Kingston TECHNOLOGY

Kingston Smart Information Tool
Guide

Introduction

Kingston's smart information tool is a program that retrieves usage information from an SD card. The tool will display an estimate of the remaining lifetime, good block ratio, erase counts, and much more. The smart information tool does not require any special hardware to read the SD card, all the information can be retrieved by a Kingston card reader (or equivalent).

System Requirements

- Windows OS
- Multi/SD Reader
- Pentium III Processor or equivalent (or faster)
- 8MB free disk space

PC Operating System Support

- Windows$^®$ 10
- Windows$^®$ 8.1
- Windows$^®$ 8
- Windows$^®$ 7 (SP1)

Key Features

- Supports Kingston Industrial microSD and Custom SD cards.
- Supports the use of an SD card reader (No other hardware required).
- Supports Windows$^®$ 10, 8.1, 8 and 7 operating systems.

Recommended SD Card Readers

- Kingston FCR-MLG4
- Kingston FCR-HS4

How to…

There is no need to install the info tool. Once downloaded from the Kingston support site, simply double click on the 'KingstonSmartInfoTool' icon to run the program.

How to Download the Kingston Smart Info Tool

To download the Kingston Smart Info Tool, follow these steps:

1. Open your favorite browser and navigate to the Kingston website, www.kingston.com.
2. Click on Support at the top of the home page.
3. Click on Flash Cards.
4. Click on Class 10 UHS-I, SDCIT
5. Click on SmartInfoTool under Downloads & Drivers
6. If prompted for a 'Save' location, navigate to the desktop and save to quickly find the tool after downloading. If not prompted, then open the default download location.

Download is complete.

How to Run the Kingston Smart Info Tool

To run the Kingston Smart Info Tool double click on the recently downloaded file icon, 'KingstonSmartInfoTool'. Figure 1.1 below is the first screen after opening the tool.
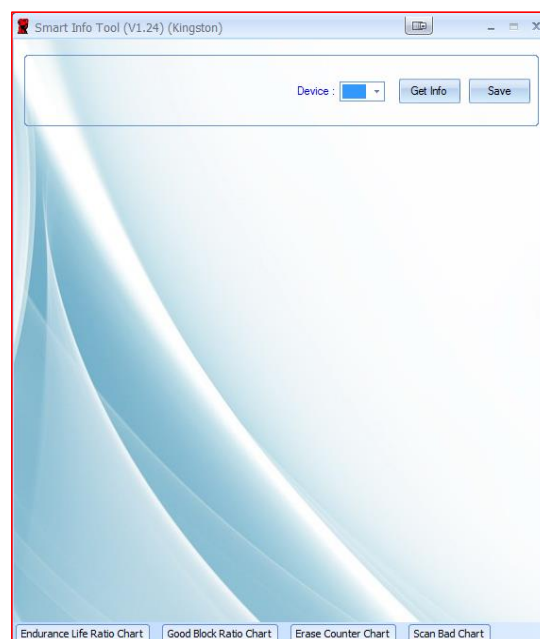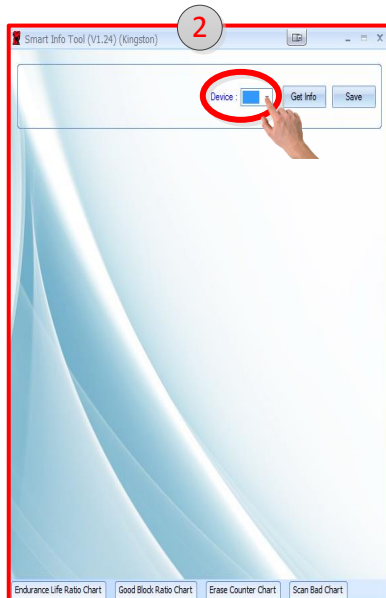

Figure 1.1 – First Screen
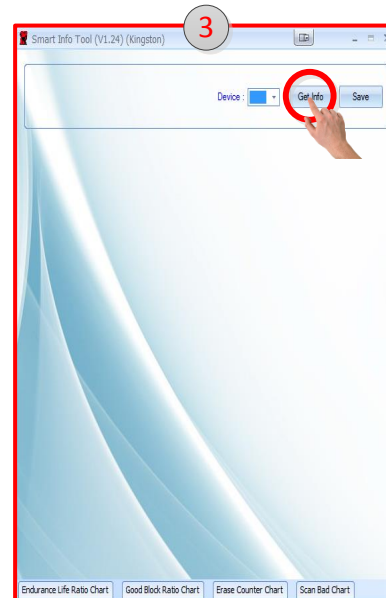

How to Read the Cards Information

Getting the information to display takes 3 steps.

Steps:

1. Insert your card into the card reader.
2. Click the 'Device' drop down box and click the correct drive letter. *See Figure 2.1.*
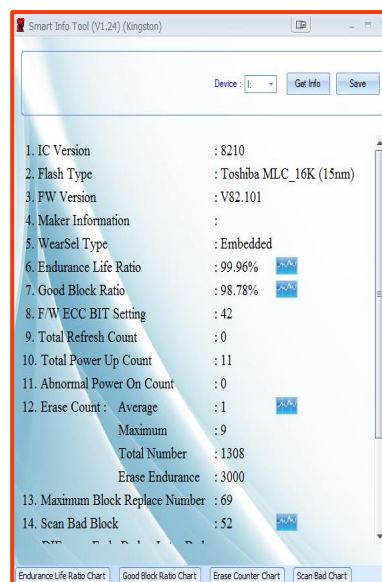3. Click 'Get Info' button. *See Figure 2.2.*

Figure 2.1 – Device Drop Down Box

Figure 2.2 – Get Info

Figure 2.3 is the next screen after clicking the 'Get Info' button. It displays all the information of your card.

Figure 2.3 – Card Info

Graphical Info

Certain information can be viewed using graphics.

Click on the graph icon button or the tabs at the bottom of the screen to view the smart info using graphics. *See Figure 3.1*

Figure 3.1 - Graphics

How to Save

You can save the card info as a text file to keep for your filings or to easily share. Click Save at the top of the window and select a save location. ***See Figure 3.2.***

Figure 3.2 - Save

Smart Info

1. **IC Version -** will display which controller manufacturer is being used.

2. **Flash Type -** will display flash manufacturer, type, page size, and process.

3. **FW Version –** displays the cards firmware version.

4. **Maker Information –** if any, will display special setting for the card.

5. **WearSel Type –** displays the wear leveling mode.

6. **Endurance Life Ratio –** will display the ELR by subtracting the current real erase count by the logical erase cycles endurance and dividing the logical erase cycles endurance and multiply by 100%.

7. **Good Block Ratio –** subtracts the Total Block from Early Bad Block plus Later Bad Block and divides it by the Total Block to get the Good Block Ratio.

8. **F/W ECC BIT Setting –** will display the cards firmware ECC BIT setting.

9. **Total Refresh Count –** will display the cards Total Read Refresh Count.

10. **Total Power Up Count –** divides the Normal Power Up by the Power Supply Count and displays the Total Power Up Count.

11. **Abnormal Power On Count –** will display the cards unexpected and abnormal power loss count.

12. **Erase Count –** will display the erase count per block and includes the average, maximum, total number, and erase endurance.

13. **Maximum Block Replace Number –** will display the available replacement block.

14. **Scan Bad Block –** will display early and later bad blocks per CE.

- **Early Bad Blocks –** Bad blocks during manufacturing of the NAND flash.
- **Later Bad Blocks –** Bad blocks after using card over time.