SP ToolBox

Free-download Software

(Industrial solution)

User Manual

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2. Product Introduction

SP Toolbox was developed for using with SP SSDs and Industrial Flash products, and provides multiple ways for users to obtain disk information, and to change settings easily. Additionally, it is an advanced and user-friendly software that makes it easier than ever to maintain a healthy and efficient device. The useful features include: View Drive Information, View S.M.A.R.T. Status, Wear Out Count, Block Information, Diagnostic Scan, Performance Test and Secure Erase.

With the SP SSD ToolBox, you will be able to perform all of the following tasks on SSDs and industrial Flash products:

- 「DEVICE INFO」: Displays device information including capacity, used space on device, device temperature, and Total Bytes Written.

- 「HEALTH」: Device Health shows the current status of the selected device as measured by supported S.A.M.R.T attributes.

- 「WEAR OUT COUNT」: Wear out count can identify device 's Total R/W, Erase count status.

- 「DIAGNOSTICS SCAN」: This function performs an overall health evaluation of your device.
  Two options: Quick Diagnostics, which will run basic tests on free space of the selected device, and Full Diagnostics, which runs a read test on all used space of the selected device.

- 「PERFORMANCE TEST」: Check both the sequential and random read/write speeds of your device.

- 「SECURE ERASE」: Secure Erase permanently deletes all data on selected device.

3. System Requirements

●Operating system：Microsoft Window® 7 32bit/ 64bit, Microsoft Windows® 8 32bit/ 64bit, Microsoft

Windows ® 8.1 32bit / 64bit, Microsoft Windows® 10 32bit/ 64bit.

4. Matters needing attention

●SP SSD Toolbox is exclusive for SP SSD series and industrial flash modules.

●Back up your data before executing "SECURE ERASE" function.

5. Restrictions

●Only SSDs are supported currently.

●Only industrial Flash products support "SECURE ERASE" function.

6. Introduction

6.1 Activate SP SSD ToolBox

You can download the SP SSD Toolbox at http://www.silicon-power.com/web/download-ToolBox. After downloading, unzip the file and double-click "SP ToolBox" to open the SP Toolbox for the software installation. Please then unzip the software and open the SP ToolBox folder, and click the application file named "SP ToolBox", and start the software installation. As shown in Illustration 6.1.1.
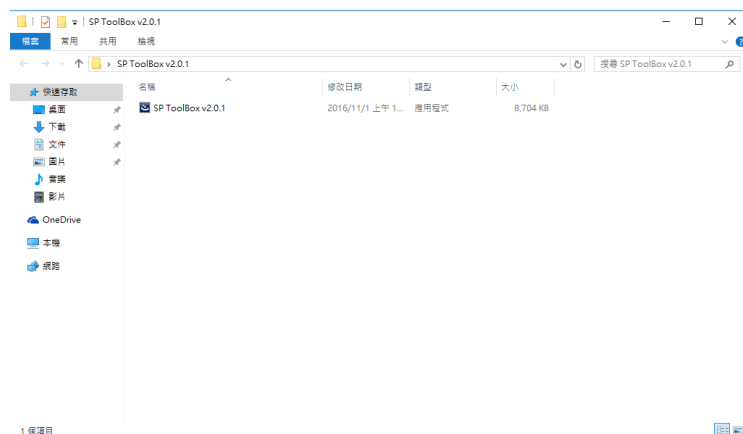

Illustration 6.1.1

To install the software, follow the steps to complete the process. As shown in Illustration 6.1.2、6.1.3、6.1.4、6.1.5、6.1.6.
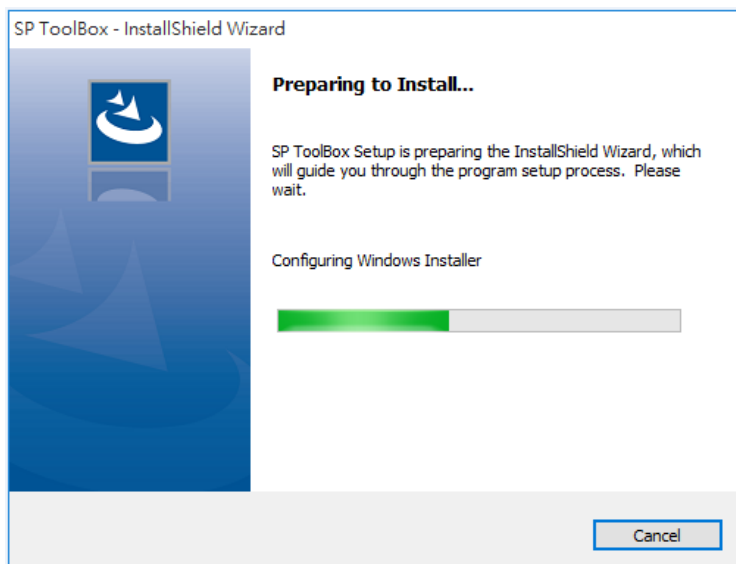

Illustration 6.1.2

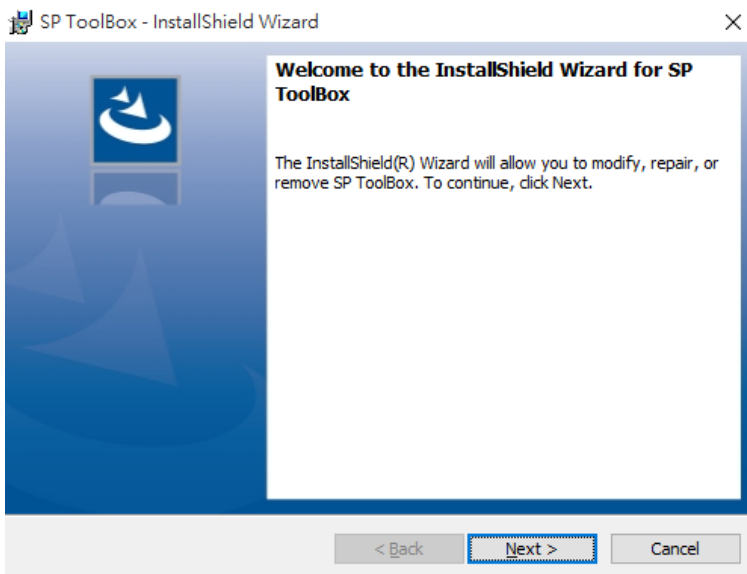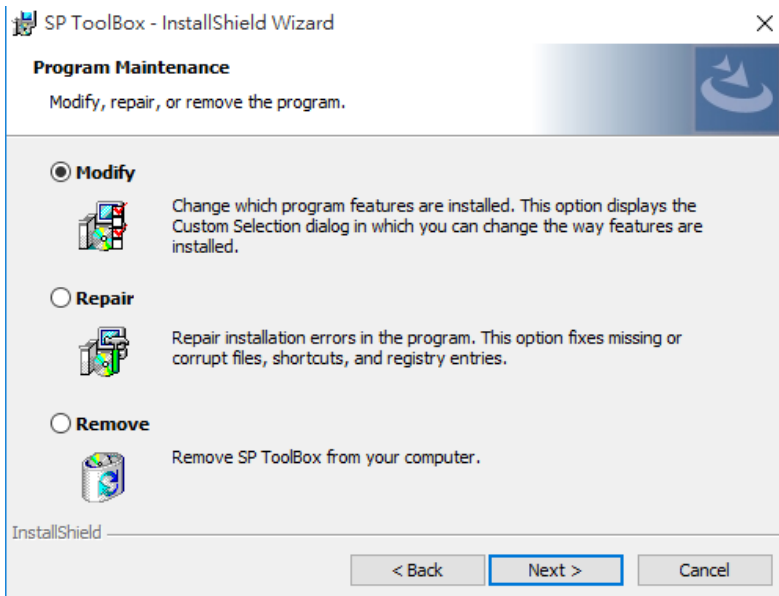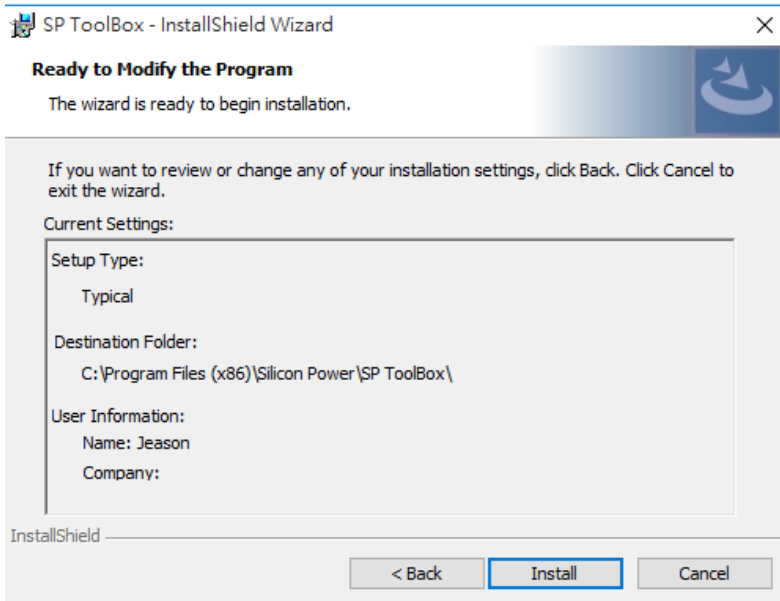**Illustration 6.1.3**

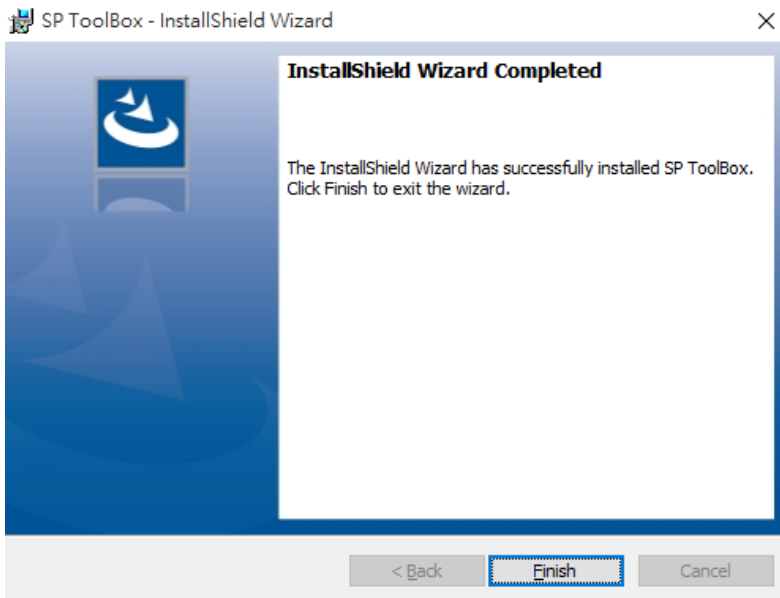**Illustration 6.1.4**

Illustration 6.1.5

Illustration 6.1.6

6.2 Browser Interface

Each time you start "SP SSD Toolbox", the main screen will appear immediately. The function options are on the left, and the contents of the disk information on the right. As shown in Illustration 6.2.1.

Illustration 6.2.1

6.3 SP SSD ToolBox Function Overview

The initial screen when start up the "SP SSD Toolbox". As shown in Illustration 6.3.1.

Illustration 6.3.1

Click "Select SSD" to select the drive. As shown in Illustration 6.3.2.

Illustration 6.3.2

7. SP SSD ToolBox Function

7.1 DEVICE INFO

Click "DEVICE INFO" to display the basic information of the currently connected SSD. Including: device information, capacity usage, and current temperature. As shown in Illustration 7.1.1.

Illustration 7.1.1

（1）DEVICE INFO

Display the model name, serial number, and firmware version of the SSD.

（2）CAPACITY USAGE

Display the total disk capacity, used capacity, total bytes written, and current temperature.

7.2 HEALTH

Click "HEALTH" to display the current health status and estimated life remaining; and click "SMART Info" to monitor the health status of the SSD. As shown in Illustration 7.2.1.

Illustration 7.2.1

（1）HEALTH

    Show the health status of the SSD, which is derived from S.M.A.R.T.

    Healthy（Blue） - All functions are healthy.

    Warning（Yellow） - Some functions are not healthy.

    Dangerous （Orange） - Main functions are not healthy.。*** Please back up your data immediately.**

（2）ESTIMATED LIFE REMAINING

    The estimated life remaining of the SSD is displayed in the "HEALTH" window. This estimate number is from the S.M.A.R.T. attribute.

    * If the estimated life remaining is less than 10%, please backup your data immediately.

（3）S.M.A.R.T. Info

    S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology) can monitor the health status of the SSD and predict potentail failures. Figure 7.2.2 provides the picture for reference. The the

reference figure differs from products.

Illustration 7.2.2

7.3 WAER OUT COUNT

Click "WEAR OUT COUNT" to monitor the current consumption of the SSD. As shown in Illustration 7.3.1.

Illustration 7.3.1

（1）WEAR OUT COUNT

　　Show total LBA count, total LBA write count, total erase count, minimum erase count, average erase count and maximum erase count. (Some products do not support this feature).

（2）BLOCK INFO

　　Show valid spare blocks, number of valid spare blocks, number of new bad blocks and hardware ECC recoveries.

7.4 DAIGNOSTICS SCAN

Click "DIAGNOSTICS SCAN". There are two diagnostic scans: "Quick Scan" and "Full Scan" for users to choose from. As shown in Illustration 7.4.1.

Illustration 7.4.1

（1）Quick Scan

　　Conduct 5% data write, read and compare transmission to detect the SSD′s condition. (It usually takes a few minutes to complete the test)

（2）Full Scan

　　Conduct 100% data write, read and compare transmission to detect the SSD′s condition. (It usually takes longer time to complete the test)

7.5 PERFORMANCE TEST

Click "PERFORMANCE TEST", to execute START   will get the numbers of sequential read,
sequential write, random read and random write speeds. (Performance may vary depending on the
platform and environment). As shown in Illustration 7.5.1.

Illustration 7.5.1

7.6 SECURE ERASE

Click "SECURE ERASE", there are "Quick Erase" and "Full Erase" for users to choose from.As shown in Illustration 7.6.1.

Illustration 7.6.1

（1）Quick Erase

Execute quick erase to restore the initial state of the SSD. (It usually takes a few seconds to complete the test)

（2）Full SErase

Execute full erase to restore the initial state of the SSD. (It usually takes longer than "Quick Erase" to complete the test)

 * **Please remove all partitions before executing a secure erase.**

* **Please do not remove the SSD during a secure erase to prevent a failure.**

* **Executing a secure erase will erase all data of the SSD and return to the initial state.**

* **Executing a secure erase will reduce the remaining life of the SSD. Please do not use this function if necessary.**

8.Version Information

Time	Version	Description
10/19/2016		Supported SSD models added