Handle four USB ports on CCP VS.

Note that CCpilot VS models have four USB ports (see pictures below). USB 1 and USB 2 is placed on the left side of the display and are regular USB ports, where you can place an USB stick directly into the slots. Two more USB slots are available on the back, with the M12 connectors A and B. Use the USB cables delivered in the CCP VS Cable kit (Art.no C000082-98) to get two more USB slots.

2x M12 USB connectors

2x USB type A connectors

M12 Ethernet connector

On/off button with status LED

When there is no USB stick inserted in any of the USB slots, you can use the following command:

fdisk -l | grep /dev/sd

There is no listing of any USB stick in the CCP VS unit.

But if you insert an USB stick in any of the USB slots and then use the same command:

fdisk -l | grep /dev/sd

You now see that an USB stick has been detected and as the device is the first that has been found, it has been given the name 'sda'. Note, the first inserted USB will get the name 'sda', the second 'sdb' etc. And it doesn't matter in which slot it has been inserted!

So when there are four USB's inserted in the CCP VS, the fdisk-command will give the following information:
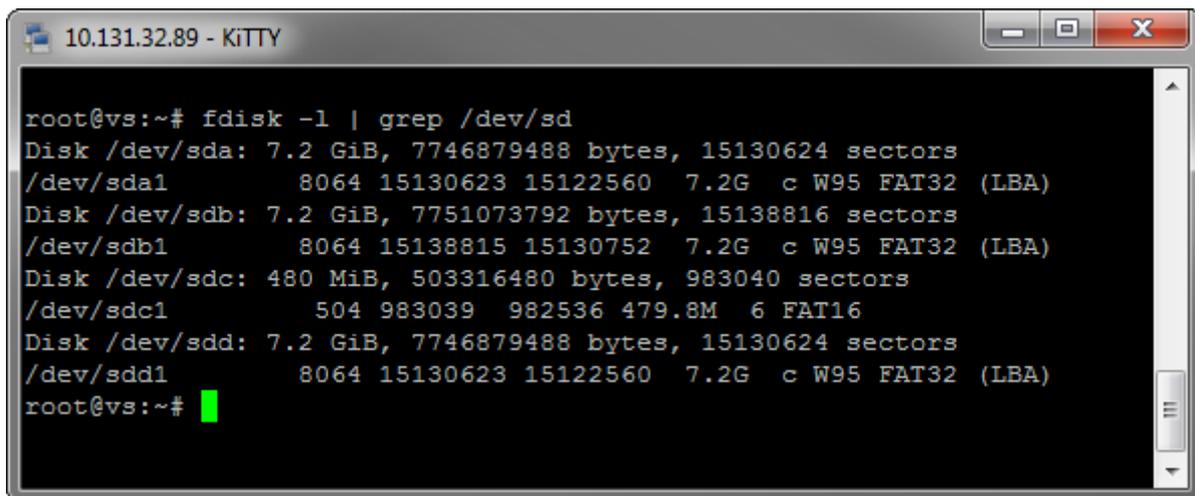

```
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root@vs:~# fdisk -l | grep /dev/sd
Disk /dev/sda: 7.2 GiB, 7746879488 bytes, 15130624 sectors
/dev/sda1          8064 15130623 15122560  7.2G  c W95 FAT32 (LBA)
Disk /dev/sdb: 7.2 GiB, 7751073792 bytes, 15138816 sectors
/dev/sdb1          8064 15138815 15130752  7.2G  c W95 FAT32 (LBA)
Disk /dev/sdc: 480 MiB, 503316480 bytes, 983040 sectors
/dev/sdc1           504 983039   982536 479.8M  6 FAT16
Disk /dev/sdd: 7.2 GiB, 7746879488 bytes, 15130624 sectors
/dev/sdd1          8064 15130623 15122560  7.2G  c W95 FAT32 (LBA)
root@vs:~# 
```

This fact could be used within your application code, as could be seen in the following example!

Code example:

```c
#define + MAX_NUM_DEVICES 7
void check_usb()
{
 char i;
 char cmd[256];

 for (i = 0x61; i < (0x61 + MAX_NUM_DEVICES); i++)
 {
   // Check if device /dev/sdx1 exists
   sprintf(cmd, "fdisk -l | grep /dev/sd%c", i);
   if (system(cmd) == 0)              // NOTE! 0(zero) means NO error!
   {
     // Check if device is mounted anywhere
     sprintf(cmd, "mount | grep /dev/sd%c", i);
     if (system(cmd) == 0)            // NOTE! 0(zero) means NO error!
     {
       // Device is mounted
       printLog("Found device /dev/sd%c, device is already mounted.\n");
       // The USB is present! Use it as you wish!

       …
     }
     else
     {
       …
     }
   }
 }
}
```

Note!

If there are USB sticks inserted in all the USB slots at PowerUp, there is no defined order for which USB slot will get the device name 'sda', 'sdb', etc. The USB memory stick that reports its existence first will get the name 'sda', etc. This depends on the USB sticks themselves, their design and memory size etc.