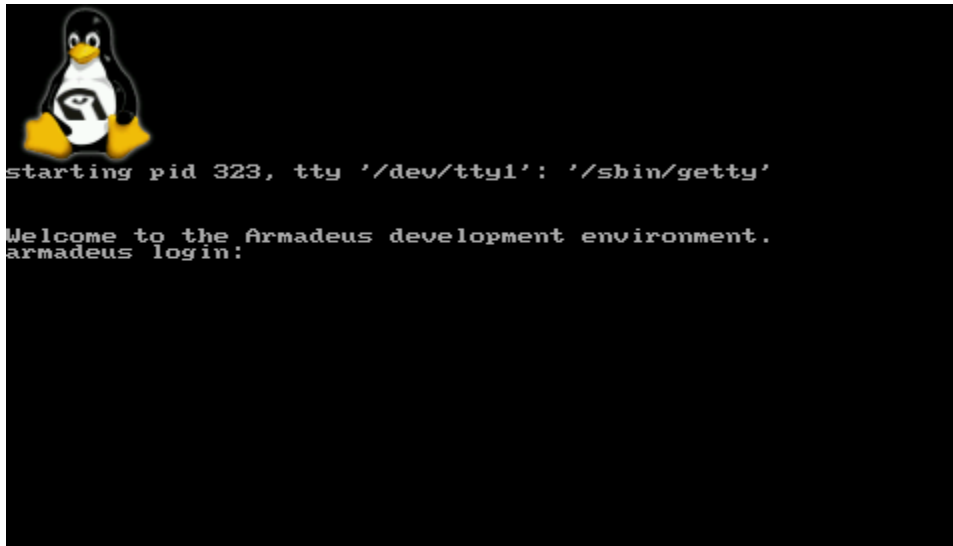


# Linux Boot Logo

From ArmadeusWiki

On this page we will explain you how to change the Boot Logo/Screen of Linux.

By default the following screen is displayed on your LCD:



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## Create an image to suitable format (C include file)

1. create a new image fitting the size of your LCD (320x240, 480x272 or 800x480), with The Gimp (<http://www.gimp.org/>) (for example).
2. save it in **PPM RAW** file format, let's say *my\_boot\_logo.ppm*
3. install Netpbm package:

```
$ sudo apt-get install netpbm
```

4. reduce the number of colors in your image to 224:

```
$ ppmquant 224 my_boot_logo.ppm > my_boot_logo_224.ppm
```

5. convert it to PPM ASCII format (if *pnmnoraw* is not available on your distribution (ex: LUbuntu 17.10), try with *pnmtoplainppm*):

```
$ pnmnoraw my_boot_logo_224.ppm > my_boot_logo_ascii_224.ppm
```

6. get the armadeus envt variables:

```
$ make shell_env && source armadeus_env.sh
```

7. copy the PPM to *\$ARMADEUS\_LINUX\_DIR/drivers/video/logo/* directory **with a name ending with *\_clut224.ppm***:

```
$ cp my_boot_logo_ascii_224.ppm $ARMADEUS_LINUX_DIR/drivers/video/logo/logo_custom_clut224.ppm
```

8. Linux will automatically convert your .ppm to a .c file, after you have added it to the build system, using the *\$ARMADEUS\_LINUX\_DIR/scripts/pnmtologo* script. This is the purpose of the next step.

## Add your file to Linux build system

1. If you have overwritten *\$ARMADEUS\_LINUX\_DIR/drivers/video/logo/logo\_armadeus\_clut224.ppm* with your own logo at the previous stage, then you can jump to the next step; otherwise:
2. Edit *\$ARMADEUS\_LINUX\_DIR/drivers/video/logo/Makefile*

3. Put it your logo file name at line 18 (replace current one):

```
obj-$(CONFIG_LOGO_ARMADEUS_CLUT224) += logo_custom_clut224.o
```

4. Edit `$ARMADEUS_LINUX_DIR/drivers/video/logo/logo.c`

5. Add it your logo C struct name at line 39:

```
extern const struct linux_logo logo_custom_clut224;
```

6. Put it your logo C struct name at line 122 (replace current one):

```
#ifdef CONFIG_LOGO_ARMADEUS_CLUT224
/* Armadeus Linux logo */
logo = &logo_custom_clut224;
#endif
```

## Recompile & install kernel

- Make sure that the "Armadeus Logo" option is selected in:

```
$ make linux-menuconfig
```

```
Device Drivers --->
Graphics support --->
  [*] Bootup logo --->
    [*] 224-color Armadeus Linux logo
```

- Then recompile your kernel:

```
$ make linux
```

and install it on your board.

- Restart your board and you should see your image:

```
starting pid 321, tty '/dev/tty1': '/sbin/getty'  
Welcome to the Armadeus development environment.  
armadeus login:
```



## Remove Login from framebuffer terminal

1. On your target, edit `/etc/inittab`
2. Comment line 28:

```
#tty1::respawn:/sbin/getty 38400 tty1
```

3. save it and restart your system

## Deactivate remaining cursor

It may be a remaining cursor at the left upper corner of the screen. Indeed virtual console cursor is activated by default in Linux. To deactivate it at boot stage, you will have to:

- on recent kernels (3.8+), follow tips here
- otherwise:
  1. Edit source file `$ARMADEUS_LINUX_KERNEL/drivers/char/vt.c`
  2. Near line 1620, in function `reset_terminal()`, change

```
vc->vc_deccm      = 1;
```

with

```
vc->vc_deccm      = 0;
```

### 3. recompile and reflash your kernel

After this modification, at any moment, you can get your blinking cursor back with:

```
# echo -e '\033[?25h' > /dev/tty1  
# echo 1 > /sys/class/graphics/fbcon/cursor_blink
```

## Links

- Other Framebuffer tips
- <http://netpbm.sourceforge.net/doc/pnmquant.html>
- Linux console ESC sequences ([http://www-curri.u-strasbg.fr/documentation/calcul/doc/ProPack/3SP1/docs/man\\_html/man4/console\\_codes.4.html](http://www-curri.u-strasbg.fr/documentation/calcul/doc/ProPack/3SP1/docs/man_html/man4/console_codes.4.html))
- U-Boot Splashscreen

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