

co-Xist™ 2.1.2 Demo

Installation and Usage Notes

What is co-Xist?

co-Xist is an implementation of the X-Windows Release 4 (X11R4) windowing environment for the NeXT Computer. Pioneered by MIT (Massachusetts Institute of Technology), X-Windows is available on a wide variety of hardware platforms, including those from Sun, IBM, DEC and Hewlett Packard.

By purchasing co-Xist, you can instantly access the hundreds of X-based applications that are available from all these and other vendors as well as the public domain all around the world.

NOTE: If you are using co-Xist to determine whether it can run your existing X applications, skip to the Displaying X Applications Remotely section below.

What's in this Demo

This demo contains:

- co-Xist -- a fully functional X11R4 server that operates for 15 minutes and then terminates
- twm -- the Tab Window Manager that is used to manipulate all the windows -- this is the standard window manager shipped from MIT
- xterm -- a terminal emulator

- maze -- a program to demonstrate animation
- xsetroot -- allows you to change the color of the root window; this doesn't work in rootless mode (see the Starting co-Xist section below for more info on rootless mode)
- xhost -- grants and remove permission to other machines to display their application on your machine (see the Displaying X Applications Remotely below for more details)
- various fonts -- fonts needed by the X applications
- Digital Librarian files -- a demo of the on-line co-Xist documentation

What's new in co-Xist 2.1.2

co-Xist 2.1.2 offers the following features:

- support for rootless windows
- compatibility with the NeXTstep Window Manager albeit with limited functionality
- improved text performance by a factor of 3 to 5
- function keys in the menu
- compatibility with Simon Says and Show&Tell
- a prompt for verification from the user when Quit is selected

Installing co-Xist

The demo disk that you have received contains a NeXT Installer package for

co-Xist 2.1.2. To install the co-Xist demo, follow these steps:

- log in as root
- simply double-click on the package (`co-Xist_2.1.2.demo.pkg`)
- click on the Install button to install the demo in the root directory /

WARNING: If your system is already installed with another version of co-Xist, don't install this demo, since it will overwrite your existing copy of co-Xist.

The package contains several files in three directories:

- `/usr/bin/X11` contains the executables
- `/usr/lib/X11` contains files needed to customize your environment as well as the fonts needed by the applications
- `/NextLibrary/Documentation/co-Xist` contains example of the on-line Digital Librarian documentation.

Setting Up co-Xist

Once you have installed the software, you can customize your X environment by copying and then editing the sample resource files. Copy the three files into your home directory:

- `cp /usr/lib/X11/sample.xinitrc $HOME/.xinitrc`
- `cp /usr/lib/X11/sample.Xdefaults $HOME/.Xdefaults`
- `cp /usr/lib/X11/sample.twmrc $HOME/.twmrc`

You can now edit the resource files to customize your X environment. The `$HOME/.xinitrc` file gives co-Xist the information necessary to start and end X sessions cleanly. The `$HOME/.Xdefaults` file sets default values for resources of the clients and the server, and the `$HOME/.twmrc` file sets resources for the twm window manager.

Be sure to add `/usr/bin/X11` to your `PATH` environment variable -- this can be done on the command line or in your `$HOME/.login` file.

NOTE: The only file necessary for co-Xist to function is the `$HOME/.xinitrc` file. If this file doesn't exist, only the co-Xist menu will appear and nothing else seems to be happening. Therefore, make sure that `$HOME/.xinitrc` exists or co-Xist will seem not to work.

Starting co-Xist

Once you have completed the setup, drag the co-Xist icon in `/usr/bin/X11` to your dock. Double-click on the co-Xist icon to start co-Xist, twm, maze and two xterms.

You can use the Preferences panel to customize the following parameters of co-Xist:

- Root Display -- controls the size of the root window when co-Xist is running in rooted mode -- this is ignored when co-Xist is in rootless mode

(see the Rootless option below)

- Frame Buffer Depth -- controls what visual depth (how many colors) co-Xist should use. Normally, you don't need to override this, since co-Xist defaults itself to the appropriate setting for your hardware
- Rootless -- controls whether co-Xist should execute in a root window (rooted mode) or not (rootless mode). In rootless mode, you also have the option of using the NeXTstep window manager
- NeXTstep Window Manager -- controls whether co-Xist should use the NeXTstep window manager to manage the windows. Since this option only works in rootless mode, selecting this option automatically selects the rootless mode
- Third Button Delay -- specifies the time delay (in milliseconds) that co-Xist uses to interpret mouse button clicks. The time delay is important because you may need to emulate a 3-button mouse for some X applications; to do so you would press both buttons on a 2-button mouse simultaneously. However, the time delay must be long enough for co-Xist to interpret the two clicks as simultaneous (the default is 20 milliseconds)
- Additional Options -- you shouldn't have to use this field unless you wish to use the command-line flags for the various options in the Preferences panel.

You must click on the OK button, quit co-Xist and then restart it before these options will take effect.

NOTE: The co-Xist demo session terminates after about 15 minutes, but you can restart it by again double-clicking on the co-Xist icon in your dock.

Using some of the features

Cutting and Pasting Text

Before you can cut and paste text, you need to enable the right mouse button.

To do so, follow these steps:

- double click on the Preferences application (this is the application that keeps track of the time -- it is usually docked above the Mail application; this is NOT the Preferences panel in co-Xist)
- click on the mouse icon in the scrolling list of buttons
- click on the Enabled button in the Menu Button region

The only application that supports cut and paste in the demo is the xterm application. The sequence for cutting and pasting depends on whether the source and destination is X or NeXTstep.

To copy text from X to NeXTstep, follow these steps:

- highlight the text
- click on the NeXTstep window you want to paste to
- click on the Paste option in the menu

To copy text from NeXTstep to X, follow these steps:

- highlight the text and click on copy
- click on the X window you want to paste to
- click on both mouse buttons

NOTE: You can copy and paste only text.

Using the Function Keys

Since the NeXT keyboard does not contain function keys, you may need to emulate them for some X applications. To do so, press the COMMAND key plus the number key 1 through 0 corresponding to the function key called for, or use the appropriate menu option.

For example, if an application calls for the F7 function key, you would press COMMAND-7 (press COMMAND-0 for the F10 function key) or select the Function7 menu option.

Using the Keypad Function Keys

If you need to emulate the PF function keys (the function keys on the numeric keypad) of a VT100 terminal, select the appropriate the menu options -- there are no keyboard shortcuts for the keypad function keys.

Displaying X Applications Remotely

The X-Windows architecture (a client-server model) allows applications to execute on one machine and display themselves on another machine on a network -- this is known as *displaying remotely*. You can use the `-display` option on the command line to control where the application displays itself -- all X applications support this option.

The following requirements must be met before you can display applications remotely:

- the machines must be networked together and can communicate with each other with names rather than addresses
- the application must be an X application -- an X application is also known as an *X client*
- the machine that is displaying the client must be executing an X server
- the displaying machine must have already granted access to the other

machine

In our example, let us assume that there are is a Sun workstation and a NeXT workstation. The Sun workstation is called solar and the NeXT is called cube. Let us further assume that solar contains an X based word processor, XWordProcessor. To execute the word processor and display it remotely on cube, follow these steps:

- start co-Xist on cube (this is the server)
- allow solar to display on cube by using the `xhost` command in an xterm:
`xhost + solar` (you must explicitly grant permission everytime you start co-Xist)
- inside the xterm, `rlogin` to solar
- inside the same xterm, start the application and redirect the output to cube by using the `-display` option: `XWordProcessor -display cube &`

XWordProcessor will execute on solar but display on cube -- this should be totally transparent to the user.

Using the on-line Documentation

A sample of the co-Xist Digital Librarian documentation is provided with this demo. To use it, follow these steps:

- use the browser to change to the `/NextLibrary/Documentation/co-Xist` directory
- start up Digital Librarian and drag the folder named `co-XistDoc` on to the Digital Librarian bookshelf
- you should save the bookshelf, if you would like to keep that

documentation permanently referenced

NOTE: Due to limited disk space, the on-line documentation could not be indexed. The only consequence is Digital Librarian takes longer to find a keyword.

Obtaining Further Help

Additional help on customizing co-Xist is available in the Digital Librarian documentation and in the Help panel in co-Xist itself.

Ordering co-Xist

If you would like to purchase a copy of the supported product, please call us at **1-800-PENCOM-4**. If you have any comments that can help us make co-Xist a better product, please call us or send e-mail to co-xist_info@pencom.com.