

20210730SE16 (8)



20210611SE16 (7) , , .

fly-astra-update astra-update, 20210611SE16 (7).



Astra Linux: **1.6.8.2**

.: [Astra Linux](#)



, , Astra Linux .



"" [Astra Linux Special Edition](#)

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/boot

linux-5.4

■ VirtualBox

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■ Nvidia

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■ ISO-

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■ fly-astra-update/astra-update

■ fly-astra-update/astra-update

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■ astra-update

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fly-astra-update astra-update.

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, "Astra Linux Special Edition" .10015-01 (1.6).



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.: <https://dl.astralinux.ru/astra/stable/smolensk/security-updates/1.6/20210730SE16/20210730SE16.iso>;

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.: <https://dl.astralinux.ru/astra/stable/smolensk/security-updates/1.6/devel/20210730SE16/>.

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- [20210723SE16MD](#)
- [20210611SE16 - 7](#)
- [20210317SE16MD](#)
- [20210128SE16MD](#)
- [20201207SE16MD](#)
- [20200921SE16MD](#)
- [20200807SE16MD](#)
- [20200722SE16 - 6](#)
- [20200526SE16MD](#)
- [20200327SE16 - 5](#)
- [20191029SE16 - 4](#)
- [20190912SE16 - 3](#)
- [20190712SE16MD](#)
- [20190621SE16MD](#)
- [20190529SE16MD](#)
- [20190222SE16 - 2](#)
- [20181229SE16 - 1](#)



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apt-cdrom (, . [Astra Linux Special Edition](#) -), - . . :

1. /etc/apt/sources.list , ;
2. :

```
sudo apt update
```

3. ;
 4. [Astra Linux Special Edition](#) -;
- :

```
sudo apt install libvulkan1 libxml* libev4 qdbus-qt5 libunwind8
```

Astra Linux (.) ISO- Astra Linux [fly-astra-update](#) [astra-update](#) (.).

/boot



```
lsblk
```

LVM, (- /boot 512, 234),:

1. /boot 512:
2. , /boot 512 :

a. :

```
dpkg --get-architecture | grep linux-image
```

b. (). , 4.15.3-1-hardened :

```
sudo apt remove linux-image-4.15.3-1-hardened
```

- c. ;
- d. , ;
- e. - , 4.15.3-141-hardened:

```
sudo apt install linux-image-4.15.3-2-hardened linux-astra-modules-4.15.3-141-hardened
```

[boot](#) [LVM](#).

linux-5.4

5.4 BSP [20200722SE16](#) (6), linux-5.4. :

```
sudo apt install linux-5.4
```

VirtualBox

Oracle VirtualBox VirtualBox, VirtualBox (. [VirtualBox](#)).

```
uname -r
```

```
#!/bin/bash

set -e

pkgs=`dpkg -l \
linux-image-4.15.3-1-generic \
linux-image-4.15.3-1-hardened \
linux-image-4.15.3-2-generic \
linux-image-4.15.3-2-hardened \
linux-image-4.15.3-3-generic \
linux-image-4.15.3-3-hardened \
linux-image-4.15.3-141-generic \
linux-image-4.15.3-141-hardened \
linux-image-5.4.0-54-generic \
linux-image-5.4.0-54-hardened \
2> /dev/null | grep "^ii" | cut -d " " -f3 | \
grep -v ^linux-image-$(uname -r | cut -d '-' -f1-2)`

[ -n "$pkgs" ] && apt remove $pkgs
rm -f /boot/old-*
```

apt remove.

Nvidia

Nvidia 5.4.0-71.



5.4.0-34 Nvidia DKMS , .
[Nvidia](#) [Astra Linux](#) [x86-64](#).

<https://dl.astralinux.ru/astra/stable/smolensk/security-updates/1.6/20210730SE16/20210730SE16.iso>.

ISO- /mnt .

```
gostsum -d /mnt/20210730SE16.iso
```

```
120f9e73aa7e79a1ca4e858fe359db6601bf2b0909e57a52950dd65c988cecb9
```



...
<https://dl.astralinux.ru/astra/stable/smolensk/security-updates/1.6/20210730SE16/20210730SE16.iso.sig>



...
<https://dl.astralinux.ru/astra/stable/smolensk/security-updates/1.6/devel/20210730SE16/>



04c2086a277ddc8153ff7d26d1da129945503933d960a1b9c42dede11eea53ff



...
 • ...
 • : `fly-astra-update astra-update -` ;
 • ...

`fly-astra-update astra-update -` .

`fly-astra-update astra-update,` [20210611SE16](#) (7).



- ... ;
- ... `fly-astra-update/astra-update` :

`sudo astra-nochmodx-lock enable`

- () "Astra Linux Special Edition" .10015-01 (1.6)

[20210611SE16](#) (7) Astra Linux :

- - `astra-update`;
- - `fly-astra-update`.

[20210611SE16](#) (7) . () , .



`apt-cdrom add` .

(.) ISO-, :

1. :
 - a. ;
 - b. ;
2. :
 - a. ;
 - b. ;

/etc/apt/sources.list, :

```
sudo astra-update -a -r
```

/etc/apt/sources.list , astra-update/fly-astra-update (. fly-astra-update astra-update -).

ISO-

, ISO- :

1. ISO-:
 - a. ;
 - b. ;
2. ISO-:
 - a. ;
 - b. ;

ISO- , . astra-update/fly-astra-update, :

```
sudo astra-update -a /mnt/smolensk1.6.iso /mnt/20210730SE16.iso /mnt  
/smolensk1.6-devel.iso /mnt/20210730SE16-devel.iso
```

, /mnt , /mnt.
. fly-astra-update astra-update.

fly-astra-update/astra-update

, :

fly-astra-update:

```
sudo apt update  
sudo apt install fly-astra-update
```

astra-update:

```
sudo apt update  
sudo apt install astra-update
```

fly-astra-update/astra-update

1. , , /media/cdrom:

```
sudo mount /mnt/20210730SE16.iso /media/cdrom
```

2. :

astra-update:

```
sudo apt install /media/cdrom/pool/non-free/a/astra-update/astra-  
update_*.deb
```

astra-update fly-astra-update:

```
sudo apt install /media/cdrom/pool/non-free/a/astra-update/astra-  
update_*.deb  
sudo apt install /media/cdrom/pool/non-free/libf/libflyadmin  
/libflyadminpackage_*.deb  
sudo apt install /media/cdrom/pool/non-free/f/fly-astra-update/fly-  
astra-update_*.deb
```

3. :

```
sudo umount /media/cdrom
```

astra-update

, :

```
sudo astra-update -a /mnt/20210730SE16.iso <__ >
```

() , :

```
sudo astra-update -a /mnt/20210730SE16.iso
```

~.

, , astra-update fly-astra-update : [fly-astra-update](#) [astra-update](#) -

[fly-astra-update](#) [astra-update](#).



astra-update fly-astra-update.



fly-astra-update/astra-update upgrade (sudo apt upgrade), dist-upgrade (sudo apt dist-upgrade).



"Astra Linux Special Edition" .10015-01 (1.6)

1. , , , -() :

```
sudo apt-cdrom add
```

2. ISO- -, -.

3. ISO-, , , :

```
sudo mount /mnt/20210730SE16.iso /media/cdrom
sudo apt-cdrom -m add
sudo umount /media/cdrom
```

"20210730SE16".

-m, apt-cdrom , , - .
apt-cdrom .



- - , .



/, .
Enter.

- 1.6 - .

- -, /media/cdrom , :

```
sudo mount /mnt/20210730SE16.iso /media/cdrom
```

4. (sudo-s) , sudo:



```
sudo -s  
... ..  
exit
```

5. - "" (, -s apt), , :

```
sudo -s  
apt update  
apt -s dist-upgrade  
exit
```

- .

6. :

```
sudo -s  
apt update  
apt dist-upgrade  
apt -f install  
exit
```

- .



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fly-admin-int-check gostsums.txt, .



, ccnri _ . ccnri , , , ().

, 20210730SE16 (8)

, 20210730SE16 (8)