

Here are my notes about setup of various stuff on Eee PC to make it work better for me.

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## Startup

Edit `/usr/bin/startsimple.sh` and insert something along following lines before `exec icewm`

```
sudo rm /tmp/nologin

xrdb -merge ~/.Xresources
setxkbmap hr us
xterm &

exec icewm
```

## Compressed root filesystem

I don't really care much about Xandos on my Eee PC. However, I really do like idea about having read-only system filesystem (especially if your startup scripts are breakable as easy as ones on eee are). So, to improve this idea, I started to think how to compress read-only partition so I can at least save space.

As a first experiment, I copied whole flash from eee (about 3.6Gb used) and compressed it using `gzip -1` (lowest possible compression level). I was quite amazed to see that resulting archive was only 1.3Gb. So, I was up to something (and additional 2Gb of free space on 4Gb eee is also nice :-)

## Update 2008-01-22

squashfs 3.3 can't compress content of eee's `/usr` without hanging on flock after about ~47000 files. This is quite annoying, but 3.2 works. Since it's compiled from upstream source it doesn't include lzma compression, but it saves 1.6Gb of disk space. [More details is available](#), but in Croatian only.

## Links

Here is collection of references about this issue:

fetchrss: <http://del.icio.us/rss/dpavlin/debian+usb>

- There was an error: 500 Server closed connection without sending any data back

## Disk images

### Backup image from Eee using external USB disk

```
dd if=/dev/sda of=/media/A/Partition1/flash4Gb.img
```

Path in `of` may be different depending on partition on your disk.

### Backup flash image from Eee PC using network

Transfer somehow whole disk image to other computer. Good way might be to use netcat with something like this:

- on Eee

```
sudo nc -l -p 8888 < /dev/sda
```

- on other computer

```
nc name.of.eee.pc 8888 > hda
```

You might want to insert compression if your network connection is slower than flash read speed (which is according to `hdparm -tT /dev/hda` around 21MB/sec).

Alternative is to take `P701L.gz` from DVD which came with machine, but it has only one partition which is factory default one.

### Backup just part of image

You can also copy just parts of flash filesystem if you want (this copies just disk after partition 2):

- on eee

```
dd if=/dev/sda bs=512 skip=4819500 | gzip | nc -w 3 other.computer  
88882995524+0 records in
```

```
2995524+0 records out
1533708288 bytes (1.5 GB) copied, 279.348 seconds, 5.5 MB/s
```

- on other computer

```
nc -l -p 8888 | gzip -cd | > /rest/tmp/hda2-4
```

- now, extract beginning of disk and first partition from P701L

```
dd if=P701L of=hda1 bs=512 count=4819500
```

- and merge partition together to create full disk image

```
cat hda1 hda2-4 > hda
```

## Emulation

How to create virtual Eee PC?

## Example flash image

```
# fdisk -l hda
```

```
Disk /backup/eee/hda: 3 GB, 3997486080 bytes
255 heads, 63 sectors/track, 486 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
```

Device	Boot	Start	End	Blocks	Id	System
/backup/eee/hda1		1	300	2409718	83	Linux
/backup/eee/hda2		301	484	1469947	83	Linux
/backup/eee/hda3		485	485	0	c	FAT32 LBA
/backup/eee/hda4		486	486	0	ef	EFI FAT

## Mount file-system

We need first file system (factory defaults) to get access to kernel and initrd image

```
# fdisk -u -l hda
```

```
Disk /backup/eee/hda: 3 GB, 3997486080 bytes
255 heads, 63 sectors/track, 486 cylinders, total 7807590 sectors
Units = sectors of 1 * 512 = 512 bytes
```

Device	Boot	Start	End	Blocks	Id	System
/backup/eee/hda1		63	4803435	2409718	83	Linux
/backup/eee/hda2		4819563	7759395	1469947	83	Linux
/backup/eee/hda3		7775523	7775460	0	c	FAT32 LBA

```
/backup/eee/hda4          7791588    7791525    0    ef    EFI FAT
# mkdir 1
# mount hda 1 -o loop,offset=`expr 63 \* 512`
```

## Start emulation

```
qemu -m 512 -hda hda -kernel boot/vmlinuz-2.6.21.4-eeepc -initrd boot/initramfs-eeepc.img -append
```

## Links

fetchrss: <http://del.icio.us/rss/dpavlin/eeepc>

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