

# **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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**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME

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# Chapter 1

# MultiCX

## 1.1 MultiCX-Guide Main

---

MultiCX 2.49 (13.4.96)

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!  
NoCloseWB  
NoDisplayBeep  
Drive Protection  
LockPatch  
Opaque Windows  
Alert Timeout  
OS 3.x only!

---

WBGauge  
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)
IGNOREKEY	ignore unblanking keypress
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 an ALT 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=LALT|RALT     activates EnterASCII using LALT or RALT

## 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

## 1.16 CapShift

-----  
CapShift  
-----

This option changes the way CapsLock works. Just try activating CapsLock, and then press some shifted letters to get an idea of it. Hotkeys etc. are no longer affected by CapsLock. CapShift is ignored if NoCapsLock is active.

-----  
ToolTypes:

CAPSHIFT                    activates CapShift

## 1.17 NoCapsLock

-----  
NoCapsLock  
-----

... simply switches off CAPSLOCK completely.

-----  
ToolTypes:

NOCAPSLOCK                activates NoCapsLock

## 1.18 CloseZoom

-----  
Window Close & Zoom  
-----

MultiCX allows you to close/zoom windows using pre-defined Qualifiers and Keys.

-----  
ToolTypes:

WINCLOSE=Qual&Key        sets Qualifier and Key for CloseWindow,  
                                 none means OFF  
WINZOOM=Qual&Key         sets Qualifier and Key for ZoomWindow,  
                                 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 MUI-MCXPrefs by Jürgen Kempkes.

Thanks for the great work, Jürgen!

-----  
 ToolTypes:

CX_POPUP=Qual&Key	sets Qualifier and Key for WBInfo or ext. Prefs
IGNORE_CLASS	lets all other Qual&Key definitions ignore their ix_Class, normally only RAWKEY is accepted
EXTPREFS=Command	sets Command to execute for external Preferences

## 1.28 Advanced EditHook

-----  
 Advanced EditHook  
 -----

MultiCX contains a comfortable extension for all system StringGadgets. It is completely inactive as long as the CONTROL qualifier is pressed.

The following keys can be used:

RCOMMAND Q	undo	(*)
RCOMMAND X	clear	(*)
RCOMMAND C	copy to Clipboard	
RCOMMAND V	paste from Clipboard (Insert)	
RCOMMAND SHIFT V	paste from Clipboard (Clear)	
RCOMMAND G	convert contents to upper case	
RCOMMAND H	convert contents to lower case	
RCOMMAND key	leave Gadget and execute Menu option	(\$^1\$)
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	(\$^2\$)

(\*) function provided by OS

-----

ToolTypes:

EDITHOOK                    activates advanced EditHook  
 CLIPUNIT=Unit              select Clipboard unit for Copy/Paste (0-255),  
                             Default: 0  
 NOCMDKEY                   switch off "execute Menu" option (\$^1\$)  
 NOESCKEY                   switch off "leave Gadget" option (\$^2\$)

## 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	NOCLOSEWB
NODISPLAYBEEP	NOFORMAT	NOBOOTWRITE
LOCKPATCH	SHAPEFREEZER	ALERTTIME
WBGAUGE	EDITHOOK	





```

~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~~|
~Largest~free~block:~11.061.448~Bytes Fast~~|
~Gadgets~----->~~|~~~OK~|~Reboot~|~Flush~|

```

```

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

```

```

~~~~~+-----+
~~~~~|~~~~~System~Reboot~|
~~~~~|~~~~~|
~~~~~|~Wait~for~disk~activity~to~finish.~|
~~~~~+-----+
~~~~~|~~~OK~|~Cancel~|
~~~~~+-----+

```

Please read more about Patches under "  
Notes and Hints  
"!

#### ToolTypes:

```

WBABOUT~~~~~ enables new WB About
WBTITLE~~~~~ enables new WB Titlebar
CLOCK          adds a digital clock to the TitleBar, which will
                be updated regularly
12HRS          12hrs clock display
COMPACT        enables a more compact TitleBar (for people with
                very big fonts or a very narrow WB screen)

```

## 1.35 TagScreens

### TagScreens

Do you remember this old goodie? ;-)

These functions only affect screens which do not set these parameters themselves, so this should work perfectly together with other TagItem promoters like MagicCX's TagScreens. Additionally all screens with supplied TagLists are not changed unless HARDPATCH is set.

#### ToolTypes:

```

HARDPATCH          if set, NewScreens with TagLists are also

```

	affected by the patch
SA_PENS	set DRIPens for ugly looking old programs
SA_AUTOSCROLL	enable AutoScrolling
SA_FONT	use Topaz-8 as default font for old programs

### 1.36 LockPens

-----  
 LockPens OS 3.x only!  
 -----

This option is very useful if you use Workbench with many colors. It locks pens 4-7 and sets the colors according to the actual Palette Preferences.

-----  
 ToolTypes:

LOCKPENS enable LockPens

### 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 NoCloseWB

-----  
 NoCloseWB  
 -----

If this option is set, only the IPrefs task is allowed to close your Workbench screen. The tasks name MUST be "« IPrefs »", which should be the case since Workbench 2.1. Otherwise the Workbench could not be closed by any task.

-----

---

ToolTypes:

NOCLOSEWB                    enable NoCloseWB

### 1.39 NoDisplayBeep

-----  
NoDisplayBeep  
-----

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

ToolTypes:

NODISPLAYBEEP                enable NoDisplayBeep

### 1.40 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

### 1.41 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

## 1.42 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.

SHAPESTICK will emulate a Joystick on the Mac side by translating your Joystick movements to keypresses. Default is SPACE for Fire and CURSOR keys for the four directions. Diagonal movements are represented by the corresponding two keypresses. As an example RETURN for Fire and NUMPAD 4,5,6,8 would be correct for F/A-18 and A10-Attack. All Qualifiers except NUMPAD are ignored. Please note that this option will only affect ShapeShifter, so it is compatible to all other programs running on the Amiga side.

Just in case you don't know what the hell I'm talking about...

ShapeShifter is the incredible Macintosh emulator by Christian Bauer.

IMPORTANT NOTES:

- The name of ShapeShifter's main task must be "ShapeShifter", so do not rename the program! Newer versions of ShapeShifter (since 3.2) take care of this automatically.
  - Do NOT use SHAPESTICK if you have anything other connected to your Joystick port (Gameport 1) than a digital Joystick!
  - SHAPESTICK currently only supports ShapeShifter running on it's own screen, it is simply ignored if you run ShapeShifter in a window.
- 

ToolTypes:

SHAPEFREEZER                enable ShapeFreezer

---



```
SHAPECLICKER          enable ShapeClicker
SHAPESTICK            enable ShapeStick
S_FIRE=Key            set Key representing the Joystick's fire button
S_RIGHT=Key          set Keys representing Joystick directions
S_LEFT=Key
S_UP=Key
S_DOWN=Key
```

## 1.43 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 OPAQQUAL is not set and 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
WBONLY              use Opaque functions on WB screen only
OPAQLIMIT=Pixels    limits WindowSize for Opaque functions
                    0 means "No Limit"
OPAQQUAL=Qual       set Qualifier for Opaque functions
```

## 1.44 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"
GURUTIME=ticks       set Timeout for Guru messages (Default: 540)
```

---

## 1.45 WBGauge

-----  
 WBGauge  
 -----

Perhaps you know these gauges from good old OS 1.x times...

If activated these gauges show you how much the device is filled up, just like the percent figure in the windows titlebar.

There are 4 different looks available:

```

Type 1:    OS 2.x Proportional Gadget
Type 2:    OS 3.x Proportional Gadget
Type 3:    Plain Raised
Type 4:    3D Raised
  
```

Just try them all to find out what you like most.

-----

ToolTypes:

```

WBGAUGE=type          enable WBGauge and select gauge type (1-4),
                      0 means OFF
  
```

## 1.46 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 IntuiBase locked. So if you encounter any deadlock problems it's definitely not MultiCX's fault!
- Some bad KBD\_RESETHANDLERS do not preserve registers and do not return NULL when finished. This is the case with RebootOff from the Enforcer package, so do not complain if it doesn't work correctly!
- Things like Enforcer are only thought for debugging purposes and should not be used on every startup!
- Some bad so-called viruskillers do not know the difference between a virus and an application, and so report that the DoIO vector has been corrupted and must be fixed. If possible you should CANCEL this operation!
- Everybody should use SwazInfo by David Swazbrook... ;-)

## 1.47 Author

---

Author

---

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Germany

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E-Mail International: m\_berndt@wanderer.gun.de

1. Support BBS: WANDERER +49-211-9441293  
+49-211-9441294  
+49-211-9441296

Login: MBS

Use 'download <number>' to get the archive you want

2. Support BBS: KSB +49-2151-974740  
+49-2151-974758  
+49-2151-974923  
+49-2151-974961

Login: GAST

---

Online-Menu: Support-Area

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

---

## 1.48 History

---

### History

---

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 ←  
...)

2.0β (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  
2.0B (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"... ;-)

2.0β (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  
- optimised 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 optimised  
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

## 2.16 (8.10.95) PUBLIC RELEASE

- fixed bug in  
ASSIGNWEDGE  
, so IDCMP\_DISKINSERTED will  
be handled correctly now  
- added some  
Notes and Hints

## 2.17 (9.10.95) PUBLIC RELEASE

- improved StringGadget recognition routine

## 2.18 (10.10.95) PUBLIC RELEASE

- fixed bug in  
SHAPEFREEZER

## 2.19 (24.10.95) PUBLIC RELEASE

- added some sanity checks for  
ASSIGNWEDGE

## 2.20 (25.10.95) PUBLIC RELEASE

- improved  
LOCKPENS

## 2.21 (27.10.95) PUBLIC RELEASE

- implemented Joystick emulation for  
ShapeShifter

- improved some routines

## 2.22 (7.11.95) PUBLIC RELEASE

- fixed small bug in  
SHAPEFREEZER

- some internal improvements

## 2.23 (10.11.95) PUBLIC RELEASE

- implemented  
OPAQUAL

- included fixed version of

RebootOff  
(Enforcer)

## 2.24 (11.11.95) PUBLIC RELEASE

- improved  
ASSIGNWEDGE  
and implemented workaround  
for some nasty programs like TheAnswer3

## 2.25 (17.11.95) PUBLIC RELEASE

- implemented  
WBONLY
- implemented SMARTWB
- updated Support BBS number

2.26 (1.12.95) PUBLIC RELEASE

- implemented  
WBGauge
- 2.27 (3.12.95) PUBLIC RELEASE

- fixed stupid bug in  
WBGauge
- 2.28 (4.12.95) PUBLIC RELEASE

- fixed and improved  
FRONTPUBSCR
- 2.29 (4.12.95) INTERNAL TEST VERSION

2.30 (5.12.95) PUBLIC RELEASE

- improved and enhanced  
EDITHOOK
- :
- is now controlled by  
PATCH\_DISABLE
- implemented  
CLIPUNIT  
ToolType
- RCOMMAND SHIFT V clears gadget before inserting string
- works with applications that do their own Copy/Paste now
- is 100% compatible to MUI now
- overall code cleanup

2.31 (11.12.95) PUBLIC RELEASE

- improved  
OPAQMOVE  
and  
OPAQSIZE
- fixed (harmless) Enforcer hit in  
NEWLOOKMENUS
- 2.32 (15.12.95) PUBLIC RELEASE

- hopefully fixed some problems with v39 Workbench
- minimised stack usage of some routines

2.33 (16.12.95) PUBLIC RELEASE

- improved and extended  
WBABOUT  
and  
WBTITLE
  - fixed nasty bug in  
SHAPEFREEZER
  - 2.34 (16.12.95) PUBLIC RELEASE
-

- Arrggghhhh! v2.33 introduced a MEGA-BUG!

2.35 (19.12.95) PUBLIC RELEASE

-  
WBGauge  
should work with all languages now

2.36 (20.12.95) PUBLIC RELEASE

- optimised some routines  
-  
WBGauge  
really works with all languages now,  
including German... ;-)

2.37 (26.12.95) PUBLIC RELEASE

- implemented  
CLOCK  
- added  
12HRS  
and  
COMPACT  
ToolTypes

2.38 (31.12.95) PUBLIC RELEASE

- implemented  
IGNORE\_CLASS  
- implemented  
NOCMDKEY  
and  
NOESCKEY  
2.39 (1.1.96) PUBLIC RELEASE

- implemented  
GURUTIME  
- implemented some more Magic in  
WBABOUT  
A Happy New Year to all of you!

2.40 (7.1.96) PUBLIC RELEASE

- fixed a global WB deadlock problem

2.41 (8.1.96) PUBLIC RELEASE

- fixed small bug in  
WBTITLE  
-  
ENTERASCII  
now works with LALT or RALT

2.42 (23.1.96) PUBLIC RELEASE

- implemented

---

- AUTOMOUNT  
- improved
- EDITHOOK  
2.43 (23.1.96) PUBLIC RELEASE
- improved  
ASSIGNWEDGE  
2.44 (26.1.96) PUBLIC RELEASE
- improved  
ASSIGNWEDGE (AUTOMOUNT)  
behaviour
- 2.45 (12.2.96) PUBLIC RELEASE
- removed SMARTWB, because it would never work properly  
- removed a sanity check from  
ASSIGNWEDGE  
2.46 (18.3.96) PUBLIC RELEASE
- implemented  
NOCLOSEWB  
- implemented  
IGNOREKEY  
- improved  
IOALERT  
,  
Multitasking is inhibited now while displaying the  
alert to give the chance for a emergency reset  
-  
WBTITLE  
now detects CyberGraphX  
- easier access to  
Support BBS  
2.47 (24.3.96) PUBLIC RELEASE
- fixed  
ASSIGNWEDGE  
's Mount to work properly with  
some 3rd party command shells (WShell etc.)
- 2.48 (11.4.96) PUBLIC RELEASE
- implemented  
ASSIGNWEDGE  
workaround for WBStartup+  
(bug in launcher.library)  
- fixed small bug in  
NOCAPSLOCK  
- improved SetFunction interfacing code  
- optimised some routines  
- included german documentation
- 2.49 (13.4.96) PUBLIC RELEASE
- fixed a nasty bug in new SetFunction interfacing code
-

## 1.49 To do

---

Planned features for later versions:

---

- some more small patches...

## 1.50 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) SHAPEFREEZER
OpenWindow, OpenWindowTagList	intuition	NEWLOOKMENUS (OS 3.x) WBTITLE FIXOPENWB (OS 3.x) SHAPEFREEZER
CloseWindow	intuition	WBGUAGE
SetPubScreenModes	intuition	LOCKPUBFLAGS
SetMenuStrip	intuition	NEWLOOKMENUS (OS 3.x)
EasyRequestArgs	intuition	ASSIGNWEDGE WBABOUT
SetWindowTitles	intuition	WBTITLE WBGUAGE
LockPubScreen	intuition	FIXOPENWB (OS 3.x)
OpenWorkBench	intuition	FIXOPENWB (OS 3.x)
CloseWorkBench	intuition	NOCLOSEWB
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)
ModifyIDCMP	intuition	WBGUAGE

## 1.51 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

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MultiCX is written and copyright © 1994-1996 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

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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!

---

## 1.52 Credits

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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
- Jürgen Kempkes for  
MUI-MCXPrefs  
- Christian Bauer for  
ShapeShifter  
, the best Mac-Emulator
- Frank Mariak for making CyberGraphX
- Kai Iske for WBGauge artwork
- Niels Görs for the german documentation
- all my Beta-Testers for reports and constructive criticism
- the MCP authors for the worst programming example ever
- 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 ;-)

## 1.53 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-indepentent,

---



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

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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
-