



GPH_EDITOR v01.13

Use Manual

A program , free and easy to use, to change appearance of your RT4/RT5 navigation system.

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Introduction

GPH_EDITOR is a free utility, written for Microsoft Windows operative systems, allow you to modify the contents of .gph graphic data base files, used in Magneti Marelli's RT4 and RT5 navigation systems.

All the job done by me, is based on what I can understand by myself about this kind of database file, this is NOT a Magneti Marelli product, so it isn't sure that what my program do on the gph files is correct, and there is no warranty on the good behavior of the program itself.

Who wish to use this my program, do so at his peril.

Brief description of GPH files

GPH graph database files contain information used by the system for the graphic representation of user interface objects such as images, fonts, styles for menus, and more.

All Gph files are stored in subfolders of the folder `"/Data_base/Graphics"` in the update CD and installed on the system root of partition `"/C"`

From what I understand there are the following GPH files:

- Common/GEN_common.gph contains sections of general approach, for example, the menu style ', style of buttons, style of texts.
- Common/FON_common.gph contains definitions of the fonts used
- Day/MapGfx.gph contains the symbols used for the design of the map in 'day' mode
- Night/MapGfx.gph contains the symbols used for the design of the map in 'night' mode
- HARM00/GEN_HA00.gph is the theme of color called Titanium
- HARM01/GEN_HA01.gph is the color theme called Blue Road
- HARM02/GEN_HA02.gph is the color theme called Infinite
- HARM03/GEN_HA03.gph is the color theme called Red Flame
- HARM04/GEN_HA04.gph is the color theme called Carbon
- IT/GEN_IT.gph contains all the texts for the Italian language
- DE/GEN_DE.gph contains all the texts for the German language??
- DU/GEN_DU.gph contains all the texts for the Dutch language
- EN/GEN_EN.gph contains all the texts for the English language
- ES/GEN_ES.gph contains all the texts for Spanish
- FR/GEN_FR.gph contains all the texts for the French language
- PO/GEN_PO.gph contains all the texts for the Portuguese language
- TU/GEN_TU.gph contains all the texts for the Turkish language

Gph all files listed above are also duplicated in subfolders `/Data_base/Graphics/800x446` which refers to RT5 systems that mount the display at high resolution.

A gph file is divided into sections labeled with a name of 8 characters, each section can contain a variable number of elements of different sizes too, that in my program are marked by the first 4 letters of the name of section followed by the position number of the element within the section, expressed as 4 hexadecimal digits.

All Gph files listed above are open and recognized by GPH_EDITOR because the file format is the same but for the moment only some of the sections they contain are managed by the program.

Installation

For the moment the program does not have an installer, is composed of a single executable file that is provided in compressed version (. Zip), then the only operation to be conducted to install the program is to unarchive the executable file and save it in a folder you like in your PC.

Then if you manually associate GPH files type with GPH_EDITOR, you can open gph files directly by double clicking on the file name in Windows Explorer.

What it need, how use it

To use GPH_EDITOR have to copy to your PC folders and files in the data base used by the graphics system. You can do so either by copying the files from the original upgrade CD from Magneti Marelli, either by downloading from the RT4 using my RT_COPY utility that is part of MiraScript, you can find on my web page.

For software version 8.11, the files to be taken are:

```
/C/Data_Base/Graphics/TU/GEN_TU.GPH.inf
/C/Data_Base/Graphics/TU/GEN_TU.GPH
/C/Data_Base/Graphics/Night/MapGfx.gph.inf
/C/Data_Base/Graphics/Night/MapGfx.gph
/C/Data_Base/Graphics/Day/MapGfx.gph.inf
/C/Data_Base/Graphics/Day/MapGfx.gph
/C/Data_Base/Graphics/800X446/TU/GEN_TU.GPH.inf
/C/Data_Base/Graphics/800X446/TU/GEN_TU.GPH
/C/Data_Base/Graphics/800X446/PO/GEN_PO.GPH.inf
/C/Data_Base/Graphics/800X446/PO/GEN_PO.GPH
/C/Data_Base/Graphics/800X446/Night/MapGfx.gph.inf
/C/Data_Base/Graphics/800X446/Night/MapGfx.gph
/C/Data_Base/Graphics/800X446/IT/GEN_IT.GPH.inf
/C/Data_Base/Graphics/800X446/IT/GEN_IT.GPH
/C/Data_Base/Graphics/800X446/HARM04/LRG_HA04.GPH.inf
/C/Data_Base/Graphics/800X446/HARM04/LRG_HA04.GPH
/C/Data_Base/Graphics/800X446/HARM04/GEN_HA04.GPH.inf
/C/Data_Base/Graphics/800X446/HARM04/GEN_HA04.GPH
/C/Data_Base/Graphics/800X446/HARM04/$$$$_HA00.gph.inf
/C/Data_Base/Graphics/800X446/HARM04/$$$$_HA00.gph
/C/Data_Base/Graphics/800X446/HARM03/LRG_HA03.GPH.inf
/C/Data_Base/Graphics/800X446/HARM03/LRG_HA03.GPH
/C/Data_Base/Graphics/800X446/HARM03/GEN_HA03.GPH.inf
/C/Data_Base/Graphics/800X446/HARM03/GEN_HA03.GPH
/C/Data_Base/Graphics/800X446/HARM03/$$$$_HA00.gph.inf
/C/Data_Base/Graphics/800X446/HARM03/$$$$_HA00.gph
/C/Data_Base/Graphics/800X446/HARM02/LRG_HA02.GPH.inf
/C/Data_Base/Graphics/800X446/HARM02/LRG_HA02.GPH
/C/Data_Base/Graphics/800X446/HARM02/GEN_HA02.GPH.inf
/C/Data_Base/Graphics/800X446/HARM02/GEN_HA02.GPH
/C/Data_Base/Graphics/800X446/HARM02/$$$$_HA00.gph.inf
/C/Data_Base/Graphics/800X446/HARM02/$$$$_HA00.gph
/C/Data_Base/Graphics/800X446/HARM01/LRG_HA01.GPH.inf
/C/Data_Base/Graphics/800X446/HARM01/LRG_HA01.GPH
```

/C/Data_Base/Graphics/800X446/HARM01/GEN_HA01.GPH.inf
/C/Data_Base/Graphics/800X446/HARM01/GEN_HA01.GPH
/C/Data_Base/Graphics/800X446/HARM01/\$\$\$\$_HA00.gph.inf
/C/Data_Base/Graphics/800X446/HARM01/\$\$\$\$_HA00.gph
/C/Data_Base/Graphics/800X446/HARM00/LRG_HA00.GPH.inf
/C/Data_Base/Graphics/800X446/HARM00/LRG_HA00.GPH
/C/Data_Base/Graphics/800X446/HARM00/GEN_HA00.GPH.inf
/C/Data_Base/Graphics/800X446/HARM00/GEN_HA00.GPH
/C/Data_Base/Graphics/800X446/HARM00/\$\$\$\$_HA00.gph.inf
/C/Data_Base/Graphics/800X446/HARM00/\$\$\$\$_HA00.gph
/C/Data_Base/Graphics/800X446/FR/GEN_FR.GPH.inf
/C/Data_Base/Graphics/800X446/FR/GEN_FR.GPH
/C/Data_Base/Graphics/800X446/ES/GEN_ES.GPH.inf
/C/Data_Base/Graphics/800X446/ES/GEN_ES.GPH
/C/Data_Base/Graphics/800X446/EN/GEN_EN.GPH.inf
/C/Data_Base/Graphics/800X446/EN/GEN_EN.GPH
/C/Data_Base/Graphics/800X446/Day/MapGfx.gph.inf
/C/Data_Base/Graphics/800X446/Day/MapGfx.gph
/C/Data_Base/Graphics/800X446/DU/GEN_DU.GPH.inf
/C/Data_Base/Graphics/800X446/DU/GEN_DU.GPH
/C/Data_Base/Graphics/800X446/DE/GEN_DE.GPH.inf
/C/Data_Base/Graphics/800X446/DE/GEN_DE.GPH
/C/Data_Base/Graphics/800X446/Common/GEN_common.gph.inf
/C/Data_Base/Graphics/800X446/Common/GEN_common.gph
/C/Data_Base/Graphics/800X446/Common/FNT_common.gph.inf
/C/Data_Base/Graphics/800X446/Common/FNT_common.gph
/C/Data_Base/Graphics/PO/GEN_PO.GPH.inf
/C/Data_Base/Graphics/PO/GEN_PO.GPH
/C/Data_Base/Graphics/IT/GEN_IT.GPH.inf
/C/Data_Base/Graphics/IT/GEN_IT.GPH
/C/Data_Base/Graphics/HARM04/GEN_HA04.GPH.inf
/C/Data_Base/Graphics/HARM04/GEN_HA04.GPH
/C/Data_Base/Graphics/HARM04/\$\$\$\$_HA00.gph.inf
/C/Data_Base/Graphics/HARM04/\$\$\$\$_HA00.gph
/C/Data_Base/Graphics/HARM03/GEN_HA03.GPH.inf
/C/Data_Base/Graphics/HARM03/GEN_HA03.GPH
/C/Data_Base/Graphics/HARM03/\$\$\$\$_HA00.gph.inf
/C/Data_Base/Graphics/HARM03/\$\$\$\$_HA00.gph
/C/Data_Base/Graphics/HARM02/GEN_HA02.GPH.inf
/C/Data_Base/Graphics/HARM02/GEN_HA02.GPH
/C/Data_Base/Graphics/HARM02/\$\$\$\$_HA00.gph.inf
/C/Data_Base/Graphics/HARM02/\$\$\$\$_HA00.gph
/C/Data_Base/Graphics/HARM01/GEN_HA01.GPH.inf
/C/Data_Base/Graphics/HARM01/GEN_HA01.GPH
/C/Data_Base/Graphics/HARM01/\$\$\$\$_HA00.gph.inf
/C/Data_Base/Graphics/HARM01/\$\$\$\$_HA00.gph
/C/Data_Base/Graphics/HARM00/GEN_HA00.GPH.inf
/C/Data_Base/Graphics/HARM00/GEN_HA00.GPH
/C/Data_Base/Graphics/HARM00/\$\$\$\$_HA00.gph.inf
/C/Data_Base/Graphics/HARM00/\$\$\$\$_HA00.gph
/C/Data_Base/Graphics/FR/GEN_FR.GPH.inf
/C/Data_Base/Graphics/FR/GEN_FR.GPH
/C/Data_Base/Graphics/ES/GEN_ES.GPH.inf

```
/C/Data_Base/Graphics/ES/GEN_ES.GPH
/C/Data_Base/Graphics/EN/GEN_EN.GPH.inf
/C/Data_Base/Graphics/EN/GEN_EN.GPH
/C/Data_Base/Graphics/DU/GEN_DU.GPH.inf
/C/Data_Base/Graphics/DU/GEN_DU.GPH
/C/Data_Base/Graphics/DE/GEN_DE.GPH.inf
/C/Data_Base/Graphics/DE/GEN_DE.GPH
/C/Data_Base/Graphics/Common/FNT_common.gph.inf
/C/Data_Base/Graphics/Common/FNT_common.gph
/C/Data_Base/Graphics/Common/GEN_common.gph.inf
/C/Data_Base/Graphics/Common/GEN_common.gph
```

GPH_EDITOR load the file. Gph, but in the same folder, there should always be the appropriate. Inf file, that the RT4 system uses to control the correctness of the file GPH, and GPH GPH_EDITOR updated when the file is saved.

Once the changes with GPH_EDITOR, to install the file use the program GPH_COPY that is also part of the package MiraScript. Remember to also copy the bound .Inf file.

WARNING

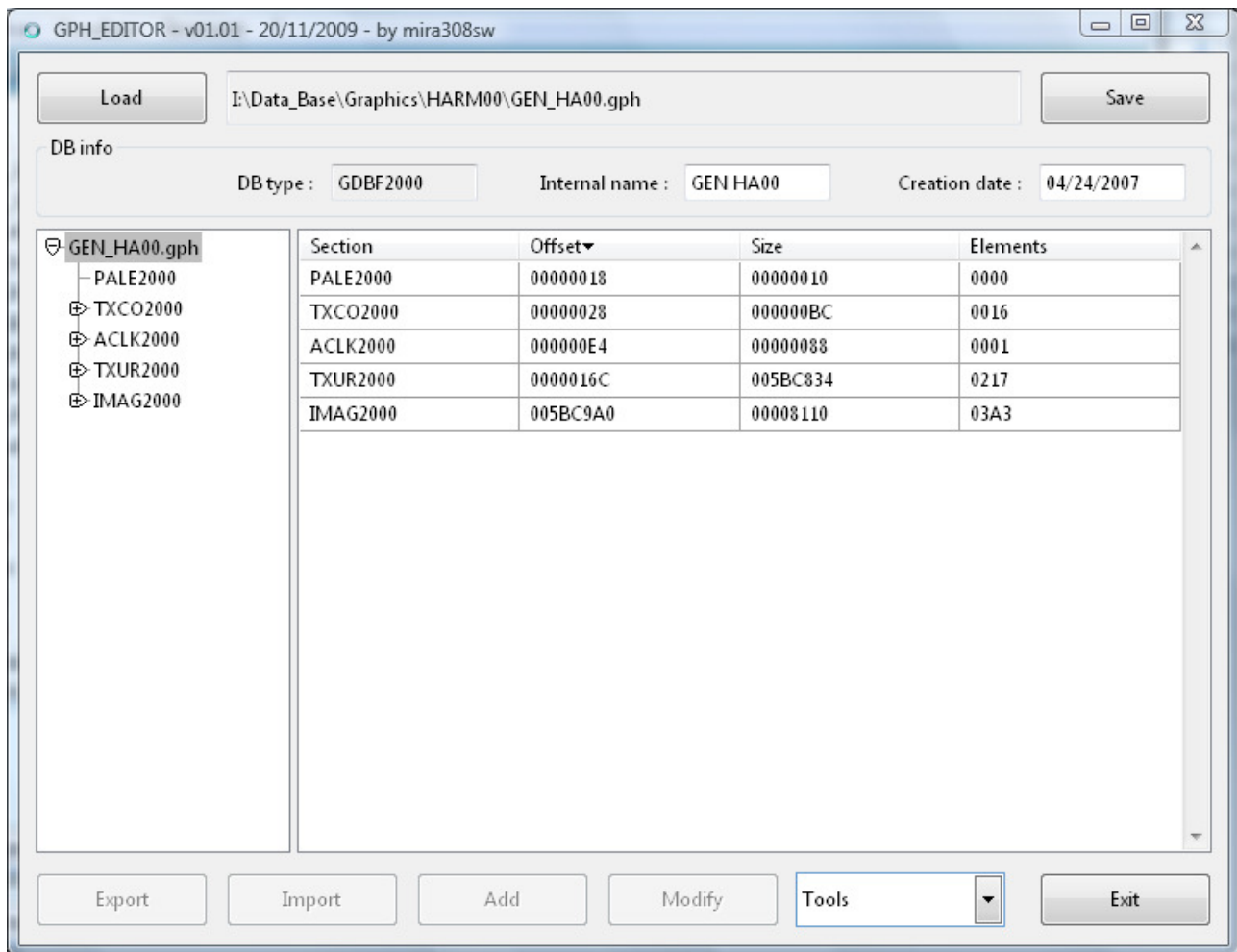
My program is not free from defects and, as we all know, the misfortune is seen very well. I would advise you to follow this simple rule to load a color theme modified by GPH_EDITOR:

if the color theme you want to load is currently active on RT4, do not proceed to load, but today changed the subject from the menu, TOMORROW uploaded the modified theme.

This is to ensure that the color theme with which your RT4 restart is correct, because otherwise it will block and you must remove the hard disk to replace the incorrect file.

User interface

GPH_EDITOR appear like this:



The frame of the left contains the tree list of sections and items in the current file, the right frame shows the details of the section or item selected in the tree.

Load and Save buttons are used to open a new file and save the changes the current gph file.

Depending on the selected item in the right window, the 4 buttons on the bottom are enabled or not, also based on the selected section there is a contextual menu by pressing the right mouse over the elements of the right pane.

In the box DBinfo outlines the identifier of the file 'GDBF2000' (the file would not open if the type does not match), the name stored in the file, which should be changed only if you want to save the current file with another name and the date of creation. In some gph file, such as file MapGfx.gph, the date field does not give a date, so you better not change it and leave the original values.

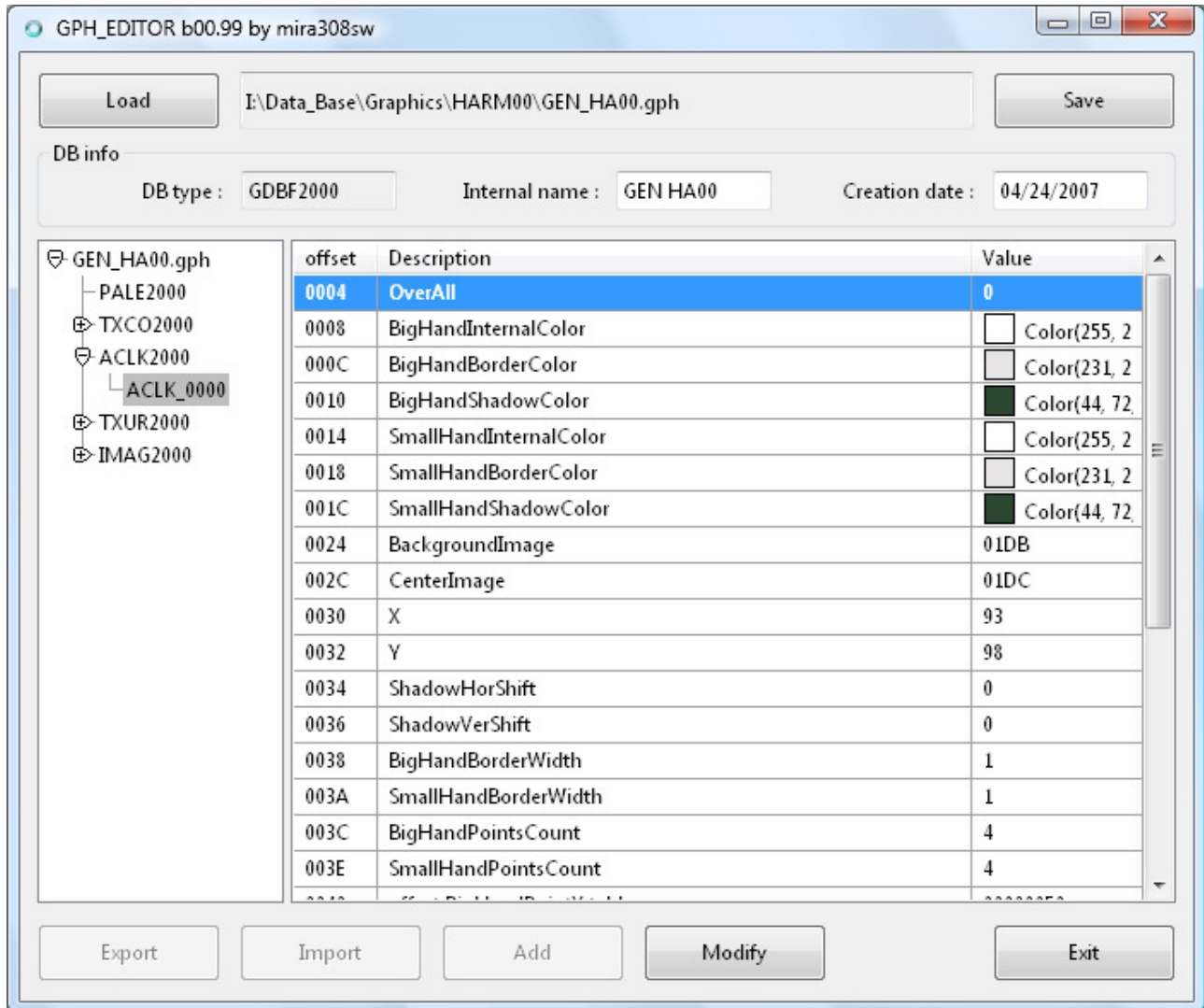
Sections run by GPH_EDITOR

Let us see what can GPH_EDITOR with data in different gph file sections.

Section ACLK2000

This section is present in GEN_HAnn.GPH files that describe the color theme used by the RT4.

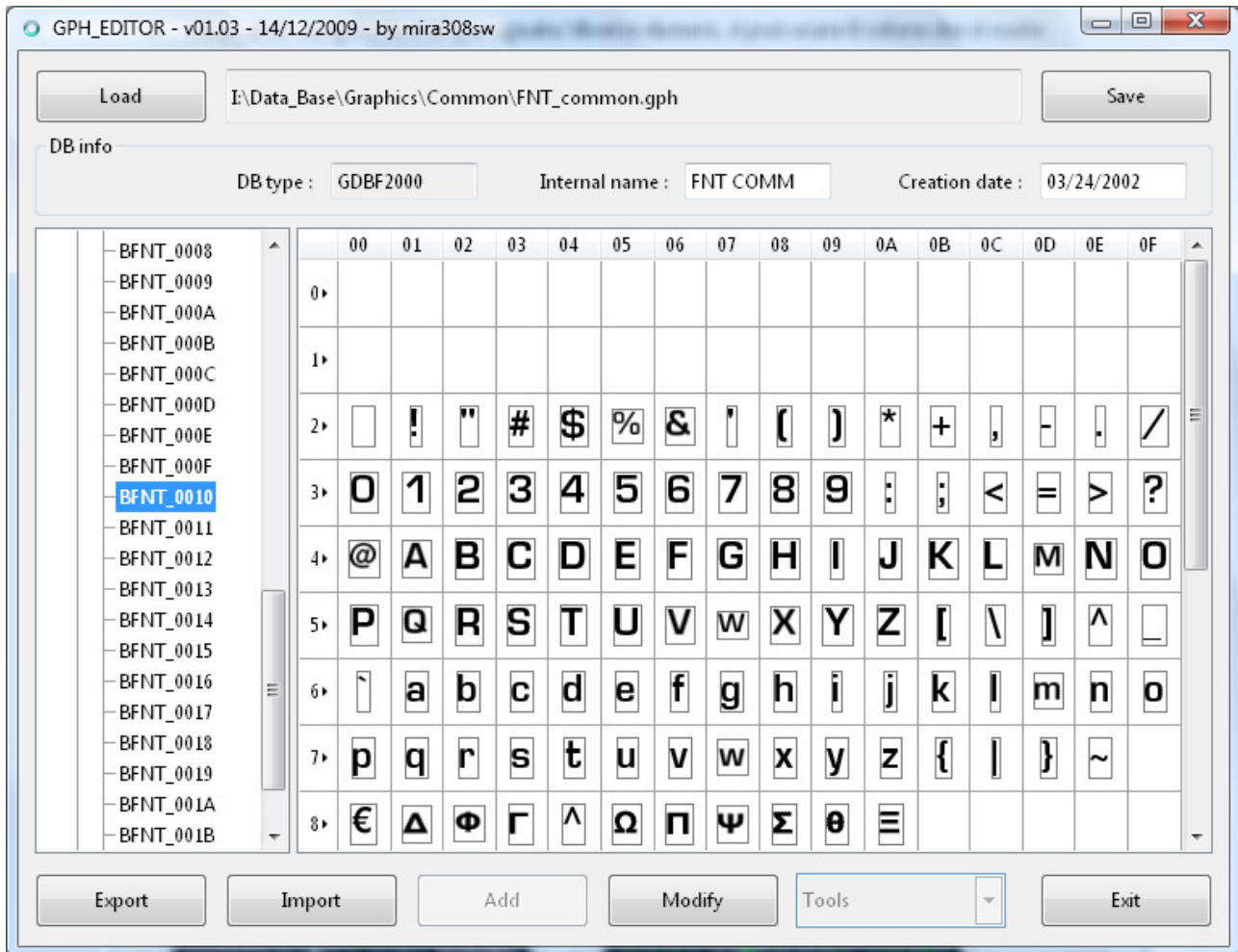
It contains the parameters that define the look of analog clock.



This section is still incomplete, only a few parameters can be changed.

Section BFNT2000

This section is in the file /Common/FNT_common.gph and contains the definitions of the fonts used by the system.



Export

The font selected is saved in a bitmap image. The image created has these special features:

- Shades of gray are used to indicate the active pixels in the font. The white pixel corresponds to the foreground, the black pixel is the background, the shades are used by the RT4 as transparency.
- All the characters in the font are written side by side in a row. In this way the image height coincides with the height of the font.
- The top line is not part of the font, but has green pixels (markers) used to mark the beginning of each character. Two consecutive markers indicating the absence of that character in the font. 256 markers are always present, even if the font is not complete.
- The first column on the left is not part of the font, but it is used to define the position of the baseline, which is represented by a green pixel.

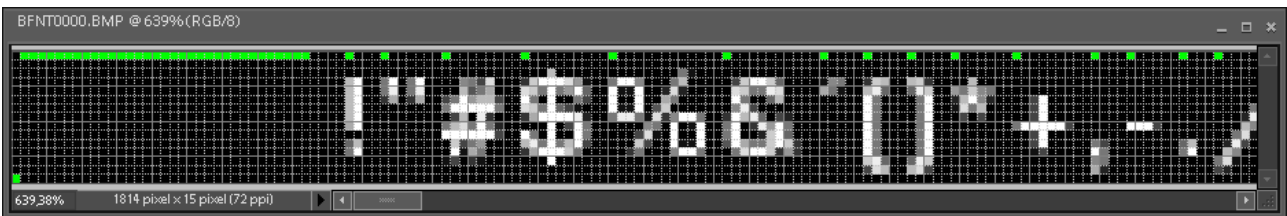
Import

With Import function is redefined the entire font, you cannot change a single character at a time.

Import file is a bitmap image to be created with the same rules in exports, and more:

- The markers are tested for equal/different from black, you can use the color you want.
- No need for all 256 markers, if the font character ends at code 130, the image could end after it, without the need to define the 126 characters not used. Otherwise is mandatory the presence of markers for all missing characters before the first useful.
- If you insert a marker in the first pixel in the upper left (0,0), GPH_EDITOR will add a blank pixels horizontally to all the characters (spacing).

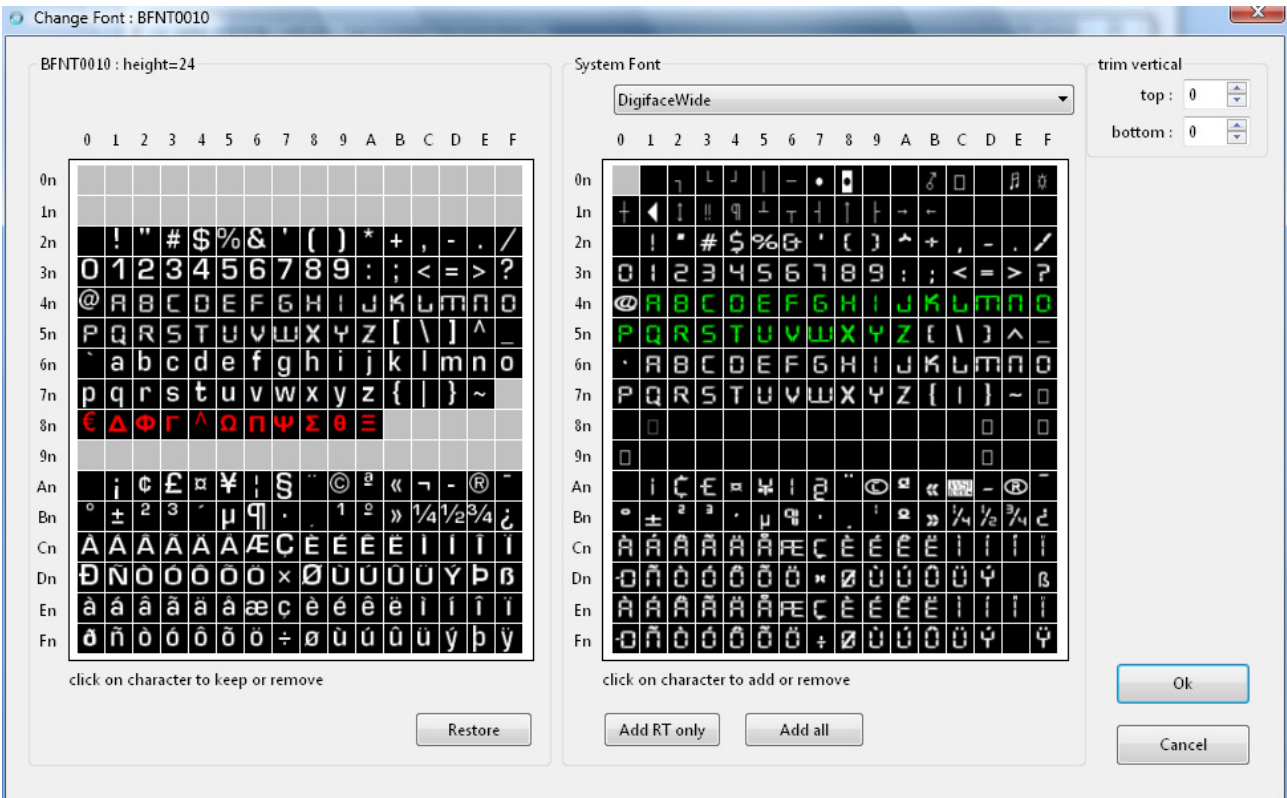
Looks like the image of a font:



Modify

You can change fonts in the font selected with the characters from one font on your PC.

In the window that opens after select Modify, there are 2 areas that show on left the font selected in file GPH, and on right side the system font selected from the pulldown menu "System font".



In the System Font area, are displayed only the 256 characters having high byte, of the Unicode format, equal to high byte for which this BFNT is used in the FONT section.

Click on the character in “System font” area to be replaced. The characters selected are displayed in green, and immediately substituted in the current font in the left. You can use different system font for each characters.

Clicking on characters in the current font area "BFNT0010", they are marked to be removed from the character font, and will appear in red.

The buttons on the bottom allow:

Restore: restores the current font to its original state.

Add RT only: select in the “System font” area only the characters present in the current font.

Add all: selects all the 256 characters of the “System font”.

The two fields "Trim vertical" allows you to crop a few pixels from the top or Bottom of the selected system fonts.

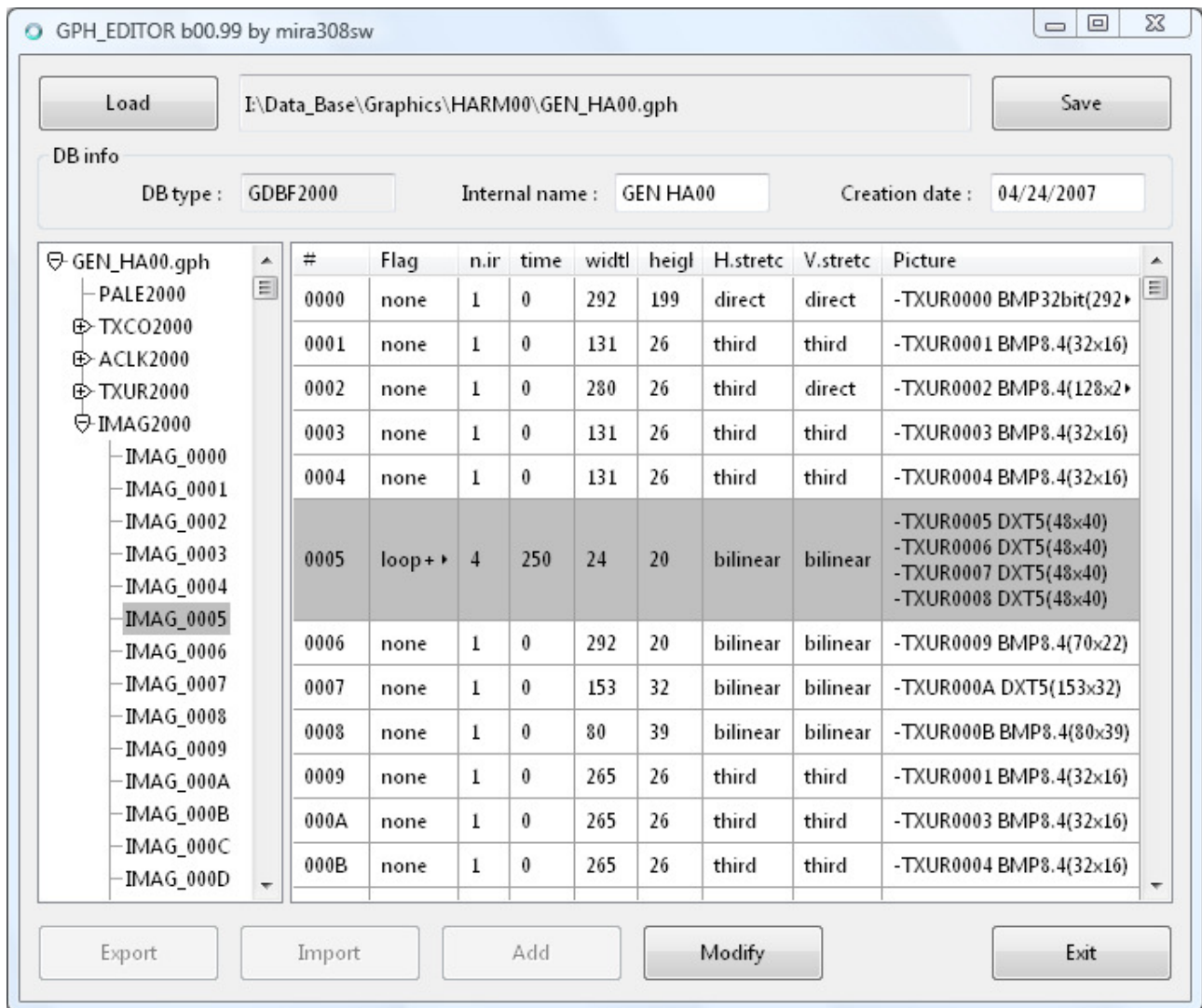
The changes to the font are executed when the window is closed with the OK button.

Section IMAG2000

This section is present in GEN_HAnn.GPH file and contains the definitions of images used by the system.

In practice the system does not directly access the image in TXUR section, but passes through this section that defines which image display and how.

The system allows to define an image as part of another or as a sequence of images such as scaling or another, we see in detail:



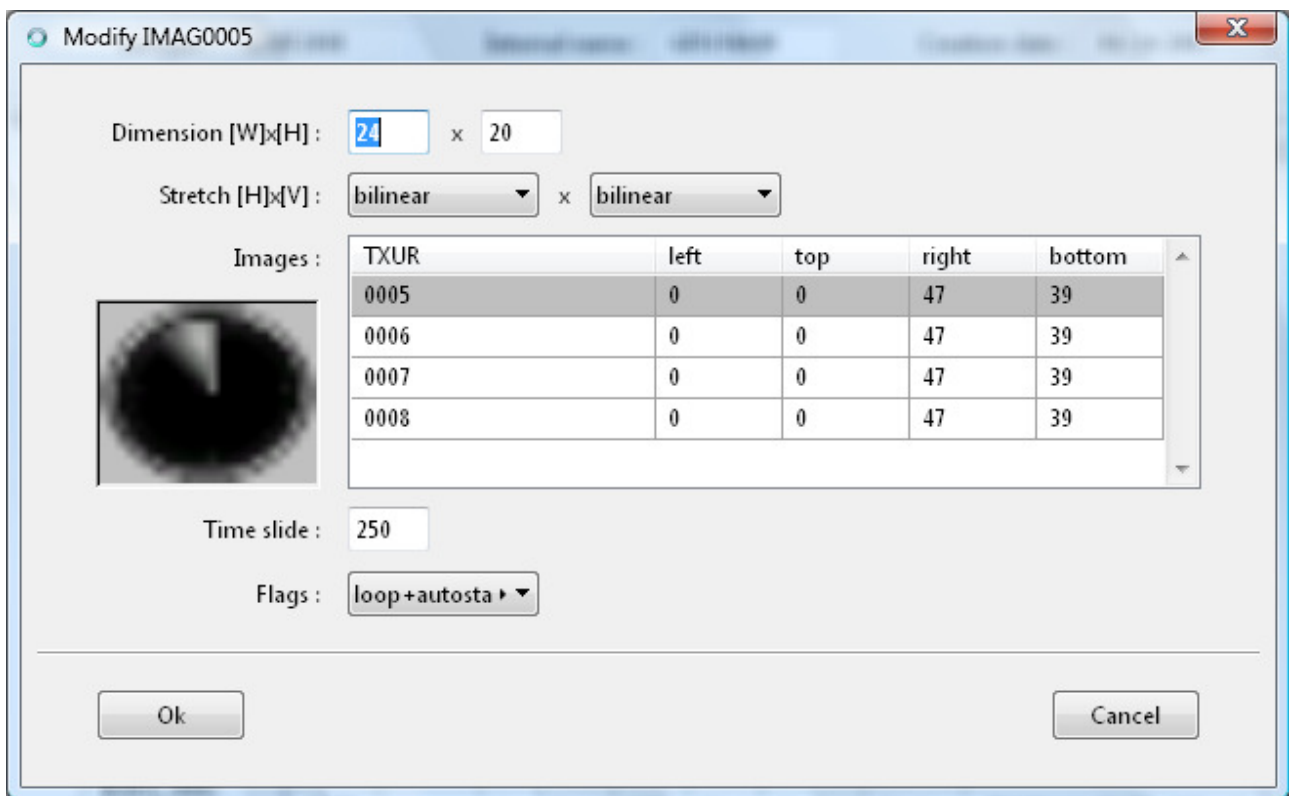
In the details pane there is a row for each element in the section. The columns indicate:

Colonna	Descrizione	Esempio	
#	Element index in hexadecimal format	0005	
Flag	Option to image sequence control	Loop + autostart	
	None		None
	Loop		The sequence is repeated indefinitely
	Autostart		The sequence starts immediately
	Loop + autostart	The sequence starts immediately and is repeated indefinitely	
n.img	Number of images that make up the sequence	4	

Time	Time in milliseconds to display each image in a sequence of images	250	
width	Width of the image to display	24	
height	Height image to display	20	
H.stretch	Options for horizontal scaling	Bilinear	
	Direct		No resizing
	Bilinear		Linear interpolation
	Third	Linear interpolation excluding the edges	
V.stretch	Options for horizontal scaling	Bilinear	
	Direct		No resizing
	Bilinear		Linear interpolation
	Third	Linear interpolation excluding the edges	
Picture	List of images from TXUR section, used in the sequence. To learn how images are used click on the Modify button.	-TXUR005 -TXUR006 -TXUR007 -TXUR008	

Modify

The Modify button allows you to change the definition of the selected via the following popup window:



Must define the size of the resulting image (dimension), the method of horizontal and vertical resizing (stretch), the time image viewing (time slide), and startup options, and cycle (flags).

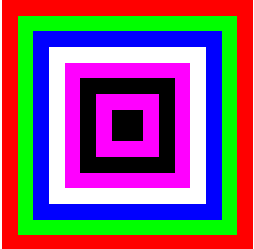

You can choose images to use between those in the TXUR section, clicking the right mouse button, you can choose between the contextual menu to insert, delete and modify a definition. Obviously must have at least one image in the list.

For each image you must define the coordinates of the area to be used, in that it can be used even a fraction of the original image.

If there is only one image in the list, the fields "Time Slide" and "Flag" are set to "0" and "none", because they are not significant for single images.

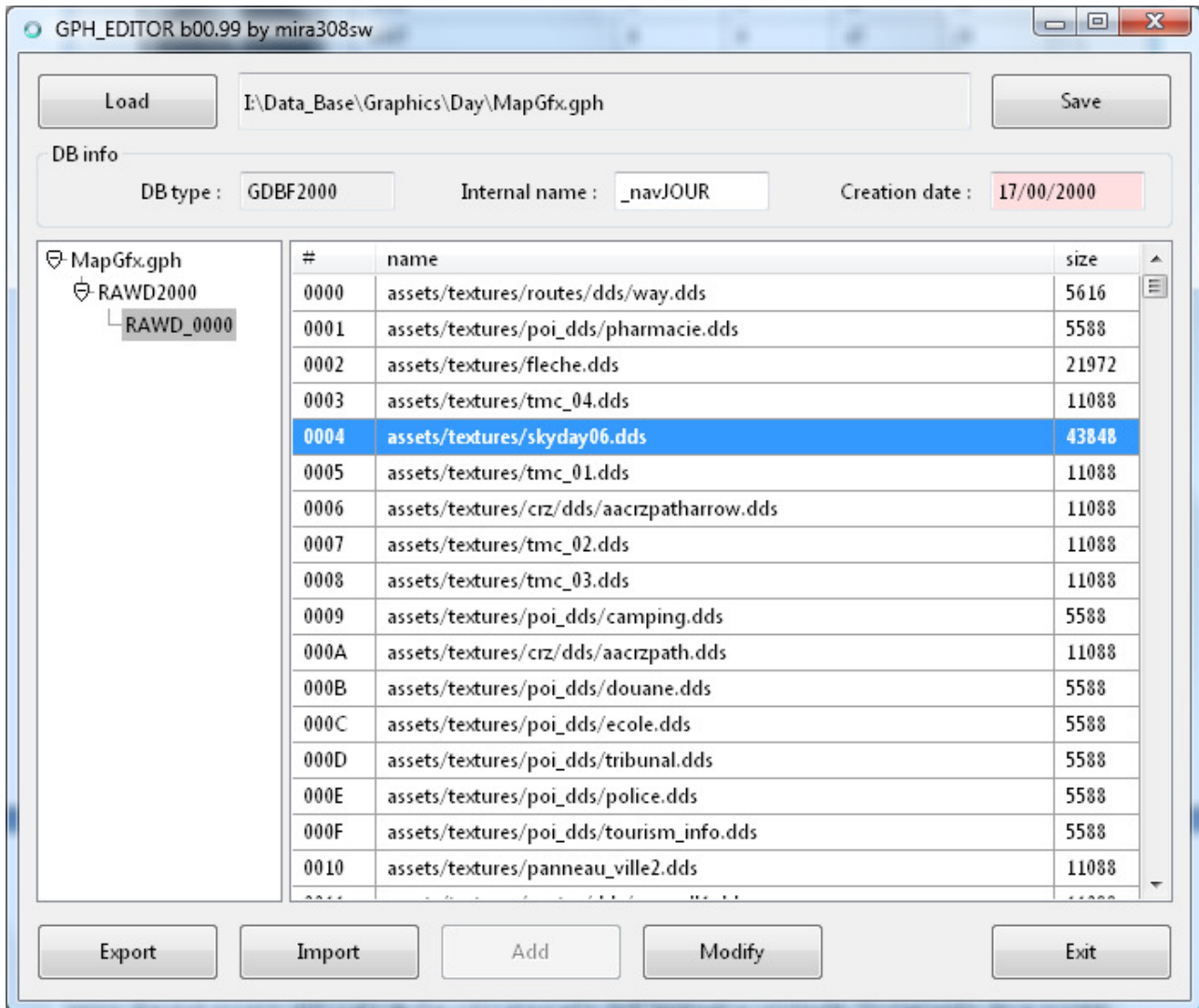
To understand how to operate the parameters "H.stretch" and "V.stretch" we see the result of their use:
 The image used for all 3 frames on the main page is the same and has dimensions 16x16

- The top uses the method "direct"
- The left side method "third"
- The right part of the method "bilinear"

Original Image	Result
	

Section RAWD2000

This section is present in the /Day/MapGfx.pgh and /Night/MapGfx.pgh, and contains definitions for the symbols used in drawing the map of the navigator.



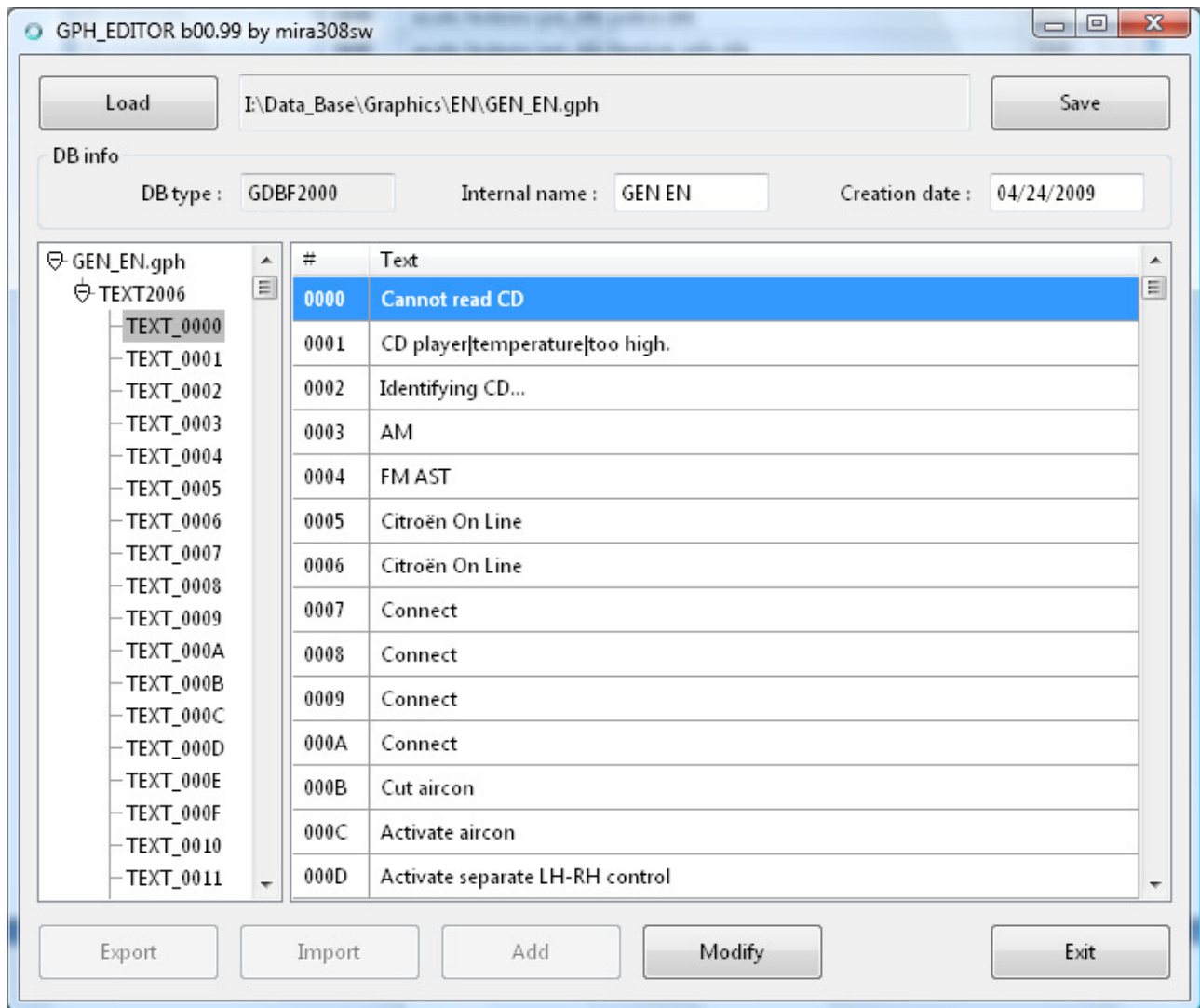
The only possible operations are Export and Import of files within the lonely element of the section.

Running the Export in the folder that you choose, it will create the folder structure as indicated in the list of details. Example: /assets/textures.

To run the Import all files be imported must have the same name in the list and are placed in the same folder structure. In this version of GPH_EDITOR must also have the same size as the original files.

Section TEXT2006

This section is present in the file /LL/GEN_LL.gph that are loaded by the system based on the active language (LL = language code), and contains all the text displayed by the RT4.



You can edit every single text by pressing the Modify button after selecting the row.

When a text is written on multiple lines GPH_EDITOR use the | character to indicate the point at which the text wraps.

From the context menu that appears when you click the right button on the list of texts, you can run a convenient search and replace text function.

Export

Export function saves the entire contents of the section TEXT2006 on a text file in UNICODE format. This type of file can be edited with any ASCII text editor, like Notepad for Windows.

Each row of the created file contains a text, preceded by the number in hex of its position in the section, as displayed in GPH_EDITOR.

Import

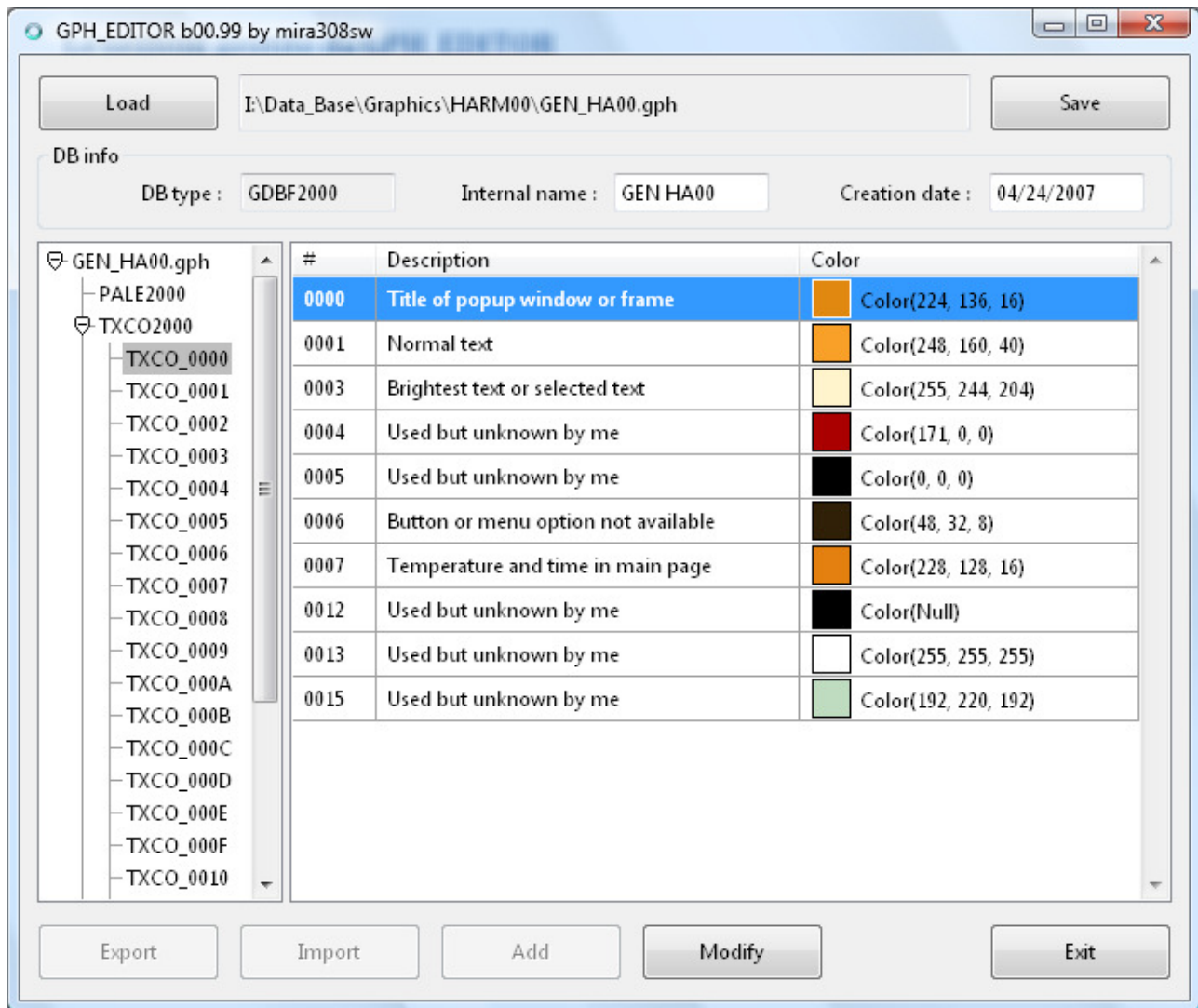
The Import feature allows you to load text from a text file in UNICODE format.

Each line of the file must begin with the hex numeric value of index of the text, followed by a space or tab character. The text to insert must start from the fifth character.

Can be loaded the entire section or just some text.

Section TXCO2000

This section is present in GEN_HAnn.GPH files that describe the color theme used by the RT4. It is used by the system to define the color of the text.



Only 11 elements are defined and used in this way:

Color	Description
0000	Title of a popup window or title of right frame of main page
0001	Normal text
0003	Highlighted text or selected item in a menu
0004	??
0005	??
0006	Text of button or menu item, not selectable
0007	Temperature and time in main page
0012	??
0013	??
0015	??

Double click or select Modify to change every single color using the color selection tool, which has several choices:

Modify color 0015

Palette Wheel Hue RGB H

1	5	9	13
2	6	10	14
3	7	11	15
4	8	12	16

Color:


R: 192 G: 220 B: 192

H: 85 S: 32 V: 220

Ok Cancel

Modify color 0015

Palette Wheel Hue RGB H



Color:


R: 192 G: 220 B: 192

H: 85 S: 32 V: 220

Ok Cancel

Modify color 0015

Palette Wheel Hue RGB H



Color:

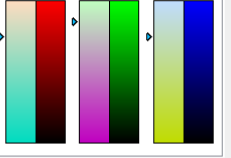
R: 192 G: 220 B: 192

H: 85 S: 32 V: 220

Ok Cancel

Modify color 0015

Palette Wheel Hue RGB HSV



Color:

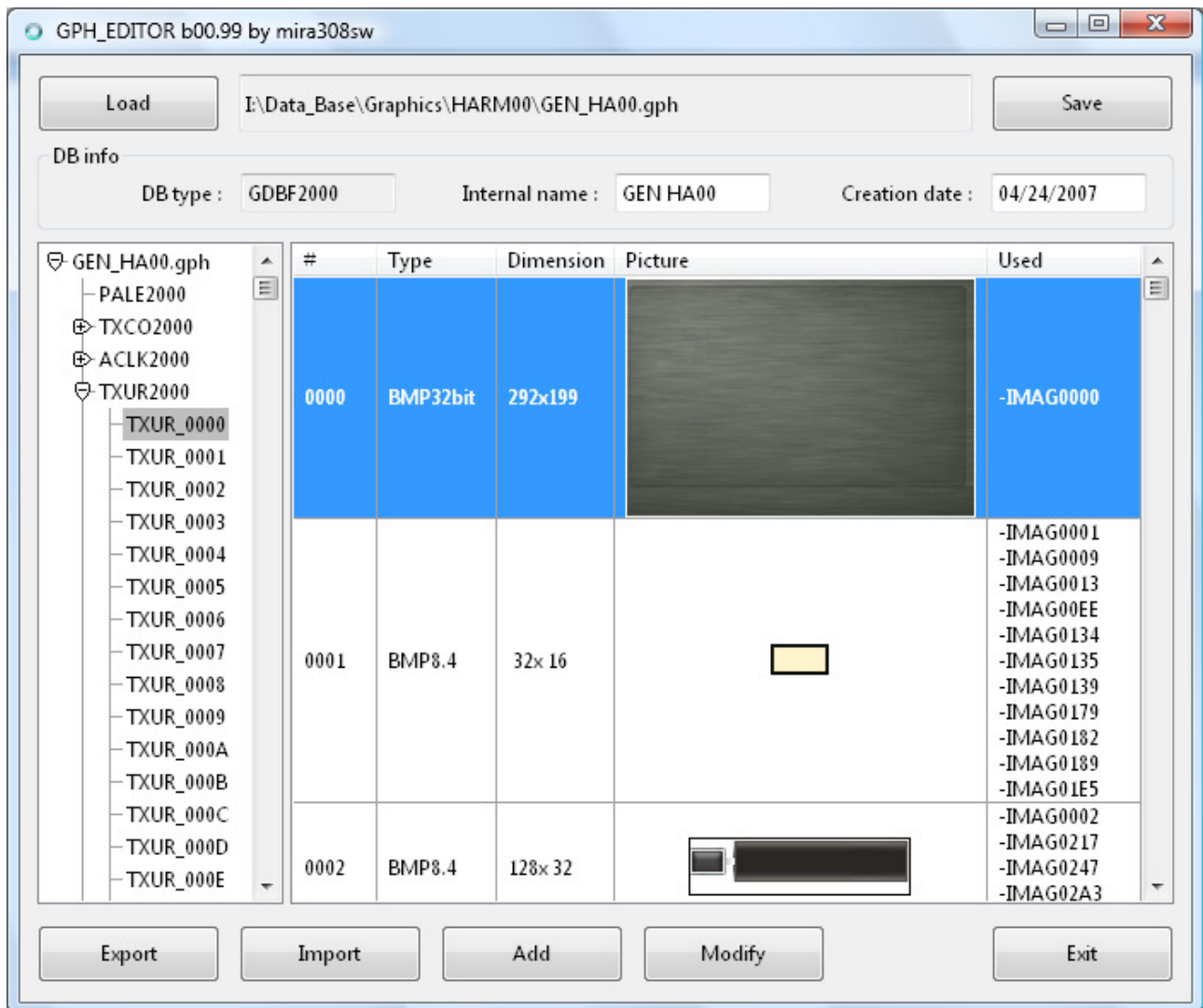
R: 192 G: 220 B: 192

H: 85 S: 32 V: 220

Ok Cancel

Section TXUR2000

This section is present in the file GEN_HAnn.GPH and contains all the images used by the system for the color theme.


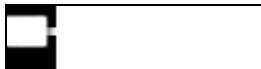


List of details of the section is inserted into a line for each image there, and the columns indicate:

Colonna	Descrizione	Esempio
#	Image index inside the section	0000
Type	Type of storage method inside the gph file (see further)	BMP32bit
Dimension	Width and Height of the image	292x199
Picture	Image preview	
Used	List of IMAG elements that use this image (see further)	-IMAG0000

Export

The Export button allows you to save the selected image, or group of selected images on BMP files on your PC. The file created is a 32-bit bitmap using RGBT colors scheme (RGB + Transparency). Transparency is also stored in another file, created as BMP 8-bit grayscale, with the same name followed by _TM, which contain only information of transparency, ie :

TXUR0002.BMP	TXUR0002_TM.BMP
	

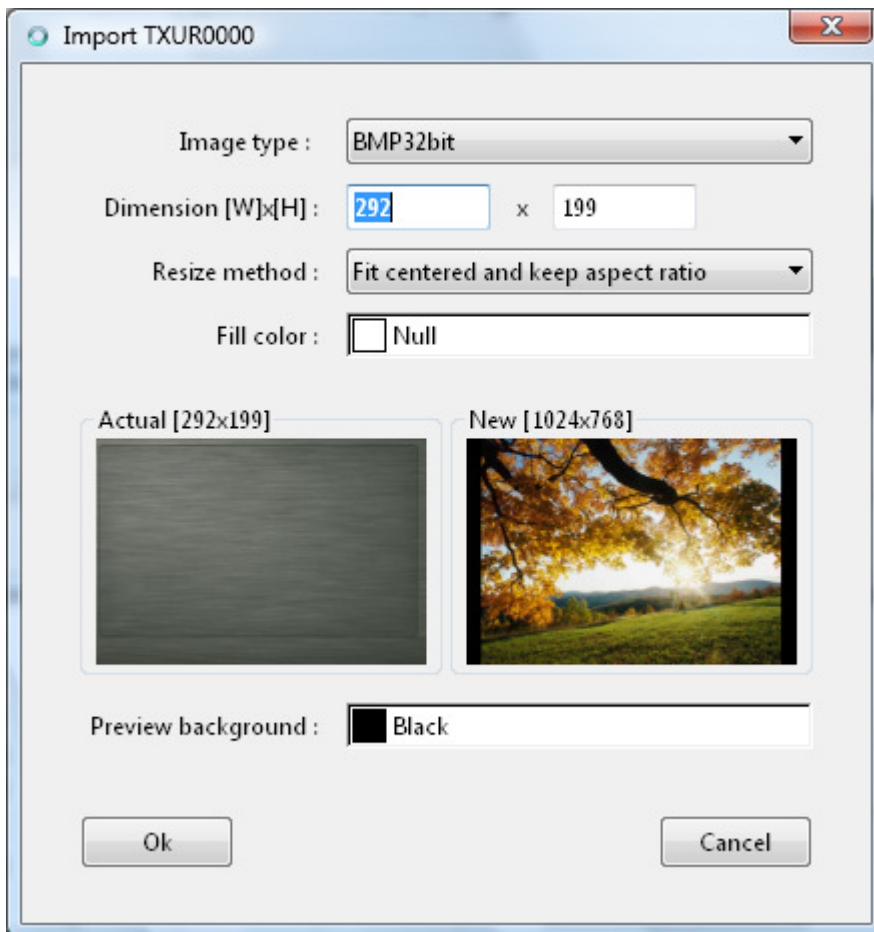
In the file _TM the white part is the opaque part, correspondent image part appears on video, while the black is the transparent part, on video remains the background.

Whatever is the format used within the file gph to store pictures, files created by the Export function are always 32-bit bitmaps.

Import

The Import button lets you load from file the selected image. If the selection is single, you can choose to upload any image file in BMP, GIF, JPG, TIF, PCX, PNG. As if the selection is multiple, you should choose a folder where all images are to be imported in BMP format with the name used within GPH_EDITOR (eg TXUR0002.BMP).

If the loaded image don't have the same size as the original image, is asked how to load properly:



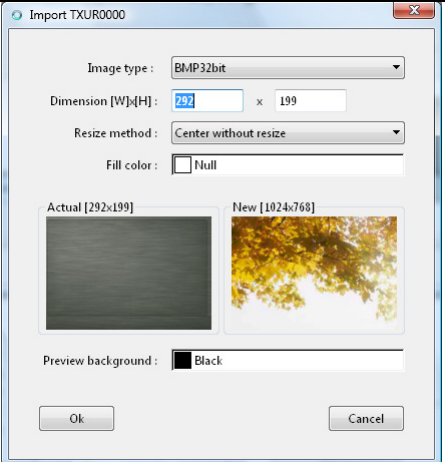
The type of image refers to the method by which it is stored within the gph file. Generally is not appropriate to change it. The methods are:

Image type	Descrizione	Dimensione
BMP 32bit	Bitmap in 32 bit RGBT format (with transparence)	$4 * L * A$
BMP8.4	Bitmap in 8 bit format with 32bit RGBT color palette with trasparence	$1024 + L * A$
BMP8.3	Bitmap in 8 bit format with 24bit RGBT color palette without trasparence	$768 + L * A$
DXT1	Compressed format with DXT1 method with information loss, storing 16-bit color without transparency, compression ratio of 1:8 (compared to BMP32)	$L * A / 2$
DXT1A	Compressed format with DXT1 method with information loss, storing 16-bit color with transparency binary compression ratio of 1:8 (compared to BMP32)	$L * A / 2$
DXT5	Compressed format with DXT5 method with information loss, storing 16-bit color with 8 degrees of transparency, compression ratio of 1:4 (compared to BMP32)	$L * A$

Apart from the method BMP32bit everyone else is a loss of information. Methods BMP8.x can deliver only 256 colors to which the imported image is modified so as to limit the number of colors used at less than 256. DXTn methods use a representation of the colors to 16bit (= 65536 colors), and stores the information for areas of 4x4 pixels and not for individual pixels, thus resulting in higher compression methods.

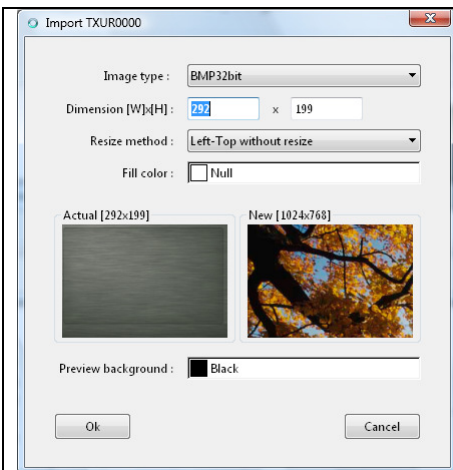
In sections TXUR2000, all compression methods (thus was excluded only 32bit BMP) must necessarily have dimensions of width and height equal to a power of 2 (ie 4, 8, 16, 32, 64, 128, etc), while in section TXUR2008 dimensions must be a multiple of 4, gph_editor shall change the value of added dimension, so it is correct.

The resizing method shows how to modify the new image to reach the dimensions shown (the size of the current image):



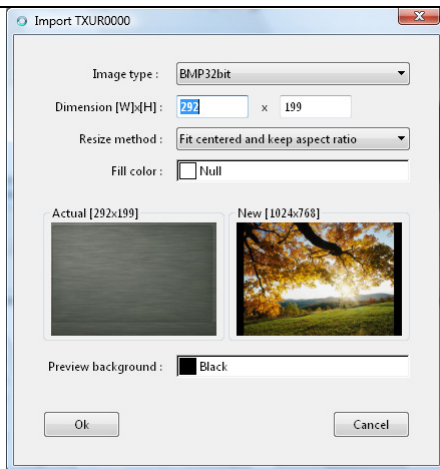
Center without resize:

The image is centered in the new size without resizing. If the new image is larger than the old will be cut, on the contrary there will be gaps.



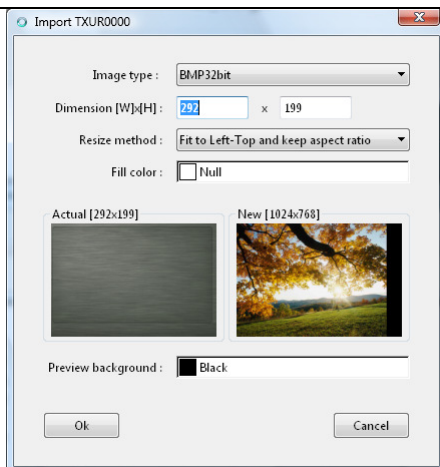
Left-Top without resize:

as above but this time the image is taken from the upper left corner.



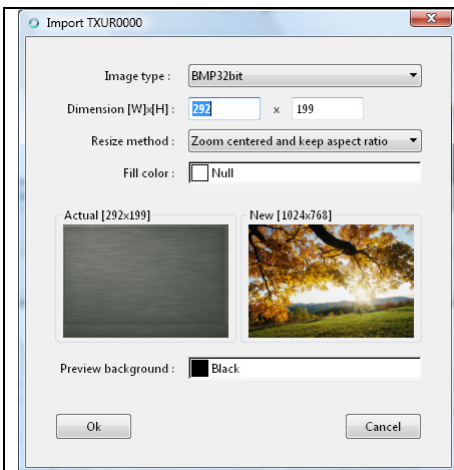
Fit centered and keep aspect ratio:

the image is resized so as to be fully visible, and centrally placed so as to have two empty spaces at the ends of smaller size.



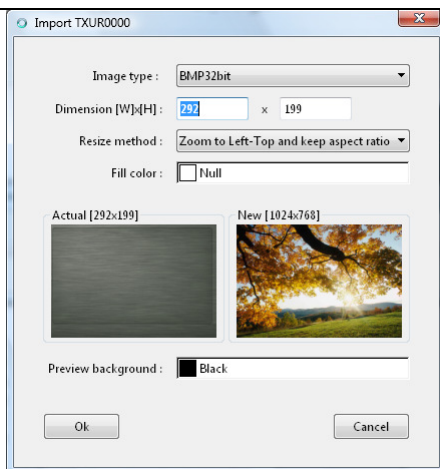
Fit Left-Top and keep aspect ratio:

As above, but the new image is placed from the upper left and the gaps will be just or right or down.



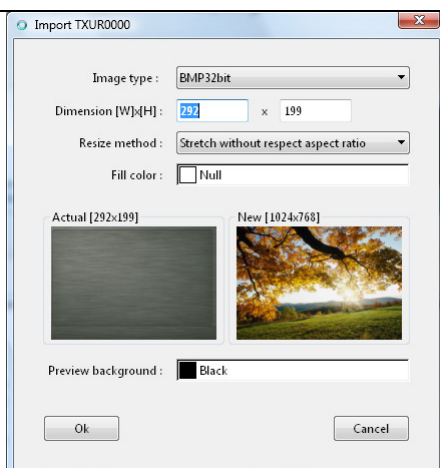
Zoom centered and keep aspect ratio:

the image is centrally placed and resized to fill its original size without leaving gaps, so the parts are lost in excess at the extremes of larger size



Zoom to Top-Left and keep aspect ratio:

as above, but the image is placed in the upper left and the cut part will be just or right or down



Stretch without respect aspect ratio:

The image is scaled by changing both dimensions to fill the area without leaving gaps. In this way, the resulting image will be distorted, since it don't retains the proportions between height and width.

Fill Color is the color for filling the gaps that are created according to the method of scaling chosen. The color 'Null' indicates that empty space will be transparent.

Background Color: no need for changing the image, but sets the background color of the preview window, and may be useful to better understand which parts of the image are transparent.

Add

The Add button to add an image to the TXUR section. You can add images because the system does not directly access the images in the TXUR section but accesses it through the definitions made in the IMAG section.

The addition of an image is done by first selecting the file to be inserted, with the same rules of the Import of image, and then with the change of characteristics. The new image is added to the end, and then must be used in an element of the IMAG section in order to appear on the video of RT4.

You may add some new images to create animations for an existing symbol, for example.

Modify

The Modify button allows you to change the characteristics of an image. Presents the same popup window for the import functions, where you can change the type of storage for the image, its dimensions of width and height, and determine how to put the old image into new dimensions.

Sections not yet managed

All other sections in files GPH not mentioned in the preceding pages are displayed as hexadecimal dump, and are not editable.

Load I:\Data_Base\Graphics\Common\GEN_common.gph Save

DB info
DB type : GDBF2000 Internal name : GEN COMM Creation date : 04/24/2007

offset	Description	Value
0000	UNsupported SECTION: reloc table offset	0070
0002	UNsupported SECTION: reloc table size	0003
FFFF	--- Hexadecimal Dump ---	
0000	70 00 03 00 00 00 00 00 47 45 4E 20 FF FF 00 00	p... .. GEN ...
0010	47 45 4E 20 01 D3 00 00 46 4E 54 20 00 02 00 00	GEN ... FNT ...
0020	47 45 4E 20 00 03 00 00 47 45 4E 20 00 01 00 00	GEN ... GEN ...
0030	47 45 4E 20 00 06 00 00 47 45 4E 20 00 8D 00 00	GEN ... GEN ...
0040	47 45 4E 20 00 A5 00 00 47 45 4E 20 00 A6 00 00	GEN ... GEN ...
0050	00 10 00 21 01 36 00 8F 00 03 00 06 00 19 FF FF	...! .6..
0060	00 00 00 00 00 0A 00 04 00 20 01 8E 03 00 00 00
0070	00 00 00 7C 00 00 00 80 00 00 00 84 00 00 00 00
0080	01 36 00 00 01 00 00 00	.6..

Export Import Add Modify Exit

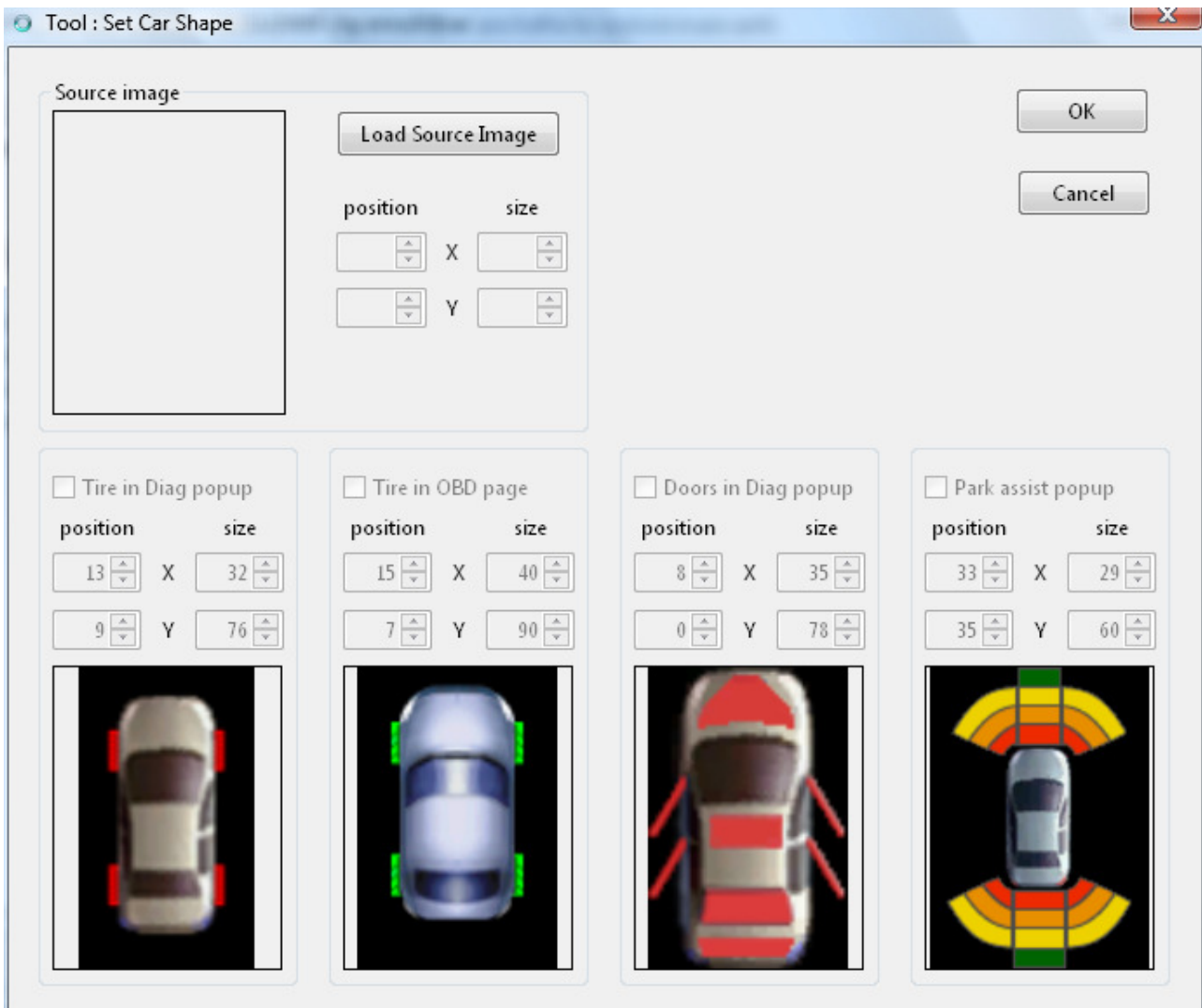
Your help is welcome to complete all sections missing.

TOOLS

To use just choose one of the tools in the dropdown menu that appears next to the Tools button on the main page. The tools help in changing some aspects of color themes.

Car Shape

This tool allows you to change the image of the car that the system displays in the diagnostics windows, such as parking assistance, reporting open ports and the tire pressure.



Click on "Load Source Image" to load the image to use. The image types supported are the same as the Import command of the section TXUR2000. It is important that the image is created using the transparency information, possibly placed in separate file "name" _TM.BMP.

The image is cropped with the controls "position" and "size" of the box "Source image", if not already the correct size.

Click the checkboxes of the 4 possible uses for the image. Use the controls "position" and "size" to overlay the new image to the default, as befits its size.

Closing the window with OK, the program shall generate all the images needed to complete the selected frames. The result is visible in the section TXUR2000.

Main Page Background

With this tool can set a unique image for the main page, and the program will divide it into 3 boxes accordingly.



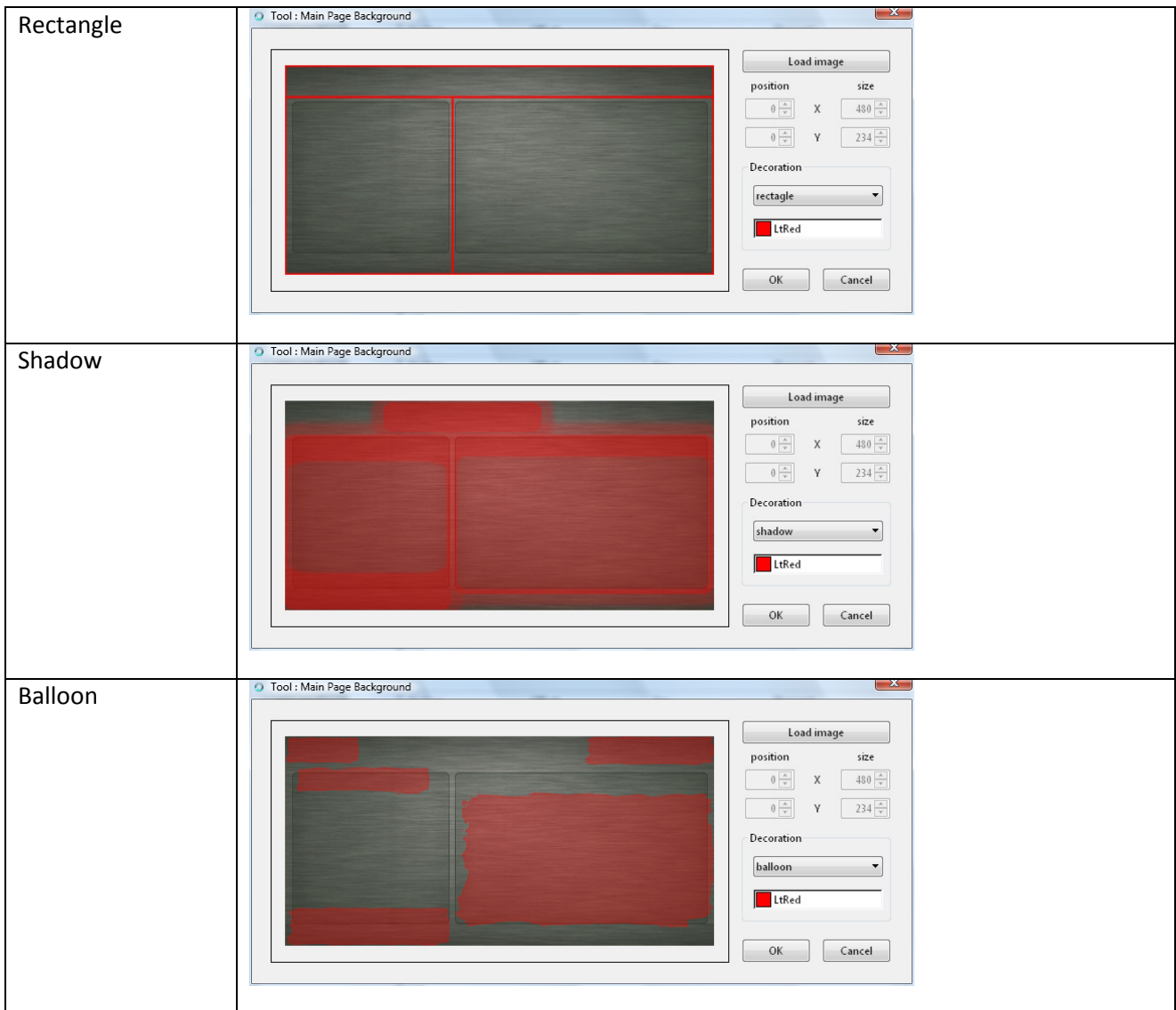
To load an image, select "Load image". Different types of image files are supported, as described in the Import section TXUR2000. The new image is loaded and extended in screen size, which are:

- 480 x 234 low resolution screen (RT4+RT5)
- 800 x 446 high resolution screen (solo RT5)

Can choose a small area of the image loaded, by setting the coordinates of the upper-left corner and the size of the cut out, in "position" and "size" field.

Simple decorations can be applied to the background image that you choose from the drop down menu. The decorations are made using the base color defined in the box:

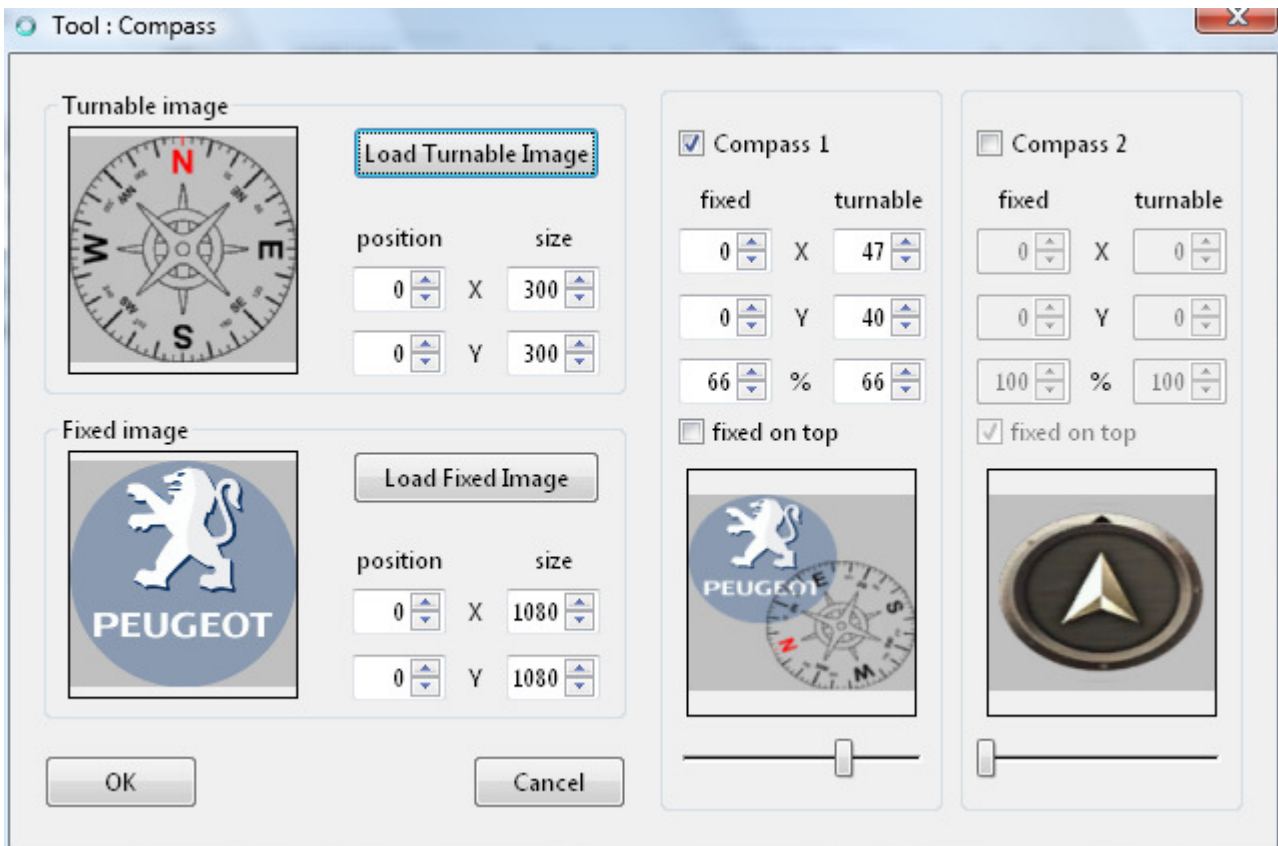
Decoration	Example
Simple lines	



Closing the window with OK, the program provides to generate the three images required to build the background of the main page. The result is visible in the section TXUR2000.

Compass

With this tool can set images for the two types of compasses used by the system.



Images of the compass are generated from an user image "turnable image", that should be created using the RGBT format or with the aid of the file `_TM.BMP`, and have identical dimensions WxH (square images). If the source image is not square will be distorted by lengthening the shorter side.

On the rotated image can be added, but is not required, a still image "fixed image", even this image should be created with transparency information (if necessary).

For both images you can crop a smaller area to be used, choosing the start point of the upper-left corner and dimensions, by check "position" and "size".

Now select the check box for compass that you want to change "Compass 1" or "Compass 2".

The values "X" and "Y" will define the position of the two images (fixed and rotatable) inside the compass box.

The value "%" is used to resize images, which by default are extended to the entire frame (= 100%).

The check box "fixed on top" decides the order of superposition of two images.

You can display the sequence of 17 images created by moving the cursor below the corresponding thumbnail image.

Automatic Updates

I thought to include in this first version of GPH_EDITOR, an automatic control to download any future updates.

Running the program without parameters on the command line, GPH_EDITOR asks you if you check for updates, if it finds an update and confirm the download, GPH_EDITOR download the new file, replacing the current file and executes it immediately.

At the end of the download in the folder where the GPH_EDITOR executable resides, you will also find a copy of the previous version, called GPH_EDITOR.OLD, which you can use if the new version has problems.

To avoid the question about checking for updates, you can create a shortcut to the program and insert the parameter "-nocheck" on the command line.

Version history

V01.00 11/11/2009

V01.01 20/11/2009

Fixed bug on add / delete pictures in the section TXUR2000

Fixed bug on loading file _TM.BMP (transparent mask)

Added Tools:

- Car Shape to change the image in the windows of the car diagnostics.
- Main Page Background to insert a unique image as the background on the main page.
- Compass for changing the images of the 2 sockets

Updates to the manual.

V01.02 25/11/2009

Add SW car layout for door open diagnostic in TOOL CarShape.

Add Import in section BFNT2000 and modified Export.

Add Import and Export in section TEXT2006.

Add Search and Replace in section TEXT2006

V01.03 14/12/2009

Add Modify in BFNT2000

V01.04 15/05/2011

Add type DXT2 in TXUR section (for RT6)

V01.05 11/11/2011

Add support for file type .BZ2 (for RT6)

V01.06 03/06/2012

Correct tool "mainpage" for files in hi-res of software version 8.20

V01.07 09/04/2013

Correct a bug which don't display of some sections.

V01.08 25/04/2013

List of system fonts sorted by name in Modify BFNT2000.

V01.09 06/07/2013

Correct bug for inversion of RGB color component in image of type BMP8.3.

V01.10 07/07/2013

Correct width and height dimension check in import/modify image in TXUR section.

V01.11 10/07/2013

Correct DXT1 image type conversion.

V01.12 13/07/2013

Correct DXT2 image import.

V01.13 30/10/2013

Add all section editor, but a lot are only partially editable.

Changed Modify BFNT dialog operation to match Unicode high byte value.

Credits

GPH_EDITOR is entirely written with Ultimate++:

<http://www.ultimatepp.org>

Ultimate++ has BSD license:

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I remind everyone that my work was possible because others peoples before me have discovered and made public, the basic knowledge about the RTx Magneti Marelli world, it is my duty to mention and thank:

dmatos for info give me privately and those in <http://rt4.wikidot.com>

Janfi67 for info give me privately and for all programs and documents made public on <http://www.planete-citroen.com>

all users of the forums I frequent and who shared with the other people information in their possession

<http://www.passionepeugeot.it>

<http://www.citroen-club.it>

<http://www.c4atreros.es>

<http://www.eurovan2.com>

web: <http://mira308sw.altervista.org>

email: mira308sw_at_libero.it

