PicIcon

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Chapter 1

PicIcon

1.1   PicIcon 1.03

```
          PicIcon 1.03 - Icon Image Generator
```

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1.2   PicIcon: Introduction

PicIcon takes an IFF image file, both ILBM and ANIM formats are supported,
and creates an icon image showing the contents of the file. This allows
images to be more easily recognised from the Amiga Workbench.

PicIcon be used from both the CLI and Workbench, although it is more suited
to the Workbench environment with some functions only being available via
Workbench.

PicIcon is distributed as shareware. This version is fully functional
however a requester saying that is not registered will appear after
a number of files have been processed. See the copyright section for
details on how to register.

PicIcon requires AmigaDOS 2.04 (V37) or later to run.

1.3   PicIcon: Copyright

PicIcon release 1.03

PicIcon 1.03 and PicIcon project icon (hereinafter "Files") and
their related documentation and examples
(c) Copyright 1994 Michael J. Sheppard. All Rights Reserved.

This version of PicIcon is shareware. Permission is given to distribute
these Files freely via any means which preserves its copyrights. The
Files may not be sold for profit. Any distribution must include both
the PicIcon License file and the PicIcon documentation drawer complete
with contents.

The registered version of PicIcon contains the full source code and
removes the shareware message from it's operation. To register send
10 UK pounds, or $15 US, to ;

    PicIcon Registration.
    M.J.Sheppard
    163, Sapgate Lane,
    Thornton
    Bradford
    BD13 3DY

If you include an Internet email address with your registration then I
will keep you informed of updates to PicIcon and their availability.

These Files and their related documentation and examples are provided
"AS-IS" and subject to change without notice; no warranties are made.
All use is at your own risk. No liability or responsibility is
assumed.

1.4 Using PicIcon

PicIcon can be started from either the Workbench or CLI.

PicIcon has two modes of operation. It can either try and match the colours
in the file with those currently in use by Workbench, or just assign colours
on a modular basis i.e. Areas in colour 1 in the file appear as colour 1 in
the icon. For any file whose image has greater than 256 colours PicIcon will
always try to match the colours. For images with fewer than 256 colours the
method used can be set by the user via the match colours checkbox
on the settings window.

When matching colours PicIcon looks for the nearest colour based on colour
intensity. This can result is some unexpected colour choices. For example
for a greyscale image PicIcon may introduce some colour in the icon this is
because there aren't enough greys in the Workbench palette to match all of
the colours to a grey. More information about PicIcons colour matching can
be found in the Hints and Tips section of this document.

1.5 PicIcon: Workbench Startup

To start PicIcon from Workbench double-click on the PicIcon icon with the
left mouse button. After a few seconds an application icon will appear on
the Workbench.

PicIcon recognises an number of tooltypes to modify it's operation:

    SETTINGS
    WIDTH
    HEIGHT
    DEPTH
    QUIET
    FONT
    FONTSIZE

To create an image drag the icon of a file onto the application icon and
release the mouse button. PicIcon will then process the file and create
an icon image.

If you double-click on the application icon a window is displayed allowing
you to change the current settings used to create icons.

To stop PicIcon either double-click on the PicIcon disk icon, or select the
quit item on the settings menu bar.

1.6   PicIcon: Settings tooltype

SETTINGS=<filename>

This is the name of a file containing PicIcon settings to use
when processing the files. New settings files can be created
using the Settings window.

If this parameter is not present then PicIcon will load the
default settings file, S:PicIcon.config.

1.7   PicIcon: Width tooltype

WIDTH=<pixels>

This is the width, in pixels, of the icons created by PicIcon.
This value overrides the value stored in the settings file.
Default = 48

1.8   PicIcon: Height tooltype

HEIGHT=<pixels>

This is the height, in pixels, of the icons created by PicIcon.
This value overrides the value stored in the settings file.
Default = 20

1.9 PicIcon: Depth tooltype

```
DEPTH=<planes>
```

```
This is the depth, in planes, of the icons created by PicIcon.
This value overrides the value stored in the settings file.
This effects the number of colours used in the icons and can
be 2, 3 or 4 for 4, 8 or 16 colours respectively.
Default = 3 ( 8 colours ).
```

1.10 PicIcon: Quiet tooltype

```
QUIET
```

```
By default PicIcon displays a window showing the progress is it
making processing each file. This option stops this window appearing.
This can be overridden using the Quiet option on the Settings menu.
```

1.11 PicIcon: Font tooltype

```
FONT <name>
```

```
PicIcon uses the system default font for all windows. This option
allows you to specify a particular font to use for the windows.
```

```
The FONTSIZE tooltype should be used to set the
size of the font.
```

1.12 Picicon: Fontsize tooltype

```
FONTSIZE <pixels>
```

```
This tooltype allows you to set the size of the font given in the
FONT tooltype.
```

1.13 PicIcon: CLI Startup

```
PicIcon processes all of the files listed on the command line and exits.
If an error is detected when processing a file then PicIcon will continue
to the next file if possible.
```

```
The command template for PicIcon is as follows;
```

```
PicIcon FILES/M,SETTINGS/K,WIDTH/K/N,HEIGHT/K/N,DEPTH/K/N,QUIET/S,ALL/S
```

1.14   PicIcon: Files parameter

```
FILES/M
```

A list of files to create icon images for. if this is an AmigaDOS pattern
PicIcon will process all files that match the pattern.

```
E.g.
      PicIcon  #?.ham

      Will create icon images for all files in the current drawer having
      names ending in '.ham'.
```

1.15   PicIcon: Settings parameter

```
SETTINGS/K
```

This is the name of a file containing PicIcon settings to use
when processing the files. New settings files can be created
using the Settings window.

If this parameter is not present then PicIcon will load the
default settings file, S:PicIcon.config.

1.16   PicIcon: Width parameter

```
WIDTH/K/N
```

This is the width, in pixels, of the icons created by PicIcon.
This value overrides the value stored in the settings file.
Default = 48

1.17   PicIcon: Height parameter

```
HEIGHT/K/N
```

This is the height, in pixels, of the icons created by PicIcon.
This value overrides the value stored in the settings file.
Default = 20

1.18   PicIcon: Depth parameter

```
DEPTH/K/N
```

This is the depth, in planes, of the icons created by PicIcon.
This value overrides the value stored in the settings file.
This effects the number of colours used in the icons and can

be 2, 3 or 4 for 4, 8 or 16 colours respectively.
Default = 3 (8 colours).

Note: Under Workbench 3.0 the choice of icon depth is limited
      to 2 or 3 giving 4 or 8 colours only. This is due to the
      change in colour handling introduced for Workbench 3.0.

1.19   PicIcon: Quiet parameter

QUIET

By default PicIcon displays the names of the files as it processes them.
Setting this flag stops PicIcon from displaying this information.

1.20   PicIcon: All parameter

ALL

This flag causes PicIcon to process all of the files in the directories
specified in the FILES argument, including any subdirectories that
they might have.

1.21   PicIcon: Settings Window

The settings window allows you to modify the current settings used to create
icon images. It is activated by double-clicking on the PicIcon application
icon. The effects of the changes are controlled by the three buttons at the
bottom of the window, @{ "Save" link sw_save }, @{ "Use" link sw_use }, and @{ " ←
    Cancel" link sw_cancel }. No changes made to the window
will have any effect on the creation of images until one of these three
buttons is pressed.

The settings that can be changed from this window are ;

    Width   The width of the icon in pixels
    Height   The height of the icon in pixels
    Colours   The number of colours in the icon
    Border   Whether the icon should have a border
    Match Colours   Whether PicIcon should match image/workbench colours
    Free Position   Whether PicIcon should free the icon position
    Replace Tool   Whether PicIcon should set the icon default tool
    Default Tool   The default tool PicIcon should give icons
    Tool types   The Tool types to use with the default tool

As well as displaying the window a menu bar is installed allowing you
to load and save settings and quit PicIcon.

1.22   PicIcon: Settings window - Width

```
Gadget Type  : Slider
Value range  : 20 - 80 pixels
Shortcut key : w
```

This gadget allows you to change the width of the icons produced. When making changes to the dimensions of the icon you should consider the dimensions of the original image to limit to amount of distortion in the resultant icon.

1.23   PicIcon: Settings window - Height

```
Gadget Type  : Slider
Value range  : 10 - 40 pixels
Shortcut key : h
```

This gadget allows you to change the height of the icons produced. When making changes to the dimensions of the icon you should consider the dimensions of the original image to limit to amount of distortion in the resultant icon.

1.24   PicIcon: Settings window - Colours

```
Gadget Type  : Slider
Value range  : 4,8, or 16* colours
Shortcut key : l
```

This gadget allows you to change the number of colours in the resultant icon image. When selecting this bear in mind the number of colours that you normally use for your Workbench screen.

*: Under Workbench 3.0 the option for 16 colours is not available.

1.25   PicIcon: Settings window - Border

```
Gadget Type  : Checkbox
Shortcut key : b
```

If this is checked then PicIcon will draw a box around the resultant image making it appear that icon has a border around it. PicIcon takes advantage of the Workbench 3D icons to produce a border with a minimum loss of image.

1.26   PicIcon: Settings window - Match Colours

```
Gadget Type  : Checkbox
Shortcut key : m
```

If this gadget is checked then PicIcon will attempt to match the colours in

the image to those currently in use by Workbench. For images with more than
256 colours PicIcon ignores this and matches the colours anyway.

1.27   PicIcon: Settings window - Free Position

```
Gadget Type  : Checkbox
Shortcut key : p
```

If this box is checked then PicIcon 'UnSnapshots' the icon allowing
Workbench to position it appropriately. This is useful if the size
of the icon is changed.

1.28   PicIcon: Settings window - Replace Tool

```
Gadget Type  : Checkbox
Shortcut key : r
```

If this gadget is checked, and a default tool is given, PicIcon will
replace the default tool in the icon with that defined. Otherwise
PicIcon will only replace the default tool if the icon previously had
no tool defined.

1.29   PicIcon: Settings window - Default Tool

```
Gadget Type  : String
Maximum size : 128 characters
Shortcut key : t
```

This string is the name of the program to execute when the icon created
is double clicked. How the value is used depends on the setting of the
@{ "Replace Tool" link sw_replace } gadget.

1.30   PicIcon: Settings window - Tooltypes

```
Gadget Type  : Listview
Shortcut key : none
```

The tooltypes used when creating an icon are displayed in the listview gadget,
these are only used when PicIcon sets the default tool of the icon it has
created an image for.

It is not possible to edit the values in the listview directly so this has to
be done using the New and Del gadgets. These allow tooltypes to be added and
deleted from the list respectively.

1.31   PicIcon: Settings window - New

```
Gadget Type  : Button
Shortcut key : n
```

Pressing this button adds a new tooltype to the list of tooltypes. It allows
you to type in the value of this tooltype into the string gadget to the left
of the New and Del buttons. Each tooltype can be up to 128
characters long.

1.32   PicIcon: Settings window - Del

```
Gadget Type  : Button
Shortcut key : d
```

Pressing this button deletes the currently selected tooltype from the list
of tooltypes. This button is only enabled if you have a tooltype selected.

1.33   PicIcon: Settings window - Save button

```
Gadget Type  : Button
Shortcut key : s
```

This button causes the settings in the window to be made the current
ones used by the program and saves those settings to the default settings
file. It also exits from the settings window.

1.34   PicIcon: Settings window - Use button

```
Gadget Type  : Button
Shortcut key : u
```

This button exits from the settings window and makes the settings displayed
in the window the current settings.

1.35   PicIcon: Settings window - Cancel button

```
Gadget Type  : Button
Shortcut key : c
```

When this button is pressed the settings window is removed and all changes
made are abandoned.

1.36   PicIcon: Settings Menu

Whilst the window is active PicIcon installs a menu bar allowing a number
of extra features to be selected.

Project menu

Create Icon
About
Quit

Settings menu

Quiet
Load Settings
Save Settings
Save Settings As

1.37   PicIcon: Settings Menu - Create Icon

Shortcut Key: Amiga C

The option displays an ASL file requester allowing you to select a number
of files to create icons for. Selecting the OK button on the file requester
causes PicIcon to process all of the files selected.

If changes have been made to the values in the settings window they are not
taken into account when creating the new images.

1.38   PicIcon: Settings Menu - About

Shortcut key: Amiga ?

A requester is displayed showing information about PicIcon. This includes the
version number of the PicIcon being run.

1.39   PicIcon: Settings Menu - Quit

Shortcut key: Amiga Q

Selecting this menu option causes PicIcon to exit.

1.40   PicIcon: Settings Menu - Quiet

```
Shortcut key: none
```

This menu option toggles whether the progress window is displayed when files
are being processed. If the tick symbol is shown by the option then the
progress window will not be shown.

The initial setting of this can be set using the QUIET tooltype.

1.41   PicIcon: Settings Menu - Load Settings

```
Shortcut key: Amiga L
```

An ASL file requester is displayed allowing a settings file to be selected
for loading. Pressing the OK button causes the values in the file to be
loaded into the window. This will not effect the current settings used by
PicIcon when creating images until either the Save or Use buttons are selected,
the loaded values can be removed by selecting the Cancel button.

1.42   PicIcon: Settings Menu - Save Settings

```
Shortcut key: Amiga S
```

This saves the current values displayed in the window to the default settings
file S:PicIcon.config. If no Settings tooltype or parameter is given when
PicIcon is started then these settings will be used whenever PicIcon is run.

1.43   PicIcon: Settings Menu - Save Settings As

```
Shortcut key: Amiga A
```

This option displays an ASL save requester allowing you to save the values
displayed in the window to a named settings file. This file can be used in
future, either by giving it as the settings tooltype or parameter or from
the Load Settings menu option, to change the values used by PicIcon to create
images.

1.44   PicIcon: Hints and Tips

If you are using a 4 colour Workbench then set PicIcon to not match
colours. There are not enough different display colours available to allow
meaningful colour matching.

If you are using an 8 colour Workbench with colour matching adjust the
palette so that you get at least one red, green, blue and yellow. This
will give PicIcon an easier job in trying to match the colours and result
in better, more recognisable icons. An example 8 colour palette is present
in the PicIcon release.

If you find that PicIcon is matching colours in an unexpected manner you should try and adjust the Workbench palette. If you find that PicIcon is using changing the colour of an area in the image when a similar colour is present in the palette try adjusting the RGB values of both palette colours so that they are similar in intensity. An example of this would be a dark green area on the image being represented by a dark brown area on the icon when a light green is present in the palette. To solve this problem make the green a little darker until the correct result is obtained.

For complex images try and make the icon image as large as possible. Small icons of complex pictures look cluttered and are not easily recognisable.

1.45   Notes for Workbench 3.0

With Workbench 3.0 a number of changes were introduced regarding the way in which colours are defined and used by Workbench. This can result in some odd behaviour from PicIcon.

For correct operation under Workbench 3.0 you should either create only 4 colour Icons, in which case PicIcon will use the first 4 colours defined by Workbench, or use an 8 colour screen mode with 8 colour icons.

If you try and create 8 colour icons using a screen mode with more than 8 colours then PicIcon may have problems trying to match with colours 5 to 8.

1.46   PicIcon Limitations

PicIcon will process all ILBM files with 6 or fewer planes, including HAM and extra-half brite files. In addition PicIcon will process 24 bit ILBM files. All ANIM files made up of images of any of the above formats will also be processed.

This version of PicIcon will not process 256 colour or HAM8 files. Also it will not process 24bit DEEP, NewTek 21bit, HAME or DCTV files.

1.47   PicIcon Change History

```
  Version        Change description

   1.03         - The Workbench colours are now read directly from the screen
                  rather than the preferences file. This corrected operation
                  under Workbench 3.0. See @{ "Notes for Workbench 3.0" link wb3}  ←
                     above.
                  PicIcon now notices when the palette is changed and updates
                  it's internal colour table accordingly.

   1.02         - The tooltype array used to create the new icon was not NULL
                  terminated causing random errors when trying to add tooltypes
```

```
                        to an icon, including infinite updating and spurious tooltype
                        entries. Fixed.

    1.01            - Changed name of button used to create a new tooltype from
                        Add to New to be consistent with other programs.

                    - If PicIcon expects to be able to match colours but there
                        is no CMAP chunk in the ILBM IFF form then a warning is
                        displayed before the file is processed.


    1.00            - Initial Release.
```

1.48 PicIcon Bug reports

If you find a bug in PicIcon or have a file that it will not process then
please contact;

    Michael J. Sheppard
    163 Sapgate Lane,
    Thornton.
    Bradford.
    BD13 3DY.
    United Kingdom

    Email: mick@genasys.co.uk

If the problem is one where you cannot process a file please include details
of the format of the file, if known, and the software used to produce it. The
more information you provide me with the more likely I am to be able to find
an answer.

1.49 Acknowledgments

PicIcon was written and tested on an unaccelerated Commodore Amiga A2000 with
a GVP Series II SCSI controller card and 52MB Quantum Hard Disk.

PicIcon was developed using SAS/C 5.10 and the Commodore V37 Native
Developer Kit.

The windows were designed using GadToolsBox 2.0. Thanks to Jan van den Baard
of Jaba Development for this very useful product.

Thanks to David Sheppard for testing and suggestions.