

QDT IconDraw User Manual

Version History:

12-28-04	Original	
01-03-05		Minor spelling/grammer fixes
01-23-05	Vers 1.00	minor cleanups, released
10-27-05	Vers 1.01	Added Color Picker and RTIF background color cycling
01-19-14	Vers 1.10	Freeware version, minor cleanups, removed Qmenu

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Document Notes:

- {vn.nnc} in the margin indicates that this section pertains to a feature from this version onwards
- {future} in the margin indicates that this is a planned but not yet implemented feature

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Introduction

One of the cool things with any desktop environment is the graphics. Whether a user has the talent for designing cool icons or would rather just 'borrow' some of the thousands of publicly available ones, the idea is to use icons to make the desktop both pleasing to look at and easier to get around in. The human mind is very graphically oriented in the way it processes data. Meaningful, pleasant, well placed icons have a major impact on the usability of a computer's desktop.

IconDraw is a utility that allows the QDT user to import icons from other sources to the QDT format, to modify the imported icons, or to totally design new icons from scratch. The QDT format is specific to QDT only and was designed to reduce memory/disk space usage.

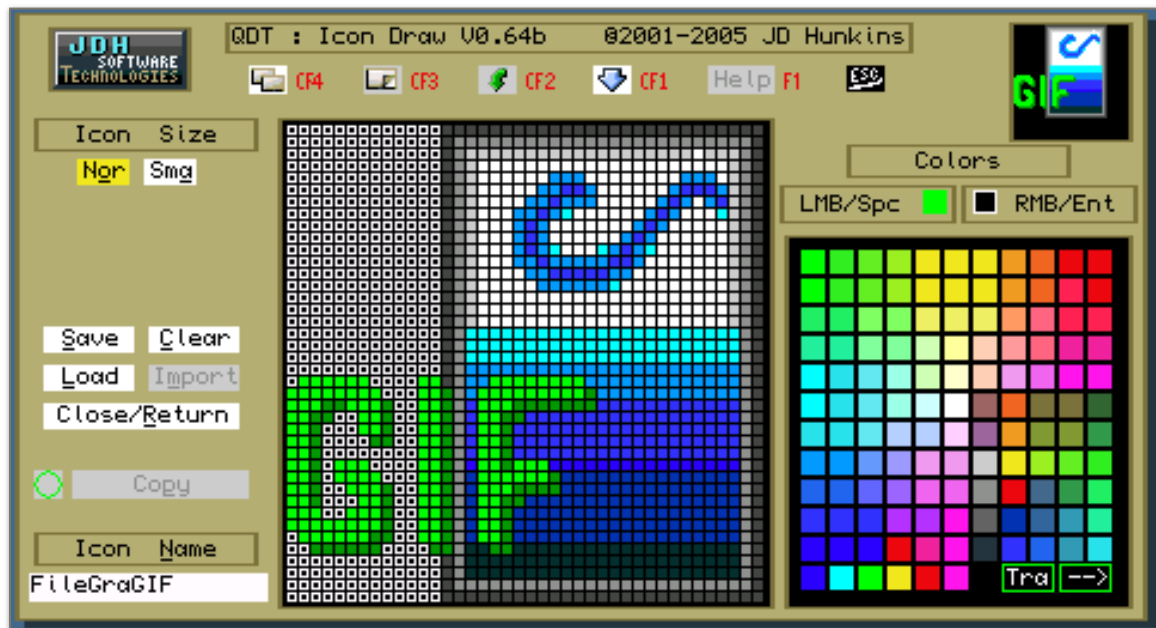


Figure 1 : The IconDraw Window

Sections

Loose Items

The row of items along the top of the display are loose items with standard QL functionality.

Command/Format

This area is on the left. Here one can set the size of the icon, do icon file operations, and name the icon.

Design Window

This is the large window in the center where the user draws/designs the icon itself. In this window, every square is equal to a pixel (a dot on the screen). The white squares with the dark center in this window represent transparent pixels. Any thing behind the icon will show through them. All other colors are represented as solid colored squares.

Real Time Icon Display Window [RTID]

As the user designs the icon, its actual sized image is drawn in parallel in the upper right hand corner window.

By clicking on that window (shown here in pink), the background color rotates through the original QL's 8 colors, allowing the user to see how the icon will look against different backgrounds.



Figure 2: The RTID Window

Color Choice Window

The window in the lower right corner (the colored blocks) allows the user to select the color used for both the left and right mouse buttons. Approximately one half of the available colors are shown at one time as is shown in Figure 2. The arrowed rectangle in this window switches the color selection to the alternate group of colors. Chosen colors for both mouse buttons are displayed just above this window.

Functions and Controls

If a control item has text with an underscored letter, then that letter can be used as a Hot Key to select that item instead of using the cursor and mouse. buttons.

Selection terminology and alternates are given here:

- LMB = single click with the left mouse button
 - . alternate method is the [SPACE] bar instead of the button
- RMB = single click with the right mouse button
 - . alternate method is the [SPACE] bar instead of the button

Loose Items

- | | | |
|---------|-------|---|
| Move | [CF4] | standard QL Move |
| Resize | [CF3] | not implemented at this time |
| Refresh | [CF2] | not implemented at this time |
| Sleep | [CF1] | standard QL Sleep |
| Help | [F1] | not implemented at this time |
| Esc | [ESC] | closes IconDraw and gives an option to save |
| Picker | [P] | chooses the color picker |
| RTID | | cycles through background colors |

Icon Size : Normal vs Small

Icons in QDT come in two sizes; Normal = 40x40 pixels and Small = 20x20 pixels. The highlighted button here represents which mode is currently active. Clicking on the non-highlighted button will switch the size mode and redraw the Design and Real Time Icon Display windows, showing the correct number of pixels across and the current design, if any, for that size.

For most people, normal will be the preferred size as it allows the user to get the most detail in the icon, making it easier to see and quicker to recognize.

The small size has the advantage of allowing the user to squeeze as much as possible onto the desktop. Be aware that this, if improperly used, can create a very cluttered desk and negatively impact the usability of the computing environment.

The small icons are also likely to be more commonly used in the planned File Manager.

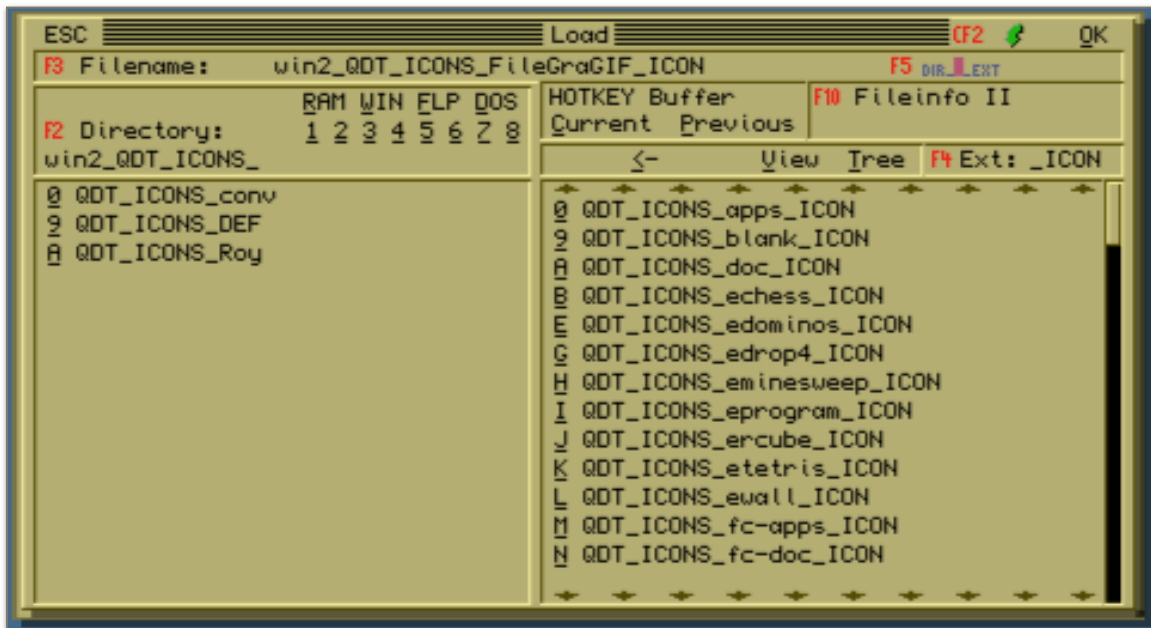


Figure 3 : the QMenu Icon Load Window

File Handling

Load/Save

These options bring up the file load or save window as is appropriate. If QMenu is installed, then the full QMenu window will be used as shown in Figure 3. Otherwise a small text entry windows will be displayed.

The menu will default to the QDT icon location which is kept in the system variable QDTICON_LOC. The directory can be changed if needed.

It will also default to only showing files with the _ICON suffix (required by QDT). This can be changed.

QDT will NOT recognize any ICON without the ICON suffix or not in the set directory location. Icons stored in other locations can be edited and then moved and renamed as needed.

Saving is somewhat intelligent. IconDraw will only save a size if it has one or more pixels that is not transparent. Therefore, if the user does not draw one of the sizes, the resulting Icon file will be smaller in size.

If the user chooses save when both sizes are empty, then the save request will be ignored.

Any modified Icon will not be visible in QDT until a restart unless it had **not** been loaded yet for the size indicated. An icon will have been loaded if it was in the Desktop_QDT file at startup or was loaded through a notebook after that.

The default icons are used if an icon with the size requested can not be found or as the default when adding a new object. These default Icons can be modified with IconDraw but the saved versions will not be used until they have been imported into the QDT base with the separate Icon Manager. The default ICON names are:

folder_c	folder_o	xfolder_c
text	graphic	unknown
prog		

Close/Return [ESC]

This button (or pressing the [ESC] key) will close IconDraw. An option menu pops up to give possible responses to the “OK to Quit?” question of:

Yes – no save	[Y]
Yes – with Save	[S]
No	[N]

Clear

[\[0.63b\]](#) Clear is pretty straight forward. It will clear {set all pixels back to transparent} either the size being displayed or both sizes, depending on the choice made. Clear brings up an option window with buttons representing:

Abort [A]	
Normal [N] or Small [S]	{ matches the current mode }
Both [B]	

Import

[{future}](#) This feature allows importation of different graphics formats. Obviously, sizes and colors that match the QDT requirements will result in accurate representations after the import. Any variances will cause variances in the imported image that may require touching up.

The currently supported formats are:

Table 1 : Import Formats

Format	Vers	Sizes	Rules	Scheduled Availability
Windows BMP		20x20 40x40	Non-inverted 24 bit, non-compressed	In development
Windows ICON				planned

When creating a base image in an outside graphical environment for import into QDT as an ICON, please be aware of the QDT Icon color palette. Refer to Appendix 1 for more details. A color swatch of this palette for Adobe Photoshop and compatible programs is available on the QDT website. A full listing of the exact colors in this palette are available in the Icons technical manual listed in the Appendix section. Use of colors outside of this palette will result in variances in the quality of the import.

Copy

[{future}](#) This will attempt to copy the currently displayed size into the other size, expanding or compressing the pixels as is called for. It will replace any pixels already drawn.

Icon Name

This is likely to be an overlooked item until users get their hands on the Icon Manager being developed or start using the upcoming Theme capabilities.

Many icons will be parts of sets, which the Icon Manager will recognize. The reasons to use shorter names which likely will be different from the actual file names are:

- the display of the icons in the Icon Manager will be more readable
- having icons of the same name but in different sets will allow the Theme capabilities to simply swap icons set quickly and nearly transparently.

For example, if using the file name for the KWB series, for the Just Words open folder, the user could be looking at a name such as kwb-fc-JustWords or the simpler fcJustWords (kwb set, folder closed, apps) or even fc-JW. They could then have several Icons in different designs called fc-JW which would be physically in different Icon sets. Switching themes would use the same fc-JW icon name, just picking the icon from the different sets. This will allow, if the mood strikes, for going from a simple grey tone to a Garfield to a Candy Colored to whatever theme at the press of a few keystrokes.

The default name comes up as Unnamed for a new icon or if a name is not specified in the original file.

When saving a new Icon, the name is used as the basis for the saved name, which can be changed during the save process.

Color Usage and Drawing

In order to save room but give a fairly effective color palette, QDT uses approximately 256 colors and shades of grey for Icons. Please refer to Appendix 1 for more details on the QDT Icon Palette.

Picking a Color

Two colors can be active at one time, each being assigned to the left or right mouse buttons. The current colors are displayed just above the Color Choice Window as is shown in Figure 4.

To choose a new color for a mouse button, simply click on that color in the palette offered with the preferred mouse button and it will appear in the blocks above the palette (LMB or RMB) to confirm the selection.

To choose Transparent, click on the rectangle with the text "TRA" in the lower right hand corner of the palette window. The associated block above will be redrawn in black with a white border to verify that transparent is now active.

To get the alternate palette page, click on the rectangle with the arrow next to the Transparent rectangle and the new set of colors will appear. This selection will toggle back and forth between the two palette pages.

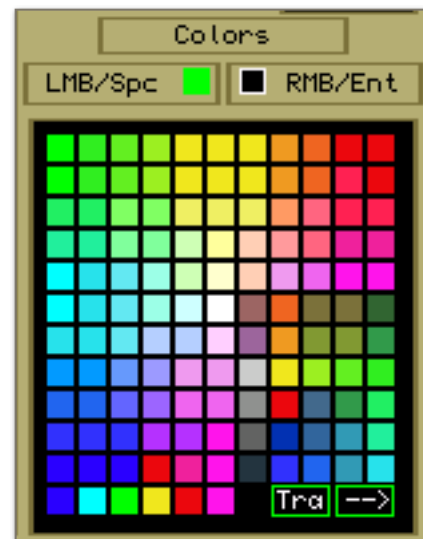


Figure 4 : Color Pick Window

Palette Organization

The palette is displayed in two pages and is organized to help find like colors quicker.

The QL's 6 standard colors are displayed on both palette pages in the bottom row, left side. Page 1 has white in the center, black to the right of the QL colors, and 4 shades of grey above the black.

Page 1 also groups the mid and light ranges of the colors along the left and top side, with a mixture of other colors in the lower right.

Page 2 has the darker shades of color laid out almost as if it was the back side of a surface that had page 1 on the front, wrapping around the edges. Page 2 also has 25 shades of grey plus black and white, allowing for some fairly smooth shading, etc.

Please note that not all systems will display the grey shades as well as others so some Icon designs that take advantage of these may not look as nice on the lower color resolution systems.

Setting Pixels

To set a pixel of an icon, after the color is chosen, simply place the cursor over the pixel to be set and click with the appropriate mouse button.

To draw a line, a useful technique is to position the cursor and then, holding down either the [SPACE] bar (LMB equivalent) or the [RETURN] key (RMB equivalent), use the arrow keys to move the cursor. If going to fast with this, a few pixels may be skipped but they can be touched up later. The cursor arrow keys can also be held down for several pixels, let the cursor key up momentarily and then repress it. This will help avoid the missed pixels.

Color Picker

By clicking on the eye dropper in the window or pressing 'P', IconDraw changes its pointer to that of an eye dropper in the main drawing window and waits for the user to pick the pixel color desired. This allows the picking of any color already in use in the icon instead of having to remember exactly what shade of that color it is and then finding it in the color pick window.

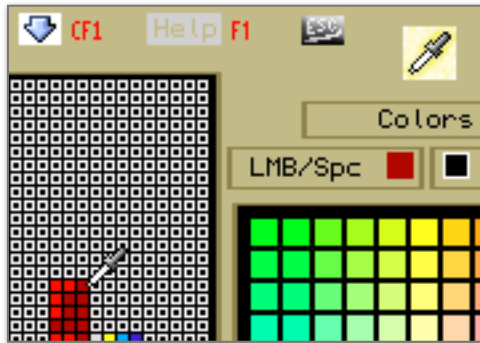


Figure 5: The Color Picker

As seen in the screen capture, by placing the tip of the eye dropper on the pixel with the desired color, pressing the left mouse button will pick the color into the LMB value; the same with the right mouse button into the RMB color.

The color picker is turned off after any color pick is done. It can also be canceled by re-clicking on the eyedropper or pressing 'P'. When active, the draw window is reshaped to that of an eye dropper and the color picker loose item is shaded yellow.

Icon Design Tips

Background versus Edge Colors

It is a good idea, at least until Alpha transparency is brought to QDT, to be very careful on the Icon edges. A useful tip is to always edge the Icon with a distinctive color and/or border. The normal size icon in Figures 4 and 5 is done this way and looks good with both light and dark backgrounds.

The reason for this recommendation is that, while one icon's edge may look great on a dark or light field, when putting it against the opposite type of background, suddenly it looks like garbage instead of the beautifully designed work of art that was labored over.

For example, if a light background is used, a bit of grey shading along the border may look great, smoothing the transition (commonly done by advanced image editing software). But place this edging on a dark background and those lighter shades of grey will no longer look like a transition but instead like little lights going off or a band of brightness. The small icon in

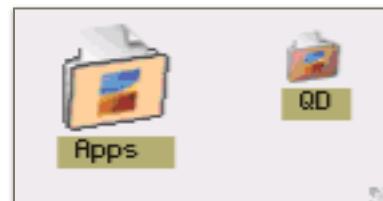


Figure 6 : Light Background



Figure 7 Dark Background

Figures 6 and 7 were done this way. While this icon looks very nice on the light background in Figure 6, the edge around it can definitely be seen in Figure 7 – not a nice thing.

Transparency

The use of transparent pixels can be fun but it can also get ugly if not used right. A recommendation is to restrict transparent areas to either the outside of the icon or to large areas within.

The reason for this is two fold. QDT displays icons as actual windows that can sit on top of other windows. If the window underneath the icon with transparency has a lot of small detail, that will tend to blend into the icon and make the icon hard to see or confusing to look at. By avoiding small areas of transparency and using good edging, the icon will be able to better stand out, even against a cluttered backdrop.

The other problem is that, at this time, we don't have a way of automatically refreshing icons after windows move out from under them. If a window moves from underneath, any transparency in the icon will continue to show the old window pixels until a manual QDT screen refresh is issued. This may be fixed in the future but would take a very complex bit of programming so is not high on the priority list.

Icon Sharing

A large part of the QL community spirit is the sharing between its members. With this in mind, a space will be set up on the QDT website for sharing icons. Instructions for submitting icons (single or sets), rules of use, etc. will be posted, along with download locations for any icons accepted.

JDH Software Technologies has the final say and right of refusal to post any Icon for sharing for any reason, especially if there is any question of the ownership of the original graphics.

With that all said, please do share the little works of art so that we can all enjoy a more colorful and efficient computing environment.

The QDT website can be located from the JDH Software Technologies home page at:

<http://www.jdh-stech.com>

Appendixes

A : QDT Icon 256 Color Palette

For the SMSQ/E hi-color mode, the original QDT icon palette was taken directly from the default 256 color palette supplied by SMSQ/E and the extended colors capability. The 256 versus 16 million color selection was chosen to save two bytes per pixel in stored icons. Unfortunately, when viewing the original palette if displayed from colors 0 to 254 (255 is reserved by QDT for transparency), the color spread is not ideal for drawing and the arrangement made it difficult to find related colors.

To fix this QDT's implementation now gives a wider range of colors outside the original 256 color palette but preserves the original byte per pixel size savings. The icons will continue to store the data using a 256 color palette. However, when drawing the icons, the palette will be remapped by QDT into the full 24 bit real color thru an internally stored QDT Icon Palette.

The color selection of the new palette is derived from what are known as the internet safe colors. This is simply a mapping of 216 colors from the standard 16 million using a 6 x 6 x 6 grid. By taking each of the three colors and changing them from 0 to 255, incrementing them by 51 each time, 216 colors are achieved. The details can be seen at the website:

<http://the-light.com/coldclick.html>

In addition to this set of standard colors, QDT includes a total of 25 shades of grey. The 216 original palette only includes 4 shades. It should be noted that not all SMSQ/E capable systems may display all the additional grey shades equally and some detail may be lost if the extra shades are used.

IconDraw breaks up the palette into two different windows. It loosely takes the standard cube method of displaying the palette (see above web page for details) and remaps it into the two individual square windows. Each section within a window will have a light grey divider line to help visually separate each color grouping.

The most common of the 216 palette are mapped into both pages on the left and upper edges, with the bulk and brighter colors on page 1 (see below). The 6 primary colors are duplicated on each page in the lower left hand edge. On page 1 in the lower middle vertical, the 216 palette based grey shades are available. The same grey shades plus the additional shades from the QDT icon palette are displayed in about the same area on page 2. The blank areas in the images shown here (lower right) are used by IconDraw for 'transparent' and for page switching. The remaining colors from the 216 internet safe palette are grouped in the remaining sections on both pages, approximately in the middle right areas.

Both pages of the new QDT Icon palette are displayed here. For a comparison, the original palette page 1 is displayed to the right of the two new pages.



Figure 8 : Original QDT Icon Palette

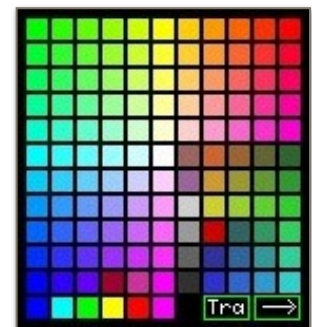


Figure 9 : New QDT Icon Palette, Page 1



Figure 10 : New QDT Icon Palette, Page 2

B: Software License and Warranty

The following is a direct copy of the license that is included with the QDT package. It can be read from within the QDT installer where the user agreement is required before the installation can be continued. The text can also be found in the QDT DOCS_ directory as "license_txt".

End-User License Agreement for QDT (QL Desktop)
All Official Full Release Versions

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Support and Additional Material Supplied By:

Graphics/Color Development Support:

Thorsten Herbert, Italy

Additional Icons By:

Roy Wood, England

Included Non-licensed code : no charge distribution

FileInfo2

FI2config_obj

FileInfo2_bin

FileInfo2_txt

FI2config_help

Copyright © 1993-1999 Thierry Godefroy

MenuConfig 02

Copyright © 1992-2003 Jochen Merz Software

Recommended additional software (not included):

QMenu menu extensions

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C: Additional Manuals and Technical Documents

As of the latest update of this manual, the following documents are either available or in preparation.

User Manuals

QDT Quick Start Guide

QDT User Manual

QDT Installer User Manual

QDT Notebook User Manual

Technical and Other Documents

QDT Icons Technical Reference

QDT: Icon Color Swatch for Adobe Photoshop