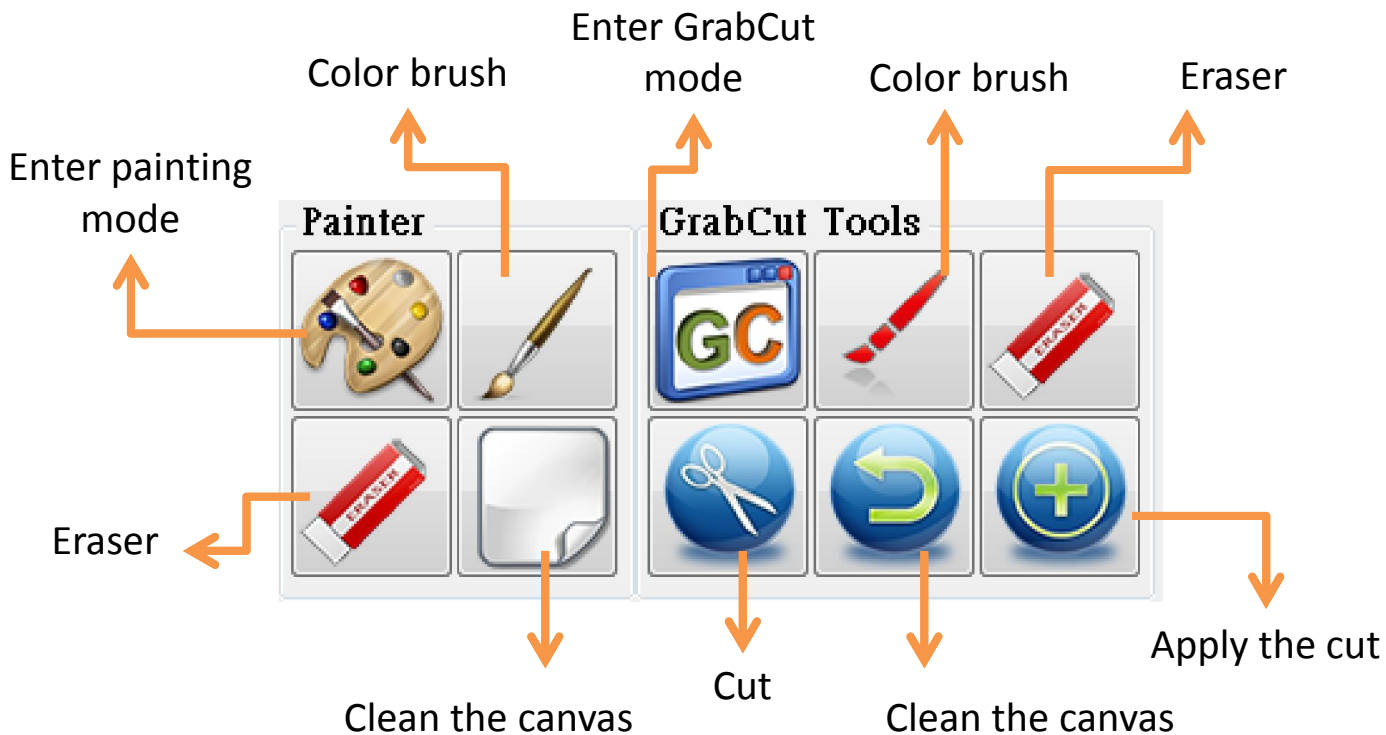
EXPERT MODE

Image Editor

Express mode :
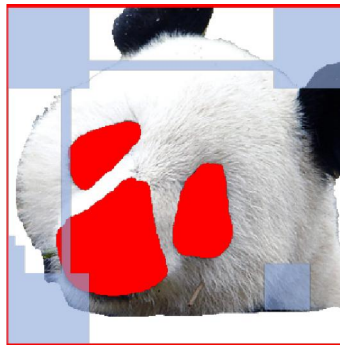Basic Tools

Expert mode :
Painter/GrabCut Tools

Display panel

Expert Mode

- Click 🧠 button to enter expert mode.

Enter painting mode

Color brush

Enter GrabCut mode

Color brush

Eraser

Painter

GrabCut Tools

Eraser

Clean the canvas

Cut

Clean the canvas

Apply the cut
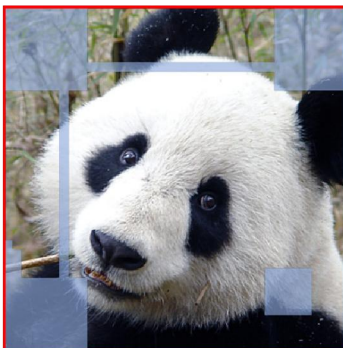
Expert Mode

- Use the painting tools to specify important visual features.
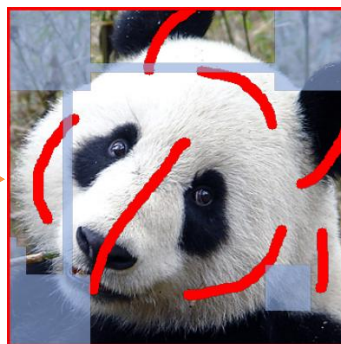

Remember to click 👁 to apply the enhancement

- Use the GrabCut tool to create transparent background.
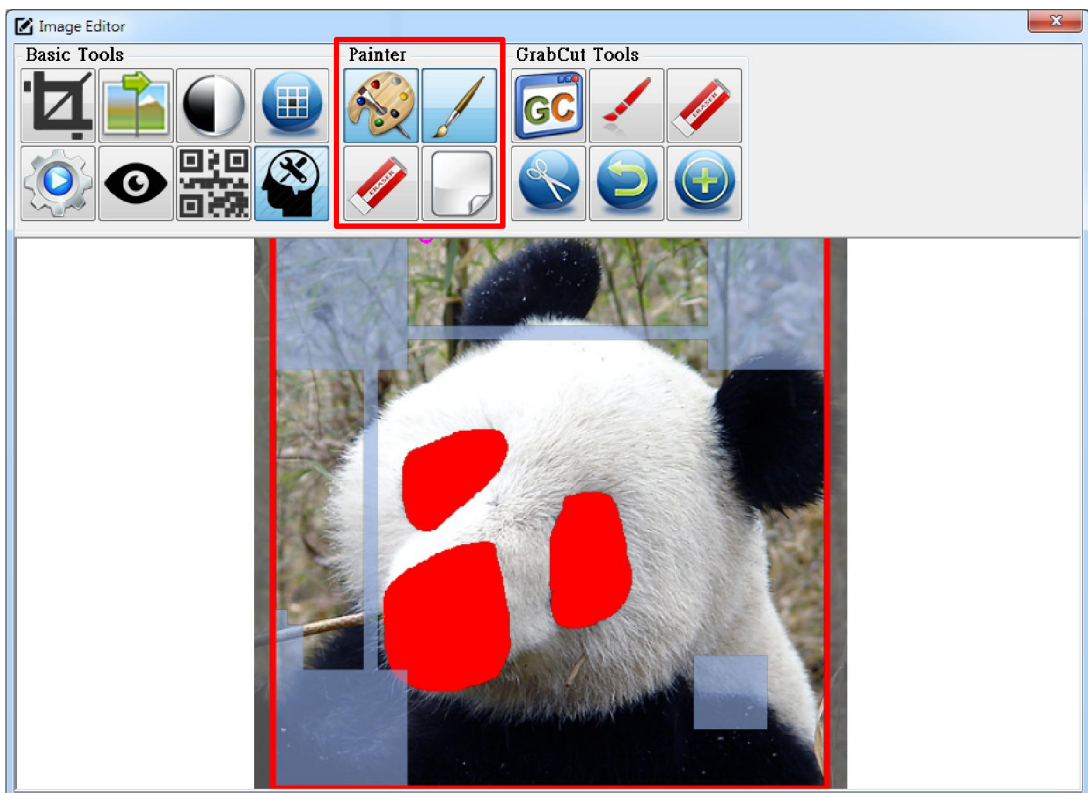

Original image   Draw strokes   Apply the cut

Enhancement

- Click button to enter painting mode.

- Paint whatever regions you want using the brush tool.

GrabCut

- To create transparent background, Click button to enter GrabCut mode.

- Click button to draw strokes on the foreground. Or Right click the button to switch between different brushes.

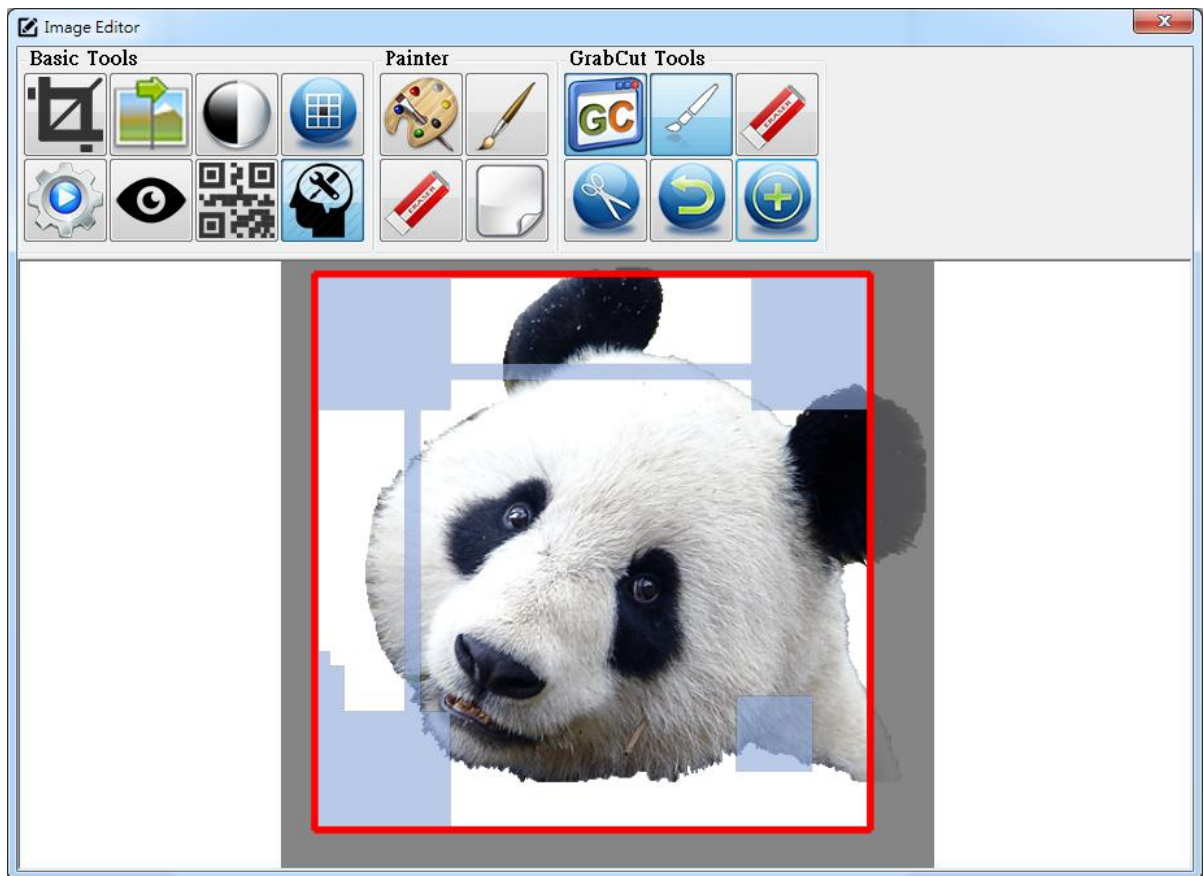|	
![red brush]	Use to draw strokes on the foreground
![blue brush]	Use to draw strokes on the background
![black brush]	Use to paint the background region
![light brush]	Use to paint the foreground region

GrabCut

- Click button to perform GrabCut.
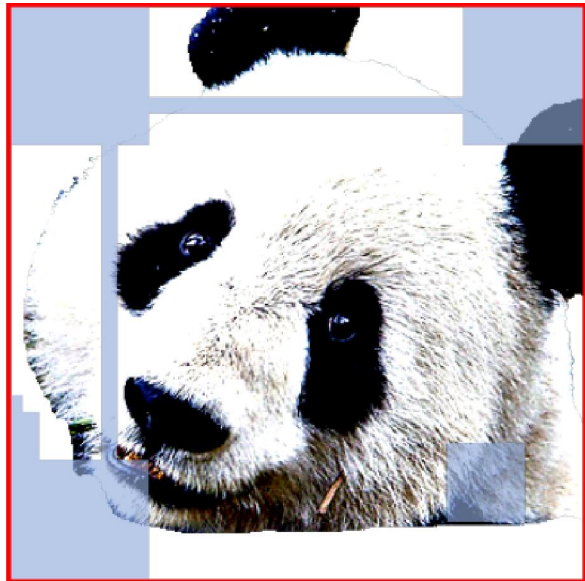
Basic Image Enhancement

- If the image has low contrast, we provide two handy tools to quickly enhance the image. (Right click the button to call the parameters dialog)
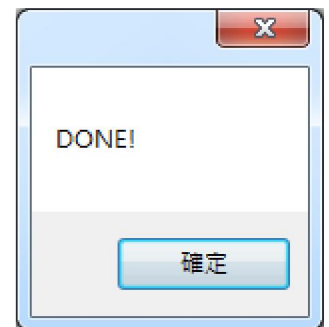
Contrast enhancement

Unsharp mask

Last…

- Click button to generate and save result.

Notes

- This program is permitted to use/distribute for **non-commercial** and **academic research** purpose.

- This program is compiled with un-optimized research codes, so please be gentle with it… ☺

- Feel free to contact us if you have any questions about the program
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Thank You