3Dlabs, Inc.
Linux Driver
Quick Start Guide

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System requirements

Before installing this driver, check that your system meets the following requirements:

- CPU: Intel-based
- Operating system: Redhat Linux 7.3 with the apropriate patch level kernel loaded.
- Graphics card: either Wildcat III (any Intel chipset) or Wildcat4 (Intel 7205, 7505, 875P)

The driver RPM file is built specifically for a patch level and can be queried for dependancies. The RPM file name contains the kernel patch level for the driver.

Example:

```
wildcat-0.0.1-15_24.7.x.i386.rpm

Driver version = 0.0.1-15

Kernel Patch level = 24.7.x
```

This rpm is targeted to run on a -24.7.x patch level kernel.

Installing Redhat Linux 7.3 With a Wildcat III or Wildcat4 Graphics Card

When installation begins, at the "boot:" prompt key in "text".

> **NOTE: Graphic mode installation is not supported.**

Follow these steps at the Video Card Configuration screen:

- Change the card type to `Generic SVGA` (Do **NOT** pick Generic 3Dlabs)
- Change the Video RAM setting to `256`

Installing the Wildcat driver

If you do not already have a Wildcat Linux driver installed on you computer, use the following command:

```
rpm -i --replacefiles PACKAGE_FILE
```

> **NOTE: This will force RPM to replace two files you might already have: LIBDRM.A and LIBGL.SO.1.2. Check for the presence of these files before beginning the installation and make a copy of them if they exist.**

If you have previously installed a Wildcat Linux driver, use one of the following commands:

```
rpm -U --replacefiles PACKAGE_FILE
```

or

```
rpm -e OLD_PACKAGE_NAME   (this will remove the existing Wildcat driver)
rpm -i --replacefiles PACKAGE_FILE
```

DRM Module Load

To load the Wildcat DRM module before starting XFree86, perform the following:

```
/sbin/insmod wildcat.o
```

To unload the DRM module:

```
/sbin/rmmod wildcat
```

Configuration

For detailed information about the configuration file for XFree86, refer to the manpage for XF86CONFIG. Modify the sections in your configuration file (/etc/X11/XF86Config-4) listed below:

Device Section

```
Section "Device"
        Identifier   "Wildcat Graphics"
        Driver       "wildcat"
        VendorName   "3Dlabs"
EndSection
```

Screen Section

The device name under screen section should be "Wildcat Graphics" (other entries do not need modification). Example:

```
Section "Screen"

        Identifier   "Screen0"

        Device       "Wildcat Graphics"

        Monitor      "Monitor0"

        DefaultDepth   24
```

```
        Subsection "Display"
                Depth       24
                Modes       "1280x1024" "800x600" "640x480"
        EndSubsection
EndSection
```

Monitor Section

There must be at least one monitor section in your configuration file. Refer to the `manpage` for `XF86CONFIG` for details. Example:

```
Section "Monitor"
    Identifier   "Monitor0"
    VendorName   "Vendor Name"
    ModelName    "Model Name"
    HorizSync    30-100
    VertRefresh  50-160
```

Driver Specific Options

This Wildcat driver offers the options below:

```
SynVerBlank

HWAccumEnable

MSEnable

MSForceEnable

MSPreallocSlots

DynamicSlotSize

TexMemGlobal

OcclusionTestEnable
```

All of these option values are integers. They can be configured under "Device Section". Refer to the XF86Config manpage for configuration of options. Example:

```
        option      "SynVerBlank" "0"
        option      "HWAccumEnable" "1"
        option      "MSEnable" "1"
        option      "MSForceEnable" "1"
        option      "MSPreallocSlots" "1"
```

```
option      "DynamicSlotSize" "8"
option      "TexMemGlobal" "1"
option      "OcclusionTestEnable" "1"
option      "FSStereoEnable" "0"
```

Frame Sequential Stereo

To enable frame sequential stereo:

1. Turn on option `FSStereoEnable` in your configuration file. `FSStereoEnable` is a
    boolean value which can be set with 0 or 1 (see previous section). It can also be set by
    adding it as an option inside of the Device section. Example:

    ```
    Section "Device"
            Identifier   "Wildcat Graphics"
            Driver       "wildcat"
            VendorName   "3Dlabs"
            option       "FSStereoEnable"
    EndSection
    ```

2. Configure your monitor to the resolution and vertical refresh rate that supports frame
    sequential stereo.

    **NOTE: If the monitor is not configured appropriately, X Windows will NOT start with
    `FSStereoEnable` enabled. See the *Monitor Configuration* section below to find the
    manufacturer and model of your monitor. If a match is found, choose a resolution
    and vertical refresh rate. If there is no match, choose `DefaultTiming`.**

    **NOTE: Make sure your monitor supports the resolution and vertical refresh rate you
    choose under `DefaultTiming`.**

3. Once a resolution and refresh rate have been chosen, edit the configuration file:

    a. Copy the string listed under Manufacturer to `Monitor Section, Vendor
        Name`
    b. Copy the string under Module to `Monitor Section, ModelName`
    c. Copy the vertical refresh rate to `Monitor Section, VertRefresh`
    d. Copy the mode to `Screen Section, Display Subsection, Modes`

    Examples:

    ```
    Section "Screen"
        Identifier   "Screen0"
        Device       "Wildcat Graphics"
        Monitor      "Monitor0"
        DefaultDepth    24
    ```

```
        Subsection "Display"
                Depth       24
                Modes       "1440x900"
        EndSubSection
    EndSection


Section "Monitor"
        Identifier   "Monitor0"
        VendorName   "DefaultTiming"
        ModelName    "DefaultTiming"
        HorizSync    30-100
        VertRefresh  100
EndSection
```

Monitor Configuration Information

Manufacturer	Model	Mode	Vrefresh
DefaultTiming	DefaultTiming	1520x856	120 106
		1440x900	120 100
		1360x766	120 118
		1280x800	120 112 100
		1280x720	120 110
		1152x864	120
		1152x720	120 110
		1024x768	140 120 100 84
		800x600	120 100
		640x480	120
Standard	Generic Monitor	1520x856	106
		1440x900	100
		1360x766	118
		1280x800	112 100
		1280x720	120 110
		1152x864	120
		1152x720	120 110
		1024x768	120
		800x600	120 100
		640x480	120
	DDC Monitor	1520x856	106
		1440x900	100
		1360x766	118
		1280x800	112 100
		1280x720	120 110
		1152x864	120
		1152x720	120 110
		1024x768	120
		800x600	120 100
		640x480	120