

<b>GigaDevice MCU Team</b>	<b>Version</b>	<b>7 Pages</b>
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	<b>Name : GigaDevice Dfu Tool User Manual</b>	

# GigaDevice Dfu Tool User Manual

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## 1. Introduction

This user manual describes an application used to operate the flash or config GigaDevice MCUs with available USB. This software is a tool for the user to use MCUs with UI easily.

With Dfu tool, user can download the application program to the internal flash memory or secure chip and so on.

### 1.1 Purpose

Besides a perfect stage for users to download application program easily, Dfu tool also aims to provide wonderful and creative experience. The description was edited for a better service.

### 1.2 Target Customers

Dfu tool was developed for users who need download application program UI.

### 1.3 Jargon and Contraction

- **Dfu:** Device firmware upgrade, which means users can download codes without removes MCU from the PCB.
- **USB :** Universal Serial Bus (USB) connects more than computers and peripherals. It has the power to connect you with a whole new world of PC experiences.

## 2. The Sketch of Dfu Tool

### 2.1 Application

Dfu tool is an application used to operate the flash or config GigaDevice MCUs convenient.

### 2.2 Running

This software is running on PC and compatible computers, and on platforms of WINDOWS. There's no need to setup the software, the only thing you need to do is to click the icon to operate

the software.

## **2.3 Configuration**

Software Requirements : Chinese or English Windows XP、 Windows 7 and advanced operation systems.

Hardware Requirements: Available USB interface.

## **3. Using Details**

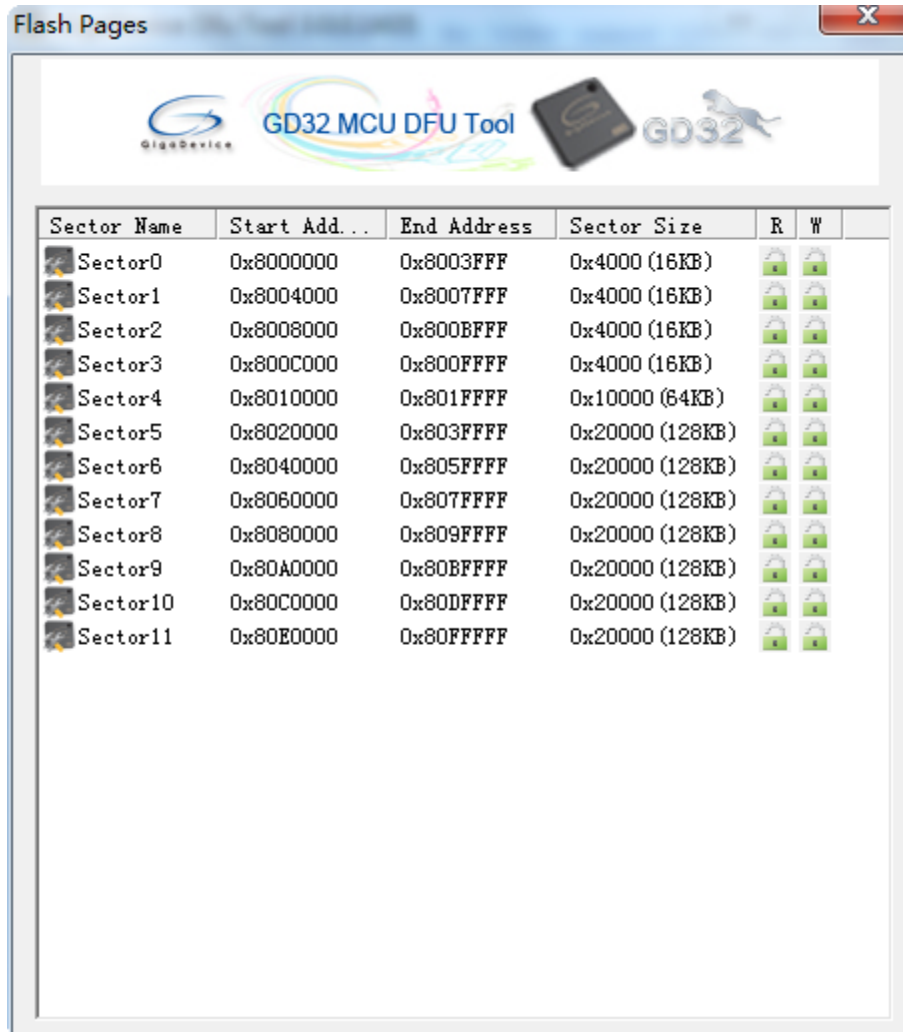
### **3.1 Installment**

If you want to use this software, you should install the driver for the Dfu mode. It is very easy for everyone. When you get the document, open the Device Manager, and right click on the unrecognized device, select Update Driver Software, then you just have to decompress the document, and find out the folder named GD32 MCU Dfu Drivers and select the right driver version for your current OS. The device shown as “GD32 Device in DFU Mode” after install driver successfully.

### **3.2 Details of Operation**

#### **3.2.1 Flash status**

Double click the index 0 “Flash” in the list can open a new dialog, as shown in Chart 1, it shows the Flash pages/sectors status, this dialog shows the page/sector count, start address, end address, page/sector size, read protection status and write protection status.



Sector Name	Start Address	End Address	Sector Size	R	W
Sector0	0x8000000	0x8003FFF	0x4000 (16KB)		
Sector1	0x8004000	0x8007FFF	0x4000 (16KB)		
Sector2	0x8008000	0x800BFFF	0x4000 (16KB)		
Sector3	0x800C000	0x800FFFF	0x4000 (16KB)		
Sector4	0x8010000	0x801FFFF	0x10000 (64KB)		
Sector5	0x8020000	0x803FFFF	0x20000 (128KB)		
Sector6	0x8040000	0x805FFFF	0x20000 (128KB)		
Sector7	0x8060000	0x807FFFF	0x20000 (128KB)		
Sector8	0x8080000	0x809FFFF	0x20000 (128KB)		
Sector9	0x80A0000	0x80BFFFF	0x20000 (128KB)		
Sector10	0x80C0000	0x80DFFFF	0x20000 (128KB)		
Sector11	0x80E0000	0x80FFFFFF	0x20000 (128KB)		

Chart 1

### 3.2.2 Operation Selection

This page includes download data to flash and upload data from flash (As shown in chart 2).

Option "Download to Device" allow user to download bin or hex file to MCU. Selected "Erase All" the software will erase the full chip before downloading the files, otherwise the software will erase the necessary pages/sectors. Selected "Verify after download" the software will check the data after download to ensure the data downloading to the flash is correctly.

Option "Upload from Device" allow user to read data from MCU and save as a bin file.

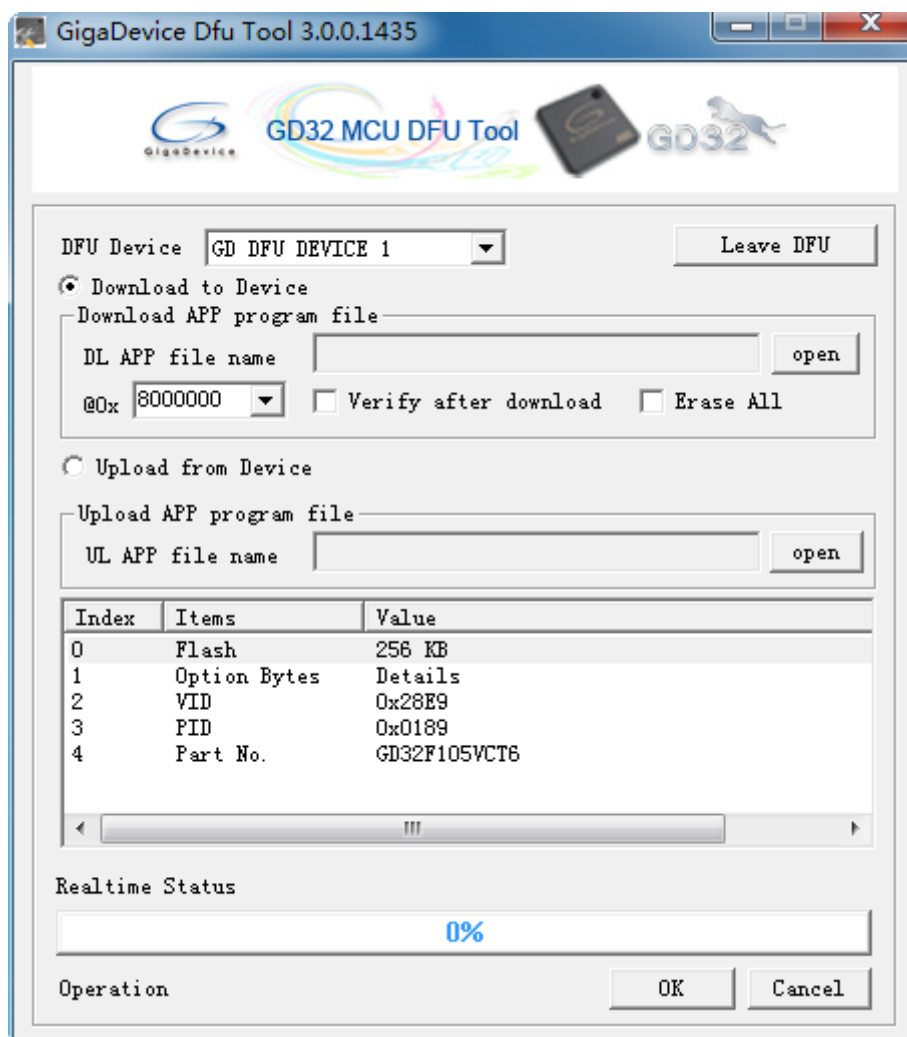


Chart 2

### 3.2.3 Config Option Bytes

Double click the index 1 “Option Bytes” in the list can open a new dialog. This dialog allows user to config option bytes with UI(As shown in chart 3).

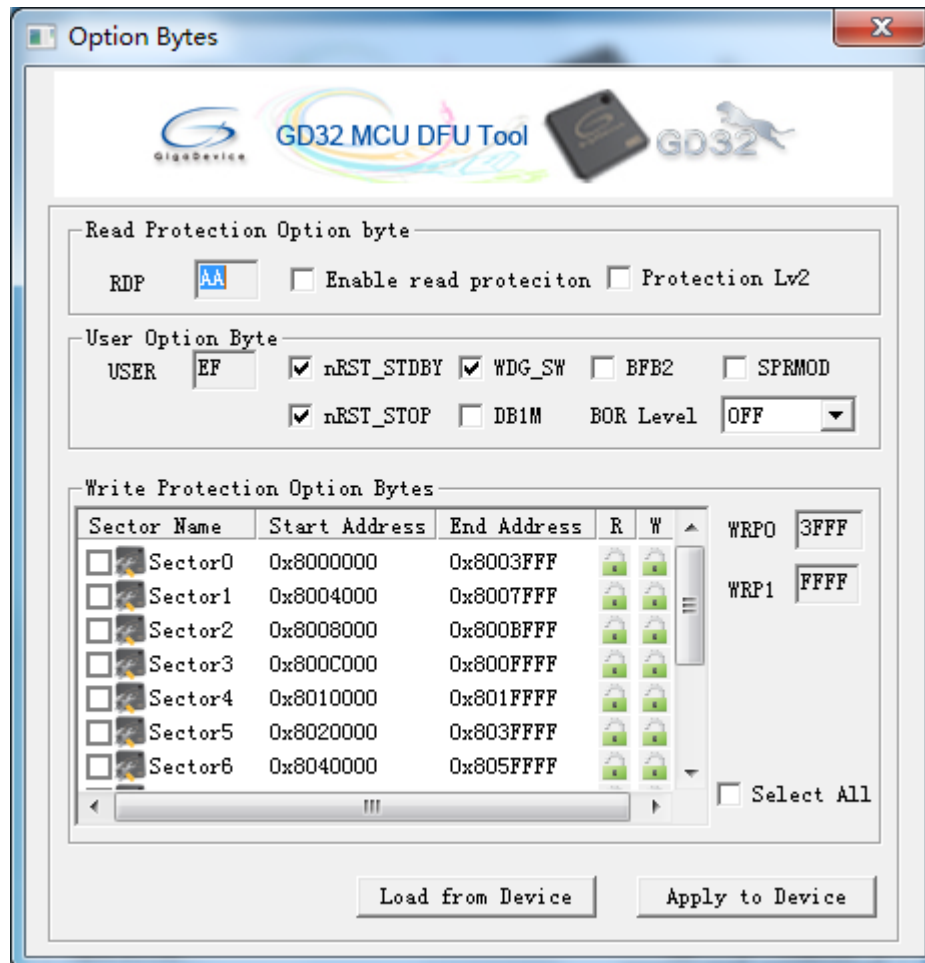


Chart 3