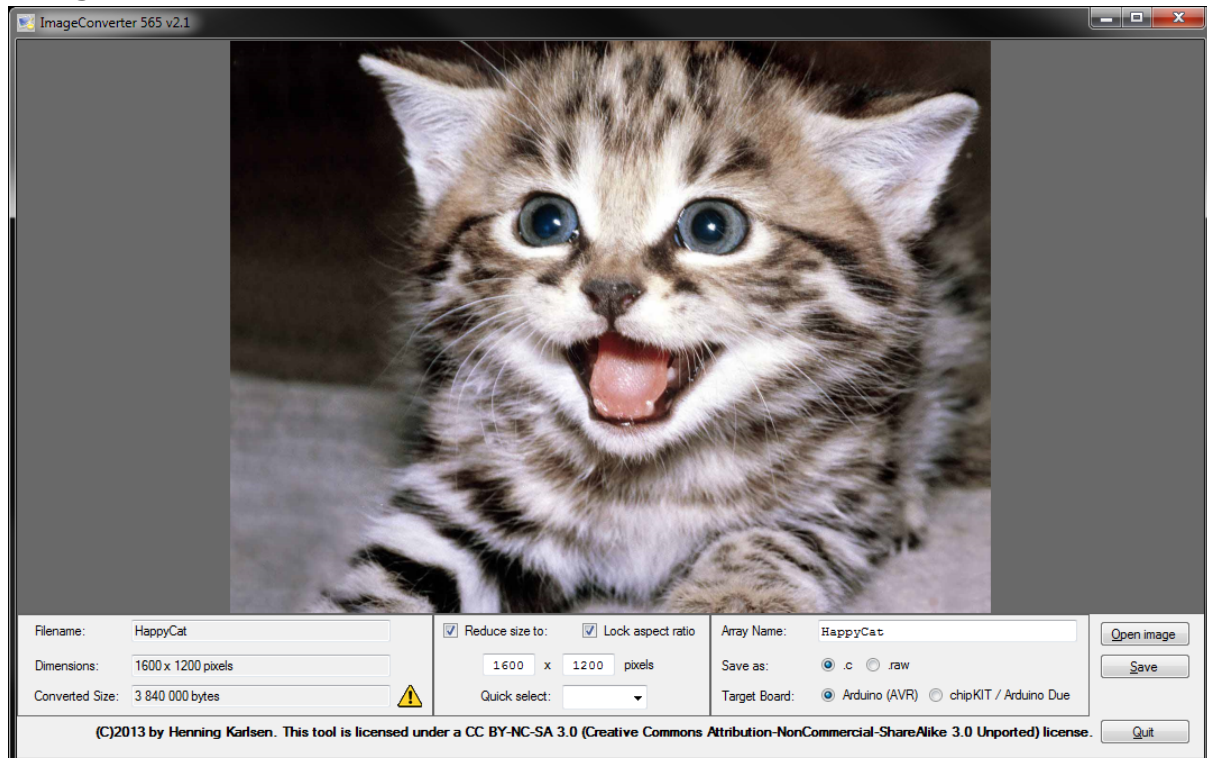# Image Converters

Part of the UTFT Tools suite

Manual

ImageConverter565.exe:

Filename:	When a supported image file has been opened this field will show the name of the file (without a file extenstion).
Dimensions:	Shows the dimensions of the currently loaded image in pixels.
Converted Size:	Shows the size of the converted image with the currently selected options.
⚠	If this icon is visible the resulting c array produced from the image will not be able to compile. This is due to a limitation in the AVR-GCC compiler. These limitations is only applicable for the Arduino (AVR) target platform and only when saving as a .c file.
Reduce size to:	Check this box to enable the image size reduction features.
Lock aspect ratio	When this box is checked the width to height ratio will be locked when entering new dimensions.
___ x ___ pixels	Enter the desired dimensions of the image in these boxes (Width x Height).
Quick Select:	Use this drop-down list to quickly select one of the pre-selected image dimensions. Using this drop-down list will de-select the Lock aspect ratio check box.
Array Name:	The name of the array when saving images as .c array files. The name is set to the filename of the loaded image file as a default. This field is disabled when saving as .raw files as no array name is needed.
Save as:	Select what type of file you want to save the image as.
Target Board:	Select what type of board the .c array file is indended for. These radio buttons will be disabled when Save as is set to .raw.
Open image	Click this button to open a new image for conversion.
Save	Click this button to save the converted image with the current settings. A progress bar will be visible at the bottom of the window during this process. An Abort button will also be visible while saving.
Abort	Click this button to abort the current conversion/save process. This button is only visible during conversion and saving.
Quit	Click this button to exit the program.

ImgConv.exe:

```
-------------------------------------------------------------------------
ImgConv v1.0 - (C)2013 Henning Karlsen
-------------------------------------------------------------------------
This tool is licensed under a CC BY-NC-SA 3.00 (Creative Commons
Attribution-NonCommercial-ShareAlike 3.0 Unported) license.
For more information see: http://creativecommons.org/licenses/by-nc-sa/3.0/
-------------------------------------------------------------------------

Usage:
      ImgConv <filespec> /c|r [/o <path>] [/t AVR|ARM|PIC32]

<filespec>:  File(s) to convert
parameters:  /c             - Create output as .c array files
             /r             - Create output as .raw files
             /o <path>      - Set the output directory to <path>
             /t <platform>  - Select target platform
                              AVR  : Most Arduinos
                              ARM  : Arduino Due
                              PIC32: chipKit boards

You must specify either /c or /r. All other parameters are optional.
If /o is omitted the current directory will be used for output.
If /t is omitted the target platform will be set to AVR.

C:\>
```

This command line tool can be used for batch conversions as well as for converting single images.

<filespec> can be the name of a single image or it can contain wildcards (* or ?) for converting multiple images. A full path to the file(s) can be included if the image(s) are not in the current directory.
The saved file will have the same filename as the image files that are being converted with the exception that the file extension will be changed to .c or .raw depending on what file type you are converting to.

You *must* specify either **/c** to convert the image(s) to .c array files or **/r** to convert to .raw file(s).

All output files will by default be saved to the current directory. To redirect the output to another directory you can specify the **/o <path>** parameter. The **/o** and the path must be separated by a space.

The default target platform is AVR (Most Arduinos) if the **/t** parameter is not used. To select another target platform you must use the **/t <platform>** parameter. Valid platforms are **AVR** (Most Arduinos), **ARM** (Arduino Due) and **PIC32** (chipKit boards). The **/t** and the target platform must be separated by a space.
This parameter has no effect when converting to .raw files.

This tool does not change the size of the image(s) so you must resize them to the desired size before running the conversion.

Examples:
To convert all the PNG images in the C:\My Pictures directory to .raw files and save them in the C:\rawImages directory:
        ImgConv "C:\My Pictures*.png" /r /o C:\rawImages

To convert a single image (testimage.jpg) in the current directory to a .c array file for chipKit boards (PIC32) and save the .c file to the current directory:
        ImgConv testimage.jpg /c /t PIC32

Both examples assume that the ImgConv.exe file is in the current directory or is available somewhere in the search path.

The source code for the tools are available upon request for the purpose of porting them to other operating systems