Installation Details for XFree86™ 4.2.1

The XFree86 Project, Inc

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Abstract

How to install XFree86.

1. Introduction

This document contains information about installing the XFree86 binaries as provided by The XFree86 Project.

The XFree86 binaries that we provide for UNIX-like OS's (Linux, the BSDs, Solaris, etc) are packaged in a platform-independent gzipped tar format (aka "tarballs" identified by the `.tgz` suffix). Along with the binaries we provide a customized version of the GNU tar utility called "extract" and an installation script. We recommend that these be used to install the binaries.

2. Downloading the XFree86 4.2.1 binaries

XFree86 4.2.1 is an update release. The most recent full release (4.2.0) needs to be installed before installing this update. Information about downloading and installing 4.2.0 can be found in the installation document for that version, which can be found on the XFree86 web site `<URL:http://www.xfree86.org/pub/XFree86/4.2.0/Install.html>`.

We provide XFree86 4.2.1 update binaries for a range of operating systems at our ftp site `<URL:ftp://ftp.xfree86.org/pub/XFree86/4.2.1/binaries/>` and our web site `<URL:http://ftp.xfree86.org/pub/XFree86/4.2.1/binaries/>`. Often during releases our site is heavily loaded. Instead of downloading directly from us we recommend that instead you use one of our mirror sites.

Our binaries are organized by sub-directories which correspond to each of the OS/platforms for which we provide binaries. First go to the sub-directory that represents your OS platform. In some cases (e.g., Linux) there may be a number of choices depending on the architecture or libc version your platform uses. In all case we recommend that you first download the `Xinstall.sh` script, and run it as in the following example to find out which binary distribution you should download.

```
sh Xinstall.sh -check
```

The output of this utility tells you which is the correct set of binaries for you to download. If you are careful with this step you will save yourself a lot time and trouble from NOT downloading an incompatible distribution.

NOTES:

- The Xinstall.sh script must be downloaded in binary mode, otherwise it won't run correctly. If you get lots of "command not found" messages when you try to run it, then it is most likely because the script wasn't downloaded in binary mode. Some web browsers won't do this for files of that name, so we also have a copy of it called "`Xinstall.bin`", and most browsers should download that correctly. When downloading it under this name, select "save as" on your browser, and save the file under the name "`Xinstall.sh`".
- The Xinstall.sh script requires some system commands and utilities to function correctly. While most systems will have these, some Linux installations may not. If you find that the script is failing because of some missing system command, you will need to install it before you can continue. If you don't know how to do this, then we recommend that you obtain this version of XFree86 from your Operating System distributor.
- Always use the version of the Xinstall.sh script that's provided with the release you're installing. Older versions of the script may not install newer releases correctly.
- If the binary distribution reported by the Xinstall.sh script isn't present on our site, then there are two possibilities. The first is that it hasn't been prepared and uploaded yet. This is likely if you are looking soon after the release date. The second possibility is that we won't have it available at all for this release. This is likely if it's still not there about two weeks after the release date. Check here `<URL:http://www.xfree86.org/4.2.1/UPDATES.html>` for information about updates to our binary distributions, and here `<URL:http://www.xfree86.org/4.2.1/ERRATA.html>` for errata related to this release.

Once you're run the `Xinstall.sh` script and found which binary update distribution is suitable for your system, download the necessary files. The four (4) mandatory files for all installations are listed below. If you have not downloaded all of the files, the installer script will complain.

```
1.   Xinstall.sh    The installer script
2.   extract        The utility for extracting tarballs
3.   Xupdate.tgz    Updated files except X server drivers
4.   Xdrivers.tgz   Updated X server drivers
```

NOTES:

- Some web browsers have a problem downloading the `extract` utility correctly. If you encounter this problem, download the version called `extract.exe` instead. This should fix the problem. (This is not a DOS/Windows executable.)

- The Darwin/Mac OS X distribution doesn't have or require the `Xdrivers.tgz` tarball.
- Some distributions may have additional mandatory tarballs. While rare, the installer script will tell you if any are missing.

3. Installing XFree86 4.2.1 using the Xinstall.sh script

We strongly recommend that our XFree86 4.2.1 binaries be installed using the `Xinstall.sh` script that we provide. It is also important that the previous full release (4.2.0) is installed before installing this update release. Make sure that you use the 4.2.1 version of the `Xinstall.sh` script to install this update. Older versions may not be able to do it correctly. There are a lot of steps in the manual installation process, and those steps can vary according to the platform and hardware setup.

You must login as the super user (root) to run the installer script. Place all of the downloaded files into a single directory (choose a temporary location with enough space). Use the cd command to change to that directory and then run the installer script as follows:

```
sh Xinstall.sh
```

Answer the prompts as they come up. If you are missing something that is required, the installer may tell you to install it before trying again. If the problem is that you did not download all of mandatory files aforementioned, then the installer will tell you which ones are missing and ask you to download them before proceeding.

3.1 Questions the installer may ask

The installer asks some questions that may not have obvious answers. The information here should help you answer them. In most cases, apart from the first question, the default answers should be OK.

If you run the installer from within an X session (the installer checks if `$DISPLAY` is set), you will be warned that doing so is not a good idea. Unless you have a good reason for knowing that this won't be a problem, you should exit your X session, including stopping xdm or equivalent if it is running, before continuing. If you ignore this warning and run into problems, well, you were warned!

You will be warned that proceeding with this installation will overwrite it. Only those things that are part of our standard distribution will be overwritten. Other X applications that you may have installed will not be removed. Some configuration files may be overwritten though, but the installer should prompt you before doing so. As the opening greeting says, it is **strongly** recommended that you backup any existing installation before proceeding. If you want your old applications to still be there after you've installed, don't do the "backup" by simply renaming your old `/usr/X11R6` directory. It is better to make a copy of it, and then install over the top of the original one. If you run into problems and want to revert to the old installation, you can then delete the overwritten one and copy the saved version back.

During the first part of the installation over an existing version, the script may remove some old files or directories that would get in the way of the new installation. It will list which files/directories have been removed. If none are listed, then none were removed.

3.2 After the installation is complete

The next step is to configure the X server. That is covered in detail in an as-yet unwritten document :-(. In the meantime, there are three ways to create a basic X server configuration file for XFree86 4.2.1. One is to run the `xf86config` utility. Another is to run the `xf86cfg` utility. The third option is to use the new `-configure` X server option:

```
XFree86 -configure
```

Note that if you are running Darwin/Mac OS X, there is no step 3 :-). You should skip this step, as configuration is not required or possible. The X server configuration file is not used on Darwin/Mac OS X.

The X server config file (`XF86Config`) format has changed compared to 3.3.x. Also, its default location is now `/etc/X11`. Finally, there is now only one X server for driving video hardware, and it is called "`XFree86`". Once you're satisfied with the operation of the new X server, you can safely remove the old `XF86_*` and/or `XF98_*` X server binaries from `/usr/X11R6/bin`.

After the X server configuration is done, it may be advisable to reboot, especially if you run xdm (or equivalent) or the font server (xfs).

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