

## How to change the Linux Root File System (File System Maintenance)

All Linux configurations for the DIL/NetPC ADNP/1520 contains a file with the name **rimage.gz**. This file is the root file system image with directories and files in a compressed format. At boot time, the ADNP/1520 Linux build the RAM disk with the content of **rimage.gz**.

It is possible to change the structure and content of **rimage.gz** with the help of a Linux-based PC. You can add or remove directories and files or change the content of files. This document describes the steps for this file system maintenance.

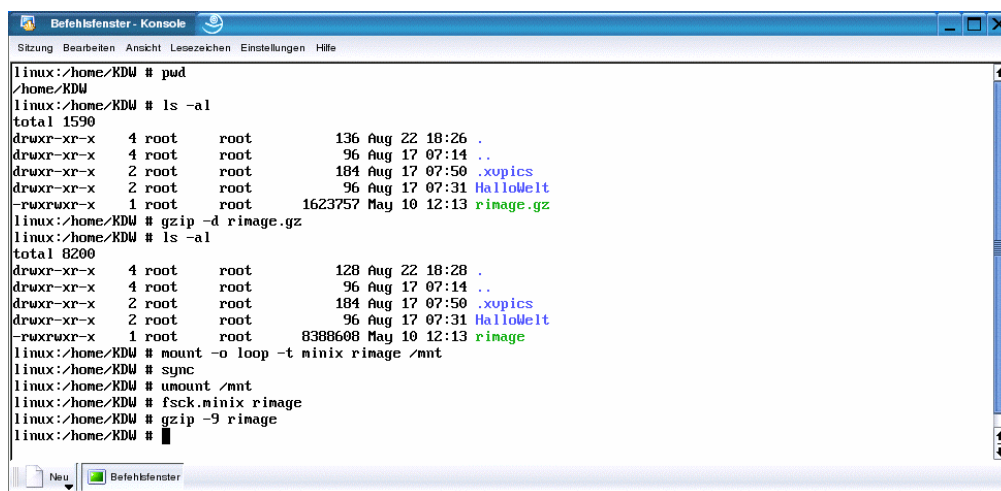
- **1. Step:** Unzip (uncompress) the compressed root file system image. Then mount the uncompressed root file system image to the file system of the Linux-based PC.

```
gzip -d rimage.gz
mount -o loop -t minix rimage /mnt
```

- **2. Step:** The root file system image is now a part of the PC file system. The mounting point in this sample is **/mnt**. Execute the necessary steps for the file system maintenance within **/mnt**.
- **3. Step:** After all changes please resynchronizes and un-mount the root file system image. Then check the uncompressed root file system image for errors. Finally compress the root file system image again.

```
sync
umount /mnt
fsck.minix rimage
gzip -9 rimage
```

- **4. Step:** The last steps creates a new **rimage.gz**. Transfer this file to your ADNP/1520, boot Linux at the ADNP/1520 and check the changes on the RAM disk.



```

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linux:/home/KDW # pwd
/home/KDW
linux:/home/KDW # ls -al
total 1590
drwxr-xr-x  4 root  root    136 Aug 22 18:26 .
drwxr-xr-x  4 root  root     96 Aug 17 07:14 ..
drwxr-xr-x  2 root  root   184 Aug 17 07:50 .xopics
drwxr-xr-x  2 root  root    96 Aug 17 07:31 HalloWelt
-rwxr-xr-x  1 root  root 1623757 May 10 12:13 rimage.gz
linux:/home/KDW # gzip -d rimage.gz
linux:/home/KDW # ls -al
total 8200
drwxr-xr-x  4 root  root    128 Aug 22 18:28 .
drwxr-xr-x  4 root  root     96 Aug 17 07:14 ..
drwxr-xr-x  2 root  root   184 Aug 17 07:50 .xopics
drwxr-xr-x  2 root  root    96 Aug 17 07:31 HalloWelt
-rwxr-xr-x  1 root  root 8388608 May 10 12:13 rimage
linux:/home/KDW # mount -o loop -t minix rimage /mnt
linux:/home/KDW # sync
linux:/home/KDW # umount /mnt
linux:/home/KDW # fsck.minix rimage
linux:/home/KDW # gzip -9 rimage
linux:/home/KDW #

```

That's all.