Task description: ./description.txt

TL;DR: sort by most recent changed files, open file, profit

Resources: ./key.gif

We were given an archive containing a .img file. After extracting the .img, the first obvious thing to do is running file on it, so we find that it is an EXT2 filesystem, as we can see in the screenshot on the right.

```
root@mecha:/home/catalin/ctf/16-csc-quals# file bad_fs
bad_fs: Linux rev 1.0 ext2 filesystem data, UUID=e8118091-96d9-444f-8abd-67c097afa60c
```

So, let's mount it using linux:

**`mkdir /mnt/x && mount –o ro,loop bad_fs*.img /mnt/x;`**

```
[root@longhorn x]# ls
bin  etc  lost+found  overlay  rom   sbin  tmp  var
dev  lib  mnt         proc     root  sys   usr  www
```

We can see a linux / root, with quite a lot of files. The first thing that came into my mind, was to search recursively for the most recent changed files from this filesystem. We can do this in linux pretty quick by using for example, find:

**`find . -type f -printf '%TY-%Tm-%Td %TH:%TM: %Tz %p\n'| sort -n | tail -n3`**

```
[root@longhorn x]# find . -type f -printf '%TY-%Tm-%Td %TH:%TM: %Tz %p\n'| sort
-n | tail -n3
2011-12-21 12:10: +0100 ./usr/lib/opkg/info/uhttpd.list
2011-12-21 12:10: +0100 ./usr/lib/opkg/status
2016-02-15 17:44: +0100 ./www/luci-static/resources/cbi/key.gif
```

So, a bunch of files last modified in 2011, and then a **key.gif** last modified in February 2016. Can it be the flag? Let's open it and find out. (@bottom right screenshot) It's a QR code! After decoding, we get the flag.

Flag: **csc2016{6zmL7lLDLkYcKMUQIrHl6CCZbg8BePtw}**