

Enterprise Data Erasure

XErase™ Version 14 Quick Start Guide

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Preface

This is the "quick start" guide for **XErase** and was written around the use of the **List Interface** view. It was designed to provide you with enough information to start your first erasures as quickly as possible. There is only a brief description of the **Physical Interface** in <u>Appendix A – Layout Of The Physical Interface View</u>.

Users who are new to the **EPS** octanes or working with the bitmaps for enclosures of the **Physical Interface** are encouraged to refer to either the **Octane Quick Start Guide** or the **XErase User Guide**. Recent octanes should have been shipped with a shadow copy of the guide(s) on the desktop as well as on the **Start Menu**. If it is not there, look in **c:\xeraswin\pdf** using **Windows File Explorer**.



Icons Used Throughout XErase™

The icons in the following tables include most of the ones that appear throughout the windows discussed in this guide. Further details can be found in the **XErase User Guide**. Icons that appear multiple times with the same actions are listed once.

	XErase Icons							
	Main Window							
	Left Side		Right Side					
	Start Erasure		Login User					
	Stop Erasure	Q	Display / View Sectors					
*	Select (Access) Erasure Methods	\$	Rescan Drives					
		\$	Edit User Fields					
		Ê	Build Report(s)					
		* >	Zoom view up / down (%) - Physical Interface, Topbar					

	Submenus
	Change directories (folders)
	Save / Update (and continue)
K	Save as
O	Add element to the list
	Remove element from the list
	Cancel operation
	Save configuration as profile
	Proceed after changes are made
	Checks database against current and future requirements
↑ ↓ + -	Move element up / down in the list

Table 1 Icons Used Throughout XErase



Introduction

Welcome to **XErase Enterprise Data Erasure**, the quickest and most efficient means of securely erasing data. **XErase** provides a fully automated solution for erasing data on disk drives in an entire storage array with multiple enclosures, individual enclosures or just a single disk drive.

This cost effective data erasure software was designed to save time and money, and provide the user with the peace of mind that comes from a leader of erasure software focused on the **ITAD** industry. It works with current drive connection technologies such as **SATA**, **SAS**, **SSD**, **NVMe**¹ and **Fibre Channel** as well as some of the legacy types, for example, **SCSI** (physical adaptation may be required).

A variety of sanitization methods have been incorporated into the software and can be quickly selected depending on requirements. Most of the erasure methods **XErase** can be configured to use are based on the standards as described by **NIST** and **DoD** which are the primary standards currently used throughout the industry. Additionally, the software can easily be adapted to accommodate any future data erasure methods or standards for sanitizing drives.

XErase's unique **Physical Interface** along with the **List Interface** provide the operator with a direct view into the system and the status of the erasure for each drive in an intuitive manner. All devices that are online and accessible are displayed with key data points. No other software available today has the features or highly customizable functionality that are incorporated into **Xerase Enterprise Data Erasure**.

This guide will provide the steps needed to quickly get started using **XErase** to wipe disk drives using the **List Interface** (Figure 2 below). Refer to the **XErase** <u>User Guide</u> for further details on how to change views as well as how use to **XErase** to its fullest potential.



Figure 1 XErase Physical Interface View Of An Empty octane8, octane24 And Generic Enclosure

Figure 2 XErase List Interface View With 4 Drives Connected

¹ There is limited support for NVMe as of this document. Contact <u>EPS support</u> for further information.

A Few Key Features²

Erasure

XErase was designed to wipe ("sanitize") connected drives according to widely recognized standards and methods. It has been certified by **ADISA** (the **ITAD** standards organization) to conform to the current standards related to the security of data and the recycling of disk drives prior to their disposal or reuse. The latest certifications can be found at (www.adisarc.com):

- Level 1 using SanDisk SSD, Kingston NVMe and Intel SSD
- Level 2 using SSD, Kingston NVMe and Intel NVMe

While there are many others, **XErase** was optimized around these two standards:

- NIST SP800-88R1 (www.nvlpubs.nist.gov)
- DoD 5220.22-M (www.esd.whs.mil)

Grading

A premium feature of **XErase** which classifies drives according to their overall condition. Some of a drive's attributes that are factored into its grade include power on hours, seek times, bad sectors, etc. Grading is customizable based on your requirements and is designed to help make classifying a drive, both before and after erasure, a quick and efficient process.

Database Services

XErase incorporates the ability to connect to various ERP databases (i.e., Makor, Razor, CycleLution, to name a few) and upload information related to assets and the results of their erasure and/or testing. Refer to the **XErase User Guide** for further details. Additional licensing may be required.

Reports And Labels

Reports and labels can be generated or printed for completed erasures in various formats (i.e., PDF, HTML, CSV, etc.) either automatically or on demand. Sample templates are provided from which company specific reports and labels can be customized and created according to requirements.

Enclosure Bitmaps

XErase includes a wide range of bitmaps representing disk enclosures which can be used to easily "map" a visual representation of a physical enclosure and its slots. **EPS** octane appliances (similar to the top and middle bitmaps in <u>Figure 1</u>) will have the **Physical**

² Documentation for the full list of features, can be found in the XErase <u>User Guide</u>.

Interface view set as the default making cross referencing a physical location of a drive within the appliance much easier.

Preparation And Prerequisites

Licensing

This guide describes usage with a permanent (yearly subscription model) license stored on a hardware dongle. Regardless of your licensing model, ensure that a license for **XErase** is active or that you have sufficient charges remaining to erase the expected quantity of drives. If this is your first exposure to **XErase**, contact <u>sales@extremeprotocol.com</u> for further information before continuing. While **XErase** can be installed and run without an active license (the title bar will show "DEMO"), the controls will not be active. Refer to the **XErase User Guide** for further details.

Windows And Hardware Requirements

Operating System: Windows 10 or Windows Server.

Hardware: The following specifications are the minimum hardware recommendations for the system on which **XErase** will be installed and running.

- Processor: Current generation of x64 (Intel or AMD) family of CPUs.
- Memory: 8 GB (16 GB recommended)
- Controller: **XErase** has been optimized to use **ATTO** adapters.

Note: In general, **XErase** relies primarily on having access to fast, high I/O bandwidth, thus the lower memory requirements.

Windows Settings

To ensure the smoothest problem and interruption free usage, it is highly recommended that the following items (refer to Appendix A, Recommended Settings for others) be reviewed and set as indicated either before installing, or post-installation but before starting **XErase**.

Firewalls – Given the complexity of customizing network firewall rules and the number of underlying ports used by the installer, all the firewall rules on the system should be turned off, and remain off, as long as the installer is running.

User Access Control – The recommendation is to leave this set to the minimal warning level.

Windows Update – Disable this feature to lessen the potential impact of installing Windows updates to the running operating system and **XErase** during an erasure.

Install XErase

Follow these steps to perform a fresh installation. Refer to <u>Appendix A, Reinstalling</u> for details on how to reinstall **XErase**. If you just received a system with **XErase** preinstalled, or **XErase** is already installed and working correctly, skip to <u>Start XErase</u>.

- 1. Download the installer (www.enterprisedataerasure.com/software/setup.exe).
- 2. Open the installer and confirm that **Web** is (pre)**selected**. If anything other than **Web** is selected or the installer is "grayed out", the system the installer is running on may not be connected to the network. Close the installer and correct the issue before proceeding. Contact <u>support</u> if you are unable to select that option.
- 3. Click on the field (or the dropdown arrow) to the right of **Product** and select **XErase Enterprise Data Erasure** from the choices.

Figure 3 EPS Installer For XErase

4. Ensure **Version** is still defaulted to **Official Release**, then click Install.

Watch the installer as it may update itself, then restart. If that happens, once it is (re)started, and the selections are confirmed, click Install. During installation various prompts related to licensing will appear. Respond **No** to the prompt asking about "...**License Server**".

5. Once **XErase** is installed, close the installer using either **File** → **Exit** or by clicking the "**X**" in the upper right corner of the window.

Figure 4 The Two Ways Of Exiting The Installer

Note: The highlighted section applies to **XErase** on Windows 7 only.

Start XErase - The List Interface View

The **List Interface** is the default view (unless you are working with an octane) and will display the disks as they are attached in a sequential "list". The view can be toggled between the **List** and **Physical Interface** by clicking **View** in the main menu section of the window and selecting the desired interface.

If **XErase** isn't somewhere in the **Start Menu**:

- 1. Open **File Explorer** and navigate to **c:\XERASwin**.
- 2. Scroll through the contents and double click 🔀 xerase .
- 3. Once the UAC (Windows User Account Control) warning is acknowledged, the List Interface will be displayed.

The following figure contains a map/layout of the **List Interface**. The drives will appear in the white space with information under each heading (**"5"** in the below figure) when they are connected.

Eile Cus	orise Data Erasure Premium v14 - 0 Devi tomize <u>V</u> iew <u>O</u> perator Control Prei	ces <-1 nium Tools <u>H</u> elp	X
	Hethod: NIST 800-8 Fallback: NIST 800-8 RULE: Entire Drive	88 rev1 Purge C 88 rev1 Clear 3 9	P: Vipe Status → ▲ 💽 III
	MFG MODEL SERIAL#	SIZE DEVICE T	SPEED REMAIN GLIST PWR HEALTH STATUS
			5
	Area Of Window	Number	Description (Contains)
	Title Par	1	Displays the name of the application, licensing information, running version and number of devices connected.
	The bar	2	Main commands. Refer to the <u>XErase User Guide</u> for further details.
	Operator Controls /	3	Displays the erasure methods selected for the category of disk drives as well as any specific rules related to the drive when it is erased (if configured).
	Information	4	Controls related to the erasure (left side) or related to the operator, erasure and the drives (right side). See <u>Table 1</u> for a definition of each icon.
	Disk Drive Display	5	Contains attributes of the drives as well as information related to the erasure. The drop down (next to "Wipe Status") contains a few others that can be added in this view.

Figure 5 The List Interface View

Connect And Select Drives To Be Erased

Ensure **XErase** has active licenses and is showing the **List Interface** view.

- 1. Make any connections required to power on the drives and visible to the system.
- 2. Watch the title bar of **XErase** as each drive is recognized and displayed. Once the drive is listed, the default erasure method the drive can perform is listed under **STATUS**.

X I	interprise Data	Erasure Premium v1	14 - Adding/Removing) device (2 current entries, 2	2 pending)	┣━	-				-		\times
<u>F</u> ile	Customi <u>z</u> e	View Operator Co	ntrol Premium Too	ls <u>H</u> elp										
		Method: Fallback: RULE:	NIST 800-88 rev1 Purg NIST 800-88 rev1 Clea Entire Drive	je ar						Wipe Status		\$	\$ °	Ê
-	MFG	MODEL	SERIAL #	SIZE	DEVICE TYPE	SPEED	REMAIN	GLIST	PWR	HEALTH	STATUS	3		
	🗃 HP	DG072BB975	3NP3E5TH	73GB	3.5 SAS 7200	0.0 MB/s		18/18	4136	0.0%	Clear->Media V	Vrite 1x		
	🗃 HITACHI	HTS541640J9SA00	SB2A82SKH7A1GT	40GB	3.5 SATA 7200	0.0 MB/s		0/0	227	0.0%	Clear->Media V	Vrite 1x		
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Figure 6 Title Bar Of XErase Displaying Activity

3. After all the drives have been initiated, the total number of drives should be displayed in the title bar and match the number of drives shown in the display area. Cross check the number and resolve any discrepancies.

🔣 Ei <u>F</u> ile	terprise Data Customi <u>z</u> e	Erasure Premium v1 ⊻iew Qperator Co	14 4 Devices ntrol Premium Tools	<u>H</u> elp								-		×
		Method: Fallback RULE: - I	NIST 800-88 rev1 Purge NIST 800-88 rev1 Clear Entire Drive	ິ້						Vipe Status		à \$	¢°	Ê
	MFG	MODEL	SERIAL #	SIZE	DEVICE TYPE	SPEED	REMAIN	GLIST	PWR	HEALTH	S	TATUS		
	HP HITACHI HP OCZ	DG072BB975 HTS541640J9SA00 DG072BB975 TALOS2	3NP3E5TH SB2A82SKH7A1GT 3NP3FSTR 96FZR908XN79X4L9	73GB 40GB 73GB 400GB	3.5 SAS 7200 3.5 SATA 7200 3.5 SAS 7200 2.5 SATA3 SSD	0.0 MB/s 0.0 MB/s 0.0 MB/s 0.0 MB/s		18/18 0/0 0/0 -1/-1	4136 227 2958 0	0.0% 0.0% 0.0% 0.0%	Clear->M Clear->M Clear->M Clear->M	edia Write 1x edia Write 1x edia Write 1x edia Write 3x		
the second second second second														

Figure 7 Reviewing The Total Drives Seen By XErase

A useful tool for checking if drives are accessible is **Windows Device Manager**. Once open, expand the **Disk drives** tree and ensure the expected number (less the drive Windows is running on) is the number displayed in **XErase**. Drives that do not show up in **Device Manager** will not be displayed in **XErase**.

Figure 8 Using Device Manager To Check For Drives

Some drives will take a long time to spin up and come on line. Refer to <u>Troublesome</u> <u>Drives</u> for further suggestions.

4. Unless individual drives have unique requirements, select all the drives to be erased either by **Control** → **Select All** or by clicking each drive individually.

X Er	nterprise Data	Erasure Premium v	14 - 4 Devices										- 🗆	×
<u>F</u> ile	Customize	View Operator Co	ontrol Premium Tools	<u>H</u> elp										
		Metho Failba RULE	Reset Adapter Rescan Adapter	`	OP: 0 0	0				Wipe Status	•		\$ °	Ê
100	MEG	MODEL	Select	>	Select All	5	REMAIN	GLIST	PWR	HEALTH		STATUS		
		DC07288975	Start	>	Select Partial/Idle			10/10	4126	0.0%	C	lear->Media Write	ly.	- 10
12	HITACHI	HTS541640.19S	Stop	>	Select Failed	s		0/0	227	0.0%	c	lear->Media Write	Ix	- 11
12	HP	DG072BB975	3NP3FSTR	7	Deselect All	Is		0/0	2958	0.0%	c	lear->Media Write	Ix	- 10
112	ocz	TALOS2	96FZR908XN79X4L9	400GE	3 2.5 SATA3 SSD 0.	.0 MB/s		-1/-1	0	0.0%	С	lear->Media Write	Bx	- 10

Figure 9 Selecting The Drives To Be Erased

Start The Erasure(s)

Once the desired drives are selected, begin the erasure by clicking
 The progress of the erasure will be displayed under STATUS. View the activity for a drive by right clicking the drive and selecting View Log.

MED XVipe Statuz Xvipe Statuz MFG MODEL SERIAL# SZE DEV/CE TYPE SPEED REMAIN GLIST PV/R HEALTH STATUS MFG MODEL SERIAL# SZE DEV/CE TYPE SPEED REMAIN GLIST PV/R HEALTH STATUS MFG MODEL SERIAL# SZE DEV/CE TYPE SPEED REMAIN GLIST PV/R HEALTH STATUS MFG MODEL SERIAL# SZE DEV/CE TYPE SPEED REMAIN GLIST PV/R HEALTH STATUS MFB D607ZASEB7 B365P750TEGE 73GR 3.5 SATS 7200 0.0 MB/s 0/0 223.3 0.0% Prep Cleaned (95.00%) WD WD3002BKTG WX11E44EWY54 300GB 2.5 SAS 10000 0.0 MB/s 0/0 754 0.0% Prep Cleaned (95.00%) WD WD3002BKTG NZ07T77258BM 80GB 3.5 SATA 7200 0.0 MB/s 0/0 5112 0.0% Prep Cleaned (95.00%)	¢° [
MFG MODEL SERIAL # SIZE DEVICE TYPE SPEED REMAN GLIST PWR HEALTH STATUS BM SSGH0VH600 KSHYSJNR S890B 2.5 SA5 10000 0.0 MB/s 0.0 16271 0.0% Prep:Validated (09.00%) HP DG072A9BB7 B355P750T8GE 73GB 3.5 SA5 7200 0.0 MB/s 0.0 2233 0.0% Prep:Cleand (05.00%) WD VX03002BKT VXX11E44EVV54 3006 2.5 SA5 1000 0.0 MB/s 0.0 754 0.0% Prep:Cleand (05.00%) FUJITSU MHW2080BS NZ07T77256BM 80GB 3.5 SATA 7200 0.0 MB/s 0.0 5112 0.0% Prep:Cleand (05.00%)		
BM SSCHWUHB00 KSNYBJWR 589CB 2.5 SA5 10000 0.0 MB/s 0.0 1 6271 0.0% Prep Viaidade (90.00%) MP DG072A98B7 B3659750780E 73GB 3.5 SA5 7200 0.0 MB/s 0/0 2323 0.0% Prep Cleaned (95.00%) WD W03002BKT0 WX116444WV54 3006 2.5 SA5 1000 0.0 MB/s 0/0 754 0.0% WD W03002BKT0 WX116444WV54 3006 2.5 SA5 1000 0.0 MB/s 0/0 754 0.0% FUJITSU MHW2060BS NZ07T77258BM 80GB 3.5 SATA 7200 0.0 MB/s 0/0 5112 0.0%		

Figure 10 Erasures Started / In Progress On Four Drives

2. A more detailed view into all the erasures as well as the logs for each drive can be accessed with the **Log Analysis and Monitor** tool.

Figure 11 Accessing Log Analysis and Monitoring

WARNING: <u>DO NOT save</u> any modifications while a log is being viewed. See the <u>XErase User Guide</u> for further details.

Reporting (Optional)

Once the erasures have completed, the status for each drive will be displayed. A report based on the logs for each drive can be generated at this time.

1. Access the report generation interface by clicking

Figure 12 Completed Erasures, Generate Report Button

2. Select the directory for the desired logs of the drives to be reported on, along with the desired template and format, then click **Build Report** and respond to the prompts.

Figure 13 Generating a PDF Report

Appendix A – Supplemental Information

Reinstalling XErase

Once **XErase** is installed, a setup (aka, updates) executable specific to **XErase** is placed into **c:\XERASwin**.

- 1. Open File Explorer, expand drive "C:", navigate to XERASwin and delete 🔀 xerase
- 2. In the same folder, navigate to **updates** and erase:
 - XERASwin.up
 - TOOLSwin.upd
- 3. Navigate back up one level (to **XERASwin**) and launch/double click 🔀 setup
- 4. Begin the installation at **Install XErase**, <u>step 3</u>.

Optionally, to reinstall "from scratch":

- 1. Open File Explorer, expand drive "C:" and erase the folder XERASwin.
- 2. Follow the steps in Install XErase.

Layout Of The Physical Interface View

There are two different views of the **Physical Interface** relative to the display area for the drives (click **View** to see the choices). The following screenshots highlight the areas unique to the **Physical Interface** view.

Sidebar – Erasure methods, operator information and controls are on the right.
 Topbar – Like the List Interface, methods, operator information and controls are across the top.

Figure 14 Physical Interface – Topbar View Of An octane24

Figure 15 Physical Interface - Sidebar View Of An octane24

Note: Not all enclosures will have an enclosure services chip and thus may not allow correctly (if at all) viewing disks in a **Physical Interface** view. All models of octanes will have their chip(s) already recognized and the respective slots mapped when it is shipped from **EPS**.

Troublesome Drives

Some drives will take a long time to spin up and come ready. In those cases, wait a few additional seconds and if it still hasn't appeared in **XErase**, click and/or refresh the list in **Device manager** – right click **Disk drives**, select **Scan for hardware changes**. If the drive still does not appear in **Device manager**, it is very likely dead/inoperable. Pull it and set it aside for disposal according to your organization's guidelines.

Note: As of this document, **XErase** has limited support for NVMe drives. Contact **EPS** support with any questions.

Also note that if a drive is in bad enough condition, it may cause **XErase** to crash when it is inserted or accessed by **XErase**. The drive trays used in the **EPS** octane appliances have fuses in them to help protect the system from related power spikes.

Recommended Settings

These are some of the common settings which have been found to enhance interruption-free operation. **XErase** is runs independently of Windows and assumes the settings in the following table are set as suggested to avoid potential issues during erasures.

	Windows (Settings And/Or Control Panel)
Category	Recommended Setting
Power	Set the active power plan to High Performance. Open a command line as Administrator and run the command, " powercfg -h off " (disable hibernate).
User Access Control (UAC)	If this is changed from the default of, "Always Notify", do not turn it off completely. Research suggests that doing so may contribute to the corruption of the disk Windows was installed on. The recommended setting is the first up from " Never notify ".
Firewalls	Disable all firewalls while/any time the installer (aka, "updates") is running.
Disk OS Is Installed / Running On	XErase has been designed to ignore ("filter out") the drive Windows was installed on and actively running from. To further assist in quickly noting the drive when/if/where needed, rename it to a unique name. For example, EPS_SYTEM .
Autoplay	Deselect Use AutoPlay for all media and devices as well as any of selection for the media beneath. The respective selection should return to the choice "Choose a default ".
Updates	Windows updates may contain updates to various active components of the running environment. To reduce the risk of causing problems to the running operating system, and possibly indirectly to XErase , automatic downloading (and installation) of updates should be delayed. Note that Windows 10 does not allow completely disabling the download and install of updates. The best workaround is to set the active hours and related
	settings, to any time prior to and after business hours, then postpone updates for as long as possible.

Table 2 Recommended Settings For Windows

These are the only **XErase** settings (**Configure** \rightarrow **Interface**) that you may want to update at least until you become more familiar with the program's extensive capabilities.

XErase (Customize -> Interface)							
Category	Program Setting	Setting / Option Value					
Program	Support Enclosure Services (Premium Subscription Required)*	On					
Settings	Stop/Resume Erasures on Rescan	Off (default)					
Recycler Mode	Recycler Mode	Warn					
Note: Remember to click 🚌 each time a setting is changed (and) before moving to the next							
Category or Program Setting. Otherwise, the update will be lost.							

Table 3 Recommended Settings For XErase

<u>*</u> Only applies if you are planning to map the slots of enclosures that are known to have enclosure services chips and wish to view disks in the **Physical Interface** view of the enclosure (i.e., does not apply to the **List Interface** view).

Support

Use one of the following methods to obtain assistance:

- Phone: (508) 278-3600
- Email: support@extremeprotocol.com
- Web: http://www.enterprisedataerasure.com/support-request
- Knowledge Base: http://www.enterprisedataerasure.com/knowledge-base
- XErase <u>User Guide(s)</u>: Open XErase, click, Help, or using File Explorer, look in c:\xeraswin\PDF.