



Aptio AMISCE 5.03 Release Notes

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Document Revision 1.28

Document Owner: Utility Group

Oct 04, 2018



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Document Change History

Date	Revision	Description
2010-07-29	1.00	Initial draft
2010-08-17	1.01	UEFI2.1 support
2010-08-27	1.02	Updated pre-requisites
2010-09-07	1.03	Updated binaries and os version
2010-11-03	1.04	Updated binaries
2010-12-01	1.05	Updated binaries
2011-07-26	1.08	Updated according to document standards.
2012-04-11	1.09	Build 2.01.1030
2013-03-01	1.10	Updated for 2.02.1040 ALPHA
2013-12-10	1.11	Updated for 5.00.1053 ALPHA
2014-05-16	1.12	Updated for 5.00.1059 ALPHA
2014-08-06	1.13	Updated for 5.00.1068
2014-09-24	1.14	Updated for 5.01.1073
2015-08-25	1.15	Updated for 5.01.1081
2016-02-05	1.18	Updated for 5.02.1092
2016-06-01	1.19	Updated for 5.02.1097
2016-11-11	1.20	Updated for 5.03.1100
2017-01-17	1.21	Updated for 5.03.1103
2017-01-24	1.22	Updated for 5.03.1104
2017-02-01	1.23	Updated for 5.03.1106
2017-05-29	1.24	Updated for 5.03.1111
2017-10-31	1.25	Updated for 5.03.1113
2018-03-30	1.26	Updated for 5.03.1114
2018-06-07	1.27	Updated for 5.03.1115
2018-10-04	1.28	Updated for 5.03.1123

Release

- V5.03.1123 04-Oct-2018

Deliverables

- SCELNX_32
- SCELNX_64
- AMI_Aptio_SCE_User_Guide_NDA.pdf
- AMI_Aptio_SCE_Release_Notes_NDA.pdf

Component Versions

Below is a list of the version numbers of the components that make up this release.

- SCELNX_32 5.03.1123
- SCELNX_64 5.03.1123

Features

The following features are supported:

- Generates Setup Question script with relevant information for modification by user.
- NVRAM values can be updated based on modifications to Setup Question script file.
- Ability to modify the defaults for the Setup Question controls.
- Verbose mode for detailed generation of the script file.
- Reads NVRAM variables and HII database from BIOS at run time to create files that can be used as input to a setup emulation program. The NVRAM script file may be edited as text. Implemented for Windows.
- Loads the NVRAM script file created above and updates NVRAM.
- Command line operation.
- Supports UEFI 2.0 and UEFI 2.1 BIOSes or later.
- Optional user password check
- APTIOV Support
- Supports to specify multiple mapping language.
- Supports blocking of migration.
- Supports expression evaluation.
- Unlocks protected variable update with administrator password.
- Support to change user/admin password

- Supports suppression of duplicate questions.
- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Get SMI port from ACPI table
- Support to change question values from command line.
- Support for PLDM export and import.
- Support on secure boot enabled systems (RHEL 7.2).
- Support for efivarstore type variables.
- Support for negative numbers as values for controls.
- Support to hide banner.
- Support to read single question value from command line.
- Support to identify suppressed and grayedout forms and controls in script file.
- SMM Communication Support
- Support to indicate system modification by AMISCE.
- Support to reboot and shutdown after system modification.
- Date/Time control support.
- Support to read default values in single question export.
- Support to update/create NVRAM variable data from comand line.

Supported Operating Systems

The AMISCE is supported by the following operating systems:

- Linux

Pre-Requisites:

1. Log in Linux as root otherwise use sudo (if permitted).
2. The compiler suite (gcc, make, libelf-dev) must be installed. If these packages are not installed, the driver CANNOT be built.
3. For most of the distributions, SCE will generate driver without any notification, If it doesn't exist you need to install kernel sources. Also Initmem fails. Please follow point 4.
4. Kernel sources must be installed, *CONFIGURED*, and then compiled.
Following are steps to do this:
 - 4.1 Find Running Kernel's Configuration File:

To configure the sources, simply change to the kernel source directory (typically `/lib/modules/$(uname -r)/build`). If it doesn't exist, you need to install kernel source. Typically, the reference configuration for the kernel can be found in the `/boot` directory with filename `'.config'`, `'kernel.config'`, or `'vmlinuz-2.4.18-3.config'`. Type `'uname -a'` and use the configuration filename that best matches the output from `'uname -a'`. Also, check for `/dev/mem` directory existence. If it doesn't exist, you need to install kernel sources. Normally it comes with the installation unless if the option is deselected.

On some distributions Red Hat for instance, there is a config directory under `/lib/modules/$(uname -r)/build`.

Copy this configuration file into the root of the linux kernel source tree (usually it is `/lib/modules/$(uname -r)/build`). This file must be renamed to `".config"`(dot config).

REFERENCES

Linux Loadable Kernel Module HOWTO

<http://www.linux.org/docs/ldp/howto/Module-HOWTO/index.html>

Compatibility

- Requires "SmiVariable" eModule support to be provided by EFI BIOS. The module can be found at:
Aptio V: `$/AptioV/Source/Modules/SmiVariable` labeled `5.004_SmiVariable_00` or later
Aptio 4: `$/Alaska/BIN/Modules/SmiVariable` labeled `4.6.3_SmiVariable_1.2` or later.
- For update of default values to be effective, the TSE module must be labeled `4.6.2_TSE_2_02_1205_BETA` or later (for Aptio4) and `5.004_AmiTse_13` or later (for AptioV).
- The password feature requires the OFBD driver module.
- Requires 'AmiSetupNvLock' BIOS module for NVRAM variable update protection. The module can be found at:
Aptio V: `$/AptioV/Source/Modules/AMISetupNvLock` labeled `5.004_AmiSetupNvLock_1_05` or later
Aptio 4: `$/Alaska/SOURCE/Modules/AMISetupNvLock` labeled `4.6.2_AmiSetupNvLock_1_02` or later
- If present, TSE tokens `RT_ACCESS_SUPPORT_IN_HPKTOOL` and `RT_ACCESS_FOR_EFIVARSTORE` must be enabled.
- Xen support requires RuntimeMemoryHole support. If Sce Driver is already present then user needs to delete it first and then run AmiSce.
- Bios version check requires:
ACPI label 'ACPI_06' or later for Aptio V.
ACPI label '4.6.5.0_ACPI_48' or later for Aptio 4.
- For update of question values from command line and PLDM support, the Aptio firmware should have the mapping language support enabled. The default mapping language is x-AMI. To enable the mapping language, add the language code to `RFC_LANGUAGES` token.

Limitations

- Minimum / maximum values of a numeric control are not exported to the script file.

- Questions with the same help string name are considered to be ambiguous on UEFI 2.0 BIOS.
- Expression evaluation can only be done if nvram variables will have runtime service access.

Version History

SCELNX_32 & SCELNX_64

Ver 5.03.1123 04/10/2018

Features:

- Date/Time control support. (EIP - 364015)
- Support for exporting single question default value. (EIP - 353737)
- Command line option to update/create new NVRAM variable in SCE. (EIP - 411146)
- Add support for single question update when mapping language is duplicated for the same storage location. (EIP - 423308)

Ver 5.03.1115 07/06/2018

Features:

- SCE completed flag. (EIP – 404656)
- Need to Add Reboot/Shutdown switch in SCE. (EIP – 408091)

Ver 5.03.1114 30/03/2018

Features:

- Modified SCE to prefer existing driver over using RuntimeMemoryHole. (EIP – 398938)

Ver 5.03.1113 31/10/2017

Bug Fixes:

- SceLnx64 cannot build on Linux kernel version 4.13. (EIP – 369927)

Ver 5.03.1111 29/05/2017

Bug Fixes:

- Grayout and Suppress setup items in Runtime Error Logging page display abnormally in SCE dumped file. (EIP – 324479)

Ver 5.03.1106 01/02/2017

Features:

- SMM Communication algorithm needs to be modified in SCE for Linux (EIP 310750)

Ver 5.03.1100

17/11/2016

Features:

- [AMISCE] Improve expression evaluation logic (in OS version) to evaluate nested expressions even if parent expression fails to evaluate. (EIP - 253128)
- Negative number input support for SCE utility. (EIP - 256676)
- Option to hide banner in SCE. (EIP - 291217)
- Support to read single question from command line. (EIP - 286488)
- SCE needs to handle default mapping language x-AMI and x-UEFI-AMI the same. (EIP - 278203)
- PLDM: Support to specify mapping language. (EIP - 278991)
- Introduce a new switch with SCE tool , which can output grayout and suppress items in one dumped file. (EIP - 288280)
- Suppressed form's all control should be in commented out format with /ce switch. (EIP - 292718)
- SCE Utility tries to create/modify variables in Linux that it cannot. (EIP – 271655)

Bug Fixes:

- SCELNX-Modify setup item fail if setup item string include "@". (EIP - 260987)
- (JP0037-245) Question about SCE Linux on Secure Boot enable. (EIP - 258411)
- Some item will not be filter out properly when using SCE /g command in shell. (EIP - 283721)

Ver 5.02.1097

06/01/2016

New Features

- Provide efivarstore type variable support in AMISCE (EIP-264084)
- Update Linux flash driver to work on secure boot enabled systems (RHEL 7). (EIP – 258411).
- Improve expression evaluation logic (in OS version) to evaluate nested expressions even if parent expression fails to evaluate. (EIP 253128)

Bug Fixes

- SCELNX-Modify setup item fail if setup item string include "@" (EIP – 260987)

Ver 5.02.1092

01/12/2016

New Features

- Change question value from command line (EIP: 234918)
- Support for PLDM export and import (EIP: 190945, 241871, 243898)
- Function request for disabling boot options via SCE tool. (EIP 235175)

Issues Fixed

- Typographical error (EIP 236384)
- Windows and Linux version SCE tool still dump hidden options when using parameter /v /g /sp (EIP 225595)
- Warning during import is not suppressed by the /q flag. (EIP 246565)

Ver 5.01.1081

08/25/2015

Issues Fixed

- Tool SCELNK_64 cannot dump successful with command /g /sp in UEFI RHEL 7.1 OS. (EIP 223189)

Ver 5.01.1073

09/24/2014

New Features

- Enhanced export mode: Comment out duplicate questions. (EIP 169273)
- Get the SMI port number from ACPI table and use that in SCE (EIP 132634)
- Migration mode: Only export questions whose value is different from the default (EIP 168203)
- Change user/admin password for BIOS setup (EIP 171710)
- Provision to specify mapping language (EIP 147195)

Ver 5.00.1068

08/06/2014

Issues Fixed

- AMISCE cuts off one-of option value when data width greater than 2 bytes. Also current setting '*' is missing. (EIP 178800)

Ver 5.00.1059

05/16/2014

New Features

- Admin password to unlock variable access. (EIP – 168125)
- Suppress output of questions with blank or empty names. If /lang present suppress output of questions without x-AMI string.(EIP 154739)

- Block SCE execution on non Aptio V platforms' (EIP 121820)

Issues Fixed

- AMISCE gives syntax error during script file import on Sugarbay platform - EIP 167123
- Linux only. Driver gives success message when kernel header sources not available. (EIP 140526)

Ver 5.00.1053

12/10/2013

New Features

- Add command option to SCE to control export/import of boot order controls
- Substitute variable inside StdDefaults when a variable for a formset is missing
- Support management of migration feature including blocking migration via command line switch
- SCE work with mapping language
- Add support for question evaluation to SCE
- Support for Suppressing Forms added.
- Support for Suppressing Submenu items in Forms added.
- Support for /sp command for suppress if opcode and /g command for grayout .

Issues Fixed

- SCE question mismatch when prompt has trailing space – EIP 118838
- SCE tool is not updating the boot order properly - EIP 113459

Ver 2.02.1040

03/05/2013

New Features

- Output subtitles as comments to SCE scripts – EIP 112604
- SCE: add comment to checkbox value indicating enabled/disabled values
- APTIOV support
- Improve handling of duplicated or unmatched questions
- Support to generate permanent copy of driver for SCELNX

Issues Fixed

- Some versions of SCE lose the % character in question names – EIP 113274

- SCE boot option question overflows buffer and uses wrong case for hex digits when reading Bootnnnn variable – EIP 106102
- Overlapping strcpy fails with new version of glibc on Linux. This causes mismatch of question prompts with leading spaces.
- SCE RAW Export command generates invalid NVRAM file - EIP103911
- AMISCE does not properly handle 32 and 64 bit numeric control nor can it properly limit check signed numeric controls. – EIP 100678
- Aptio V - SCE_WIN64 crashed during retrieving data from an AptioV BIOS - EIP95126
- Import crashing in Windows864bit OS - EIP96182
- SCEWIN not work under Win8 - EIP95654

Ver 2.01.1030

04/11/2012

New Features

- OFBD module password check support
- Implement string controls
- Support operation on Linux domain 0 under XEN (requires RuntimeMemoryHole driver in BIOS).
- Allow raw import to change size of variable data.
- Add checks for invalid options. Previously invalid values were accepted.
- AMISCE to work with security update to SMIVariable

Issues Fixed

- Prevent corruption of LegacyBootOrder variable
- Fix failure to report success on raw import when final variable is read-only.
- SCE does not show all the options in a oneof control if it has embedded suppressif statements (UEFI 2.1).
- SCE attempts to load Linux driver twice.
- Fix failure to get strings when system language not English
- Fix Controls with extreme number of options cause SCE to not list all options
- Fix language control in exported script.

Ver 2.00.1027

12/01/2010

- Extreme number of options in control could cause buffer overrun.
- SCE crash for variables longer than 20 characters.
- Add '/q' option to suppress warning messages.

Ver 2.00.1001

08/16/2010

- Initial Version

Platforms Tested:

- HunterCave UEFI 2.0&2.1 for 32 bit and 64 bit – Ver 2.00.1022
- TomCove UEFI 2.0 & 2.1 for 32 bit and 64 bit

OS Version Tested:

UBUNTU 18.04

RHEL 7.2