

Aptio 5.x DMIEDIT Release Notes

AMI SOFTWARE UTILITY RELEASE NOTES

REVISION 1.28 – DECEMBER 20, 2023

NDA REQUIRED

Revision History

Date	Revision	Description
2013-10-01	1.00	Initial draft created.
2013-10-31	1.01	Update for DMIEDIT v5.13 release.
2013-11-12	1.02	Update for DMIEDIT v5.13.1 release.
2014-01-29	1.03	Update for DMIEDIT v5.14 release. SMBIOS module version requirement modified.
2014-05-09	1.04	Update for DMIEDIT v5.15 release.
2014-09-18	1.05	Update for DMIEDIT v5.16 release.
2015-08-28	1.06	Update for DMIEDIT v5.17 release. SMBIOS module version requirement modified.
2016-03-01	1.07	Update for DMIEDIT v5.18 release.
2017-02-20	1.08	Update for DMIEDIT v5.19 release. SMBIOS module version requirement modified.
2017-08-15	1.09	Change the format of Release Notes. Add Limitation of Linux environment. Update for DMIEDIT v5.20 release. SMBIOS module version requirement modified.
2017-08-24	1.10	Update for DMIEDIT v5.20 revised release.
2018-01-02	1.11	Update for DMIEDIT v5.21 release. SMBIOS module version requirement modified.
2018-01-12	1.12	Add Known Issue of WinGUI version.
2018-06-15	1.13	Update for DMIEDIT v5.22 release. Remove the resolved Known Issue. Add Limitation of GUI version.
2018-10-12	1.14	Update for DMIEDIT v5.23 release. Remove the resolved Limitation of GUI version. Add note for Windows driver requirement. SMBIOS module version requirement modified.
2019-03-25	1.15	Update for DMIEDIT v5.24 release. SMBIOS module version requirement modified.
2019-07-26	1.16	Update for DMIEDIT v5.25 release.
2019-08-14	1.17	Update for DMIEDIT v5.26 Windows version release.
2020-06-09	1.18	Update for DMIEDIT v5.26 release. Update Supported OS list.
2020-09-22	1.19	Update for DMIEDIT v5.27.00 release. SMBIOS module version requirement modified.
2021-02-19	1.20	Update for DMIEDIT v5.27.01 release.
2021-04-22	1.21	Update for DMIEDIT v5.27.02 release.
2021-09-27	1.22	Updates for DMIEDIT v5.27.03. SMBIOS module version requirement modified.
2022-05-25	1.23	Updates for DMIEDIT v5.27.04. SMBIOS module version requirement modified. Update Supported OS list.
2022-07-26	1.24	Updates for DMIEDIT v5.27.05.
2022-09-28	1.25	Updates for DMIEDIT v5.27.06.
2022-11-15	1.26	Formatted document as per the AMI template.
2023-05-15	1.27	Updates for DMIEDIT v5.27.07. SMBIOS module version requirement modified. Reviewed the document format.
2023-12-20	1.28	Updates for DMIEDIT v5.27.08. SMBIOS module version requirement modified for 3.6/3.7 Spec. Reviewed the document format

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Description

This document provides release information of AptioV DMIEDIT tool.

Chapter 1 Introduction

Overview

DMIEDIT stands for Desktop Management Interface Edit. It allows you to modify strings associated with SMBIOS tables. This utility works with AptioV firmware with SMBIOS support.

Requirements

BIOS Requirements

- Aptio 5 or later.
- SMBIOS eModule:
  - Smbios_07 label and above for SMBIOS 3.0 Spec.
  - Smbios_12 label and above for WSMT support.
  - Smbios_14 label and above for SMBIOS 3.1 and SMBIOS 3.1.1 Spec.
  - Smbios_19 label and above for SMBIOS 3.2 Spec.
  - Smbios_23 label and above for SMBIOS 3.3 Spec.
  - Smbios_26 label and above for Non-register based SW SMI support.
  - Smbios_30 label and above for SMBIOS 3.4 Spec.
  - Smbios_31 label and above for SMBIOS 3.5 Spec.
  - Smbios_33 label and above for SMBIOS 3.6 Spec.
  - Smbios_37 label and above for SMBIOS 3.7 Spec.

Supported Operation System

DMIEdit for Windows

AMIDEWIN (AMIDEWIN.EXE/AMIDEWINx64.EXE/DMIEDIT.EXE/DMIEDITx64.EXE) support by the following Windows:

- Microsoft® Windows® 8
- Microsoft® Windows® 8.1
- Microsoft® Windows® Server 2016
- Microsoft® Windows® Server 2019
- Microsoft® Windows® Server 2022
- Microsoft® Windows® 10
- Microsoft® Windows® 11
- Microsoft® Windows® PE

It is also likely to run normally under unlisted Windows environments.

***Note**: Windows tool should work with specific driver version. Please do not use a driver other than what is provided in tool package.*

DMIEdit for EFI

AMIDEEFI (AMIDEEFI.EFI/AMIDEEFIx64.EFI) support EFI Shell Environment.

AMIDELNX (amidelnx_32/amidelnx_64) support Linux operation system.

The following versions of Linux distribution listed which version that AMI testing:

- Ubuntu (20.04)
- Red Hat
- Fedora (29)
- openSUSE
- Debian (9.6)
- CentOS (7.3)

It is also likely to run normally under unlisted Linux environments.

Source Control Location

Windows

SS: AptioV;$/AptioV/RomUtils/DmiEdit/DmiEditWin/64;

SS: AptioV;$/AptioV/RomUtils/DmiEdit/DmiEditWin/32;

Linux

SS: AptioV;$/AptioV/RomUtils/DmiEdit/DmiEditLnx/64;

SS: AptioV;$/AptioV/RomUtils/DmiEdit/DmiEditLnx/32;

EFI Shell

SS: AptioV;$/AptioV/RomUtils/DmiEdit/DmiEditEfi/64;

SS: AptioV;$/AptioV/RomUtils/DmiEdit/DmiEditEfi/32;

Limitations

AMIDELNX is restricted not to run in “/tmp” folder at root directory while the system works with Linux Live disk.

Chapter 2 Release Version

Latest Release

Ver. 5.27.08 2023-12-20

Kernel Updates

- Upgrade Utility Kernel GDK package to 1.08.20.
  - Initial steps to change the Linux platform. [EIP 744975]

New Features

- Update to support SMBIOS 3.6.0 Spec. [EIP 760073]
  - Added LoongArch processor architecture in Type 4.
  - Added processor family ID for ARMv9 in Type 4.
  - Added new processor sockets in Type 4.
  - New field for thread enabled in Type 4.
  - Added HBM3 in Type 17.
- Update to support SMBIOS 3.7.0 Spec. [EIP 760076]
  - Added new processor family in Type 4.
  - Added new processor sockets in Type 4.
  - Modified CXL description and added CXL 3.0 support in Type 9.
  - Added PMIC/RCD Manufacturer ID and Revision information in Type 17.

Version History

Ver. 5.27.07 2023-05-15

Kernel Updates

- Upgrade Utility Kernel GDK package to 1.08.18.

Driver Updates

- [WIN] Update AMI Utility Driver to version 5.6.
- AmiFlashDriver Windows/Linux secure update. [EIP 738203]
  * Only support SMM Communication Interface, physical memory allocate is no longer supported.

New Features

- Update to support SMBIOS 3.5.0 Spec. [EIP 711236]
- Support for manufacturing mode in Type 0. [EIP 712821]
- Add processor socket LGA4677 in Type 4. [EIP 712822]
- Updates for slot height and correct offsets in Type 9. [EIP 717908]
- Add new Pointing Device interfaces in Type 21. [EIP 717909]
- New structure Type 45 for Firmware Inventory Information. [EIP 721970]
- New structure Type 46 for String Property. [EIP 721972]

Functions Improved

- Sync the display of data type style to "BYTE"/"WORD"/"DWORD"/"QWORD" instead of "UINT8"/"UINT16"/"UINT32"/"UINT64".
- Modify the display of non-listed field from "Unknown" to "Others" to avoid confusion.

Rule Changes

- Change copyright to 2023.

Ver. 5.27.06 2022-09-28

Kernel Updates

- Upgrade Utility Kernel GDK package to 1.08.16.

Driver Updates

- [WIN] Update AMI Utility Driver to version 5.4.
- [LNX] Linux Driver Kernel Privilege Escalation [EIP 697075]
- [WIN] Windows Driver Kernel Privilege Escalation. [EIP 697112]
  * AMI Utility Driver for Windows needs version 5.4 to support.

Ver. 5.27.05 2022-07-26

Kernel Updates

- Upgrade Utility Kernel GDK package to 1.08.14.
- [WIN] Unable to load driver after using AMIDEWIN Tool. [EIP 690344]

- [WIN] Driver unable to install under WIN. [EIP 682394]

Issues Fixed

- [WIN] Fixed issue where Type 11 some string can't update in GUI tool. [EIP 684407]

Rule Changes

- [WIN] Change the icon of GUI tool.

Ver. 5.27.04 2022-05-25

Kernel Updates

- Upgrade Utility Kernel GDK package to 1.08.12.
- Fixed a failure happens when system populates more than one ACPI 'UEFI' tables. [EIP 656394]
- [LNX] Improvement of Linux driver loading algorithm. [EIP 656348]
- [LNX] Improvement of Linux OS load flash driver conditions. [EIP 677580]

Driver Updates

- [WIN] Update AMI Utility Driver to version 5.3.
- [WIN] Privilege Escalation in Driver. [EIP 668933]
- [WIN] Structure changed in new EFI_SMM_COMMUNICATION_ACPI_TABLE. [EIP 681880]
  * AMI Utility Driver for Windows needs version 5.3 to support.

New Features

- New Processor Characteristics of Type 4 in SMBIOS 3.3/3.4 Spec. [EIP 667995]
- Type 9 updates for SMBIOS 3.3/3.4 Spec. [EIP 667996]
- New Form Factor of Type 17 in SMBIOS 3.3 Spec. [EIP 668003]
- New Type 44 structure for SMBIOS 3.3 Spec. [EIP 668004]

Issues Fixed

- Fixed issue where Type9 show a wrong Device Number. [EIP 660026]

Rule Changes

- Change copyright to 2022.

Ver. 5.27.03 2021-09-27

Driver Updates

- [WIN] Update AMI Utility Driver to version 5.1.
- [WIN] Windows driver x64 to support UP TO 4GB physical memory address. [EIP 565914]
  * AMI Utility Driver for Windows needs version 5.1 to support.

New Features

- PCI Express Gen 4 support for Slot Type in Type 9. [EIP 589525]
- DDR5 support for Memory Type in Type 17. [EIP 622711]

- Type 17 Offset 54h/58h support for Extended Speed/Extended Configured Memory Speed. [EIP 622894]

Issues Fixed

- [EFI] Fixed issue where PS2 keyboard cannot use after execute tool. [EIP 622241/622294]

Ver. 5.27.02 2021-04-22

Kernel Updates

- Upgrade Utility Kernel GDK package.
- [LNX] Fixed the driver source timestamp warning message. [EIP 596858]
- [LNX] Fixed error when VMD enabled. [EIP 605146]
- [LNX] Fixed the re-build driver issue that driver cannot be generated. [EIP 606117]

New Features

- LGA1200 support for Processor Upgrade field in Type4 Processor Information. [EIP 604280]

Ver. 5.27.01 2021-02-19

Kernel Updates

- Update Utility Kernel Source to latest GdkCoreSourcePkg.

New Features

- [LNX] Support Linux kernel 5.9. [EIP 588617]

Issues Fixed

- [WIN] Fixed issue where GUI tool can't do full dump and stop in Type8. [EIP 586385]
- [WIN] Fixed issue where tool dump data fail in Type9 in GUI but command line. [EIP 587198]
- [WIN] Fixed issue where Type27 show wrong information in GUI tool. [EIP 596257]

Rule Changes

- Change copyright to 2021.

Ver. 5.27.00 2020-09-22

Kernel Updates

- Update Utility Kernel Source to GdkCoreSourcePkg_1.07.13.
- Support Non-register based SW SMI interface. [EIP 555042]
  * AMI Utility Driver for Windows needs version 5.00 to support.
  * SMBIOS Module needs SmBios_26 version to support.
- [WIN] Driver selection by Windows version. [EIP 559384]

Driver Updates

- [WIN] Update AMI Utility Driver to version 5.00.

New Features

- To support new command for SMBIOS type 4 with handle. [EIP 557710]
- Add a new command /log to print additional debug info. [EIP 551139]
- [WIN] Support new Windows driver. [EIP 507241]

Rule Changes

- Use full name in tool banner to sync between Generic and ETA version.
- Change naming rule of tool version with minor number.

Ver. 5.26 2020-06-09

Kernel Updates

- Update Utility Kernel Source to AMIUDK Trunk2122.
- [WIN] Security changes for amifldrv.sys from AMIUDK Trunk2033. [EIP 482819]
  * AMI Utility Driver for Windows needs version 4.00 to support.

Driver Updates

- [WIN] Update AMI Utility Driver to version 4.00.

New Features

- To add a feature that BIOS decided which OEM type is write once. [EIP 518316]
- [WIN] GUI tool with old driver should pop up an error message. [EIP 491563]

Issues Fixed

- [LNX] Fixed issue where AMIDELNX reported error E3 on CentOS 7. [EIP 522280]
- [LNX] Fixed issue where Error 24 solution in Debian x86 on ApolloLake. [EIP 527931]

Rule Changes

- Change copyright to 2020.
- [WIN] Change to use Windows API only for getting DMI table.

Functions Improved

- Improve the error message of platform check.

Ver. 5.25 2019-07-26

Kernel Updates

- Update Utility Kernel Source for the new Ucore2 architecture to AMIUDK Trunk2032. [EIP 473058]
- [LNX] Add Driver Version Control mechanism from AMIUDK Trunk1999. [EIP 457852]

Driver Updates

- [WIN] Update AMI Firmware Driver to version 3.02 revised.
- [LNX] Update AMI Utility Driver to version 1.00.

New Features

- Add wildcard character '*' support in SMBIOS Locking mechanism for ETA project. [EIP 477033]

Issues Fixed

- Fixed issue where inappropriate priority causes unknown command error for ETA project. [EIP 477613]
- [LNX] Fixed issue where tool was not identified Unknown Command correctly. [EIP 473059]
- [LNX] Fixed issue where usage header lost with command /MAKEDRV for ETA project. [EIP 480304]
- [WIN] Fixed issue where GUI tool displays wrong Processor information on PurleyRefresh. [EIP 484989]

Ver. 5.24 2019-03-25

Issues Fixed

- Fixed issue where tool cannot dump SMBIOS data if SMBIOS_2X_SUPPORT token disabled. [EIP 456197]

Ver. 5.23 2018-10-12

Spec Updates

- Updates for SMBIOS 3.2 Spec. [EIP 423762]
  * SMBIOS Module needs Smbios_19 version to support.

Driver Updates

- [WIN] Update AMI Firmware Driver to version 3.02.

Issues Fixed

- [WIN] Fixed issue where Windows 32 version has different behavior via command /SM. [EIP 424109]
- [WIN] Fixed issue where GUI tool will be mandatory closed after pressing Update button and refreshing it. [EIP 424116]

Ver. 5.22 2018-06-15

Spec Updates

- Updates for SMBIOS 3.1.1 Spec. [EIP 406485]
  * SMBIOS Module needs SmBios_14 version to support.

Rule Changes

- [LNX] Modify the order of checking ACPI table.

Issues Fixed

- [WIN] Fixed issue where GUI tool incorrectly pop up error message. [EIP 386811]

Functions Improved

- [LNX] Check driver to avoid segmentation fault when secure boot is enabled. [EIP 409337]

Ver. 5.21 2018-01-12

New Features

- Support for updating Type3 Height data field. [EIP 385149]
  * SMBIOS Module needs SmBios_16 version to support.
- Support for the large type structures of OemPublishTables. [EIP 382517]

Driver Updates

- [LNX] Update Driver to support Linux kernel 4.13. [EIP 369929]

Rule Changes

- Extend the maximum length of text string to 1024. [EIP 372657]
- Cut string to length 64 when data update if backward compatible before SMBIOS 2.7. [EIP 380386]

Issues Fixed

- [LNX] Fixed issue where Utility amifldrv driver cannot unload. [EIP 360741]
- [LNX] Fixed issue where FIDT in ACPI table access failed on Debian 9. [EIP 379929]
- [WIN] Fixed issue where GUI tool couldn't read correct Type10 information. [EIP 362302]
- [WIN] Fixed issue where error message display after update all Type1/2/3 in GUI tool. [EIP 364081]
- [WIN] Fixed issue where Type3 Number of Power Cords data field cannot be updated in GUI tool.
- [WIN] Fixed issue where Location and Status field on Type28 displays wrong string in GUI tool.

Ver. 5.20 2017-08-24

Spec Updates

- Updates for SMBIOS 3.1 Spec. [EIP 332407]
  * SMIBIOS Module needs SmBios_14 or later version to support.

Driver Updates

- [WIN] Update AMI Firmware Driver to version 3.01.

Rule Changes

- Roll back for not to check WSMT in ACPI. [EIP 354442]

Issues Fixed

- Fixed issue where program stopped working with command /dumpall. [EIP 351714]
- [WIN] Fixed issue where driver fails in high memory. [EIP 324006]

- [LNX] Fixed issue where system shows Linux driver error after tool exit.
- [LNX] Fixed issue where Linux driver needs to copy the file permissions.

Ver. 5.19 2017-02-20

New Features

- [LNX] Add absolute path support for filenames. [EIP 256820]
- Support the Type3 offset12h Number of Power Cords update. [EIP 273784]
  * SMBIOS Module needs SmBios_10 or later version to support.
- Add WSMT support for SMM Security. [EIP 312665]
  * SMIBIOS Module needs SmBios_12 or later version to support.

Driver Updates

- [WIN/LNX] Update Driver to support WSMT.

Issues Fixed

- [EFI] Fixed issue where system halts while DMI data write fail on loop test. [EIP 269868]
- [WIN] Fixed issue where Interrupt Number in Type38 cannot dump. [EIP 290822]
- [LNX] Fixed issue where tool fails while secure boot enable. [EIP 314148]

Functions Improved

- Modify checking rule of string to improve string length. [EIP 274054]

Ver. 5.18 2016-03-01

New Features

- Add ETA mechanism support. [EIP 235067]

Functions Improved

- Use FID table in ACPI table to block execution on non-AptioV BIOS. [EIP 235103]

Ver. 5.17 2015-08-28

Spec Updates

- Update for SMBIOS 3.0 Spec. [EIP 168363]
  * SMBIOS Module needs SmBios_07 or later version to support.

Rule Changes

- Change to call SMI function 0x53 instead of 0x58-0x5A. [EIP 221610]
  * SMBIOS Module needs SmBios_07 or later version to support.

Issues Fixed

- Make the tool able to find DMI table even if SMBIOS table doesn't occur in F0000. [EIP 186852]
- Fixed issue where Type11 OEM string update fail for 128 bytes. [EIP 219781]

Ver. 5.16 2014-09-18

New Features

- [LNX] amidelnx support run when typed from anywhere. [EIP 174369]

Issues Fixed

- Modify SMBIOS Type4 Processor Information. [EIP 169809]

Functions Improved

- Removing SMI 0x20/24 while Get BIOS info.

Ver. 5.15 2014-05-09

Issues Fixed

- Fixed /dump 3 doesn't show type 3 Chassis SKU Number. [EIP 158891]

Ver. 5.14 2014-01-29

New Features

- Support the Type0 offset04 Vendor Name. [EIP 136110]
  * SMBIOS Module needs 5.004_SmBios_03 or later version to support functions properly.

Ver. 5.13.1 2013-11-12

Issues Fixed

- The buffer length is not enough for 16MB rom when call smi0x25. [EIP 140950]

Ver. 5.13 2013-10-31

Rule Changes

- Version number changed for AptioV. Sync with 2.13 for Aptio4.

Issues Fixed

- After clear the System Product Name by DMIEDIT tool, it shows abnormal string.

Functions Improved

- Make sure to add SMIFunc0x20 before SMIFunc0x25 and SMIFunc0x24.