

Embedded Linux course - Filesystem and BusyBox

Total des points 3/10

✓ Can you use a non empty directory as mount point? *

1/1

☒ Yes



☐ No

Commentaire

Correct - It's fine to use a non empty directory as a mount point. Its contents will remain hidden as long as the mount point is active.

✗ What's the name of the kernel parameter to specify the root filesystem? 0/1 *

setenv



Bonnes réponses

root

root=

Commentaire

*The answer is "root".
Example: "root=/dev/mmcblk0p2" will instruct the kernel to try to mount the second partition of the first MMC/SD device as root filesystem.*



✓ If you use an initramfs, do you need a filesystem driver in the static kernel? * 1/1

☐ Yes

☒ No



Commentaire

True. An initramfs is a root filesystem in RAM, but it doesn't require a filesystem driver as a normal filesystem on block or flash storage would. It's because it's based on the file cache, the lowest level Linux mechanism to manage files.

✗ Is the /bin directory mandatory in an embedded Linux root filesystem? * 0/1

☒ Yes

☐ No



Bonne réponse

☒ No

Commentaire

Wrong. The Linux kernel doesn't care about file names. However, you'll be deviating from the FHS standard that most people and programs expect. You may have to tweak some scripts and programs because of this.



✓ It's mandatory to have a shell interpreter in an embedded Linux root filesystem * 1/1

☐ True

☒ False



Commentaire

Correct. You can have a filesystem with only binary programs. Mounting filesystems, bringing up a network interface, and other things that are traditionnally done through shell commands can also be done in C (for example).

✗ Can devtmpfs be automatically mounted when booting on an initramfs? 0/1 *

☒ Yes

☐ No



Bonne réponse

☒ No

Commentaire

Wrong. Booting on an initramfs, you have to explicitly mount devtmpfs on /dev, typically in your system startup scripts. That's a limitation, but it's easy to overcome.



✗ What's the command to unselect all configuration parameters in BusyBox 0/1 or in the Linux kernel? *

ld

✗

Bonnes réponses

make allnoconfig

allnoconfig

Commentaire

That's particularly convenient in BusyBox to select only the commands and options that you need in your system. You can do that in Linux too, but you will for sure miss features and drivers to support your hardware.

✗ To cross-compile BusyBox, you need to set the ARCH environment variable * 0/1

☒ True

☐ False

✗

Bonne réponse

☒ False

Commentaire

Wrong. BusyBox has no architecture independent code that an ARCH setting would select (as in the Linux kernel). It's just the cross-compiler that you use that generates code for the correct target.



✗ BusyBox includes a tftp client and server *

0/1

☐ True

☒ False

✗

Bonne réponse

☒ True

Commentaire

Wrong. The corresponding BusyBox applets are "tftp" and "tftpd".

✗ Busybox implements an ssh server *

0/1

☒ True

☐ False

✗

Bonne réponse

☒ False

Commentaire

Wrong. That need is addressed by the "Dropbear" project, which is good enough not to need BusyBox to fill this need. However, having an ssh server in BusyBox would simplify users' life, not having to cross-compile a separate package.

Ce formulaire a été créé dans Bootlin.

Google Forms

