USB-

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- udev
-
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- 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

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

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

. . , 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//\//\\/}\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//\//\\/}\s\+${MOUNT_POINT//\//\\/}/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//\/\\/}\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)
```