

MultiCX

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REVISION HISTORY

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Chapter 1

MultiCX

1.1 MultiCX-Guide Main

----- ←
MultiCX 2.21 (27.10.95)

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

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...

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

1.22 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~|

```

~~~~~+-----+

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

-----  
ToolTypes:

WBABOUT~~~~~ enables new WB About  
WBTITLE~~~~~ enables new WB Titlebar

## 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 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.

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   |                                                 |

## 1.42 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 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!
- 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

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## 1.46 History

-----  
 History  
 -----

1.00 - 1.76 Ancient History

2.0β (25.6.95) INTERNAL BETA

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

EDITHOOK

2.0β (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

2.0β (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  
2.0β (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 protocoll 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

2.0B (7.7.95) INTERNAL BETA

- extended "MultiCX Path" Semaphore

- improved some routines

2.0B (8.7.95) INTERNAL BETA

- SetFunction interfacing code completely rewritten

- fixed Enforcer hit in

WBTITLE

2.0B (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
  - 2.0β (12.8.95) INTERNAL BETA
    - fixed small bugs in SA\_PENS and SA\_FONT
    - extended SetFunction interfacing code
  - 2.0β (14.8.95) INTERNAL BETA
    - fixed a little bug in Notification routine
  - 2.0β (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
    - 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  
 2.0B (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

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

## 1.47 To do

---

Planned features for later versions:

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

## 1.48 PatchList

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### List of Patches

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| Name                          | Library   | needed for                                                                       |
|-------------------------------|-----------|----------------------------------------------------------------------------------|
| OpenScreen, OpenScreenTagList | intuition | SA_PENS<br>SA_AUTOSCROLL<br>SA_FONT<br>LOCKPENS (OS 3.x)<br>BLACKBORDER (OS 2.x) |
| OpenWindow, OpenWindowTagList | intuition | SHAPEFREEZER<br>NEWLOOKMENUS (OS 3.x)<br>WBTITLE<br>FIXOPENWB (OS 3.x)           |
| SetPubScreenModes             | intuition | SHAPEFREEZER<br>LOCKPUBFLAGS                                                     |
| SetMenuStrip                  | intuition | NEWLOOKMENUS (OS 3.x)                                                            |
| EasyRequestArgs               | intuition | ASSIGNWEDGE<br>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<br>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

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,<br>case-independent,<br>must be quoted if it contains spaces,<br>multiple names and wildcarding are allowed |
| LIST    | or L | lists all or selected commodities,<br>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

---

- 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

---