NIG Icon Editor Handbook

Installation

The easiest way to get it installed is to unzip/copy all folders and files into the same folder and to run the file Installation_lv_icon.vi located in NIG_Installation. The original source code is written in LabVIEW 8.2.1. If you are using the icon editor in a newer version, mass compile the entire directory before processing the Installation_lv_icon.vi. In this case it is guaranteed that the internal linked VIs of the vi.lib are up to date and the more important advantage for users is, that the load time of the icon editor decreases to an acceptable minimum. To get the best performance it is necessary to safe all VIs without the block diagram.

Control Buttons

Figure 1: Control Buttons

1st line (left to right)

- Cleans the entire icon
- Draws the default framework
    - Black border line around the icon
    - Horizontal line to split the icon in two parts (header and body)
    - If a string field does have at leas one valid ASCII sign, also the string(s) are drawed centered
- Undo function which offers at maximum the last 25 versions of the current session. If the icon is different after an action (drawing a new framework, deleting the entire icon or whatever) the icon is stored. After a restart of the icon editor the queue is empty. Alternatively you may use the key combination CTRL + Z.
- Save a specific color and text setup into a predefined ini file. The INI file is located in C:\Program Files\National Instruments\LabVIEW 8.x\resource\plugins\NIG_IconEditor\
  If a stored style isn't needed any more, simply delete the specific line in the INI file. A green LED in the top left corner of the disk symbol provides information about the successful process. To see an effect hold the left mouse button a little bit longer pressed. The green LED does have only a psychological background for the user about the status of the storage process. In case of an error during the storage the application stops immediately.

2nd line (left to right)

- Submit the dialog and set the new icon
- Cancel the dialog and use the old icon

Navigation

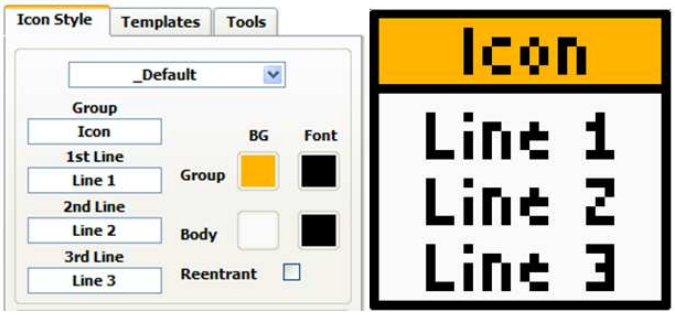

Figure 2: Icon Style Options

The combo box provides all stored styles from the ini file. To add a new style, set the focus on the combo box and type a new style name. Afterwards modify the colors and text and click the save button. The new style is displayed in the combo box next time the icon editor gets started.
The reentrant option is a special stuff which was originally indicated in the NIG Styleguidelines. The recommendation is to draw a specific template to recognize whether easily whether the VI is reentrant.
If a given icon should only get a text, use for group and body background the transparent option.

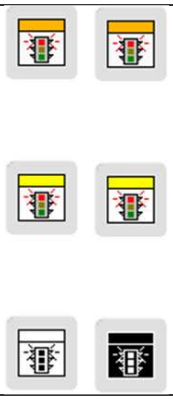	This icon editor automatically reshapes the original 24bit icon to 16 color and BW icon. With a left mouse click on the lower icon it is possible to switch to the inverted version of the icon. The preview of the icons represents the original size (32x32) to get information whether the details which might be powerful in the big icon window but not in the original size.
A picture isn't valueable (to big ☺)	The big icon control is the main area to change or add custom style to a given or new icon. All actions like add a custom template to the icon (drag and drop from the icon library onto the big icon window) or drawing a straight line or whatever is done by interaction with the big icon window.

Figure 3 displays the 2nd tab called Templates. All stored images (file type: jpg, bmp, png only) in the NIG_Icons folder are displayed in the list. The order is alphabetical ascending, starting top left to bottom right. Deleting or adding new templates do have directly an effect at the next start of the icon editor. When adding new templates, please ensure that the name of the icon isn't exotic and the dimension of the image shouldn't be larger than 32 x 32px. To add a template to the icon, use the left mouse button and hold it pressed and hover the mouse over the big icon window. To drop the icon simply stop using the left mouse button. To discard the operation press the ESC key two times.

Figure 3: Templates

To be more flexible when designing an icon, switch to the 3rd tab which is shown in figure 4. The support of the most useful tools of the default icon editor is added. The usage of all tools is intuitive, only the circle and rectangle tool do have a hidden functionality. Pressing the CTRL button while using the circle centers the circle at the starting point (left mouse down) and uses the relative coordinates between start point and current point as radius. A double click on the rectangle tool draws a border line around the icon (without the horizontal line).
There is one restriction with the fill tool. It only works on areas with a count of homogeneous pixels equal or greater two. To change to color of a single pixel, use the pen tool instead.
The color box provides the option to choose all supported colors of LabVIEW. The checkbox indicates whether a rectangle, rounded rectangle order the circle shell be filled. The numeric box and the pull down menu provide the choice between pen style and pen width.

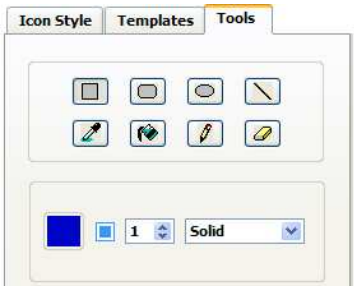

Figure 4: Tools

To break the current tool action, either press the ESC key one time or press additionally to the left also the right mouse button.

Customizing the Icon Editor

The entire code of the icon editor is open source and everyone who is willed to add functionality or customize parts of it is welcome. If you find an undocumented feature please send an email with detailed information on the issue to thomas.sandrisser@ni.com
The code is more or less documented and the VI names gain the imagination what the specific VI is good for.

Thomas Sandrisser
Munich, July the 18th , 2007

This FREEWARE software is provided without warranty and/or support!