ADATA® INDUSTRIAL

A⁺ SSDTOOL

User Manual

2022/05/31

V2.1.0

Version Control Table

Version	Date	Detail
2.0.0	2022/1/5	NVMe & SATA support
2.1.0	2022/5/31	Support to use NVMe & SATA USB Adapter

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
Operational System	Windows 10 or above

Installation & Running

Double click on A⁺ SSDTOOL_v2.1.0.0_R_XXXX.msi file then follow the instruction on screen to complete the installation.
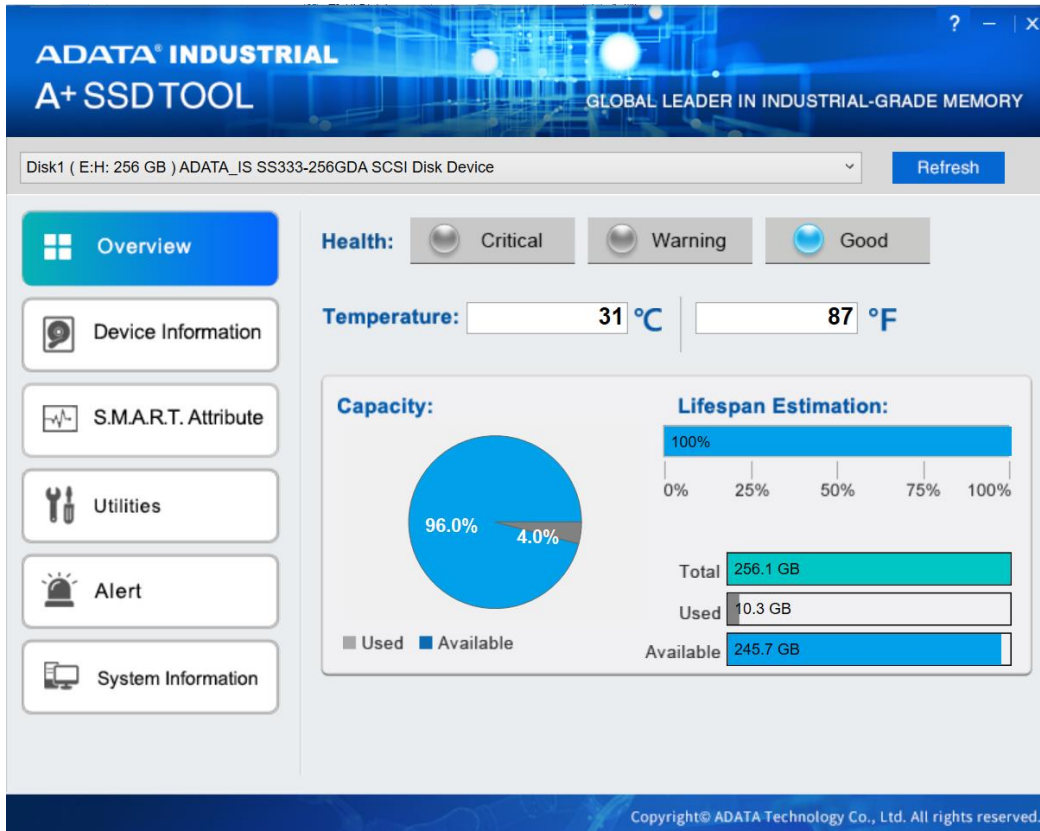
A+SSDTOOL_v2.0.0.0_R_211201

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.
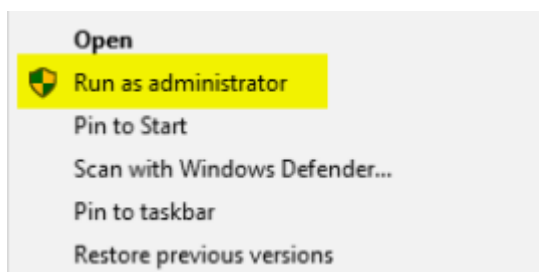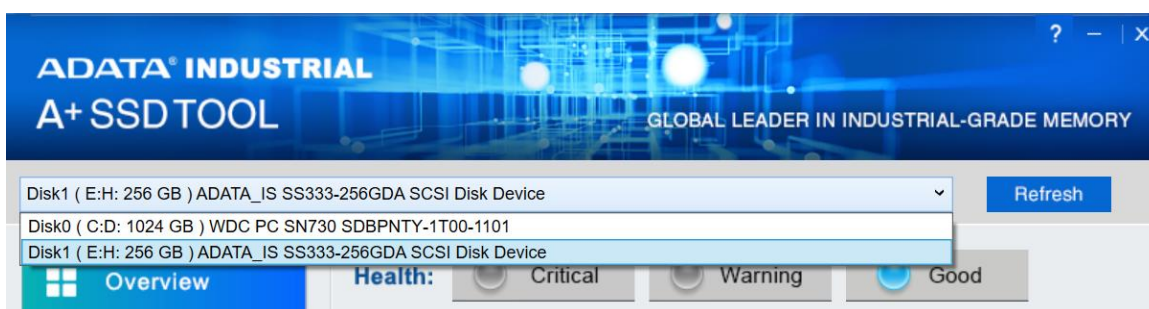
Overview

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.

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.
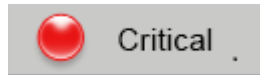
Health:

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

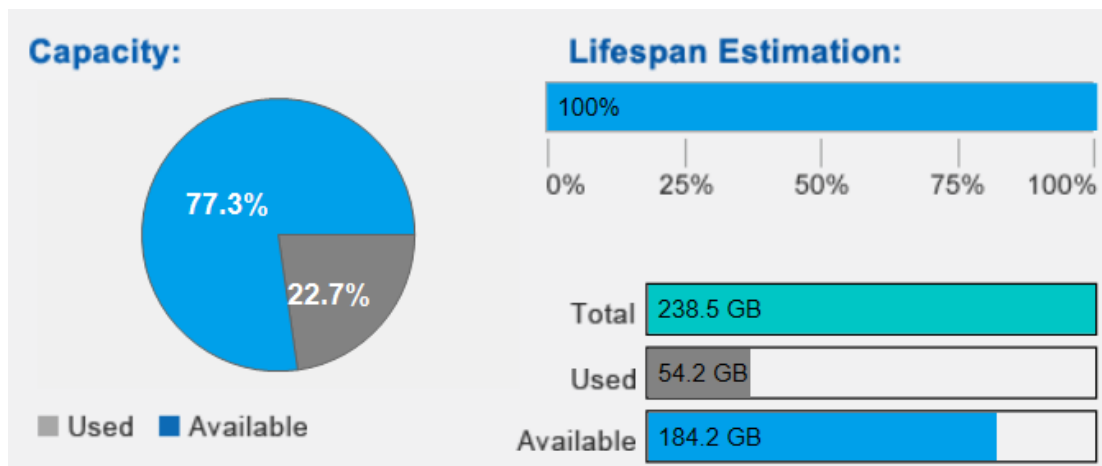Warning: Some attributes are beyond threshold level

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

1. Temperature:

The temperature value is based on the SMART attribute
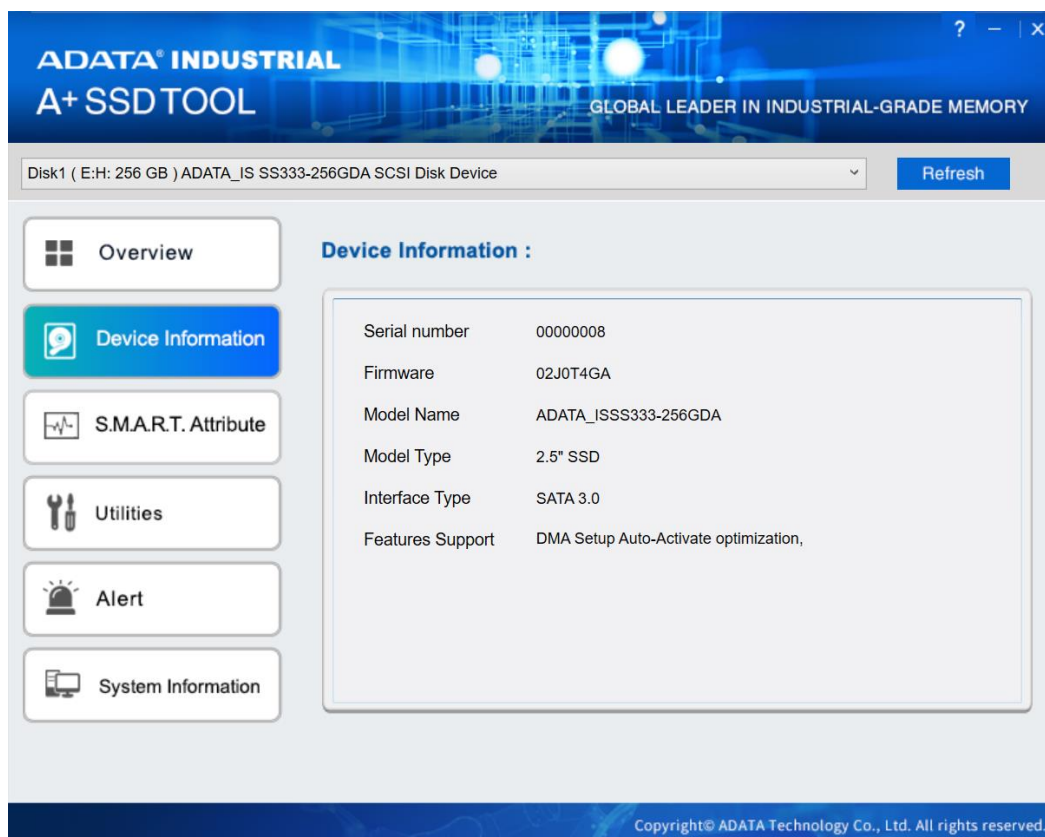
2. Capacity:

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

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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

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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.

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, Security Erase feature is disabled and shows selected disk is !**System Drive**.
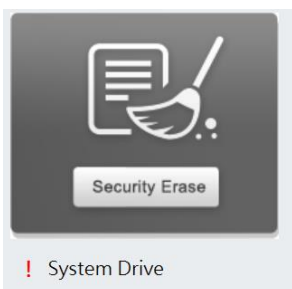
NOTE:

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 企業版 64 位元
  Date : 2021/11/25 13:18:09
-----------------------------------------------------------------------
ADATA_ISSS333-256GDA
-----------------------------------------------------------------------
            Model  : ADATA_ISSS333-256GDA
         Firmware  : 02J0T4GA
    Serial Number  : 00000008
        Disk Size  : 238.5 GB
       Model Type  : 2.5" SSD
   Interface Type  : SATA 3.0
        Dimension  :
   Power On Hours  : 301 Hours
   Power On Count  : 553 Count
 NAND Writes Count : 26216 Count
      Temperature  : 30 C  (86 F)
           Health  : 100 %
  Features Support : Device Sleep, Software settings preservation, Initiating interface power management, DMA Setup Auto-Activate opt
     Drive Letter  : C:
-- 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 Count
 009 100 100   0 00000000012D   Power On Hours
 012 100 100   0 000000000229   Power Cycle Count
 160 100 100   0 000000000000   Uncorrectable Sector Count On Line
 161 100 100   0 000000000036   Number of Pure Spare
 163 100 100   0 000000000010   Number of Initial Invlid Block
 148 100 100   0 0000000006BC   SLC Total Erase Count
 149 100 100   0 000000000044   SLC Max Erase Count
 150 100 100   0 000000000003   SLC Min Erase Count
 151 100 100   0 000000000027   SLC Average Erase Count
 164 100 100   0 00000000064A   TLC Total Erase Count
 165 100 100   0 00000000001E   TLC Max Erase Count
 166 100 100   0 000000000000   TLC Min Erase Count
 167 100 100   0 000000000002   TLC Average Erase Count
 168 100 100   0 000000000BB8   Max Erase Count in Spec
 169 100 100   0 000000000064   Remain Life Percentage
 177 100 100  50 000000000000   WearLeveling Count
 181 100 100   0 000000000000   Program Fail Count
```
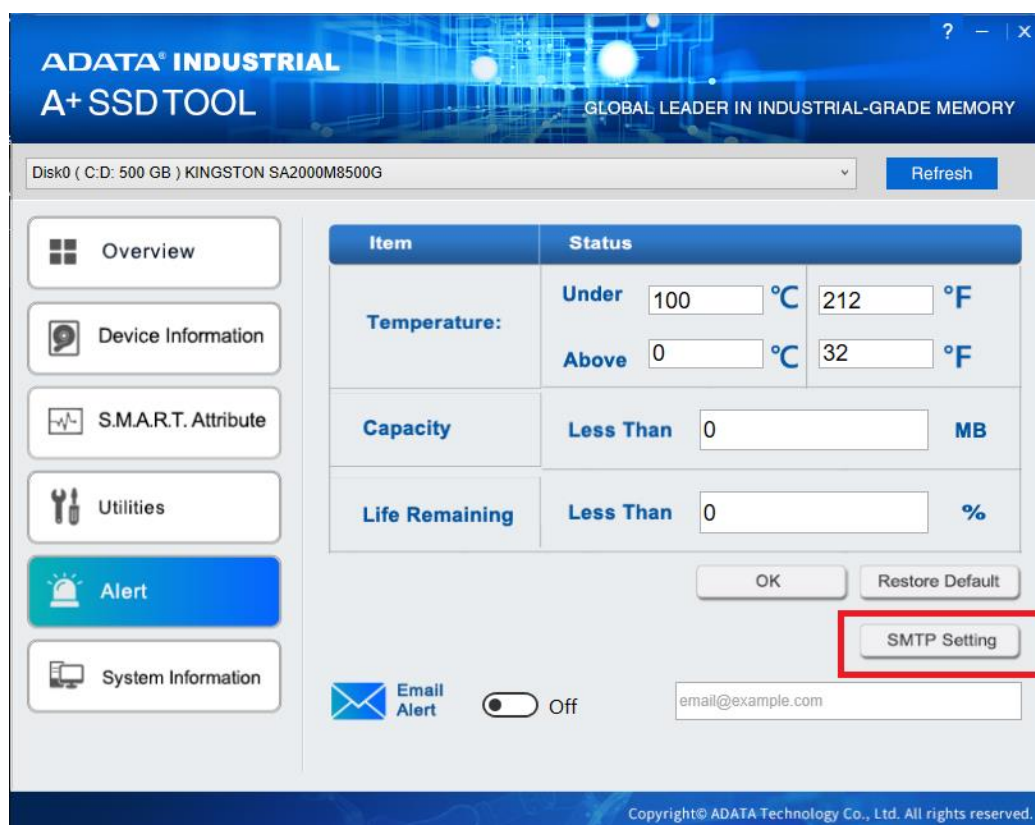
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Alert

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

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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

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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.

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System Information

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

System Infomation :

Operatiling System	Microsoft Windows 11 專業版 64 位元
CPU	Intel(R) Core(TM) i3-9100 CPU @ 3.60GHz
RAM	32.0 GB (31.9 GB usable)
Graphics	Intel(R) UHD Graphics 630
Motherboard Company	DFI Inc.
Motherboard Product	CS331

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