

# Лабораторная работа № 1

Установка и конфигурация операционной системы на виртуальную машину

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## Процесс установки VirtualBox

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## установка драйверов и средств разработки

```
khoilachevapolina@vbox:~$ sudo -i
[sudo] пароль для khoilachevapolina:
koi@vbox:~$ dnf -y group install development-tools
Обновление и загрузка репозитория:
Репозитории загружены.
пакет "gettext-0.22.5-6.fc41.x86_64" уже установлен.
пакет "git-2.48.1-1.fc41.x86_64" уже установлен.
пакет "patch-2.7.6-25.fc41.x86_64" уже установлен.
пакет "subversion-1.14.5-1.fc41.x86_64" уже установлен.
пакет "diffstat-1.66-2.fc41.x86_64" уже установлен.
пакет "doxygen-2.1.12.0-2.fc41.x86_64" уже установлен.
пакет "patchutils-0.4.2-14.fc41.x86_64" уже установлен.
пакет "systemtap-5.2-1.fc41.x86_64" уже установлен.

пакет                               Арх.   Версия             Репозиторий      Размер
установка групп:
development: Tools

водка транзакции:

После этой операции будут использоваться дополнительные ДВ (установка ДВ, удаление ДВ).
```

## Установка средств разработки

```
Package                               Arch      Version
Installing groups:
Development Tools

Transaction Summary:

After this operation, 0 B extra will be used (install 0 B, remove 0 B).

Running transaction

Complete!
root@vbox ~]# sudo dnf -y update
Updating and loading repositories:
Repositories loaded.
```



## Обновление всех пакетов

[ 33/461]	abrt-dbus-0:2.17.6-3.fc41.x86_64	100%	985.5 KiB/s	59.8 KiB	00m
[ 34/461]	python3-abrt-addon-0:2.17.6-3.fc41.noarch	100%	484.2 KiB/s	18.9 KiB	00m
[ 35/461]	abrt-plugin-bodhi-0:2.17.6-3.fc41.x86_64	100%	812.5 KiB/s	26.0 KiB	00m
[ 36/461]	abrt-tui-0:2.17.6-3.fc41.noarch	100%	883.3 KiB/s	47.7 KiB	00m
[ 37/461]	abrt-gui-0:2.17.6-3.fc41.x86_64	100%	1.1 MiB/s	37.9 KiB	00m
[ 38/461]	abrt-desktop-0:2.17.6-3.fc41.x86_64	100%	329.7 KiB/s	8.6 KiB	00m
[ 39/461]	abrt-cli-0:2.17.6-3.fc41.x86_64	100%	340.4 KiB/s	8.5 KiB	00m
[ 40/461]	abrt-addon-xorg-0:2.17.6-3.fc41.x86_64	100%	816.7 KiB/s	31.9 KiB	00m
[ 41/461]	abrt-addon-vmcore-0:2.17.6-3.fc41.x86_64	100%	652.6 KiB/s	27.4 KiB	00m
[ 42/461]	abrt-addon-pstoreoops-0:2.17.6-3.fc41.x86_64	100%	494.5 KiB/s	17.3 KiB	00m
[ 43/461]	abrt-addon-kernelelps-0:2.17.6-3.fc41.x86_64	100%	1.1 MiB/s	39.5 KiB	00m
[ 44/461]	abrt-gui-libs-0:2.17.6-3.fc41.x86_64	100%	931.0 KiB/s	18.6 KiB	00m
[ 45/461]	abrt-addon-ccpp-0:2.17.6-3.fc41.x86_64	100%	1.0 MiB/s	98.9 KiB	00m
[ 46/461]	adobe-mappings-cmap-deprecated-0:20231115-1.fc41.noarch	100%	1.5 MiB/s	110.7 KiB	00m
[ 47/461]	alsa-lib-0:1.2.13-3.fc41.x86_64	100%	2.2 MiB/s	517.2 KiB	00m
[ 48/461]	adobe-mappings-cmap-0:20231115-1.fc41.noarch	100%	1.7 MiB/s	2.2 MiB	00m
[ 49/461]	alsa-ucm-0:1.2.13-3.fc41.noarch	100%	1.2 MiB/s	250.1 KiB	00m
[ 50/461]	kernel-modules-0:6.12.15-200.fc41.x86_64	28% [=====]	1.3 MiB/s	13.3 MiB	-00m
[ 51/461]	alsa-sof-firmware-0:2024.09.2+2.fc41.noarch	33% [=====]	1.4 MiB/s	2.6 MiB	-00m
[ 52/461]	alsa-utils-0:1.2.13-2.fc41.x86_64	87% [=====]	272.2 KiB/s	1.0 MiB	-00m
<hr/>					
[ 49/461]	Total	4% [=====]	4.3 MiB/s	38.3 MiB	-03m

## Установка средств разработки

```
[sudo] пароль для khokhlachevapolina:
Попробуйте ещё раз.
[sudo] пароль для khokhlachevapolina:
root@vbox:~# dnf -y group install development-tools
Updating and loading repositories:
  Fedora 41 openh264 (From Cisco) - x86_64 100% | 3.9 KiB/s |
  Fedora 41 - x86_64 - Updates 66% [-----] | 1.8 MiB/s |
```

Создаём пользователя

```
khokhlachevapolina@vbox:~$ sudo -i  
[sudo] пароль для khokhlachevapolina:  
ot@vbox:~$ adduser -G wheel khokhlachevapolina
```



Устанавливаем хост имя и проверяем его

```
root@vbox:~# hostnamectl set-hostname khokhlachevapolina
root@vbox:~# hostnamectl

Static hostname: khokhlachevapolina
Icon name: computer-vm
Chassis: vm
Machine ID: 1285a933ab284e3992c005c6a802117c
Boot ID: 946cc9e306244fa88ae45d1dc00586c4
Product UUID: 9f41f199-1ef6-2549-9ef9-5cd049387265
Virtualization: oracle
Operating System: Fedora Linux 41 (Sway)
CPE OS Name: cpe:/o:fedoraproject:fedora:41
OS Support End: Mon 2025-12-15
OS Support Remaining: 9month 1w 6d
Kernel: Linux 6.12.15-200.fc41.x86_64
Architecture: x86-64
Hardware Vendor: Innotek GmbH
Hardware Model: VirtualBox
Hardware Serial: VirtualBox-99f1419f-f61e-4925-9ef9-5cd049387265
Firmware Version: VirtualBox
Firmware Date: Fri 2006-12-01
Firmware Age: 18y 3month

root@vbox:~#
```

## Установка pandoc

```
[root@khokhlachevapolina:~]# sudo dnf -y install pandoc
Обновление и загрузка репозитория:
Fedora 41 - x86_64 - Updates          100% | 23.0 KiB/s | 25.0 KiB | 00m01s
```

Установка нужного pandoc

The screenshot shows a terminal window on the left with the following commands and output:

```
root@localhost:~# sudo -i
root@localhost:~# y install pandoc
100% | 23.0 KiB
```

On the right, a web browser window displays the pandoc website. A download progress bar is overlaid on the browser, showing the file `pandoc-crossref-Linux.tar.xz` is being downloaded. The progress bar is at approximately 20% completion. Below the progress bar, it says "Осталось 11 сек — 1,6 из 8,3 МБ (477 КБ/сек)". A button labeled "Показать все загрузки" is visible below the progress bar. The browser window also shows a "Changelog" section and a version number "v1.23.1".

Репозиторий	Размер
fedora	185.0 MiB

## Установка TexLive

```
[khokhlachevapolina@khokhlachevapolina Загрузки]$ sudo dnf -y install texlive-scheme  
-full  
Обновление и загрузка репозитория:
```

Выполнение домашнего задания, получение информации

```
[khokhlachevapolina@khokhlachevapolina ~]$ sudo -i
[root@khokhlachevapolina ~]# dmesg | less
[root@khokhlachevapolina ~]# dmesg | grep -i "Linux version"
[    0.000000] Linux version 6.12.15-200.fc41.x86_64 (mockbuild@c444002bca6b4b5181
1926b883aace) (gcc (GCC) 14.2.1 20250110 (Red Hat 14.2.1-7), GNU ld version 2.43.1
.fc41) #1 SMP PREEMPT_DYNAMIC Tue Feb 18 15:24:05 UTC 2025
[root@khokhlachevapolina ~]# dmesg | grep -i "Detected Mhz processor"
[root@khokhlachevapolina ~]# dmesg | grep -i "CPU0"
[    0.361480] smpboot: CPU0: 11th Gen Intel(R) Core(TM) i3-1115G4 @ 3.00GHz (fami
: 0x6, model: 0x3c, stepping: 0x1)
[root@khokhlachevapolina ~]# dmesg | grep -i "Memory available"
```