

zImage_layout.txt
Information about the Linux/PPC kernel images

Please mail me (Cort Dougan, cort@fsmllabs.com) if you have questions, comments or corrections.

This document is meant to answer several questions I've had about how the PReP system boots and how Linux/PPC interacts with that mechanism. It would be nice if we could have information on how other architectures boot here as well. If you have anything to contribute, please let me know.

1. PReP boot file

This is the file necessary to boot PReP systems from floppy or hard drive. The firmware reads the PReP partition table entry and will load the image accordingly.

To boot the zImage, copy it onto a floppy with `dd if=zImage of=/dev/fd0h1440` or onto a PReP hard drive partition with `dd if=zImage of=/dev/sda4` assuming you've created a PReP partition (type 0x41) with `fdisk` on `/dev/sda4`.

The layout of the image format is:

0x0	+-----+	PReP partition table entry
0x400	+-----+	Bootstrap program code + data
	+-----+	compressed kernel, elf header removed
	+-----+	initrd (if loaded)
	+-----+	Elf section table for bootstrap program
	+-----+	

2. MBX boot file

The MBX boards can load an elf image, and relocate it to the proper location in memory - it copies the image to the location it was linked at.