

PowerWindows

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Chapter 1

PowerWindows

1.1 PowerWindows V0.9.5 (C) Copyright 1997 by Georg Steger

```
#####                                made in South-Tyrol
#####
#####  ##  #  #  ##  #  #####  ###  ##  #  #####
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###  #####  #####  #####  ##  V 0.9.5
```

Introduction	First Aid/FAQ
Requirements	History
Legal Stuff	Future
Installation	
Configuration	Author
Technical/Bugs	Other Stuff

1.2 Introduction

- Some thought it is impossible to do ...

That's wrong, it WAS impossible to do!

- Some dreamt of it ...

Most did not even do that!

- It was the most wanted utility of the Amiga-World ...

and here it is! Let's get ready for

PowerWindows V 0.9.5

PowerWindows is a little utility, that allows you to move windows out of the Screen. With this program that patches some System-Functions you will finally know where to move your windows when you have opened a lot of them.

PowerWindows is especially useful for those of us who don't have a GFX-Board (like me). With the Screen-Resolutions the ECS/AGA-Chipset offers, after having opened two or three Windows you already have to start sizing and moving the windows to get to the desired one.

Well, that's over now. With PowerWindows you simply move the windows you actually don't need out of the Screen.

You also get another incredible Feature: You can iconify ALL your Windows, 100 % compatible, hundreds of Configuration-Options, very few Memory Usage!!

Read the documentation VERY carefully because PowerWindows installs some very dangerous Patches and you have to configure it correctly before using!

My English is terrible. Hope you have a lot of fun with it.

PowerWindows is SHAREWARRE!

1.3 Requirements

PowerWindows should run on any machine with Amiga OS 2 or higher. It has been reported to be compatible with GFX-Boards.

PowerWindows was developped on:

AMIGA 1200 Kickstart 3.0 Workbench 3.0
CPU 68030-50 FPU 68882-50 (Blizzard 1230/IV)
2 MB CHIP / 8 MB FAST
WESTERN DIGITAL 540 MB HD
WEARNES CD 120-A DOUBLE-SPEED CD-ROM
TRUST COMMUNICATOR 14K4 - MODEM

PowerWindows was created using the following Software:

MaxonCPP Pro 4.0

Hispeed Pascal

1.4 Legal Stuff

PowerWindows is Shareware!!!

To register send me:

7,5 DM (5 US \$) (5.000 Lire) : If you like it

15 DM (10 US \$) (10.000 Lire): If you love it

30 DM (20 US \$) (20.000 Lire): If you think it's the best and most
useful utility ever created.

If you do not it's very unlikely that I continue development.

Send everything to: Georg Steger
Hochlercher 30

I-39030 St. Johann/Ahrntal

ITALY

EMail: steger@pass.dnet.it

Important: PowerWindows has not been tested very much. Test it for
a while and send me Bug Reports.

Copyright

PowerWindows is written and copyright © 1997 by Georg Steger. No parts
of this program may be altered by any means (this includes editing,
reprogramming, crunching, resourceing etc.), except archiving.

Disclaimer

The author is in no way liable for any changes made to any part of the
program, or consequences thereof as he is in no way liable for damages
or loss of data directly or indirectly caused by this software.

Distribution

Neither fees may be charged nor profits may be made by distributing this
piece of software. Only a nominal fee for costs of magnetic media may
be accepted, the amount of US \$5 shouldn't be exceeded for a disk
containing PowerWindows. CD Manufactures are specifically granted the
right to include this program on CD collections, as long as they are for
the Public Domain. I would be very nice if they sent me a copy of the CD.

1.5 Installation

PowerWindows installs some very critical Patches so it has to be started at the right time. Before installing it you should try whether it works on you configuration. To do this simply launch it from the Workbench or Shell.

- As a first test, open a window and move it out of the Screen at the right.

Important:

You can move the Windows out of the Screen only at the right or at the bottom. This is because the Operating System doesn't seem to like negative Coordinates.

- Check whether at the left side of the Screens the part of the Window which should be out of the Screen appears in false Colors. If it doesn't you are O.K.!
- Open another Window and move it out of the Screen as well. Check again whether there is no graphical trash at the left side of the Screen.
- Now move the Windows to front and to back, close them and always repeat the check.
- If the display is trashed remove all patches installed on your System and try again.

Note:

- It is less dangerous to move Windows out of the Screen at the right because the only thing that can happen is a destroyed display at the left side. (Exception: If the Window's TopEdge+Height=Screenheight then it is also possible that foreign memory is trashed!)
 - Moving Windows out of the Screen at the bottom is more dangerous.
 - If you don't see trashes when you move Windows out of the Screen at the right then moving it out of the Screen at the bottom will work, too.
 - Make a lot of tests before installing it (with ALL your programs). I must repeat, this is a very dangerous program.
 - In order to move the Windows out of the Screen, PowerWindows has to change the Screen's Width and Height for a short period of time to 16383. This period is the most critical.
 - Configure PowerWindows to avoid Programs that draw to the Screen-Rastport directly (like Deluxe Paint IV). Such programs will almost certainly cause Crashes.
 - Again, do a lot of tests and watch out for Crashes. Moving Windows out of the Screen at the bottom WILL NOT trash the Screen but MAY overwrite foreign memory!
-

- Remember. This is only Version 0.9.5!!! Expect some bugs and crashes!
- Don't force the Workbench-Screen to be closed/opened in critical situations, this is when a program is going to close/open a Window on it.
- It is possible to quit Powerwindows by sending it a CTRL_C (in non-critical situations). Anyway you should not quit it.

Installing it:

For now you have to install it by hand. You can start it in the Startup-Sequence, in the User-Startup or even in the WBStartup. It must be started very lately in order to be the last program to patch layers.library, although it depends on the patches and programs you have installed on your Computer. You have to try it out. If you want to start it in the User-Startup or Startup-Sequence use:

```
run <>NIL: PowerWindows HOMEDIR {PowerWindows-Directory on HD}
```

{PowerWindows-Directory on HD} of course must be replaced with the Home-Directory of PowerWindows. For example if you have copied the PowerWindows-Drawer to "Work:" you will have to start it this way:

```
run <>NIL: Work:PowerWindows/PowerWindows HOMEDIR Work:PowerWindows
```

You can also specify which Configuration-File to use. It must be specified with "CONFIGFILE". Example:

```
run <>NIL: TOOLS:PowerWindows/PowerWindows HOMEDIR TOOLS:PowerWindows CONFIGFILE ←  
s:MyPowerWindows.config
```

If you move it in the WBStartup-Drawer set the Icon-Tooltype "HOMEDIR" to where the PowerWindows-Directory is. You must not use Quotation Marks, if you do, the File will not be found! You can force PowerWindows to be started very lately by changing the Tooltype "STARTPRI". It's a standard Workbench-Tooltype accepting values from -128 to 127. The lower the value the later it will be started. It's also possible to specify a File which will be used as Configuration-File. You must specify it with the Tooltype "CONFIGFILE". It's further possible to create Project-Icons, set their Default Tool to "PowerWindows" and set in each one a different Config-File. To start PowerWindows with a certain Config-File simply double-click the right Project-Icon.

- PowerWindows MUST be started AFTER programs that replace Layer-Functions completely in order to speed up things.
- If you have installed a Opaque Move Commodity (which allows you to move Windows with their full Contents) it will not be possible to drag Windows out of Screen. Solution: You could set NORMALQUALIFIER to LALT+CONTROL, give PowerWindow's Input-Handler a higher Priority than Commodities' one and would this way be allowed to drag Windows out of Screen when holding down "LALT+CONTROL" while clicking on the Dragbar and when you don't hold down these Keys you would get Opaque moving Windows.

1.6 Configuration

To configure PowerWindows you have to edit PowerWindows.config. PowerWindows will look for this file in "S:" and in it's HOMEDIR (see Installation)! If you have used CONFIGFILE (Cli-Argument/WB-Tooltype) to use another Configuration-File, of course that one will be used by PowerWindows.

Note:

- Lines starting with ";", "*" or Blanks/Tabulators are comments
- You can have blank lines
- Space-Characters are ignored (but don't add them at the start of a line, otherwise the line will be considered as a comment!)
- Syntax : KEYWORD=VALUE for "Specify-Keywords"
 KEYWORD for "Activate-Keywords"

General Options

SCANScreens Patch Screens that are already open
 INPUTPRI Priority of PowerWindow's Input-Handler
 SAFEMOVEWINDOW Slows down Window-Movings. Might be more safe!
 SAFELOCKLAYER Probably a safer way to lock Layers while dragging
 NOMOUSEFREEZE Don't freeze Mouse while moving the Windows
 MOUSEFACTOR Might have to be adjusted if using NOMOUSEFREEZE
 MAXSPPERIOD Windows are tried to be moved within this period
 NO_OUTOFSCREEN No Out-Of-Screen Movings. Iconify still possible!
 NOREFRESHKILL Don't clear LAYERREFRESH Bit in SIMPLEREFRESH Layers
 SMARTWIN Force Windows to SMARTREFRESH

Window-Drag Options

NORMALBUTTON Mouse-Button used for Normal-Draggings (Dragbar)
 NORMALQUALIFIER Qualifier (Keys) to be pressed together with NB
 FORCEBUTTON Mouse-Button used for Force-Draggings (anywhere)
 FORCEQUALIFIER Qualifier (Keys) to be pressed together with FB
 AVOIDDOUBLECLICKS Avoids Screen-Trashing
 MARKER Look of the Marker (when you drag a Window)
 ALLPLANES Draw Marker in all Planes

Screen-Patch Options

TASK Tasks whose Screens shall (not) be patched
 TASKSONLY Only Programs specified with TASK will be patched
 CASESENSITIVE Do Checks casesensitive.

Iconify Options

ICONIFYGADGET Adds Iconify-Gadget to the Windows

NOICONS There will not be an Icon for iconified Windows
 IGLOOK Look of the Iconify-Gadget
 ICONIFYTASK Tasks whose Windows shall (not) get an Iconify-Gadget
 ICONIFYTASKONLY Only Programs specified with ICONIFYTASK will ...
 ICONIFYCASESENSITIVE Do Checks casesensitive
 DONTICONIFYWB Workbench-Windows will not get an Iconify-Gadget
 ICONIFYOFFSET Iconified Wins are moved to SCREENWIDTH - ICONIFYOF
 ICONWIDTH Width of the Icons
 MINICONWIDTH Minimal Width of the Icons
 ICONPOS Position of the Icons
 ICONPOS_OFFY Offset-X to add to Position obtained via ICONPOS
 ICONPOS_OFFX Offset-Y to add to Position obtained via ICONPOS
 MINWINWIDTH Windows smaller than this don't get Iconify-Gadget
 ICONDEPTH Icons always in Front or like normal Windows
 ICONCLOSEGAD Icons get a Close-Gadget
 WBICONPOPOPUP Pop up Workbench-Drawers by double-clicking WB-Icon
 ICONACTIVATE Activate iconified Window by clicking on it's Icon
 POPTOFRONT Bring de-iconified Windows automatically to Front.

Deadlock-Hunting Options

DEADLOCK_SEC Every DEADLOCK_SEC secs + DEADLOCK_MIC mics ...
 DEADLOCK_MIC ... PowerWindows checks if Deadlocks have occurred
 DEADLOCK_PRI Priority of Deadlock-Hunter (it's a separat Task!)

External Routines

EXT_WINDOWCHECKER Ext. R. telling PW if Window shall get an I-Gadget
 EXT_SCREENCHECKER Ext. R. that tells PW if Screen shall be patched
 EXT_ICONRENDERER Ext. Routine that renders the Icons.

Hotkeys

HOT_ICONIFY Hotkey to iconify active Window
 HOT_ICONSTOFRONT Hotkey to bring Icons to Front
 HOT_ICONSTOBACK Hotkey to bring Icons to Back
 HOT_DEICONIFYALL Hotkey to deiconify all Windows
 HOT_WINDOWIN Hotkey to bring Window back into std. Area of Screen
 HOT_ALLWINDOWSIN Hotkey to bring all Wins back into std. Area of Scr

Workarounds & misc Options

SDEPTH_OFFSET If the Screens' DepthGadgets are at the wrong place

P.S.: o PowerWindows does not patch Tasks, it patches Screens!

- o "Trashing/Destroying the Screen" means that PowerWindows causes graphical Trash (Errors/remaining Lines from the Marker). This can not lead to a Crash!! Only the display is trashed, innocent (foreign) Memory is not!
-

1.7 General Options

GENERAL OPTIONS

SCANSCREENS : () Default: OFF

If active PowerWindows scans ALL already opened Screens and patches them to allow Out-Of-Screen Movings. The Tasks (well, its Screens) you don't want to be patched (the ones you have specified with TASK) will be patched, too. This is because PowerWindows does not know who's the owner of the already open Screens.

INPUTPRI : (-128 .. 127) Default: 51

This Keyword allows you to specify the Priority of the Input-Handler created by PowerWindows. It should be higher than the Priority of Intuition's Input-Handler which is 50!

SAFEMOVEWINDOW : () Default: OFF

By default, PowerWindows calls MoveWindow() in it's Input-Handler. One should not do that (call Intuition-Functions in an Input-Handler) usually. But as MoveWindow() seems only sending a Request to Intuition, it should not be that critical. Anyway if you get a lot of Deadlocks or even Crashes you can try specifying SAFEMOVEWINDOW.

If active, PowerWindow's Input-Handler sends a Message to the PowerWindow's Task asking it to move the Window for it. The Window will be moved only after a short delay which might be annoying.

SAFELOCKLAYER : () Default: OFF

As there is no AttemptLockLayers(), PowerWindows' Input-Handler before locking the Layers has to check if the LockLayers-Call will succeed, otherwise there might be a DeadLock. This can actually be done in two ways, but both are not really System-conform as they rely on System-private Structure-Fields. SAFELOCKLAYER uses the better way (at least I think so). If you get a lot of Deadlocks when trying to move a Window try specifying this.

NOMOUSEFREEZE : () Default: Off

By default, PowerWindows kills MouseMove-Events while moving a Window. If you don't want that specify this option. If NOMOUSEFREEZE is ON it might happen that the Screen scrolls out of it's limits (because of PowerWindows changing it's Size while moving a Window). In such a case you will see appearing the left part of the Screen in False Colors.
If this happens increase MOUSEFACTOR!

MOUSEFACTOR : (1..100) Default: 4

If NOMOUSEFREEZE is ON PowerWindows does not freeze Mouse-Movements while moving a Window, but tries to not let the Mouse-Pointer reach any of the Screen's (visible) Borders which usually leads to Auto-Scrolling. As PowerWindows does not know what Intuition/Commodities/other Input-Handlers do with the Mouse-Events (with which factor they multiply the relative Coordinates in the Event-Structure) it might be necessary to increase the value by which PowerWindows multiplies for (checking reasons).

MAXSPPERIOD : (0 .. 1000) Default: 20

When moving a Window out of Screen, PowerWindows changes the Screen's Dimension to 16383 * 16383. After that it waits until the Window has really arrived at the new Position. When this has happened it resets the Width and Height-Entries of the Screen-Structure to their original values.
For some reasons it might happen that the Window never arrives at the new Position, so after the "Maximum Screen Patch Period" PowerWindows resets the Screen's Dimension anyway. The value you specify here is in 10th of a second!!

Note: During the "Screen Patch Period" you cannot move the Mouse-Pointer or use the Keyboard.

NO_OUTOFSCREEN : () Default: OFF

This Option disables Out-Of-Screen Movings. You won't be able to drag Windows out of Screen, anymore. It is still possible to iconify Windows. Some Options (the ones that have something to do with Dragging) will have no Effect, anymore: ALLPLANES, MARKER, SAFELOCKLAYER, ...

This Option is equivalent to setting NORMALQUALIFIER and FORCEQUALIFIER to something "impossible" such as:

LALT+RALT+LSHIFT+RSHIFT+CONTROL+LCOMMAND+RCOMMAND

NOREFRESHKILL : () Default: OFF

In past there were some Problems with SIMPLE-REFRESH

Windows. For example Multiview could cause Deadlocks (not being killed by the Deadlock-Hunter). Now PowerWindows clears the LAYERREFRESH Bit in Layer->Flags after having opened such a Window. If for some reason you don't want PowerWindows to do that use this Option!

SMARTWIN : () Default: OFF

If you specify this Option, PowerWindows will force all Windows to get SMARTREFRESH Layers. By doing this Refreshing Problems (known Bugs) should disappear. On most machines you will also get a considerable Speed-Up. The disadvantage is, that SMARTREFRESH Windows need more Memory.

1.8 Window=Drag Options

W I N D O W - D R A G O P T I O N S

NORMALBUTTON : (LEFT,RIGHT,MIDDLE) Default: LEFT

Here you can specify which Mouse-Button must be pressed together with NORMALQUALIFIER to allow dragging the Window out of Screen when clicking on a Drag-Gadget.

NORMALQUALIFIER: (..) Default: <NONE>

Qualifier that must be pressed to allow Out-Of-Screen Movings. Multiple Qualifiers must be separated by a "+".

Possible Qualifiers: LSHIFT,RSHIFT,SHIFT
CAPSLOCK,CONTROL,
LALT,RALT,ALT,
LCOMMAND,RCOMMAND,COMMAND,

You can also specify "NONE" or "OFF" which means, that no Qualifier needs to be pressed. Look at NORMALBUTTON.

Note: SHIFT means BOTH Shift-Keys must be pressed,
ALT means BOTH Alt-Keys must be pressed,
COMMAND means BOTH Command-Keys must be pressed!

FORCEBUTTON : (LEFT,RIGHT,MIDDLE) Default: LEFT

Here you can specify which Mouse-Button must be pressed together with FORCEQUALIFIER to allow dragging the Window out of Screen when clicking anywhere in the Window.

FORCEQUALIFIER : (..)

Default: LSHIFT+LALT

Qualifier that must be pressed to allow Out-Of-Screen-Movings. With this Qualifier you can click anywhere in the Window to drag it. Multiple Qualifiers must be separated by a "+".

Possible Qualifiers: LSHIFT,RSHIFT,SHIFT
CAPSLOCK,CONTROL,
LALT,RALT,ALT,
LCOMMAND,RCOMMAND,COMMAND,

You can also specify "NONE" or "OFF" which means, that no Qualifier needs to be pressed. Look at FORCEBUTTON

Note: SHIFT means BOTH Shift-Keys must be pressed,
ALT means BOTH Alt-Keys must be pressed,
COMMAND means BOTH Command-Keys must be pressed!

AVOIDDOUBLECLICKS: ()

Default: OFF

If you have installed a Commodity that moves Windows to front or back when double-clicking the Mouse (for example MultiCX), you should specify this. It prevents the Screen from being trashed by PowerWindows' Marker.

MARKER : (OFF|GADGET|NORMAL)

Default: NORMAL

- OFF : No marker when dragging windows. Prevents Dead-Locks.
- GADGET: The marker gets the coordinates of the Drag-Gadget.
- NORMAL: The marker gets the coordinates of the Window. Just like Intuition does.

ALLPLANES : ()

Default: OFF

If active the marker renders to all planes. By default it just renders to Plane 1 to speed things up. If you have a GFX-Board you might have to activate this!

1.9 Screen-Patch Options

S C R E E N - P A T C H O P T I O N S

TASK : (...) Default: <NONE>

With TASK you can specify the Tasks whose Screens you DO want to be patched (if TASKSONLY is active) or the Tasks whose Screens you DO NOT want to be patched (if TASKSONLY is inactive). Programs that write directly to the Screen-RastPort should (it depends on when and how they do it) be stated not to be patched.

Notes:

- You can specify a Pattern (For Example: #?dpaint#?)
- The Workbench-Screen is opened by "« IPrefs »"
- This Keyword can be used more than once. For example:

```
TASK=#?Workbench#?
TASK=#?dpaint#?
TASK=visage
```

TASKSONLY : () Default: OFF

If active the Screens opened by Tasks specified with TASK will be the only ones to be patched. By default the Screens opened by Tasks specified with TASK are the ones NOT to be patched!!

CASESENSITIVE : () Default: OFF

If active Pattern-Matching (for checking if the actual Task that is going to open a Screen is one of those specified with TASK) is case sensitive.

Important: You MUST specify this if you have a DOS-Version lower than 36.147

1.10 Iconify Options

I C O N I F Y O P T I O N S

ICONIFYGADGET : () Default: OFF

If you want to have an Iconify-Gadget in your Windows, specify this Keyword. Only Windows that are opened on a patched Screen will get an Iconify-Gadget. If you want certain programs not to get Iconify-Gadgets for its' Windows look at the Keywords: ICONIFYTASK

ICONIFYTASKSONLY

ICONIFYCASESENSITIVE

By pressing the Iconify-Gadget the Window will move out of Screen and on it's Position an Icon (no real Icon, but a little Window) will appear. By clicking this Icon twice the Window will reappear on it's old Position and the Icon will disappear.

NOICONS : () Default: OFF

If you specify this, iconified Windows will NOT be replaced by an Icon. Has only sense, if you specify a ICONIFYOFFSET > 0;

IGLOOK : (..) Default: NORMAL

The Iconify-Gadget can have different looks. The available ones are:

NORMAL : The gadget will look like the ones in MUI.

NICE : Custom-Look designed by me. (Very nice!)

SYSI : SysiHack-Version of "NORMAL"

SYSINICE: SysiHack-Version of "NICE"

Screenshot

ICONIFYTASK : (..) Default: <NONE>

With ICONIFYTASK you can specify the Tasks whose Windows you want to get an Iconify-Gadget (if ICONIFYTASKONLY is active) or the Tasks whose Windows you DO NOT want to get an Iconify-Gadget (if ICONIFYTASKONLY is inactive).

Notes:

- You can specify a Pattern (For Example: #?dpaint#?)
- Only Windows that are opened on a patched Screen can get an Iconify-Gadget
- This Keyword can be used more than once. For example:

```
ICONIFYTASK=PPaint
ICONIFYTASK=#?dpaint#?
ICONIFYTASK=#?visage
```

ICONIFYTASKONLY: () Default: OFF

If active the Windows opened by Tasks specified with ICONIFYTASK will be the only ones to get an Iconify-Gadget. By default the Windows opened by Tasks specified with ICONIFYTASK are the ones NOT get an Iconify-Task.

ICONIFYCASESENSITIVE: () Default: OFF

If active Pattern-Matching (for checking if the actual Task is one of those specified with ICONIFYTASK) is case sensitive.

Important: You MUST specify this if you have a DOS-Version lower than 36.147

DONTICONIFYWB : () Default: OFF

If you don't want Workbench-Windows (WFLG_WBENCHWINDOW) to get an Iconify-Gadget set this in the Config-File.

ICONIFYOFFSET : (0 .. 1000) Default: 0

When you iconify a Window, PowerWindows moves it to the Position (ScreenWidth - IconifyOffset, WindowTop). By default ICONIFYOFFSET is 0. In this case the Window will be completely invisible. If you specify a value > 1 you will still be able to reach (and see a part of) the Window and drag it using the FORCEQUALIFIER.

ICONWIDTH : (..) Default: 1/6

ICONWIDTH sets the Width of the Icons. There are several possibilities to get the desired Dimension:

- A single value indicates the Width in Pixels:

```
;We want the Icons'Width to be 100 Pixels!  
;  
ICONWIDTH = 100
```

- Two values separated by a "/" means that you want the Icons' Width in some way be relative to their Screen's Width:

```
;If we want the Icon's Width to be half the Screen-  
;Width we use:  
ICONWIDTH = 1/2
```

```
;If we want the Icons' Width to be ScreenWidth*5/31  
;we use:  
ICONWIDTH = 5/31
```

- WINWIDTH means that the Icon will have the same Width as the Window.

```
;The Icon's Width shall be equal to the Window's  
;Width:  
ICONWIDTH = WinWidth
```

- "WINWIDTH / x" means that the Icon's Width will be Window-Width / x:

```
;We want the Icons' Width to be half the Width of
;their Windows:
ICONWIDTH = WinWidth / 2
```

MINICONWIDTH : (0..2000) Default: 100

By default the Icons get the Width according to what is specified with ICONWIDTH. Nevertheless their minimum Width will always be MINICONWIDTH.

ICONPOS : (..) Default: AUTO_BOTTOMLEFT

With ICONPOS you can select on which Position you want the Icons appear. These are the possibilities:

UPPERLEFT : The Icon will appear in the upperleft edge of the Window you have iconified.

UPPERRIGHT : The Icon will appear in the upperright edge of the Window.

LOWERLEFT : The Icon will appear in the lowerleft edge of the Window.

LOWERRIGHT : The Icon will appear in the lowerright edge of the Window.

CENTER : The Icon will appear in the center of the Window.

There are also some amazing Auto-Positioning-Possibilities:

AUTO_BOTTOMLEFT : +-----+

```
|
|
|
|
|[ ] [ ] [ ]
+-----+
```

AUTO_BOTTOMRIGHT: +-----+

```
|
|
|
|
|      [ ] [ ] [ ]
+-----+
```

AUTO_TOPLEFT : +-----+

```
| [ ] [ ] [ ]
|
```

```

|
|
|
|
+-----+

```

```

AUTO_TOPRIGHT : +-----+
|      [ ] [ ] [ ] |
|
|
|
|
+-----+

```

```

AUTO_LEFTTOP : +-----+
|[ ]
|[ ]
|[ ]
|
|
+-----+

```

```

AUTO_LEFTBOTTOM : +-----+
|
|
|[ ]
|[ ]
|[ ]
|
+-----+

```

```

AUTO_RIGHTTOP : +-----+
|
|      [ ]|
|      [ ]|
|      [ ]|
|
|
+-----+

```

```

AUTO_RIGHTBOTTOM: +-----+
|
|
|      [ ]|
|      [ ]|
|      [ ]|
|
+-----+

```

ICONPOS_OFFY : (-2000 .. 2000) Default: 0

When ICONPOS is AUTO_??? you can set an Offset to add to the calculated Position of the Icon. For example, if you want the Icons to be placed at the bottom of the Screen, but there is also a Toolmanager-Dock there, you can set ICONPOS_OFFY to approximately -40!

ICONPOS_OFFX : (-2000 .. 2000) Default: 0

Just like ICONPOS_OFFY, but for the X-Position.

MINWINWIDTH : (0.. 2000) Default: 50

In order to get an Iconify-Gadget Windows must be at least MINWINWIDTH Pixels wide. Windows that have a Size-Gadget are not taken into consideration by this Check.

ICONDEPTH : (ALWAYSFRONT|NORMAL|NORMALBEHIND) Default: ALWAYSFRONT

By default the Icons of an iconified Window are always in Front of everything. If you prefer them to behave like a normal Window in order to be able to depth-arrange them you can set this to NORMAL. If you do so the Icons will get a little Depth-Gadget in the right upper corner. NORMALBEHIND does the same. The difference is that the Icons are opened behind all normal Windows (but in Front of all Backdrop-Windows)

ICONCLOSEGAD : () Default: OFF

With this Option Icons of Windows that have a Close-Gadget will get one, too. This allows you to close an iconified Window without having to de-iconify it first.

WBICONPOPUP : () Default: OFF

If you want iconified Workbench-Drawers to be de-iconified when you double-click its' WB-Icon use this Option. As to implement this I used a rather tricky way, there might still be some problems/bugs. Anyway, upto now I didn't notice any. Actually this Option doesn't work if NOICONS is activated.

Note: This will probably not work if you are using DOpus 5.x as a Workbench-Replacement.

ICONACTIVATE : () Default: OFF

With this Option you can force PowerWindows to activate an iconified (hidden) Window, when you click on it's Icon. This way you can use the Menus of the iconified Windows. Further the Key-Presses will be sent to the iconified Window, too. For example you could close a Window by pressing ESC (if the Program the iconified Window belongs to, does this when you press ESC in it's Window) after having activated it's Icon.

POPTOFRONT : () Default: OFF

By default when you de-iconify a Window it will pop up in Front, behind or between other Windows, depending on where it was when you iconified the Window. If you want your Windows pop up always in Front of other Windows, use this Option.

1.11 Deadlock-Hunting

DEADLOCK - HUNTING OPTIONS

DEADLOCK_SEC : (0 .. 100) Default: 1

PowerWindows' SubTask checks every DEADLOCK_SEC Seconds + DEADLOCK_MIC Micro-Seconds if a Deadlock has occurred.

DEADLOCK_MIC : (0 .. 1,000,000) Default: 0

PowerWindows' SubTask checks every DEADLOCK_SEC Seconds + DEADLOCK_MIC Micro-Seconds if a Deadlock has occurred.
A Second = 1,000,000 Micro-Seconds!

DEADLOCK_PRI : (-128 .. 127) Default: 0

Specifies the Task-Priority of PowerWindows' DeadLock-hunting Sub-Task.

1.12 External Routines

EXTERNAL ROUTINES

EXT_WINDOWCHECKER: (<Filename>) Default: <NONE>

PowerWindows allows you to use external Routines that are used for several Operations. This one is for checking whether a Window shall get an Iconify-Gadget or not. A Window-Checker Routine can also do the Rendering of the Iconify-Gadget.

Note: There's an example Routine in "ExtRoutines/". Check

it out, the Iconify-Gadgets will get a Smiley Look!

EXT_SCREENCHECKER: (<Filename>) Default: <NONE>

External Routine for checking whether a Screen shall be patched or not.

EXT_ICONRENDERER : (<Filename>) Default: <NONE>

External Routine that is supposed to do the Rendering of the Icons (Mini-Window of an iconified Window).

Note: There's an example Routine in "ExtRoutines/". Check it out!

1.13 Hotkeys

H O T K E Y S

You can use Hotkeys for several useful Operations. The Hotkey-Description must follow the Commodity-Standard and must be written between quotation marks. If your Hotkey-Description is illegal, you will get an Error when you start PowerWindows. By default all Hotkeys are disabled. They will be activated if you state them in the Configuration-File (with a legal Hotkey-Description, of course). Examples for what you could write in the Configuration-File:

```
HOT_ICONSTOFRONT = "CTRL ALT i"
HOT_ICONSTOBACK  = "LSHIFT LCOMMAND u"
```

Note: There seems to be a Bug in the commodities.library. Some Hotkeys don't work. For example "RALT RSHIFT i" is O.K., but "RALT RSHIFT I" is not. I don't know if in OS 3.1 this has been fixed.

HOT_ICONIFY : ("Hotkey-Description") Default: <NONE>

Hotkey to iconify active Window. Only works if the Window has an Iconify-Gadget!

HOT_ICONSTOFRONT: ("Hotkey-Description") Default: <NONE>

Hotkey to bring all Icons on the active Screen to Front.

Only works if ICONDEPTH is not set to ALWAYSFRONT!

HOT_ICONSTOBACK : ("Hotkey-Description") Default: <NONE>

Hotkey to bring all Icons on the active Screen to Back.
Only works if ICONDEPTH is not set to ALWAYSFRONT!

HOT_DEICONIFYALL: ("Hotkey-Description") Default: <NONE>

Hotkey to de-iconify all Windows on the active Screen.

HOT_WINDOWIN : ("Hotkey-Description") Default: <NONE>

Hotkey to move the active Window back into the Screen's "standard" Area, if the Window was partly out of it. If the Window wasn't it will be moved to Front and centered on the Screen.

HOT_ALLWINDOWSIN: ("Hotkey-Description") Default: <NONE>

Hotkey to move all Windows of the active Screen back into the Screen's "standard" Area.

1.14 Workarounds & misc Options

W O R K A R O U N D S & M I S C O P T I O N S

SDEPTH_OFFSET : (-2000 .. 2000) Default: 0

PowerWindows has to correct the X-Position of the Depth-Gadgets of the Screens it patches. By default these Gadgets are GFLG_RELRIGHT and therefore could disappear when PowerWindows moves a Window (out of Screen). This is because of PowerWindows changing the Screen's Width and Height while moving the Window. Unfortunately some other Programs (especially Hacks and other Commodities) don't like this. One of these programs is MCP which, if it's SysiHack Option is activated will make the Screens' DepthGadgets scroll one Pixel to the left. To fix this set SDEPTH_OFFSET to 1.

Note: MCP seems doing strange things with the Gadget/Image
The original Coordinates are:

Gadget-Position: -22,0	Gadget-Size: 23,16
Image-Position : 0,0	Image-Size : 23,16

Once MCP's SysiHack Option is activated the Coords are:

Gadget-Position: -22,0	Gadget-Size: 24,16
Image-Position : -1,0	Image-Size : 24,16

1.15 Technical Info/Bugs

PowerWindows patches the following System-Routines:

Layers/UpFrontLayer
Layers/CreateUpFrontLayer
Layers/CreateUpFrontHookLayer
Layers/MoveLayerInFrontOf

Intuition/OpenScreen
Intuition/OpenScreenTagList
Intuition/CloseScreen
Intuition/OpenWorkbench
Intuition/CloseWorkbench
Intuition/OpenWindow
Intuition/OpenWindowTagList
Intuition/CloseWindow
Intuition/ActivateWindow
Intuition/ActivateGadget
Intuition/WindowToFront
Intuition/WindowToBack
Intuition/FreeSysRequest
Intuition/EasyRequestArgs
Intuition/AutoRequest

How it works:

I don't want to tell you how it exactly works. Anyway here are some Hints:

- It does not replace Layer-Functions.
- Moving Layers out of Screen is very easy.
- The most difficult thing is disabling (or fooling) Intuition's Screen Bounds Checkings.
- If I had the Source-Code of the Operating System it would not take me more than some hours to implement Out-Of-Screen Draggings.

Known Bugs:

- Windows that are out of Screen can't be brought to Back with the Window's Depth-Gadget:

This is because Intuition always thinks it has to bring it to front be-

cause such a Window is never the frontmost Layer. (PowerWindows creates some hidden Layers which are always in front of all normal Window-Layers)

- The marker can trash the Screen (but not foreign memory):

This is because my Input-Handler does the LockLayers() Call before drawing the Marker and Intuition's Input-Handler being the same Task is allowed to brake it.

- Deadlocks can occure when you try to drag a Window while there is a lot of "Activity". Anyway PowerWindows intercepts them and after a short delay (1 second or so) you should be able to continue.
- If Intuition tries to close the Workbench-Screen, PowerWindows un-patches the Screen and WILL NOT re-patch it if closing fails (because of not closed Windows or something similiar). This will be fixed soon!
- Refreshing-Problems with SIMPLEREFRESH Windows. For example if you display a C-Source in Multiview (with a C-Datatype) when you try to scroll up and down, the whole Content will be refreshed. By moving the Multiview-Window to Back and then to Front again, everything works as it should. If you quit PowerWindows or try to close the Workbench-Screen (by changing it's Screenmode) and there is a SIMPLE-REFRESH WINDOW partly out of Screen, this Window will start refreshing again and again, without stopping. This can be stopped by moving such a Window to Back, too. The SMARTWIN Option might be a better solution.
- Directory Opus 4.11 seems to remove all Gadgets from the Window when you resize it, free them all (including PowerWindows' Iconify-Gadget) and re-create them after that. The Iconify-Gadget will not re-appear. The Gadget and it's Image will never be disposed and therefore you lose some Memory every time you resize the Window.
- If you have a Commodity that replaces the Requester popping up when you select the "About ..." (Version/Copyright) Menu of the Workbench you will get the normal Requester and not the one from the Commodity. You will get the one from the Commodity if PowerWindows is started before the Commodity, but then PowerWindows might not work (correctly). Have a look at FAQ !

Hints:

- Don't use Patterns with TASK and ICONIFYTASK if you know the real Names of the Programs. Pattern-Matching needs a lot of Stack and nobody knows what happens, if the Task opening the Screen/Window is too low on Stack.

Note: As a program opening a Screen/Window has/might have to scan all the Names, all the Names you specify must not have any Pattern in order to avoid this!

1.16 First Aid - FAQ - Trouble Shooting

PW doesn't work at all or only when it's not started during Boot
The Depth-Gadgets of the Screens are moved one Pixel to the left

I want Workbench Windows to pop up, when i click on it's WB-Icon
Sometimes I can't drag Wins out of Screen. Marker stops at Scr-Bounds
Clicking Windows to Front/Back trashes Screen, when clicking Titlebar
Sometimes Windows refresh again and again, without stopping
I don't want the Icons to be always in Front of everything
I don't want the Out-Of-Screen-Feature, just the Iconify Bit
I want to use LMB for standard Draggings and MMB for Out-Of-Screen Dr
I tried to use the TASK/ICONIFYTASK Options, but it doesn't work
PowerWindows doesn't work with my OpaqueMove Commodity
1 of my Commodities replaces the About-Req of WB. With PW it disappears

1.17 FAQ

If it doesn't work at all:

Try removing all your Patches/Commodities one by one. It must work!

If it doesn't work when you start it in the Startup-Sequence/User-Startup or WBStartup:

Probably there are one or more Programs patching Functions, PowerWindows patches too. PowerWindows doesn't seem to like that if these Programs are started after PW. Not all Programs will cause problems, but certain ones (such as MCP when you have it's QuickLayers Option activated) will create big Trouble. Try starting PowerWindows from WBStartup and set the Tooltype "STARTPRI" of it's Icon to a low value (-100).

1.18 FAQ

You are probably running MCP and have activated it's SysiHack-Option. Try setting SDEPTH_OFFSET to 1.

1.19 FAQ

This can be done by specifying WBICONPOPUP in the Configuration-File. If you are running DOpus 5.x as a Workbench-Replacement then this might not work or create Trouble. As I don't own it, I don't know it.

1.20 FAQ

PowerWindows, in order to prevent Deadlocks uses some Tricks to be sure, that when it does a LockLayers() in it's Input-Handlers, this call will succeed, otherwise a Deadlock would occure. If it thinks that LockLayers() will not succeed (succeed = return soon, without having to wait for another Task that is actually locking the Layers to unlock the Layers), PowerWindows' personal Drag-Routine will abort, and instead of it, Intuition's original Drag-Routine will jump in.

There are several Possibilities to "fix" this:

- 1) Set `MARKER` to `OFF`. The Marker will be invisible --> no `LockLayers()` needed, looks ugly :-)
- 2) Disable `SAFELOCKLAYER` . By doing so you might get more Deadlocks!!
- 3) Wait for a future Release of PowerWindows. I have several ideas about how to fix this.

1.21 FAQ

Activate `AVOIDDOUBLECLICKS` .

1.22 FAQ

There are some Problems with `SIMPLE-REFRESH` Windows. Have a look at known Bugs . You could also try setting the `SMARTWIN` Option.

1.23 FAQ

Have a look at the `ICONDEPTH` Option.

1.24 FAQ

Use the Option `NO_OUTOFSCREEN` .

1.25 FAQ

Have a look at the Window Dragging Options .

1.26 FAQ

Are you sure the Task-Name you stated is correct? There are some very nice Utilities in the "Tools"-Directory. Check them out.

The `TASK` Option is meant for Programs that open a Screen. It is not possible on a patched Screen to allow some Windows to be dragged off Screen and others not. On a patched Screen all Windows can be dragged off Screen, and on a non-patched Screen no Window is allowed to do that.

If you want to specify more than one Program, you can use the TASK Option (or ICONIFYTASK Option) more than once. Example Config-File:

```
SAFELOCKLAYER
SAFEMOVEWINDOW

TASK = #?DPaint#?
TASK = #?Visage#?
TASK = DirectoryOpus

WBICONPOPUP
```

1.27 FAQ

Have a look at Installation !

1.28 FAQ

PowerWindows has to patch `AutoRequest()` and `EasyRequestArgs()`, because they don't call `CloseWindow()`. In the older Versions of PowerWindows I forgot to do this Patches and so you lost about 200 Bytes with each Requester opened (if they call `AutoRequest()` or `EasyRequestArgs()`). If I did not do that, the Iconify-Gadget and it's Image would never be disposed, therefore the loss of memory. The new Functions redirect `AutoRequest()` Calls to `BuildSysRequest()` and `EasyRequestArgs()` Calls to `BuildEasyRequestArgs()`, otherwise PowerWindows does not get the Chance to dispose the Iconify-Gadget and it's Image.

The side effect is, that Commodities that replace the About Requester of the Workbench don't replace it anymore. They only check `EasyRequestArgs()` Calls, but all `EasyRequestArgs()` Calls are redirected by PowerWindows to `BuildEasyRequestArgs()`. Therefore when you select "About ..." from the Workbench Menu the Commodity does not recognize it as the About-Requester.

If the Commodity does not other tricky Patches in `layers.library` you can try starting the Commodity before PowerWindows. You will get the Requester from the Commodity again, but PowerWindows might stop working correctly. You have to try it out.

If you have tons of memory and don't mind loosing about 200 Bytes each Time a Requester is opened add the following Line to your Config-File:

```
DP=13
```

This is a undocumented Option of PowerWindows!

1.29 History

- V 0.8 26.01.97: - First public release
- Still in development
 - There are still some bugs
- V 0.9 25.02.97: - Rewrote program in "C". First Version was in Pascal.
- Fixed Bug that caused trashing Screens' Depth-Gadget. These gadgets are RELRIGHT by default and therefore will not be correct while PowerWindows moves a window. (PowerWindows changes the Screen's Width and Height while doing this as you should know if you have read the documentation!)
 - Breaking the Program had a serious Bug. The Routine that resets the Patches seems to have returned always success even if it didn't succeed. Further, if it found, that a function has been patched by another program, it re-patched this function to PowerWindows' Routine.
 - Windows can now be iconified. You get a nice Gadget for this, which either looks like the ones in MUI or has a new look designed by me.
 - Lots of Bug-Fixes that could cause the program to hang.
 - Now there should be very few Deadlocks (which anyway are intercepted by the Deadlock-Hunter)
 - Lots of new Configuration-Options
 - Deadlock-Hunting is now done in a Sub-Task.
- V 0.9.1 31.03.97: - Added my EMail Address to documentation!
- HardDisk ceased to work on 20.03.97, the day I finally got access to Internet (Arrgh!).
 - Version 1.0 will be released a little later than expected! (Need a new HardDisk!)
- V 0.9.5 25.04.97: - The Release-Date of V0.9 (in "History") was wrong
- New HardDisk :-) 12.04.97 (-:

I didn't work on PowerWindows from 20.03.97 until 13.04.97.
 - New Option: AVOIDDOUBLECLICKS. Prevents Screen from
-

- being trashed if you have installed some Commodity that brings Windows to Front/Back by double-clicking a Mouse-Button.
- Bug-Fix: If SAFEMOVEWINDOW was active, Windows couldn't be activated by clicking at their Dragbar.
 - Bug-Fix: The Iconify-Gadget Render-Routines placed one white Pixel at the wrong Place.
 - Implemented workaround for the Screens' DepthGadget being moved 1 Pixel left if MCP is running and it's SysiHack Option is activated.
 - Bug-Fix: If you iconified a Window that was partly out of Screen then de-iconifying didn't work. The Icon disappeared but the Window didn't appear. Should not happen anymore, although I'm not completely sure ...
 - Changed the way PowerWindows redirects OpenWindow() to OpenWindowTagList(), OpenScreen() to OpenScreenTagList() and CreateUpfrontLayer() to CreateUpfrontHookLayer(). The old Routines could cause Problems if other Programs patched that Functions after PowerWindows, especially if they didn't redirect them or did that the other way round.
 - Added CLI-Argument/Workbench-Tooltype "HOMEDIR". If you have moved PowerWindows in the WBStartup Drawer you should set the Icon-Tooltype "HOMEDIR" to where the PowerWindows-Directory is.
 - New Option "ICONDEPTH". If you want PowerWindows' Icons to behave like normal Windows (possibility to depth-arrange them instead of seeing them always in Front of everything) this can now be done.
 - MOST WANTED: New Option "WBICONPOPOP". It's now possible to de-iconify Workbench-Drawers by double-clicking its' WB-Icon. Doesn't work with "NOICONS"-Option, yet. Anyway, nobody seems to use "NOICONS". There might still be some problems/bugs with this new Feature, although I didn't notice any upto now.
 - New Option "ICONACTIVATE". If you click on an Icon, the iconified (hidden) Window will be activated. This allows you to use it's Menu. The Key-Presses will be redirected to the hidden Window, too. For example you could close it (and it's Icon) by pressing ESC (if the Program supports this).
 - New Option "NO_OUTOFSCREEN". With this Option you loose the possibility to move Windows out of Screen. Iconifying will still be possible. It's equivalent to setting NORMALQUALIFIER/FORCEQUALIFIER to something "impossible" such as "LALT+RALT+LSHIFT+RSHIFT+CONTROL+LCOMMAND+RCOMMAND".
-

- New Option "POPTOFRONT". By default when you de-iconify a Window it will pop up behind, in Front or between other Windows, depending on where it was when you iconified it. POPTOFRONT will automatically bring to Front de-iconified Windows.
- PowerWindows is now a commodity, too. Anyway the Input-Handler is not yet a CxCustom-Object. Implemented Hotkeys for several useful Operations.
- After opening a SIMPLE-REFRESH Layer PowerWindows now clears the LAYERREFRESH Bit in Layer->Flags. This should fix the Refreshing/Deadlock Problems with SIMPLE-REFRESH Windows (such as Multiview). This can be deactivated with "NOREFRESHKILL"
- New Option "SMARTWIN". Forces Windows to SMARTREFRESH.
- Converted the Images in the Archive to GIFs
- Added Cli-Argument/Workbench-Tooltype "CONFIGFILE". It's now possible to specify what Configuration-File you want to use. It's possible to use Project-icons with Default Tool "PowerWindows". The Tool-types will be read from the Project-Icon.
- Added Support for external Screen-Checker-, Window-Checker- and Icon-Render-Routines. New Options: EXT_WINDOWCHECKER, EXT_SCREENCHECKER, EXT_ICONRENDERER
- BUG BUG BUG BUG: Forgot to patch FreeSysRequest()!!! Requesters are opened with OpenWindowTagList() but closed with FreeSysRequest(). The Iconify-Gadgets of Requesters were never disposed. You lost about 200 Bytes with each Requester you opened. Had to patch EasyRequestArgs() and AutoRequest(), too, because they call FreeSysRequest() directly and not through the Library Vector.
- New Option "ICONCLOSEGAD". With this Option when you iconify a Window having a Close-Gadget, the Icon will get one, too, allowing you to close the Window without having to de-iconify it first.

1.30 Future

- 1) Preferences Program
 - 2) Bug Fixes
 - 3) Possibility to have different Icon-Positioning on different Screens.
 - 4) New Hotkeys
-

- 5) Multi Iconifying --> YOU WILL BE AMAZED!!!
- 6) CREATE AN UNREGISTERD VERSION WITH SEVERAL RESTRICTIONS, IMPLEMENT A SELF-DESTRUCTION ROUTINE OR CREATE A VIRUS THAT KILLS EVERY POWER-WINDOWS-EXECUTABLE IT ENCOUNTERS, IF YOU GUYS DONT START PAYING THE SHAREWARE FEE!

Note:

- 1) has the lowest Priority.
- 6) has the highest Priority!!!

1.31 Author

PowerWindows was created by:

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SOUTH TYROL - ITALY

Send Bug-Reports, Comments to:

E-Mail: steger@pass.dnet.it

PS: - Write in German (prefered), Italian or English!
- Don't report known Bugs

1.32 Other Software created by Georg Steger

PowerCrawler V1.10 (SHAREWARE):

A Map-Editor with incredible features. Have a look at the Screenshot

Features:

- o Blocksize from 1 x 1 to 255 x 255
 - o Mapsize from 2 x 2 to 32767 x 32767
 - o Upto 10 Layers (not parallax) with Mask-Support
 - o Localized
 - o Userdefined Screenmodes/Fonts for Editscreen
 - o Userdefined Font for Main Window on Workbench
 - o Fontsensitive GUI
 - o Userdefined Screenmode for BlockScreen
 - o External Loader/Saver-Support
 - o Many Draw-Tools (Freehand, Line, Rectangle, filled Rectangle, Airbrush, Fill) some with variable modes (vertical/horizontal Filling, OnePointPerRow/Column-Line, ...)
-

- o MAP-EDITING WITH VARIABLE ZOOM (1% - 100%)
- o Zoom Pre-Calculation for faster Editing
- o Fliptable for controlled flipping
- o Savable MAP-PREVIEW (1% - 100%)
- o Brushes. You can give them names, sort them, save them!
- o Mask-Creation inside program. Invert Mask. Load Mask as IFF-File.
- o Up to 6 projects in memory which can all have different settings, pictures, ...
- o Project-Saving/Loading which will save/load Map-Data,Settings, FileNames,Fliptable,Brushes,Mask in/from one file!
- o Shortcuts for nearly everything.
- o Popup-Menus for Brushes and Zoom.
- o Undo/Redo
- o Datatypes-Support
- o Iff-Library-Support
- o HAM/EHB-Mode-Support
- o Color0-Remapping and DRIPENS for good looking GUI in all modes!
- o OS-conform (hopefully)
- o Thousands of TOOLTYPES to change GUI, Flags for AllocBitmap, internal routines, ...
- o Loading/Saving settings to a file
- o Online Help

How to get the registered Version of PowerCrawler:

Send US\$ 25 (DM 35) (LIRE 30000) CASH ONLY to the following address:

Georg Steger
Hochlercher 30

I-39030 St. Johann/Ahrntal

ITALY

EMail: steger@pass.dnet.it

YOU MUST INCLUDE: ONE EMPTY DISK
RETURN STAMPS

PowerIcons (Giftware):

This little commodity removes the border around the Icons when you drag them. It makes color 0 of the Icons transparent. This program is especially useful if you use NewIcons V3. NewIcons already removed the border around the Icons but not when you dragged them.