NAME

zfsboot - bootcode for ZFS on BIOS-based computers

DESCRIPTION

zfsboot is used on BIOS-based computers to boot from a filesystem in a ZFS pool. **zfsboot** is installed in two parts on a disk or a partition used by a ZFS pool. The first part, a single-sector starter boot block, is installed at the beginning of the disk or partition. The second part, a main boot block, is installed at a special offset within the disk or partition. Both areas are reserved by the ZFS on-disk specification for boot use. If **zfsboot** is installed in a partition, then that partition should be made bootable using appropriate configuration and boot blocks described in boot(8).

BOOTING

The **zfsboot** boot process is very similar to that of gptzfsboot(8). One significant difference is that **zfsboot** does not currently support the GPT partitioning scheme. Thus only whole disks and MBR partitions, traditionally referred to as slices, are probed for ZFS disk labels. See the BUGS section in gptzfsboot(8) for some limitations of the MBR scheme support.

USAGE

zfsboot supports all the same prompt and configuration file arguments as gptzfsboot(8).

FILES

/boot/zfsboot boot code binary
/boot.config parameters for the boot block (optional)
/boot/config alternative parameters for the boot block (optional)

EXAMPLES

zfsboot is typically installed using dd(1). To install **zfsboot** on the *ada0* drive:

```
dd if=/boot/zfsboot of=/dev/ada0 count=1
dd if=/boot/zfsboot of=/dev/ada0 iseek=1 oseek=1024
```

If the drive is currently in use, the GEOM safety will prevent writes and must be disabled before running the above commands:

```
sysctl kern.geom.debugflags=0x10
```

zfsboot can also be installed in an MBR slice:

```
gpart create -s mbr ada0
gpart add -t freebsd ada0
```

```
gpart bootcode -b /boot/boot0 ada0
gpart set -a active -i 1 ada0
dd if=/dev/zero of=/dev/ada0s1 count=2
dd if=/boot/zfsboot of=/dev/ada0s1 count=1
dd if=/boot/zfsboot of=/dev/ada0s1 iseek=1 oseek=1024
```

Note that commands to create and populate a pool are not shown in the example above.

SEE ALSO

dd(1), boot.config(5), boot(8), gptzfsboot(8), loader(8), zpool(8)

HISTORY

zfsboot appeared in FreeBSD 7.3.

AUTHORS

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BUGS

Installing **zfsboot** with dd(1) is a hack. ZFS needs a command to properly install **zfsboot** onto a ZFS-controlled disk or partition.