

**XINNOR**

**xiRAID Classic 4.1.0  
Command Reference**

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# xiRAID Classic 4.1.0 Command Reference

A list of commands and their descriptions.

## Overview

Manage your software Xinnor xiRAID Classic in Linux by using the `xicli` program.

Most of the commands listed in this document require superuser privileges. Please log in as an administrator or root to run these. However, the following commands can be run without superuser privileges: all commands with the `show` subcommand (`raid show`, `config show`, `drive faulty-count show`, `settings eula show`, `license show` etc) and any command with the `--help` parameter.

## Command Line Interface (CLI) Description

### Conventions on CLI command syntax

Item format	Description
item	A required item (command, subcommand, argument, option).
<item>	A placeholder variable.
[item]	An optional item.

In the CLI, enter commands in the following format:

```
# xicli <command> <subcommand> <required_args> [optional_args]
```

To show the full list of commands, run

```
# xicli -h
```

To show the `xicli` version, run

```
# xicli -v
```

## CLI syntax specifics:

1. Type the arguments of the subcommands in one line.
2. Subcommand arguments are separated by spaces.
3. Use short or long forms of subcommand argument options.
4. To get the list of all subcommands and arguments, add the `-h` option:

```
# xicli <command> <subcommand> -h
```

A detailed description of the commands and subcommands is presented in the corresponding sections of the document.

## config

Operations with the configuration file.

Except for the `show` subcommand, the commands listed in this chapter require superuser privileges.

```
# xicli config <subcommand> <args> [optional_args]
```

Subcommands for the `config` command:

<code>apply</code>	Apply the configuration files for all restoring RAIDs.
<code>backup</code>	Save the common configuration file (create the backup file <code>backup_raid.conf</code> in the current directory).
<code>restore</code>	Restore the configuration file from a file or from the drives.
<code>show</code>	Show configuration files stored on the drives.

## apply

The command unloads all RAIDs in the system whose configuration files are present in the directory `/etc/xiraid/raids/*`, and then restores all RAIDs that are possible to restore.

```
# xicli config apply
```

## backup

Save the common configuration file from `/etc/xiraid/raid.conf` (create the backup file `backup_raid.conf` in the current directory).

```
# xicli config backup
```

## restore

Restore the configuration file from a file or from the drives.

```
# xicli config restore <arg>
```

### Arguments for the `restore` subcommand

Mutually excluded required arguments

---

<code>-c</code>	<code>--common_file</code>	A file to restore or replace the common configuration file <code>/etc/xiraid/raid.conf</code> .  If no file is specified, restore or replace from <code>/etc/xiraid/raid.conf.bak</code> .
<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space to restore the most recent RAID configuration files to the <code>/etc/xiraid/raids.drive/</code> directory.

---

## Arguments for the `restore` subcommand (continued)

If no disks are specified, restore the most recent RAID configuration files from all disks.

---

<code>-r</code>	<code>--raid_file</code>	A file to restore or replace the RAID configuration file in <code>/etc/xi-raid/raids/</code> .
-----------------	--------------------------	--

## show

Show configuration files stored on the RAID drives.

```
# xicli config show [optional_arg]
```

### Argument for the `show` subcommand

Optional argument

---

<code>-d</code>	<code>--drives</code>	<p>The list of block devices (<code>/dev/sd*</code>, <code>/dev/mapper/mpath*</code>, <code>/dev/nvme*</code>, <code>/dev/dm-*</code>) separated by a space.</p> <p>Without the argument, show from all disks.</p> <p>The command also shows the newest configuration file from the drives.</p>
-----------------	-----------------------	---

## drive

Operations with the drives.

The commands `clean` and `locate` require superuser privileges.

```
# xicli drive <subcommand> <args> [optional_args]
```

Subcommands for the `drive` command:



`clean` Delete the metadata and reset the number of failures from the drives.

---

`faulty-count reset` Reset the current number of failures for drives.

---

`faulty-count show` Show the current number of failures for drives.

---

`locate` Manage the drive LED indication.

## clean

Delete the metadata and reset the fault counter from the drives.

```
# xicli drive clean <arg>
```

### Argument for the `clean` subcommand

Required argument

---

`-d`      `--drives`      The list of block devices (`/dev/sd*`, `/dev/mapper/mpath*`, `/dev/nvme*`, `/dev/dm-*`) separated by a space to delete metadata and reset the fault counter.

## faulty-count reset



When you change any parameter of the `xicli drive faulty-count reset` command, the `xiraid-scanner.service` restarts.

Reset the current numbers of failures for drives.

```
# xicli drive faulty-count reset <arg>
```

## Arguments for the `faulty-count reset` subcommand

### Required argument

---

<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space to reset their current numbers of failures.
-----------------	-----------------------	---

## `faulty-count show`

Show the current numbers of failures for drives.

```
# xicli drive faulty-count show [optional_args]
```

## Arguments for the `faulty-count show` subcommand

### Mutually exclusive optional arguments

---

<code>-n</code>	<code>--names</code>	The RAID name for which drives the current number of failures will be shown.  If neither of the two arguments is specified, show the values for all drives.
-----------------	----------------------	---

---

<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space to show their current numbers of failures.  If neither of the two arguments is specified, show the values for all drives.
-----------------	-----------------------	---

---

### Optional argument

---

<code>-f</code>	<code>--format</code>	Output format:
-----------------	-----------------------	----------------

## Arguments for the `faulty-count show` subcommand (continued)

- `table`;
- `json`;
- `prettyjson` – human-readable json.

The default: `table`.

## locate

Manage the drive LED indication.

```
# xicli drive locate <arg>
```

### Argument for the `locate` subcommand

Required argument

---

<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space to switch the indication on, or switch the indication off (with the <code>null</code> value).
		The argument doesn't affect the automatic indication.

## license

Operations with the license.

Except for the `show` subcommand, the commands listed in this chapter require superuser privileges.

```
# xicli license <subcommand>
```

Subcommands for the `license` command:

**delete** Delete the current license.

---

**show** Show info on the current license.

---

**update** Update the current license.

## delete

Delete the current license.

```
# xicli license delete
```

## show

Show info on the current license.

```
# xicli license show
```

## update

Update the current license.

```
# xicli license update <arg>
```

### Argument for the `update` subcommand

Required argument

---

**-p**      **--path**      The path to the new license file.

## log

Operations with the event log.

Except for the `show` subcommand, the commands listed in this chapter require superuser privileges.

```
# xicli log <subcommand> <args>
```

Subcommands for the `log` command:

<code>collect</code>	Collect the event log entries into a file.
----------------------	--

---

<code>show</code>	Show the last entries in the event log.
-------------------	---

## collect

Collect the event log entries into a file in `/var/log/xiraid/`.

```
# xicli log collect
```

## show

Show the latest error or warning messages in the event log related to xiraid.

```
# xicli log show [optional_arg]
```

### Argument for the `show` subcommand

Optional argument

---

<code>-l</code>	<code>--lines</code>	The number of error and warning messages in the event log to show, starting from the last entry.  Possible values: integers from <b>1</b> to <b>1000</b> .  The default: <b>10</b> .
-----------------	----------------------	--

# mail

Operations with the mail notifications.

Except for the `show` subcommand, the commands listed in this chapter require superuser privileges.

```
# xicli mail <subcommand> <args> [optional_args]
```

Subcommands for the `mail` command:

<code>add</code>	Set the receiver's email and the notification level.
------------------	--

---

<code>remove</code>	Remove the email from the list of email notifications.
---------------------	--

---

<code>show</code>	Show the list of the email notifications.
-------------------	---

## add



When you change any parameter of the `xicli mail add` command, the `xiraid-mail.service` restarts.

Set the receiver's email and the notification level.

```
# xicli mail add <args>
```

### Arguments for the `add` subcommand

Required arguments

---

<code>-a</code>	<code>--address</code>	Receiver's email.
-----------------	------------------------	-------------------

---

<code>-l</code>	<code>--level</code>	The notification level.
-----------------	----------------------	-------------------------

Possible values:

## Arguments for the `add` subcommand (continued)

- **info** – Info notifications;
- **warning** – Error and Warning notifications;
- **error** – Error notifications.

## remove



When you change any parameter of the `xicli mail remove` command, the `xiraid-mail.service` restarts.

Remove the email from the list of email notifications.

```
# xicli mail remove <arg>
```

### Argument for the `remove` subcommand

Required argument

---

<code>-a</code>	<code>--address</code>	The email address to remove from the notifications.
-----------------	------------------------	---

## show

Show the list of the email notifications.

```
# xicli mail show
```

### Argument for the `show` subcommand

Optional argument

---

## Argument for the `show` subcommand (continued)

`-f`            `--format`            Output format:

- `table`;
- `json`;
- `prettyjson` – human-readable json.

The default: `table`.

## pool

Operations with the spare pools.

Except for the `show` subcommand, the commands listed in this chapter require superuser privileges.

```
# xicli pool <subcommand> <args> [optional_args]
```

Subcommands for the `pool` command:

<code>add</code>	Add drive(s) to the spare pool.
<code>create</code>	Create the spare pool.
<code>delete</code>	Delete the spare pool.
<code>remove</code>	Remove drive(s) from the spare pool.
<code>show</code>	Show info on the spare pool.

## add

Add drive(s) to the spare pool.



```
# xicli pool add <args>
```

## Arguments for the `add` subcommand

### Required arguments

---

<code>-n</code>	<code>--name</code>	The name of the spare pool.
<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space.

## create

Create the spare pool.

```
# xicli pool create <args>
```

## Arguments for the `create` subcommand

### Required arguments

---

<code>-n</code>	<code>--name</code>	The name of the spare pool.
<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space.

## delete

Delete the spare pool.

```
# xicli pool delete <arg>
```

## Argument for the `delete` subcommand

Required argument

---

<code>-n</code>	<code>--name</code>	The name of the spare pool.
-----------------	---------------------	-----------------------------

## remove

Remove drive(s) from the spare pool.

```
# xicli pool remove <args>
```

## Arguments for the `remove` subcommand

Required arguments

---

<code>-n</code>	<code>--name</code>	The name of the spare pool.
-----------------	---------------------	-----------------------------

---

<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space.
-----------------	-----------------------	--

## show

Show info on the spare pool.

```
# xicli pool show [optional_args]
```

## Arguments for the `show` subcommand

Optional arguments

---

<code>-n</code>	<code>--name</code>	The name of the spare pool.
		Without the argument, show info on all spare pools.

---

## Arguments for the `show` subcommand (continued)

<code>-f</code>	<code>--format</code>	Output format:
		<ul style="list-style-type: none"> <li>• <b>table</b>;</li> <li>• <b>json</b>;</li> <li>• <b>prettyjson</b> – human-readable json.</li> </ul>

The default: **table**.

---

<code>-u</code>	<code>--units</code>	Size units:
		<ul style="list-style-type: none"> <li>• <b>s</b> – sectors (1 sector=512 bytes);</li> <li>• <b>k</b> – kilobytes;</li> <li>• <b>m</b> – megabytes;</li> <li>• <b>g</b> – gigabytes.</li> </ul>

The default: **g**.

## raid

Operations with the RAIDs.

Except for the `show` and `import show` subcommands, the commands listed in this chapter require superuser privileges.

```
# xicli raid <subcommand> <args> [optional_args]
```

Subcommands for the `raid` command:

<code>create</code>	Create the RAID.
---------------------	------------------

---

<code>destroy</code>	Delete the RAID without possibility to restore the RAID and data on it.
----------------------	---

---

import apply	Import (or restore) the RAID from drive metadata.
import show	Show info about the RAIDs that can be imported (restored) from the drives.
init start	Start or continue the RAID initialization.
init stop	Stop the RAID initialization.
modify	Modify the parameters of the created RAID.
recon start	Start the raid reconstruction.
recon stop	Stop the RAID reconstruction.
replace	Replace or remove the drive from the RAID.
resize	Change the RAID size.
restore	Restore the RAID from the drive metadata.
restripe continue	Continue the RAID restripe.
restripe start	Start the RAID restripe.
restripe stop	Pause the RAID restripe.
show	Show info about the RAID.
unload	Remove (unload) the RAID with possibility to restore the RAID and save data on it.


## create

Create the RAID.

```
# xicli raid create <args> [optional_args]
```

### Arguments for the `create` subcommand

#### Required arguments

<code>-n</code>	<code>--name</code>	The name of the RAID.  The maximum RAID name length is <b>28</b> characters.
<code>-l</code>	<code>--level</code>	The level of the RAID: <b>0, 1, 5, 6, 7, 10, 50, 60, 70</b> , or <b>nm</b> .   Use the value <b>7</b> to create RAID 7.3.
<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by spaces.
<code>-gs</code>	<code>--group_size</code>	<b>Only for RAIDs 50, 60, or 70.</b>  The number of drives for one RAID group of level 5, 6, or 7.3 of the appropriate RAID 50, 60, or 70.  Possible values are integers from <b>4</b> to <b>32</b> .
<code>-sc</code>	<code>--synd_cnt</code>	<b>Only for RAIDs N+M.</b>  The number of syndromes M.  Possible values are integers from <b>4</b> to <b>32</b> .  Additional conditions: $N+M \leq 64$ and $M \leq N$ .

## Arguments for the `create` subcommand (continued)

### Optional arguments

---

`-am`      `--adaptive_merge`

**Except RAIDs 0, 1, 10.**

Enable (1) or disable (0) the Adaptive Merge write function.

---

`--single_run`

**Except RAIDs 0, 1, 10.**

Use this parameter to adjust the Adaptive Merge values once at startup. After that, the values are set and do not change at system reboot. The Adaptive Merge write function is then turned off.

Does not take any value.

**Can only be used with the `--adaptive_merge` parameter.**

---

`-bs`      `--block_size`

RAID block size: **512** or **4096** bytes.

The default: **4096**.

---

`-ca`      `--cpu_allowed`

Specify the CPUs on which the RAID will be allowed to run.

Possible values: a comma-separated list of CPUs, a range of CPUs indicated by a hyphen, or the value 'all' (the RAID will run on all available CPUs).

The default: `all`.

---

`-inp`      `--init_prio`

**Except RAID 0.**

Initialization priority in %.

Possible values are from **0** to **100** (maximum rate of initialization).

## Arguments for the `create` subcommand (continued)

The default: **100**.

---

`-mwe`     `--merge_write_enabled`     **Except RAIDs 0, 1, 10.**

Enable (**1**) or disable (**0**) the Merge function for write operations.

The default: **0**.

---

`-mre`     `--merge_read_enabled`     **Except RAIDs 0, 1, 10.**

Enable (**1**) or disable (**0**) the Merge function for read operations.

The default: **0**.

---

`-mrm`     `--merge_read_max`     **Except RAIDs 0, 1, 10.**

Maximum wait time (in microseconds) for stripe accumulation with the Merge function enabled for read requests.

Possible values: integers from **1** to **100000**.

The default: **1000**.

---

`-mrw`     `--merge_read_wait`     **Except RAIDs 0, 1, 10.**

Wait time (in microseconds) between read requests with the Merge function enabled.

Possible values: integers from **1** to **100000**.

The default: **300**.

---

`-mwm`     `--merge_write_max`     **Except RAIDs 0, 1, 10.**

Maximum wait time (in microseconds) for stripe accumulation with the Merge function enabled for write requests.

**Arguments for the `create` subcommand (continued)**

Possible values: integers from **1** to **100000**.

The default: **1000**.

---

`-mww`     `--merge_write_wait`

**Except RAIDs 0, 1, 10.**

Wait time (in microseconds) between write requests with the Merge function enabled.

Possible values: integers from **1** to **100000**.

The default: **300**.

---

`-ml`        `--memory_limit`

RAM usage limit in MiB.

Possible values: **0** and integers from **1024** to **1048576**.

The **0** value sets unlimited RAM usage.

The default: **0**.

---

`-rcp`        `--recon_prio`

**Except RAID 0.**

Reconstruction priority in %.

Possible values are from **0** to **100** (maximum rate of reconstruction).

The default: **100**.

---

`-re`        `--resync_enabled`

**Except RAIDs 0, 1, 10.**

Enable (**1**) or disable (**0**) the Resync function.

The default: **1**.

---

`-rl`        `--request_limit`

Number of simultaneous I/O requests on RAID.



**Arguments for the `create` subcommand (continued)**

Possible values: from **0** (unlimited) to **4294967295**.

The **0** value disables the restriction.

The default: **0**.

`-rsp`      `--restripe_prio`

Restripping priority in %.

Possible values are from **0** to **100** (maximum rate of restripping).

The default: **100**.

`-se`      `--sched_enabled`

Enable (**1**) or disable (**0**) the scheduling function.

The default: **0**.

`-sp`      `--sparepool`

Name of the spare pool to assign to the RAID.

`-ss`      `--strip_size`

Strip size in KiB.

Possible values: **16**, **32**, **64**, **128**, or **256**.

The default: **16**.

`--force_metadata`

Allow overwriting metadata on disks.

**destroy**

Delete the RAID without possibility to restore the RAID and data on it.

```
# xicli raid destroy <arg>
```

**Arguments for the `destroy` subcommand**

Mutually exclusive required arguments

## Arguments for the `destroy` subcommand (continued)

<code>-n</code>	<code>--name</code>	The name of the RAID.
<hr/>		
<code>-a</code>	<code>--all</code>	Delete all the xiRAID Classic RAIDs.
		The argument takes no value.

## import apply

Import (or restore) the RAID from drive metadata.

```
# xicli raid import apply <arg> [optional_arg]
```

## Arguments for the `import apply` subcommand

Required argument

---

<code>-id</code>	<code>--uuid</code>	UUID of the RAID.
------------------	---------------------	-------------------

---

Optional argument

---

<code>-nn</code>	<code>--new_name</code>	The new name for the RAID.
------------------	-------------------------	----------------------------

## import show

Show info about the RAIDs that can be imported (restored) from the drives.

```
# xicli raid import show [optional_args]
```

## Arguments for the `import show` subcommand

Optional arguments

---

**Arguments for the `import show` subcommand (continued)**

<code>-d</code>	<code>--drives</code>	<p>The list of block devices (<code>/dev/sd*</code>, <code>/dev/mapper/mpath*</code>, <code>/dev/nvme*</code>, <code>/dev/dm-*</code>) separated by a space to show the info.</p> <p>Without the argument, shows the info from all drives.</p>
<hr/>		
<code>-f</code>	<code>--format</code>	<p>Output format:</p> <ul style="list-style-type: none"> <li>• <b>table</b>;</li> <li>• <b>json</b>;</li> <li>• <b>prettyjson</b> – human-readable json.</li> </ul> <p>The default: <b>table</b>.</p>
<hr/>		
	<code>--offline</code>	<p>Show non-recoverable RAIDs in the import list.</p> <p>The argument takes no value.</p>

**init start**

Start or continue the RAID initialization.

```
# xicli raid init start <arg>
```

**Argument for the `init start` subcommand**

Required argument

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
-----------------	---------------------	-----------------------

## init stop

Stop the RAID initialization.

```
# xicli raid init stop <arg>
```

### Argument for the `init stop` subcommand

Required argument

---

-n	--name	The name of the RAID.
----	--------	-----------------------

## modify

Modify the parameters of the created RAID.

```
# xicli raid modify <arg> [optional_args]
```

### Arguments for the `modify` subcommand

Required argument

---

-n	--name	The name of the RAID.  The maximum RAID name length is <b>28</b> characters.
----	--------	--

---

Optional arguments

---

-am	--adaptive_merge	<b>Except RAIDs 0, 1, 10.</b> Enable ( <b>1</b> ) or disable ( <b>0</b> ) the Adaptive Merge write function.
-----	------------------	---

---

--single_run	<b>Except RAIDs 0, 1, 10.</b> Use this parameter to adjust the Adaptive Merge values once at start-
--------------	--

**Arguments for the `modify` subcommand (continued)**

up. After that, the values are set and do not change at system reboot. The Adaptive Merge write function is then turned off.

Does not take any value.

Can only be used with the `adaptive_merge` parameter.

---

<code>-ca</code>	<code>--cpu_allowed</code>	<p>Change the CPUs on which the RAID will be allowed to run.</p> <p>Possible values: a comma-separated list of CPUs, a range of CPUs indicated by a hyphen, or the value 'all' (the RAID will run on all available CPUs).</p> <p>The default: <code>all</code>.</p>
<code>-inp</code>	<code>--init_prio</code>	<p><b>Except RAID 0.</b></p> <p>Initialization priority in %.</p> <p>Possible values are from <b>0</b> to <b>100</b> (maximum rate of initialization).</p> <p>The default: <b>100</b>.</p>
<code>-mwe</code>	<code>--merge_write_enabled</code>	<p><b>Except RAIDs 0, 1, 10.</b></p> <p>Enable (<b>1</b>) or disable (<b>0</b>) the Merge function for write operations.</p> <p>The default: <b>0</b>.</p>
<code>-mre</code>	<code>--merge_read_enabled</code>	<p><b>Except RAIDs 0, 1, 10.</b></p> <p>Enable (<b>1</b>) or disable (<b>0</b>) the Merge function for read operations.</p>

---

**Arguments for the `modify` subcommand (continued)**

The default: **0**.

---

<code>-mrm</code>	<code>--merge_read_max</code>	<b>Except RAIDs 0, 1, 10.</b>  Maximum wait time (in microseconds) for stripe accumulation with the Merge function enabled for read requests.  Possible values: integers from <b>1</b> to <b>100000</b> .  The default: <b>1000</b> .
<code>-mrw</code>	<code>--merge_read_wait</code>	<b>Except RAIDs 0, 1, 10.</b>  Wait time (in microseconds) between read requests with the Merge function enabled.  Possible values: integers from <b>1</b> to <b>100000</b> .  The default: <b>300</b> .
<code>-mwm</code>	<code>--merge_write_max</code>	<b>Except RAIDs 0, 1, 10.</b>  Maximum wait time (in microseconds) for stripe accumulation with the Merge function enabled for write requests.  Possible values: integers from <b>1</b> to <b>100000</b> .  The default: <b>1000</b> .
<code>-mww</code>	<code>--merge_write_wait</code>	<b>Except RAIDs 0, 1, 10.</b>

---

**Arguments for the `modify` subcommand (continued)**

Wait time (in microseconds) between write requests with the Merge function enabled.

Possible values: integers from **1** to **100000**.

The default: **300**.

**-ml**                    **--memory\_limit**

RAM usage limit in MiB.

Possible values: **0** and integers from **1024** to **1048576**.

The **0** value sets unlimited RAM usage.

The default: **0** (unlimited).

**-rcp**                    **--recon\_prio**

**Except RAID 0.**

Reconstruction priority in %.

Possible values: from **0** to **100** (maximum rate of reconstruction).

The default: **100**.

**-re**                    **--resync\_enabled**

**Except RAIDs 0, 1, 10.**

Enable (**1**) or disable (**0**) the resync function.

The default: **1**.

**-rl**                    **--request\_limit**

Number of simultaneous I/O requests on RAID.

Possible values: integers from **0** to **4294967295**.

**Arguments for the `modify` subcommand (continued)**

The **0** value disables the restriction.

The default: **0**.

`-rsp`            `--restripe_prio`

Restripping priority in %.

Possible values are from **0** to **100**  
(maximum rate of restripping).

The default: **100**.

`-se`            `--sched_enabled`

Enable (**1**) or disable (**0**) the scheduling function.

The default: **0**.

`-sp`            `--sparepool`

Name of the spare pool to assign to the RAID.

The **null** value removes the spare pool from the RAID.

Spare pool can not be assigned to RAID 0.

`--force_online`

Change RAID state to online if the RAID has unrecoverable sections.

I/O operations on unrecoverable sections may lead to data corruption.

The argument takes no value.

`--force_resync`

**Except RAIDs 0, 1, 10.**

Force RAID re-initialization.

The argument takes no value.



## recon start

Start the RAID reconstruction.

```
# xicli raid recon start <arg>
```

### Argument for the `recon start` subcommand

Required argument

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
-----------------	---------------------	-----------------------

## recon stop

Stop the RAID reconstruction.

```
# xicli raid recon stop <arg>
```

### Argument for the `recon stop` subcommand

Required argument

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
-----------------	---------------------	-----------------------

## replace

Replace or remove the drive from the RAID.

```
# xicli raid replace <args>
```

### Arguments for the `replace` subcommand

Required arguments

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
-----------------	---------------------	-----------------------

---

## Arguments for the `replace` subcommand (continued)

<code>-no</code>	<code>--number</code>	The number of the drive.
		To find out the number of the drive, use

```
# xicli raid show
```

---

<code>-d</code>	<code>--drive</code>	The new block device.
		To remove the drive (to mark it as missing) set the <code>null</code> value.

## resize

Change the RAID size.

```
# xicli raid resize <arg>
```

### Argument for the `resize` subcommand

Required argument

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
-----------------	---------------------	-----------------------

## restore

Restore the RAID from the current configuration file.

```
# xicli raid restore <arg>
```

### Arguments for the `restore` subcommand

Mutually exclusive required arguments

---

## Arguments for the `restore` subcommand (continued)

<code>-n</code>	<code>--name</code>	The name of the RAID.
<hr/>		
<code>-a</code>	<code>--all</code>	Restore all available xiRAID Classic RAIDs.  Argument takes no value.

## restripe continue

Continue the RAID restripe.

```
# xicli raid restripe continue <arg>
```

### Argument for the `restripe continue` subcommand

Required argument

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
-----------------	---------------------	-----------------------

## restripe start

Start the RAID restripe.

```
# xicli raid restripe start <args>
```

### Arguments for the `restripe start` subcommand

Required arguments

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
<hr/>		
<code>-l</code>	<code>--level</code>	The new level for the RAID.

## Arguments for the `restripe start` subcommand (continued)

If you are only increasing the RAID size, enter the current RAID level for this argument.

---

<code>-gs</code>	<code>--group_size</code>	<b>Only for RAIDs 50, 60, and 70.</b>
		The new group size for the RAID.
		Possible values: integers from <b>4</b> to <b>32</b> .

---

<code>-d</code>	<code>--drives</code>	The list of block devices ( <code>/dev/sd*</code> , <code>/dev/mapper/mpath*</code> , <code>/dev/nvme*</code> , <code>/dev/dm-*</code> ) separated by a space to add to the RAID.
-----------------	-----------------------	---

## restripe stop

Pause the RAID restripe.

```
# xicli raid restripe stop <arg>
```

### Argument for the `restripe stop` subcommand

Required argument

---

<code>-n</code>	<code>--name</code>	The name of the RAID.
-----------------	---------------------	-----------------------

## show

Show info about the RAID.

```
# xicli raid show [optional_args]
```

## Arguments for the `show` subcommand

### Optional arguments

---

`-n`      `--name`                      The name of the RAID.  
  
Without the argument, show info on all xiRAID Classic RAIDs.

---

`-o`      `--online`                      Only show RAIDs that are in the “online” state (RAIDs that were not unloaded by the `raid unload` command and are not offline).  
  
The argument takes no value.

---

`-u`      `--units`                      Dimension:  
  
    • **s** – sectors (1 sector=512 bytes);  
    • **k** – kilobytes;  
    • **m** – megabytes;  
    • **g** – gigabytes.  
  
The default: **g**.

---

`-f`      `--format`                      Output format:  
  
    • **table**;  
    • **json**;  
    • **prettyjson** – human-readable json.  
  
The default: **table**.

---

`-e`      `--extended`                      Show extended output.  
  
The argument takes no value.

## unload

Remove (unload) the RAID with possibility to restore the RAID and save data on it.

```
# xicli raid unload <arg>
```

### Arguments for the `unload` subcommand

Mutually exclusive required arguments

<code>-n</code>	<code>--name</code>	The name of the RAID.
<code>-a</code>	<code>--all</code>	Unload all available xiRAID Classic RAIDs.  The argument takes no value.

## settings

Operations with the additional settings of the `xicli` program.

Except for the `show` subcommand, the commands listed in this chapter require superuser privileges.

```
# xicli settings <subcommand> <args> [optional_args]
```

Subcommands for the `settings` command:

<code>auth modify</code>	Change client-server connection settings.
<code>auth show</code>	Show client-server connection settings.
<code>cluster modify</code>	Manage cluster settings.
<code>cluster show</code>	Show cluster settings.

eula modify	Manage the acceptance status of the EULA.
eula show	Show the acceptance status of the EULA.
faulty-count modify	Manage the threshold value of I/O errors for all drives.
faulty-count show	Show the threshold value of I/O errors.
log modify	Configure the type of system messages that will be added to the system log.
log show	Show the selected type of system messages for the system log.
mail modify	Manage email notification settings.
mail show	Show email notification settings.
pool modify	Manage delay timer (in seconds) for the drive replacement from the spare pools.
pool show	Show additional settings of the spare pools.
scanner modify	Manage RAID's monitoring, the LED indication and drive SMART settings.
scanner show	Manage the LED indication and drive scan settings.

## auth modify

Change client-server connection settings.



When you change any parameter of the `xicli settings auth modify` command, the `xiraid-target.service` restarts. Additionally, it will cause all RAIDs to unload. Please, run this command only after stopping all mounted devices.

```
# xicli settings auth modify <args>
```

## Arguments for the `auth modify` subcommand

At least one argument is required

---

`--host`

The host name or IP address that will be used for the connection.

After changing the host, you must re-generate and replace the certificate.

The default: **localhost**.

---

`--port`

The port that will be used for the connection.

The default: **6066**.

## `auth show`

Show client-server connection settings.

```
# xicli settings auth show
```

## Argument for the `auth show` subcommand

Optional argument

---

`-f`

`--format`

Output format:



## Argument for the `auth show` subcommand (continued)

- **table**;
- **json**;
- **prettyjson** – human-readable json.

The default: **table**.

## cluster modify

Manage xiRAID Classic cluster settings.

```
# xicli settings cluster modify <arg>
```

### Argument for the `cluster modify` subcommand

Required argument

---

`-ra`      `--raid_autostart`      Activate **(1)** or deactivate RAID autostart **(0)**.

## cluster show

Show xiRAID Classic cluster settings.

```
# xicli settings cluster show <arg>
```

### Argument for the `cluster show` subcommand

Optional argument

---

`-f`      `--format`      Output format:

## Argument for the `cluster show` subcommand (continued)

- `table`;
- `json`;
- `prettyjson` – human-readable json.

The default: `table`.

## `eula modify`

Manage the acceptance status of the EULA.

```
# xicli settings eula modify
```

## Argument for the `eula modify` subcommand

Required argument

---

`-s`      `--status`      The status of the EULA acceptance.

Possible values: `accepted`, `not_accepted`.

## `eula show`

Show the acceptance status of the EULA.

```
# xicli settings eula show
```

## Argument for the `eula show` subcommand

Optional argument

---

`-f`      `--format`      Output format:

## Argument for the `eula show` subcommand (continued)

- `table`;
- `json`;
- `prettyjson` – human-readable json.

The default: `table`.

## faulty-count modify



When you change any parameter of the `xicli settings faulty-count modify` command, the `xiraid-scanner.service` restarts.

Manage the threshold value of I/O errors for all drives.

```
# xicli settings faulty-count modify <arg>
```

## Argument for the `faulty-count modify` subcommand

Required argument

---

<code>-t</code>	<code>--threshold</code>	<p>The threshold value for all drives.</p> <p>If you set a new fault threshold value, the current numbers of faults are reset for all the drives.</p> <p>Possible values: integers from <b>1</b> to <b>1000</b>.</p> <p>The default: <b>3</b>.</p>
-----------------	--------------------------	--

## faulty-count show

Show the threshold value of I/O errors.

```
# xicli settings faulty-count show
```

### Argument for the `faulty-count show` subcommand

Optional argument

---

`-f`

`--format`

Output format:

- **table**;
- **json**;
- **prettyjson** – human-readable json.

The default: **table**.

## log modify

Configure the type of system messages that will be added to the system log.

```
# xicli settings log modify <arg>
```

### Argument for the `log modify` subcommand

Required argument

---

`-l`

`--level`

The type of system messages that will be added to the system log.

Possible values: **error**, **warning**, **info**, **debug**.

Each next type includes the previous one.

## Argument for the `log modify` subcommand (continued)

The default: **debug**.

## log show

Show the selected type of system messages for the system log.

```
# xicli settings log show [optional_arg]
```

## Argument for the `show` subcommand

Optional argument

---

<code>-l</code>	<code>--lines</code>	The number of error and warning messages in the event log to show, starting from the last entry.  Possible values: integers from <b>1</b> to <b>1000</b> .  The default: <b>10</b> .
-----------------	----------------------	--

## mail modify



When you change any parameter of the `xicli settings mail modify` command, the `xiraid-mail.service` restarts.

Manage email notification settings.

```
# xicli settings mail modify <args>
```

## Arguments for the `mail modify` subcommand

At least one argument is required

---

**Arguments for the `mail modify` subcommand (continued)**

<code>-pi</code>	<code>--polling_interval</code>	<p>The polling interval for xiRAID Classic RAID's and the drives in seconds.</p> <p>Possible values: integers from <b>0</b> to <b>86400</b> (24 hours).</p> <p>The default: <b>10</b>.</p>
------------------	---------------------------------	--

---

<code>-ppi</code>	<code>--progress_polling_interval</code>	<p>Polling interval for the progress of initialization and reconstruction, in minutes.</p> <p>Possible values: integers from <b>0</b> to <b>1440</b> (24 hours).</p> <p>The default: <b>10</b>.</p>
-------------------	--	---

**mail show**

Show email notification settings.

```
# xicli settings mail show
```

**Argument for the `mail show` subcommand**

Optional argument

---

<code>-f</code>	<code>--format</code>	<p>Output format:</p> <ul style="list-style-type: none"> <li>• <b>table</b>;</li> <li>• <b>json</b>;</li> <li>• <b>prettyjson</b> – human-readable json.</li> </ul> <p>The default: <b>table</b>.</p>
-----------------	-----------------------	---

## pool modify



When you change any parameter of the `xicli settings pool modify` command, the `xiraid-scanner.service` restarts.

Manage delay timer (in seconds) for the drive replacement from the spare pools.

```
# xicli settings pool modify <arg>
```

### Argument for the `pool modify` subcommand

Required argument

---

<code>-rd</code>	<code>--replace_delay</code>	Delay time (in seconds) for the drive replacement from the spare pools.  Only one delay time is used for all the spare pools.  Possible values: integers from <b>1</b> to <b>3600</b> .  The default: <b>180</b> .
------------------	------------------------------	--

## pool show

Show delay time used for the drive replacement from the spare pools.

```
# xicli settings pool show
```

### Argument for the `pool show` subcommand

Optional argument

---

<code>-f</code>	<code>--format</code>	Output format:
-----------------	-----------------------	----------------

## Argument for the `pool show` subcommand (continued)

- **table**;
- **json**;
- **prettyjson** – human-readable json.

The default: **table**.

## scanner modify



When you change any parameter of the `xicli settings scanner modify` command, the `xiraid-scanner.service` restarts.

Manage RAID's monitoring, the LED indication and drive SMART settings.

```
# xicli settings scanner modify <args>
```

### Arguments for the `scanner modify` subcommand

At least one argument is required

---

<code>-spi</code>	<code>--scanner_polling_interval</code>	<p>The polling interval for xiRAID Classic RAID's and drives in seconds.</p> <p>The parameter affects the auto-start delay for the RAID initialization, reconstruction, and restriping.</p> <p>Possible values: integers from <b>1</b> to <b>3600</b> (1 hour).</p> <p>The default: <b>1</b>.</p>
<hr/>		
<code>-spi</code>	<code>--smart_polling_interval</code>	S.M.A.R.T. drive health polling interval, in seconds.



**Arguments for the `scanner modify` subcommand (continued)**

Possible values: integers from **60** to **86400** (24 hours).

The default: **86400**.

`-le`                    `--led_enabled`

Enable (**1**) or disable (**0**) the automatic LED indication of drives in the system.

The default: **1**.

The argument doesn't affect manual LED indication.

**scanner show**

Show the LED indication and drive scan settings.

```
# xicli settings scanner show
```

**Argument for the `scanner show` subcommand**

Optional argument

`-f`                    `--format`

Output format:

- **table**;
- **json**;
- **prettyjson** – human-readable json.

The default: **table**.

# update

Operations with the Update Check service.

To check for an available update, run:

```
# xicli update check
```

Disable the Update Check Service to update xiRAID Classic 4.1.0 to a new available version.



Please, follow the instructions provided at [xinnor.io](https://xinnor.io) to safely update your xiRAID Classic. Ignoring these steps may result in filesystem panick and even data loss.

To disable the Update Check Service, run:

```
# xicli update prepare
```



Please, do not run this command unless there is a new available xiRAID Classic version. Otherwise, the proper functioning of xiRAID Classic cannot be guaranteed.



The Update Check Service will inform you of any detected mounted xiRAID devices. Please, unmount the devices before continuing the update process.