

# Installation / User Guide

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# WDCKit\_Users\_Guide.pdf

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Customer Tools Team

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# Product Scope

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## Overview

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wdckit is a command line utility to perform various operations on one or more supported devices. Any of the wdckit commands may be executed as a one time command from the terminal or from within the interactive session. From the interactive sessions, enter ‘h’ for help or ‘q’ to quit. Windows: Administrative privilege is required to execute the tool. Linux: Root authority is required to execute the tool.

## Features

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Command	Description
<a href="#">ahci</a>	Gets contents of AHCI Configuration Registers
<a href="#">aop</a>	Adjust OverProvisioning (AOP) of the device
<a href="#">atasecurity</a>	This command is used to set, disable, freeze or unlock ATA security using User or Master password with High or Maximum security for ATA devices
<a href="#">do-not-operate</a>	Add a device to the list of do not operate devices
<a href="#">erase</a>	This issues a secure erase, a trim of all user data or a sanitize command to the device
<a href="#">errors</a>	List some or all application status codes and messages
<a href="#">eula</a>	Show the End User License Agreement (EULA)
<a href="#">format</a>	Performs a format on a SCSI/ATA or NVMe device

Command	Description
<a href="#">fsflush</a>	Performs a file system flush on device
<a href="#">geteyediagram</a>	Retrieves the vendor specific Eye Diagram (Eye Surf) log from supported devices
<a href="#">getfeature</a>	Gets the various fields along with their values related to features on the device
<a href="#">getlog</a>	This command retrieves logs from ATA, NVMe and SCSI devices
<a href="#">getsmart</a>	Retrieves the SMART data and the SMART status with SMART trip parameter, if any, from the device
<a href="#">getsmr</a>	Retrieves the vendor specific SMR data from supported WDC devices
<a href="#">help</a>	Displays help information about wdckit commands
<a href="#">idd</a>	Retrieves the Identify data of the ATA or NVMe device or Inquiry data for SCSI devices
<a href="#">logdump</a>	Dump logs from specified devices
<a href="#">quit</a>	Exit the CLI
<a href="#">rdp</a>	Performs RDP (repurpose depopulation) on a SCSI or ATA device
<a href="#">reset</a>	Perform a reset for supported devices and OS drivers
<a href="#">sasphy power</a>	Show, enable or disable SAS PHY power management (partial & slumber)
<a href="#">security</a>	Performs the various security related features on the device
<a href="#">securityprofile</a>	Performs the various security profile related features on the ATA device
<a href="#">selftest</a>	Runs the short or extended test on the device(s) specified by the user
<a href="#">setfeature</a>	Sets the specified feature value for NVMe devices
<a href="#">show</a>	List the details like serial number, capacity, state, geometry information, protection information, progress information, version, statistics, etc
<a href="#">standby</a>	Puts the ATA device in standby mode

Command	Description
<a href="#">update</a>	Updates the device firmware with new firmware on the specified device
<a href="#">version</a>	Displays version information
<a href="#">writelog</a>	This command is used to write a log page to the ATA device
<a href="#">zone</a>	Perform various Zoned ATA/Block Commands (ZAC/ZBC)

## Supported Products

Product Family	Interface
All WDC, HGST, and SanDisk drives from 2017 and newer	SATA/SAS/NVMe/NVMeoF

## RAID version Supported Controllers

Vendor	Family
Microsemi	PMC & Adaptec SATA + SAS RAID Controllers
Broadcom	MegaRAID SATA + SAS + NVMe 9xxx Controllers

The RAID version is only available in 64-bit x86 Linux, 64-bit ARM Linux, 32-bit x86 Windows and 64-bit x86 Windows. Use the RAID version for NVMe devices connected to a Broadcom controller.

## Supported Operating Systems

*wdckit only supports the kernels that are supplied with the operating systems distributed by the Operating Systems vendors. If the user should compile any other kernel versions into the operating systems, then the configuration shall not be considered officially supported by wdckit. Some devices may not be fully supported in older OS's.*

Operating System	Version	32-bit x86	64-bit x86	64-bit ARM
Red Hat Enterprise Linux (RHEL)	6.10\7.1, 7.2, 7.3, 7.4, 8.0		X	X
Ubuntu	20.04, 22.04, 24.04		X	X
CentOS	7, 8		X	X
SUSE Linux Enterprise Server	15		X	
Windows	Windows 10, 11	X	X	X
Windows Server	2016, 2019, 2022		X	
FreeBSD	12, 13		X	

## Supported Drivers

Prerequisite	Description
HBA and RAID controller Drivers	Drivers provided by vendors of Host Bus Adapters and RAID controllers.

## Installation

### Overview

This section addresses issues regarding the compatibility, system requirements, installation and configuration of wdckit.

### Installation Packages

wdckit installers are available for a variety of platforms. It is the responsibility of the user to be knowledgeable of the specific platform on which wdckit will be installed. An authorized representative will e-mail the desired version of wdckit to the user. The packages must be unpacked in a default directory or a temporary directory.

Installation Package	Description
wdckit-<version>.<arch>.rpm	For RHEL-based Linux platforms
wdckit-raid-<version>.<arch>.rpm	For RHEL-based Linux platforms (RAID SAS/SATA)
wdckit_<version>_<arch>.deb	For Debian-based Linux platforms
wdckit-raid_<version>_<arch>.deb	For Debian-based Linux platforms (RAID SAS/SATA)
wdckit-<version>-<arch>.tar.gz	Standalone instance for Linux/FreeBSD platforms
wdckit-raid-<version>-<arch>.tar.gz	Standalone instance for Linux platforms (RAID SAS/SATA)
wdckit-<version>.<arch>.exe	Installer for Windows platforms
wdckit-raid-<version>.<arch>.exe	Installer for Windows platforms (RAID SAS/SATA)
wdckit-<version>.<arch>.zip	Standalone instance for Windows platforms
wdckit-raid-<version>.<arch>.zip	Standalone instance for Windows platforms (RAID SAS/SATA)

### User Privileges

Prerequisite	Description
Linux Distributions	root authority is required

Prerequisite	Description
FreeBSD Distributions	root authority is required
Windows Distributions	Administrator authority is required

## Linux or FreeBSD TAR Installation

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To install the TAR package(s):

1. Create a temporary installation folder or directory.
2. Please review installation packages above to determine whether to use the non-RAID or RAID version of wdckit.
3. Download the wdckit TAR file to the temporary installation folder or directory.
4. Open a terminal window and change directories to the temporary installation folder or directory.
5. Use the tar command to install the tarball, e.g.,

```
tar -zxvf <wdckit TAR file name>
```

- Use of wdckit after this installation will be from this directory with

```
./wdckit
```

## Upgrade Procedure

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To upgrade wdckit:

1. Logon to the system with root privileges.
2. Delete the directory with the old wdckit install
3. Create a directory for installation and download the most recent wdckit release (TAR).
4. Please review installation packages above to determine whether to use the non-RAID or RAID version of wdckit.
5. Open a terminal in the installation directory.
6. Use the tar command to install the new wdckit tarball, e.g.,

```
tar -zxvf <wdckit TAR file name>
```

## Uninstall Procedure

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To uninstall wdckit:

1. Logon to the system with root privileges.

2. Delete the temporary installation folder contents.

```
rm -rf <wdckit folder>
```

## Linux RPM Installation or Upgrade

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To install or upgrade the RPM package(s):

1. Create a temporary installation folder or directory.
2. Please review installation packages above to determine whether to use the non-RAID or RAID version of wdckit.
3. Extract the wdckit installable (RPM) file to the temporary installation folder or directory.
4. Open a terminal window and change directories to the temporary installation folder or directory.
5. Use the rpm command to install the RPM file, e.g.,

```
sudo rpm -Uvh <wdckit RPM file name>
```

## Uninstall Procedure

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To uninstall wdckit:

1. Open a terminal window or console.
2. Non-raid version (note, no .rpm):

```
sudo rpm -e wdckit-<version>.<arch>
```

Raid version (note, no .rpm):

```
sudo rpm -e wdckit-raid-<version>.<arch>
```

## Linux DEB Installation or Upgrade

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To install or upgrade the DEB package(s):

1. Create a temporary installation folder or directory.
2. Please review installation packages above to determine whether to use the non-RAID or RAID version of wdckit.
3. Download the wdckit installable (DEB) file to the temporary installation folder or directory.
4. Open a terminal window and change directories to the temporary installation folder or directory.

5. Use the dpkg command to install the DEB file, e.g.,

```
sudo dpkg -i <wdckit DEB file name>
```

## Uninstall Procedure

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To uninstall wdckit:

1. Logon to the system with root privileges.
2. Open a terminal window or console.
3. Non-raid version, run

```
sudo dpkg -r wdckit
```

Raid version, run:

```
sudo dpkg -r wdckit-raid
```

## Windows Installation

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Please review installation packages above to determine whether to use the non-RAID or RAID version of wdckit.

Double click on the installation executable file.

1. Click “Yes” on allow User Control Access if prompted.
2. The wdckit Setup wizard will launch, click “Next”
3. Click on “I agree” to the License Agreement
4. Choose an install location or accept the default path, click “Next”
5. Choose any Start Menu or short cut folder options, click “Install”
6. Click “Finish” when complete

To Launch wdckit – Open a command prompt terminal with administrator privileges (Run as administrator). Change directory to the wdckit install directory specified on step 4 above. Execute wdckit by typing the following command:

```
.\wdckit
```

## Uninstall Procedure

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To uninstall wdckit:

1. Navigate to the install directory under Program Files
2. Double click on the Uninstall wizard in the wdckit folder
3. Click “Yes” on allow User Control Access if prompted
4. Click “Uninstall” on the wdckit Uninstall wizard

# End User License Agreement Acceptance

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The Windows installer will display an End User License Agreement (EULA). For all other packages, when wdckit is run for the first time, it will prompt the user to accept the EULA.

In Windows (when installed via the zip package), the EULA will begin to fill the screen and the bottom will show:

– More (%) –

This table is a summary of several options to scroll through the EULA.

In Linux/FreeBSD, the screen will show

Read the end user license agreement. [enter]:

After pressing ENTER, the EULA will begin to fill the screen and the bottom will show:

–More–[Press space to continue, ‘q’ to quit.]

Please use the following keys to scroll through the EULA:

Key	Action
SPACEBAR	Press the SPACEBAR to display the next screen.
ENTER	Press ENTER to display the file one line at a time.
q	Press Q to finish reading.
=	Shows the line number.
p <n>	Press P to display the next n lines.
s <n>	Press S to skip the next n lines.
?	Press ? to show the commands that are available at the more prompt.

After reading the EULA, it will confirm acceptance of the EULA. If you do not, wdckit will quit. After the EULA has been accepted, it will be saved until the the application is removed.

Also, an environment variable may be set to accept the EULA.

Linux/FreeBSD: `export WDC_LICENSE_ACCEPTED=1`

Windows: `set WDC_LICENSE_ACCEPTED=1`

Once wdckit has run with the environment variable confirmation, wdckit will remember the EULA has been accepted and will continue to run without asking for the EULA acceptance until the application is updated or removed.



# Command Line Interface

## Overview

To use wdckit on any PC or server, you can run it using the standalone Command Line Interface. This section explains the usage and capabilities of the CLI and provides basic and advanced device diagnostic functions.

## Command Execution

The syntax for command execution is consistent across the various platforms. In this section, the commands are presented in the platform neutral form of **wdckit**. The user should have a practical knowledge of navigating the command line interface for the specific system platform.

## Command Syntax

The commands and options use the same syntax across the platforms. The spaces or delimiters are taken literally, while the brackets are ignored: `wdckit <command> <flags>`

<b>Command</b>	<b>ahci</b>
<b>Description</b>	Gets contents of AHCI Configuration Registers.
<b>Restriction (s)</b>	
	This task is only valid in Linux.
	This task is only valid for SATA targets.
	This task is only valid for WDC targets.
<b>Usage</b>	
wdckit	ahci [<devList> ... --model <model number> ... --serial <serial number> ...] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>OPTIONAL</b>	
	<devList> (accepted multiple times) Device name(s) to execute ahci command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.

Command	ahci
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)

Command	ahci
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit ahci  -Gets contents of AHCI Configuration Registers.
	wdckit ahci -R ahci.txt  -Redirects the contents of AHCI Configuration Registers to ahci.txt.

Command	aop
Description	Adjust OverProvisioning (AOP) of the device. NOTE: Per the ATA specification, a power cycle shall be required between each AOP change.
Restriction(s)	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
	This task is only valid for SATA targets.
	This task is only valid for ATA devices that support 48-bit LBAs.

Command	aop
Usage	
wdckit	aop <<devList> ... --model <model number> ... --serial <serial number> ... > <-g -s <new max lba> -r> [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-f] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
REQUIRED	
	<devList> (accepted multiple times) Device name(s) to execute aop command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-g, --get Gets the actual user addressable max LBA.
–OR–	
	-s <new max lba>, --set <new max lba> Sets the user addressable max LBA to a new supported.
–OR–	
	-r, --reset Resets the user addressable max LBA to actual value.
OPTIONAL	
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	

Command	aop
	<code>--no-trace</code> Disable trace logging.
	<code>-f, --force</code> Force the overprovisioning without asking for user confirmation. Valid for only the set or reset option.
	<code>--supported</code> Perform operation with only supported devices.
	<code>--no-win-disk</code> Do not interact with Windows disk devices (eg <code>disk*</code> and only useful with the Windows version).
	<code>--no-win-ctrl-hdc</code> Do not interact with Windows controller HDC devices (eg storage space devices <code>disk*</code> or NVMe controllers without namespaces <code>nvme*</code> and only useful with the Windows version).
	<code>--no-win-ctrl-scsi</code> Do not interact with Windows controller SCSI devices (eg storage space devices <code>disk*</code> or NVMe controllers without namespaces <code>nvme*</code> and only useful with the Windows version).
	<code>--no-win-csmi</code> Do not interact with Windows CSMI devices (eg <code>csmi*</code> and only useful with the Windows version).
	<code>--no-win-rste</code> Do not interact with Windows RSTe devices (eg <code>rste*</code> and only useful with the Windows version).
	<code>--no-win-amd-raid</code> Do not interact with Windows AMD raid devices (eg <code>amdraid*</code> and only useful with the Windows version).
	<code>--no-win-ses</code> Do not interact with Windows SCSI Enclosure Service (SES) devices (eg <code>SCSI*</code> )
	<code>--no-linux-scsi</code> Do not interact with Linux ATA/SCSI devices (eg <code>/dev/sg*</code> or <code>/dev/sd*</code> and only useful with the Linux version).
	<code>--no-linux-nvme</code> Do not interact with Linux NVMe devices (eg <code>/dev/nvme*</code> and only useful with the Linux version).
	<code>--no-linux-wd-nvme</code> Do not interact with Linux NVMe devices using the WD NVMe driver (eg <code>wdnvme_bdfs*</code> and only useful with the Linux version).
	<code>--no-bsd-cam</code> Do not interact with FreeBSD CAM devices (eg <code>/dev/ada*</code> and only useful with the FreeBSD version).
	<code>--no-bsd-nvme</code> Do not interact with FreeBSD NVMe devices (eg <code>/dev/nvme*</code> and only useful with the FreeBSD version).
	<code>--no-ad</code> Do not use the AD driver (only useful with the RAID version).
	<code>--no-mr</code> Do not use the MR driver (only useful with the RAID version).

Command	aop
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit aop disk0 disk1 disk2 -g -R aop.txt  -Gets the actual user addressable max LBA for disk0, disk1 and disk2 and redirects the output to file aop.txt  wdckit aop /dev/sda /dev/sdb /dev/sdc -g -R aop.txt  -Gets the actual user addressable max LBA for /dev/sda, /dev/sdb and /dev/sdc and redirects the output to file aop.txt
	wdckit aop disk0 -s 117220823 -f  -Sets the user addressable max LBA value for disk0 to 117220823 (with force) i.e. without prompting for confirmation.  wdckit aop /dev/sda -s 117220823 -f  -Sets the user addressable max LBA value for /dev/sda to 117220823 (with force) i.e. without prompting for confirmation.
	wdckit aop all -r  -Resets the user addressable max LBA to their actual or original value for all drives.

Command	atasecurity
Description	This command is used to set, disable, freeze or unlock ATA security using User or Master password with High or Maximum security for ATA devices. NOTE: Many modern BIOSes will issue an ATA security freeze lock which blocks all subsequent ATA security commands until the next power cycle. Use 'idd' to confirm. The security frozen is reported at word 128, bit 3.
Restriction(s)	
	This task is only valid for an actual target.
	This task is only valid for SATA targets.
	This task is only valid for WDC targets.
Usage	

Command	atasecurity
wdckit	atasecurity <<devList> ... --model <model number> ... --serial <serial number> ...> <-s -d -f -U> [-u -m] [-H -M] [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-P <password>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	<devList> (accepted multiple times) Device name(s) to execute atasecurity command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-s, --set This option is used to enable ATA security by setting the User password or Master password.
–OR–	
	-d, --disable This option is used to disable ATA security by using the User or Master password.
–OR–	
	-f, --freeze This option is used to freeze all changes to ATA security options on the drive.
–OR–	
	-U, --unlock This option is used to unlock a security locked drive on which ATA security is enabled.
<b>OPTIONAL</b>	
	-u, --userpassword This option is used if User Password is provided in the --password option to set, disable or unlock ATA security.
–OR–	
	-m, --masterpassword This option is used if Master Password is provided in the --password option to set, disable or unlock ATA security.
	-H, --high This option is used to set Security Mode to High when setting the User password.
–OR–	
	-M, --maximum This option is used to set Security Mode to Maximum when setting the User password.

Command	atasecurity
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-P <password>, --password <password> This option is used for providing the password string.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)



Command	atasecurity
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit atasecurity disk0 -m -s -P password  -Set Master password.  wdckit atasecurity /dev/sda -m -s -P password  -Set Master password.
	wdckit atasecurity disk0 -u -H -s -P password  -Set User password with High Security Mode.  wdckit atasecurity /dev/sda -u -H -s -P password  -Set User password with High Security Mode.

Command	atasecurity
	<p>wdckit atasecurity disk0 -u -d -P password</p> <p>-Disable security using User password.</p> <p>wdckit atasecurity /dev/sda -u -d -P password</p> <p>-Disable security using User password.</p>
	<p>wdckit atasecurity disk0 -m -d -P password</p> <p>-Disable security using Master password.</p> <p>wdckit atasecurity /dev/sda -m -d -P password</p> <p>-Disable security using Master password.</p>

Command	do-not-operate
<b>Description</b>	Add a device to the list of do not operate devices.
<b>Usage</b>	
wdckit	do-not-operate <-s <serial number> ... -D <device-name> ... -d -c> [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [--supported] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	-s <serial number>, --serial <serial number> (accepted multiple times) Add this device to the Do Not Operate list.
–OR–	
	-D <device-name>, --device-name <device-name> (accepted multiple times) Add this device name to the Do Not Operate list.
–OR–	
	-d, --display Print a list of all devices from the Do Not Operate list.
–OR–	
	-c, --clear Clear all devices from the Do Not Operate list.
<b>OPTIONAL</b>	
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.

Command	do-not-operate
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	--supported Perform operation with only supported devices.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit do-not-operate -s "TEST ABC123" -Add serial number 'TEST ABC123' to the do not operate devices list.
	wdckit do-not-operate -D disk0 -Add device disk0 to the do not operate devices list.  wdckit do-not-operate -D /dev/sda -Add device /dev/sda to the do not operate devices list.
	wdckit do-not-operate -d -Print the list of do not operated devices.
	wdckit do-not-operate -c -Clear the list of do not operated devices.

Command	erase
Description	This issues a secure erase, a trim of all user data or a sanitize command to the device. Since this is a destructive operation, by default, this tool prompts for user confirmation before execution of this operation. To force the operation, use -f (--force). Note: For Windows with the NVMe inbox driver, erase via Sanitize must be run from Windows PE.
Restriction(s)	
	This task is only valid for an actual target.

Command	erase
	This task is not allowed on a boot device.
	This task is only valid for non-RAID devices.
	This task is only valid for WDC targets.
Usage	
wdckit	<pre> erase &lt;&lt;devList&gt; ... --model &lt;model number&gt; ... --serial &lt;serial number&gt; ...&gt; [-n -e -t -B -o &lt;pattern&gt; -F &lt;filename&gt; -c -x --table -p -s] [--progress- bar --simple-progress --no-progress] [--logout --logfile &lt;filename&gt; -R &lt;filename&gt;] [--trace --trace-with-scan --no-trace] [-b] [-l &lt;1 2 3 4&gt;] [-C &lt;1-31&gt;] [-i] [--nsid &lt;value&gt;] [-f] [--no-sanitize-status] [--supported] [--no-win- disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [-- no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no- linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe- flag &lt;flag bits&gt;] [-z] [--log-level &lt;silent error info debug cmd-debug&gt;] [-h] </pre>
REQUIRED	
	<devList> (accepted multiple times) Device name(s) to execute erase command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
OPTIONAL	
	-n, --normal Performs a normal Security Erase operation on the device list. Supported on only ATA devices.
–OR–	
	-e, --enhanced Performs an enhanced Security Erase operation on the device list. Supported on only ATA devices.
–OR–	
	-t, --trim Performs a trim operation from LBA 0 to the Maximum User Addressable LBA on the device list.
–OR–	
	-B, --blockerase Performs a Sanitize Block Erase operation on the device list.
–OR–	
	-o <pattern>, --overwrite <pattern> Performs a Sanitize Overwrite operation on the device list. The pattern is this 32-bit value. To specify length of pattern in bytes, use -l --length.
–OR–	
	-F <filename>, --file <filename> Performs a Sanitize Overwrite operation on the device list. The pattern source is from this file.
–OR–	

Command	erase
	-c, --crypto Performs a Sanitize Crypto Scramble operation on the device list.
–OR–	
	-x, --exit-failure-mode Performs a Sanitize Exit Failure Mode operation on the device list (NVMe & SCSI only) or clear sanitize errors (ATA only).
–OR–	
	--table Erase the device partition table.
–OR–	
	-p, --progress Query the progress of an erase operation.
–OR–	
	-s, --show-support Show the erase methods that are supported on the device. No erase shall be performed.
	--progress-bar Display a full screen progress bar screen.
–OR–	
	--simple-progress Prevent the display of the progress bar screen, useful when running commands from a script.
–OR–	
	--no-progress No progress display.
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.

Command	erase
	<b>-b, --blocked</b> For a Sanitize operation, waits for the operation to complete.
	<b>-l &lt;1 2 3 4&gt;, --length &lt;1 2 3 4&gt;</b> Specify the length of the pattern (1-4) in bytes. This argument is only valid for -o --overwrite. Default value is 4.
	<b>-C &lt;1-31&gt;, --overwrite-count &lt;1-31&gt;</b> Specify the number of Sanitize Overwrite passes to be perform. This argument is only valid with -o --overwrite or -F --file. Default value is 1.
	<b>-i, --invert</b> Specify that the pattern shall be inverted after every pass. This argument is only valid with -o --overwrite or -F --file.
	<b>--nsid &lt;value&gt;</b> Specify the NVMe namespace ID value. Default value is dependent upon the options.
	<b>-f, --force</b> Force the erase operation without asking for user confirmation.
	<b>--no-sanitize-status</b> Do not check ATA sanitize status, which on some systems, may not operate correctly.
	<b>--supported</b> Perform operation with only supported devices.
	<b>--no-win-disk</b> Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	<b>--no-win-ctrl-hdc</b> Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	<b>--no-win-ctrl-scsi</b> Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	<b>--no-win-csmi</b> Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	<b>--no-win-rste</b> Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	<b>--no-win-amd-raid</b> Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	<b>--no-win-ses</b> Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	<b>--no-linux-scsi</b> Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).

Command	erase
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>
	<p>--log-level &lt;silent error info debug cmd-debug&gt; Change log level. Default value is cmd-debug.</p>
	<p>-h, --help Display help and exit.</p>
Example(s)	
	<p>wdckit erase disk0 -o 0xAABB</p> <p>-Initiates overwrite sanitize operation with pattern AABB on device 'disk0'.</p> <p>wdckit erase /dev/sda -o 0xAABB</p> <p>-Initiates overwrite sanitize operation with pattern AABB on device '/dev/sda'.</p>
	<p>wdckit erase disk0 -B -f</p> <p>-Forcefully initiates blockerase sanitize operation on device 'disk0'.</p> <p>wdckit erase /dev/sda -B -f</p> <p>-Forcefully initiates blockerase sanitize operation on device '/dev/sda'.</p>

Command	erase
	<p>wdckit erase disk0 disk1 --crypto --blocked</p> <p>-Initiates cryptoscramble sanitize operation on devices 'disk0' and 'disk1'. CLI will be blocked until erase completes.</p> <p>wdckit erase /dev/sda /dev/sdb --crypto --blocked</p> <p>-Initiates cryptoscramble sanitize operation on devices '/dev/sda' and '/dev/sdb'. CLI will be blocked until erase completes.</p>
	<p>wdckit erase all --enhanced --nobanner --force</p> <p>-Forcefully initiates enhanced secure erase operation on all the supported devices and banner will be suppressed.</p>
	<p>wdckit erase disk0 disk1 -p</p> <p>-Shows the progress of erase operation on devices 'disk0' and 'disk1' once, if any.</p> <p>wdckit erase /dev/sda /dev/sdb -p</p> <p>-Shows the progress of erase operation on devices '/dev/sda' and '/dev/sdb' once, if any.</p>

Command	errors
<b>Description</b>	List some or all application status codes and messages.
<b>Usage</b>	
wdckit	<p>errors [&lt;error-code&gt; ...] [-n -s -c -r &lt;error,exit&gt; ...] [--logoutput --logfile &lt;filename&gt; -R &lt;filename&gt;] [--trace --trace-with-scan --no-trace] [-e &lt;exit code&gt;] [-S] [--supported] [-z] [--log-level &lt;silent error info debug cmd-debug&gt;] [-h]</p>
<b>OPTIONAL</b>	
	<p>&lt;error-code&gt; (accepted multiple times) Show message for this error code.</p>
	<p>-n, --nvme Show an NVMe status command type/status command code. This error-code is a 12-bit value, where SCT = bits 11:8 and SC = bits 7:0.</p>
–OR–	
	<p>-s, --status-field Show value as NVMe status field (SF). This error-code is expected to be a 16-bit value.</p>
–OR–	
	<p>-c, --clear Clear all exit codes overrides (IE reset to default).</p>
–OR–	
	<p>-r &lt;error,exit&gt;, --replace &lt;error,exit&gt; (accepted multiple times) Replace the exit code for the given error code.</p>



Command	errors
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-e <exit code>, --exit-code <exit code> Filter error codes to only this exit code.
	-S, --sort-exit-code Show all application errors, and sort then by the exit code value.
	--supported Perform operation with only supported devices.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
<b>Example(s)</b>	
	wdckit errors -List all error codes, exit codes and messages.
	wdckit errors -S -List all error codes, exit codes and messages sorted by exit code.
	wdckit errors -List all error codes, exit codes and messages.
	wdckit errors --exit-code 1 -List all error codes that return an exit code of 1.

Command	errors
	wdckit errors -1 -999  -List error codes -1 and -999 and the exit codes and messages.
	wdckit errors -12  -List error code -12 and the exit code and message.
	wdckit errors -n  -List all known NVMe error codes.
	wdckit errors 0x00B -n  -List NVMe error 00Bh.
	wdckit errors 0xC212 -s  -List NVMe status field C212h.
	wdckit errors --redirect status.txt  -List all error codes, messages and exit codes and the output is stored in status.txt.

Command	eula
<b>Description</b>	Show the End User License Agreement (EULA).
<b>Usage</b>	
wdckit	eula [-a -3] [-h]
<b>OPTIONAL</b>	
	-a, --exhibit-a Show EULA Exhibit A
–OR–	
	-3, --third-party Show third party notices.
	-h, --help Display help and exit.
<b>Example(s)</b>	
	wdckit eula  -Show the End User License Agreement (EULA).
	wdckit eula -a  -Show EULA exhibit A.
	wdckit eula -3  -Show Third party notices.

<b>Command</b>	<b>format</b>
<b>Description</b>	Performs a format on a SCSI/ATA or NVMe device. Notes: NVMe format is supported in only Linux or Windows PE with the inbox driver. ATA format is only supported on L-H and L-W products.
<b>Restriction(s)</b>	
	This task is only valid for an actual target.
	This task is not allowed on a boot device.
	This task is only valid for WDC targets.
	This task is only valid in Windows PE with NVMe devices when connected via the inbox or Intel RST driver.
	This task requires the device to be ready.
<b>Usage</b>	
wdckit	format <<devList> ... --model <model number> ... --serial <serial number> ...> <-l <lba format> -b <bytes>> [--progress-bar --simple-progress] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-s <0-7>] [--nsid <value>] [-n <number of blocks>] [--merge] [--fastformat] [-c] [-p <protection type>] [--danger-zone] [--timeout-seconds <seconds>] [--no-sanitize-status] [--reset] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	<devList> (accepted multiple times) Device name(s) to execute format command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-l <lba format>, --lbaformat <lba format> Specify the LBA format number for an NVMe device. Not applicable for SCSI/ATA devices.
–OR–	
	-b <bytes>, --blocksize <bytes> Specify the block size, in bytes. Valid values for ATA devices: 512, 4096. Valid values for SCSI devices: 512, 520, 528, 4096, 4112, 4160, 4224. Valid values for NVMe devices are reported in identify namespace data.
<b>OPTIONAL</b>	
	--progress-bar Display a full screen progress bar screen.
–OR–	

Command	format
	--simple-progress Prevent the display of the progress bar screen, useful when running commands from a script.
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-s <0-7>, --ses <0-7> Specify the Secure Erase Settings (SES) value for an NVMe device. Defaults to 1 (0 = no secure erasure; 1 = user data erasure; 2 = cryptographic erasure; 3-7 = reserved). Not applicable for SCSI/ATA devices.
	--nsid <value> Specify the NVMe namespace ID value. Default value is dependent upon the options.
	-n <number of blocks>, --numblocks <number of blocks> Specify number of blocks to format for SCSI/ATA devices. Not applicable for NVMe devices. Default: will format to maximum number of blocks supported by the device.
	--merge Merge G-List and P-List for SCSI/ATA devices. Not applicable for NVMe devices.
	--fastformat Set Fast Format for SCSI/ATA devices. Not applicable for NVMe devices.
	-c, --media-compatibility-check Perform media compatibility check for SCSI/ATA devices. Not applicable for NVMe devices.
	-p <protection type>, --protection <protection type> Specify a type of Protection Information (0 1 2 3) for SCSI/ATA devices. The default value is 0. Not applicable for NVMe devices.

Command	format
	<b>--danger-zone</b> Flag tells the application that you know you are going to destroy your data with this command and will not prompt the user.
	<b>--timeout-seconds &lt;seconds&gt;</b> Timeout value, in seconds. Allowed range is 30 seconds to 604800 (1 week). The default value is 30.
	<b>--no-sanitize-status</b> Do not check ATA sanitize status, which on some systems, may not operate correctly.
	<b>--reset</b> Perform a reset upon completion of a format. Linux will also request a rescan.
	<b>--supported</b> Perform operation with only supported devices.
	<b>--no-win-disk</b> Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	<b>--no-win-ctrl-hdc</b> Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	<b>--no-win-ctrl-scsi</b> Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	<b>--no-win-csmi</b> Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	<b>--no-win-rste</b> Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	<b>--no-win-amd-raid</b> Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	<b>--no-win-ses</b> Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	<b>--no-linux-scsi</b> Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	<b>--no-linux-nvme</b> Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	<b>--no-linux-wd-nvme</b> Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	<b>--no-bsd-cam</b> Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).

Command	format
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit format disk0  -Formats the device 'disk0' with default LBA format 0.  wdckit format /dev/nvme0  -Formats the device '/dev/nvme0' with default LBA format 0.
	wdckit format disk0 -l 1  -Formats the device 'disk0' with LBA format 1.  wdckit format /dev/nvme0 -l 1  -Formats the device '/dev/nvme0' with LBA format 1.
	wdckit format disk0 -l 1 -s 2  -Formats the device 'disk0' with LBA format 1 and SES 2.  wdckit format /dev/nvme0 -l 1 -s 2  -Formats the device '/dev/nvme0' with LBA format 1 and SES 2.
	wdckit format disk0 -b 512  -Format the device 'disk0' with a block size of 512 bytes and maximum capacity.  wdckit format /dev/sda -b 512  -Format the device '/dev/sda' with a block size of 512 bytes and maximum capacity.

<b>Command</b>	<b>fsflush</b>
<b>Description</b>	Performs a file system flush on device.
<b>Restriction(s)</b>	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
<b>Usage</b>	
wdckit	fsflush <<devList> ... --model <model number> ... --serial <serial number> ...> [--logoutput --logfile <filename> --R <filename>] [--trace --trace-with-scan --no-trace] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	<devList> (accepted multiple times) Device name(s) to execute fsflush command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
<b>OPTIONAL</b>	
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.

Command	fsflush
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.



Command	fsflush
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit fsflush disk0  -File system flush for device 'disk0'.  wdckit fsflush /dev/sda  -File system flush for device '/dev/sda'.

Command	geteyediagram
Description	Retrieves the vendor specific Eye Diagram (Eye Surf) log from supported devices.
Restriction (s)	
	This task is only valid for an actual NVMe device, an actual HGST device or file target.
	This task is only valid for WDC targets.
Usage	
wdckit	geteyediagram <<devList filename> ... --model <model number> ... --serial <serial number> ...> [-r -s <path> -f <filename>] [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-m] [--nsid <value>] [--phy-id <0 1>] [--bit-depth <value>] [--phase-low <phase value>] [--phase-high <phase value>] [--phase-step <positive value>] [--voltage-low <voltage value>] [--voltage-high <voltage value>] [--voltage-step <positive value>] [--snapshot] [-x <bytes>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
REQUIRED	
	<devList filename> (accepted multiple times) Device or file name(s) to execute geteyediagram command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
OPTIONAL	

Command	geteyediagram
	-r, --raw Dump the raw buffer.
–OR–	
	-s <path>, --save <path> Saves the device output to the path specified.
–OR–	
	-f <filename>, --file <filename> Saves the device output to the file specified. Can only be used with a single device.
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-m, --mirror Uses the NVMe mirror command instead of the NVMe standard command.
	--nsid <value> Specify the NVMe namespace ID value. Default value is dependent upon the options.
	--phy-id <0 1> Specify the port number (0 or 1) on SAS drives (default = 0). Only used with L-H devices.
	--bit-depth <value> Bit depth (default = 100000). Only used with L-H devices.
	--phase-low <phase value> Phase low value (default = 0). Only used with L-H devices.
	--phase-high <phase value> Phase high value (default = 31). Only used with L-H devices.
	--phase-step <positive value> Phase step (default = 1). Only used with L-H devices.

Command	geteyediagram
	--voltage-low <voltage value> Low voltage value (default = -31). Only used with L-H devices.
	--voltage-high <voltage value> High voltage value (default = 31). Only used with L-H devices.
	--voltage-step <positive value> Voltage value (default = 1). Only used with L-H devices.
	--snapshot Specify a snap shot eye diagram. This option is only used with L-H NVMe devices.
	-x <bytes>, --xfer <bytes> Specify maximum size, in bytes, to transfer per command. This value must be a multiple of 4096. Only applicable for NVMe devices. Default value is 4096 for NVMeoF or 64KB for PCI NVMe.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).

Command	geteyediagram
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit geteyediagram all  -Retrieves from all the supported devices.
	wdckit geteyediagram disk0 disk1  -Retrieves from device 'disk0' and 'disk1'.  wdckit geteyediagram /dev/nvme0 /dev/nvme1  -Retrieves from device '/dev/nvme0' and '/dev/nvme1'.
	wdckit geteyediagram eye.bin  -Parses file 'eye.bin'.

Command	getfeature
Description	Gets the various fields along with their values related to features on the device.
Restriction(s)	
	This task is only valid for an actual device or file target.
	This task is only valid for WDC targets.
	This task is only valid for a file, NVMe or SATA targets.
Usage	

Command	getfeature
wdckit	getfeature <<devList filename> ... --model <model number> ... --serial <serial number> ...> <-f <feature-id> -l -p <alias> ...> [-S <select-value> --current --default --saved --supported-capabilities] [-r --raw-limit <bytes> -s <path> --set-feature-xml <filename>] [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-v <dw11 value>] [--payload-size <bytes>] [--xml-decoder <filename>] [-m] [--nsid <value>] [-u <uuid index>] [-o <value>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	<devList filename> (accepted multiple times) Device or file name(s) to execute getfeature command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-f <feature-id>, --feature <feature-id> NVMe devices only. Feature id to be retrieved.
–OR–	
	-l, --list Prints the list of supported features.
–OR–	
	-p <alias>, --parameterlist <alias> (accepted multiple times) ATA devices only. Name of the operational parameters whose values need to be retrieved. Use 'all' to retrieve all operational parameter values.
<b>OPTIONAL</b>	
	-S <select-value>, --select <select-value> NVMe devices only. Option for the select field. Default value is 0.
–OR–	
	--current NVMe devices only. Select current feature setting.
–OR–	
	--default NVMe devices only. Select default feature setting.
–OR–	
	--saved NVMe devices only. Select saved feature setting.
–OR–	
	--supported-capabilities NVMe devices only. Select supported capabilities feature setting.
	-r, --raw Dump the raw buffer.

Command	getfeature
–OR–	
	--raw-limit <bytes> Dump the raw buffer, with at most, this many bytes.
–OR–	
	-s <path>, --save <path> Saves the device output to the path specified.
–OR–	
	--set-feature-xml <filename> Save NVMe set feature response buffer in an XML format suitable for setfeatures. Only applies to feature IDs: 3h, Ch, Eh, 13h, 16h, 7Dh, 7Eh, 7Fh and 81h. <filename> will be used if and only if one target device is specified. When multiple targets are specified, the XML filename will be <sn>_<timestamp>_feature-<id>_<version>.xml.
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-v <dw11 value>, --value <dw11 value> NVMe devices only. Dw11 value (only some feature ids use it). Default value is 0.
	--payload-size <bytes> NVMe devices only. Override default payload data size, in bytes (only some feature ids use it).
	--xml-decoder <filename> Decode additional data as described by this xml file. Please refer to the user guide appendix for the XML schema.
	-m, --mirror Uses the NVMe mirror command instead of the NVMe standard command.
	--nsid <value> Specify the NVMe namespace ID value. Default value is dependent upon the options.

Command	getfeature
	<p>-u &lt;uuid index&gt;, --uuid-index &lt;uuid index&gt; Specify the NVMe UUID Index (0-7fh). Default value is 0. This field is only valid for NVMe devices. It will be ignored for ATA/SCSI devices.</p>
	<p>-o &lt;value&gt;, --output &lt;value&gt; Specify the output value returned from the device. This value is only used when parsing a payload binary file.</p>
	<p>--supported Perform operation with only supported devices.</p>
	<p>--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>

Command	getfeature
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>
	<p>--log-level &lt;silent error info debug cmd-debug&gt; Change log level. Default value is cmd-debug.</p>
	<p>-h, --help Display help and exit.</p>
Example(s)	
	<p>wdckit getfeature disk0 -f 2</p> <p>-This will display the feature values related to feature id 2h of 'disk0'.</p> <p>wdckit getfeature /dev/nvme0 -f 2</p> <p>-This will display the feature values related to feature id 2h of '/dev/nvme0'.</p>
	<p>wdckit getfeature disk0 -f 2 -z</p> <p>-This will display the feature values related to feature id 2h of 'disk0' and suppress the banner.</p> <p>wdckit getfeature /dev/nvme0 -f 2 -z</p> <p>-This will display the feature values related to feature id 2h of '/dev/nvme0' and suppress the banner.</p>
	<p>wdckit getfeature disk0 disk1 -f 2</p> <p>-This will display the feature values related to feature id 2h of 'disk0' and 'disk1'.</p> <p>wdckit getfeature /dev/nvme0 /dev/nvme1 -f 2</p> <p>-This will display the feature values related to feature id 2h of '/dev/nvme0' and '/dev/nvme1'.</p>
	<p>wdckit getfeature disk0 -l</p> <p>-This option will list the Names and alias of all the supported operational Parameters of 'disk0'.</p> <p>wdckit getfeature /dev/sda -l</p> <p>-This option will list the Names and alias of all the supported operational Parameters of '/dev/sda'.</p>



Command	getfeature
	wdckit getfeature all -p all  -This option will list the Name-value Pair of all the operational Parameters of all devices.
	wdckit getfeature disk0 disk1 -p apm -p dipm  -This option will list the Name-value Pair for APM and Device Initiated Power Management parameters of 'disk0' and 'disk1'.  wdckit getfeature /dev/sda /dev/sdb -p apm -p dipm  -This option will list the Name-value Pair for APM and Device Initiated Power Management parameters of '/dev/sda' and '/dev/sdb'.

Command	getlog
Description	This command retrieves logs from ATA, NVMe and SCSI devices. Log events for various factors, such as error handling, status handling, statistics, accounting, and so forth. This will decode and show the log contents in human readable text.
Restriction(s)	
	This task is only valid for an actual device or file target.
	This task is only valid for WDC targets.
Usage	
wdckit	getlog <<devList filename> ... --model <model number> ... --serial <serial number> ...> [--smartlog -g -G] [--ata --nvme --scsi] [-r --raw-limit <bytes> -s <path>] [--data-area <0 1 2 3 4> -t <type[,max size]> ... -e <type[,max size]>] ... --show-oui-header] [-m --no-mirror] [--no-progress --progress-bar --simple-progress] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-l <log number>] [--lsp <log specific number>] [--lpo <log page offset>] [-u <uuid index>] [--rae] [-f <value>] [-p <page list>] [--ignore-directory] [-S <bytes>] [-b <blocks>] [--lsi <value>] [--csi <value>] [--force] [--nsid <value>] [-x <transfer size>] [--xml-decoder <filename>] [--output <text json xml csv csv-no-header>] [--timeout <seconds>] [--oui <oui>] [--clear-telemetry] [--sp] [--pc <0 1 2 3>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
REQUIRED	
	<devList filename> (accepted multiple times) Device or file name(s) to execute getlog command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	

Command	getlog
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
<b>OPTIONAL</b>	
	--smartlog Use ATA SMART read log command to access the data.
–OR–	
	-g, --gpl Use ATA GPL read log command to access the data.
–OR–	
	-G, --gpl-dma Use ATA GPL read log DMA command to access the data.
	--ata Specify that the binary file was retrieved from an ATA device.
–OR–	
	--nvme Specify that the binary file was retrieved from an NVMe device.
–OR–	
	--scsi Specify that the binary file was retrieved from a SCSI device.
	-r, --raw Dump the raw buffer.
–OR–	
	--raw-limit <bytes> Dump the raw buffer, with at most, this many bytes.
–OR–	
	-s <path>, --save <path> Saves the device output to the path specified.
	--data-area <0 1 2 3 4> Specify the highest NVMe telemetry data area to retrieve. The default value is 3.
–OR–	
	-t <type[,max size]>, --get-type <type[,max size]> (accepted multiple times) Specify NVMe telemetry section type to extract, with an optional maximum size limit in bytes. Note, may not be supported for all NVMe devices.
–OR–	
	-e <type[,max size]]>, --exclude-type <type[,max size]]> (accepted multiple times) Specify NVMe telemetry section type to exclude. If an optional maximum size limit, in bytes, is specified, then this section type will be read up to the specified limit. Note, may not be supported for all NVMe devices.
–OR–	
	--show-dui-header Show NVMe telemetry log (log 7h) header - will not collect telemetry log. Note, may not be supported for all NVMe devices.
	-m, --mirror Uses the NVMe mirror command instead of the NVMe standard command.
–OR–	

Command	getlog
	<b>--no-mirror</b> Uses the NVMe standard command instead of the NVMe mirror command. Useful only for NVMe Error Information log (1h).
	<b>--no-progress</b> No progress display.
–OR–	
	<b>--progress-bar</b> Display a full screen progress bar screen.
–OR–	
	<b>--simple-progress</b> Prevent the display of the progress bar screen, useful when running commands from a script.
	<b>--logoutput</b> Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	<b>--logfile &lt;filename&gt;</b> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	<b>-R &lt;filename&gt;, --redirect &lt;filename&gt;</b> Redirects the screen output to the file specified.
	<b>--trace</b> Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	<b>--trace-with-scan</b> Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	<b>--no-trace</b> Disable trace logging.
	<b>-l &lt;log number&gt;, --log &lt;log number&gt;</b> Specify the NVMe log page id (LID) to be retrieved or the ATA log address to be retrieved or the SCSI page code to be retrieved. Refer to the appendix of the user guide for a list of log numbers and names. Default value is 0.
	<b>--lsp &lt;log specific number&gt;</b> Specify the NVMe log specific field (LSP) value. Default value is 0.
	<b>--lpo &lt;log page offset&gt;</b> Specify the log page offset for an NVMe device. Ignore for non-NVMe devices. Default value is 0.
	<b>-u &lt;uuid index&gt;, --uuid-index &lt;uuid index&gt;</b> Specify the NVMe UUID Index (0-7fh). Default value is 0. This field is only valid for NVMe devices. It will be ignored for ATA/SCSI devices.
	<b>--rae</b> Specify the NVMe Retain Asynchronous Event (rae) flag. It will be ignored for ATA/SCSI devices.

Command	getlog
	<p>-f &lt;value&gt;, --features &lt;value&gt; Specify the ATA General Purpose Log address FEATURE value. Used only on some GPL addresses. Default value is 0.</p>
	<p>-p &lt;page list&gt;, --pages &lt;page list&gt; Pages from the ATA log address or SCSI subpage code to be retrieved. If not specified, all the pages are displayed. The following notations are supported for pageList: x x..y x..+y[,x x..y x..+y].</p>
	<p>--ignore-directory Skips the check if the log exists and tries the command.</p>
	<p>-S &lt;bytes&gt;, --size &lt;bytes&gt; Specify the number of bytes to read for NVMe devices.</p>
	<p>-b &lt;blocks&gt;, --block-count &lt;blocks&gt; Specify the maximum number of blocks to transfer per ATA command. Default value is 1.</p>
	<p>--lsi &lt;value&gt; Specify the log specific identifier (0-FFFFh) for NVMe devices. Default value is 0.</p>
	<p>--csi &lt;value&gt; Specify the command set identifier (0-FFh) for NVMe devices. Default value is 0.</p>
	<p>--force Force reading an empty NVMe telemetry-controller initiated log (lid=8h).</p>
	<p>--nsid &lt;value&gt; Specify the NVMe namespace ID value. Default value is dependent upon the options.</p>
	<p>-x &lt;transfer size&gt;, --xfer &lt;transfer size&gt; Specify the maximum size, in 4096 byte (4 KiB) units, to transfer per command. This is only used for NVMe devices. Default value is 1.</p>
	<p>--xml-decoder &lt;filename&gt; Decode additional data as described by this xml file. Please refer to the user guide appendix for the XML schema.</p>
	<p>--output &lt;text json xml csv csv-no-header&gt; Specify output format. Default value is text.</p>
	<p>--timeout &lt;seconds&gt; Timeout value, in seconds. Default value is 30.</p>
	<p>--oui &lt;oui&gt; Specify organizationally unique identifier (oui) when parsing a file.</p>
	<p>--clear-telemetry Clear NVMe controller-initiated telemetry log (lid 8h) after successfully reading the it.</p>
	<p>--sp Set the SCSI Log Sense SP bit (CDB[1] bit 0). By default, SP bit is cleared. Only valid for SCSI devices.</p>
	<p>--pc &lt;0 1 2 3&gt; Set the SCSI Log Sense PC bits (CDB[2], bit 7:6). The default value is 1. Only valid for SCSI devices.</p>
	<p>--supported Perform operation with only supported devices.</p>

Command	getlog
	<p>--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>

Command	getlog
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	<p>wdckit getlog disk0 -l 2</p> <p>-Retrieves and parses NVMe SMART / Health Information log (lid 2h) from 'disk0' (assuming an NVMe device).</p> <p>wdckit getlog /dev/nvme0 -l 2</p> <p>-Retrieves and parses NVMe SMART / Health Information log (lid 2h) from '/dev/nvme0'.</p>
	<p>wdckit getlog disk0 -l 2 -r</p> <p>-Display NVMe SMART / Health Information log (lid 2h) raw data for 'disk0' (assuming an NVMe device).</p> <p>wdckit getlog /dev/nvme0 -l 2 -r</p> <p>-Display NVMe SMART / Health Information log (lid 2h) raw data for '/dev/nvme0'.</p>
	<p>wdckit getlog disk0 -l 2 -s .</p> <p>-Saves NVMe SMART / Health Information log (lid 2h) data from 'disk0' into a binary file in the current directory (.) (assuming an NVMe device).</p> <p>wdckit getlog /dev/nvme0 -l 2 -s .</p> <p>-Saves NVMe SMART / Health Information log (lid 2h) data from '/dev/nvme0' into a binary file in the current directory (.).</p>
	<p>wdckit getlog disk0 -l 19h --lsp 6h -s .</p> <p>-Starts NVMe Eye Opening Monitor (lid 19h) measurement (best quality) and saves data 'disk0' into a binary file in the current directory (.) (assuming an NVMe device).</p> <p>wdckit getlog /dev/nvme0 -l 19h --lsp 6h -s .</p> <p>-Starts NVMe Eye Opening Monitor (lid 19h) measurement (best quality) and saves data '/dev/nvme0' into a binary file in the current directory (.).</p>
	<p>wdckit getlog error.bin -l 1 --nvme</p> <p>-Parses NVMe Error log (lid 1h) content of 'error.bin'.</p>

Command	getlog
	<p>wdckit getlog disk0 disk1 -l 4</p> <p>-Retrieves and parses ATA Device Statistics Log (log address 4h) from 'disk0' and 'disk1' (assuming an ATA device).</p> <p>wdckit getlog /dev/sda /dev/sdb -l 4</p> <p>-Retrieves and parses ATA Device Statistics Log (log address 4h) from '/dev/sda' and '/dev/sdb'.</p>
	<p>wdckit getlog disk0 disk1 -l 4 -p 0..3</p> <p>-Retrieves ATA Device Statistics Log (log address 4h) from 'disk0' and 'disk1' and parses only pages 0 to 3 (assuming an ATA device).</p> <p>wdckit getlog /dev/sda /dev/sdb -l 4 -p 0..3</p> <p>-Retrieves ATA Device Statistics Log (log address 4h) from '/dev/sda' and '/dev/sdb' and parses only pages 0 to 3.</p>
	<p>wdckit getlog all -l 4 -p 0,3..+5</p> <p>-Retrieves ATA Device Statistics Log (log address 4h) of all supported ATA devices and parses log page 0 and log pages 3 to 7 (5 consecutive pages) if present (assuming an ATA device).</p> <p>wdckit getlog all -l 4 -p 0,3..+5</p> <p>-Retrieves ATA Device Statistics Log (log address 4h) of all supported ATA devices and parses log page 0 and log pages 3 to 7 (5 consecutive pages) if present.</p>
	<p>wdckit getlog smartctl.txt -l A0h --save . --ata</p> <p>-Convert text file smartctl.txt to a binary file in the current directory (.) (smartctl.txt_{DDMMYYYY_HHMMSS}_file_{VERSION}.bin).</p>
	<p>wdckit getlog disk0 -l 10h</p> <p>-Retrieves and parses SCSI Self-Test Results log (page code 10h) from 'disk0' (assuming a SCSI device).</p> <p>wdckit getlog /dev/nvme0 -l 10h</p> <p>-Retrieves and parses SCSI Self-Test Results log (page code 10h) from '/dev/nvme0'.</p>
	<p>wdckit getlog disk0 -l 7 --show-dui-header</p> <p>-Shows telemetry log's DUI header from 'disk0' (assuming an NVMe device).</p> <p>wdckit getlog /dev/nvme0 -l 7 --show-dui-header</p> <p>-Shows telemetry log's DUI header from '/dev/nvme0'.</p>

Command	getlog
	<p>wdckit getlog disk0 -l 7 -t 2 -t 15 -s .</p> <p>-Saves partial telemetry log (get section type 2 and 15) as a zip file in the current directory (.) from 'disk0' (assuming an NVMe device).</p> <p>wdckit getlog /dev/nvme0 -l 7 -t 2 -t 15 -s .</p> <p>-Saves partial telemetry log (get section type 2 and 15) as a zip file in the current directory (.) from '/dev/nvme0'.</p>

Command	getsmart
Description	Retrieves the SMART data and the SMART status with SMART trip parameter, if any, from the device.
Restriction (s)	
	This task is only valid for an actual device or file target.
	This task is only valid for WDC targets.
Usage	
wdckit	<p>getsmart &lt;&lt;devList filename&gt; ... --model &lt;model number&gt; ... --serial &lt;serial number&gt; ...&gt; [-a -r --raw-limit &lt;bytes&gt; -S -s &lt;path&gt;] [--logoutput logfile &lt;filename&gt; -R &lt;filename&gt;] [--trace --trace-with-scan --no-trace] [--output &lt;text json xml csv csv-no-header&gt;] [--nsid &lt;value&gt;] [-f] [-n &lt;filename&gt;] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag &lt;flag bits&gt;] [-z] [--log-level &lt;silent error info debug cmd-debug&gt;] [-h]</p>
REQUIRED	
	<p>&lt;devList filename&gt; (accepted multiple times) Device or file name(s) to execute getsmart command.</p>
–OR–	
	<p>--model &lt;model number&gt; (accepted multiple times) Filter devices that only match this model number.</p>
–OR–	
	<p>--serial &lt;serial number&gt; (accepted multiple times) Filter devices that only match this serial number.</p>
OPTIONAL	
	<p>-a, --attributes Retrieves the SMART attributes of the device.</p>
–OR–	
	<p>-r, --raw Dump the raw buffer.</p>
–OR–	
	<p>--raw-limit &lt;bytes&gt; Dump the raw buffer, with at most, this many bytes.</p>
–OR–	



Command	getsmart
	-S, --status Retrieves the SMART status of the device.
–OR–	
	-s <path>, --save <path> Saves the device output to the path specified.
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	--output <text json xml csv csv-no-header> Specify output format. Default value is text.
	--nsid <value> Specify the NVMe namespace ID value. Default value is dependent upon the options.
	-f, --fail Retrieves the SMART failed attributes of the device.
	-n <filename>, --namesub <filename> Takes xml filename as input for name substitution of attributes.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).

Command	getsmart
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>
	<p>--log-level &lt;silent error info debug cmd-debug&gt; Change log level. Default value is cmd-debug.</p>
	<p>-h, --help Display help and exit.</p>
Example(s)	
	<p>wdckit getsmart all -a</p> <p>-Retrieves SMART attributes of all the supported devices.</p>

Command	getsmart
	<p>wdckit getsmart disk0 -r --redirect smart.txt</p> <p>-Retrieves SMART Read Data of device 'disk0' and output is stored in smart.txt in current directory.</p> <p>wdckit getsmart /dev/sda -r --redirect smart.txt</p> <p>-Retrieves SMART Read Data of device '/dev/sda' and output is stored in smart.txt in current directory.</p>
	<p>wdckit getsmart disk0 disk1 -S --nobanner</p> <p>-Retrieves SMART status of devices 'disk0' and 'disk1' and the banner is suppressed.</p> <p>wdckit getsmart /dev/sda /dev/sdb -S --nobanner</p> <p>-Retrieves SMART status of devices '/dev/sda' and '/dev/sdb' and the banner is suppressed.</p>

Command	getsmr
Description	Retrieves the vendor specific SMR data from supported WDC devices.
Restriction (s)	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
	This task is only valid for SATA targets.
Usage	
wdckit	<p>getsmr &lt;&lt;devList&gt; ... --model &lt;model number&gt; ... --serial &lt;serial number&gt; ...&gt; [--auto-detect --use-rra --use-only-default] [--progress-bar --simple-progress --no-progress] [--logoutput --logfile &lt;filename&gt; -R &lt;filename&gt;] [--trace --trace-with-scan --no-trace] [-s &lt;path&gt;] [-a] [--xfer &lt;bytes&gt;] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag &lt;flag bits&gt;] [-z] [--log-level &lt;silent error info debug cmd-debug&gt;] [-h]</p>
REQUIRED	
	<p>&lt;devList&gt; (accepted multiple times)</p> <p>Device name(s) to execute getsmr command.</p>
–OR–	
	<p>--model &lt;model number&gt; (accepted multiple times)</p> <p>Filter devices that only match this model number.</p>
–OR–	
	<p>--serial &lt;serial number&gt; (accepted multiple times)</p> <p>Filter devices that only match this serial number.</p>
OPTIONAL	

Command	getsmr
	<b>--auto-detect</b> Detect log collection method. Slower but more reliable than the default. This is only used with L-H ATA devices and is ignored for all others device types.
–OR–	
	<b>--use-rra</b> Collects log via alternate method (read log dump aka read reserved area).
–OR–	
	<b>--use-only-default</b> Collects log via default method only. Normally, when the default method fails, the alternate method will be tried. This option stops the alternate method. This is only used with L-H ATA devices and is ignored for all others device types.
	<b>--progress-bar</b> Display a full screen progress bar screen.
–OR–	
	<b>--simple-progress</b> Prevent the display of the progress bar screen, useful when running commands from a script.
–OR–	
	<b>--no-progress</b> No progress display.
	<b>--logoutput</b> Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	<b>--logfile &lt;filename&gt;</b> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	<b>-R &lt;filename&gt;, --redirect &lt;filename&gt;</b> Redirects the screen output to the file specified.
	<b>--trace</b> Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	<b>--trace-with-scan</b> Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	<b>--no-trace</b> Disable trace logging.
	<b>-s &lt;path&gt;, --save &lt;path&gt;</b> Saves the device output to the path specified.
	<b>-a, --collect-all</b> Collects all conditional data.

Command	getsmr
	<p>--xfer &lt;bytes&gt; Specify maximum number of bytes to transfer per command for L-H devices. Must be a multiple of 512. Default values is 64KB.</p>
	<p>--supported Perform operation with only supported devices.</p>
	<p>--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>

Command	getsmr
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit getsmr all  -Retrieves from all the supported devices.
	wdckit getsmr disk0 disk1 -s c:1  -Retrieves from device 'disk0' and 'disk1' and saves the log into c:1.  wdckit getsmr /dev/sda /dev/sdb -s /home  -Retrieves from device '/dev/sda' and '/dev/sdb' and saves the log into /home.

Command	help
Description	Displays help information about wdckit commands.
Usage	
wdckit	help [<command name>] [-n -d -e -s -r] [--chdd --ehdd --hdd -a] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-o <w l f windows linux freebsd>] [-t <label>] [--supported] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
OPTIONAL	
	<command name> Any wdckit command for which help information is required. Always a particular command at once.
	-n, --syntax Displays syntax for command.
–OR–	
	-d, --description Displays description for command.
–OR–	
	-e, --examples Displays examples for command.
–OR–	
	-s, --shortdescription Displays short description for command.
–OR–	

Command	help
	-r, --restriction Displays restriction(s) for command.
	--chdd Filter help to include functions that support client HDD devices.
–OR–	
	--ehdd Filter help to include functions that support enterprise HDD devices.
–OR–	
	--hdd Filter help to include functions that support HDD devices.
–OR–	
	-a, --all Show help for every function.
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-o <w l f windows linux freebsd>, --operatingsystem <w l f windows linux freebsd> Displays examples for specified operating system. Use 'w' for Windows and 'l' for Linux.
	-t <label>, --table <label> Save table of command line args to 'label-flag.csv' and 'label-desc.csv'. Best case usage is all commands, eg: 'wdckit help "*" -t label'
	--supported Perform operation with only supported devices.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.

Command	help
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit help -a  -Shows help information for all wdckit commands.
	wdckit help show -d  -Shows command description only for show command.

Command	idd
Description	Retrieves the Identify data of the ATA or NVMe device or Inquiry data for SCSI devices.
Restriction(s)	
	This task is only valid for an actual device or file target.
Usage	
wdckit	idd [<devList filename> ... --model <model number> ... --serial <serial number> ...] [-r --raw-limit <bytes> -s <path>] [-c -n -d] [-v <page code> --scsi-inq] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-l] [--zns] [--cns <cns value>] [--nsid <value>] [-u <uuid index>] [--csi <csi value>] [--cntid <cntid value>] [--cnssi <cnssi value>] [--xml-decoder <filename>] [--output <text json xml csv csv-no-header>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
OPTIONAL	
	<devList filename> (accepted multiple times) Device or file name(s) to execute idd command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
	-r, --raw Dump the raw buffer.
–OR–	
	--raw-limit <bytes> Dump the raw buffer, with at most, this many bytes.
–OR–	



Command	idd
	-s <path>, --save <path> Saves the device output to the path specified.
	-c, --controller Displays the Identify Controller Data for an NVMe device (CNS=01h). Displays the Identify Device Data for an ATA device. SCSI devices are not valid.
–OR–	
	-n, --namespace Displays the Identify Namespace Data of the NVMe device (CNS=00h). ATA and SCSI devices are not valid.
–OR–	
	-d, --desc Displays the Namespace Identification Descriptor list (CNS=03h).
	-v <page code>, --vpd <page code> Display SCSI inquiry vital product data for a SCSI device. NVMe and ATA devices are not valid.
–OR–	
	--scsi-inq Display SCSI standard inquiry data for a device.
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-l, --list Displays the controller list (CNS=13h), when used with -c --controller or displays the active Namespace ID list (CNS=02h) when used with -n --namespace of the NVMe device. ATA and SCSI devices are not valid.

Command	idd
	<p>--zns Display the identify controller ZNS specific data (CNS=06h), when used with -c --controller or display the identify namespace ZNS specific data (CNS=05h), when used with -n --namespace of the NVMe device. ATA and SCSI devices are not valid.</p>
	<p>--cns &lt;cns value&gt; NVMe controller or namespace structure. Mutually exclusive with -c --controller, -n --namespace, -l --list, --zns. Default value is 0.</p>
	<p>--nsid &lt;value&gt; Specify the NVMe namespace ID value. Default value is dependent upon the options.</p>
	<p>-u &lt;uuid index&gt;, --uuid-index &lt;uuid index&gt; Specify the NVMe UUID Index (0-7fh). Default value is 0. This field is only valid for NVMe devices. It will be ignored for ATA/SCSI devices.</p>
	<p>--csi &lt;csi value&gt; NVMe Command Set Identifier value. Used for ZNS commands. Default value is 2.</p>
	<p>--cntid &lt;cntid value&gt; NVMe Controller Identifier value. Default value is 0.</p>
	<p>--cnssi &lt;cnssi value&gt; NVMe CNS Specific Identifier value. Default value is 0.</p>
	<p>--xml-decoder &lt;filename&gt; Decode additional data as described by this xml file. Please refer to the user guide appendix for the XML schema.</p>
	<p>--output &lt;text json xml csv csv-no-header&gt; Specify output format. Default value is text.</p>
	<p>--supported Perform operation with only supported devices.</p>
	<p>--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>

Command	idd
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit idd all  -Retrieves Identify Data of all the supported devices.
	wdckit idd disk0 --redirect identifyData.txt  -Retrieves Identify Data of device 'disk0' and output is stored in identifyData.txt in current directory.  wdckit idd /dev/sda --redirect identifyData.txt  -Retrieves Identify Data of device '/dev/sda' and output is stored in identifyData.txt in current directory.

Command	idd
	<p>wdckit idd disk0 disk1 --nobanner</p> <p>-Retrieves Identify Data of devices 'disk0' and 'disk1' and the banner is suppressed.</p> <p>wdckit idd /dev/sda /dev/sdb --nobanner</p> <p>-Retrieves Identify Data of devices '/dev/sda' and '/dev/sdb' and the banner is suppressed.</p>
	<p>wdckit idd disk0 --namespace</p> <p>-Retrieves Identify Namespace Data for 'disk0'.</p> <p>wdckit idd /dev/nvme0 --namespace</p> <p>-Retrieves Identify Namespace Data for '/dev/nvme0'.</p>
	<p>wdckit idd disk0 --namespace --list</p> <p>-Retrieves Identify Namespace List Data for 'disk0'.</p> <p>wdckit idd /dev/nvme0 --namespace --list</p> <p>-Retrieves Identify Namespace List Data for '/dev/nvme0'.</p>
	<p>wdckit idd disk0 --controller --list</p> <p>-Retrieves Identify Controller List Data for 'disk0'.</p> <p>wdckit idd /dev/nvme0 --controller --list</p> <p>-Retrieves Identify Controller List Data for '/dev/nvme0'.</p>
	<p>wdckit idd disk0 --zns --nsid 2 --namespace</p> <p>-Retrieves ZNS Identify Namespace Data for namespace ID 2 for 'disk0'.</p> <p>wdckit idd /dev/nvme0 --zns --nsid 2 --namespace</p> <p>-Retrieves ZNS Identify Namespace Data for namespace ID 2 for '/dev/nvme0'.</p>
	<p>wdckit idd disk0 --zns --controller</p> <p>-Retrieves ZNS Identify Controller Data for 'disk0'.</p> <p>wdckit idd /dev/nvme0 --zns --controller</p> <p>-Retrieves ZNS Identify Controller Data for '/dev/nvme0'.</p>

Command	idd
	<p>wdckit idd disk0 --zns --namespace --list --csi 2</p> <p>-Retrieves ZNS Identify Active Namespace List Data with CSI set to 2 for 'disk0'.</p> <p>wdckit idd /dev/nvme0 --zns --namespace --list --csi 2</p> <p>-Retrieves ZNS Identify Active Namespace List Data with CSI set to 2 for '/dev/nvme0'.</p>
	<p>wdckit idd disk0 --cns 0</p> <p>-Retrieves Identify Namespace Data for 'disk0'.</p> <p>wdckit idd /dev/nvme0 --cns 0</p> <p>-Retrieves Identify Namespace Data for '/dev/nvme0'.</p>

Command	logdump
Description	Dump logs from specified devices.
Restriction(s)	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
	This task requires the device to be ready.
Usage	
wdckit	logdump [<devList> ... --model <model number> ... --serial <serial number> ...] [--auto-detect --use-rra --use-only-default] [--inc-start --inc-update --inc-max --inc-min-io] [--progress-bar --simple-progress --no-progress] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-s <path>] [--default] [--short] [--south-dump] [--ati] [--p-list] [--fly-height] [--partial-context] [--metadata] [--fly-height2] [--snr-ow] [--servo] [--erp] [--cpu] [--rw-incr] [--partial-context2] [--nand-smart] [--excursion] [--latency] [--workload-tracking] [--workload-tracking-0] [--workload-tracking-1] [--workload-tracking-2] [--workload-tracking-3] [--all-modes] [--mode <mode byte> ...] [--fact] [-t <bytes>] [-2] [--no-sanitize-status] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
OPTIONAL	
	<devList> (accepted multiple times) Device name(s) to execute logdump command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.

Command	logdump
	<code>--auto-detect</code> Detect log collection method. Slower but more reliable than the default. This is only used with L-H ATA devices and is ignored for all others device types.
–OR–	
	<code>--use-rra</code> Collects log via alternate method (read log dump aka read reserved area).
–OR–	
	<code>--use-only-default</code> Collects log via default method only. Normally, when the default method fails, the alternate method will be tried. This option stops the alternate method. This is only used with L-H ATA devices and is ignored for all others device types.
	<code>--inc-start</code> Collects incremental starting log (mode 0x80). This in only used with L-H devices.
–OR–	
	<code>--inc-update</code> Collects incremental update log (mode 0x81). This in only used with L-H devices.
–OR–	
	<code>--inc-max</code> Collects incremental log with maximum log entries (specified in mode page 0x1C, sub-page 0xE5) (mode 0x82). This in only used with L-H devices.
–OR–	
	<code>--inc-min-io</code> Collects incremental log minimizing host IO (mode 0x83). This in only used with L-H devices.
	<code>--progress-bar</code> Display a full screen progress bar screen.
–OR–	
	<code>--simple-progress</code> Prevent the display of the progress bar screen, useful when running commands from a script.
–OR–	
	<code>--no-progress</code> No progress display.
	<code>--logoutput</code> Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	<code>--logfile &lt;filename&gt;</code> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	<code>-R &lt;filename&gt;, --redirect &lt;filename&gt;</code> Redirects the screen output to the file specified.

Command	logdump
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-s <path>, --save <path> Saves the device output to the path specified.
	--default Collects default modes (normal 0x10, latest snapshot 0x11, older snapshot 0x21 and oldest snapshot 0x31). This in only used with L-H devices. If no mode is specified, this is the default logdump collection method.
	--short A small log for data-collection purposes (mode 0x00). This in only used with L-H devices.
	--south-dump Collects debug information for SSDs only (mode 0x03). This in only used with L-H devices.
	--ati Collects device Adjacent Track Interference (ATI) data (mode 0x12). This in only used with L-H devices.
	--p-list Collects device P-List data (mode 0x13). This in only used with L-H devices.
	--fly-height Collects device Fly-height data (mode 0x14). This in only used with L-H devices.
	--partial-context Collects device partial context data (mode 0x15). This in only used with L-H devices.
	--metadata Collects the flash stored metadata (mode 0x16). This in only used with L-H devices.
	--fly-height2 Collects device Fly-height 2 data (mode 0x17). This in only used with L-H devices.
	--snr-ow Collects the SNR/OW data (mode 0x18). This in only used with L-H devices.
	--servo Collects the servo error log data (mode 0x19). This in only used with L-H devices.
	--erp Collects the ERP historgram data (mode 0x1A). This in only used with L-H devices.

Command	logdump
	<b>--cpu</b> Collects the CPU performance data (mode 0x1B). This in only used with L-H devices.
	<b>--rw-incr</b> Collects the RW incremental log data (mode 0x1C). This in only used with L-H devices.
	<b>--partial-context2</b> Collects device partial context 2 data (mode 0x1D). This in only used with L-H devices.
	<b>--nand-smart</b> Collects device Nand SMART data (mode 0x1E). This in only used with L-H devices.
	<b>--excursion</b> Collects device excursion log data (mode 0x20). This in only used with L-H devices.
	<b>--latency</b> Collects device latency monitor data (mode 0x22). This in only used with L-H devices.
	<b>--workload-tracking</b> Collects the working tracking data (mode 0xA0). This in only used with L-H devices.
	<b>--workload-tracking-0</b> Collects the working tracking data (mode 0xA0). This in only used with L-H devices.
	<b>--workload-tracking-1</b> Collects the working tracking data (mode 0xA1). This in only used with L-H devices.
	<b>--workload-tracking-2</b> Collects the working tracking data (mode 0xA2). This in only used with L-H devices.
	<b>--workload-tracking-3</b> Collects the working tracking data (mode 0xA3). This in only used with L-H devices.
	<b>--all-modes</b> Collects all available logs. This in only used with L-H devices.
	<b>--mode &lt;mode byte&gt;</b> (accepted multiple times) Collect this E6 mode. This in only used with L-H devices.
	<b>--fact</b> Collects the FACT log.
	<b>-t &lt;bytes&gt;, --transfer-size &lt;bytes&gt;</b> Specify maximum number of bytes to transfer per command. Default values is 64KB.
	<b>-2, --two-ports</b> Collects 2 logs, one for each port of a SAS device.
	<b>--no-sanitize-status</b> Do not check ATA sanitize status, which on some systems, may not operate correctly.
	<b>--supported</b> Perform operation with only supported devices.



Command	logdump
	<p>--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>

Command	logdump
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit logdump all  -Dump log from all supported devices.
	wdckit logdump disk0  -Dump log from 'disk0'.  wdckit logdump /dev/sda  -Dump log from '/dev/sda'.
	wdckit logdump disk0 --all-modes  -Dump all modes from 'disk0'.  wdckit logdump /dev/sda --all-modes  -Dump all modes from '/dev/sda'.

Command	quit
Description	Exit the CLI.
Usage	
wdckit	quit
Example(s)	

Command	rdp
Description	Performs RDP (repurpose depopulation) on a SCSI or ATA device. RDP is also known as the storage element feature set.
Restriction(s)	
	This task is only valid for an actual ATA/SCSI device or file target.
	This task is not allowed on a boot device.
	This task is only valid for WDC targets.
	RDP support was not detected.
Usage	

Command	rdp
wdckit	rdp <<device name filename> --model <model number> ... --serial <serial number> ...> <-g -r <head> --repop-all> [--raw --raw-limit <bytes> -s <path>] [--no-progress --progress-bar --simple-progress] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-H <head>] [-t <type>] [-f <filter>] [-m <LBA>] [--retry-limit <count>] [-b <bytes>] [--danger-zone] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	<device name filename> Device or file name to execute rdp command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-g, --gpes Get physical element status.
–OR–	
	-r <head>, --ret <head> Remove element and truncate. Specified the element to remove.
–OR–	
	--repop-all Revert all removed elements with a restore elements and rebuild command.
<b>OPTIONAL</b>	
	--raw Dump the raw buffer.
–OR–	
	--raw-limit <bytes> Dump the raw buffer, with at most, this many bytes.
–OR–	
	-s <path>, --save <path> Saves the device output to the path specified.
	--no-progress No progress display.
–OR–	
	--progress-bar Display a full screen progress bar screen.
–OR–	
	--simple-progress Prevent the display of the progress bar screen, useful when running commands from a script.

Command	rdp
	<b>--logout</b> Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	<b>--logfile &lt;filename&gt;</b> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	<b>-R &lt;filename&gt;, --redirect &lt;filename&gt;</b> Redirects the screen output to the file specified.
	<b>--trace</b> Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	<b>--trace-with-scan</b> Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	<b>--no-trace</b> Disable trace logging.
	<b>-H &lt;head&gt;, --head &lt;head&gt;</b> Specify the starting element field for the get physical element status operation. Default value is 1.
	<b>-t &lt;type&gt;, --report-type &lt;type&gt;</b> Specify the report type field for the get physical element status operation. Value must be from 0 to 15, inclusive. Default value is 0.
	<b>-f &lt;filter&gt;, --filter &lt;filter&gt;</b> Specify the filter field for the get physical element status operation. Value must be from 0 to 3, inclusive. Default value is 0.
	<b>-m &lt;LBA&gt;, --max-lba &lt;LBA&gt;</b> Specify the requested maximum LBA for the remove element and truncate operation. Defaults to 0 which allows the device to specify the maximum LBA after successful command completion. Default value is 0.
	<b>--retry-limit &lt;count&gt;</b> Specify a retry limit. Value must be between 0 and 15. Used for only -r (--ret) or (--repop-all). Default value is 0 (no retries).
	<b>-b &lt;bytes&gt;, --blocksize &lt;bytes&gt;</b> Specify the block size, in bytes when decoding a filename. Valid values for ATA sourced binary files: 512, 4096. Valid values for SCSI sourced binary files: 512, 520, 528, 4096, 4112, 4160, 4224.
	<b>--danger-zone</b> Flag tells the application that you know you are going to destroy your data with this command and will not prompt the user.
	<b>--supported</b> Perform operation with only supported devices.

Command	rdp
	<p>--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>

Command	rdp
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit rdp disk0 -g -Show the get physical element status (gpes) log for device 'disk0'.  wdckit rdp /dev/sda -g -Show the get physical element status (gpes) log for device '/dev/sda'.
	wdckit rdp disk0 -g -f 1 -Show a filtered get physical element status (gpes) log for device 'disk0'. The output will show only elements that are outside the spec limit or has been depopulated.  wdckit rdp /dev/sda -g -f 1 -Show a filtered get physical element status (gpes) log for device '/dev/sda'. The output will show only elements that are outside the spec limit or has been depopulated.
	wdckit rdp disk0 -g -t 1 -Show a get physical element status (gpes) log for device 'disk0' with only storage elements.  wdckit rdp /dev/sda -g -t 1 -Show a get physical element status (gpes) log for device '/dev/sda' with only storage elements.
	wdckit rdp disk0 -g -s . -Saves the get physical element status (gpes) log for device 'disk0' to the current folder.  wdckit rdp /dev/sda -g -s . -Saves the get physical element status (gpes) log for device '/dev/sda' to the current folder.
	wdckit rdp disk0 -r 6 -Depopulates head 6 from 'disk0'.  wdckit rdp /dev/sda -r 6 -Depopulates head 6 from '/dev/sda'.

<b>Command</b>	<b>reset</b>
<b>Description</b>	Perform a reset for supported devices and OS drivers. Beware - this operation may be dangerous. Note, some OSes / drivers do not allow a reset. Only supported in Linux and Windows.
<b>Restriction(s)</b>	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
<b>Usage</b>	
wdckit	reset <<devList> ... --model <model number> ... --serial <serial number> ...> [--logout --logfile <filename> --R <filename>] [--trace --trace-with-scan --no-trace] [-f] [-r] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	<devList> (accepted multiple times) Device name(s) to execute reset command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
<b>OPTIONAL</b>	
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	

Command	reset
	--no-trace Disable trace logging.
	-f, --force Force the reset operation without asking for user confirmation.
	-r, --rescan Linux only: After reset, initiate a rescan, which may be helpful if reported geometry (sector size and/or capacity) has changed.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).



Command	reset
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit reset disk0  -Perform a reset for the device 'disk0' which will require user confirmation.  wdckit reset /dev/sda  -Perform a reset for the device '/dev/sda' which will require user confirmation.
	wdckit reset disk0 -f  -Perform a reset for the device 'disk0' without waiting for user confirmation.  wdckit reset /dev/sda -f  -Perform a reset for the device '/dev/sda' without waiting for user confirmation.

Command	sasphypower
Description	Show, enable or disable SAS PHY power management (partial & slumber).
Restriction(s)	
	This task is only valid for an actual target.
	This task is only valid for SAS targets.
	This task is only valid for WDC targets.
Usage	
wdckit	sasphypower <<devList> ... --model <model number> ... --serial <serial number> ...> [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-p <boolean>] [-s <boolean>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
REQUIRED	

Command	sasphypower
	<devList> (accepted multiple times) Device name(s) to execute sasphypower command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
<b>OPTIONAL</b>	
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-p <boolean>, --partial <boolean> Specify partial value (0-1).
	-s <boolean>, --slumber <boolean> Specify slumber value (0-1).
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).

Command	<b>sasphypower</b>
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit sasphypower disk0  -Show SAS Phy power management for the device 'disk0' .  wdckit sasphypower /dev/sda  -Show SAS Phy power management for the device '/dev/sda' .

Command	<b>sasphypower</b>
	<pre>wdckit sasphypower disk0 -p 1 -s 1</pre> <p>-Enable SAS Phy partial and slumber for the device 'disk0' .</p> <pre>wdckit sasphypower /dev/sda -p 1 -s 1</pre> <p>-Enable SAS Phy partial and slumber for the device '/dev/sda' .</p>
	<pre>wdckit sasphypower disk0 -p 0 -s 0</pre> <p>-Disable SAS Phy partial and slumber for the device 'disk0' .</p> <pre>wdckit sasphypower /dev/sda -p 0 -s 0</pre> <p>-Disable SAS Phy partial and slumber for the device '/dev/sda' .</p>

Command	<b>security</b>
Description	Performs the various security related features on the device. WARNING: TCG operations may erase user data - use with caution!
Restriction (s)	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
	This task is only valid in Linux when /sys/module/libata/parameters/allow_tpm=1.
Usage	
wdckit	<pre>security &lt;&lt;device name&gt; --model &lt;model number&gt; ... --serial &lt;serial number&gt; ...&gt; &lt;-g -a -i -s -e -d -l --unlock -c -v --erase-locking --msid-activate --msid-revert -p &lt;psid&gt; --stack-reset -L &lt;sid password&gt;&gt; [-A &lt;Admin password&gt; -B &lt;BandMaster password&gt; -E &lt;EraseMaster password&gt; -S &lt;SID password&gt;] [--admin -u &lt;1 2&gt; --sid -b &lt;-1 0-1023&gt; ... --erasemaster] [--raw --raw-limit &lt;bytes&gt;] [--progress-bar --simple-progress --no-progress] [--logoutput --logfile &lt;filename&gt; -R &lt;filename&gt;] [--trace --trace-with-scan --no-trace] [--skip-status] [--show-enabled-bands] [-U &lt;user password&gt;] [-o &lt;old password&gt;] [-n &lt;new password&gt;] [--range-start &lt;lba&gt;] [--range-length &lt;blocks&gt;] [-r &lt;true false&gt;] [-w &lt;true false&gt;] [--lock-on-reset &lt;true false&gt;] [-t &lt;seconds&gt;] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag &lt;flag bits&gt;] [-z] [--log-level &lt;silent error info debug cmd-debug&gt;] [-h]</pre>
REQUIRED	
	<pre>&lt;device name&gt;</pre> <p>Device name to execute security command.</p>
–OR–	
	<pre>--model &lt;model number&gt; (accepted multiple times)</pre> <p>Filter devices that only match this model number.</p>
–OR–	

Command	security
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-g, --get This option gets the security information from the device.
–OR–	
	-a, --activate For TCG Enterprise devices that support BDE/TCG firmware, will activate TCG. Not applicable for TCG Opal.
–OR–	
	-i, --inactivate For TCG Enterprise devices that support BDE/TCG firmware, will deactivate TCG.
–OR–	
	-s, --setadminpassword This option sets a new admin/bandmaster/erasemaster password on device. For TCG Opal, it must be executed with -A --Adminpassword option. For TCG Enterprise it must be executed with -B --bandmasterpassword, -E --erasemasterpassword or -S --sidpassword option. This option may also activate TCG.
–OR–	
	-e, --enable This option enables the new user along with its password. For TCG Opal, it must be executed with -u --user, -U --Userpassword and -A --Adminpassword options. Not applicable for TCG Enterprise.
–OR–	
	-d, --disable This option disables the given user. For TCG Opal, it must be executed with -u --user and -A --Adminpassword options. Not applicable for TCG Enterprise.
–OR–	
	-l, --lock This option enables read/write locking and locks/unlocks read/write operations on the device. It must be executed with -r --readlock, -w --writelock and an appropriate password (-A --Adminpassword, -u --user (and -U --Userpassword) or -B --bandmasterpassword (and -b --bandmaster)) option. Bracketed option selection depends on who is issuing lock operation. For TCG Opal, use with -A --Adminpassword or -u --user. For TCG Enterprise, use with -B --bandmasterpassword.
–OR–	
	--unlock This options disables read/write locking operations on the device. It must be executed with an appropriate password (-A --Adminpassword, -u --user (and -U --Userpassword) or -B --bandmasterpassword (and -b --bandmaster)) option. Bracketed option selection depends on who is issuing lock operation. For TCG Opal, use with -A --Adminpassword or -u --user. For TCG Enterprise, use with -B --bandmasterpassword.
–OR–	

Command	security
	<p>-c, --changepassword</p> <p>This option changes Admin/User/BandMaster/EraseMaster password on the device. It must be executed with -o --oldpassword, -n --newpassword. For TCG Opal and if issued by User1 or User2, also use -u --user option. For TCG Enterprise, use -B --bandmasterpassword, -E --erasemasterpassword or -S --sidpassword option.</p>
–OR–	
	<p>-v, --revert</p> <p>This option reverts the entire security configuration to defaults. For TCG Opal, it must be executed with -A --Adminpassword option. Not applicable for TCG Enterprise, use --erase-locking instead.</p>
–OR–	
	<p>--erase-locking</p> <p>This option shall cryptographically erase user data. For TCG Enterprise, it must be executed with -B --bandmasterpassword or -E --erasemasterpassword option. Not applicable for TCG Opal, use -v --revert instead.</p>
–OR–	
	<p>--msid-activate</p> <p>This option activates security configuration using MSID.</p>
–OR–	
	<p>--msid-revert</p> <p>This option reverts the entire security configuration to defaults using MSID.</p>
–OR–	
	<p>-p &lt;psid&gt;, --psidrevert &lt;psid&gt;</p> <p>This option reverts the entire security configuration to defaults using PSID. Use optional -t --timewait to specify the maximum time to wait. The default wait time is 30 seconds. The PSID argument is a 20 or 32 character value printed on the label.</p>
–OR–	
	<p>--stack-reset</p> <p>This option performs a TCG stack reset operation.</p>
–OR–	
	<p>-L &lt;sid password&gt;, --list-locking-ranges &lt;sid password&gt;</p> <p>This option lists all locking ranges. Not applicable for TCG Opal.</p>
<b>OPTIONAL</b>	
	<p>-A &lt;Admin password&gt;, --Adminpassword &lt;Admin password&gt;</p> <p>For TCG Opal, this option is used for taking Admin Password as input. It should be used with either -s (--setadminpassword), -l (--lock), (--unlock), -v (--revert), -e (--enable) or -d (--disable) options. Not applicable for TCG Enterprise.</p>
–OR–	
	<p>-B &lt;BandMaster password&gt;, --bandmasterpassword &lt;BandMaster password&gt;</p> <p>This option is used for taking BandMaster Password as input. It should be used with either -s (--setadminpassword), -l (--lock), (--unlock) or (--erase-locking) options. Not applicable for TCG Opal.</p>
–OR–	

Command	security
	<p>-E &lt;EraseMaster password&gt;, --erasemasterpassword &lt;EraseMaster password&gt;</p> <p>This option is used for taking EraseMaster Password as input. It should be used with either -s (--setadminpassword), -l (--lock), (--unlock), (--erase-locking) options. Not applicable for TCG Opal.</p>
-OR-	
	<p>-S &lt;SID password&gt;, --sidpassword &lt;SID password&gt;</p> <p>This option is used for taking SID Password as input. It should be used with either -s (--setadminpassword), -l (--lock), (--unlock), options. Not applicable for TCG Opal.</p>
	<p>--admin</p> <p>This option will change the Admin password. It should be used with -c (--changepassword). Not applicable for TCG Enterprise.</p>
-OR-	
	<p>-u &lt;1 2&gt;, --user &lt;1 2&gt;</p> <p>For TCG Opal, this option is used for taking User number as input. It should be used with either of -c (--changepassword), -l (--lock), -e (--enable) or -d (--disable) options. Not applicable for TCG Enterprise.</p>
-OR-	
	<p>--sid</p> <p>This option will change the SID password. It should be used with -c (--changepassword). Not applicable for TCG Opal.</p>
-OR-	
	<p>-b &lt;-1 0-1023&gt;, --bandmaster &lt;-1 0-1023&gt; (accepted multiple times)</p> <p>This option specifies the BandMaster value. It is required when -B --bandmasterpassword is used. A value of -1 will use all BandMaster values. Not applicable for TCG Opal.</p>
-OR-	
	<p>--erasemaster</p> <p>This option will change the EraseMaster password. It should be used with -c (--changepassword). Not applicable for TCG Opal.</p>
	<p>--raw</p> <p>Dump the raw buffer.</p>
-OR-	
	<p>--raw-limit &lt;bytes&gt;</p> <p>Dump the raw buffer, with at most, this many bytes.</p>
	<p>--progress-bar</p> <p>Display a full screen progress bar screen.</p>
-OR-	
	<p>--simple-progress</p> <p>Prevent the display of the progress bar screen, useful when running commands from a script.</p>
-OR-	
	<p>--no-progress</p> <p>No progress display.</p>

Command	security
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	--skip-status Pass the PSID regardless of the state of the device.
	--show-enabled-bands List only enabled locking ranges. Optional when -L (--list-locking-ranges) is present. Not applicable for TCG Opal.
	-U <user password>, --Userpassword <user password> For TCG Opal, this option is used for taking User Password as input. It should be used with either -l (--lock) or -e (--enable) options. Not applicable for TCG Enterprise.
	-o <old password>, --oldpassword <old password> This option is used for taking the old password as input while changing the password of Admin/User/BandMaster/EraseMaster.
	-n <new password>, --newpassword <new password> This option is used for taking new old password as input while changing the password of Admin/User/BandMaster/EraseMaster.
	--range-start <lba> This option specifies the range start LBA. Not applicable for TCG Opal.
	--range-length <blocks> This option specifies the range length. Not applicable for TCG Opal.
	-r <true false>, --readlock <true false> This option is used for taking Lock/Unlock value for read operation as input. The default value is false. It should be used with -l (--lock) option.
	-w <true false>, --writelock <true false> This option is used for taking Lock/Unlock value for write operation as input. The default value is false. It should be used with -l (--lock) option.



Command	security
	<p><code>--lock-on-reset &lt;true false&gt;</code>  This option is used for setting the lock on reset value. The default value is false. This is used only with <code>-l</code> (<code>--lock</code>). Not applicable for TCG Opal.</p>
	<p><code>-t &lt;seconds&gt;</code>, <code>--timewait &lt;seconds&gt;</code>  Specify timeout in seconds (15 to 3600). The default value is 30 seconds.</p>
	<p><code>--supported</code>  Perform operation with only supported devices.</p>
	<p><code>--no-win-disk</code>  Do not interact with Windows disk devices (eg <code>disk*</code> and only useful with the Windows version).</p>
	<p><code>--no-win-ctrl-hdc</code>  Do not interact with Windows controller HDC devices (eg storage space devices <code>disk*</code> or NVMe controllers without namespaces <code>nvme*</code> and only useful with the Windows version).</p>
	<p><code>--no-win-ctrl-scsi</code>  Do not interact with Windows controller SCSI devices (eg storage space devices <code>disk*</code> or NVMe controllers without namespaces <code>nvme*</code> and only useful with the Windows version).</p>
	<p><code>--no-win-csmi</code>  Do not interact with Windows CSMI devices (eg <code>csmi*</code> and only useful with the Windows version).</p>
	<p><code>--no-win-rste</code>  Do not interact with Windows RSTe devices (eg <code>rste*</code> and only useful with the Windows version).</p>
	<p><code>--no-win-amd-raid</code>  Do not interact with Windows AMD raid devices (eg <code>amdraid*</code> and only useful with the Windows version).</p>
	<p><code>--no-win-ses</code>  Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p><code>--no-linux-scsi</code>  Do not interact with Linux ATA/SCSI devices (eg <code>/dev/sg*</code> or <code>/dev/sd*</code> and only useful with the Linux version).</p>
	<p><code>--no-linux-nvme</code>  Do not interact with Linux NVMe devices (eg <code>/dev/nvme*</code> and only useful with the Linux version).</p>
	<p><code>--no-linux-wd-nvme</code>  Do not interact with Linux NVMe devices using the WD NVMe driver (eg <code>wdnvme_bdfs*</code> and only useful with the Linux version).</p>
	<p><code>--no-bsd-cam</code>  Do not interact with FreeBSD CAM devices (eg <code>/dev/ada*</code> and only useful with the FreeBSD version).</p>
	<p><code>--no-bsd-nvme</code>  Do not interact with FreeBSD NVMe devices (eg <code>/dev/nvme*</code> and only useful with the FreeBSD version).</p>
	<p><code>--no-ad</code>  Do not use the AD driver (only useful with the RAID version).</p>
	<p><code>--no-mr</code>  Do not use the MR driver (only useful with the RAID version).</p>

Command	security
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-Z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>
	<p>--log-level &lt;silent error info debug cmd-debug&gt; Change log level. Default value is cmd-debug.</p>
	<p>-h, --help Display help and exit.</p>
Example(s)	
	<p>wdckit security disk1 -s -A TestPassword</p> <p>-Sets the Admin Password as TestPassword for TCG Opal device 'disk1'.</p> <p>wdckit security /dev/nvme1 -s -A TestPassword</p> <p>-Sets the Admin Password as TestPassword for TCG Opal device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -s -S TestPassword</p> <p>-Sets the Security Identifier (SID) Password as TestPassword for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/nvme1 -s -S TestPassword</p> <p>-Sets the Security Identifier (SID) Password as TestPassword for TCG Enterprise device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -s -E TestPassword</p> <p>-Sets the EraseMaster Password as TestPassword for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/nvme1 -s -E TestPassword</p> <p>-Sets the EraseMaster Password as TestPassword for TCG Enterprise device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -s -B TestPassword -b -1</p> <p>-Sets all BandMaster Passwords as TestPassword for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/nvme1 -s -B TestPassword -b -1</p> <p>-Sets all BandMaster Passwords as TestPassword for TCG Enterprise device '/dev/nvme1'.</p>

Command	security
	<p>wdckit security disk1 -e -A TestPassword -u 1 -U UserPassword1</p> <p>-Makes Admin enable User1 on the device with User Password as UserPassword1 for TCG Opal device 'disk1'.</p> <p>wdckit security /dev/nvme1 -e -A TestPassword -u 1 -U UserPassword1</p> <p>-Makes Admin enable User1 on the device with User Password as UserPassword1 for TCG Opal device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -d -A TestPassword -u 1</p> <p>-Makes Admin disable User1 for TCG Opal device 'disk1'.</p> <p>wdckit security /dev/nvme1 -d -A TestPassword -u 1</p> <p>-Makes Admin disable User1 for TCG Opal device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -l -r true -w true -A TestPassword</p> <p>-Makes Admin enable Read Lock Operations and enable Write Lock Operations (LK) for TCG Opal device 'disk1'.</p> <p>wdckit security /dev/nvme1 -l -r true -w true -A TestPassword</p> <p>-Makes Admin enable Read Lock Operations and enable Write Lock Operations (LK) for TCG Opal device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -l -B TestPassword -b 0 -r true -w true --lock-on-reset true</p> <p>-Makes BandMaster0 enable Read Lock Operations and enable Write Lock Operations (LK) and enable Lock On Reset Operations for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/sdb -l -B TestPassword -b 0 -r true -w true --lock-on-reset true</p> <p>-Makes BandMaster0 enable Read Lock Operations and enable Write Lock Operations (LK) and enable Lock On Reset Operations for TCG Enterprise device '/dev/sdb'.</p>
	<p>wdckit security disk1 -l -r false -w true -A TestPassword</p> <p>-Makes Admin disable Read Lock Operations and enable Write Lock Operations (RO) for TCG Opal device 'disk1'.</p> <p>wdckit security /dev/nvme1 -l -r false -w true -A TestPassword</p> <p>-Makes Admin disable Read Lock Operations and enable Write Lock Operations (RO) for TCG Opal device '/dev/nvme1'.</p>

Command	security
	<p>wdckit security disk1 -l -B TestPassword -b 0 -r false -w true --lock-on-reset true</p> <p>-Makes BandMaster0 disable Read Lock Operations and enable Write Lock Operations (RO) and enable Lock On Reset Operations for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/sdb -l -B TestPassword -b 0 -r false -w true --lock-on-reset true</p> <p>-Makes BandMaster0 disable Read Lock Operations and enable Write Lock Operations (RO) and enable Lock On Reset Operations for TCG Enterprise device '/dev/sdb'.</p>
	<p>wdckit security disk1 -l -r false -w false -A TestPassword</p> <p>-Makes Admin disable Read Lock Operations and disable Write Lock Operations (RW) for TCG Opal device 'disk1'.</p> <p>wdckit security /dev/nvme1 -l -r false -w false -A TestPassword</p> <p>-Makes Admin disable Read Lock Operations and disable Write Lock Operations (RW) for TCG Opal device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -l -B TestPassword -b 0 -r false -w false --lock-on-reset true</p> <p>-Makes BandMaster0 disable Read Lock Operations and disable Write Lock Operations (RW) and enable Lock On Reset Operations for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/sdb -l -B TestPassword -b 0 -r false -w false --lock-on-reset true</p> <p>-Makes BandMaster0 disable Read Lock Operations and disable Write Lock Operations (RW) and enable Lock On Reset Operations for TCG Enterprise device '/dev/sdb'.</p>
	<p>wdckit security disk1 -c -o TestPassword -n TestPassword2 --admin</p> <p>-Changes Admin Password from TestPassword to TestPassword2 for TCG Opal device 'disk1'.</p> <p>wdckit security /dev/nvme1 -c -o TestPassword -n TestPassword2 --admin</p> <p>-Changes Admin Password from TestPassword to TestPassword2 for TCG Opal device '/dev/nvme1'.</p>

Command	security
	<p>wdckit security disk1 -c -o TestPassword -n TestPassword2 -b 0</p> <p>-Changes BandMaster0 Passwords from TestPassword to TestPassword2 for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/nvme1 -c -o TestPassword -n TestPassword2 -b 0</p> <p>-Changes BandMaster0 Passwords from TestPassword to TestPassword2 for TCG Enterprise device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -c -o TestPassword -n TestPassword2 -b -1</p> <p>-Changes all BandMaster Passwords from TestPassword to TestPassword2 for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/nvme1 -c -o TestPassword -n TestPassword2 -b -1</p> <p>-Changes all BandMaster Passwords from TestPassword to TestPassword2 for TCG Enterprise device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -c -o TestPassword -n TestPassword2 --erasemaster</p> <p>-Changes EraseMaster Password from TestPassword to TestPassword2 for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/nvme1 -c -o TestPassword -n TestPassword2 --erasemaster</p> <p>-Changes EraseMaster Password from TestPassword to TestPassword2 for TCG Enterprise device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -c -o TestPassword -n TestPassword2 --sid</p> <p>-Changes SID Password from TestPassword to TestPassword2 for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/nvme1 -c -o TestPassword -n TestPassword2 --sid</p> <p>-Changes SID Password from TestPassword to TestPassword2 for TCG Enterprise device '/dev/nvme1'.</p>
	<p>wdckit security disk1 -p 00000000000000000000000000000000</p> <p>-This will perform the PSID revert operation on the device 'disk1'.</p> <p>Note: Depending upon the current security state on the device, user data may be erased. The PSID string should be printed on the label.</p> <p>wdckit security /dev/nvme1 -p 00000000000000000000000000000000</p> <p>-This will perform the PSID revert operation on the device '/dev/nvme1'.</p> <p>Note: Depending upon the current security state on the device, user data may be erased. The PSID string should be printed on the label.</p>

Command	security
	<p>wdckit security disk1 -a</p> <p>-This will activate TCG for TCG Enterprise with SKU reduction firmware device 'disk1'.</p> <p>wdckit security /dev/sdb -a</p> <p>-This will activate TCG for TCG Enterprise with SKU reduction firmware device '/dev/sdb'.</p>
	<p>wdckit security disk1 -i</p> <p>-This will inactivate TCG for TCG Enterprise with SKU reduction firmware device 'disk1'.</p> <p>wdckit security /dev/sdb -i</p> <p>-This will inactivate TCG for TCG Enterprise with SKU reduction firmware device '/dev/sdb'.</p>
	<p>wdckit security disk1 -L TestPassword</p> <p>-This will list all locking ranges for TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/sdb -L TestPassword</p> <p>-This will list all locking ranges for TCG Enterprise device '/dev/sdb'.</p>
	<p>wdckit security disk1 -L TestPassword -b 0 -b 1 -b 2 -b 3 -b 4 -b 5 -b 1021 -b 1022 -b 1023</p> <p>-This will list locking ranges for bands 0, 1, 2, 3, 4, 5, 1021, 1022 and 1023 on TCG Enterprise device 'disk1'.</p> <p>wdckit security /dev/sdb -L TestPassword -b 0 -b 1 -b 2 -b 3 -b 4 -b 5 -b 1021 -b 1022 -b 1023</p> <p>-This will list locking ranges for bands 0, 1, 2, 3, 4, 5, 1021, 1022 and 1023 on TCG Enterprise device '/dev/sdb'.</p>

Command	securityprofile
<b>Description</b>	Performs the various security profile related features on the ATA device.
<b>Restriction (s)</b>	
	This task is only valid for an actual target.
	This task is only valid for SATA targets.
	This task is only valid for WDC targets.
	This task is only valid in Linux when /sys/module/libata/parameters/allow_tpm=1.
<b>Usage</b>	

Command	securityprofile
wdckit	securityprofile <<devList> ... --model <model number> ... --serial <serial number> ...> <-g -c -s <security-profile>> [--logoutoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>REQUIRED</b>	
	<devList> (accepted multiple times) Device name(s) to execute securityprofile command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-g, --get This option is used to get all the supported Security Profiles of the Device.
–OR–	
	-c, --current This option is used to get the current Security Profile of the Device.
–OR–	
	-s <security-profile>, --set <security-profile> This option is used to set the new Security profile on the device.
<b>OPTIONAL</b>	
	--logoutoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.

Command	securityprofile
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.



Command	securityprofile
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit securityprofile disk0 -g  -This will get all the supported security profiles on the device.  wdckit securityprofile /dev/sda -g  -This will get all the supported security profiles on the device.
	wdckit securityprofile disk0 -c  -This will get the current security profile on the device.  wdckit securityprofile /dev/sda -c  -This will get the current security profile on the device.
	wdckit securityprofile disk0 -s 2  -This will set the security profile of the device to profile S2.  wdckit securityprofile /dev/sda -s 2  -This will set the security profile of the device to profile S2.

Command	selftest
Description	Runs the short or extended test on the device(s) specified by the user. Note, Windows 20H1 and later may impose a self test time restriction of 10 minutes between self tests to the same NVMe device.
Restriction(s)	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
	This task requires the device to be ready.
Usage	
wdckit	selftest <<devList> ... --model <model number> ... --serial <serial number> ...> <-s -e -a -p> [--progress-bar --simple-progress --no-progress] [--logoutput --logfile <filename>] [--trace --trace-with-scan --no-trace] [--nsid <value>] [-b] [-r] [-m] [--no-sanitize-status] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]

Command	selftest
<b>REQUIRED</b>	
	<devList> (accepted multiple times) Device name(s) to execute selftest command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-s, --short This option initiates the short Self Test on the device.
–OR–	
	-e, --extended This option initiates the extended Self Test on the device.
–OR–	
	-a, --abort This option aborts the running Self Test on the device.
–OR–	
	-p, --progress Query the self test progress.
<b>OPTIONAL</b>	
	--progress-bar Display a full screen progress bar screen.
–OR–	
	--simple-progress Prevent the display of the progress bar screen, useful when running commands from a script.
–OR–	
	--no-progress No progress display.
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	

Command	selftest
	--no-trace Disable trace logging.
	--nsid <value> Specify the NVMe namespace ID value. Default value is dependent upon the options.
	-b, --blocked Perform the self test operation as a blocking operation.
	-r, --result Shows result of the last Extended test execution from ATA log. Valid only with -e option. No result is available for non-ATA devices.
	-m, --mirror Uses the NVMe mirror command instead of the NVMe standard command.
	--no-sanitize-status Do not check ATA sanitize status, which on some systems, may not operate correctly.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).

Command	selftest
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>
	<p>--log-level &lt;silent error info debug cmd-debug&gt; Change log level. Default value is cmd-debug.</p>
	<p>-h, --help Display help and exit.</p>
Example(s)	
	<p>wdckit selftest all --short</p> <p>-Initiates short test operation on all the supported devices.</p>
	<p>wdckit selftest disk0 --extended --blocked</p> <p>-Initiates extended test operation on 'disk0' and CLI will be blocked until selftest completes or fails.</p> <p>wdckit selftest /dev/sda --extended --blocked</p> <p>-Initiates extended test operation on '/dev/sda' and CLI will be blocked until selftest completes or fails.</p>
	<p>wdckit selftest disk0 disk1 -p</p> <p>-Shows the progress of self test operation on 'disk0' and 'disk1' once, if any.</p> <p>wdckit selftest /dev/sda /dev/sdb -p</p> <p>-Shows the progress of self test operation on '/dev/sda' and '/dev/sdb' once, if any.</p>

Command	setfeature
Description	Sets the specified feature value for NVMe devices. Sets the given input operational Parameters with input Values for ATA devices.
Restriction (s)	

Command	setfeature
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
	This task is only valid for NVMe or SATA targets.
Usage	
wdckit	setfeature <<devList> ... --model <model number> ... --serial <serial number> ...> [-f <feature-id> -l] [-b <buffer-file> --xml-encoder <filename>] [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-v <dw11 value>] [-d <data-length>] [-s] [--nsid <value>] [-u <uuid index>] [-m] [--dipm <enable disable>] [--apm <value disable>] [--hwc <enable disable>] [--aptst <enable disable>] [--stimeout <value default>] [--apst <value default>] [--sscshift <value default>] [--esspectrum <enable disable default>] [--ssrange <0 1 2 3 default>] [--gen1pemphasis <value default>] [--gen2pemphasis <value default>] [--gen3pemphasis <value default>] [--gen1amplitude <value default>] [--gen2amplitude <value default>] [--gen3amplitude <value default>] [--spspeed <0 1 2 default>] [--devslp <enable disable>] [--puis <enable disable>] [--puis-spinup] [--wcachec <enable disable>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-Z] [--log-level <silent error info debug cmd-debug>] [-h]
REQUIRED	
	<devList> (accepted multiple times) Device name(s) to execute setfeature command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
OPTIONAL	
	-f <feature-id>, --feature <feature-id> Feature id to be modified. This is for NVMe devices only.
–OR–	
	-l, --list Prints the list of supported features.
	-b <buffer-file>, --bufferfile <buffer-file> File name of file containing the data that will be transferred. This is for NVMe devices only.
–OR–	
	--xml-encoder <filename> Encode payload data as described by this xml file. Please refer to the user guide appendix for the XML schema.
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	

Command	setfeature
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-v <dw11 value>, --value <dw11 value> Dw11 value (only some feature ids use it). This is for NVMe devices only. Default value is 0.
	-d <data-length>, --data-len <data-length> Data transfer length, amount of data in the buffer file. This is for NVMe devices only.
	-s, --save Save settings permanently. This is for NVMe devices only.
	--nsid <value> Specify the NVMe namespace ID value. Default value is dependent upon the options.
	-u <uuid index>, --uuid-index <uuid index> Specify the NVMe UUID Index (0-7fh). Default value is 0. This field is only valid for NVMe devices. It will be ignored for ATA/SCSI devices.
	-m, --mirror Uses the NVMe mirror command instead of the NVMe standard command.
	--dipm <enable disable> Device Initiated Power Management. This is for ATA devices only.
	--apm <value disable> Advanced Power Management. This is for ATA devices only.
	--hwc <enable disable> Host Write Cache. This is for ATA devices only.
	--aptst <enable disable> Auto Partial To Slumber Transition. This is for ATA devices only.
	--stimeout <value default> Slumber Timeout. This is for ATA devices only.
	--apst <value default> Auto Partial Slumber Timeout. This is for ATA devices only.
	--sscsht <value default> Spread Spectrum Clock Shift. This is for ATA devices only.
	--esspectrum <enable disable default> Enable Spread Spectrum. This is for ATA devices only.

Command	setfeature
	--ssrange <0 1 2 3 default> Spread Spectrum Range. This is for ATA devices only.
	--gen1pemphasis <value default> Gen1 Pre Emphasis. This is for ATA devices only.
	--gen2pemphasis <value default> Gen2 Pre Emphasis. This is for ATA devices only.
	--gen3pemphasis <value default> Gen3 Pre Emphasis. This is for ATA devices only.
	--gen1amplitude <value default> Gen1 Amplitude. This is for ATA devices only.
	--gen2amplitude <value default> Gen3 Amplitude. This is for ATA devices only.
	--gen3amplitude <value default> Gen3 Amplitude. This is for ATA devices only.
	--spspeed <0 1 2 default> SATA PHY Speed. This is for ATA devices only.
	--devslp <enable disable> Device Sleep. This is for ATA devices only.
	--puis <enable disable> Power Up In Standby. Warning: system BIOS support also highly recommended. This is for ATA devices only.
	--puis-spinup Power Up In Standby Spinup. This is for ATA devices only.
	--wcache <enable disable> Volatile Write Cache. This is for ATA devices only.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).

Command	setfeature
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit setfeature disk0 -f 6 -v 1  -Sets the feature with id 6 to 1 on 'disk0'.  wdckit setfeature /dev/nvme0 -f 6 -v 1  -Sets the feature with id 6 to 1 on '/dev/nvme0'.
	wdckit setfeature disk0 -f 6 -v 1 -z  -Sets the feature with id 6 to 1 on 'disk0' and suppresses the banner.  wdckit setfeature /dev/nvme0 -f 6 -v 1 -z  -Sets the feature with id 6 to 1 on '/dev/nvme0' and suppresses the banner.



Command	setfeature
	<p>wdckit setfeature disk0 disk1 -f 6 -v 1</p> <p>-Sets the feature with id 6 to 1 on 'disk0' and 'disk1'.</p> <p>wdckit setfeature /dev/nvme0 /dev/nvme1 -f 6 -v 1</p> <p>-Sets the feature with id 6 to 1 on '/dev/nvme0' and '/dev/nvme1'.</p>
	<p>wdckit setfeature disk0 -f Ch -v 1 -b data.bin -d 256</p> <p>-Sets the feature with id 0Ch to 1 and passes 256 bytes of data from the file data.bin on device 'disk0'.</p> <p>wdckit setfeature /dev/nvme0 -f Ch -v 1 -b data.bin -d 256</p> <p>-Sets the feature with id 0Ch to 1 and passes 256 bytes of data from the file data.bin on device '/dev/nvme0'.</p>
	<p>wdckit setfeature disk0 --dipm enable</p> <p>-This option will enable Device Initiated Power Management parameter of 'disk0'.</p> <p>wdckit setfeature /dev/sda --dipm enable</p> <p>-This option will enable Device Initiated Power Management parameter of '/dev/sda'.</p>
	<p>wdckit setfeature all --hwc disable</p> <p>-Disables the Write Cache Parameter of all devices.</p>
	<p>wdckit setfeature disk0 disk1 --apm 32 --hwc enable</p> <p>-Enables the Advanced Power Management and sets the current APM level as 32 and enables the Write Cache of 'disk0' and 'disk1'.</p> <p>wdckit setfeature /dev/sda /dev/sdb --apm 32 --hwc enable</p> <p>-Enables the Advanced Power Management and sets the current APM level as 32 and enables the Write Cache of '/dev/sda' and '/dev/sdb'.</p>

Command	show
Description	List the details like serial number, capacity, state, geometry information, protection information, progress information, version, statistics, etc. of the devices.
Restriction(s)	
	This task is only valid for an actual target.
Usage	

Command	show
wdckit	show [<devList> ... --model <model number> ... --serial <serial number> ...] [-a -g -s -d -f -t] [-p -l] [--logout --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [--output <text json xml csv csv-no-header>] [--show-duplicates] [--block-device] [--customer-id] [-L] [--capacity-no-decimal] [--no-sanitize-status] [--no-usb] [--no-multiple-ns] [--rdp-status] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
<b>OPTIONAL</b>	
	<devList> (accepted multiple times) Device name(s) to execute show command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
	-a, --asset Show only asset information, such as drive name, serial number, revision level, etc.
–OR–	
	-g, --geometry Show only device geometry information, such as capacity, etc.
–OR–	
	-s, --state Show device state information with an appropriate description of reason(s) why the device is in that state.
–OR–	
	-d, --dco Shows DCO Identify Data details.
–OR–	
	-f, --features Shows the list of features supported by device.
–OR–	
	-t, --standards Shows the details of standards followed by device.
	-p, --physical Show only physical devices (no logical devices).
–OR–	
	-l, --logical Show only logical devices (no physical devices).
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.

Command	show
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	--output <text json xml csv csv-no-header> Specify output format. Default value is text.
	--show-duplicates Show duplicate device paths.
	--block-device Show only block devices (no SES devices).
	--customer-id Show the customer ID and HGST internal firmware.
	-L, --locked Show reason devices are locked.
	--capacity-no-decimal Show capacity without decimal point.
	--no-sanitize-status Do not check ATA sanitize status, which on some systems, may not operate correctly.
	--no-usb Do not show USB devices.
	--no-multiple-ns Do not show NVMe drives with multiple namespaces (Linux/FreeBSD).
	--rdp-status Check ATA RDP (repurposing depopulation) state, which on some systems, may not operate correctly.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).

Command	show
	<p>--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>
	<p>--log-level &lt;silent error info debug cmd-debug&gt; Change log level. Default value is cmd-debug.</p>
	<p>-h, --help Display help and exit.</p>
Example(s)	
	<p>wdckit show all</p> <p>-Shows device details of all the supported devices in tabular form.</p>

Command	show
	<p>wdckit show disk0 disk1</p> <p>-Shows device details of devices 'disk0' and 'disk1' in tabular form.</p> <p>wdckit show /dev/sda /dev/sdb</p> <p>-Shows device details of devices '/dev/sda' and '/dev/sdb' in tabular form.</p>
	<p>wdckit show all -a -R my.txt</p> <p>-Redirects asset information of all the supported devices to file my.txt.</p>
	<p>wdckit show disk0 --geometry --redirect show.txt</p> <p>-Redirects geometry information of device 'disk0' to file show.txt.</p> <p>wdckit show /dev/sda --geometry --redirect show.txt</p> <p>-Redirects geometry information of device '/dev/sda' to file show.txt.</p>
	<p>wdckit show disk0 disk1 -a -z</p> <p>-Shows asset information of devices 'disk0' and 'disk1' without banner.</p> <p>wdckit show /dev/sda /dev/sdb -a -z</p> <p>-Shows asset information of devices '/dev/sda' and '/dev/sdb' without banner.</p>
	<p>wdckit show disk0 --nobanner --geometry</p> <p>-Shows Geometry information of device 'disk0' without banner.</p> <p>wdckit show /dev/sda --nobanner --geometry</p> <p>-Shows Geometry information of device '/dev/sda' without banner.</p>

Command	standby
<b>Description</b>	Puts the ATA device in standby mode.
<b>Restriction (s)</b>	
	This task is only valid for an actual target.
	This task is only valid for SATA targets.
	This task is only valid for WDC targets.
<b>Usage</b>	
wdckit	<p>standby &lt;&lt;devList&gt; ... --model &lt;model number&gt; ... --serial &lt;serial number&gt; ...&gt; [--logout logfilename &lt;filename&gt; --R &lt;filename&gt;] [--trace --trace-with-scan --no-trace] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag &lt;flag bits&gt;] [-z] [--log-level &lt;silent error info debug cmd-debug&gt;] [-h]</p>

Command	standby
<b>REQUIRED</b>	
	<devList> (accepted multiple times) Device name(s) to execute standby command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
<b>OPTIONAL</b>	
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).

Command	standby
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit standby disk0  -Puts 'disk0' in standby mode.  wdckit standby /dev/sda  -Puts '/dev/sda' in standby mode.

Command	standby
	wdckit standby disk0 -R standby.txt
	-Puts 'disk0' in standby mode and redirects the output to standby.txt.
	wdckit standby /dev/sda -R standby.txt
	-Puts '/dev/sda' in standby mode and redirects the output to standby.txt.

Command	update
Description	Updates the device firmware with new firmware on the specified device.
Restriction (s)	
	This task is only valid for an actual target.
	This task is only valid for WDC targets.
Usage	
wdckit	update [<devList> ... --model <model number> ... --serial <serial number> ...] <-f <firmware> -a -g --xml <xml filename> --reset> [--progress-bar --simple-progress --no-progress] [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] [-x <transfer size>] [-d] [-s <slot value>] [-c <ca value>] [-b <0 1>] [-v] [-r <seconds>] [--recheck-count <count>] [--pause-apst] [--fast] [--no-sanitize-status] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
REQUIRED	
	-f <firmware>, --firmware <firmware> The filename of the firmware binary.
–OR–	
	-a, --activate Perform a firmware commit (aka activate) action. For an NVMe device, this option requires --slot. Activation is usually preceeded by a --firmware command.
–OR–	
	-g, --getfwinfo Get FW slot information from log id 3h.
–OR–	
	--xml <xml filename> The filename of an XML file with firmware update directives. Please refer to the end of the user guide for the XML schema.
–OR–	
	--reset Perform a controller reset (NVMe only). This may not be supported with all Windows NVMe drivers. Not supported in FreeBSD.
OPTIONAL	
	<devList> (accepted multiple times) Device name(s) to execute update command.



Command	update
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
	--progress-bar Display a full screen progress bar screen.
–OR–	
	--simple-progress Prevent the display of the progress bar screen, useful when running commands from a script.
–OR–	
	--no-progress No progress display.
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-x <transfer size>, --xfer <transfer size> Specify the maximum size, in bytes, to transfer the firmware image. The firmware image will be sent to the device via multiple commands when the image is larger than this value. Use -1 to specify a large transfer size determined programatically. This can only be used with -f --firmware or --xml. Default value is 4096.
	-d, --defer Download and save the firmware image to the device and update it only after a system power cycle (non NVMe devices) or activate action.
	-s <slot value>, --slot <slot value> Specify the firmware slot that shall be used for the activate action for an NVMe device. This can only be used with -a --activate. Default value is 1.

Command	update
	<p>-c &lt;ca value&gt;, --commit-action &lt;ca value&gt;            NVMe activate commit action value (0-7). This can only be used with -a --activate. Note: this option is not accepted by the Windows inbox driver. Default value is 1.</p>
	<p>-b &lt;0 1&gt;, --bpid &lt;0 1&gt;            Specify the boot partition ID. This can only be used with -a --activate. Note: this option is not accepted by the Windows inbox driver. Default value is 0.</p>
	<p>-v, --validate            Validate the firmware image with the specified device(s). If used with --xml it will check if any device(s) needs an update.</p>
	<p>-r &lt;seconds&gt;, --rescan-control &lt;seconds&gt;            Set the delay in seconds between firmware update and the device re-scan. Zero is no delay and negative numbers skip the re-scan. Default value is 1.</p>
	<p>--recheck-count &lt;count&gt;            Specify the maximum number of attempts (0-100) to try to detect success when an update error was detected. A value of 0 indicates that no attempt to detect success will be performed. Default value is 0.</p>
	<p>--pause-apst            Save and disable Autonomous Power State Transition (APST) before update and restore afterwards.</p>
	<p>--fast            Skip non-essential commands to speed up performance.</p>
	<p>--no-sanitize-status            Do not check ATA sanitize status, which on some systems, may not operate correctly.</p>
	<p>--supported            Perform operation with only supported devices.</p>
	<p>--no-win-disk            Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc            Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi            Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi            Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste            Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid            Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>

Command	update
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).
	--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit update disk0 -f X210400.FLUF  -Updates the firmware of device 'disk0' with the given firmware image.  wdckit update /dev/sda -f X210400.FLUF  -Updates the firmware of device '/dev/sda' with the given firmware image.
	wdckit update all -f X210400.FLUF -v -R update.txt  -Validates the firmware of all supported devices with given firmware image and output is stored to file update.txt in current directory.

Command	update
	<p>wdckit update disk0 disk1 -f X210400.FLUF --validate</p> <p>-Validates the given firmware image with devices 'disk0' and 'disk1.</p> <p>wdckit update /dev/sda /dev/sdb -f X210400.FLUF --validate</p> <p>-Validates the given firmware image with devices '/dev/sda' and '/dev/sdb.</p>
	<p>wdckit update all -f X210400.FLUF</p> <p>-Update the firmware of all supported devices with given firmware image.</p>
	<p>wdckit update --model "TEST ABC123" -f X210400.FLUF</p> <p>-Update the firmware of all devices with a model string 'TEST ABC123' with the given firmware image.</p>
	<p>wdckit update --model "TEST ABC123" -a -s 1 -c 1</p> <p>-Commits the firmware in slot 1 on all devices with a model string 'TEST ABC123'.</p>
	<p>wdckit update --model "TEST ABC123" --reset</p> <p>-Performs a controller reset all devices with a model string 'TEST ABC123'. If a prior commit was ready to activate, this should perform the activation. Not supported on all controllers. Not supported in FreeBSD.</p>
	<p>wdckit update disk0 -f X210400.FLUF --log-level silent --no-progress -r -1 -x -1 --fast</p> <p>-Updates the firmware of device 'disk0' in the shortest amount of time.</p> <p>wdckit update /dev/sda -f X210400.FLUF --log-level silent --no-progress -r -1 -x -1 --fast</p> <p>-Updates the firmware of device '/dev/sda' in the shortest amount of time.</p>

Command	version
<b>Description</b>	Displays version information.
<b>Usage</b>	
wdckit	version
<b>Example(s)</b>	

Command	writelog
<b>Description</b>	This command is used to write a log page to the ATA device.
<b>Restriction(s)</b>	
	This task is only valid for an actual target.
	This task is only valid for SATA targets.
	This task is only valid for WDC targets.

Command	writelog
Usage	
wdckit	writelog <<devList> ... --model <model number> ... --serial <serial number> ...> [-s -g -G] <-d <dataFile> --xml-encoder <filename>> [--logoutput --logfile <filename> -R <filename>] [--trace --trace-with-scan --no-trace] -l <value> [-f <value>] [-b <blocks>] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no-win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd-cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag <flag bits>] [-z] [--log-level <silent error info debug cmd-debug>] [-h]
REQUIRED	
	<devList> (accepted multiple times) Device name(s) to execute writelog command.
–OR–	
	--model <model number> (accepted multiple times) Filter devices that only match this model number.
–OR–	
	--serial <serial number> (accepted multiple times) Filter devices that only match this serial number.
–AND–	
	-d <dataFile>, --data <dataFile> The binary filename to send to the device.
–OR–	
	--xml-encoder <filename> Encode payload data as described by this xml file. Please refer to the user guide appendix for the XML schema.
	-l <value>, --logaddress <value> The log address to access.
OPTIONAL	
	-s, --smart Use SMART write log command to access the data.
–OR–	
	-g, --gpl Use GPL write log command to access the data.
–OR–	
	-G, --gpl-dma Use GPL write log DMA command to access the data.
	--logoutput Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.

Command	writelog
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-f <value>, --features <value> Value for the FEATURES field. Default value is 0.
	-b <blocks>, --block-count <blocks> Specify the maximum number of blocks to transfer per command. Default value is 1.
	--supported Perform operation with only supported devices.
	--no-win-disk Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).
	--no-win-ctrl-hdc Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-ctrl-scsi Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).
	--no-win-csmi Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).
	--no-win-rste Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).
	--no-win-amd-raid Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).
	--no-win-ses Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)
	--no-linux-scsi Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).
	--no-linux-nvme Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).
	--no-linux-wd-nvme Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).

Command	writelog
	<p>--no-bsd-cam Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>
	<p>--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).</p>
	<p>--no-ad Do not use the AD driver (only useful with the RAID version).</p>
	<p>--no-mr Do not use the MR driver (only useful with the RAID version).</p>
	<p>--probe-flag &lt;flag bits&gt; Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.</p>
	<p>-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.</p>
	<p>--log-level &lt;silent error info debug cmd-debug&gt; Change log level. Default value is cmd-debug.</p>
	<p>-h, --help Display help and exit.</p>
Example(s)	
	<p>wdckit writelog disk0 -l 81h -d hostlog81h.bin --gpl-dma</p> <p>-Write log address 81h (129 decimal) with data from the file hostlog81h.bin using the GPL DMA interface.</p> <p>wdckit writelog /dev/sda -l 81h -d hostlog81h.bin --gpl-dma</p> <p>-Write log address 81h (129 decimal) with data from the file hostlog81h.bin using the GPL DMA interface.</p>
	<p>wdckit writelog disk0 -l 82h -d hostlog82h.bin --gpl</p> <p>-Write log address 82h (130 decimal) with data from the file hostlog82h.bin using the GPL PIO interface.</p> <p>wdckit writelog /dev/sda -l 82h -d hostlog82h.bin --gpl</p> <p>-Write log address 82h (130 decimal) with data from the file hostlog82h.bin using the GPL PIO interface.</p>
	<p>wdckit writelog disk0 -l 83h -d hostlog83h.bin --smart</p> <p>-Write log address 83h (131 decimal) with data from the file hostlog83h.bin using the SMART interface.</p> <p>wdckit writelog /dev/sda -l 83h -d hostlog83h.bin --smart</p> <p>-Write log address 83h (131 decimal) with data from the file hostlog83h.bin using the SMART interface.</p>

Command	writelog
	<pre>wdckit writelog disk0 -l 84h --xml-encoder log84h.xml --gpl</pre> <p>-Write log address 84h (132 decimal) with data from the file log84h.xml using the GPL PIO interface.</p> <pre>wdckit writelog /dev/sda -l 84h --xml-encoder log84h.xml --gpl</pre> <p>-Write log address 84h (132 decimal) with data from the file log84h.xml using the GPL PIO interface.</p>

Command	zone
Description	Perform various Zoned ATA/Block Commands (ZAC/ZBC).
Restriction(s)	
	This task is only valid for an actual target.
	This task is only valid for ZAC/ZBC device.
	This task is only valid for WDC targets.
	This task requires the device to be ready.
Usage	
wdckit	<pre>zone &lt;&lt;devList&gt; ... --model &lt;model number&gt; ... --serial &lt;serial number&gt; ... &gt; &lt;--report-zones --close --finish --open --reset&gt; [-r --raw-limit &lt;bytes&gt;]-s &lt;path&gt;] [-logout --logfile &lt;filename&gt;]-R &lt;filename&gt;] [--trace --trace-with- scan --no-trace] [-a] [--start-lba &lt;lba&gt;] [-p &lt;count&gt;] [-o &lt;all empty implicitly- opened explicitly-opened closed full read-only offline inactive rwp- recommeded non-seq-wr-res-active zone-cond-not-write-ptr&gt;] [--no- sanitize-status] [-x &lt;bytes&gt;] [--supported] [--no-win-disk] [--no-win-ctrl-hdc] [--no-win-ctrl-scsi] [--no-win-csmi] [--no-win-rste] [--no-win-amd-raid] [--no- win-ses] [--no-linux-scsi] [--no-linux-nvme] [--no-linux-wd-nvme] [--no-bsd- cam] [--no-bsd-nvme] [--no-ad] [--no-mr] [--probe-flag &lt;flag bits&gt;] [-z] [--log- level &lt;silent error info debug cmd-debug&gt;] [-h]</pre>
REQUIRED	
	<pre>&lt;devList&gt; (accepted multiple times) Device name(s) to execute zone command.</pre>
–OR–	
	<pre>--model &lt;model number&gt; (accepted multiple times) Filter devices that only match this model number.</pre>
–OR–	
	<pre>--serial &lt;serial number&gt; (accepted multiple times) Filter devices that only match this serial number.</pre>
–AND–	
	<pre>--report-zones Report zones.</pre>
–OR–	
	<pre>--close Close zone.</pre>
–OR–	



Command	zone
	--finish Finish zone.
–OR–	
	--open Open zone.
–OR–	
	--reset Reset write pointer.
<b>OPTIONAL</b>	
	-r, --raw Dump the raw buffer.
–OR–	
	--raw-limit <bytes> Dump the raw buffer, with at most, this many bytes.
–OR–	
	-s <path>, --save <path> Saves the device output to the path specified.
	--logout Share screen output (and more) to a log file. The log file name will be comprised the serial number (or multiple x's for multiple targets), date, time, command name and wdckit version.
–OR–	
	--logfile <filename> Share screen output (and more) to the specified log file. These log names are restricted: and wdckit-trace.txt.
–OR–	
	-R <filename>, --redirect <filename> Redirects the screen output to the file specified.
	--trace Save trace log for command operation upon success. Note, by default, trace logging enabled upon error. The trace log filename is wdckit-trace.txt
–OR–	
	--trace-with-scan Save trace log for command operation and include commands issued while scanning for devices.
–OR–	
	--no-trace Disable trace logging.
	-a, --all-zones Perform zone operation (open/close/finish/reset) on all zones.
	--start-lba <lba> Specify the zone starting LBA.
	-p <count>, --partial <count> Show a partial zone report, with at least this many entries. Note: The OS may prevent large values from succeeding.

Command	zone
	<p>-o &lt;all empty implicitly-opened explicitly-opened closed full read-only offline inactive rwp-recommended non-seq-wr-res-active zone-cond-not-write-ptr&gt;, --reporting-option &lt;all empty implicitly-opened explicitly-opened closed full read-only offline inactive rwp-recommended non-seq-wr-res-active zone-cond-not-write-ptr&gt;</p> <p>Filter report with this reporting option. Default value is all.</p>
	<p>--no-sanitize-status</p> <p>Do not check ATA sanitize status, which on some systems, may not operate correctly.</p>
	<p>-x &lt;bytes&gt;, --xfer &lt;bytes&gt;</p> <p>Specify maximum number of bytes to transfer for --report-zones option. Must be a multiple of 512. Default values is 64KB.</p>
	<p>--supported</p> <p>Perform operation with only supported devices.</p>
	<p>--no-win-disk</p> <p>Do not interact with Windows disk devices (eg disk* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-hdc</p> <p>Do not interact with Windows controller HDC devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-ctrl-scsi</p> <p>Do not interact with Windows controller SCSI devices (eg storage space devices disk* or NVMe controllers without namespaces nvme* and only useful with the Windows version).</p>
	<p>--no-win-csmi</p> <p>Do not interact with Windows CSMI devices (eg csmi* and only useful with the Windows version).</p>
	<p>--no-win-rste</p> <p>Do not interact with Windows RSTe devices (eg rste* and only useful with the Windows version).</p>
	<p>--no-win-amd-raid</p> <p>Do not interact with Windows AMD raid devices (eg amdraid* and only useful with the Windows version).</p>
	<p>--no-win-ses</p> <p>Do not interact with Windows SCSI Enclosure Service (SES) devices (eg SCSI*)</p>
	<p>--no-linux-scsi</p> <p>Do not interact with Linux ATA/SCSI devices (eg /dev/sg* or /dev/sd* and only useful with the Linux version).</p>
	<p>--no-linux-nvme</p> <p>Do not interact with Linux NVMe devices (eg /dev/nvme* and only useful with the Linux version).</p>
	<p>--no-linux-wd-nvme</p> <p>Do not interact with Linux NVMe devices using the WD NVMe driver (eg wdnvme_bdfs* and only useful with the Linux version).</p>
	<p>--no-bsd-cam</p> <p>Do not interact with FreeBSD CAM devices (eg /dev/ada* and only useful with the FreeBSD version).</p>

Command	zone
	--no-bsd-nvme Do not interact with FreeBSD NVMe devices (eg /dev/nvme* and only useful with the FreeBSD version).
	--no-ad Do not use the AD driver (only useful with the RAID version).
	--no-mr Do not use the MR driver (only useful with the RAID version).
	--probe-flag <flag bits> Specify probe flags (bit 0: Windows prefer SAT passthru over ATA passthru). Default value is 0.
	-z, --nobanner Suppresses the banner from printing, which includes information such as copyright, license, etc.
	--log-level <silent error info debug cmd-debug> Change log level. Default value is cmd-debug.
	-h, --help Display help and exit.
Example(s)	
	wdckit zone disk0 --report-zones  -Report zone info for all zones for device 'disk0'.  wdckit zone /dev/sda --report-zones  -Report zone info for all zones for device '/dev/sda'.
	wdckit zone disk0 --report-zones --partial 15 --start-lba 10000000h  -Report partial zone info (at least 15 zone descriptors) starting at LBA 10000000h for device 'disk0'.  wdckit zone /dev/sda --report-zones --partial 15 --start-lba 10000000h  -Report partial zone info (at least 15 zone descriptors) starting at LBA 10000000h for device '/dev/sda'.
	wdckit zone disk0 --report-zones --reporting-option closed  -Report zone info for closed zones for device 'disk0'.  wdckit zone /dev/sda --report-zones --reporting-option closed  -Report zone info for closed zones for device '/dev/sda'.
	wdckit zone disk0 --open --start-lba 10600000h  -Open zone starting at LBA 10600000h for device 'disk0'.  wdckit zone /dev/sda --open --start-lba 10600000h  -Open zone starting at LBA 10600000h for device '/dev/sda'.

Command	zone
	wdckit zone disk0 --finish --start-lba 10600000h -Finish zone starting at LBA 10600000h for device 'disk0'. wdckit zone /dev/sda --finish --start-lba 10600000h -Finish zone starting at LBA 10600000h for device '/dev/sda'.
	wdckit zone disk0 --close --start-lba 10600000h -Close zone starting at LBA 10600000h for device 'disk0'. wdckit zone /dev/sda --close --start-lba 10600000h -Close zone starting at LBA 10600000h for device '/dev/sda'.
	wdckit zone disk0 --reset --start-lba 10600000h -Reset write pointer starting at LBA 10600000h for device 'disk0'. wdckit zone /dev/sda --reset --start-lba 10600000h -Reset write pointer starting at LBA 10600000h for device '/dev/sda'.

# Appendix

## Reference for --xml-decoder <filename>

### XML decoder Field reference

This XML <Field> is used with all XML schemas in this section. It is unbounded, so it can be repeated as many times as needed.

```
<!-- unbounded, may be repeated as many times as needed -->
<Field>
  <Offset>integer</Offset>
  <Length>integer</Length>
  <Name>string</Name>
  <!-- BitStart and BitEnd are optional-->
  <BitStart>integer</BitStart>
  <BitEnd>integer</BitEnd>
  <!--Use either DataType (once) or Data (max 32)-->
  <DataType>Decimal|Hex|String|ByteSwapString</DataType>
  <Data>
    <Value>integer</Value>
    <Description>string</Description>
  </Data>
</Field>
```

<BitStart> and <BitEnd> are optional, but used as pairs.

The <Data> and <DataType> are mutually exclusive - use one type, but not both.

## NVMe Identify Namespace

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <NVME>
    <IdentifyNamespace>
      <Field>
      </Field>
    </IdentifyNamespace>
  </NVME>
</CSSD>
```

## NVMe Identify Controller

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <NVME>
    <IdentifyController>
      <Field>
      </Field>
    </IdentifyController>
  </NVME>
</CSSD>
```

## SATA Identify Device

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <SATA>
    <IdentifyDevice>
      <Field>
      </Field>
    </IdentifyDevice>
  </SATA>
</CSSD>
```

## SCSI Inquiry

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <SCSI>
    <!-- id attribute (decimal) is optional
    - allows for multiple VPD pages -->
    <Inquiry id="integer">
      <Field>
      </Field>
    </Inquiry>
  </SCSI>
</CSSD>
```

## NVMe Get Feature

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <NVME>
    <!-- id attribute (decimal) is optional
    - allows for multiple sections in one file-->
    <GetFeature id="integer">
      <Field>
      </Field>
    </GetFeature>
  </NVME>
</CSSD>
```

GetFeature has an optional XML attribute “id” which allows multiple GetFeature XML nodes in the the same <CSSD><NVME> XML file.

## NVMe Get Log

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <NVME>
    <!-- id attribute (decimal) is optional
    - allows for multiple sections in one file-->
    <GetLogPage id="integer">
      <Field>
      </Field>
    </GetLogPage>
  </NVME>
</CSSD>
```

GetLogPage has an optional XML attribute “id” which allows multiple GetLogPage XML nodes in the the same <CSSD><NVME> XML file.

## SATA Get Log

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <SATA>
    <!-- id attribute (decimal) is optional
    - allows for multiple sections in one file-->
    <!-- Use either ReadGPL or ReadSmartLog -->
    <ReadGPL id="integer">
      <Field>
      </Field>
    </ReadGPL>
    <ReadSmartLog id="integer">
      <Field>
      </Field>
    </ReadSmartLog>
  </SATA>
</CSSD>
```

ReadGPL/ReadSmartLog has an optional XML attribute “id” which allows multiple ReadGPL/ReadSmartLog XML nodes in the the same <CSSD><SATA> XML file.

## SCSI Get Log

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <SCSI>
    <!-- id attribute (decimal) is optional
    - allows for multiple sections in one file-->
    <LogSense id="integer">
      <Field>
      </Field>
    </LogSense>
  </SCSI>
</CSSD>
```

LogSense has an optional XML attribute “id” which allows multiple LogSense XML nodes in the the same <CSSD><SCSI> XML file.

## Reference for --xml-encoder <filename>

---

### XML encoder Field reference

---

This XML <Field> is used with all XML schemas in this section. It is unbounded, so it can be repeated as many times as needed.

```
<!-- unbounded, may be repeated as many times as needed -->
<Field>
  <Offset>integer</Offset>
  <Length>integer</Length>
  <!-- BitStart and BitEnd are optional -->
  <BitStart>integer</BitStart>
  <BitEnd>integer</BitEnd>
  <Name>string</Name>
  <DataType>Decimal|Hex|String</DataType>
  <!-- For Hex, do not use 0x prefix or h suffix -->
  <Value>integer|string</Value>
</Field>
```

<BitStart> and <BitEnd> are optional, but used as pairs.

### NVMe RPMB DCB

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <NVME>
    <RPMB>
      <DCB>
        <!-- Size, in bytes, that this feature id expects -->
        <Size>integer</Size>
        <!-- little endian is default -->
        <Endian>little|big</Endian>
        <Field>
        </Field>
      </DCB>
    </RPMB>
  </NVME>
</CSSD>
```



## NVMe Set Features

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <NVME>
    <!-- id attribute (decimal) is optional
    - allows for multiple sections in one file-->
    <SetFeature id="integer">
      <!-- Size, in bytes, that this feature id expects -->
      <Size>integer</Size>
      <!-- little endian is default -->
      <Endian>little|big</Endian>
      <Field>
      </Field>
    </SetFeature>
  </NVME>
</CSSD>
```

SetFeature has an optional XML attribute “id” which allows multiple SetFeature XML nodes in the the same <CSSD><NVME> XML file.

## SATA Write Log

---

```
<?xml version="1.0" encoding="utf-8"?>
<CSSD>
  <FileFormatMajor>1</FileFormatMajor>
  <FileFormatMinor>0</FileFormatMinor>
  <SATA>
    <!-- id attribute (decimal) is optional
    - allows for multiple sections in one file-->
    <-- use either WriteSmartLog or WriteGPL -->
    <WriteSmartLog id="integer">
      <!-- Size, in bytes, should be a multiple of 512 -->
      <Size>integer</Size>
      <!-- little endian is default -->
      <Endian>little|big</Endian>
      <Field>
      </Field>
    </WriteSmartLog>
    <WriteGPL id="integer">
      <Size>integer</Size>
      <!-- little endian is default -->
      <Endian>little|big</Endian>
      <Field>
      </Field>
    </WriteGPL>
  </SATA>
</CSSD>
```

WriteSmartLog/WriteGPL has an optional XML attribute “id” which allows multiple WriteSmartLog/WriteGPL XML nodes in the the same <CSSD><SATA> XML file.

## Reference for getsmart --namesub <filename>

---

### Getsmart xml schema

---

```
<smart>
  <!-- create aname array for all attributes -->
  <aname id="integer">attribute name</aname>
</smart>
```

## Reference for update --xml <filename>

---

### Update top-level xml schema

---

```
<lista_devices>
  <!-- lista_device is unbounded, may be repeated as
  many times as needed. Wildcards allowed. (?) is any
  character and (*) stops the string compare. -->
  <lista_device model="model number">
    <url>filename</url>
  </lista_device>
</lista_devices>
```

### Update low-level xml schema

---

```
<!-- this filename as noted from the url tag in the
top-level xml schema -->
<ffu>
  <!-- fwfile specifies the filename of the firmware binary
  file -->
  <fwfile>bin file</fwfile>

  <!-- dependency is unbounded, may be repeated as many
  times as needed. Wildcards allowed. (?) is any character
  and (*) stops the string compare. -->
  <dependency>version</dependency>

  <!-- fwversion is the new firmware version after update -->
  <fwversion>version</fwversion>
</ffu>
```

# Log Address

## ATA Log pages

```
wdckit getlog <dev> -l <Log Address>
```

```
wdckit getlog <dev> -l <Log Address> --smartlog
```

Log Address	Description	Access
0h	Log Directory	GPL, SL
1h	Summary SMART error log	SL
2h	Comprehensive SMART error log	SL
3h	Extended Comprehensive SMART error log	GPL
4h	Device Statistics log	GPL, SL
5h	Reserved for CFA	
6h	SMART self-test log	SL
7h	Extended self-test log	GPL
8h	Power Conditions log	GPL
9h	Selective self-test log	SL
Ah	Device Statistics Notification	GPL
Bh	Reserved for CFA	
Ch	Pending Defects log	GPL
Dh	LPS Mis-alignment log	GPL, SL
Eh	Reserved for ZAC-2	
Fh	Sense Data for Successful NCQ Cmds log	GPL
10h	NCQ Command Error log	GPL
11h	SATA Phy Event Counters log	GPL
12h	SATA NCQ Non-Data log	GPL
13h	SATA NCQ Send and Receive log	GPL
14h	Hybrid Information log	GPL
15h	Rebuild Assist log	GPL
16h	OOB management control log	GPL
17h	Reserved for Serial ATA	
18h	Command duration time limits log	GPL
19h	LBA Status log	GPL
20h	Streaming performance log [OBS-8]	
21h	Write stream error log	GPL
22h	Read stream error log	GPL
23h	Delayed sector log [OBS-8]	
24h	Current Device Internal Status Data log	GPL
25h	Saved Device Internal Status Data log	GPL
2Fh	Set Sector Configuration	GPL
30h	IDENTIFY DEVICE data log	GPL, SL

Log Address	Description	Access
42h	Mutate Configurations log	GPL
47h	Concurrent Positioning Ranges log	GPL
53h	Sense Data log	GPL
61h	Capacity/Model Number Mapping log	GPL
80h...9Fh	Host Specific	GPL, SL
A0h...A5h	Device Vendor Specific	GPL, SL
A6h	Device Vendor Specific (FACT)	GPL, SL
A7h...DFh	Device Vendor Specific	GPL, SL
E0h	SCT Command/Status	GPL, SL
E1h	SCT Data Transfer	GPL, SL

GPL = General Purpose Logging; SL = SMART logging. By default, wdckit will use access the log via GPL. Use `--smartlog` to access a SMART log address.

## NVMe log identifiers

```
wdckit getlog <dev> -l <Log Id>
```

Log Id	Description
0h	Supported Log Pages
1h	Error Information
2h	SMART / Health Information
3h	Firmware Slot Information
4h	Changed Namespace List
5h	Commands Supported and Effects
6h	Device Self-test
7h	Telemetry Host-Initiated
8h	Telemetry Controller-Initiated
9h	Endurance Group Information
Ah	Predictable Latency Per NVM Set
Bh	Predictable Latency Event Aggregate Log
Ch	Asymmetric Namespace Access
Dh	Persistent Event Log
Eh	LBA Status Information
Fh	Endurance Group Event Aggregate
10h	Media Unit Status
11h	Supported Capacity Configuration List
12h	Feature Identifiers Supported and Effects
13h	NVMe-MI Commands Supported and Effects
14h	Command and Feature Lockdown
15h	Boot Partition
16h	Rotational Media Information Log
19h	Eye Opening Monitor Log
70h	Discovery

Log Id	Description
80h	Reservation Notification
81h	Sanitize Status
BFh	Changed Zone List
C0h	Open Compute Cloud Health Log
C1h	Open Compute Error Recovery Log
C2h	Open Compute FW Activation History Log
C3h	Open Compute Latency Monitor Log
C4h	Open Compute Device Capabilities Log
C5h	Open Compute Unsupported Requirements Log

## SCSI log identifiers

```
wdckit getlog <dev> -l <Page Code> [-p <Page List>]
```

Page Code	Page List	Description
0h	0h	Supported Log Pages
0h	FFh	Supported Log Pages and Subpages
1h-3Fh	FFh	Supported Subpages
1h	0h	Buffer Over-Run/Under-Run
2h	0h	Write Error Counters
3h	0h	Read Error Counters
5h	0h	Verify Error Counters
6h	0h	Non-Medium Error
7h	0h	Last n Error Events
8h	0h	Format Status
Bh	0h	Last n Deferred Errors Or Asynchronous Events
Ch	0h	Logical Block Provisioning
Dh	0h	Temperature
Dh	1h	Environmental Reporting
Dh	2h	Environmental Limits
Eh	0h	Start-Stop Cycle Counter
Eh	1h	Utilization
Fh	0h	Application Client
10h	0h	Self-Test Results
11h	0h	Solid State Media
14h	1h	Zoned Block Device Statistics
15h	0h	Background Scan Results
15h	1h	Pending Defects
15h	2h	Background Operation
15h	3h	LPS Misalignment
16h	0h	ATA PASS-THROUGH Results
17h	0h	Non-volatile Cache
18h	0h-FEh	Protocol Specific Port Log

Page Code	Page List	Description
19h	0h	General Statistics and Performance
19h	1h-1Fh	Group Statistics and Performance
19h	20h	Cache Memory Statistics
19h	21h	Command Duration Limit Statistics
1Ah	0h	Power Condition Transitions
2Fh	0h	Informational Exceptions

## NVMe Identify CNS/CSI Values

```
wdckit idd <dev> --cns <CNS> [--csi <CSI>]
```

CNS	CSI	Description
0h		Identify Namespace Data
1h		Identify Controller Data
2h		Active Namespace ID List
3h		Namespace Identification Descriptor List
4h		IOCS NVM Set List
5h	0h	IOCS Identify Namespace Data
5h	1h	KV Identify Namespace Data
5h	2h	ZNS Identify Namespace Data
6h	0h	IOCS Identify Controller Data
6h	1h	KV Identify Controller Data
6h	2h	ZNS Identify Controller Data
7h	0h	IOCS Identify Active Namespace List
7h	1h	KV Identify Active Namespace List
7h	2h	ZNS Identify Active Namespace List
8h	0h	IOCS Independent Identify Namespace Data
8h	1h	KV Independent Identify Namespace Data
8h	2h	ZNS Independent Identify Namespace Data
10h		Allocated Namespace ID List
11h	0h	IOCS Identify Namespace Data
11h	1h	KV Identify Namespace Data
11h	2h	ZNS Identify Namespace Data
12h		Identify Controller List Data
13h		Identify Subsystem Controller List
14h		Identify Primary Controller Capabilities Data
15h		Identify Secondary Controller Capabilities Data
16h		Identify Namespace Granularity List
17h		Identify UUID List
18h		Identify Domain List
19h		Identify Endurance Group List
1Ah	0h	IOCS Allocated Namespace ID List
1Ah	1h	KV Allocated Namespace ID List

CNS	CSI	Description
1Ah	2h	ZNS Allocated Namespace ID List
1Bh	0h	IOCS Identify Namespace Data
1Bh	1h	KV Identify Namespace Data
1Bh	2h	ZNS Identify Namespace Data
1Ch	0h	IOCS Identify Data
1Ch	1h	KV Identify Data
1Ch	2h	ZNS Identify Data

## SCSI Inquiry EVPD pages

```
wdckit idd <dev> -v <VPD>
```

VPD	Description
0h	Supported VPD Pages
80h	Unit Serial Number
83h	Device Identification
84h	Software Interface Identification
85h	Management Network Addresses
86h	Extended INQUIRY Data
87h	Mode Page Policy
88h	SCSI Ports
89h	ATA Information
8Ah	Power Condition
8Bh	Device Constituents
8Ch	CFA Profile Information
8Dh	Power Consumption
8Fh	Third-party Copy
90h	Protocol Specific Logical Unit Information
91h	Protocol Specific Port Information
92h	SCSI Feature Sets
B0h	Block Limits
B1h	Block Device Characteristics
B2h	Logical Block Provisioning
B3h	Referrals
B4h	Supported Block Lengths And Protection Types
B5h	Block Device Characteristics Extension
B6h	Zoned Block Device Characteristics
B7h	Block Limits Extension

## Error codes

Error Code	Exit Code	Reason
0	0	Success
-1	1	Failure (device reported an error)
-2	2	Insufficient memory
-3	3	EULA not accepted
-4	2	Invalid command line argument
-5	2	Unable to open file
-6	2	Abnormal program exit
-8	2	Admin privilege required
-9	2	Invalid command
-10	2	Unable to open device
-12	2	Device type not supported
-14	2	Invalid device
-16	2	Not allowed in boot device
-20	2	No devices found
-21	1	Operation is not allowed due to OS and/or driver
-22	2	Operation only supported in Windows PE
-23	2	Firmware is current
-24	2	Unable to open firmware image file
-25	2	Firmware update available
-29	2	Unable to write in the output file
-42	2	Invalid image file type
-53	2	Operation is not supported
-57	2	Device is not an NVMe device
-58	2	Device is not an ATA nor SCSI device
-59	1	Storage element depopulation operation failed
-60	1	Storage element repopulation operation failed
-61	1	Get physical element status failed
-66	2	Invalid Input, Command Terminated
-67	2	User cancelled the operation, Command Terminated
-68	2	Generation number changed while reading telemetry or persistent event log - retry the command
-86	2	Invalid file
-100	1	Eye diagram payload is empty
-115	2	48-bit Commands Not Supported
-117	2	Cannot set MAX LBA greater than current MAX LBA
-124	2	Security Not Supported
-125	2	Security Frozen
-126	2	Security Locked
-128	2	Sanitize Not Supported by the device
-129	2	Operation is not supported by the device



Error Code	Exit Code	Reason
-133	2	No Log Pages Found
-134	2	AHCI controller not found
-143	2	Invalid Input Parameter
-190	2	TCG Protocol Not Supported
-192	2	TCG OPAL Not Activated
-194	2	TCG password type not supported
-195	2	TCG Enterprise is required
-196	2	TCG Opal is required
-210	2	Mirror command is not applicable
-211	2	Device must be a NVMe controller node (/dev/nvmeX and –nsid equal to 0xFFFFFFFF)
-212	2	Device must be a NVMe namespace node (/dev/nvmeXnY or /dev/nvmeX and –nsid not 0xFFFFFFFF)
-213	2	Device must be a NVMe namespace node (/dev/nvmeXnY)
-310	2	Security already Enabled
-311	2	Security Not Enabled
-312	2	Device is not locked
-313	2	Device is locked
-433	2	Host Protected Area Not Supported
-436	1	Not Authorized for the requested Operation
-437	1	Obsoleted SID used for the requested Operation
-438	1	Requested SP is BUSY
-439	1	Requested SP is not enabled
-440	1	Requested SP is in frozen state
-441	1	Session creation failed
-442	1	Uniqueness conflict error
-443	1	Insufficient space in SP
-444	1	Insufficient Rows in SP
-445	1	Invalid parameter passed
-446	1	Tper mal-function is detected
-447	1	Transaction error encountered
-448	1	Response size is more than the buffer provided
-449	1	Authority is locked out to perform the operation
-450	2	Only supported for NVMe USB devices
-500	1	Drive not ready: format in progress
-501	1	Drive not ready: foreground self test in progress
-502	1	Drive not ready: sanitize in progress
-503	1	Media compatibility check is not supported in this scenario
-504	2	This operation is throttled by the OS (maybe try again after 10 minutes)
-600	2	This operation is not allowed on a RAID device
-700	1	The device header data is unknown/invalid
-701	1	The DUI expected size does not match the saved size - try again

Error Code	Exit Code	Reason
-800	1	PSID is not activated, PSID revert is not required. Use –skip-status to revert TCG ownership.
-999	2	The device does not support Cryptographic Erase
-10000	4	Application coding error - please contact tool owner

## Exit codes

Exit Code	Error Code	Reason
0	0	Success
1	-1	Failure (device reported an error)
1	-21	Operation is not allowed due to OS and/or driver
1	-59	Storage element depopulation operation failed
1	-60	Storage element repopulation operation failed
1	-61	Get physical element status failed
1	-100	Eye diagram payload is empty
1	-436	Not Authorized for the requested Operation
1	-437	Obsolete SID used for the requested Operation
1	-438	Requested SP is BUSY
1	-439	Requested SP is not enabled
1	-440	Requested SP is in frozen state
1	-441	Session creation failed
1	-442	Uniqueness conflict error
1	-443	Insufficient space in SP
1	-444	Insufficient Rows in SP
1	-445	Invalid parameter passed
1	-446	Tper mal-function is detected
1	-447	Transaction error encountered
1	-448	Response size is more than the buffer provided
1	-449	Authority is locked out to perform the operation
1	-500	Drive not ready: format in progress
1	-501	Drive not ready: foreground self test in progress
1	-502	Drive not ready: sanitize in progress
1	-503	Media compatibility check is not supported in this scenario
1	-700	The device header data is unknown/invalid
1	-701	The DUI expected size does not match the saved size - try again
1	-800	PSID is not activated, PSID revert is not required. Use –skip-status to revert TCG ownership.
2	-2	Insufficient memory
2	-4	Invalid command line argument
2	-5	Unable to open file
2	-6	Abnormal program exit
2	-8	Admin privilege required
2	-9	Invalid command

Exit Code	Error Code	Reason
2	-10	Unable to open device
2	-12	Device type not supported
2	-14	Invalid device
2	-16	Not allowed in boot device
2	-20	No devices found
2	-22	Operation only supported in Windows PE
2	-23	Firmware is current
2	-24	Unable to open firmware image file
2	-25	Firmware update available
2	-29	Unable to write in the output file
2	-42	Invalid image file type
2	-53	Operation is not supported
2	-57	Device is not an NVMe device
2	-58	Device is not an ATA nor SCSI device
2	-66	Invalid Input, Command Terminated
2	-67	User cancelled the operation, Command Terminated
2	-68	Generation number changed while reading telemetry or persistent event log - retry the command
2	-86	Invalid file
2	-115	48-bit Commands Not Supported
2	-117	Cannot set MAX LBA greater than current MAX LBA
2	-124	Security Not Supported
2	-125	Security Frozen
2	-126	Security Locked
2	-128	Sanitize Not Supported by the device
2	-129	Operation is not supported by the device
2	-133	No Log Pages Found
2	-134	AHCI controller not found
2	-143	Invalid Input Parameter
2	-190	TCG Protocol Not Supported
2	-192	TCG OPAL Not Activated
2	-194	TCG password type not supported
2	-195	TCG Enterprise is required
2	-196	TCG Opal is required
2	-210	Mirror command is not applicable
2	-211	Device must be a NVMe controller node (/dev/nvmeX and –nsid equal to 0xFFFFFFFF)
2	-212	Device must be a NVMe namespace node (/dev/nvmeXnY or /dev/nvmeX and –nsid not 0xFFFFFFFF)
2	-213	Device must be a NVMe namespace node (/dev/nvmeXnY)
2	-310	Security already Enabled
2	-311	Security Not Enabled
2	-312	Device is not locked

Exit Code	Error Code	Reason
2	-313	Device is locked
2	-433	Host Protected Area Not Supported
2	-450	Only supported for NVMe USB devices
2	-504	This operation is throttled by the OS (maybe try again after 10 minutes)
2	-600	This operation is not allowed on a RAID device
2	-999	The device does not support Cryptographic Erase
3	-3	EULA not accepted
4	-10000	Application coding error - please contact tool owner