Aptio AMISCE 5.01 Release Notes

Aptio AMISCE Release Notes

Document Revision 1.14

Document Owner: Utility Group

September 24, 2014



Confidential, NDA Required
Copyright © 2014

American Megatrends, Inc.
5555 Oakbrook Parkway
Suite 200
Norcross, GA 30093 (USA)

All Rights Reserved
Property of American Megatrends, Inc

Legal

Disclaimer

This publication contains proprietary information which is protected by copyright. No part of this publication may be reproduced, transcribed, stored in a retrieval system, translated into any language or computer language, or transmitted in any form whatsoever without the prior written consent of the publisher, American Megatrends, Inc. American Megatrends, Inc. retains the right to update, change, modify this publication at any time, without notice.

For Additional Information

Call American Megatrends, Inc. at 1-800-828-9264 for additional information.

Limitations of Liability

In no event shall American Megatrends be held liable for any loss, expenses, or damages of any kind whatsoever, whether direct, indirect, incidental, or consequential, arising from the design or use of this product or the support materials provided with the product.

Limited Warranty

No warranties are made, either expressed or implied, with regard to the contents of this work, its merchantability, or fitness for a particular use. American Megatrends assumes no responsibility for errors and omissions or for the uses made of the material contained herein or reader decisions based on such use.

Trademark and Copyright Acknowledgments

Copyright © 2014 American Megatrends, Inc. All Rights Reserved.

American Megatrends, Inc.
5555 Oakbrook Parkway
Suite 200
Norcross, GA 30093 (USA)

All product names used in this publication are for identification purposes only and are trademarks of their respective companies.

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

Copyright © 2014 American Megatrends Inc. ● Confidential, NDA Required

Release

- V5.01.1073 24-Sep-2014

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 5.01.1073
- SCELNX_64 5.01.1073

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 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.

Copyright © 2014 American Megatrends Inc. ● Confidential, NDA Required

- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Get SMI port from ACPI table

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) 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 'vmlinux-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.

Copyright © 2014 American Megatrends Inc. ● Confidential, NDA Required

- 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 token RT_ACCESS_SUPPORT_IN_HPKTOOL must be enabled.
- Xen support requires RuntimeMemoryHole driver.
- 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.

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 5.01.1073 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

Copyright © 2014 American Megatrends Inc. ● Confidential, NDA Required

New Features

- Admin password to unlock variable access. (EIP – 168125)
- Suppress output of questions with blank or empty names. If /lang presenst 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

Copyright © 2014 American Megatrends Inc. ● Confidential, NDA Required

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 crushed 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 opeation on Linux domain 0 under XEN (requres 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.

Copyright © 2014 American Megatrends Inc. ● Confidential, NDA Required

- 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 10.04

Copyright © 2014 American Megatrends Inc. ● Confidential, NDA Required