



ASUS Firmware Update Tool
(AsusFwUpdate)

Ver. 3.7

User Guide

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First Edition: Nov 2019

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1 About this guide

This guide might use the following styles to distinguish elements of text:

Style	Definition
<variable>	Variables or placeholders are enclosed in angle brackets. For example, replace <pathname> with the appropriate path, such as C:/Windows. When typing the actual value for the variable, omit the brackets.
[optional parameters]	Optional parameters are enclosed in square brackets. When specifying the parameters, omit the brackets. There may be zero or more than one parameters.
"literal value"	Command line text that appears inside quotation marks should be typed exactly as shown, including the quotation marks.

Revision History:

Version	Comments
1.0	2019/11/20, Initial version.
1.1	2019/12/10, Support WinPE (x64).
2.0	2020/01/14, Support skip F1 and simplify the procedure.
2.1	2020/03/05, Fix skip F1 function not executing when using bat files.
2.2	2020/03/19, Simplify BIOS updating procedure, and add help strings.
2.3	2020/03/31, Support BIOS updating with Windows Device Guard feature.
2.4	2020/04/07, Corrected the behavior when updating BIOS.
2.5	2020/04/14, Improve message showing.
2.6	2020/09/22, Improve skip F1 function.
2.7	2021/01/15, Update function of checking BIOS and improve loading text.
3.0	2021/03/02, Add AsusFwUpdate.efi for shell, support capsule update.
3.1	2021/05/03, Add reset after update finished in shell.
3.2	2021/05/05, Resign driver.
3.3	2021/09/14, Support /F for projects with MCU.
3.4	2021/09/15, Update dll and exe files with Microsoft Signature.
3.5	2021/10/13, Fix WinPE shutdown error and improve loading text.
3.6	2022/05/23, Only keep /P /C /F.
3.7	2022/11/22, Update backward compatibility for PEUpdater.

2 Getting started

What is ASUS Firmware Update tool?

AsusFwUpdate is a utility that enables you to do the following:

- Update BIOS flash ROM for ASUS motherboard
- Directly update BIOS in Windows runtime
- Flash specific ROM section with command line parameters to have customized BIOS.

System requirements

- Windows 7, Windows 8, Windows 10 or later (x64)
- WinPE (x64)
- UEFI Shell (x64)

Platform support

Intel Z490 or later.

AMD B450/X470 or later.

How to use

1. Copy the BIOS cap file to the working folder and rename it to "BIOS.CAP".
2. Execute "cmd.exe" as administrator.
3. Run "update.bat" for updating BIOS normally.

3 Command line parameters

Use the following syntax to run AsusFwUpdate:

```
AsusFwUpdate -FlashBIOS [options] <bioscap>
```

The valid options for "-FlashBIOS" are:

function	Definition
/P	BIOS runtime update.
/C	BIOS capsule update. Warning: System will reset for using capsule update, so make sure other works are finished.
/F	Skip F1 warning at next booting procedure.

Remarks:

1. /F cannot be used independently for updating BIOS.

Supported Command List

Runtime Flash BIOS.

```
AsusFwUpdate -FlashBIOS /P BIOS.CAP
```

Flash the normal section and skip F1 warning at next booting procedure.

```
AsusFwUpdate -FlashBIOS /P /F BIOS.CAP
```

Flash BIOS using capsule update.

```
AsusFwUpdate -FlashBIOS /C BIOS.CAP
```

Appendix A Error codes

Error code	Description
0x80000000	Image integrity check failed
0x80000001	Incompatible project path
0x80000002	Incompatible board ID
0x80000003	Incompatible product ID
0x80000004	Incompatible customer
0x80000005	Incorrect hardware compatible version
0x80000006	Incorrect associated BIOS image
0x80000007	Limited BIOS version
0x80000008	TPM status is enabled
0x80000009	Rom layout not match
0x80000010	Unable to find BIOS tag
0x80000020	Allocate/Map physical memory fail
0x80000021	Incorrect bios size
0x80000022	Invalid Caller ID
0x80000023	Options are not supported for current BIOS
0x80001000	Image type is not a CAP
0x80001001	Load image to memory fail
0x80001002	Set security policy fail