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Linux Execution Issues

This is the first Linux version of HyperChem and as such there are a number of issues, mostly associated with Linux itself that may keep it from running satisfactorily on your machine.

Versions of Linux

HyperChem for Linux was developed on Fedora Core 11, a popular and ubiquitous version of Linux. A distribution that installs Fedora Core 11 and its programming tools should run HyperChem correctly. If a distribution of openSUSE 11.1 includes the Gnome Tools, it also runs correctly. Our first impression of earlier Ubuntu versions prior to Ubuntu 9.1 was not good. It seemed to be missing many of the libraries HyperChem needs and even has a bug in its libraries that cause an OpenGL screen not to refresh properly. However, we have had good success running HyperChem on Ubuntu 9.1. We have also had no problems running HyperChem on Mint.

As noted above, the current product and download is only for 32-bit Linux.

Graphic Drivers

HyperChem uses OpenGL graphics and works best with a good driver for a good graphics card.

Many standard Linux distributions are weak in such support. It may be necessary to install a specific graphics driver in order to have HyperChem make effective (or even satisfactory) use of its OpenGL graphics.

Fedora Core

For example, Fedora Core 10 or 11, where HyperChem was developed, generally requires downloading a graphics driver. The standard graphics cards that most people use come either from NVIDIA or ATI. At the current time, an ATI driver does not even seem to be available for Fedora Core 10. The drivers for NVIDIA cards have to be downloaded subsequent to installing Fedora Core 10. The particular driver needed depends upon the specific NVIDIA card.

For GeForce 6, 7, 8, 9, and 200 cards, use the following command:

```
su -c 'yum install kmod-nvidia xorg-x11-drv-nvidia xorg-x11-drv-nvidia-libs'
```

For GeForce FX cards, use the following command:

```
su -c 'yum install kmod-nvidia-173xx xorg-x11-drv-nvidia-173xx xorg-x11-drv-nvidia-173xx-libs'
```

For GeForce4 and below, use the following command:

```
su -c 'yum install kmod-nvidia-96xx xorg-x11-drv-nvidia-96xx xorg-x11-drv-nvidia-96xx-libs'
```

ATI drivers may be available for Fedora Core by the time you read this.

Other versions of Linux besides Fedora Core may provide appropriate graphics drivers but this cannot be assured and it may be necessary to search the web for appropriate drivers. HyperChem should run with any driver but may not run well unless the driver and associated card support better graphics than the lowest possible entry level.

The situation with graphics drivers that HyperChem needs to support its OpenGL rendering is getting better and it is likely that new Linux distributions will have what HyperChem needs or at least make it easy to obtain.

Libraries

HyperChem requires a number of libraries that at this stage are dynamic libraries rather than static libraries. These dynamic libraries (*.so) need to be part of your Linux distribution. These libraries may not be part of a standard installation of your version of Linux and you may have to install them later. It is probably best if at the time you install Linux, that you request the addition of various programming tools to have some level of confidence that these libraries will be part of you Linux machine.

The libraries that are needed are:

- libGL.so
- libGLU.so
- libpangox-1.0.so
- libpthread.so
- libgtk-x11-2.0.so
- libgio-2.0.so

We are particularly pleased that on new distributions, like Ubuntu 9.1, no additional libraries need be installed over those that the standard installation makes available. HyperChem just runs!