

**(swap):**

- () Linux
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- Astra Linux Special Edition .10015-01 ( 1.7 ), .10015-10
  - Astra Linux Special Edition .10015-17
  - Astra Linux Special Edition .10015-37 ( 7.7 )
  - Astra Linux Special Edition .10015-03 ( 7.6 )
  - Astra Linux Special Edition .10152-02 ( 4.7 )
  - Astra Linux Special Edition .10015-01 ( 1.6 )
  - Astra Linux Special Edition .10015-16 .1
  - Astra Linux Special Edition .10015-16 .2
  - Astra Linux Special Edition .10265-01 ( 8.1 )
  - Astra Linux Common Edition 2.12

ⓘ () Linux

SWAP – , (swap area swap space), ( ), .

Wikipedia



Linux- , , :

1. , , ( , ), .. ;  
 2. , .. , .

(hibernation suspend to disk).

(hibernation suspend to disk). . . ( . . ).

?

Astra Linux        



Astra Linux . , () ()

```
sudo swapon
```

Astra Linux



filefrag:

```
(i) sudo filefrag -v /example.swap
```

Ext4 e4defrag:

```
(i) sudo e4defrag -v /example.swap
```



, Astra Linux 2-3 . (hibernation suspend to disk) , , , , 2-3, , ( . ).

**vm.swappiness**, () .

```
sudo sysctl vm.swappiness
```

**vm.swappiness** 60, .. , 60%.  
**vm.swappiness**

```
sysctl -w vm.swappiness=<_>
```



**vm.swappiness** .

Astra Linux SE , , :

- 3;
- 63;
- ,

Astra Linux SE

, (. mkswap/swapon/swapoff, swapon()/swapoff()). , , , /swap\_area :

```
(i) # 1Gb  
sudo fallocate -l 1G /swap_area  
  
#  
sudo chown root:root /swap_area  
sudo chmod 600 /swap_area  
  
# ( Astra Linux Special Edition)  
# - 3  
# - 63  
# -  
sudo pdpl-file 3:63:-1 /swap_area  
  
#  
sudo mkswap /swap_area  
  
#  
sudo swapon /swap_area
```

, /etc/fstab . (/swap\_area):

```
(i) /swap_area none swap sw 0 0
```

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- ( Astra Linux Special Edition):
  - Ext2/Ext3/Ext4 – secdel /etc/fstab;
  - — swap-wiper .. « »,.. 8.1).
- (. (SSD): ):
  - Ext4 – discard /etc/fstab;
  - – blkdiscard:

```
sudo blkdiscard /dev/sda5
```

swap-wiper, Astra Linux Special Edition , , .  
/usr/lib/parsec/bin/swap-wiper . swap-wiper

/etc/parsec/swap\_wiper.conf ENABLED=Y, ..

ENABLED=Y , fly-admin-smc, :

```
(i) " " " " " " " " " " " )
```

!, . (SSD):

!, . Astra Linux .

!, . , .

, , . (0 vm.swappiness):

```
sysctl -w vm.swappiness=0
```

( -a --all swapoff):

```
swapoff -a
```

, , **mlock() mlockall()**:

 #include <sys/mman.h>  
int mlock(const void \*addr, size\_t len);  
int munlock(const void \*addr, size\_t len);  
int mlockall(int flags);  
int munlockall(void);

**mlock() mlockall()** , , **munlock() munlockall()** , , .

```
man mlock
```

cgroups, () memory.swappiness . . . vm.swappiness, \_\_ , , .

() , , .

, , .  
: , , — . .