ADATA® INDUSTRIAL

A⁺ SSDTOOL

User Manual
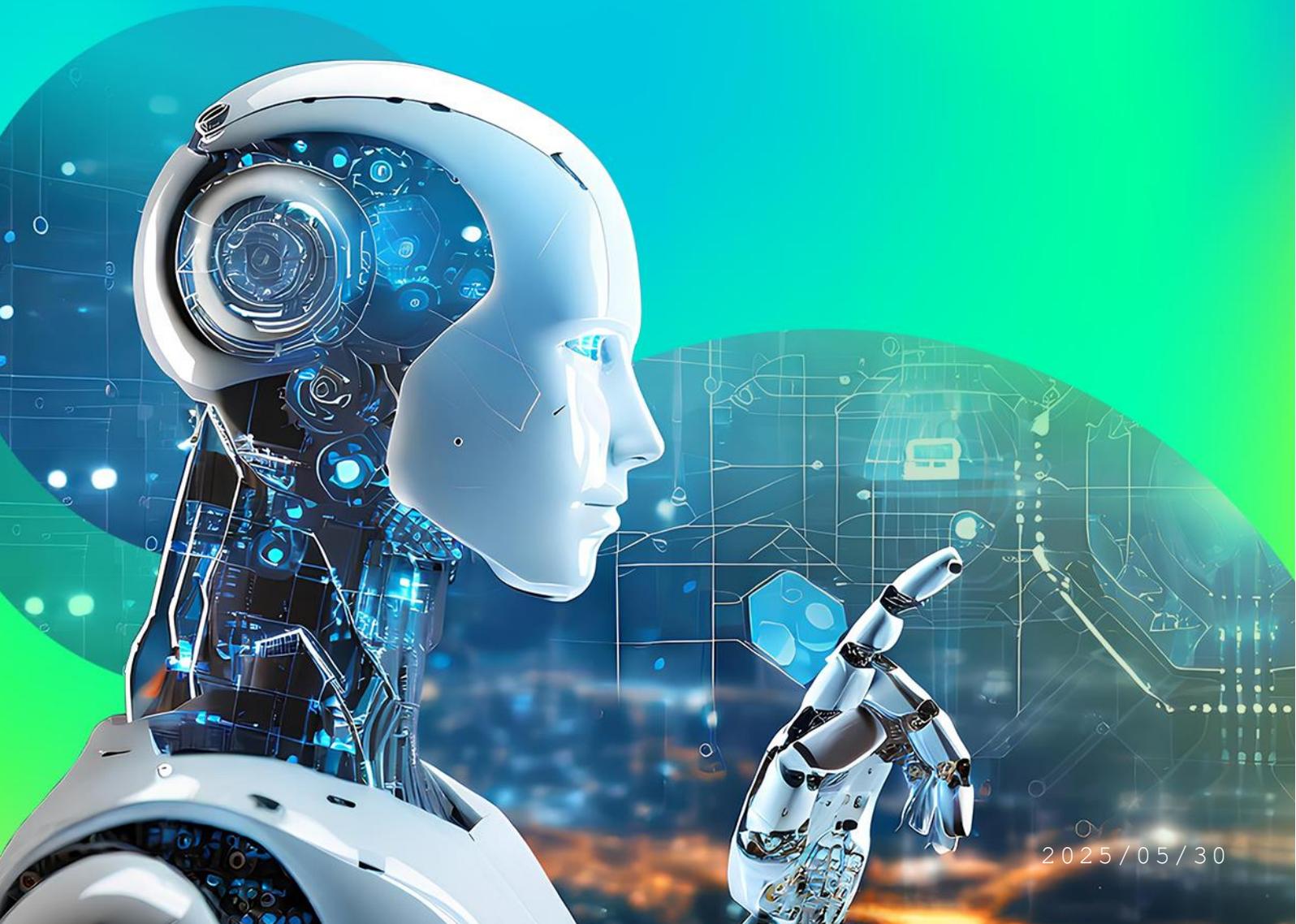
2025/05/30

Version Control Table

Version	Date	Detail
V2.0.0	2022/01/05	NVMe & SATA support
V2.1.0	2025/05/31	Support to use NVMe & SATA USB Adapter
V2.1.1	2022/08/02	Bug Fixed & Add EULA
V2.1.2	2023/07/17	Support to NON-ADATA standard product
V2.1.3	2023/07/28	Bug Fixed
V2.1.4	2023/11/29	Add supported model & Support RAID
V2.1.5	2023/12/26	Bug Fixed & Add supported Model & Add Smart Hex/Dec switch option
V2.1.6	2024/04/25	Bug Fixed & UI update
V2.1.8	2025/05/30	Bug Fixed & New CIS

Contents

Overview

A$^+$ SSDTOOL is an application which provides user to monitor and manage ADATA Industrial SSD/NVMe.

A$^+$ SSDTOOL enables user to obtain ADATA Industrial SSD/NVMe health & status. User can check storage usage and the life of ADATA Industrial SSD/NVMe.

A$^+$ SSDTOOL provides the security erase feature for ADATA Industrial SATA SSD to do full erase.

A$^+$ SSDTOOL provides **Overview, Device Information, S.M.A.R.T. Attribute, Utilities, Alert, and System Information.**

System Requirement

Item	Minimum Requirement
Processor	Intel Core 2 Duo series or same level CPU
Memory	4 GB RAM
Free Disk Space	20 MB available hard disk space
Recommend Operating System	Windows 10 (1903 or above)
Windows Access permission	Administrator privileges is required
Package	.NET Framework 4.8

Installation & Running

Double click on A⁺ SSDTOOL_XXXXX.exe file then follow the instruction on screen to complete the installation.

A+ SSDTOOL_v2.1.8_R_250530.exe

After completed installation, use can see there is an A⁺ SSDTOOL logo on Windows desktop. Right click A⁺ SSDTOOL on Windows Desktop and click Run as administrator.
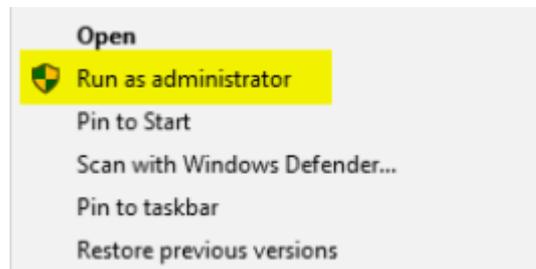
Overview

When you run ADATA A⁺ SSDTOOL, the main screen displays Overview.
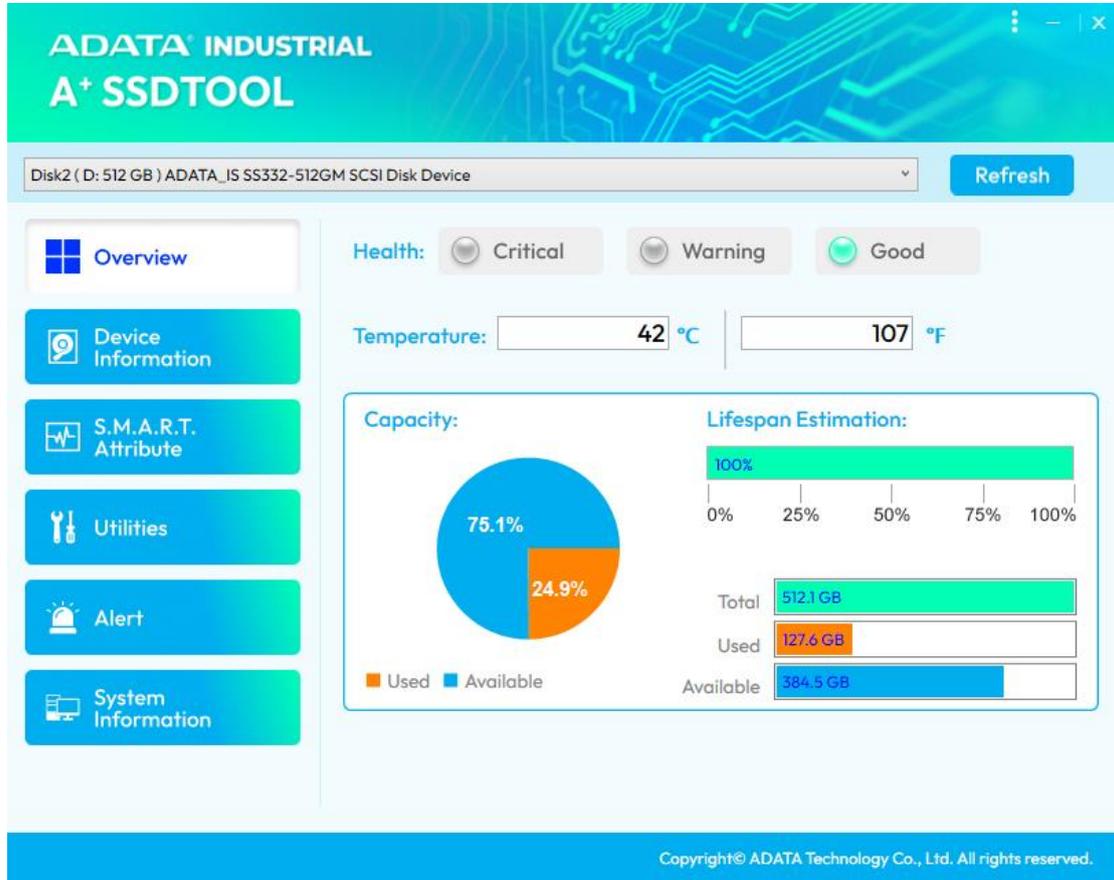
There are 4 sections in Overview.

Device dropdown menu:
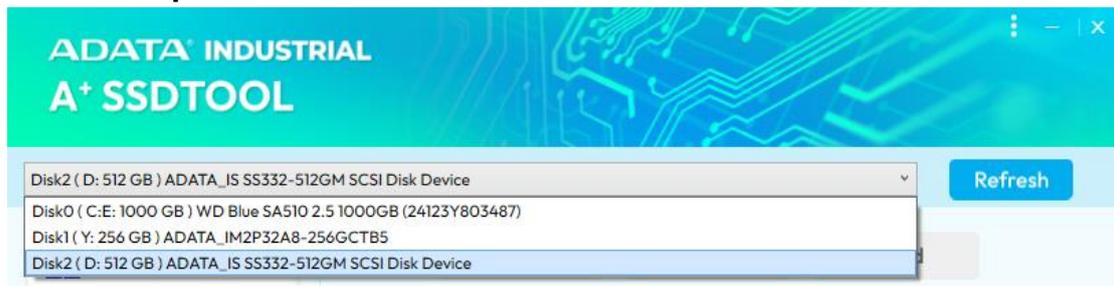
User can select the disk which has been connected to system. All disks will be displayed including non ADATA device. (**NVMe device is not listed at some OS due to OS limitation**)

If user installed an external device, please click **Refresh** to update list disk.

NOTE: ADATA A⁺ SSDTOOL only support ADATA Industrial SSD product, other brand may get incorrect information.

Health:

Drive Health shows the current status of the selected SSD which was from S.A.M.R.T attributes.

Good: All attributes are above threshold level

Warning: Some attributes are beyond threshold level

Critical: Important attributes are beyond threshold level, please backup this SSD ASAP.

Temperature

The temperature value is based on the SMART attribute

Capacity
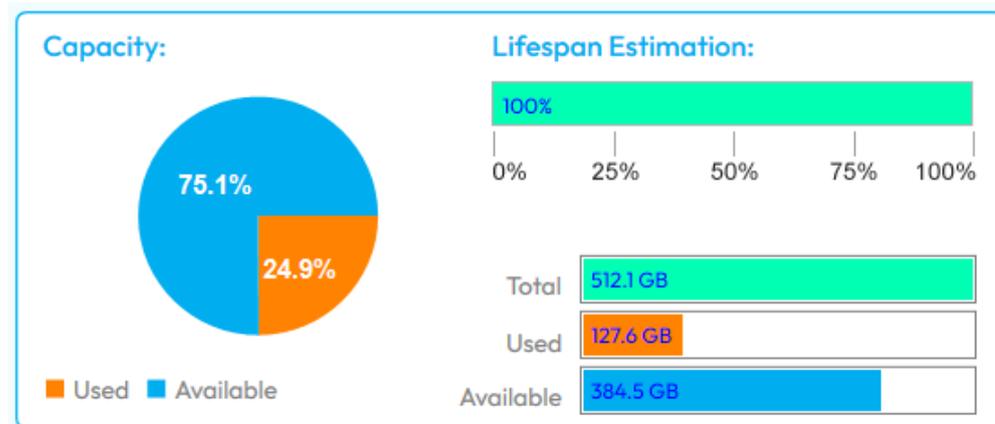
Capacity displays the percentage of Used and Available disk volume. It also displays Total, Used and available disk size.

Device Information

User can click Device Information to show current selected SSD information.

Device Information shows Serial number, Firmware version, Model Type,
Interface Type, Dimension (NVMe only) and feature list
This section shows the log basic disk information

S.M.A.R.T. Attribute

S.M.A.R.T. Attribute (Self-Monitoring, Analysis and Reporting Technology)
SSD support this feature for user to monitor the health, usage of SSD.

NOTE: ADATA A+ SSDTOOL only supports ADATA Industrial SSD product, other brand may get incorrect S.M.A.R.T. value.
NOTE2: Click "HEX/DEC" button can switch the raw values between HEX and DEC.

Utilities

ADATA A$^+$ SSDTOOL utility includes Security Erase and Export Log.

Security Erase: It deletes all data and restore SSD as factory default.

NOTE: After Security Erase is completed, device must reconnect (unplug & plug) to the original system to activate SSD. Otherwise, the SSD device will be locked.

If SSD is installed as master and including operating system or onboard, Security Erase feature is disabled and shows selected disk is **!Security Frozen**.

NOTE:

For security reasons, Windows OS freezes SATA storage device at some condition. This prevents Security Erase from running.

Suggest using SATA to USB adapter to do Security Erase feature on Windows 10 or later.

Export Log: This feature is able to export S.M.A.R.T. information and device information to specified location.

```
-------------------------------------------------------------------
 OS  : Microsoft Windows 10 專業版 64 位元
 Date : 2025/05/22 16:26:00
-------------------------------------------------------------------
             Model : ADATA_ISSS332-512GM
          Firmware : Q0810B
     Serial Number : 2L142L15JBKW
         Disk Size : 512 GB
        Model Type : 2.5" SSD
    Interface Type : SATA 3.0
    Power On Hours : 7 Hours
    Power On Count : 52 Count
  Host Writes Count : 20152 Count
       Temperature : 42 C  (107 F)
            Health : 100 %
  Features Support : DMA Setup Auto-Activate optimization
                    Initiating interface power management
                    Software settings preservation
                    Device Sleep
      Drive Letter : D:
-- S.M.A.R.T -------------------------------------------------------
 ID Cur Wor Thr RawValues(6)    Attribute Name
001 100 100   0 000000000000    Read_Error_Rate
005 100 100   0 000000000000    Reallocated_Sectors
009 100 100   0 000000000007    Power_On_Hours
012 100 100   0 000000000034    Power_Cycle_Count
160 100 100   0 000000000000    Uncorrectable_OnLine
161 100 100   0 00000000007E    Number_of_Pure_Spare
163 100 100   0 000000000027    Initial_Invalid_Block
164 100 100   0 000000001173    Total_Erase_Count
165 100 100   0 000000000004    Max_Erase_Count
166 100 100   0 000000000000    Min_Erase_Count
167 100 100   0 000000000002    Average_Erase_Count
168 100 100   0 000000000BB8    Max_Erase_in_Spec
169 100 100   0 000000000064    Remain_Life_Percentage
175 100 100   0 000000000000    Worst_Die_Program_Fail
176 100 100   0 000000000000    Worst_Die_Erase_Fail
177 100 100  50 000000000000    WearLeveling_Count
178 100 100   0 000000000000    Used_Reserved_Block
181 100 100   0 000000000000    Program_Fail_Count
182 100 100   0 000000000000    Erase_Fail_Count
192 100 100   0 000000000006    Power_Off_Retract
194 100 100   0 00000000002A    Temperature
195 100 100   0 000000000032    Hardware_ECC_recovered
196 100 100  16 000000000000    Reallocation_Event
```

Alert

ADATA A+ SSDTOOL provides alert notice feature. User can configure temperature, capacity, life remaining threshold of SSD, A+ SSDTOOL will send E-mail notification if SSD status triggers user's setting.

Temperatures:
User can see the under and above threshold temperatures appear. By default, these are set to send alerts when the temperature drops below 0°C/32° F or rises above 100°C/212° F. User can change these values.

Capacity:
User can change Capacity value (MB). System sends E-mail notice if SSD size is below this value.

Life Remaining:
User can change Life Remaining (%). System sends E-mail notice if SSD life is below this value.

After user enters the value, please click OK to save the data.

User also can click Restore Default to restore all data to factory default

Email Alert Setting

User must click **SMTP Setting** to configure SMTP mail server.
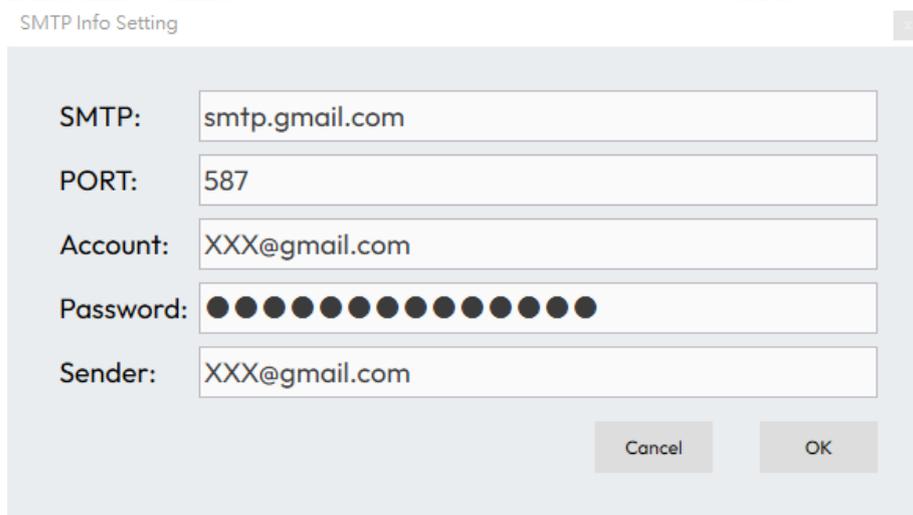
SMTP: IP address or hostname of your SMTP server.

PORT: Port number if it's not the default port number.

Account: Account of SMTP server.

Password: Password of account.

Sender: Sender's email address

Example:

This example uses GMAIL settings to illustrate. Fill out the required fields according to the instructions below:

SMTP: smtp.gmail.com

PORT: 587

Account: Enter your Gmail address.

Password: Enter your Google gmail app password which configured by your Google account.

Sender: Enter your Gmail address.

Google Gmail APP Password: please refer to below link:

https://support.google.com/mail/answer/185833?hl=en
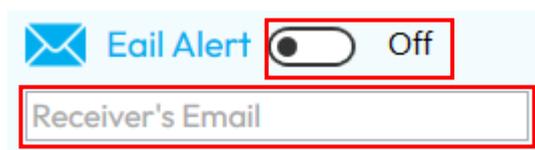
Type receiver's email address and click switch Email Alert to **On** and click **OK.**

A$^+$ SSDTOOL sends Alert information every 10 mins if there is any Temperatures/Capacity/Life Remaining triggered. Alert Log file location:

C:\Program Files (x86)\A+SSDTOOL\Log

Notification E-mail format:

```
---------------------------------------------------------------
            Model :
    Serial Number :
---------------------------------------------------------------
       Temperature : 32 C  (89.6 F)
              Life : 0 %
          Capacity : 373.1 GB
---------------------------------------------------------------
  Temperature Under : 30 C  (86 F)
  Temperature Above : 0 C  (32 F)
     Life Threshold : 0 %
 Capacity Threshold : 0 GB
---------------------------------------------------------------
```

NOTE: Some SMTP server has the limitation by using 3rd party application to send E-mail notification. Please contact IT before using this feature.

System Information

Latest section is System Information. It shows system information such as Operating System, CPU, RAM, Graphic information and Motherboard information.

System Information：

Computer Name	DESKTOP-I46M0AR
Operating System	Microsoft Windows 10 專業版 64 位元
CPU	13th Gen Intel(R) Core(TM) i3-13100
RAM	32.0 GB (31.8 GB usable)
Graphics	NVIDIA GeForce 210
Motherboard Company	ASUSTeK COMPUTER INC.
Motherboard Product	PRIME Z790M-PLUS D4

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