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# **CONVEX CXwindows V3.0 Installation Procedures**

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# Installation Procedures for CONVEX CXwindows V3.0

This document explains how to install CONVEX CXwindows V3.0. The distribution media for this release is a 6250-bpi, installsw(8) format magnetic tape. The installation should take about 25 minutes.

A detailed description of the contents of this release can be found in the CONVEX CXwindows V3.0 Release Notes.

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## Prerequisites

Before you install CONVEX CXwindows V3.0, your system must already be running these software packages:

- ConvexOS V9.1 or a later release of the CONVEX operating system software.  
If you do not know what operating system your system is running, you can run the command `vers /vmmunix` to find the version number.
- ConvexOS Utilities V9.1 or a later release of the CONVEX system utilities software.
- ConvexOS Internet Services V9.1 or a later release of the CONVEX networking utilities.
- CONVEX C Compiler V4.1 or a later release of the compiler.

In addition to the software listed above, if you want to use CONVEX PEX -based (PEX stands for the PHIGS Extension to X) applications, your system must also have the following hardware:

- IEEE floating point hardware.

If you do not know if your system has IEEE floating point hardware, you can run the command `getsysinfo`. If `getsysinfo` indicates `ieee_supported`, your system has the appropriate hardware.

Your CONVEX system must have IEEE floating point hardware. Your system does not have to use IEEE as the default floating point mode, but your system must have IEEE hardware installed.

- A color PEX display device networked to your CONVEX system.

You can use CONVEX PEX with any X Window System Version 11 Release 5 compliant PEX server.

CONVEX PEX-based applications will not work on systems without IEEE floating-point hardware.

If you do not have all of the necessary components, contact the CONVEX Technical Assistance Center (TAC) for information on obtaining upgrades.

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## Corequisites

CONVEX CXwindows will operate with CONVEX COVUEnet V2.1 or later releases of CONVEX COVUEnet. CONVEX CXwindows V3.0 will not work with CONVEX COVUEnet releases prior to CONVEX COVUEnet V2.1.

If you are running an older versions of CONVEX COVUEnet, please contact your CONVEX sales representative for information on upgrading your software.

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## Installing CONVEX CXwindows

Installing CONVEX CXwindows is non-intrusive and does not require the system to be taken to single-user mode; however, You will need superuser access.

The following instructions refer to a TAPEHOST system and a TARGETHOST system.

- If you are installing on a system with a local tape drive, TARGETHOST and TAPEHOST are the same system.
- If you are installing on a system that does not have a local tape drive, TARGETHOST is the system where you want to install CONVEX CXwindows and TAPEHOST is the CONVEX network node that has a tape drive.

The installation procedure displays informative messages about the progress of the installation. You may ignore them.

If the installation procedure encounters a problem and cannot continue, you will be notified with an error message. If it is obvious how to correct the problem (e.g., you are not logged on as the superuser), make the correction and restart the installation. If you cannot determine or fix the problem, contact the TAC for assistance.

To install CONVEX CXwindows, read the remainder of this document first and then perform the steps below.

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### Step-by-step instructions

#### Step 1: Select a directory for installing CONVEX CXwindows.

On the TARGETHOST, select an empty directory for installing CONVEX CXwindows (or make a new one using `mkdir`) and verify that you have sufficient disk space for the installation.

The standard installation of CONVEX CXwindows V3.0 requires approximately 74 megabytes of disk space. The optional contributed software installation requires approximately 61 megabytes of disk space. A complete installation requires approximately 135 megabytes of disk space.

Use the `df` command to ensure that the directory you have chosen has enough free space.

The installation procedure will automatically build symbolic links from `/usr` to the partition you selected.

#### Step 2: Log in as the superuser.

Log in as the superuser on the system console of the TAPEHOST.

#### Step 3: Mount the release tape on tape unit 0.

Mount the release tape on tape unit 0 of the TAPEHOST. If you are using a DAT tape drive, replace occurrences of `rmt20` in the following discussion with `rdat0n`.

To allocate the tape drive, enter the command (convex# is the command line prompt):

```
convex# /usr/convex/tpmount -R -a /dev/rmt20
```

#### **Step 4: Start the installation procedure.**

To start the installation procedure, enter the command:

```
convex# /etc/installsw -i
```

---

### **Sample local installation**

The following text is a typescript of a local installation. Your session will be similar; details like host names and prompt symbols may vary.

```
Tape device is /dev/rmt20
```

```
** Installsw Header File From Tape **  
Copyright 1991 CONVEX Computer Corp.  
All rights are reserved.  
CREATED ON Fri Dec 20 15:31:57 CST 1991  
710-005615-008 CXwindows, release 3.0 3
```

Choose the type of installation you want to perform:

```
LOCAL --> install on this machine  
REMOTE --> install on a remote machine  
ABORT --> abort installation
```

Enter your selection now --> **local**

```
Setting up installation environment. Hang on...  
tar: blocksize = 65536 blocking = 64  
This tape contains only release 3.0 of CXwindows.
```

```
Do you wish to install or de-install it? install  
[Installing CXwindows v3.0]  
Do you want to install anyway? yes
```

This installation procedure consists of two parts. You may choose to skip the second part of this installation. Part 1 of the installation will install all standard, supported CXwindows clients, libraries, etc. Part 2 will optionally allow for the installation of a contributed unsupported directory containing various clients that have been built on the Convex.

The standard installation procedure installs approximately 74000 kbytes of executables, man pages, libraries, and data files into a directory of your choice. You should make sure this directory already exists and is empty. You should also make sure that it has at least 74000 kbytes of free space. You can find out the free space by using the 'df' command.

The contributed installation procedure installs approximately 61000 kbytes of executables, man pages, libraries, and data files into a directory of your choice. If you plan to install this additional part of the standard release, you should make sure that the directory you have chosen to install into has at least 135000 kbytes of free space.

Again, you can find out the free space by using the 'df' command.

The installation procedure then creates a symbolic link named /usr/X11 and links it to the directory you've created. The contributed software will be linked to /usr/X11/unsupported.

It is possible to choose /usr/X11 as the installation directory, if /usr has enough free space. In this case, no symbolic link will be created, and the files will be installed.

What directory should be used? /slink1/xrel

```
*****
*
* This release of Convex CXwindows V3.0 contains on-line
* release notices. Refer to the V3.0 Release Notice
* for further details.
*
*****
```

Saving files in = /tmp/X11.29148

```
set InstallDir = `tail -1
/usr/etc/install/CXwindows.installdir`
cd $InstallDir
```

```
rm -rf ./lib/X11/config/imakemdep.h
rm -rf ./lib/X11/config/Imake.rules
rm -rf ./lib/X11/config/Imake.tmpl
rm -rf ./lib/X11/config/Project.tmpl
rm -rf ./lib/X11/config/Library.tmpl
rm -rf ./lib/X11/config/site.def
rm -rf ./lib/X11/config/rtochack.bac
rm -rf ./lib/X11/config/convex.cf
rm -rf ./lib/X11/config
rm -rf ./lib/X11/app-defaults/XCalc
rm -rf ./lib/X11/app-defaults/XClipboard
rm -rf ./lib/X11/app-defaults/XClock
rm -rf ./lib/X11/app-defaults/Xditview
rm -rf ./lib/X11/app-defaults/Xedit
rm -rf ./lib/X11/app-defaults/Xfd
rm -rf ./lib/X11/app-defaults/XLoad
rm -rf ./lib/X11/app-defaults/XLogo
rm -rf ./lib/X11/app-defaults/Xman
rm -rf ./lib/X11/app-defaults/XFontSel
rm -rf ./lib/X11/app-defaults/XTerm
```

```

rm -rf ./lib/X11/app-defaults/Mwm
rm -rf ./lib/X11/app-defaults/Xgc
rm -rf ./lib/X11/app-defaults
rm -rf ./lib/X11/XErrorDB
rm -rf ./lib/X11/unsupported/xmh
rm -rf ./lib/X11/unsupported/xmh/icons
rm -rf ./lib/X11/unsupported/xmh/CHANGES
rm -rf ./lib/X11/unsupported/xmh/Imakefile
rm -rf ./lib/X11/unsupported/xmh/Makefile
rm -rf ./lib/X11/unsupported/xmh/Xmh.ad
rm -rf ./lib/X11/unsupported/xmh/Xmh.sample
rm -rf ./lib/X11/unsupported/xmh/actions.h
rm -rf ./lib/X11/unsupported/xmh/bbox.c
rm -rf ./lib/X11/unsupported/xmh/bbox.h
rm -rf ./lib/X11/unsupported/xmh/bboxint.h
rm -rf ./lib/X11/unsupported/xmh/command.c
rm -rf ./lib/X11/unsupported/xmh/compfuncs.c
rm -rf ./lib/X11/unsupported/xmh/externs.h
rm -rf ./lib/X11/unsupported/xmh/folder.c
rm -rf ./lib/X11/unsupported/xmh/globals.h
rm -rf ./lib/X11/unsupported/xmh/icon.c
rm -rf ./lib/X11/unsupported/xmh/init.c
rm -rf ./lib/X11/unsupported/xmh/main.c
rm -rf ./lib/X11/unsupported/xmh/menu.c
rm -rf ./lib/X11/unsupported/xmh/mlist.c
rm -rf ./lib/X11/unsupported/xmh/mlist.h
rm -rf ./lib/X11/unsupported/xmh/msg.c
rm -rf ./lib/X11/unsupported/xmh/msg.h
rm -rf ./lib/X11/unsupported/xmh/newmail.bit
rm -rf ./lib/X11/unsupported/xmh/nomail.bit
rm -rf ./lib/X11/unsupported/xmh/pick.c
rm -rf ./lib/X11/unsupported/xmh/popup.c
rm -rf ./lib/X11/unsupported/xmh/screen.c
rm -rf ./lib/X11/unsupported/xmh/toc.c
rm -rf ./lib/X11/unsupported/xmh/toc.h
rm -rf ./lib/X11/unsupported/xmh/tocfuncs.c
rm -rf ./lib/X11/unsupported/xmh/tocintrnl.h
rm -rf ./lib/X11/unsupported/xmh/tocutil.c
rm -rf ./lib/X11/unsupported/xmh/tocutil.h
rm -rf ./lib/X11/unsupported/xmh/tsource.c
rm -rf ./lib/X11/unsupported/xmh/tsource.h
rm -rf ./lib/X11/unsupported/xmh/tsourceP.h
rm -rf ./lib/X11/unsupported/xmh/util.c
rm -rf ./lib/X11/unsupported/xmh/viewfuncs.c
rm -rf ./lib/X11/unsupported/xmh/xmh.h
rm -rf ./lib/X11/unsupported/xmh/xmh.man
rm -rf ./lib/X11/unsupported
rm -rf ./lib/X11/twm/system.twmrc
rm -rf ./lib/X11/twm
rm -rf ./lib/X11/xman.help
rm -rf ./lib/X11/xdm-sample/xdm-config
rm -rf ./lib/X11/xdm-sample/Xresources
rm -rf ./lib/X11/xdm-sample/Xservers
rm -rf ./lib/X11/xdm-sample/Xsession
rm -rf ./lib/X11/xdm-sample/Xstartup
rm -rf ./lib/X11/xdm-sample/Xreset
rm -rf ./lib/X11/xdm-sample

```

```

rm -rf ./lib/X11/system.mwmrc
rm -rf ./lib/X11/examples/Xaw/popup.c
rm -rf ./lib/X11/examples/Xaw/xboxes.c
rm -rf ./lib/X11/examples/Xaw/xbuttonbox.c
rm -rf ./lib/X11/examples/Xaw/xcommand.c
rm -rf ./lib/X11/examples/Xaw/xcommand2.c
rm -rf ./lib/X11/examples/Xaw/xhw.c
rm -rf ./lib/X11/examples/Xaw/xlabel.c
rm -rf ./lib/X11/examples/Xaw/xlist.c
rm -rf ./lib/X11/examples/Xaw/xmenu1.c
rm -rf ./lib/X11/examples/Xaw/xmenu2.c
rm -rf ./lib/X11/examples/Xaw/xscroll.c
rm -rf ./lib/X11/examples/Xaw/xtext.c
rm -rf ./lib/X11/examples/Xaw/xwidgets.c
rm -rf ./lib/X11/examples/Xaw/README
rm -rf ./lib/X11/examples/Xaw/Makefile
rm -rf ./lib/X11/examples/Xaw
rm -rf ./lib/X11/examples
rm -rf ./lib/X11
rm -rf ./lib/libXau.a
rm -rf ./lib/libX11.a
rm -rf ./lib/liboldX.a
rm -rf ./lib/libXt.a
rm -rf ./lib/libXmu.a
rm -rf ./lib/libXaw.a
rm -rf ./lib/libXdmcp.a
rm -rf ./lib/libXext.a
rm -rf ./lib/libXinput.a
rm -rf ./bin/X11/imake
rm -rf ./bin/X11/appres
rm -rf ./bin/X11/bitmap
rm -rf ./bin/X11/bmtoa
rm -rf ./bin/X11/atobm
rm -rf ./bin/X11/listres
rm -rf ./bin/X11/oclock
rm -rf ./bin/X11/twm
rm -rf ./bin/X11/xauth
rm -rf ./bin/X11/xbiff
rm -rf ./bin/X11/xcalc
rm -rf ./bin/X11/xclipboard
rm -rf ./bin/X11/xcutsel
rm -rf ./bin/X11/xclock
rm -rf ./bin/X11/xditview
rm -rf ./bin/X11/xdpyinfo
rm -rf ./bin/X11/xedit
rm -rf ./bin/X11/xfd
rm -rf ./bin/X11/xkill
rm -rf ./bin/X11/xload
rm -rf ./bin/X11/xlogo
rm -rf ./bin/X11/xlsatoms
rm -rf ./bin/X11/xlsclients
rm -rf ./bin/X11/xlsfonts
rm -rf ./bin/X11/xlswins
rm -rf ./bin/X11/xmag
rm -rf ./bin/X11/xman
rm -rf ./bin/X11/xmodmap
rm -rf ./bin/X11/xpostage

```

```

rm -rf ./bin/X11/xpr
rm -rf ./bin/X11/xdpr
rm -rf ./bin/X11/xprop
rm -rf ./bin/X11/xrdb
rm -rf ./bin/X11/xrefresh
rm -rf ./bin/X11/xfontsel
rm -rf ./bin/X11/xset
rm -rf ./bin/X11/xsetroot
rm -rf ./bin/X11/xstdcmap
rm -rf ./bin/X11/xterm
rm -rf ./bin/X11/resize
rm -rf ./bin/X11/xwd
rm -rf ./bin/X11/xwininfo
rm -rf ./bin/X11/xwud
rm -rf ./bin/X11/execqt
rm -rf ./bin/X11/makedepend
rm -rf ./bin/X11/mkfontdir
rm -rf ./bin/X11/xdm
rm -rf ./bin/X11/xhost
rm -rf ./bin/X11/mwm
rm -rf ./bin/X11/awm
rm -rf ./bin/X11/uwm
rm -rf ./bin/X11/ico
rm -rf ./bin/X11/maze
rm -rf ./bin/X11/muncher
rm -rf ./bin/X11/plaid
rm -rf ./bin/X11/puzzle
rm -rf ./bin/X11/xeyes
rm -rf ./bin/X11/xev
rm -rf ./bin/X11/xgc
rm -rf ./bin/X11/xmkmf
rm -rf ./bin/X11/mkdirhier
rm -rf ./bin/X11
rm -rf ./include/X11/DECkeysym.h
rm -rf ./include/X11/X.h
rm -rf ./include/X11/XWDFile.h
rm -rf ./include/X11/Xatom.h
rm -rf ./include/X11/Xmd.h
rm -rf ./include/X11/Xos.h
rm -rf ./include/X11/Xproto.h
rm -rf ./include/X11/Xprotostr.h
rm -rf ./include/X11/ap_keysym.h
rm -rf ./include/X11/copyright.h
rm -rf ./include/X11/keysym.h
rm -rf ./include/X11/keysymdef.h
rm -rf ./include/X11/bitmaps/1x1
rm -rf ./include/X11/bitmaps/2x2
rm -rf ./include/X11/bitmaps/black
rm -rf ./include/X11/bitmaps/boxes
rm -rf ./include/X11/bitmaps/calculator
rm -rf ./include/X11/bitmaps/cntr_ptr
rm -rf ./include/X11/bitmaps/cntr_ptrmsk
rm -rf ./include/X11/bitmaps/cross_weave
rm -rf ./include/X11/bitmaps/dimple1
rm -rf ./include/X11/bitmaps/dimple3
rm -rf ./include/X11/bitmaps/dot
rm -rf ./include/X11/bitmaps/dropbar7

```

```

rm -rf ./include/X11/bitmaps/dropbar8
rm -rf ./include/X11/bitmaps/escherknot
rm -rf ./include/X11/bitmaps/flagdown
rm -rf ./include/X11/bitmaps/flagup
rm -rf ./include/X11/bitmaps/flipped_gray
rm -rf ./include/X11/bitmaps/gray
rm -rf ./include/X11/bitmaps/gray1
rm -rf ./include/X11/bitmaps/gray3
rm -rf ./include/X11/bitmaps/hlines2
rm -rf ./include/X11/bitmaps/hlines3
rm -rf ./include/X11/bitmaps/icon
rm -rf ./include/X11/bitmaps/keyboard16
rm -rf ./include/X11/bitmaps/left_ptr
rm -rf ./include/X11/bitmaps/left_ptrmsk
rm -rf ./include/X11/bitmaps/letters
rm -rf ./include/X11/bitmaps/menu8
rm -rf ./include/X11/bitmaps/light_gray
rm -rf ./include/X11/bitmaps/mailempty
rm -rf ./include/X11/bitmaps/mailemptymsk
rm -rf ./include/X11/bitmaps/mailfull
rm -rf ./include/X11/bitmaps/mailfullmsk
rm -rf ./include/X11/bitmaps/mensetmanus
rm -rf ./include/X11/bitmaps/menu10
rm -rf ./include/X11/bitmaps/menu12
rm -rf ./include/X11/bitmaps/menu16
rm -rf ./include/X11/bitmaps/noletters
rm -rf ./include/X11/bitmaps/opendot
rm -rf ./include/X11/bitmaps/opendotMask
rm -rf ./include/X11/bitmaps/plaid
rm -rf ./include/X11/bitmaps/right_ptr
rm -rf ./include/X11/bitmaps/right_ptrmsk
rm -rf ./include/X11/bitmaps/root_weave
rm -rf ./include/X11/bitmaps/scales
rm -rf ./include/X11/bitmaps/sipb
rm -rf ./include/X11/bitmaps/star
rm -rf ./include/X11/bitmaps/starMask
rm -rf ./include/X11/bitmaps/stipple
rm -rf ./include/X11/bitmaps/target
rm -rf ./include/X11/bitmaps/terminal
rm -rf ./include/X11/bitmaps/tie_fighter
rm -rf ./include/X11/bitmaps/vlines2
rm -rf ./include/X11/bitmaps/vlines3
rm -rf ./include/X11/bitmaps/weird_size
rm -rf ./include/X11/bitmaps/wide_weave
rm -rf ./include/X11/bitmaps/wingdogs
rm -rf ./include/X11/bitmaps/woman
rm -rf ./include/X11/bitmaps/xfd_icon
rm -rf ./include/X11/bitmaps/xlogo11
rm -rf ./include/X11/bitmaps/xlogo16
rm -rf ./include/X11/bitmaps/xlogo32
rm -rf ./include/X11/bitmaps/xlogo64
rm -rf ./include/X11/bitmaps
rm -rf ./include/X11/Xauth.h
rm -rf ./include/X11/Xlib.h
rm -rf ./include/X11/Xresource.h
rm -rf ./include/X11/Xutil.h
rm -rf ./include/X11/cursorfont.h

```

```
rm -rf ./include/X11/Xlibint.h
rm -rf ./include/X11/Xlibos.h
rm -rf ./include/X11/Xstreams.h
rm -rf ./include/X11/X10.h
rm -rf ./include/X11/Composite.h
rm -rf ./include/X11/CompositeP.h
rm -rf ./include/X11/Constraint.h
rm -rf ./include/X11/Core.h
rm -rf ./include/X11/ConstrainP.h
rm -rf ./include/X11/CoreP.h
rm -rf ./include/X11/Intrinsic.h
rm -rf ./include/X11/IntrinsicP.h
rm -rf ./include/X11/Object.h
rm -rf ./include/X11/ObjectP.h
rm -rf ./include/X11/Quarks.h
rm -rf ./include/X11/RectObj.h
rm -rf ./include/X11/RectObjP.h
rm -rf ./include/X11/Shell.h
rm -rf ./include/X11/ShellP.h
rm -rf ./include/X11/StringDefs.h
rm -rf ./include/X11/Vendor.h
rm -rf ./include/X11/VendorP.h
rm -rf ./include/X11/Xmu
rm -rf ./include/X11/Xmu/Xmu.h
rm -rf ./include/X11/Xmu/Atoms.h
rm -rf ./include/X11/Xmu/CharSet.h
rm -rf ./include/X11/Xmu/CloseHook.h
rm -rf ./include/X11/Xmu/Converters.h
rm -rf ./include/X11/Xmu/CurUtil.h
rm -rf ./include/X11/Xmu/CvtCache.h
rm -rf ./include/X11/Xmu/DisplayQue.h
rm -rf ./include/X11/Xmu/Drawing.h
rm -rf ./include/X11/Xmu/Error.h
rm -rf ./include/X11/Xmu/Iter.h
rm -rf ./include/X11/Xmu/Misc.h
rm -rf ./include/X11/Xmu/StdSel.h
rm -rf ./include/X11/Xmu/StdCmap.h
rm -rf ./include/X11/Xmu/SysUtil.h
rm -rf ./include/X11/Xmu/WinUtil.h
rm -rf ./include/X11/Xmu/Xct.h
rm -rf ./include/X11/Xaw
rm -rf ./include/X11/Xaw/AsciiSink.h
rm -rf ./include/X11/Xaw/AsciiSinkP.h
rm -rf ./include/X11/Xaw/AsciiSrc.h
rm -rf ./include/X11/Xaw/AsciiSrcP.h
rm -rf ./include/X11/Xaw/AsciiText.h
rm -rf ./include/X11/Xaw/AsciiTextP.h
rm -rf ./include/X11/Xaw/Box.h
rm -rf ./include/X11/Xaw/BoxP.h
rm -rf ./include/X11/Xaw/Cardinals.h
rm -rf ./include/X11/Xaw/Clock.h
rm -rf ./include/X11/Xaw/ClockP.h
rm -rf ./include/X11/Xaw/Command.h
rm -rf ./include/X11/Xaw/CommandP.h
rm -rf ./include/X11/Xaw/Dialog.h
rm -rf ./include/X11/Xaw/DialogP.h
rm -rf ./include/X11/Xaw/Form.h
```

```
rm -rf ./include/X11/Xaw/FormP.h
rm -rf ./include/X11/Xaw/Grip.h
rm -rf ./include/X11/Xaw/GripP.h
rm -rf ./include/X11/Xaw/Label.h
rm -rf ./include/X11/Xaw/LabelP.h
rm -rf ./include/X11/Xaw/List.h
rm -rf ./include/X11/Xaw/ListP.h
rm -rf ./include/X11/Xaw/Logo.h
rm -rf ./include/X11/Xaw/LogoP.h
rm -rf ./include/X11/Xaw/Mailbox.h
rm -rf ./include/X11/Xaw/MailboxP.h
rm -rf ./include/X11/Xaw/MenuButton.h
rm -rf ./include/X11/Xaw/MenuButtoP.h
rm -rf ./include/X11/Xaw/Paned.h
rm -rf ./include/X11/Xaw/PanedP.h
rm -rf ./include/X11/Xaw/Scroll.h
rm -rf ./include/X11/Xaw/Scrollbar.h
rm -rf ./include/X11/Xaw/ScrollbarP.h
rm -rf ./include/X11/Xaw/Simple.h
rm -rf ./include/X11/Xaw/SimpleP.h
rm -rf ./include/X11/Xaw/SimpleMenu.h
rm -rf ./include/X11/Xaw/SimpleMenP.h
rm -rf ./include/X11/Xaw/Sme.h
rm -rf ./include/X11/Xaw/SmeP.h
rm -rf ./include/X11/Xaw/SmeBSB.h
rm -rf ./include/X11/Xaw/SmeBSBP.h
rm -rf ./include/X11/Xaw/SmeLine.h
rm -rf ./include/X11/Xaw/SmeLineP.h
rm -rf ./include/X11/Xaw/StripChart.h
rm -rf ./include/X11/Xaw/StripCharP.h
rm -rf ./include/X11/Xaw/Template.c
rm -rf ./include/X11/Xaw/Template.h
rm -rf ./include/X11/Xaw/TemplateP.h
rm -rf ./include/X11/Xaw/Text.h
rm -rf ./include/X11/Xaw/TextP.h
rm -rf ./include/X11/Xaw/TextSink.h
rm -rf ./include/X11/Xaw/TextSinkP.h
rm -rf ./include/X11/Xaw/TextSrc.h
rm -rf ./include/X11/Xaw/TextSrcP.h
rm -rf ./include/X11/Xaw/Toggle.h
rm -rf ./include/X11/Xaw/ToggleP.h
rm -rf ./include/X11/Xaw/Viewport.h
rm -rf ./include/X11/Xaw/ViewportP.h
rm -rf ./include/X11/Xaw/VPaned.h
rm -rf ./include/X11/Xaw/XawInit.h
rm -rf ./include/X11/Xdmcp.h
rm -rf ./include/X11/extensions/Xext.h
rm -rf ./include/X11/extensions/multibuf.h
rm -rf ./include/X11/extensions/shape.h
rm -rf ./include/X11/extensions/XShm.h
rm -rf ./include/X11/extensions/MITMisc.h
rm -rf ./include/X11/extensions/XI.h
rm -rf ./include/X11/extensions/XInput.h
rm -rf ./include/X11/extensions/XIproto.h
rm -rf ./include/X11/extensions/xtestext1.h
rm -rf ./include/X11/extensions
rm -rf ./include/X11
```

```
rm -rf ./man/man1/X.1
rm -rf ./man/man1/XConsortium.1
rm -rf ./man/man1/XStandards.1
rm -rf ./man/man1/imake.1
rm -rf ./man/man1/appres.1
rm -rf ./man/man1/bitmap.1
rm -rf ./man/man1/listres.1
rm -rf ./man/man1/oclock.1
rm -rf ./man/man1/twm.1
rm -rf ./man/man1/xauth.1
rm -rf ./man/man1/xbiff.1
rm -rf ./man/man1/xcalc.1
rm -rf ./man/man1/xclipboard.1
rm -rf ./man/man1/xcutsel.1
rm -rf ./man/man1/xclock.1
rm -rf ./man/man1/xditview.1
rm -rf ./man/man1/xdpyinfo.1
rm -rf ./man/man1/xedit.1
rm -rf ./man/man1/xfd.1
rm -rf ./man/man1/xkill.1
rm -rf ./man/man1/xload.1
rm -rf ./man/man1/xlogo.1
rm -rf ./man/man1/xlsatoms.1
rm -rf ./man/man1/xlsclients.1
rm -rf ./man/man1/xlsfonts.1
rm -rf ./man/man1/xlswins.1
rm -rf ./man/man1/xmag.1
rm -rf ./man/man1/xman.1
rm -rf ./man/man1/xmodmap.1
rm -rf ./man/man1/xpostage.1
rm -rf ./man/man1/xpr.1
rm -rf ./man/man1/xdpr.1
rm -rf ./man/man1/xprop.1
rm -rf ./man/man1/xrdb.1
rm -rf ./man/man1/xrefresh.1
rm -rf ./man/man1/xfontsel.1
rm -rf ./man/man1/xset.1
rm -rf ./man/man1/xsetroot.1
rm -rf ./man/man1/xstdcmap.1
rm -rf ./man/man1/xterm.1
rm -rf ./man/man1/resize.1
rm -rf ./man/man1/xwd.1
rm -rf ./man/man1/xwininfo.1
rm -rf ./man/man1/xwud.1
rm -rf ./man/man1/execqt.1
rm -rf ./man/man1/makedepend.1
rm -rf ./man/man1/mkfontdir.1
rm -rf ./man/man1/xdm.1
rm -rf ./man/man1/xhost.1
rm -rf ./man/man1/mwm.1
rm -rf ./man/man1/ico.1
rm -rf ./man/man1/maze.1
rm -rf ./man/man1/muncher.1
rm -rf ./man/man1/plaid.1
rm -rf ./man/man1/puzzle.1
rm -rf ./man/man1/xeyes.1
rm -rf ./man/man1/xev.1
```

```
rm -rf ./man/man1/xgc.1
rm -rf ./man/man3/Xau.1
rm -rf ./man/man3/XAddHost.3
rm -rf ./man/man3/IsCursorKey.3
rm -rf ./man/man3/XAllocClassHint.3
rm -rf ./man/man3/XAllocIconSize.3
rm -rf ./man/man3/XAllocStandardColormap.3
rm -rf ./man/man3/XAllocWMHints.3
rm -rf ./man/man3/XAllocColor.3
rm -rf ./man/man3/XAllowEvents.3
rm -rf ./man/man3/XAnyEvent.3
rm -rf ./man/man3/XButtonEvent.3
rm -rf ./man/man3/XClearArea.3
rm -rf ./man/man3/XCopyArea.3
rm -rf ./man/man3/XChangeKeyboardMapping.3
rm -rf ./man/man3/XClientMessageEvent.3
rm -rf ./man/man3/XChangeSaveSet.3
rm -rf ./man/man3/XChangeWindowAttributes.3
rm -rf ./man/man3/XCreateWindowEvent.3
rm -rf ./man/man3/XColormapEvent.3
rm -rf ./man/man3/XConfigureEvent.3
rm -rf ./man/man3/XConfigureRequestEvent.3
rm -rf ./man/man3/XConfigureWindow.3
rm -rf ./man/man3/XCreateGC.3
rm -rf ./man/man3/XFlush.3
rm -rf ./man/man3/XCreateImage.3
rm -rf ./man/man3/XCreatePixmap.3
rm -rf ./man/man3/XCreateRegion.3
rm -rf ./man/man3/XCreateWindow.3
rm -rf ./man/man3/XCrossingEvent.3
rm -rf ./man/man3/XDestroyWindowEvent.3
rm -rf ./man/man3/XDefineCursor.3
rm -rf ./man/man3/XDestroyWindow.3
rm -rf ./man/man3/XDrawArc.3
rm -rf ./man/man3/XDrawImageString.3
rm -rf ./man/man3/XDrawLine.3
rm -rf ./man/man3/XCirculateEvent.3
rm -rf ./man/man3/XCirculateRequestEvent.3
rm -rf ./man/man3/XDrawPoint.3
rm -rf ./man/man3/XDrawRectangle.3
rm -rf ./man/man3/XDrawString.3
rm -rf ./man/man3/XDrawText.3
rm -rf ./man/man3/XEmptyRegion.3
rm -rf ./man/man3/XErrorEvent.3
rm -rf ./man/man3/XExposeEvent.3
rm -rf ./man/man3/XFocusChangeEvent.3
rm -rf ./man/man3/XFillRectangle.3
rm -rf ./man/man3/XGraphicsExposeEvent.3
rm -rf ./man/man3/XFree.3
rm -rf ./man/man3/XIfEvent.3
rm -rf ./man/man3/XGravityEvent.3
rm -rf ./man/man3/XGetDefault.3
rm -rf ./man/man3/XGetVisualInfo.3
rm -rf ./man/man3/XGetWindowAttributes.3
rm -rf ./man/man3/XGetWindowProperty.3
rm -rf ./man/man3/XGrabButton.3
rm -rf ./man/man3/XGrabKey.3
```

```

rm -rf ./man/man3/XGrabKeyboard.3
rm -rf ./man/man3/XGrabPointer.3
rm -rf ./man/man3/XGrabServer.3
rm -rf ./man/man3/XIconifyWindow.3
rm -rf ./man/man3/XrmInitialize.3
rm -rf ./man/man3/XLoadFont.3
rm -rf ./man/man3/XIntersectRegion.3
rm -rf ./man/man3/XInternAtom.3
rm -rf ./man/man3/XKeymapEvent.3
rm -rf ./man/man3/XListFonts.3
rm -rf ./man/man3/XLookupKeysym.3
rm -rf ./man/man3/XMapEvent.3
rm -rf ./man/man3/XPutImage.3
rm -rf ./man/man3/XtAddGrab.3
rm -rf ./man/man3/XMapRequestEvent.3
rm -rf ./man/man3/XMapWindow.3
rm -rf ./man/man3/XNextEvent.3
rm -rf ./man/man3/XOpenDisplay.3
rm -rf ./man/man3/XPropertyEvent.3
rm -rf ./man/man3/XParseGeometry.3
rm -rf ./man/man3/XPolygonRegion.3
rm -rf ./man/man3/XPutBackEvent.3
rm -rf ./man/man3/XrmPutResource.3
rm -rf ./man/man3/XQueryBestSize.3
rm -rf ./man/man3/XtAppAddInput.3
rm -rf ./man/man3/XQueryColor.3
rm -rf ./man/man3/XQueryPointer.3
rm -rf ./man/man3/XQueryTree.3
rm -rf ./man/man3/XReparentEvent.3
rm -rf ./man/man3/XResizeRequestEvent.3
rm -rf ./man/man3/XRaiseWindow.3
rm -rf ./man/man3/XReadBitmapFile.3
rm -rf ./man/man3/XRecolorCursor.3
rm -rf ./man/man3/XSelectionClearEvent.3
rm -rf ./man/man3/XSaveContext.3
rm -rf ./man/man3/XSelectionEvent.3
rm -rf ./man/man3/XSelectInput.3
rm -rf ./man/man3/XStringListToTextProperty.3
rm -rf ./man/man3/XSetArcMode.3
rm -rf ./man/man3/XSetClipOrigin.3
rm -rf ./man/man3/XtMapWidget.3
rm -rf ./man/man3/XSetCloseDownMode.3
rm -rf ./man/man3/XSetCommand.3
rm -rf ./man/man3/XSetErrorHandler.3
rm -rf ./man/man3/XSendEvent.3
rm -rf ./man/man3/XSetFillStyle.3
rm -rf ./man/man3/XSetFont.3
rm -rf ./man/man3/XSetFontPath.3
rm -rf ./man/man3/XSetInputFocus.3
rm -rf ./man/man3/XSetLineAttribute.3
rm -rf ./man/man3/XSetPointerMapping.3
rm -rf ./man/man3/XSetSelectionOwner.3
rm -rf ./man/man3/XSetState.3
rm -rf ./man/man3/XSetTransientForHint.3
rm -rf ./man/man3/XSetTextProperty.3
rm -rf ./man/man3/XSetTile.3
rm -rf ./man/man3/XSetWMClientMachine.3

```

```
rm -rf ./man/man3/XSetWMIconName.3
rm -rf ./man/man3/XSetWMName.3
rm -rf ./man/man3/XSetWMProperties.3
rm -rf ./man/man3/XSetWMProtocols.3
rm -rf ./man/man3/XStoreBytes.3
rm -rf ./man/man3/XStoreColors.3
rm -rf ./man/man3/XStringToKeysym.3
rm -rf ./man/man3/XSynchronize.3
rm -rf ./man/man3/XTextExtents.3
rm -rf ./man/man3/XTextWidth.3
rm -rf ./man/man3/XTranslateCoordinates.3
rm -rf ./man/man3/XrmUniqueQuark.3
rm -rf ./man/man3/XUnmapEvent.3
rm -rf ./man/man3/XUnmapWindow.3
rm -rf ./man/man3/XWarpPointer.3
rm -rf ./man/man3/AllPlanes.3
rm -rf ./man/man3/XtAppAddActions.3
rm -rf ./man/man3/BlackPixelOfScreen.3
rm -rf ./man/man3/ImageByteOrder.3
rm -rf ./man/man3/XAllocSizeHints.3
rm -rf ./man/man3/XChangeKeyboardControl.3
rm -rf ./man/man3/XChangePointerControl.3
rm -rf ./man/man3/XCreateColormap.3
rm -rf ./man/man3/XCreateFontCursor.3
rm -rf ./man/man3/XrmGetResource.3
rm -rf ./man/man3/XInstallColormap.3
rm -rf ./man/man3/XrmMergeDatabases.3
rm -rf ./man/man3/XReparentWindow.3
rm -rf ./man/man3/XSelectionRequestEvent.3
rm -rf ./man/man3/XSetScreenSaver.3
rm -rf ./man/man3/XSetWMColormapWindows.3
rm -rf ./man/man3/XVisibilityEvent.3
rm -rf ./man/man3/XtAppError.3
rm -rf ./man/man3/XtClass.3
rm -rf ./man/man3/XtAppAddTimeOut.3
rm -rf ./man/man3/XtAppAddWorkProc.3
rm -rf ./man/man3/XtAppCreateShell.3
rm -rf ./man/man3/XtAppErrorMsg.3
rm -rf ./man/man3/XtAppGetErrorDatabase.3
rm -rf ./man/man3/XtAppNextEvent.3
rm -rf ./man/man3/XtBuildEventMask.3
rm -rf ./man/man3/XtCallAcceptFocus.3
rm -rf ./man/man3/XtCallCallbacks.3
rm -rf ./man/man3/XtConfigureWidget.3
rm -rf ./man/man3/XtOffset.3
rm -rf ./man/man3/XtSetValues.3
rm -rf ./man/man3/XtPopdown.3
rm -rf ./man/man3/XtCreateWidget.3
rm -rf ./man/man3/XtCreateWindow.3
rm -rf ./man/man3/XtDisplayInitialize.3
rm -rf ./man/man3/XtPopup.3
rm -rf ./man/man3/XtConvert.3
rm -rf ./man/man3/XtSetArg.3
rm -rf ./man/man3/XtGetSubresources.3
rm -rf ./man/man3/XtMakeGeometryRequest.3
rm -rf ./man/man3/XtManageChildren.3
rm -rf ./man/man3/XtMalloc.3Xt
```

```
rm -rf ./man/man3/XtNameToWidget.3
rm -rf ./man/man3/XtOwnSelection.3
rm -rf ./man/man3/XtDisplay.3
rm -rf ./man/man3/XtGetGC.3
rm -rf ./man/man3/XtParseTranslationTable.3
rm -rf ./man/man3/XtQueryGeometry.3
rm -rf ./man/man3/XtSetKeyboardFocus.3
rm -rf ./man/man3/XtSetSensitive.3
rm -rf ./man/man3/XtStringConversionWarning.3
rm -rf ./man/man3/XtTranslateCoordinates.3
rm -rf ./man/man3/XtAddCallback.3
rm -rf ./man/man3/XtAddEventHandler.3
rm -rf ./man/man3/XtAddExposureToRegion.3
rm -rf ./man/man3/XtAppAddConverter.3
rm -rf ./man/man3/XtAppGetSelectionTimeout.3
rm -rf ./man/man3/XtCreateApplicationContext.3
rm -rf ./man/man3/XtCreatePopupShell.3
rm -rf ./man/man3/XtGetResourceList.3
rm -rf ./man/man3/XtGetSelectionValue.3
rm -rf ./man/man3/XtParseAcceleratorTable.3
rm -rf ./man/man3/XtRealizeWidget.3
rm -rf ./man/man3/XtSetKeyTranslator.3
```

Reading tape into /slink1/xrel...

Do you wish to install the contributed, unsupported directory? **yes**

What directory should be used? /slink1/xrel  
Reading unsupported tape image into /slink1/xrel...  
Done reading tape.

```
*****
*
* Convex CXwindows V3.0 installed. Look in /usr/doc for
* on-line copies of new release notices. Use lpr(1) to print
* hard copies.
*
*****
```

Restoring previous X release into /usr/X11/priorX  
Restoring local app-defaults  
Restoring non-default xdm directories

Do you wish to install xdm config into the standard directory (Local files have been saved into /usr/X11/priorX)? **yes**

Restoring local uid files to /usr/lib/X11/uid.  
Installing uil for specific machine mode.

```
---- CONVEX CXwindows Release V3.0
---- installation completed.
---- Adding message to /etc/motd
```

Done processing install tape

---

## Installing the xdm and fs daemons

The xdm daemon manages a collection of remote X displays. xdm is designed to provide services similar to that provided by init, getty and login on character terminals: prompting for login and password and authenticating the user and running a "session".

The fs daemon is the X Window System font server. It supplies fonts to R5 compliant X Window System display servers.

Both daemons are usually run by a system administrator and started in the /etc/rc.local boot file. If you want to run these daemons, add commands similar to the following to your /etc/rc.local file:

```
if [ -f /usr/lib/X11/xdm/xdm-config ]; then
  /usr/bin/X11/xdm -config /usr/lib/X11/xdm/xdm-config
  /bin/echo "Started xdm." > /dev/console
fi
if [ -f /usr/bin/X11/fs ]; then
  /usr/bin/X11/fs -port 7000
  /bin/echo "Started X font server." > /dev/console
fi
```

---

## Updating the man page database

If your CONVEX is running ConvexOS V9.0 or V9.1, you must first modify /usr/lib/makewhatis before rebuilding the man page database for CXwindows. These changes are not required if your system is running ConvexOS V10.0.

To modify /usr/lib/makewhatis, apply the following patch:

```
267c267
< ($page) = $FILE =~ m:(\[^\.]*)\[^\.]*$;;
---
> ($page) = $FILE =~ m:(\.)\[^\.]*$;;
340c340
< foreach $cmd (split(/\s,]+/, $ocmdlist)) {
---
> foreach $cmd (split(/\s*,\s*/, $ocmdlist)) {
```

After applying the patch, enter the following commands to update the man page database:

```
convex# /usr/lib/makewhatis -M/usr/X11/manPEX
convex# /usr/lib/makewhatis -M/usr/X11/manX
```

This completes the installation of CXwindows.