

# **MultiCX**

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**COLLABORATORS**

	<i>TITLE :</i> MultiCX		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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# Chapter 1

## MultiCX

### 1.1 MultiCX-Guide Main

----- ←  
MultiCX 2.15 (4.10.95)

The ultimate Multi-Function-Commodity  
-----

MultiCX is the smallest Multi-Function-Commodity for the Amiga, thought as a replacement for many larger and sometimes badly programmed programs. It is a 100% pure commodity, which means that it does not use interrupts and no special input handlers. Some Patches (SetFunction) are installed in a very clean way, so that they do not interfere with other programs which use the same vectors.

As a result MultiCX can safely be disabled or removed at any time.

If you need a clean Commodity without bad hacks there's no alternative !

Legal Stuff

Who did it?

Installation

Features

Notes~and~Hints

List of Patches

History

To~do

Credits  
----- ←

!!! MultiCX is SHAREWARE !!!

---

## 1.2 Installation

---

### MultiCX Installation

---

Here you can install MultiCX automatically. It will be detected which OS you are using and whether you are installing MultiCX new or whether you are just updating. In the second case you have to add the new tooltypes or these functions will be disabled. For more information about new tooltypes have a look at the history.

[Click here to install.](#)

## 1.3 Features

---

### MultiCX Features

---

Notification  
Screen~Blanker  
Moire~Screen Blanker  
Mouse~Accelerator  
Mouse~Blanker  
Screen~Cycling  
Mouse~Shift  
Window~Cycling  
SUN~alike~Window~Activation  
HoldX~and~HoldY  
Enter~ASCII  
Map~Umlauts  
CapShift  
NoCapsLock

---

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Window~Close & Zoom

Window~Remember

CenterScreen

HotFlush

PopCLI

FrontPubScreen

System~Flags

Trackdisk~Parameters

Public~Screen~Flags

Internal~and~External~Preferences

Advanced~EditHook

Advanced ResetHandler

SetFunction~Patches

AssignWedge

NewLookMenus  
OS 3.x only!

NewLookProps

WBExtender

TagScreens

LockPens  
OS 3.x only!

FixOpenWB  
OS 3.x only!

NoDisplayBeep

Drive Protection

LockPatch

Opaque Windows

Alert Timeout  
OS 3.x only!

ShapeShifter Support

---

HandleCX

## 1.4 Notification

-----  
 Notification  
 -----

MultiCX recognizes any changes of the ToolTypes while running, so there's no real need for a GUI.

## 1.5 Screen Blanker

-----  
 Screen Blanker  
 -----

MultiCX includes a simple but compatible screen blanker. It always uses the display mode which fits best to the actual front screen, while taking the lowest resolution with only one plane.

AVOIDTASK and AVOIDSCREEN fully support AmigaDOS pattern matching and work case insensitive.

If LIKEWB and SCRMODE are set, SCRMODE is only used if WB is not available for some reason. But this should never happen...

See also:

Moire Blanker  
 -----

ToolTypes:

SCRBLANK=n	sets number of seconds until screen blanks, 0 means OFF
HOTBLANK=Qual&Key	sets hotkey for immediate blanking
CDNOBLANK	do not blank screen if Carrier is detected (currently only supports internal serial port)
CDUNBLANK	unblank screen if Carrier is detected (currently only supports internal serial port)
AVOIDTASK=Pattern	do not blank screen if OwnerTask of active screen matches pattern
AVOIDSCREEN=Pattern	do not blank screen if title of active screen matches pattern
AVOIDWINDOW=Pattern	do not blank screen if title of active window matches pattern
LIKEWB	forces cloning the WB's display mode
SCRMODE=ModeName	selects a display mode by name

---



## 1.6 Moire Blanker

-----  
 Moire Blanker  
 -----

MultiCX has a really nice Screen Blanker, too! It steals no processor time from other tasks, and if it couldn't draw a line for longer than 10 seconds it falls back to a simple black screen. There are some parameters to play with...

See also:

Screen Blanker  
 -----

ToolTypes:

MOIRE	selects Moire blanker
LINES=n	number of lines, default is 2
TRAIL=n	length of trail, default is 64
XSPEED=n	x offset for next line, default is 4
YSPEED=n	y offset for next line, default is 6
CSPEED=n	color cycling delay, default is 16
COLOR=n	drawing color, range is 1-4095
	0 means Random, -1 means Color Cycling

## 1.7 Mouse Accelerator

-----  
 Mouse Accelerator  
 -----

MultiCX lets you set Acceleration and Theshold (minimum movement to activate Acceleration) for smooth mouse handling.

SWITCH OFF ALL ALIEN MOUSE ACCELERATORS BEFORE USING THESE OPTIONS!  
 (Input Prefs "Acceleration" etc.)

-----  
 ToolTypes:

ACCELERATION=n	sets Acceleration factor, 0 means OFF
THRESHOLD=n	sets Threshold value, 0 means no Threshold

## 1.8 Mouse Blanker

-----  
 Mouse Blanker  
 -----

MultiCX blanks the mouse pointer on keypress and/or after approx. 30 seconds when no mouse movement has occurred.

---

ToolTypes:

KEYBLANK	activates MouseBlanking on keypress
TIMEBLANK	activates MouseBlanking after timeout

## 1.9 Screen Cycling

---

Screen Cycling

---

MultiCX allows you to cycle screens using either MiddleMouseButton or BothMouseButtons, this is equivalent to LCOMMAND M. Additionally a hotkey for backward cycling may be defined.

If MOUSESHIFT and SCRCYCLE are both set to MMB, then ScreenCycling will occur on a Double-MMB-Click.

---

ToolTypes:

SCRCYCLE=MMB BMB	sets Screen Cycling to MMB or BMB
BACKCYCLE=Qual&Key	sets Qualifier and Key for BackCycle, none means OFF

## 1.10 Mouse Shift

---

Mouse Shift

---

MultiCX lets you use the RightMouseButton or MiddleMouseButton as a Shift-Key for extended selection.

And this is how it works with RightMouseButton:

1. Press LeftButton to select first icon and hold it.
2. Press RightButton and hold it.
3. Release LeftButton and keep RightButton pressed.
4. Now select some more icons with LeftButton.
5. To deselect an icon, click on it with LeftButton and keep it pressed, then release RightButton and press it again.

Sounds much more complicated than it is...

---

---

ToolTypes:

MOUSESHIFT=RMB|MMB            sets MouseShift to RMB or MMB

## 1.11 Window Cycling

---

Window Cycling

---

MultiCX lets you put a window to front/back by a configurable number of LeftButton clicks. Qualifiers can be defined for both functions. Additionally there are two hotkeys available for TopWindowToBack and BottomWindowToTop. But only windows with a Depth Gadget are affected by Window Cycling.

---

ToolTypes:

WINCYCLE=n                    sets number of mouse clicks for WindowCycle,  
                                   0 means OFF

WINFRONTQUAL=Qual            sets Qualifier for WindowToFront

WINBACKQUAL=Qual            sets Qualifier for WindowToBack

FRONT2BACK=Qual&Key        sets hotkey for TopWindowToBack

BACK2FRONT=Qual&Key        sets hotkey for BottomWindowToTop

## 1.12 SUN-alike Window Activation

---

SUN-alike Window Activation

---

MultiCX has three different options to activate windows automatically. All of them activate the window under the mouse pointer, SunKey does it on every keypress, SunMouse does it after mouse movement, and SunRMB does it after pressing the right mouse button. So SunKey and SunMouse together seem to be rather useless. Windows with active Gadgets (like FileRequesters etc) will never be deactivated by one of these functions.

---

ToolTypes:

SUNKEY                        activates SunKey

SUNMOUSE                      activates SunMouse

SUNRMB                        activates SunRMB

---

## 1.13 HoldX and HoldY

-----  
HoldX and HoldY  
-----

MultiCX allows you to lock a specific mouse dimension while holding a defined Qualifier. If both Qualifiers are set to the same it locks all mouse movements. So you are responsible for useful settings...

-----  
ToolTypes:

HOLDXQUAL=Qual                sets Qualifier for HoldX, none means OFF  
HOLDYQUAL=Qual                sets Qualifier for HoldY, none means OFF

## 1.14 Enter ASCII

-----  
Enter ASCII  
-----

MultiCX allows you to enter ASCII codes directly by pressing the RALT key and the numbers in the numeric block, for example: <ALT> 65 = A. Maximum 3 digits, value must not be greater than 255.

-----  
ToolTypes:

ENTERASCII                    activates EnterASCII

## 1.15 Map Umlauts

-----  
Map Umlauts  
-----

This option might be of use for german users or other people writing german texts. It will convert the german umlauts into the normal character pendants.

-----  
ToolTypes:

MAPUMLAUTS                    activates MapUmlauts  
-----



## 1.19 Window Remember

-----  
Window Remember  
-----

MultiCX remembers the last active window on every screen, and the next time you go to that screen, this window will be re-activated automatically.

-----  
ToolTypes:

WINREMEMBER                      activates WindowRemember

## 1.20 CenterScreen

-----  
CenterScreen  
-----

The active screen is centered when this hotkey is pressed. Optionally the frontmost Screen is centered automatically as soon as it becomes active.

-----  
ToolTypes:

CENTERSCR=Qual&Key            sets Qualifier and Key for CenterScreen,  
                                  none means OFF  
AUTCENTER                        activates AutoCenterScreen

## 1.21 HotFlush

-----  
HotFlush  
-----

MultiCX frees all unneeded memory when pressing this hotkey, just like "Avail flush" does.

-----  
ToolTypes:

HOTFLUSH=Qual&Key            sets Qualifier and Key for HotFlush,  
                                  none means OFF

---

## 1.22 PopCLI

-----  
 PopCLI  
 -----

MultiCX spawns a UserShell using the given command string when pressing the PopCLI key.

-----

ToolTypes:

POPCLI=Qual&Key           sets Qualifier & Key for PopCLI, none means OFF  
 POPCLICMD=Command       sets command string for PopCLI, none means OFF  
 POPCLISTACK=n           sets stacksize for PopCLI (Default: 4096)

## 1.23 FrontPubScreen

-----  
 FrontPubScreen  
 -----

If this option is activated the FrontScreen automatically will become the actual DefaultPubScreen, as long as it is public and not private.

-----

ToolTypes:

FRONTPUBSCR               activates FrontPubScreen

## 1.24 System Flags

-----  
 System Flags  
 -----

MultiCX lets you set/change some of the internal AmigaOS flags. These may be set, unset or left unchanged, where a parameter of 0 means deactivate, 1 or any value >0 means activate, and putting the ToolType in brackets (the same as removing it) means no change. Old values are NOT restored when quitting/disabling MultiCX, but

Notification

may be

used at any time.

-----

ToolTypes:

-----

BLACKBORDER=n	changes BlackBorder flag, ECS Denise needed
NOCLICK=n	changes NoClick flag for all drives, may not work with very old drives
WILDSTAR=n	changes flag for extended WildCarding, if ON "*" may be used instead of "#?"
SNDFILTER=n	switch Sound filter ON/OFF

## 1.25 Trackdisk Parameters

-----  
Trackdisk Parameters  
-----

This option is used to set some parameters of trackdisk.device. If used with care these settings could make your drives faster and less noisy. Old values are NOT restored when quitting/disabling MultiCX, but default values are set when disabling these ToolTypes.

ONLY USE THEM IF YOU KNOW EXACTLY WHAT YOU ARE DOING!

-----

ToolTypes:

TDRETRY=n	change TDU_RETRYCNT (Default is 10)
TDSTEP=n	change TDU_STEPDELAY (Default is 3000)
TDSETTLE=n	change TDU_SETTLEDELAY (Default is 15000)
TDCALIBRATE=n	change TDU_CALIBRATEDELAY (Default is 4000)

## 1.26 Public Screen Flags

-----  
Public Screen Flags  
-----

MultiCX also lets you set/change the global Public Screen flags. These may be locked, so that other tasks cannot change them. The values are the same as for the

System Flags  
.

-----

ToolTypes:

POPPUBSCR=n	changes PopPubScreen flag
SHANGHAI=n	changes Shanghai flag
LOCKPUBFLAGS	locks Public Screen flags set by MultiCX

---



## 1.27 Internal and External Preferences

---

Internal and External Preferences

---

Normally MultiCX opens a WBInfo Requester on CX\_POPUP (OS 3.x only!), but this may be replaced by an external program like MultiCXPrefs by Michael Barsoom. BTW: Thanks for the great work, Michael!

---

ToolTypes:

CX_POPUP=Qual&Key	sets Qualifier and Key for WBInfo or ext. Prefs
EXTPREFS=Command	sets Command to execute for external Preferences

## 1.28 Advanced EditHook

---

Advanced EditHook

---

MultiCX contains a comfortable extension for all system StringGadgets. The following keys can be used:

RCOMMAND Q	undo	(*)
RCOMMAND X	clear	(*)
RCOMMAND C	copy to Clipboard	
RCOMMAND V	paste from Clipboard	
RCOMMAND G	convert contents to upper case	
RCOMMAND H	convert contents to lower case	
RCOMMAND key	leave Gadget and execute Menu option	
LCOMMAND (SHIFT) key	execute original RCommand shortcut	
SHIFT CURSOR LEFT	jump to start of line	(*)
SHIFT CURSOR RIGHT	jump to end of line	(*)
SHIFT BACKSPACE	delete to start of line	(*)
SHIFT DEL	delete to end of line	(*)
ALT CURSOR UP	previous Gadget (SHIFT TAB)	
ALT CURSOR DOWN	next Gadget (TAB)	
ALT CURSOR LEFT	jump word left	
ALT CURSOR RIGHT	jump word right	
ALT BACKSPACE	delete word left	
ALT DEL	delete word right	
ESC	leave Gadget	

(\*) function provided by OS

---

ToolTypes:

EDITHOOK	activates advanced EditHook
----------	-----------------------------

---

## 1.29 Advanced ResetHandler

-----  
 Advanced ResetHandler  
 -----

If this option is enabled NOTHING will survive a Reset (Software Reset or Keyboard Reset via LCOMMAND-RCOMMAND-CONTROL) in your computer's memory. This will kill all kinds of virusses and things like the RAD: device, which can be very useful if you just use it to decrunch disks.

Please note that the Keyboard Reset is not affected by PATCH\_DISABLE and that KBD\_RESETHANDLERS will not work on very old machines (A1000 and early A500).

-----  
 ToolTypes:

RESETHANDLER                      activates advanced ResetHandler

## 1.30 SetFunction Patches

-----  
 SetFunction Patches  
 -----

Using this ToolType it is possible to select whether all patches are disabled when disabling the Commodity. Patches are always disabled when MultiCX is removed.

The following MultiCX functions are affected by this ToolType:

LOCKPUBFLAGS	ASSIGNWEDGE	NEWLOOKMENUS
NEWLOOKPROPS	WBABOUT	WBTITLE
SA_PENS	SA_AUTOSCROLL	SA_FONT
LOCKPENS	FIXOPENWB	NODISPLAYBEEP
NOFORMAT	NOBOOTWRITE	LOCKPATCH
SHAPEFREEZER	ALERTTIME	

BLACKBORDER (OS 2.x only)  
 RESETHANDLER (SoftReset only)

-----  
 ToolTypes:

PATCH\_DISABLE                      if set, all Patches will be disabled together  
    with MultiCX

## 1.31 AssignWedge

---



### 1.34 WBExtender

WBExtender

These options replace your WB Titlebar and the "About..." Requester by more useful information about your system.

This is how the Titlebar will look:

```

AmigaOS~x.x~xxx~ ~xxxxxxx~(xx%)~Chip~xxxxxxx~(xx%)~Fast~ T:xx~L:xx~S:xx
~~~~~|~~~| ~~~ |~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~|~~~ ~+~free~ChipMem~~~~~+~free~FastMem~~~~~ ~|~~~~|~~~~|
~~~~~|~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~+-----~ChipSet~used~(OCS,~ECS~or~AGA)~ ~~~~ ~~~|~~~~|~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~+-----~OS~Version~~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~+-----~Number~of~Tasks~-----+~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~+-----~Number~of~Libraries~-----+~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~+-----~Number~of~Screens~-----+

```

Attention!

The~WB~only~refreshes~display~when~amount~of~free~memory~has~changed!

And~here's~your~new~Workbench/About...

```

~~~~~+-----+
~OS~Version~----->~~ |~Kickstart~40.70,~Workbench~40.42~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~Copyright~Message~-->~~ |~Copyright~©~1985-1994~Commodore~Amiga,~Inc.~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~CPU/FPU~type~----->~~ |~CPU:~68030,~FPU:~68882~~~~~|
~Cache~Status~----->~~ |~InstCache~ON~(Burst),~DataCache~ON~(Burst)~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~Memory~Status~----->~~ |~Memory~used:~21%~of~22.536.192~Bytes~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~+-----+
~Gadgets~----->~~ |~~~OK~~~~~Reboot                                Flush~|
~~~~~+-----+

```

```

~~~~~OK~~~~~:~just~leave~Requester~as~before
~~~~~Flush~~:~flush~all~inactive~libs,~fonts~etc.
~~~~~Reboot~:~reboots~system,~opens~confirmation~Requester~first

```

```

~~~~~+-----+
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|
~~~~~+-----+
~~~~~|~~~~~OK~~~Cancel~|

```



## 1.37 FixOpenWB

-----  
FixOpenWB OS 3.x only!  
-----

AmigaOS 3.x has a severe bug when re-opening the Workbench screen, depending on the task priority of the current task the system will hang forever. This option is a workaround for the bug.

-----  
ToolTypes:

FIXOPENWB enable FixOpenWB

## 1.38 NoDisplayBeep

-----  
NoDisplayBeep  
-----

This option simply disables Intuition's DisplayBeep() function, thus no application will flash the display anymore.

-----  
ToolTypes:

NODISPLAYBEEP enable NoDisplayBeep

## 1.39 Drive Protection

-----  
Drive Protection  
-----

Using the NOFORMAT option you may Format-protect a specific device, but remember that writing of tracks is still possible (Format ... QUICK).

NOBOOTWRITE inhibits writing the first 2 blocks of a specific device, so viruses or any other programs cannot write a BootBlock any longer, which would otherwise destroy the RDB (Rigid Disk Block) of a harddisk.

If IOALERT is enabled any violation of the above options will cause an Alert giving you the chance to ignore (LBUTTON) or cancel (RBUTTON) the operation. If this option is disabled all offending operations are cancelled.

DeviceName is CASE-DEPENDENT!  
-----

ToolTypes:

```
NOFORMAT=DeviceName    enable NoFormat for DeviceName
NOBOOTWRITE=DeviceName enable NoBootWrite for DeviceName
IOALERT                 enable IOAlert
```

## 1.40 LockPatch

---

LockPatch

---

This fixes a small OS-bug in dos.library's Lock function. Without this patch some programs will not work properly with muFS etc.

---

ToolTypes:

```
LOCKPATCH              enable LockPatch
```

## 1.41 ShapeShifter Support

---

ShapeShifter Support

---

If SHAPEFREEZER is enabled, MultiCX will freeze ShapeShifter when it's screen is not in front. This will prevent GfxBoard displays from being trashed by the Mac display.

SHAPECLICKER allows you to use RMB to create a DoubleClick on the Mac.

Just in case you don't know what the hell I'm talking about...  
ShapeShifter is the incredible Macintosh emulator by Christian Bauer.

IMPORTANT NOTE:

The name of ShapeShifter's main task must be "ShapeShifter", so do not rename the program!

---

ToolTypes:

```
SHAPEFREEZER           enable ShapeFreezer
SHAPECLICKER           enable ShapeClicker
```

## 1.42 Opaque Windows

---

---

### Opaque Window Movement and Sizing

---

These options enable you to move/size windows in full, and not only an ugly frame. But this should not be used on slow machines! If any Qualifier is pressed while moving/sizing a window MultiCX will use the old OS routines.

---

#### ToolTypes:

OPAQMOVE	enables Opaque Movement
OPAQSIZE	enables Opaque Sizing
NOSMART	use OS routines for SmartRefresh windows
NOSIMPLE	use OS routines for SimpleRefresh windows
OPAQLIMIT=Pixels	limits WindowSize for Opaque functions
	0 means "No Limit"

## 1.43 Alert Timeout

---

Alert Timeout OS 3.x only!

---

This option allows you to set a timeout (in 1/50 seconds) for all system alerts. If the specified period of time has expired the alert will be cancelled, just like you would have pressed RBUTTON.

---

#### ToolTypes:

ALERTTIME=ticks	enable and set Alert Timeout in 1/50 seconds,
	0 means "No Timeout"

## 1.44 Notes and Hints

---

### Notes and Hints

---

- MultiCX must be started from WB, CLI/Shell is not supported.
  - MultiCX is 100% compatible to Commodore's specifications, so don't complain if some bad-behaving software does not work with it.  
For example: Some bad filesystems do not support Notification, some bad gfx-board drivers do not support MouseBlanking etc...
-



- Not all patch programs are as clean as MultiCX (in reality most are really bad hacks!), so you should pay attention to the following simple rules:
  1. All lowlevel patches (like CopyMemQuicker, RTPatch etc.) should be started between SetPatch and LoadWB! Do not use the User-Startup for such programs. This method is preferable for most patches.
  2. Application patches (like ARQ) should have a high start priority if started in WBStartup. Simply set a ToolType "STARTPRI=nnn" and use a relative high value like 100 to make sure that these tools are started before MultiCX. Valid values range is -127 to 127.
  3. Do not try to remove bad patches, not even if they have a option to do that! It's simply not possible to do that in a clean way without MultiCX's advanced interfacing routines. You have been warned...
- Some bad programs pass invalid parameters to OS functions, for example some set WFLG\_NW\_EXTENDED in the NewWindow structure and do not supply a valid TagList in enw\_Extension. MultiCX tries to check parameters in order to avoid problems when possible, but this will not always work. Remember: Things like this are not MultiCX's fault!
- MultiCX's Screen Blanker uses BestModeID to find the best display mode. Because this is impossible under AmigaOS 2.x, MultiCX uses a special masking algorithm to find the display mode. But this relies on the fact, that a DisplayID with all ModeKeys set to 0 exists. Anyway you should use AmigaOS 3.x for best results.
- BlackBorder is not fully supported by AmigaOS 2.x, but should work.
- Some very old drives do not like NoClick, so switch it off at once if your drive makes funny noises...
- If you like to toggle some of MultiCX's features using hotkeys, you should try ToolManager 2.1 (by Stefan Becker) together with DoIcon (by Lars Eilebrecht).
- MultiCX may be enabled, disabled or removed from within scripts by using
 

```
HandleCX
    (included in this archive). Should always be done when
    starting nasty games...
```
- External Preferences programs must not use more than 4096 byte stack, and should use ReadArgs to get needed arguments. The program is responsible for things like protecting itself against being started twice, popping it's screen to front etc.

In order to get the path and name of MultiCX's active icon file a Public Semaphore has been implemented. Programs can use FindSemaphore to get the base of the following structure:

```
struct MCXSemaphore
{
    struct SignalSemaphore mcx_Sem;
    BPTR mcx_Lock; /* Copy of my wa_Lock */
}
```

```
CHAR    *mcx_Name;           /* Ptr to Icon Filename */
WORD    mcx_Version;        /* MultiCX Version */
WORD    mcx_Revision;       /* MultiCX Revision */
}
```

The name of the Semaphore is "MultiCX Path".

Don't forget to protect all accesses by a Forbid/Permit pair, because the Semaphore will be removed if MultiCX ends.

- NEVER try to remove/disable ARQ or other programs that patch the EasyRequestArgs function. Most often these bad programs will trash the vector, resulting in "Please insert volume NIL: in any drive" requesters.
- Do NOT use ReqChange, because every version has serious bugs and trashes several OS functions! Simply use RTPatch instead.
- Do NOT use bad hacks like SysIHack, ToolsDaemon, ExecPatch etc.
- Some programs (DOpus5 etc.) call Intuition functions while having the IntBase locked. So if you encounter any deadlock problems it's definitely not MultiCX's fault!
- Everybody should use SwazInfo by David Swazbrook... ;-)

## 1.45 Author

-----  
Author  
-----

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MultiCX was developed using DevPac v3.14 ©1994 by HiSoft  
-----

## 1.46 History

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 History
 

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1.00 - 1.76 Ancient History

2.0B (25.6.95) INTERNAL BETA

- renamed public semaphore to "MultiCX Path"
- overall code improvements
- implemented SetFunction interfacing code
- implemented

EDITHOOK

2.0B (27.6.95) INTERNAL BETA

- completed SetFunction interfacing code
- implemented

PATCH\_DISABLE

  ToolType

- improved

AUTOCENTER

-

BLACKBORDER

  uses a Patch now with OS 2.x

-

EDITHOOK

's Clipboard Paste now inserts new text  
  instead of replacing the old text

- implemented

TagScreens

  function with some ToolTypes:

    HARDPATCH, SA\_PENS, SA\_AUTOSCROLL and SA\_FONT

2.0B (28.6.95) INTERNAL BETA

- fixed some bugs

-

LOCKPUBFLAGS

  is a Patch now and only locks the Flags  
  which are changed by MultiCX

- implemented

FORCENEWLOOK

2.0B (30.6.95) INTERNAL BETA

- improved

FORCENEWLOOK

- fixed some bugs (only Mario Cattaneo found them ←  
  ...)

2.0B (2.7.95) INTERNAL BETA

- fixed some more small bugs
- re-improved

FORCENEWLOOK

  because of side effects

---

- improved Intuition access protocol handling
  - implemented  
ASSIGNWEDGE  
2.0β (3.7.95) INTERNAL BETA
  
  - fixed bug in  
ASSIGNWEDGE
    - implemented warning message to show up if some  
resident data structures are incompatible
  - 2.0β (4.7.95) INTERNAL BETA
  
  - improved  
ASSIGNWEDGE
    - improved  
FORCENEWLOOK
  - 2.0β (5.7.95) INTERNAL BETA
  
  - implemented  
WBABOUT  
and  
WBTITLE  
as a replacement for  
WBExtender
  - 2.0β (6.7.95) INTERNAL BETA
  
  - WBABOUT  
now works correctly with 68040 and 68060
  - improved  
WBTITLE  
2.0β (7.7.95) INTERNAL BETA
  
  - extended "MultiCX Path" Semaphore
  - improved some routines
  - 2.0β (8.7.95) INTERNAL BETA
  
  - SetFunction interfacing code completely rewritten
  - fixed Enforcer hit in  
WBTITLE  
2.0β (10.7.95) PUBLIC BETA
  
  - fixed bug in  
ASSIGNWEDGE  
2.0β (16.7.95) INTERNAL BETA
  
  - improved  
Screen~Blanker  
, it will no longer re-open  
Workbench when blanking
  - implemented  
LOCKPENS  
and  
FIXOPENWB  
(OS 3.x only!)
-

- 
- 2.0B (18.7.95) INTERNAL BETA
- fixed serious bug in SetFunction interfacing code, which caused difficult to trace lockups
  - improved LOCKPENS and FIXOPENWB
- 2.0B (27.7.95) INTERNAL BETA
- improved EDITHOOK
- 2.0B (30.7.95) PUBLIC BETA
- built in some more sanity checks for OpenWindow and OpenScreen patches
  - improved Moire~Blanker
- 2.0B (7.8.95) INTERNAL BETA
- fixed bug in EDITHOOK, Clipboard Paste now always works correctly (ReqTools FileRequester etc.)
- 2.0B (11.8.95) INTERNAL BETA
- improved some routines
- 2.0B (12.8.95) INTERNAL BETA
- fixed small bugs in SA\_PENS and SA\_FONT
  - extended SetFunction interfacing code
- 2.0B (14.8.95) INTERNAL BETA
- fixed a little bug in Notification routine
- 2.0B (15.8.95) INTERNAL BETA
- renamed FORCENEWLOOK to NEWLOOKMENUS
  - implemented NEWLOOKPROPS
  - improved SetFunction interfacing code
  - made some routines more "hack-friendly"... ;-)
- 2.0B (19.8.95) INTERNAL BETA
- implemented SHAPEFREEZER
-

(ShapeShifter Support)

- 2.0β (20.8.95) INTERNAL BETA
- implemented NOFORMAT and LOCKPATCH
  - improved documentation ( PATCH\_DISABLE )
- 2.0β (21.8.95) INTERNAL BETA
- improved SHAPEFREEZER
  - optimized some routines
  - fixed nasty bug in SetFunction interfacing code (occured with OS 2.x only)
- 2.0β (22.8.95) INTERNAL BETA
- improved Moire Blanker
  - (no more funny pixels with CyberGraphX)
  - MultiCX needs at least 4096 Bytes Stack now!
  - improved OpenWindow and OpenScreen patches
- 2.0β (23.8.95) INTERNAL BETA
- implemented RESETHANDLER
- 2.0β (26.8.95) INTERNAL BETA
- SHAPEFREEZER completely rewritten
  - implemented SHAPECLICKER (ShapeShifter Support)
  - improved EDITHOOK
  - , Clipboard Paste works with MUI now
  - improved Moire Blanker
  - fixed some small bugs
- 2.0β (27.8.95) INTERNAL BETA
- improved ASSIGNWEDGE
  - , does more sanity checks now
  - fixed bug in RESETHANDLER
- 2.0β (28.8.95) INTERNAL BETA
- improved
-

SHAPEFREEZER  
 , should work always now, even  
 while the Mac is booting up!

2.0β (29.8.95) INTERNAL BETA

- some minor code improvements

2.0β (30.8.95) INTERNAL BETA

- reduced stack usage of some routines to avoid problems  
 with other patches

2.0β (31.8.95) INTERNAL BETA

- added another sanity check  
 - some minor code improvements

2.0β (6.9.95) INTERNAL BETA

- fixed small bug in  
 EDITHOOK  
 - implemented

OPAQMOVE

,

OPAQSIZE

,

OPAQSMART

,

OPAQLIMIT

2.0β (7.9.95) INTERNAL BETA

- removed OPAQSMART, added  
 NOSMART  
 and  
 NOSIMPLE

- improved

OPAQMOVE

and

OPAQSIZE

2.0 (9.9.95) FIRST RELEASE VERSION

- improved  
 SHAPEFREEZER

- fixed bug in

EDITHOOK

- finished AmigaGuide documentation

2.01 (10.9.95) PUBLIC RELEASE

- fixed serious bugs in  
 Moire Blanker  
 and  
 Mouse Blanker

- implemented

AVOIDWINDOW

2.02 (12.9.95) PUBLIC RELEASE

- improved  
Screen Blanker  
- improved  
OPAQMOVE  
and  
OPAQSIZE  
- fixed serious bugs in  
SHAPEFREEZER  
and  
FIXOPENWB  
- enhanced and improved  
EDITHOOK  
2.03 (14.9.95) PUBLIC RELEASE

- fixed documentation bug (  
NEWLOOKMENUS  
)  
- enhanced  
EDITHOOK  
-

OPAQMOVE  
and  
OPAQSIZE  
completely rewritten,  
works with OS 2.x and OS 3.x now!

2.04 (15.9.95) PUBLIC RELEASE

-  
OPAQMOVE  
no longer ignores alien BorderGadgets  
(MUI's Iconify Gadget etc.)

2.05 (15.9.95) PUBLIC RELEASE

- improved DragBar recognition in  
OPAQMOVE  
- fixed small bug in  
OPAQSIZE  
2.06 (16.9.95) PUBLIC RELEASE

- improved  
LOCKPATCH  
2.07 (18.9.95) PUBLIC RELEASE

- improved  
LOCKPENS  
- added  
List of Patches  
to documentation

2.08 (19.9.95) PUBLIC RELEASE

- fixed serious bug in error cleanup code

2.09 (24.9.95) PUBLIC RELEASE

---



-  
 POPCLI  
 and  
 External Preferences  
 should work with faked  
 WBStartupMsgs (with empty MP\_SIGTASK field) now, but  
 the Path will not be cloned then!

2.10 (25.9.95) PUBLIC RELEASE

- implemented Deadlock Protection System for some very  
 nasty programs

2.11 (26.9.95) PUBLIC RELEASE

- implemented  
 NOBOOTWRITE  
 and  
 IOALERT  
 - implemented  
 NODISPLAYBEEP  
 2.12 (28.9.95) PUBLIC RELEASE

- implemented  
 ALERTTIME  
 - modified behaviour of  
 IOALERT  
 2.13 (29.9.95) PUBLIC RELEASE

- enhanced and optimized  
 NOFORMAT  
 and  
 NOBOOTWRITE  
 ' now ETD commands are detected as well

2.14 (2.10.95) PUBLIC RELEASE

- hopefully solved deadlock problems with some very  
 nasty programs (DOpus5 etc.)

2.15 (4.10.95) PUBLIC RELEASE

- made  
 NEWLOOKMENUS  
 more waterproof, some bad programs  
 tried to define NULL-MenuStrips

## 1.47 To do

-----  
 Planned features for later versions:  
 -----

- WBGauge
- Digital Clock
- some more small patches...

## 1.48 PatchList

---

### List of Patches

---

Name	Library	needed for
OpenScreen, OpenScreenTagList	intuition	SA_PENS SA_AUTOSCROLL SA_FONT LOCKPENS (OS 3.x) BLACKBORDER (OS 2.x)
OpenWindow, OpenWindowTagList	intuition	SHAPEFREEZER NEWLOOKMENUS (OS 3.x) WBTITLE FIXOPENWB (OS 3.x)
SetPubScreenModes	intuition	SHAPEFREEZER LOCKPUBFLAGS
SetMenuStrip	intuition	NEWLOOKMENUS (OS 3.x)
EasyRequestArgs	intuition	ASSIGNWEDGE WBABOUT
SetWindowTitles	intuition	WBTITLE
LockPubScreen	intuition	FIXOPENWB (OS 3.x)
OpenWorkBench	intuition	FIXOPENWB (OS 3.x)
CreateGadgetA	gadtools	NEWLOOKPROPS
WBenchToFront	intuition	SHAPEFREEZER
ScreenToFront, ScreenToBack	intuition	SHAPEFREEZER
ScreenDepth	intuition	SHAPEFREEZER (OS 3.x)
DoIO, SendIO	exec	NOFORMAT NOBOOTWRITE
Format	dos	NOFORMAT
Lock	dos	LOCKPATCH
ColdReboot	exec	RESETHANDLER
DisplayBeep	intuition	NODISPLAYBEEP
DisplayAlert	intuition	ALERTTIME (OS 3.x)

## 1.49 Legal

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### Legal Stuff

---

MultiCX 2.x is SHAREWARE !!!

If you use it permanently please send me a donation of US\$ 15 (DM 20).

---

Please add \$5 when you send me a cheque to cover clearing charges.

All users who have sent a gift for MultiCX 1.x may use this and all further coming updates without paying anything.

Bank Account for money transfer (German users only):

R.Berndt    Konto 393439-438    BLZ 36010043    Postbank Essen

THANK YOU FOR YOUR SUPPORT !

-----  
Copyright

-----  
MultiCX is written and copyright © 1994-1995 by Martin Berndt. No parts of this program may be altered by any means (this includes editing, reprogramming, crunching, resourceing etc.), except archiving.

Disclaimer

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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 MultiCX. CD Manufactures are specifically granted the right to include this program on CD collections, as long as they are for the Public Domain. But the user still has to pay the Shareware fee!

## 1.50 Credits

-----  
Credits

-----  
The following persons deserve special thanks from me as they made a significant contribution to the development of MultiCX:

- Olaf "Olsen" Barthel                    for his good advice in many cases
  - Michael Barsoom                        for  
    MultiCXPrefs  
    - Christian Bauer                    for  
    ShapeShifter  
    , the best Mac-Emulator
-

- Frank Mariak                                   for making CyberGraphX
- all my Beta-Testers                         for reports and constructive criticism
- Mike Oldfield                               for the best music on this little planet
- the TNG crew                                 for the greatest adventures in universe
- my son Daryl                                 for moral support
- my coffee machine                           for coffee support     ;-)

## 1.51 HandleCX

-----  
 HandleCX 1.3 (19-Mar-95)  
 -----

HandleCX is a CLI-replacement for Exchange to help you handling your commodities. In many cases it is useful to have full control over all running commodities in scripts, e.g. to start a game which does not like screenblankers.

-----  
 Usage  
 -----

The syntax of the HandleCX command is:

```
HandleCX CX_NAME/M,L=LIST/S,V=VERBOSE/S,P=POPUP/S,H=HIDE/S,E=ENABLE/S,
        D=DISABLE/S,R=REMOVE/S,T=TOGGLE/S
```

The parameters are:

CX_NAME		name of a commodity, case-indepenent, must be quoted if it contains spaces, multiple names and wildcarding are allowed
LIST	or L	lists all or selected commodities, may be combined with other commands
VERBOSE	or V	like LIST, but with more infos
POPUP	or P	like "Show Interface" in Exchange
HIDE	or H	like "Hide Interface" in Exchange
ENABLE	or E	like "Active" in Exchange
DISABLE	or D	like "Inactive" in Exchange

---

REMOVE or R like "Remove" in Exchange

TOGGLE or T toggles Active/Inactive status

Only ONE command is allowed at a time!

That means only the first command found will be executed.

List format:

```

$07146028: MultiCX           ACTIVE  GUI
$071460B0: Arq 1.79         ACTIVE  NOGUI
$07146138: Magic Menu       ACTIVE  GUI
$071461C0: CycleToMenu      ACTIVE  GUI
$07146248: Exchange         ACTIVE  GUI
$071462D0: DynamiCache      ACTIVE  GUI
$07146730: MFS              ACTIVE  GUI
$071467B8: CrossDOS         ACTIVE  GUI
$07146840: AlertPatch       ACTIVE  GUI
$071468C8: CrossMac         ACTIVE  GUI
$07146950: PowerSnap        ACTIVE  GUI
$071469D8: ClipHistory 0    ACTIVE  GUI
$07146A60: Clipbook         ACTIVE  GUI
$07146AE8: SwazInfo         ACTIVE  GUI
$07146B70: ToolManager      ACTIVE  NOGUI
$07146BF8: PrinterManager   ACTIVE  GUI
$07146C80: MagicCX          ACTIVE  GUI
$07146D08: DragIt           ACTIVE  GUI
^          ^                ^          ^
|          |                |          |
|          CX_Name          |          |
|          |                |          |
|_____  Address of Structure |          |
|          |                |          |
|          Commodity is ACTIVE _____|          |
|          |                |          |
|          Commodity has a GUI or not _____|          |

```

Verbose list format:

```

$07157418: MultiCX           ACTIVE  GUI
: MultiCX 2.0 - ©1995 by Martin Berndt (Adds many nice features)

```

---

### History

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- 1.0 - initial release
  - 1.1 - implemented wildcarding  
Some AmigaShell replacements need quotes around wildcards!
  - 1.2 - changed command template,  
verbose list implemented
-

1.3 - implemented TOGGLE option

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