**Command Line Tools and Test Demo User Manual**

**V1.5**

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# Version record

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **版本** | **描述** | **日期** | **作者** | **审核人员** |
| V1.0 | First edition | 2024/05/15 | Yuan DD |  |
| V1.1 | 1. Add the get ID command (- getid) and erase command (- erase) | 2024/05/17 | Yuan DD |  |
| V1.2 | 1. Add restart command (- reboot)  2. Add user area burning instruction | 2024/08/07 | Yuan DD |  |
| V1.3 | 1. Readjust command line instructions | 2024/08/09 | Yuan DD |  |
| V1.4 | 1. Add data reading function | 2024/08/29 | Yuan DD |  |
| V1.5 | 1. Add the get ID command (- info) 2. The -cfgfile command supports download \*.bin files | 2025/02/05 | Yuan DD |  |

# Command line tool

BleIspCmdTool.exe is a command-line tool developed in the C # language and runs in the Windows environment. Holding baud rates [9600, 921600].

## Commands

|  |  |  |
| --- | --- | --- |
| Command  (case insensitive) | Example | Description |
| -h | -help | -h | View command line and usage |
| -v | -version | -v | Software version |
| -s | -serial | -s COM5 | Specific serial port [COM5] |
| -b | -baudrate | -b 115200 | Specific baudrate [115200] |
| -j | -jtag | -jtag | Disable JTAG and SWD |
| -e | -erase | -erase | Erase Internal Flash (excluding FT) |
| -i | -info | -info | Get chip info |
| -rop | -rop | Read Protect |
| -swboot | -swboot | Software Boot |
| -reboot | -reboot | App Reboot |
| -appfile | -appfile .\APP.bin | APP file path (default: .\APP.bin) |
| -userfile | -userfile .\USER.bin | USER file path (default: .\USER.bin) |
| -cfgfile | -cfgfile .\configInfo.cfg | CFG file path (default: .\configInfo.cfg) |
| -cfgfile .\6626\_CFG.bin | CFG file path (default: .\6626\_CFG.bin) |
| -otpefusefile | -otpefusefile .\otpefuse.bin | OTP or Efuse file path (default: .\otpefuse.bin) |
| -appaddress | -appaddress 0 | APP file address (default: 0) |
| -useraddress | -useraddress 0 | user file address (default: 0) |
| -cfgaddress | -cfgaddress 0 | CFG file address (default: 0) |
| -otpefuseoffset | -otpefuseoffset 0 | OTP or EFUSE file offset address (default: 0) |
| -bluetooth | -bluetooth 112233445566 | Bluetooth address，Small end mode [112233445566] |
| -conftag  -nvdstag | -conftag 1,BD\_ADDR,11:22:33:44:55:66 | Bluetooth address，Small end mode [112233445566] |
| -conftag 2,STRING,Y1MO240528042000001 | Set CONF section of config area, tag = 2, datatype = STRING, value = Y1MO240528042000001 |
| -conftag 3,FLOAT,11.23 | Set CONF section of config area, tag = 3, datatype = FLOAT, value = 11.23 |
| -nvdstag 103,ARRAY,3141592653589793 | Set CONF section of config area, tag = 3, datatype = ARRAY, value = 3141592653589793 |
| -nvdstag 104,BOOL,True | Set NVDS section of config area, tag = 104, datatype = BOOL, value=True |
| -read | -read 0x4000,0x1000, D:\work\read.bin | Read area, startAdress = 0x4000, dataLength = 0x1000, filePath=D:\work\read.bin |

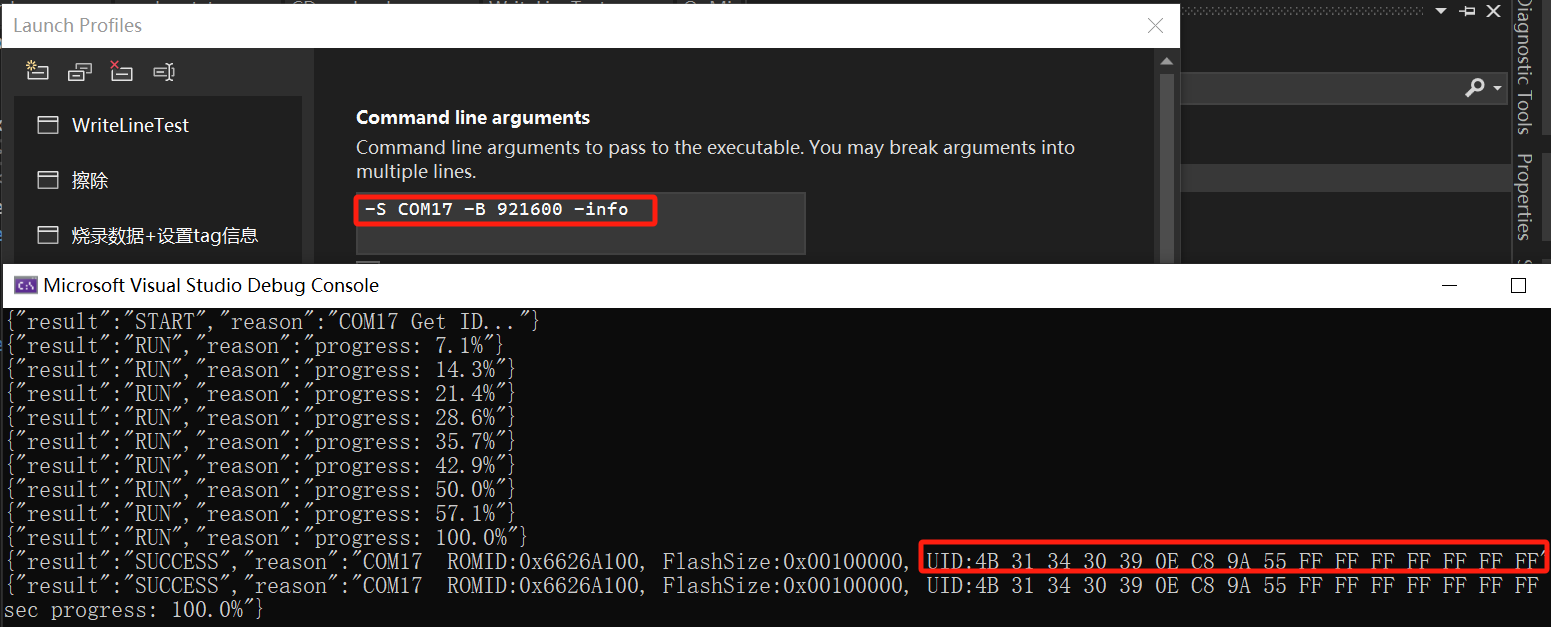
The data type in the -conftag and -nvdstage commands:

|  |  |
| --- | --- |
| Data Type | Description |
| BD\_ADDR | Dedicated to Bluetooth addresses, with a fixed Tag value of 1 and the small end at the front |
| STRING | Store in ASCIIZ format |
| NUMBER | Storage occupies one byte and is not recommended for use |
| ARRAY | Stored as a byte array, the length of the value is even |
| BOOL | Storage occupies 1 byte True=1, False=0 |
| BYTE | Storage occupies 2 bytes |
| INT16 | Storage occupies 2 bytes, with the small end at the forefront |
| UINT16 | Storage occupies 2 bytes, with the small end at the forefront |
| INT32 | Storage occupies 4 bytes, with the small end at the forefront |
| UINT32 | Storage occupies 4 bytes, with the small end at the forefront |
| INT64 | Storage occupies 8 bytes, with the small end at the forefront |
| UINT64 | Storage occupies 8 bytes, with the small end at the forefront |
| FLOAT | Storage occupies 4 bytes, with the small end at the forefront |
| DOUBLE | Storage occupies 8 bytes, with the small end at the forefront |

表 1-2 datatype类型

### Get ID

Figure 1-1 Obtaining ID Parameters and Returning Results

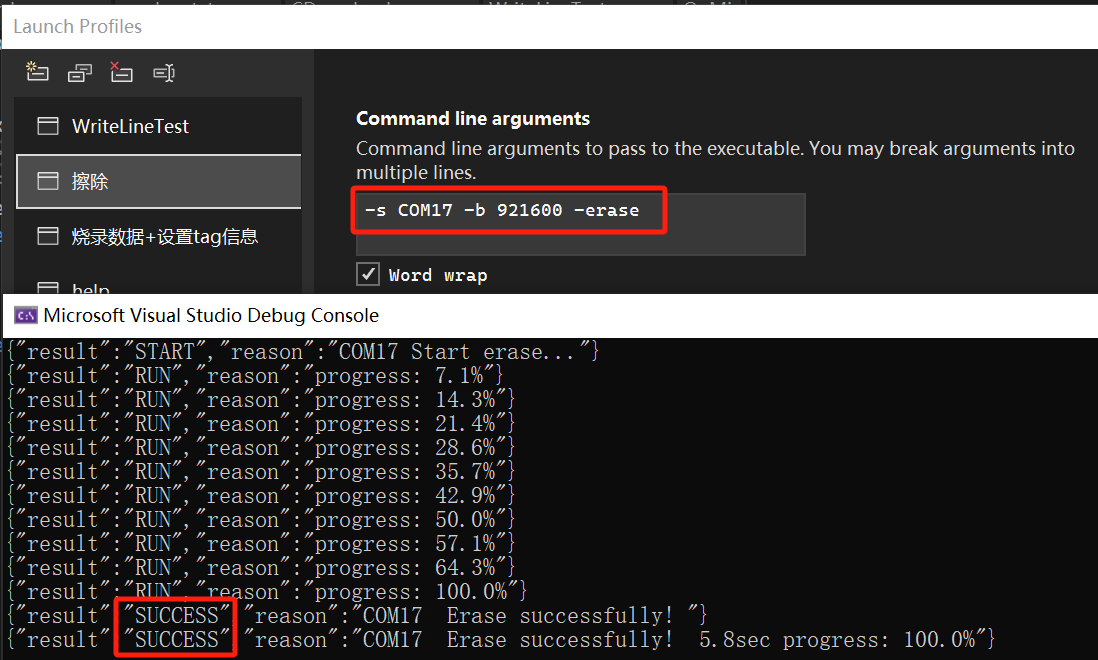


Command parsing: -s COM17 -b 921600 -info

|  |  |  |
| --- | --- | --- |
| Parameter | Value | Description |
| -s | COM17 | Serial port number |
| -b | 921600 | Baud rate |
| -info |  | Read ID information |

### Erasing

Figure 1-2 Erasing and Return Results

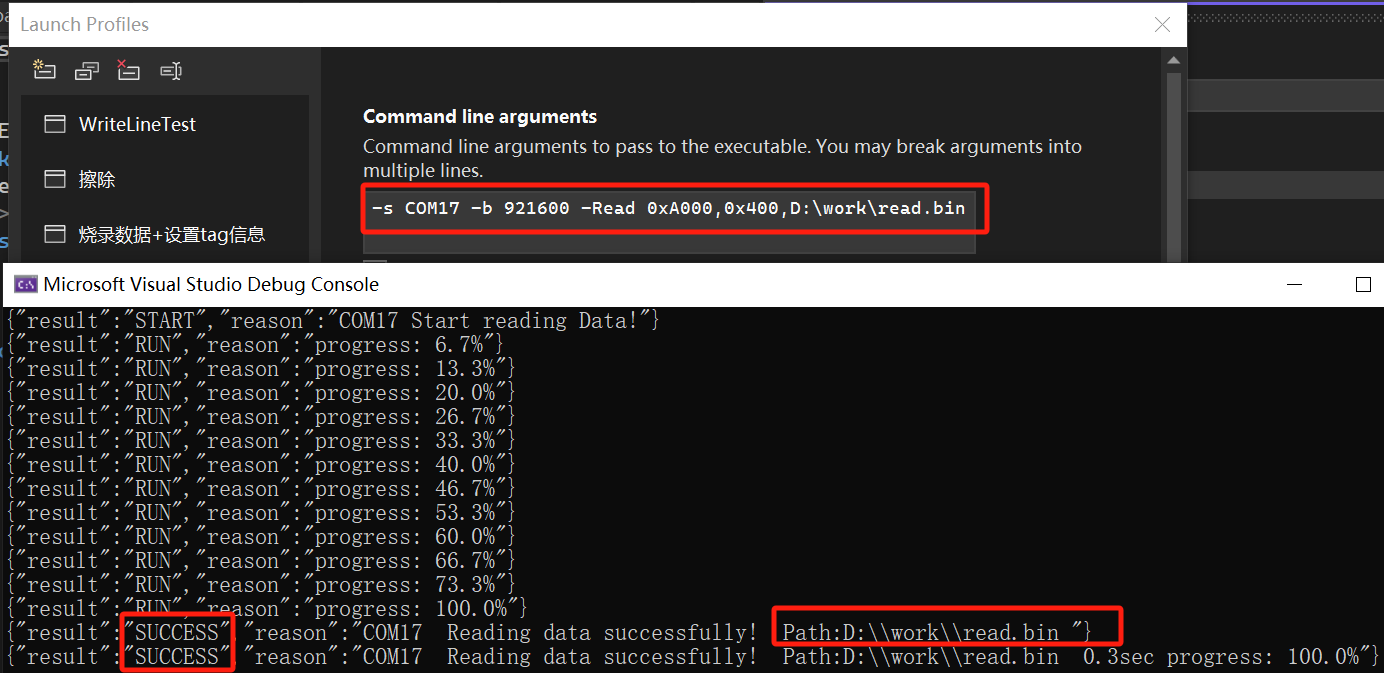


Command parsing: -s COM17 -b 921600 -erase

|  |  |  |
| --- | --- | --- |
| Parameter | Value | Description |
| -s | COM17 | Serial port number |
| -b | 921600 | Baud rate |
| -erase |  | Erase flash (excluding FT area) |

### Reading Data

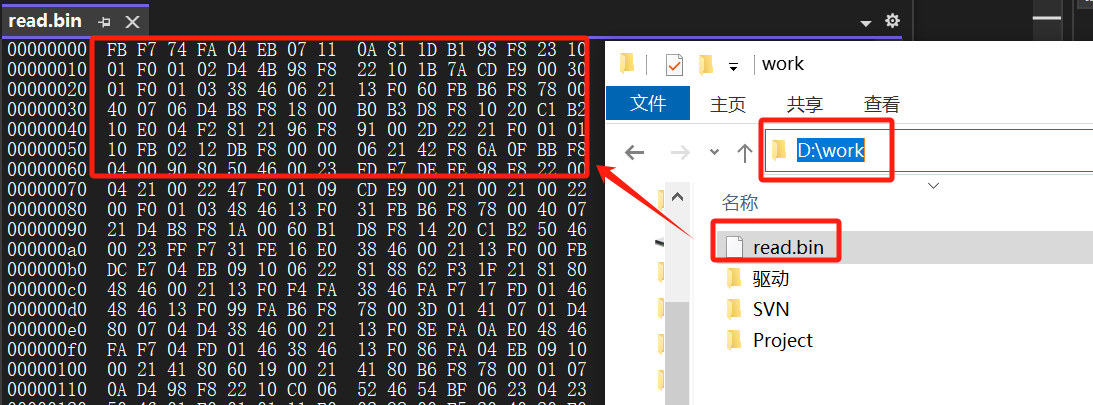
Figure 1-3 Reading Data and Returning Results



Command parsing: -s COM17 -b 921600 -Read 0xA000,0x400,D:\work\read.bin

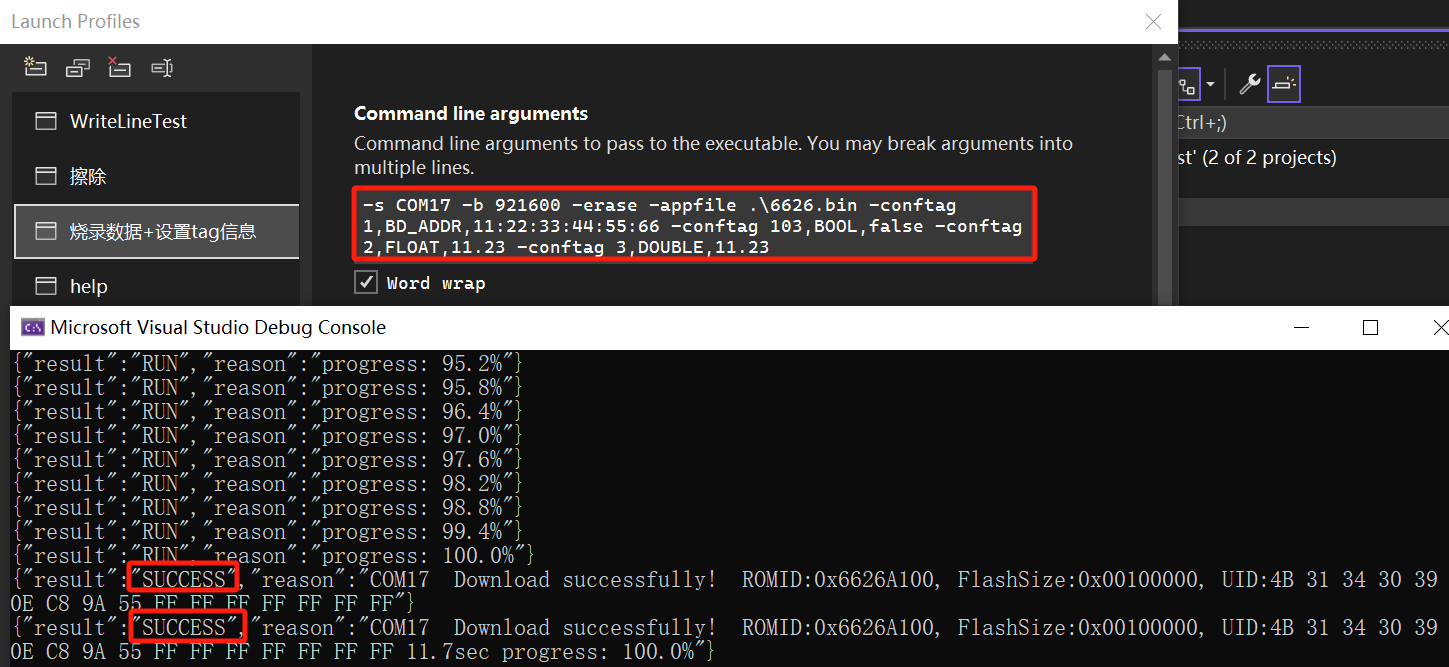
|  |  |  |
| --- | --- | --- |
| Parameter | Value | Description |
| -s | COM17 | Serial port number |
| -b | 921600 | Baud rate |
| -read | 0xA000,0x400,D:\work\read.bin | Read flash data, startAdress = 0x4000, dataLength = 0x1000, filePath=D:\work\read.bin |

In the read.bin file storage location and data content:

**Figure 1-4: Reading Data Storage Location and Content**

### Download

Figure 1-5 Download Parameters and Return Results

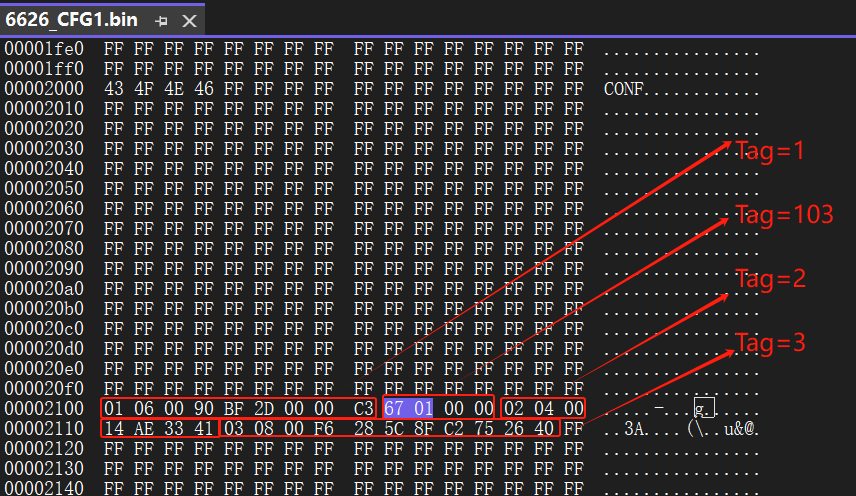


Command parsing: -s COM17 -b 921600 -appfile .\6626.bin -conftag 1,BD\_ADDR,11:22:33:44:55:66 -conftag 103,BOOL,false -conftag 2,FLOAT,11.23 -conftag 3,DOUBLE,11.23

|  |  |  |
| --- | --- | --- |
| Parameter | Value | Description |
| -s | COM17 | Serial port number |
| -b | 921600 | Baud rate |
| -appfile | .\6626.bin | App firmware path |
| -conftag | 1,BD\_ADDR,11:22:33:44:555:66 | The storage area is in the CONF area,Tag= 1,datatype=BD\_ADDR,MACAddr=11:22:33:44:555:66 |
| -conftag | 103,BOOL,false | The storage area is in the CONF area ,Tag= 103,datatype= BOOL,value=false |
| -conftag | 2,FLOAT,11.23 | The storage area is in the CONF area ,Tag= 2,datatype= FLOAT,value=11.23 |
| -conftag | 3,DOUBLE,11.23 | The storage area is in the CONF area ,Tag= 2,datatype= DOUBLE,value=11.23 |

Storage situation in the CONF area of Flash:

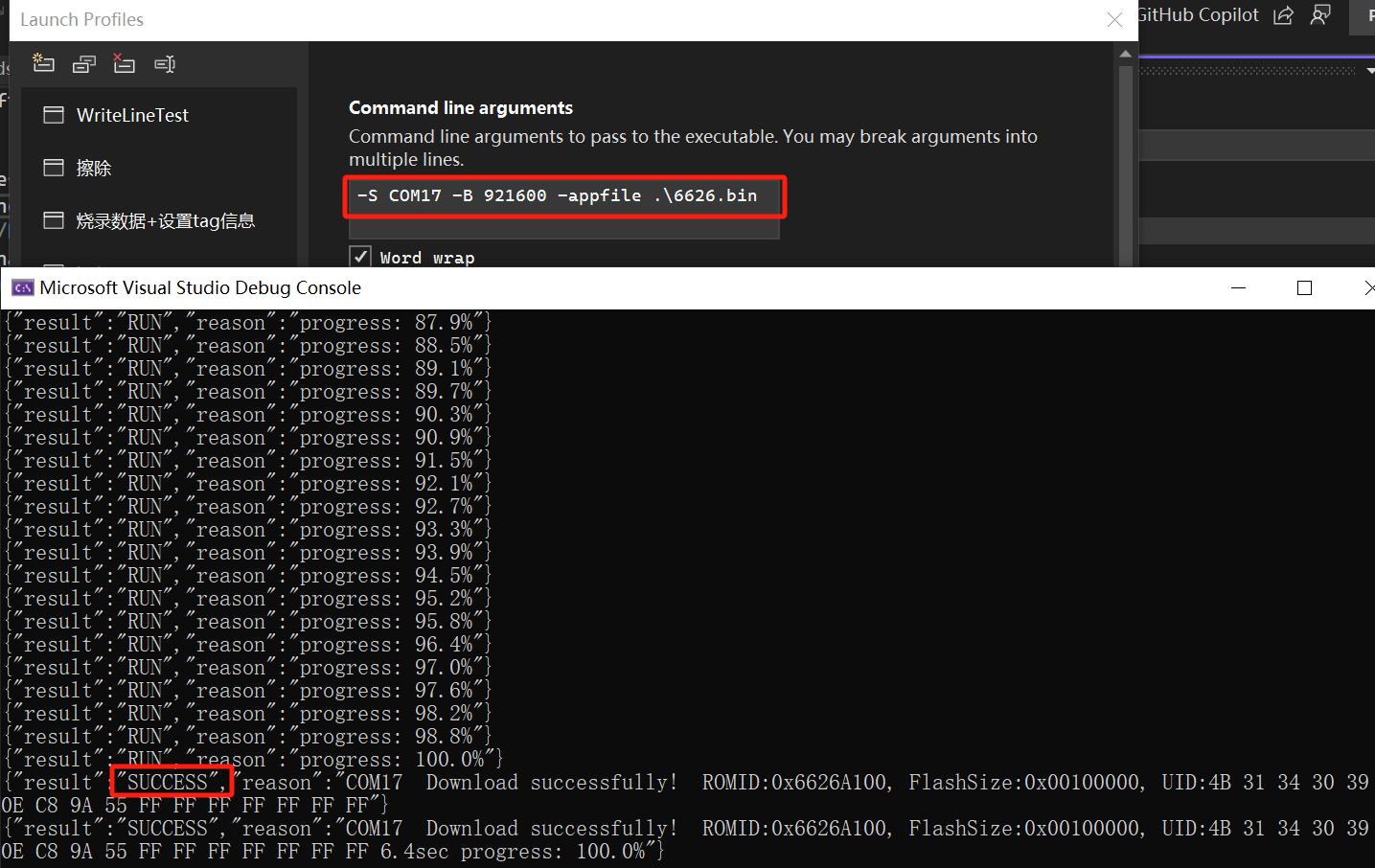
Figure 1-6 Storage situation in CONF area



## Download Results

After Download is completed, the output format is JSON. Example: When successful: {"result": "Success"} When failed: {"result":"FAIL","reason":"timeout.."}

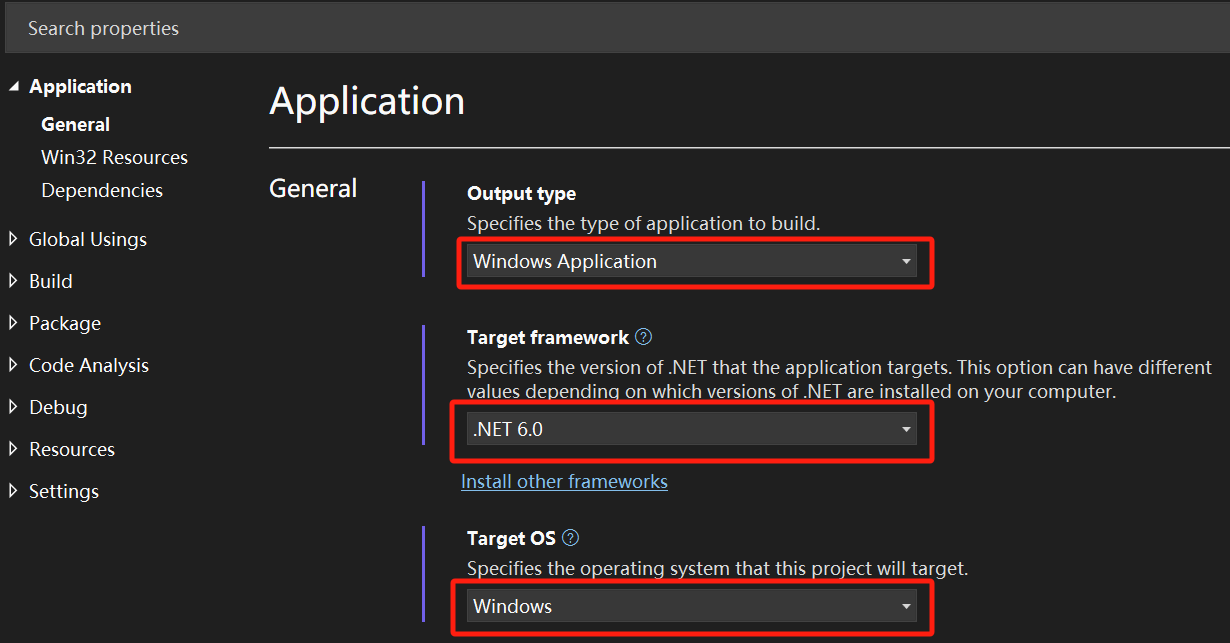
Figure 1-7 Download Results



# Test demo

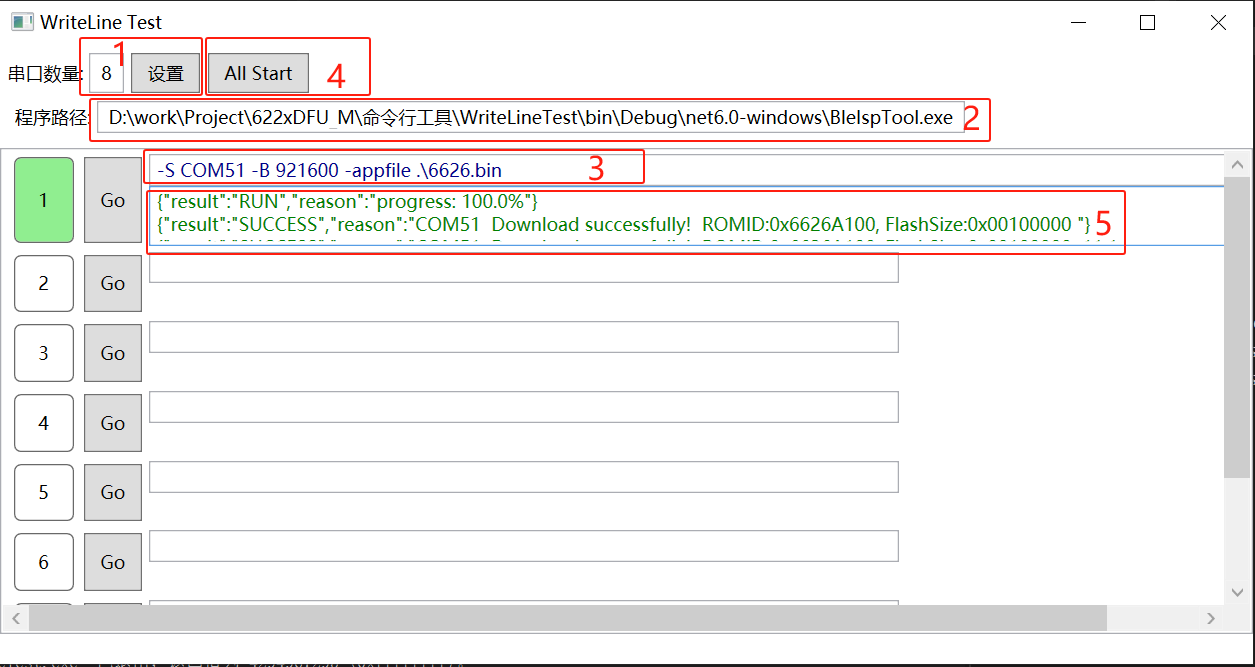
WpfTest.exe is a test demo of a command-line tool developed in C # (WPF) language on the Visual Studio 2022 platform, running on a Windows environment.

**Figure 2-1 Development Environment**



## Operation steps

Figure 2-2 Download Operation Diagram



1. Set the number of serial ports, such as 16, and click the 'Set' button.
2. Enter the path of the command-line tool into the text box after the program path. The program path in Figure 2-2 needs to be modified to the actual path of the command-line tool in the current computer.
3. Enter command line information for each channel: For example：-S COM21 -B 921600 -appfile .\6626.bin
4. Clickor  to execute commands. "ALL Start" refers to multi-channel batch burning; GO "is a single channel burning.
5. Check the color of the serial number at the beginning of each path or the received JSON data to see if the burning is successful. Success is in green font, and failure is in red font.

# Explanation

## . NET runtime environment installation

If the software fails to open, please install windowdesktotop-runtime-6.0.22-win-x86.exe. You can obtain it from the Microsoft official website, and the download path is: https://dotnet.microsoft.com/zh-cn/download/dotnet/thank-you/runtime-desktop-6.0.22-windows-x86-installer

If the prompt shows error 0x80070005, it is a permission issue. Please check if the computer displays installation permissions.

Figure 3-1 Environment installation error prompt



## Possible issues that may arise during the use of burning tools

* If the handshake fails during burning, it may indicate a mismatch in chip baud or the chip is in sleep mode (16 seconds). Please power on the chip again and try to connect it within 16 seconds; It could also be a mismatch in serial port numbers.