ОСМАН АЛИ НИКОЛАЙ – АРХИТЕКТУРА КОМПЬЮТЕР ЛАБ 1
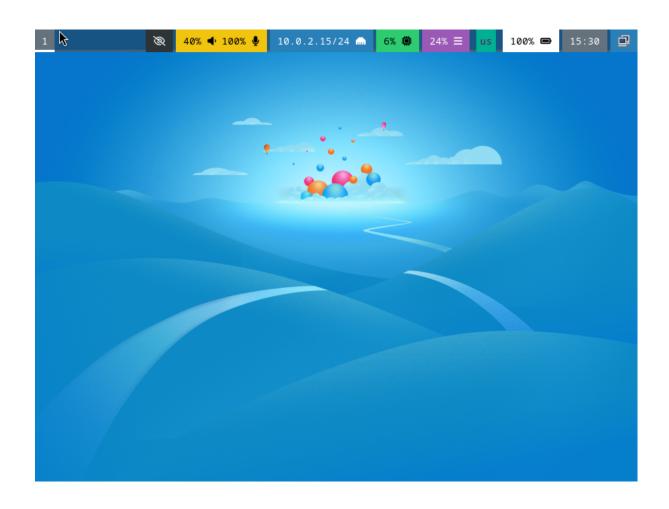
УСТАНОВКА VIRTUAL BOX

Установка fedora iso

СОЗДАНИЕ ПАМЯТЬ

```
anosman@anosman-GL553VD:-$ cd /var/tmp
anosman@anosman-GL553VD:/var/tmp$ mkdir /var/tmp/`id -un`
anosman@anosman-GL553VD:/var/tmp$ VirtualBox &
[1] 5262
anosman@anosman-GL553VD:/var/tmp$ vboxmanage createvm --name "$(id -un)_os-intro" --ostype Fedora_64 --register
Virtual machine 'anosman_os-intro' is created and registered.
UUID: 81899724-a139-4821-89ad-7a6d39ecfe10
Settings file: '/var/tmp/anosman/anosman_os-intro/anosman_os-intro.vbox'
anosman@anosman-GL553VD:/var/tmp$ vboxmanage modifyvm "$(id -un)_os-intro" --memory 2048 --acpi on --nic1 nat
anosman@anosman-GL553VD:/var/tmp$ vboxmanage createhd --filename "$(vboxmanage list systemproperties | grep 'Default machine folder:' | cut -d':' -f2 | tr -d ' ')/$(id -un)_os-intro/$(
id -un)_os-intro.vdi" --size 80000
0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%
Medium created. UUID: 103bcc35-4e8d-41de-a40a-785a35d91dcd
anosman@anosman-GL553VD:/var/tmp$ mkdir -p "/var/tmp/$(id -un)/iso"
anosman@anosman-GL553VD:/var/tmp$ mv Fedora-Sway-Live-x86_64-39-1.5.iso "/var/tmp/$(id -un)/iso/"
mv: cannot stat 'Fedora-Sway-Live-x86_64-39-1.5.iso': No such file or directory
anosman@anosman-GL553VD:/var/tmp$ Fedora-Sway-Live-x86_64-39-1.5.iso
Fedora-Sway-Live-x86_64-39-1.5.iso: command not found
anosman@anosman-GL553VD:/var/tmp$ cd "/var/tmp/$(id -un)/iso"
anosman@anosman-GL553VD:/var/tmp/anosman/iso$ wget -c https://fedoraproject.org/spins/sway/download/index.html
--2025-09-02 23:37:38--  https://fedoraproject.org/spins/sway/download/index.html
Resolving fedoraproject.org (fedoraproject.org)... 2a05:d014:10:7803:142c:f27e:9113:eb70, 2a05:d014:10:7803:e679:200f:1d55:a3d, 2a05:d01c:c6a:cc01:80a4:89a8:76d0:aa54, ...
Connecting to fedoraproject.org (fedoraproject.org)|2a05:d014:10:7803:142c:f27e:9113:eb70|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 350838 (343K) [text/html]
Saving to: 'index.html'

index.html          100%[===================>] 342.62K   587KB/s    in 0.6s

2025-09-02 23:37:39 (587 KB/s) - 'index.html' saved [350838/350838]

anosman@anosman-GL553VD:/var/tmp/anosman/iso$ wget -c /afs/dk.sci.pfu.edu.ru/common/files/iso.
/afs/dk.sci.pfu.edu.ru/common/files/iso.: Scheme missing.
anosman@anosman-GL553VD:/var/tmp/anosman/iso$ wget -c https://fedoraproject.org/spins/sway/download/index.html/afs/dk.sci.pfu.edu.ru/common/files/iso.
--2025-09-02 23:39:19--  https://fedoraproject.org/spins/sway/download/index.html/afs/dk.sci.pfu.edu.ru/common/files/iso.
Resolving fedoraproject.org (fedoraproject.org)... 2a05:d014:10:7803:142c:f27e:9113:eb70, 2a05:d014:10:7803:e679:200f:1d55:a3d, 2a05:d01c:c6a:cc01:80a4:89a8:76d0:aa54, ...
Connecting to fedoraproject.org (fedoraproject.org)|2a05:d014:10:7803:142c:f27e:9113:eb70|:443... connected.
HTTP request sent, awaiting response... 404 Not Found
2025-09-02 23:39:21 ERROR 404: Not Found.
anosman@anosman-GL553VD:/var/tmp/anosman/iso$ wget -c https://fedoraproject.org/spins/sway/download/index.htmlFedora-Sway-Live-x86_64-41-1.4.iso
--2025-09-02 23:39:54--  https://fedoraproject.org/spins/sway/download/index.htmlFedora-Sway-Live-x86_64-41-1.4.iso
Resolving fedoraproject.org (fedoraproject.org)... 2a05:d014:10:7803:e679:200f:1d55:a3d, 2a05:d014:10:7803:142c:f27e:9113:eb70, 2a05:d01c:c6a:cc01:80a4:89a8:76d0:aa54, ...
Connecting to fedoraproject.org (fedoraproject.org)|2a05:d014:10:7803:e679:200f:1d55:a3d|:443... connected.
HTTP request sent, awaiting response... 404 Not Found
```

VIRTUAL BOX УСТАНОВЛЕН

anosman_os-intro [Running] - Oracle VM VirtualBox

File   Machine   View   Input   Devices   Help

1   foot 👁 40% 🔊 100% 🎤

foot

```
root@10:~# mount -o remount,rw /
root@10:~# fsck -y /dev/sda1
fsck from util-linux 2.40.2
e2fsck 1.47.1 (20-May-2024)
ext2fs_open2: Bad magic number in super-block
fsck.ext2: Superblock invalid, trying backup blocks...
fsck.ext2: Bad magic number in super-block while trying to open /dev/sda1

The superblock could not be read or does not describe a valid ext2/ext3/ext4
filesystem.  If the device is valid and it really contains an ext2/ext3/ext4
filesystem (and not swap or ufs or something else), then the superblock
is corrupt, and you might try running e2fsck with an alternate superblock:
    e2fsck -b 8193 <device>
 or
    e2fsck -b 32768 <device>

root@10:~# ^C
root@10:~# fdisk -l
Disk /dev/sda: 78.13 GiB, 83886080000 bytes, 163840000 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: 3D7AAECE-17CD-4B37-AF2B-2E0B517E3F3B

Device       Start        End   Sectors  Size Type
/dev/sda1     2048       4095      2048    1M BIOS boot
/dev/sda2     4096    2101247   2097152    1G Linux extended boot
/dev/sda3  2101248  163837951 161736704 77.1G Linux filesystem


Disk /dev/zram0: 1.91 GiB, 2055208960 bytes, 501760 sectors
Units: sectors of 1 * 4096 = 4096 bytes
Sector size (logical/physical): 4096 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
root@10:~# tmux
[exited]
root@10:~# dmseg grep -i "sda.*mounted"
-bash: dmseg: command not found
root@10:~# exit
logout
anosman@10:~$ dmseg | grep -i "mhz processor"
-bash: dmseg: command not found
anosman@10:~$
[0] 0:bash*
```

anosman-GL553VD:/var/tmp/anosman/iso$ VBoxManage startvm $(id -un)_os-intro --
g for VM "anosman_os-intro" to power on...
osman_os-intro" has been successfully started.
n@anosman-GL553VD:/var/tmp/anosman/iso$

anosman_os-intro [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

1   foot 👁̶ 40% 🔊 100% 🎤

foot

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```

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1                                                              foot  👁  40% 🔊 100% 🎤    1
```

```
 foot
bash: dmseg: command not found
[anosman@10 ~]$ dmseg | grep -i "detected mhz processor"
bash: dmseg: command not found
[anosman@10 ~]$ cat /proc/cpuinfo | grep -i "model name"
model name      : Intel(R) Core(TM) i5-7300HQ CPU @ 2.50GHz
[anosman@10 ~]$ cat /proc/cpuinfo | grep -i "mhz"
cpu MHz         : 2496.004
[anosman@10 ~]$ cpufreq-info
bash: cpufreq-info: command not found
[anosman@10 ~]$ dmseg | grep -i "Linux version"
bash: dmseg: command not found
[anosman@10 ~]$ sudo dmseg | grep -i "Linux version"
[sudo] password for anosman:
sudo: dmseg: command not found
[anosman@10 ~]$ uname -r
6.11.4-301.fc41.x86_64
[anosman@10 ~]$ free -h
               total        used        free      shared  buff/cache   available
Mem:           1.9Gi       444Mi       344Mi       7.7Mi       1.3Gi       1.5Gi
Swap:          1.9Gi       201Mi       1.7Gi
[anosman@10 ~]$ df -Th
Filesystem     Type      Size  Used Avail Use% Mounted on
/dev/sda3      btrfs      78G  3.7G   72G   5% /
devtmpfs       devtmpfs  4.0M     0  4.0M   0% /dev
tmpfs          tmpfs     981M  4.3M  976M   1% /dev/shm
tmpfs          tmpfs     393M  1.1M  391M   1% /run
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-network-generator.service
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-journald.service
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-udev-load-credentials.service
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-sysctl.service
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-tmpfiles-setup-dev-early.service
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-tmpfiles-setup-dev.service
tmpfs          tmpfs     981M  4.0K  981M   1% /tmp
/dev/sda3      btrfs      78G  3.7G   72G   5% /home
/dev/sda2      ext4      974M  269M  638M  30% /boot
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-tmpfiles-setup.service
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-resolved.service
tmpfs          tmpfs     1.0M     0  1.0M   0% /run/credentials/systemd-vconsole-setup.service
tmpfs          tmpfs     197M   96K  196M   1% /run/user/1000
[anosman@10 ~]$ system-detect-virt
bash: system-detect-virt: command not found
[anosman@10 ~]$ cat /proc/cpuinfo | grep -i "hypervisor"
flags           : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ht syscall nx rdtscp
i pclmulqdq monitor ssse3 cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt aes xsave avx rdrand hypervisor lahf_lm abm 3dnowprefetch pti fsgsb
apabilities
[anosman@10 ~]$
```

Caps Lo

foot

```
checking for llc11... no
checking for llc... no
checking for opt-15... no
checking for opt-15.0... no
checking for opt15... no
checking for opt-14... no
checking for opt-14.0... no
checking for opt14... no
checking for opt-13... no
checking for opt-13.0... no
checking for opt13... no
checking for opt-12... no
checking for opt-12.0... no
checking for opt12... no
checking for opt-11... no
checking for opt-11.0... no
checking for opt11... no
checking for opt... no
checking version of gcc... checking version of gcc... 14.3.1
14.3.1
checking      whether CC supports -no-pie... yes
             for extra options to pass gcc when compiling via C...
             Setting up CFLAGS, LDFLAGS, IGNORE_LINKER_LD_FLAGS and CPPFLAGS... done
checking Setting up CONF_CC_OPTS_STAGE0, CONF_GCC_LINKER_OPTS_STAGE0, CONF_LD_LINKER_OPTS_STAGE0 and CONF_CPP_OPTS_STAGE0... done
checking Setting up CONF_CC_OPTS_STAGE1, CONF_GCC_LINKER_OPTS_STAGE1, CONF_LD_LINKER_OPTS_STAGE1 and CONF_CPP_OPTS_STAGE1... done
checking Setting up CONF_CC_OPTS_STAGE2, CONF_GCC_LINKER_OPTS_STAGE2, CONF_LD_LINKER_OPTS_STAGE2 and CONF_CPP_OPTS_STAGE2... done
checking C++ standard library flavour... ./configure: line 7836: g++: command not found
configure: error: Failed to compile test program
root@10:~# sed -n '2,41p' /root/.ghcup/logs/ghc-configuure.log
sed: can't read /root/.ghcup/logs/ghc-configuure.log: No such file or directory
root@10:~# gcc --version
gcc (GCC) 14.3.1 20250808 (Red Hat 14.3.1-3)
Copyright (C) 2024 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

root@10:~# make --version
GNU Make 4.4.1
Built for x86_64-redhat-linux-gnu
Copyright (C) 1988-2023 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <https://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
root@10:~# sed -n '2,41p' /root/.ghcup/logs/ghc-configuure.log
[0] 0:sudo*
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