IconTrace

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	TITLE : IconTrace			
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Chapter 1

IconTrace

1.1   IconTrace Guide 2.00 Copyright © 1993 P. Stuer

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Welcome to the IconTrace AmigaGuide®. Select any of the following

topics and follow the links to other subjects as you please:

1.2   About AmigaGuide

Contents - Display the Table of Contents document for the current database.

Index - Display the index document for the current database.

Help - Display the help document for the current database. If the

database doesn't have a Help document of its own, then the

global Help database will be used instead.

Retrace - Go back to the previous node.

Browse - Step through the documents in sequential order, in the order

they appear in the database.

1.3 Introduction

IconTrace is a program that allows you to monitor what the
icon library is doing when you start a program using the
Workbench. It's main use lies in discovering undocumented
ToolTypes and debugging your existing ToolTypes by watching if
the program finds them correctly. You are also shown what icons
your programs look for.

1.4 Features

Currently the following functions can be monitored:
FindToolType GetIcon
GetDiskObject MatchToolValue
GetDiskObjectNew PutDiskObject
GetDefDiskObject PutDefDiskObject
PutIcon
You can specify which functions IconTrace should monitor.
IconTrace saves the trace information it gathers as session
history. It provides a scrollbar which enables you to scroll
through the session history.
IconTrace is also a commodity. You can specify a hotkey to show
or hide the output window.
IconTrace can open on any public screen.

1.5 System Requirements

IconTrace should run on any Amiga system with at least 512K
RAM and one disk-drive. IconTrace requires KickStart v2.04 or
higher to run. Special care has been taken in the program design
to make the program work with 68020, 68030 and 68040 processors
without sacrificing 68000 compatibility.
IconTrace also requires the ReqTools.library v38 or higher.
ReqTools is copyright © 1992, 1993 by Nico François.
IconTrace is KickStart 3.0 compatible and aware. It will show
you some of the new features available with this version of the
operating system.
Should you have any trouble running IconTrace on your machine,
please write to me with the full specifications of your machine,
that is KickStart version, model, expansion boards etc...

1.6 Using IconTrace

You can be start IconTrace from the CLI/Shell or the
Workbench. IconTrace will always check to make sure it is not
already running. If so, the copy of IT that is already running
will be notified and its window will open or come to the front.
The second copy will exit quietly.

Starting IconTrace from the Shell

Shell Startup Options

Starting IconTrace from the Workbench

Workbench Startup Options

Stopping IconTrace

1.7 Starting IconTrace from the Shell

To start IconTrace from the Shell simply type:

1> IconTrace

followed by a return. If you want to continue using the Shell
while IconTrace is running, you need to prepend the Run command
before IconTrace as follows:

1> run IconTrace

If IconTrace is succesful in initializing itself, you see the
IconTrace window and will start monitoring the icon.library. If
no window is displayed, consult Appendix A (Troubleshooting) for
more assistance.

1.8 Shell Startup Options

IconTrace can be started with various options. If you run
IconTrace with a questionmark (?) as argument you'll get the
argument template.

HISTORY

This option tells IconTrace how many lines of history it
should keep. Use 0 to disable the history feature. The default
number of history lines is 256.

OUTPUT

With this option you can direct the trace information to some
other AmigaDOS device of file in addition or in place of the
information being displayed in the window.

If you have a debugging terminal attached to the serial port
you could use 'IconTrace OUTPUT=AUX:' to have all trace
information appear at the terminal.

A special symbol is DEBUG. 'OUTPUT=DEBUG' will output all
trace information to the serial port at 9600 baud.

WIDTH

This option specifies the width of the IconTrace output window
in pixels. By default, IconTrace will open a window that is as
wide as the visible width of the public screen it is appearing
on.

HEIGHT

This option specifies the height of the IconTrace output
window in screen lines. By default, IconTrace will open a
window that is as high as the visible height of the public
screen it is appearing on, without overlapping the title bar.

SCREEN

If you do not use this option, IconTrace will open on the
default public screen which is most of the times the Workbench
screen. IconTrace will try to open on the public screen whose
name is specified after this argument.

TRACEMASK

By specifying a trace mask you can determine which
icon.library functions IconTrace will actually trace. The
trace mask consists of a string of characters. The function
corresponding to the character will be traced. Use the
following characters:

A: GetIcon F: PutDiskObject

B: GetDiskObject G: PutDefDiskObject

C: GetDefDiskObject H: FindToolType

D: GetDefDiskObjectNew I: MatchToolValue

E: PutIcon

For example, TRACEMASK=HI will only trace the icon.library
FindToolType() and MatchToolValue(). By default, IconTrace
monitors all icon.library functions it knows about.

CX_PRIORITY

This option allows you to specify priority relative to the
other Commodities programs. Default priority is 0.

CX_POPKEY

This option allows you to change the default hot key for

IconTrace. The default hot key is 'ralt i' (right Alt key

pressed with 'i').

CX_POPUP

If you do not want IconTrace to open its window, you can

specify the CX_POPUP switch like this: DT CX_POPUP=NO. By

default, the IconTrace window will open.

CX_ACTIVE

By specifying CX_ACTIVE=NO, IconTrace start without its

tracing code enabled. By default, tracing starts immediately.

1.9   Starting IconTrace from the Workbench

To start IconTrace from the Workbench, simply double-click

on the IconTrace icon to start the program or use the 'Execute

Command' item from the 'Workbench' menu.

1.10   Stopping IconTrace

You can stop IconTrace at any time by sending it a break signal. If

you started IconTrace from the Shell, you can do this by pressing

Ctrl-C.

Since IconTrace is a commodity you can use the Exchange utility to

control it.

'Show Interface' will open the IconTrace output window

'Hide Interface' will close the IconTrace output window

The 'Active/Inactive' cycle gadget will toggle IconTrace's

activation status. When IconTrace is active it will update it's

internal history even when the output window is closed; when it is

inactive, no output will occur.

The "Active" menuitem of the "Project" menu will also allow you to

toggle the activation status of IconTrace.

'Remove' will tell IconTrace to quit.

The 'Quit' menu item will exit IconTrace.

NOTE

IconTrace will try to quit immediately. If any of the

patches are still in use, it will wait until no

program uses the IconTrace patches anymore.

1.11   Workbench Startup Options

You can specify the same options as explained in the
paragraph "Shell Startup Options" by adding tooltypes to the
IconTrace icon.
NOTE
If you use the CX_POPUP and/or the CX_ACTIVE tooltype
you must specify them with '=YES' appended to them.
For example, 'CX_POPUP=YES'. Not using them defaults
to CX_POPUP=YES and CX_ACTIVE=YES.
To change the task priority of IconTrace you can add the TOOLPRI
tooltype to the IconTrace icon. For example, adding TOOLPRI=5 will
start running IconTrace with task priority 5.

1.12   About the trace output

The information shown depends on which function is being traced
but all messages have 3 components in common:
Process Name The name of the process calling the
icon.library function.
Trace Info Verbose information about the function
being executed.
Result Whether the call was succesfull or not
(if applicable)

1.13   Legal Stuff

COPYRIGHT NOTICE
IconTrace software and documentation are Copyright © 1993 by Peter
Stuer. All rights reserved.
DISCLAIMER
IconTrace has proven to be stable in everyday use. The author is
not responsible for any loss of data, damages to software or
hardware that may result directly or indirectly from the use of
this program. The author reserves the right to make changes to
the software or documentation without notice.
PREFACE
This program is freeware, this means that you can copy it freely
as long as you don't ask any more money for it than a nominal

fee for copying. If you want to distribute this program you should keep this document with it. This program cannot be used for commercial purposes without written permission from the author.

None of the files of the IconTrace package may be modified or left out without permission of the author. Crunching or achiving is allowed only if none of the IconTrace files get modified by it.

Special permission is hereby granted to include IconTrace in Public-Domain collections such as Fred Fish's Amiga Library.

1.14   About the author and the program

IconTrace has been created using the Macro68 Assembler and CygnusEd Professional 3 on an Amiga A3000 25/100 with 10MB memory. The IconTrace documentation was formatted with PRoff.

If you have suggestions or remarks about this program, or if you find any bugs, please let me know.

When sending in bug reports, please state exactly under what circumstances the bug occurred, what equipment was used and what happened. If possible also try to give me enough information to reproduce the bug. It is very difficult to find bugs when you don't know exactly what happened.

Write to the following address:

Fido : 2:292/603.7 (Peter Stuer)

AmigaNet : 39:120/102.7 (Peter Stuer)

NLA Net : 14:200/101.7 (Peter Stuer)

UUCP : Peter.Stuer@p7.f603.n292.z2.FidoNet.Org

SnailMail: Peter Stuer

Beatrijslaan 2 bus 13

B-2050 Antwerpen L.O.

Belgium - Europe

I will also try to put the latest available version of IconTrace on the following BBS (this may change without further notice):

Great Balls Of Fire BBS

ReqTools Support BBS

Herman Stevens

Lubbeek

ADS Distribution HUB

ABC Host Belgium

AFN Host Belgium

Tel. +32-(0)16-64.09.12

ZyXEL U1496+ 16800 BPS (N.8.1) v32bis v42bis

24-24 h.

Fido Node 2:292/603

NLA Node 14:200/101.0

AmyNet 39:120/102.0

1.15 Program History

Program History

::: Version 2.00 ::: November 15, 1993 ::::::::::::::::::::::::::

- Complete rewrite.

- NEW: Removed the annoying delay when quitting IconTrace. Thanks

to Rafael D'Halleweyn for the suggestion.

- NEW: Added up/down gadgets to scroll up/down line by line.

- NEW: Added Clear menu item to clear the history buffer while

IconTrace is running.

- NEW: Added an Active menu item to make activating and

deactivating IconTrace on the fly easier.

- NEW: Added trace code for undocumented functions GetIcon() and

PutIcon(). Apparently, the Workbench uses these calls to get

its icons when opening Workbench windows.

NOTE: If you want to know why it takes so extremely long for the

Workbench to show a disk/drawer contents in using View By Name

mode, start IconTrace and be amazed!

- IMPROVED: Optimized some of the core routines.

::: Version 1.02 ::: June 26, 1993 ::::::::::::::::::::::::::::

- BUG: The patch of the GetDiskObjectNew used the wrong trace

code.

- NEW: Made error reporting and failure handling more verbose.

- NEW: Improved and optimized code.

::: Version 1.01 ::: June 24, 1993 ::::::::::::::::::::::::::::

- BUG: FindToolType trace code gave wrong results, sorry...

::: Version 1.00 ::: June 23, 1993 ::::::::::::::::::::::::::::

- First release