Embedded Linux course - Block filesystems

Total des points   4/10
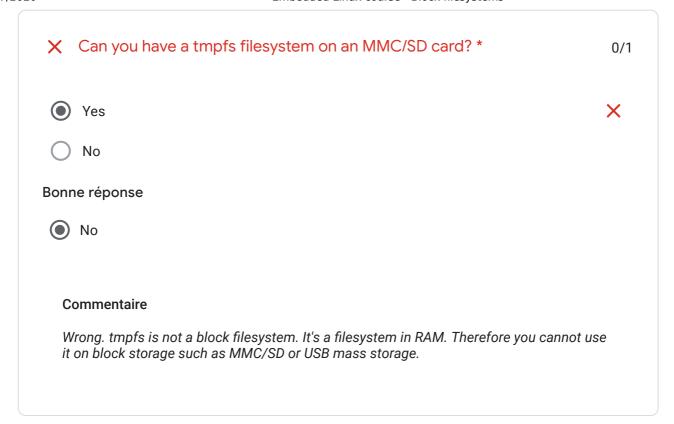
✗   **How to find block devices on your Linux system? ***   0/1

○ cat /proc/block

○ cat /proc/partitions

◉ cat /sys/block   ✗

○ cat /sys/partitions

Bonne réponse

◉ cat /proc/partitions

Commentaire

Wrong. You could check on your GNU/Linux PC too.
By the way, /sys/block is a directory, you cannot run cat on it, though it contains
subdirectories with information about block devices.
The other paths don't exist.Correct. Check on your GNU/Linux PC too.

✕   Name a command line tool that can be used to modify partitions on a   0/1
     block device *

dd   ✕
....

Bonnes réponses

 fdisk

 cfdisk

 sfdisk

 parted

Commentaire

Valid answers are: fdisk, cfdisk, sfdisk, parted.
If you think that another solution should be worth accepting here, please write to
feedback@bootlin.com.

✓   Can you use the "dd" command to copy the zImage and dtb files to a FAT   1/1
     partition? *

◯ True

◉ False   ✓

Commentaire

Correct. The "dd" command would overwrite the raw data in the partition, corrupting the
filesystem. You should mount the block device corresponding to the partition first, and
then copy the files through normal commands (cp, rsync...). Then, don't forget to unmount!

✓   **What's the command to unmount a filesystem? ***   1/1

umount   ✓

Commentaire

The correct command is "umount", not "unmount". Every byte matters in UNIX ;-)

✗   **Give me a command to list mounted filesystems. Please, keep in mind that I am only a computer and I can only recognize a few valid answers. Don't be too creative! ***   0/1

ls   ✗

Bonnes réponses

mount

cat /proc/mounts

Commentaire

Here are the commands that I recognize:
mount
cat /proc/mounts

I don't accept the "df" command as it doesn't show virtual filesystems such as "sysfs" and "proc".

✓   Is ext3 a journaling filesystem ? *   1/1

◉ Yes   ✓

○ No

Commentaire

Correct. ext2 isn't one, but ext3 and ext4 are.

✓   Does the Squashfs filesystem have journaling? *   1/1

○ Yes

◉ No   ✓

Commentaire

Correct. Squashfs is a read-only filesystem. It can never be modified and therefore doesn't need journaling as a protection against filesystem corruption.

✗   **What's the mount option to mount a filesystem image instead of a block device? ***   0/1

-t   ✗

Bonnes réponses

-o loop

loop

Commentaire

Note that you could to that with the "losetup" command instead, but "mount -o loop" does that transparently:

> losetup -f (to find the first free loop device)
> losetup /dev/loop10 ext2.img
> mount /dev/loop10 /mnt/dir

Instead of just:
mount -o loop ext2.img /mnt/dir

✗   **Can you have a read–write partition in a Squashfs root filesystem? ***   0/1

◯   Yes

◉   No   ✗

Bonne réponse

◉   Yes

Commentaire

Wrong. Even though the root filesystem is read-only, you can mount read-write partitions on a read-only directory.

✕   **Can you have a tmpfs filesystem on an MMC/SD card? ***   0/1

◉ Yes   ✕

◯ No

Bonne réponse

◉ No

Commentaire

Wrong. tmpfs is not a block filesystem. It's a filesystem in RAM. Therefore you cannot use it on block storage such as MMC/SD or USB mass storage.

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