# Update BIOS Steps

1. Download Rufus from https://rufus.ie/

2. Insert a blank USB drive, right click on executable file and select "Run as Administrator"
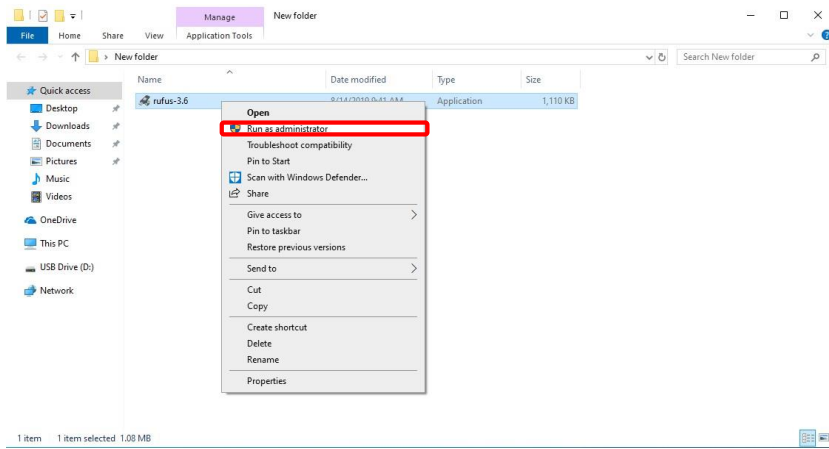

3. Select the USB drive on Device section
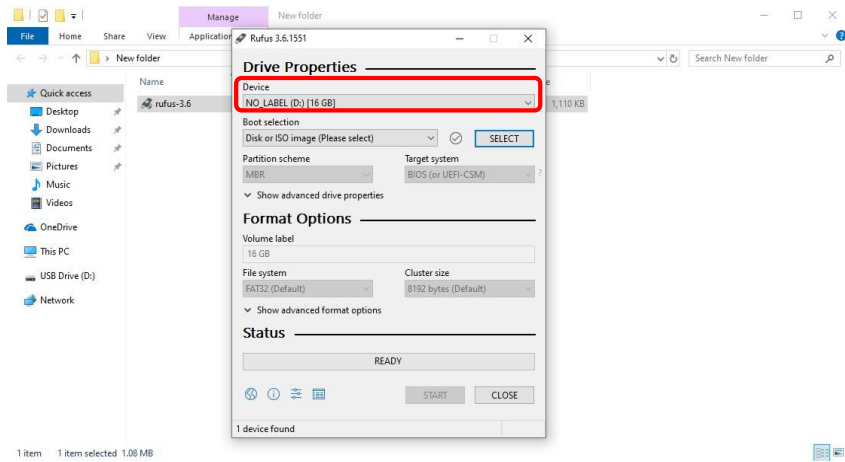
4. Select "FreeDOS" for Boot selection
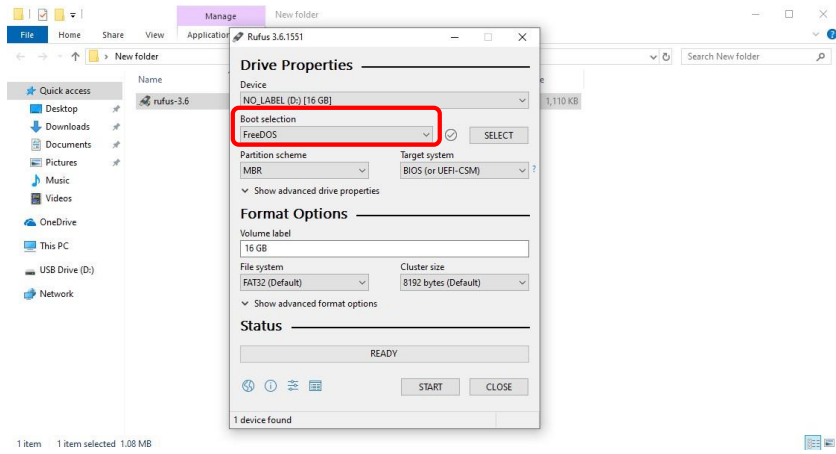

5. Select "Start"
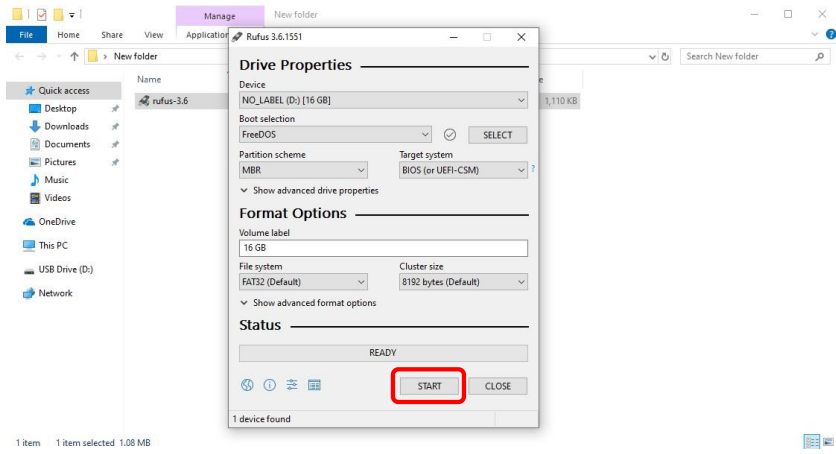
6. Status shown Ready in green after it's done.
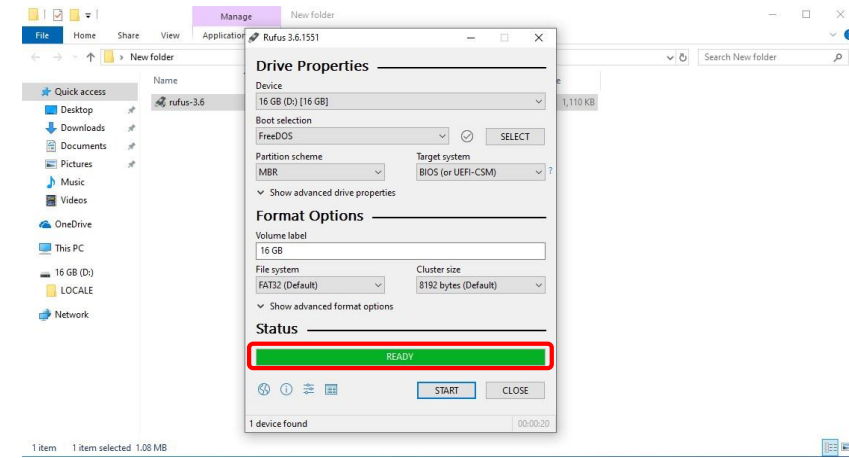
7. Search and download BIOS ZIP file that fits your exact motherboard model.

Note: Make sure the downloaded BIOS file is correct. Applying wrong BIOS can cause the system unbootable.
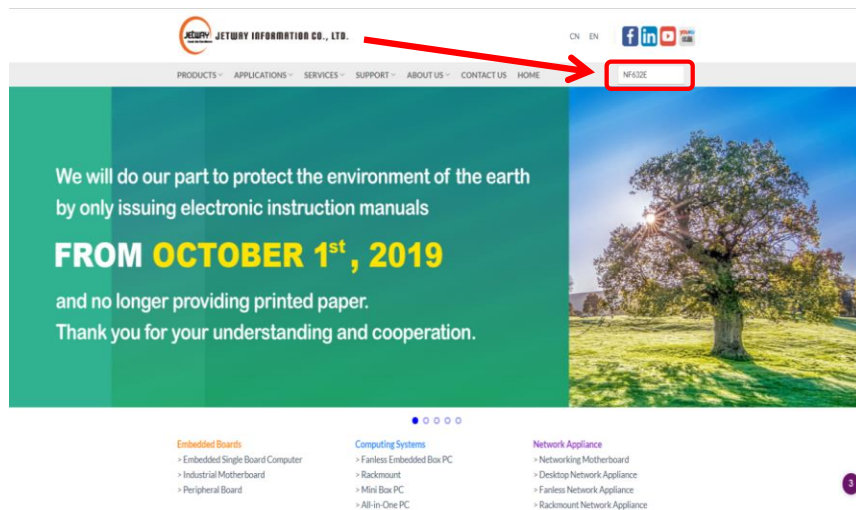
8. Unzip BIOS file and save all extracted files to the USB drive.
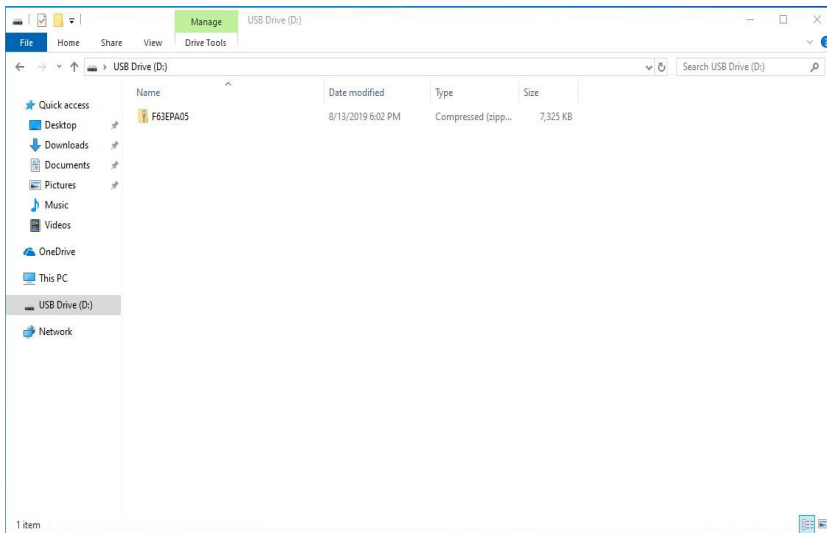
9. Plug in the USB drive and boot from it.
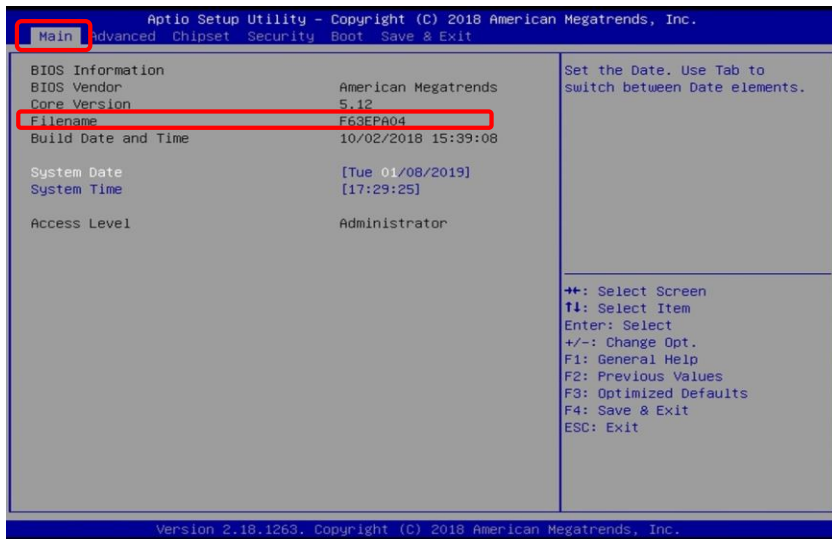
Legacy Mode

10. Hit "DEL" to enter BIOS screen, check BIOS version, and select the USB device for Boot Override on "Save & Exit" tab.
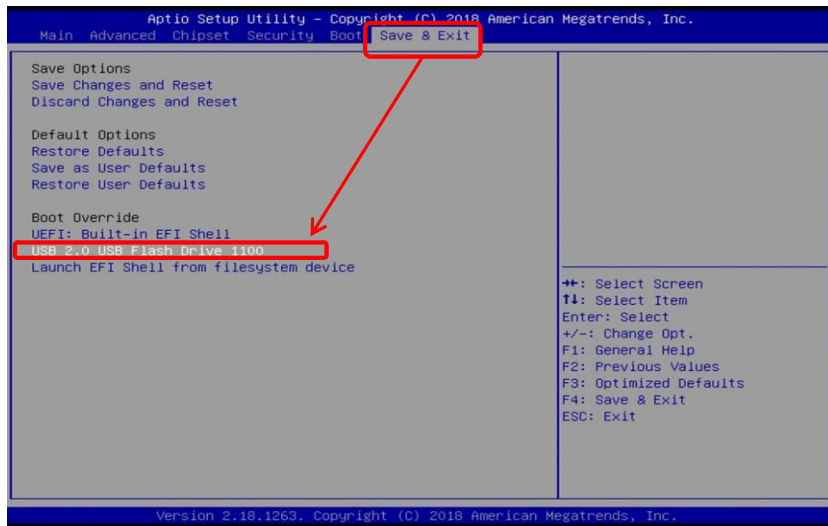
11. System will restart and boot from the USB until command prompt appears.
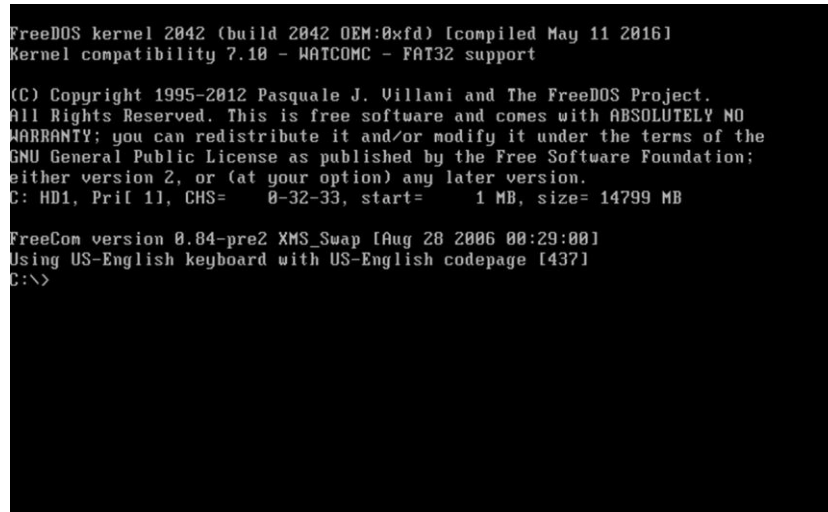
EFI Shell Mode

10. Hit "DEL" to enter BIOS screen, check BIOS version, and select the Built-in EFI Shell for Boot Override on "Save & Exit" tab.
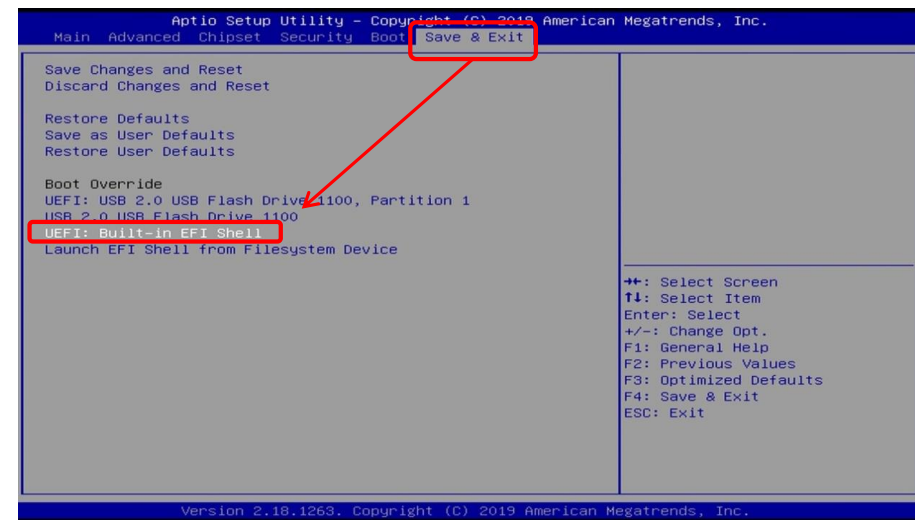
11. System will restart and boot from the EFI Shell until command prompt appears.
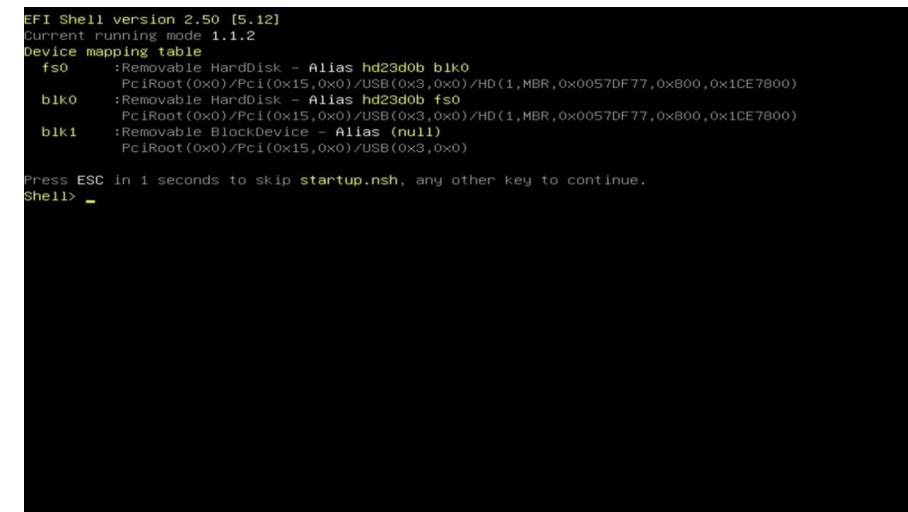
12. At the C:\ prompt, type **dir** to show all your files.

13. Type "**CD folder_name**" to change directory and enter the BIOS folder.

12. At the Shell prompt, type **fs0:** to enter the USB drive. At fs0:\ prompt, type **dir** to show all your f

13. Type "**CD folder_name**" to change directory and enter the BIOS folder.

14. Type **dir** again to list all files under the BIOS folder.

14. Type **dir** again to list all files under the BIOS folder.

15. Type ***.bat** and hit **Enter** to start updating BIOS.

15. Type ***.NSH** and hit **Enter** to start updating BIOS.

Legacy Mode

16. Update BIOS

Note: DO NOT shut down, touch keyboard/mouse, or unplug any USB device while updating the BIOS, your computer could become "bricked" and unable to boot.

```
+----------------------------------------------------+
|           AMI Firmware Update Utility  v5.06.00    |
|     Copyright (C)2014 American Megatrends Inc. All Rights Reserved. |
+----------------------------------------------------+

_Reading flash .............. 0x001A0000 (27%)
```

17. Power off the system when update is finished.

```
+----------------------------------------------------+
|           AMI Firmware Update Utility  v5.06.00    |
|     Copyright (C)2014 American Megatrends Inc. All Rights Reserved. |
+----------------------------------------------------+

Reading flash .............. done
- ME Data Size checking . ok
- FFS checksums ......... ok
Erasing Boot Block .......... done
Updating Boot Block ......... done
Verifying Boot Block ........ done
Erasing Main Block .......... done
Updating Main Block ......... done
Verifying Main Block ........ done
Erasing NVRAM Block ........ done
Updating NVRAM Block ....... done
Verifying NVRAM Block ....... done

Update Finish, System must power-off to have the changes take effect!
C:\F63EPA05>
```

EFI Shell Mode

16. Flashing BIOS

Note: DO NOT shut down, touch keyboard/mouse, or unplug any USB device while updating the BIOS, your computer could become "bricked" and unable to boot.

```
Directory of: fs0:\

08/27/19  10:09a <DIR>         8,192  LOCALE
08/27/19  10:09a                 96  AUTOEXEC.BAT
06/28/19  04:57p          4,443,928  BATJUA04.zip
08/27/19  10:18a <DIR>         8,192  BATJUA04
        2 File(s)    4,444,024 bytes
        2 Dir(s)

fs0:\> cd BATJUA04

fs0:\BATJUA04> dir
Directory of: fs0:\BATJUA04

08/27/19  10:18a <DIR>         8,192  .
08/27/19  10:18a <DIR>             0  ..
02/21/19  03:27p            561,776  AfuEfix64.efi
06/28/19  04:57p                 33  BATJUA04.NSH
06/28/19  04:41p         16,777,216  BATJUA04.ROM
        3 File(s)   17,339,025 bytes
        2 Dir(s)

fs0:\BATJUA04> BATJUA04.NSH
BATJUA04.NSH> AFUEFIX64 BATJUA04.ROM /P /B /N
+----------------------------------------------------+
|           AMI Firmware Update Utility v5.12.00.1904 |
|    Copyright (C)2019 American Megatrends Inc. All Rights Reserved. |
+----------------------------------------------------+

_Reading flash .............. 0x00039000 (1%)
```

17. Power off the system when update is finished.

```
02/21/19  03:27p            561,776  AfuEfix64.efi
06/28/19  04:57p                 33  BATJUA04.NSH
06/28/19  04:41p         16,777,216  BATJUA04.ROM
        3 File(s)   17,339,025 bytes
        2 Dir(s)

fs0:\BATJUA04> BATJUA04.NSH
BATJUA04.NSH> AFUEFIX64 BATJUA04.ROM /P /B /N
+----------------------------------------------------+
|           AMI Firmware Update Utility v5.12.00.1904 |
|    Copyright (C)2019 American Megatrends Inc. All Rights Reserved. |
+----------------------------------------------------+
Reading flash .............. done
Secure Flash enabled, recalculate ROM size with signature... Enable.
- FFS checksums ......... ok
- Check RomLayout ........ ok.
Loading capsule to secure memory buffer ... done
Erasing Boot Block .......... done
Updating Boot Block ......... done
Verifying Boot Block ........ done
Erasing Main Block .......... done
Updating Main Block ......... done
Verifying Main Block ........ done
Erasing NVRAM Block ........ done
Updating NVRAM Block ....... done
Verifying NVRAM Block ....... done

Process completed.

fs0:\BATJUA04> _
```

Legacy Mode

18. Power on the system again, it will auto reboot 2-3 times and should be successfully applied to a new version. You can enter BIOS screen and check BIOS version to confirm the change.

```
                Aptio Setup Utility - Copyright (C) 2019 American Megatrends, Inc.
 Main  Advanced Chipset Security Boot Save & Exit

 BIOS Information                                           Set the Date. Use Tab to
 BIOS Vendor                     American Megatrends        switch between Date elements.
 Core Version                    5.12
 Filename                        F63EPA05
 Build Date and Time             05/24/2019 11:25:10

 System Date                     [Tue 01/08/2019]
 System Time                     [19:44:01]

 Access Level                    Administrator


                                                           ++: Select Screen
                                                           ↑↓: Select Item
                                                           Enter: Select
                                                           +/-: Change Opt.
                                                           F1: General Help
                                                           F2: Previous Values
                                                           F3: Optimized Defaults
                                                           F4: Save & Exit
                                                           ESC: Exit



                Version 2.18.1263. Copyright (C) 2019 American Megatrends, Inc.
```

EFI Shell Mode

18. Power on the system again, it will auto reboot 2-3 times and should be successfully applied to a new version. You can enter BIOS screen and check BIOS version to confirm the change.

```
                Aptio Setup Utility - Copyright (C) 2019 American Megatrends, Inc.
 Main  Advanced Chipset Security Boot Save & Exit

 BIOS Information                                           Set the Date. Use Tab to
 BIOS Vendor                     American Megatrends        switch between Date elements.
 Core Version                    5.12
 Filename                        BATJUA04
 Build Date and Time             06/28/2019 16:38:08

 TXE FW Version                  3.0.13.1144

 Access Level                    Administrator

 System Date                     [Tue 01/01/2019]
 System Time                     [00:37:58]

                                                           ++: Select Screen
                                                           ↑↓: Select Item
                                                           Enter: Select
                                                           +/-: Change Opt.
                                                           F1: General Help
                                                           F2: Previous Values
                                                           F3: Optimized Defaults
                                                           F4: Save & Exit
                                                           ESC: Exit



                Version 2.18.1263. Copyright (C) 2019 American Megatrends, Inc.
```