

MultiCX

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REVISION HISTORY

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Contents

1	MultiCX	1
1.1	MultiCX-Guide Main	1
1.2	Installation	2
1.3	Features	2
1.4	Notification	4
1.5	Locale	4
1.6	Screen Blanker	4
1.7	Moire Blanker	5
1.8	Mouse Accelerator	6
1.9	Mouse Blanker	6
1.10	Screen Cycling	6
1.11	Mouse Shift	7
1.12	Window Cycling	7
1.13	SUN-alike Window Activation	8
1.14	HoldX and HoldY	8
1.15	Enter ASCII	8
1.16	Map Umlauts	9
1.17	CapShift	9
1.18	NoCapsLock	9
1.19	CloseZoom	10
1.20	Window Remember	10
1.21	CenterScreen	10
1.22	HotFlush	11
1.23	PopCLI	11
1.24	FrontPubScreen	11
1.25	System Flags	12
1.26	Trackdisk Parameters	12
1.27	Public Screen Flags	13
1.28	Internal and External Preferences	13
1.29	Advanced EditHook	13

1.30	Advanced ResetHandler	14
1.31	SetFunction Patches	15
1.32	AssignWedge	15
1.33	NewLookMenus	16
1.34	NewLookProps	16
1.35	WBExtender	16
1.36	TagScreens	18
1.37	LockPens	18
1.38	FixOpenWB	18
1.39	NoCloseWB	19
1.40	NoDisplayBeep	19
1.41	Drive Protection	19
1.42	LockPatch	20
1.43	ShapeShifter Support	20
1.44	Opaque Windows	21
1.45	Alert Timeout	22
1.46	WBGauge	22
1.47	Notes and Hints	22
1.48	Author	24
1.49	History	25
1.50	To do	37
1.51	PatchList	37
1.52	Legal	38
1.53	Credits	39
1.54	HandleCX	39

Chapter 1

MultiCX

1.1 MultiCX-Guide Main

MultiCX 2.55 (24.6.96)

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

Localisation

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!

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 Locale

Localisation

The standard language of MultiCX is english, but if the current locale language is german, then all MultiCX text outputs are in german, too.

ToolTypes:

FORCE_GERMAN force usage of german language, may be helpful
 for WB 2.0 users

1.6 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
 IGNOREMOUSE do not unblank on mouse movement
 IGNOREDISK do not unblank on disk insertation
 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

1.7 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

1.8 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

1.9 Mouse Blanker

Mouse Blanker

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

ToolTypes:

KEYBLANK activates MouseBlanking on keypress
TIMEBLANK activates MouseBlanking after timeout

1.10 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

```

1.11 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

```

1.12 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

```

1.13 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. Additionally specific windows may be excluded from deactivation using the AVOIDSUN ToolType.

ToolTypes:

SUNKEY	activates SunKey
SUNMOUSE	activates SunMouse
SUNRMB	activates SunRMB
AVOIDSUN=Pattern	do not deactivate active window if title matches this pattern

1.14 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

1.15 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

1.16 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

1.17 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

1.18 NoCapsLock

NoCapsLock

... simply switches off CAPSLOCK completely.

ToolTypes:

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

1.22 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

1.23 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)

1.24 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

1.25 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

1.26 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)

1.27 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

1.28 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

1.29 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\$)

1.30 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
--------------	---------------------------------

1.31 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	
BLACKBORDER	(OS 2.x only)	
RESETHANDLER	(SoftReset only)	

ToolTypes:

PATCH_DISABLE if set, all Patches will be disabled together with MultiCX

1.32 AssignWedge

AssignWedge

This ToolType helps you handling "Please insert volume <xyz> in any drive" requesters. If the system tries to open such a requester, it will be replaced by a new one with three more gadgets:

Assign...	opens a DirectoryRequester asking for a path to assign the requested volume to
Mount	tries to mount the volume
Deny	denies the request and remembers the Process which tried to access that volume, so that it will not ask you again as long as AssignWedge is active

ToolTypes:

```

ASSIGNWEDGE          activates AssignWedge
AUTOMOUNT=Pattern    defines a pattern for volumes which will be
                      mounted automatically when accessed for the
                      first time

```

1.33 NewLookMenus

```

-----
NewLookMenus          OS 3.x only!
-----

```

This patch forces NewLook Menus on all PublicScreens.

ToolTypes:

```

NEWLOOKMENUS          activates NewLookMenus

```

1.34 NewLookProps

```

-----
NewLookProps
-----

```

This patch gives all PropGadgets (Sliders etc.) the OS 2.0+ look. (This will work with GadTools Gadgets only!)

ToolTypes:

```

NEWLOOKPROPS          activates NewLookProps

```

1.35 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~~~~~ ~|~~~~|~~~~|
~~~~~|~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|~~~~~|

```


DATE adds a date display to the TitleBar
 COMPACT enables a more compact TitleBar (for people with very big fonts or a very narrow WB screen)

1.36 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

1.37 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

1.38 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

1.39 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

1.40 NoDisplayBeep

NoDisplayBeep

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

ToolTypes:

NODISPLAYBEEP enable NoDisplayBeep

1.41 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 and the driver must already be loaded when starting MultiCX!

ToolTypes:

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

1.42 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
```

1.43 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
```

1.44 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"
```

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... ;-)

1.48 Author

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1. Support BBS: WANDERER +49-211-9215563
+49-211-9215517
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

1.49 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
2.0β (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!)

2.0β (18.7.95) INTERNAL BETA

- fixed serious bug in SetFunction interfacing code,
which caused difficult to trace lockups
- improved
LOCKPENS
and
FIXOPENWB
2.0β (27.7.95) INTERNAL BETA

- improved
EDITHOOK
2.0β (30.7.95) PUBLIC BETA

- built in some more sanity checks for OpenWindow and
OpenScreen patches
- improved
Moire~Blanker
2.0β (7.8.95) INTERNAL BETA

- fixed bug in
EDITHOOK
, Clipboard Paste now always
works correctly (ReqTools FileRequester etc.)
 - 2.0β (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
 - 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
2.0B (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 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

-

WBGUAGE

should work with all languages now

2.36 (20.12.95) PUBLIC RELEASE

- optimised some routines

-

WBGUAGE

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
 WBABOUT - implemented some more Magic in
 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
 - 2.50 (29.4.96) PUBLIC RELEASE
 - fixed bug in SCRMODE
 - , ToolType was simply ignored
 - 2.51 (8.6.96) INTERNAL TEST VERSION
 - 2.52 (10.6.96) PUBLIC RELEASE
 - improved Drive Protection routines
 - implemented IGNOREMOUSE and IGNOREDISK
 - AVOIDSUN - implemented
 - DATE - implemented
 - display for extended TitleBar
 - 2.53 (11.6.96) PUBLIC RELEASE
 - fixed small bug in DATE routine
 - 2.54 (18.6.96) PUBLIC RELEASE
 - fixed bug in
-

AVOIDSUN

- improved InputEvent killing routine

2.55 (24.6.96) PUBLIC RELEASE

- implemented

German Localisation

- improved some routines

1.50 To do

 Planned features for later versions:

- some more small patches...

1.51 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	WBGauge
SetPubScreenModes	intuition	LOCKPUBFLAGS
SetMenuStrip	intuition	NEWLOOKMENUS (OS 3.x)
EasyRequestArgs	intuition	ASSIGNWEDGE WBABOUT
SetWindowTitles	intuition	WBTITLE WBGauge
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	

1.52 Legal

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 © 1994-1996 by Martin Berndt. No parts
of this program may be altered by any means (this includes editing,
reprogramming, crunching, resourceing etc.), except archiving.

Disclaimer

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!

1.53 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
- 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 ;-)

1.54 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-independent, 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
\$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
-