

# USB-

- 
- udev
- 
- 
- 

Astra Linux x.7.2 udev mount. . Astra Linux. , udev . :

- (/media/<\_>);
- ( ;
- .



- Astra Linux Special Edition .10015-01 .10015-10 ( 1.7)
- Astra Linux Special Edition .10052-02 ( 4.7)
- Astra Linux Special Edition .10015-01 ( 1.6)
- Astra Linux Special Edition .10015-16 . 1 . 2
- Astra Linux Special Edition .10265-01 ( 8.1)
- Astra Linux Common Edition 2.12



. , NTFS fly-reflex ( ). umount .  
udev ( . Astra Linux) ..

## udev

udev ("action") . :

- ( "add");
- () ( "remove");
- ( "change"). - (CD- DVD-).

. - udev :

- /lib/udev/rules.d/
- /run/udev/rules.d/
- /etc/udev/rules.d/

, . . - ,.., (etc/udev/rules.d/).

- , .rules.

**/etc/udev/rules.d/99-local.rules:**

### /etc/udev/rules.d/99-local.rules

```
KERNEL=="sd[a-z]|sd[a-z][1-9]", SUBSYSTEMS=="usb", ACTION=="add", RUN+="/bin/systemctl start usb-mount@%k.service", RUN+="/usr/bin/logger -s -t Astra StepAdd"
KERNEL=="sd[a-z]|sd[a-z][1-9]", SUBSYSTEMS=="usb", ACTION=="remove", RUN+="/bin/systemctl stop usb-mount@%k.service", RUN+="/usr/bin/logger -s -t Astra StepRemove"
KERNEL=="sd[a-z]|sd[a-z][1-9]", SUBSYSTEMS=="usb", ACTION=="change", RUN+="/bin/systemctl reload usb-mount@%k.service", RUN+="/usr/bin/logger -s -t Astra StepReload"
```

/ :

- "sd", ([a-z]) — vfat , , NTFS;
- "sd", , ([a-z]), ([0-9]) — ext2/ext3/ext4 NTFS.

:

RUN+="/usr/bin/logger -s -t Astra\_USB ...

Astra\_USB /var/log/syslog.

, usb-mount@%k.service, .

udev %k ( )... , ,/dev/sdb1, :

/bin/systemctl start usb-mount@sdb1.service

```
usb-mount@%k %k "at" ("", "@"), :      "@"      , ,  "@"  ...:
```

```
systemctl start usb-mount@sdb1.service
```

```
usb-mount start sdb1.      .
```

```
() ,      udev:
```

```
udevadm control --reload-rules
```

```
, .      "" (units), , /etc/systemd/system/.
```

```
udev /etc/systemd/system/usb-mount@.service:
```

#### /etc/systemd/system/usb-mount@.service

```
[Unit]
Description=Mount USB Drive on %i
[Service]
Type=oneshot
RemainAfterExit=true
ExecStart=/usr/local/bin/usb-mount.sh add %i
ExecReload=/usr/local/bin/usb-mount.sh reload %i
ExecStop=/usr/local/bin/usb-mount.sh remove %i
```

```
- start ( ExecStart) stop ( ExecStop),      ,      ( - /usr/local/bin/usb-mount.sh).      , ( - add remove) %i,      , "@", .. - sdb1.
```

```
. /usr/local/bin/usb-mount.sh. . . :
```

- vfat:
  - nobody ("") nogroup (" ");
  - (umask) 000, ;
- users, "noexec, nosuid, nodev":
  - noexec — , ;
  - nosuid — , ();
  - nodev — , , ;
- /etc/fstab :

```
<_> <_> auto <_>
```

```
mount      .      :
```

- users. , /etc/fstab, "noexec, nosuid, nodev" , ;
- noauto. ( mount -a).

```
:
```

#### /usr/local/bin/usb-mount.sh

```
#!/bin/bash
set -xue
# () . /var/log/syslog "Astra_USB"
log='/usr/bin/logger -s -t "Astra_USB"'

# /
usage() {
    $log ": $0 {add|remove|reload} device_name (, sdb1)."
    exit 1
}
```

```

ACTION=${1:-}
DEVBASE=${2:-}
DEVICE="/dev/${DEVBASE}"

do_mount() {
    MOUNT_POINT=$(/bin/mount | /bin/grep ${DEVICE} | /usr/bin/awk '{ print $3 }')
    if [[ -n ${MOUNT_POINT} ]]; then
        $log ": ${DEVICE}  ${MOUNT_POINT}"
        exit 1
    fi

    #      : ID_FS_LABEL, ID_FS_UUID,  ID_FS_TYPE
    eval $(/sbin/blkid -o udev ${DEVICE})

    #
    OPTS="rw,relatime,users"

    #      :
    case ${ID_FS_TYPE:-} in
        vfat)      $log " ${ID_FS_TYPE}  ${DEVICE}"
                   OPTS+=" ,uid=nobody,gid=nogroup,umask=000,shortname=mixed,utf8=1,flush"
                   ;;
        ext4|ext3|xfs|btrfs)
                   $log " ${ID_FS_TYPE}  ${DEVICE}"
                   ;;
        ntfs)
                   OPTS+=" ,group,uid=nobody,gid=nogroup"
                   $log " ${ID_FS_TYPE}  ${DEVICE}"
                   ;;
        *)
                   $log " ${DEVICE}  "
                   exit 0
                   ;;
        *) $log " ${ID_FS_TYPE:-}  ${DEVICE}"
           exit 1
    esac

    UUID=`lsblk $DEVICE -no UUID`
    #  MOUNT_POINT="/run/user/0/media/by-uuid-${UUID}"
    MOUNT_POINT="/media/by-uuid-${UUID}"
    $log " : ${MOUNT_POINT}"
    /bin/mkdir -p ${MOUNT_POINT}
    chmod 777 ${MOUNT_POINT}

    if ! /bin/mount -o ${OPTS} ${DEVICE} ${MOUNT_POINT}; then
        $log " ${DEVICE} ( = ? )"
        /bin/rmdir ${MOUNT_POINT}
        exit 1
    else
        sed -i "/^${DEVICE}/\V\}\s\+/d" /etc/fstab
        echo "${DEVICE} ${MOUNT_POINT} auto ${OPTS} 0 0" | tee -a /etc/fstab > /dev/null
    fi

    $log "****  ${DEVICE}  ${MOUNT_POINT}  ****"
}

do_unmount() {
    $log "Removing: ${DEVICE}-${ID_FS_LABEL:-}-${DEVBASE}"
    MOUNT_POINT=$(/bin/mount | /bin/egrep "^${DEVICE}" | /usr/bin/awk '{ print $3 }')
    if [[ -z ${MOUNT_POINT} ]]; then
        $log ": ${DEVICE}  "
    else
        /bin/umount -l ${DEVICE}
        $log "****  ${DEVICE}  ****  ${MOUNT_POINT}  /etc/fstab"
    fi
    [ -d "$MOUNT_POINT" ] && /bin/rmdir "$MOUNT_POINT"
    sed -i "/^${DEVICE}/\V\}\s\+${MOUNT_POINT}/\V\}/d" /etc/fstab
}

```

```
do_reload() {
    $log "Reload: ${DEVICE}-${ID_FS_LABEL:-}-${DEVBASE}"
    MOUNT_POINT=$(/bin/mount | /bin/egrep "^${DEVICE}" | /usr/bin/awk '{ print $3 }')
    if [[ -z ${MOUNT_POINT} ]]; then
        for d in $(egrep "^${DEVICE}\s+" /etc/fstab | awk '{print $2}'); do
            $log "Reload: ${DEVICE} . $d"
            [ -d "$d" ] && rm "$d"
        done
    else
        $log "Reload: ${DEVICE} "
    fi
    sed -i "/^${DEVICE}/\V\s\+/d" /etc/fstab
}

case "${ACTION}" in
    add) do_mount ;;
    remove) do_unmount ;;
    reload) do_reload ;;
    *) usage ;;
esac
```

:

```
sudo chmod +x /usr/local/bin/usb-mount.sh
```

udev /var/log/syslog:



```
sudo udevadm control -l debug
```

udev :

```
udevadm test /dev/sdb1
```

udev:

```
udevadm monitor -k -u -p
```

:

```
udevadm info -q path -n /dev/sdd1
```

:

```
udevadm info -a -p $(udevadm info -q path -n /dev/sdd1)
```