



Intel® System Scope Tool

User Guide

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Introduction

1. Introduction

This User Guide provides system designers with information on how to use System Scope Rev 3.0.

The tool supports the following operating system(s):

1. Windows 10 64 bit

The tool supports the following microprocessors:

1. 6th Gen Intel® Core Processor Code name Kaby Lake Processor.
2. Intel® Core Processor Line Code name Canon Lake Processor.
3. Intel® Atom Processor Line Code name Gemini Lake Processor.
4. Intel® Atom Processor Line code name Ice Lake Processor.
5. Intel® Atom Processor Line code name Lake Field Processor
6. Intel® Atom Processor Line code name Coffee Lake Processor
7. Intel® Atom Processor Line code name Amber Lake Processor
8. Intel® Core Processor Line Code name Whiskey Lake Processor.
9. Intel® Core Processor Line Code name Comet Lake Processor.
10. Intel® Core Processor Line Code name Jasper Lake Processor.
11. Intel® Core Processor Line Code name EHL.
12. Intel® Core Processor Line Code name Tiger Lake Processor.

1.1 Revision History

Revision Number	Revision Data
1.0	December 2014
1.1	March 2015
1.2	October 2015
1.3	December 2015
1.4	January 2015
1.5	April 2016
1.6	June 2016
1.7	July 2016
1.8	September 2016
1.9	November 2016
2.0	February 2017



2.1	April 2017
2.2	February 2018
2.3	March 2018
2.4	July 2018
2.5	October 2018
2.6	December 2018
2.7	February 2019
2.8	June 2019
2.9	August 2019
3.0	October 2019
3.1	February 2020

1.2 Terminology

Term	Description
PCIE	Peripheral Component Interconnect Express
SMBIOS	System Management Basic I/O System
FPDT	Firmware Performance Data Table
PCH	Platform Controller Hub
ACPI	Advanced Configuration and Power Interface
OS	Operating System
BKC	Best Known Configuration
ME	Management Engine
MMIO	Memory - Mapped I/O
BMC	Baseboard Management Controller
TPM	Trusted Platform Module
SPS	Server Platform Services
TBT	Thunderbolt



Installation

2 .Installation

The Intel ® System Scope Tool supports the following operating Systems.

1. Windows 10 64 bit

2.1 Installation on Windows

The tool supports the following browsers.

1. IE10
2. IE11
3. Firefox
4. Google Chrome
5. Microsoft Edge

Installation Instructions:

1. The Intel® System Scope Tool comes as an Installer package. Run the Intel(R) SystemScopeInstallerWinInternal.exe file as administrator and follow the onscreen instructions to install the application.
2. To launch the application, point to the shortcut created in the Strat menu or Desktop (Intel® System Scope Tool.htm) and run by clicking the shortcut.
3. After tool launches click on “Allow blocked content” button.
4. To uninstall/Stop the Service, close all the instances of the tools, by clicking on the close button of the browser.
5. To uninstall the tool, open Add/Remove programs from the Control Panel and click on Intel® System Scope Tool and hit Change/Remove button.

To Re-install or Upgrade the tool:

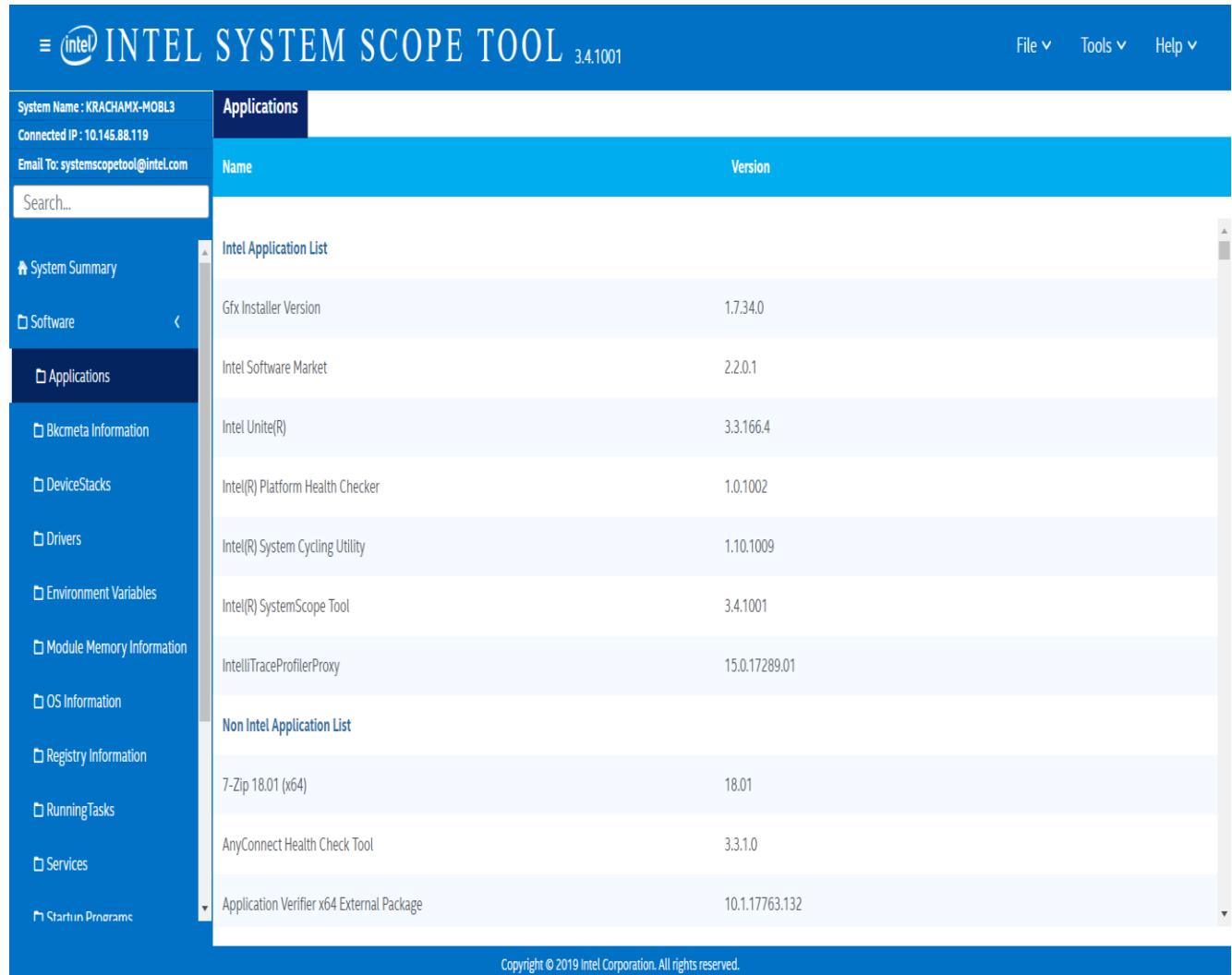
1. To uninstall the tool, open add/Remove programs from the Control Panel and click on Intel® System Scope Tool and hit Change/Remove button.
2. After uninstalling the existing tool, run Intel(R) SystemScopeInstallerWinInternal.exe and select install.
3. Another way to upgrade the tool is, get the new Installer package and run Intel(R) SystemScopeInstallerWinInternal.exe directly. This first uninstall the existing tool and install the new one.

3. Software

Click on "Software" tab to get the software details of the system.

This includes the Application List, OS Information, Device Stack List, Driver List, Service List, Module memory Information, Bkcmeta information, registry information, Environment Variables, Running Tasks and Startup Programs

Figure 3.0 Software



The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a "System Name : KRACHAMX-MOBL3" section and a navigation menu with the following items: System Summary, Software (selected), Applications, Bkcmeta Information, DeviceStacks, Drivers, Environment Variables, Module Memory Information, OS Information, Registry Information, Running Tasks, Services, and Startup Programs. The main content area is titled "Applications" and displays two sections: "Intel Application List" and "Non Intel Application List". The "Intel Application List" contains the following entries:

Name	Version
Gfx Installer Version	1.7.34.0
Intel Software Market	2.2.0.1
Intel Unite(R)	3.3.166.4
Intel(R) Platform Health Checker	1.0.1002
Intel(R) System Cycling Utility	1.10.1009
Intel(R) SystemScope Tool	3.4.1001
IntelliTraceProfilerProxy	15.0.17289.01

The "Non Intel Application List" contains the following entries:

Name	Version
7-Zip 18.01 (x64)	18.01
AnyConnect Health Check Tool	3.3.1.0
Application Verifier x64 External Package	10.1.17763.132

At the bottom of the content area, it says "Copyright © 2019 Intel Corporation. All rights reserved."



Software

3.1 Application List

Click on the “Application List” to get the list of applications installed on the system.

It displays the list in two categories, namely Intel and Non-Intel application.

Figure 3.1 Applications Information

The screenshot shows the INTEL SYSTEM SCOPE TOOL interface. The left sidebar has a dark blue background with white text, listing various system information categories: System Name (KRACHAMX-MOBL3), Connected IP (10.145.88.119), Email To (systemscoptool@intel.com), Search bar, System Summary, Software (selected), Applications (highlighted in dark blue), Bkmeta Information, DeviceStacks, Drivers, Environment Variables, Module Memory Information, OS Information, Registry Information, RunningTasks, Services, and Starting Programs. The main content area has a light blue header with the title "INTEL SYSTEM SCOPE TOOL" and version "3.4.1001". Below the header is a navigation bar with File, Tools, and Help dropdowns. The main content is divided into two sections: "Intel Application List" and "Non Intel Application List". The "Intel Application List" section contains the following entries:

Name	Version
Gfx Installer Version	1.7.34.0
Intel Software Market	2.2.0.1
Intel Unite(R)	3.3.166.4
Intel(R) Platform Health Checker	1.0.1002
Intel(R) System Cycling Utility	1.10.1009
Intel(R) SystemScope Tool	3.4.1001
IntelliTraceProfilerProxy	15.0.17289.01

The "Non Intel Application List" section contains the following entries:

Name	Version
7-Zip 18.01 (x64)	18.01
AnyConnect Health Check Tool	3.3.1.0
Application Verifier x64 External Package	10.1.17763.132

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Software

3.2 BKCMeta Information

This module displays BKC meta Information on system. It gives the complete information like Build, creation, date, name, platform type, program name, version, type and workweek.

Fig 3.2 Bkcmeta Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a "System Name: KRACHAMX-M0BL3" section and a search bar. Below it is a tree view with nodes: System Summary, Software (selected), Applications, Bkcmeta Information (selected), DeviceStacks, Drivers, Environment Variables, Module Memory Information, OS Information, Registry Information, RunningTasks, Services, and Startup Programs. The main content area is titled "Bkcmeta Information" and contains a table with the following data:

Name	Value
Bkcmeta Information	
Build	218
CreationDate	20190714
Name	ICL-U42-19H1-2019WW29.0.218
PlatformType	x64
ProgramName	ICL-U42-19H1
Type	CI
Version	2019WW29.0.218
Wwk	WW29.0

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Software

3.3 Device Stacks

This module displays Device Stacks Information on system. This tab will give the complete Information of devices stacks caption hardware ID, compatible ID, status, controlling service and Class GUID.

Figure 3.3 Device Stack Information

INTEL SYSTEM SCOPE TOOL 3.4.1001

File ▾ Tools ▾ Help ▾

System Name : KRACHAMX-MOBL3
Connected IP : 10.145.88.119
Email To : systemscoptool@intel.com
Search...

DeviceStacks

Name	Hardware ID	Compatible ID	Controlling Service	Class GUID
ACPI Fixed Feature Button	ACPI\FixedButton\FixedButton	Not Available	Not Available	{4D36E97D-E325-11CE-BFC1-08002BE10318}
ACPI Lid	ACPI\VEN_PNP&DEV_0CODACPI\PNPOCOD*PNPOCOD	Not Available	Not Available	{4D36E97D-E325-11CE-BFC1-08002BE10318}
ACPI Sleep Button	ACPI\VEN_PNP&DEV_0COEACPI\PNPOCOE*PNPOCOE	Not Available	Not Available	{4D36E97D-E325-11CE-BFC1-08002BE10318}
ACPI Thermal Zone	ACPI\ThermalZone\ThermalZone	Not Available	Not Available	{4D36E97D-E325-11CE-BFC1-08002BE10318}
ACPI x64-based PC	acpiapic	DETECTEDInternal\ACPI_HALDETECED\ACPI_HAL	\Driver\ACPI_HAL	{4D36E966-E325-11CE-BFC1-08002BE10318}
Audio Endpoint	MMDEVAPI\AudioEndpoints	GenericAudioEndpointSWD\GenericRawSWD\Generic	Not Available	{C166523C-FE0C-4A94-A586-F1A80CFBBF3E}
Audio Endpoint	MMDEVAPI\AudioEndpoints	GenericAudioEndpointSWD\GenericRawSWD\Generic	Not Available	{C166523C-FE0C-4A94-A586-F1A80CFBBF3E}
Bluetooth Device (Personal Area Net)	BTH\MS_BTHPAN		BthPan	{4D36E972-E325-11CE-BFC1-0800}

Device Stack Details

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Software

3.4 Drivers Information

Click on “Drivers” tab to get the Device, Hardware ID & Driver Version for the Devices. It will also display the digital signature status of the driver.

Fig 3.4 Driver Information

Name	HardWareID	DriverVersion	Inf	Manufacturer
ACPI Fixed Feature Button	ACPI\{FixedButton*FixedButton	10.0.16299.309	machine.inf	(Standard system devices)
ACPI Lid	ACPI\VEN_PNP&DEV_OCODEACPI\PNPOCOD*PNPOCOD	10.0.16299.309	machine.inf	(Standard system devices)
ACPI Sleep Button	ACPI\VEN_PNP&DEV_OOEAACPI\PNPOCOE*PNPOCOE	10.0.16299.309	machine.inf	(Standard system devices)
ACPI Thermal Zone	ACPI\ThermalZone*ThermalZone	10.0.16299.309	machine.inf	(Standard system devices)
ACPI x64-based PC	acpiapic	10.0.16299.15	hal.inf	(Standard computers)
Bluetooth Device (Personal Area Network)	BTH\MS_BTHPAN	10.0.16299.402	bthpan.inf	Microsoft
Bluetooth Device (RFCOMM Protocol TDI)	BTH\MS_RFCOMM	10.0.16299.15	tdibth.inf	Microsoft
Bluetooth		10.0.16299.15	Not Available	Microsoft
Charge Arbitration Driver	ROOT\CAD	10.0.16299.15	ChargeArbitration.inf	(Standard system devices)



Software

3.5 Environment Variables

This module displays all the Environment paths set in the system.

Fig 3.5 Environment Variables

The screenshot shows the Intel System Scope Tool interface with the 'Environment Variables' tab selected. The left sidebar lists various system information categories. The main pane displays environment variables grouped by user profile. For each user, it shows variables like Path, TEMP, and TMP with their corresponding values.

Name	Variable
GAR\ad_skrithix	
Path	%USERPROFILE%\AppData\Local\Microsoft\WindowsApps;
TEMP	%USERPROFILE%\AppData\Local\Temp
TMP	%USERPROFILE%\AppData\Local\Temp
GAR\asteffix	
Path	%USERPROFILE%\AppData\Local\Microsoft\WindowsApps;
TEMP	%USERPROFILE%\AppData\Local\Temp
TMP	%USERPROFILE%\AppData\Local\Temp
GAR\krachamx	
OneDrive	C:\Users\krachamx\OneDrive
Path	C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\;C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Utilities\bpm



Software

3.6 Module Memory Information

This module displays every module's memory information on system.

This tab will give all modules name based on start address and end address available on board.

Fig 3.6 Module Memory Information

The screenshot shows the Intel System Scope Tool interface. The left sidebar contains a tree view of system information, with 'Module Memory Information' selected. The main pane displays a table titled 'Module Memory Details' with columns for 'Module Name', 'Start Address', and 'End Address'. The table lists various system DLLs and their memory ranges.

Module Name	Start Address	End Address
7-zip.dll	0x5AF40000	0x5AF57000
aadcloudap.dll	0x7FFB722C0000	0x8009BFFF
AboveLockAppHost.dll	0x7FFB6DDE0000	0x80050FFF
AccessibleHandler.dll	0x7FFB55FE0000	0x8002DFFF
AccountAccessor.dll	0x7FFB38700000	0x80045FFF
ACPBackgroundManagerPolicy.dll	0x7FFB4ED50000	0x80032FFF
ACPIModule.dll	0x7FFB2CE20000	0x800DBFFF
acpage.dll	0x7FFB6D1E0000	0x80016FFF
Actioncenter.dll	0x7FFB40BC0000	0x8004FFFF
ActionMgr.dll	0x7FFB44420000	0x80017FFF
activationmanager.dll	0x7FFB50740000	0x80084FFF

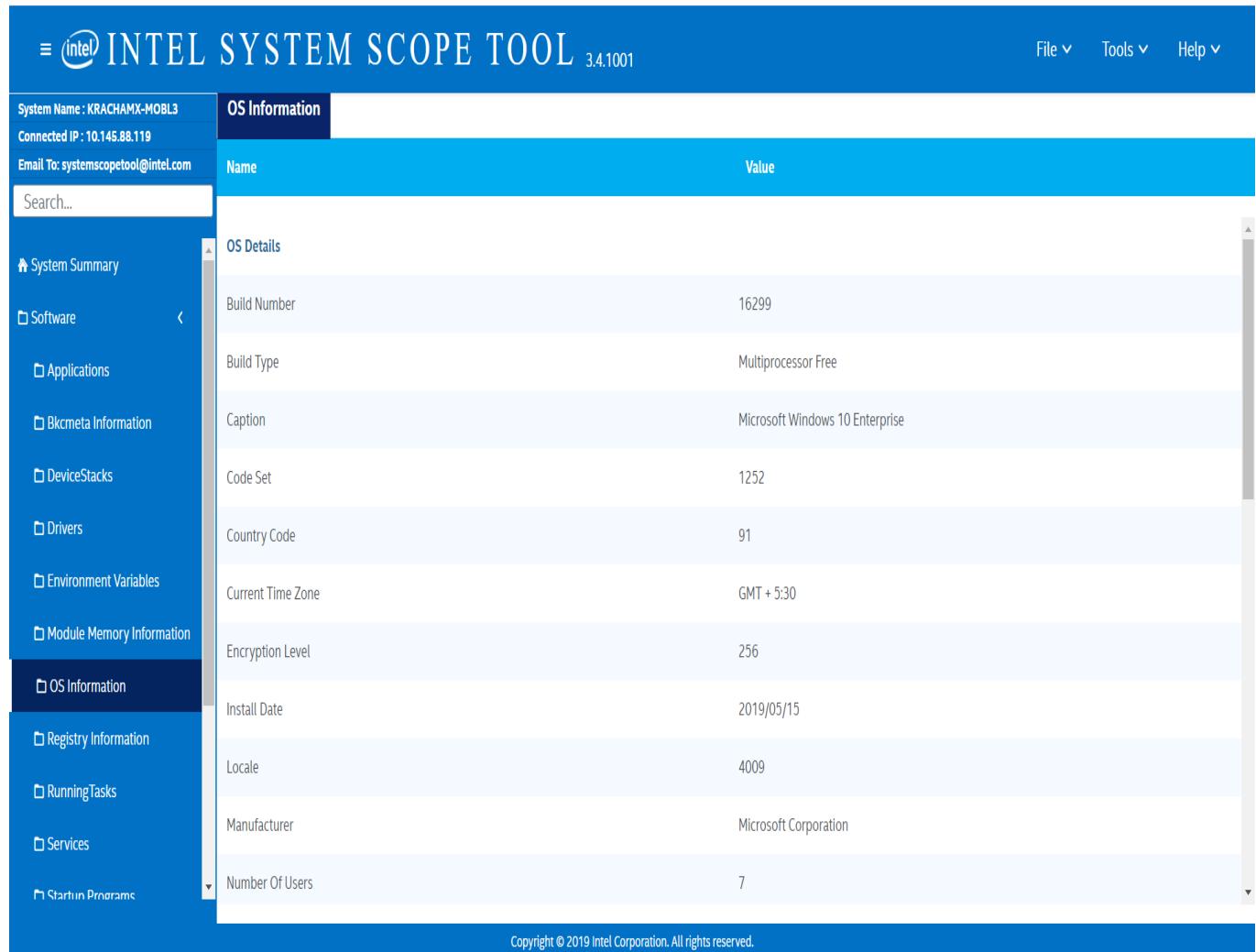
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Software

3.7 OS Information

Click on “OS Information” tab, it displays the build number, build type, caption, code set install Date, OS architecture, language and system directory of operating system. It gives the complete Information of operating system.

Fig 3.7 OS Information



The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The top navigation bar includes "File", "Tools", and "Help". On the left, a sidebar menu lists various categories: System Summary, Software, Applications, Bkcmeta Information, DeviceStacks, Drivers, Environment Variables, Module Memory Information, OS Information (which is selected and highlighted in blue), Registry Information, RunningTasks, Services, and Startup Programs. The main content area is titled "OS Details" and contains a table with the following data:

Name	Value
Build Number	16299
Build Type	Multiprocessor Free
Caption	Microsoft Windows 10 Enterprise
Code Set	1252
Country Code	91
Current Time Zone	GMT + 5:30
Encryption Level	256
Install Date	2019/05/15
Locale	4009
Manufacturer	Microsoft Corporation
Number Of Users	7

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Software

3.8 Registry Information

This tab gives the complete registry information available on machine. It gives the name of Registry and data related to particular registry.

Fig 3.8 Registry Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a "Registry Information" section selected, along with other options like System Summary, Software, Applications, Bkcmeta Information, DeviceStacks, Drivers, Environment Variables, Module Memory Information, OS Information, RunningTasks, Services, and Startup Programs. The main content area displays a table of registry keys under "HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control".

Name	Value
BootDriverFlags	0x1c(28)
CurrentUser	USERNAME
EarlyStartServices	RpcSs Power BrokerInfrastructure SystemEventsBroker DcomLaunch RpcEpMapper LSM AppldSvc
PresutdownOrder	UsoSvc DeviceInstall gpsvc trustedinstaller
SvcHostSplitThresholdInKB	0x380000(3670016)
WaitToKillServiceTimeout	5000
SystemStartOptions	NOEXECUTE=OPTIN FVEBOOT=3174400 NOVGA
SystemBootDevice	multi(0)disk(0)rdisk(0)partition(3)
FirmwareBootDevice	multi(0)disk(0)rdisk(0)partition(1)
LastBootSucceeded	0x1(1)
LastBootShutdown	0x1(1)

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Software

Steps to retrieve of Registry Information

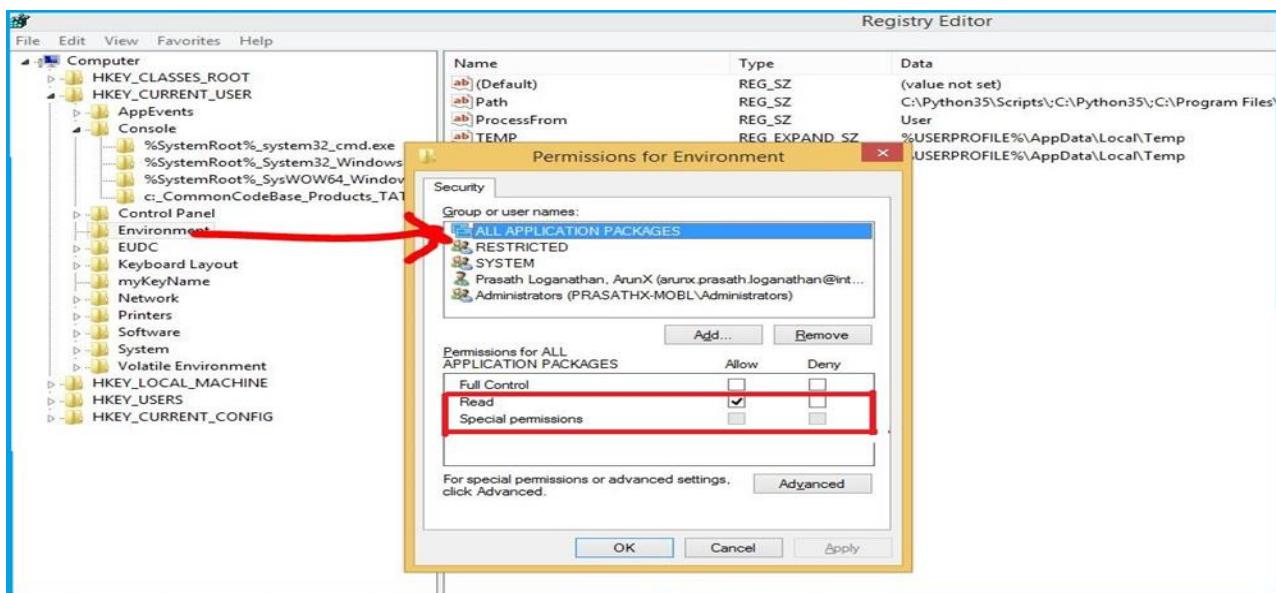
RegistryKeys.xml is present in the location C:\ProgramData\SystemScopetool.

RegistryKeys.xml contains Registry key name. If user want to add more registry names, Open Registry.xml document with any editor, add registry names and save the xml Document with any editor, add registry names and save the xml document. To see the New changes refresh tool and navigate to Registry information.

```
<?xml version="1.0"?>
- <Tool Name="SystemScope">
  <RegistryKey Name="HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control"/>
  <RegistryKey Name="HKEY_LOCAL_MACHINE\SOFTWARE\Intel\Display\igfxcui\hkcmd"/>
</Tool>
```

Few registry keys will not have permission to read. Check the permission level of key Before adding into the Registrykey.xml.

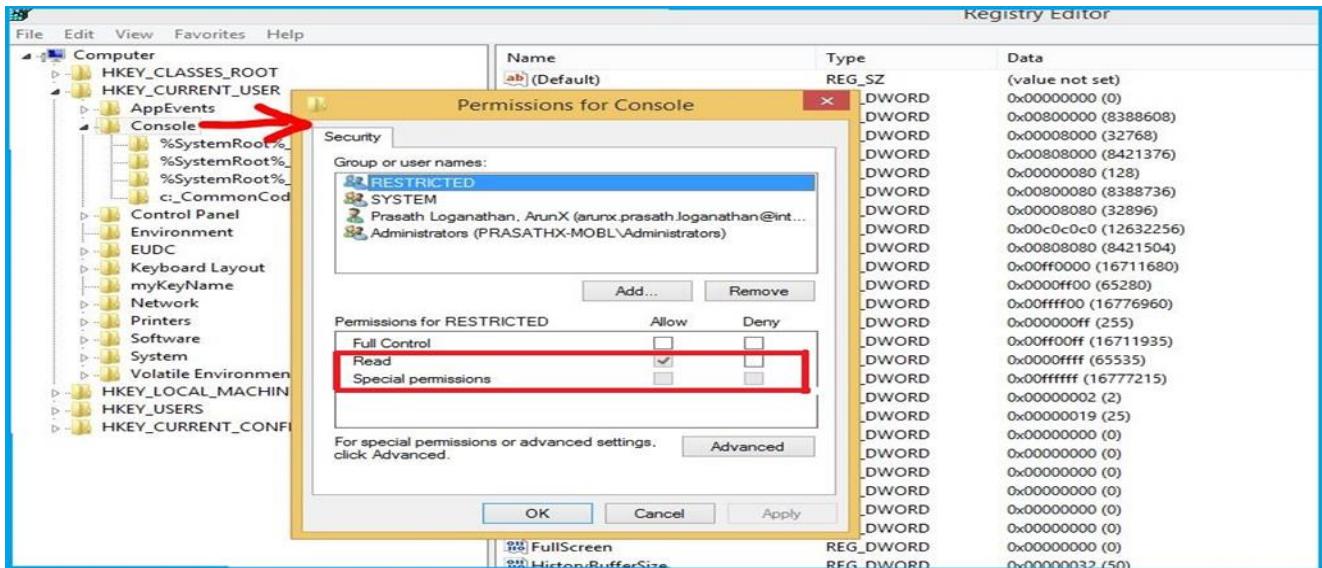
Fig 3.8.1 Registry permission Allowed





Software

Fig 3.8.2 Registry permission Restricted



3.9 Running Tasks

This module gives all the current running processes in the system.

Fig 3.9 Running Tasks

The screenshot shows the INTEL SYSTEM SCOPE TOOL version 3.4.1001. The left sidebar has a tree view with 'RunningTasks' selected. The main area shows a table of running tasks:

Name	ExecutablePath	ProcessId	Priority	MinWorkingSet	MaxWorkingSet	VirtualSize
System Idle Process	Not Available	0	0	Not Available	Not Available	65536
System	Not Available	4	8	Not Available	Not Available	5480448
Secure System	Not Available	56	8	Not Available	Not Available	2142208
sms.exe	Not Available	472	11	Not Available	Not Available	2199063498752
csrss.exe	Not Available	752	13	Not Available	Not Available	2199127592960
wininit.exe	Not Available	868	13	Not Available	Not Available	2199112986624
csrss.exe	Not Available	876	13	Not Available	Not Available	2199212404736
services.exe	Not Available	944	9	Not Available	Not Available	2199116316672
lsalso.exe	Not Available	988	8	200	1380	2199081390080
winlogon.exe	C:\WINDOWS\system32\winlogon.exe	996	13	200	1380	2199132872704



Software

3.10 Service Information

Click on “Services” to get the list of services installed on the system. It also displays the service type and the current status, description, trigger type and delayed auto start.

Fig 3.10 Services Information

The screenshot shows the Intel System Scope Tool interface. The left sidebar has a tree view with nodes like Applications, Bkmeta Information, DeviceStacks, Drivers, Environment Variables, Module Memory Information, OS Information, Registry Information, Running Tasks, Services (which is selected), Startup Programs, System, and PCIe. The main area is titled "Services" and contains a table with columns: DisplayName, ServiceName, Description, ServiceType, Status, TriggerType, Type, and DelayedAutoStart. The table lists several Intel services:

DisplayName	ServiceName	Description	ServiceType	Status	TriggerType	Type	DelayedAutoStart
Intel Bluetooth Service	ibtsiva	Intel(R) Wireless Bluetooth(R) iBtSiva Service	Own process	Running	None	Auto Start	False
Intel Processor Driver	intelppm		Kernal Driver	Running	None	Demand Start	False
Intel RAID Controller Windows 7	iaStorV		Kernal Driver	Stopped	None	Demand Start	False
Intel Serial IO GPIO Controller Driver	igpio		Kernal Driver	Stopped	None	Demand Start	False
Intel(R) Content Protection HDCP Service	cplspcon	Intel(R) Content Protection HDCP Service - enables communication with Content Protection HDCP HW	Own process	Running	None	Auto Start	False
Intel(R) Content Protection HECI Service	cphs	Intel(R) Content Protection HECI Service - enables communication with the Content Protection HECI HW	Own process	Running	None	Demand Start	False

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3.11 Startup Programs

This Module gives all the programs which automatically starts when the system boots i.e., Startup Programs.

Fig 3.11 Startup Programs

The screenshot shows the Intel System Scope Tool interface. The left sidebar has a tree view with nodes like Applications, Bkmeta Information, DeviceStacks, Drivers, Environment Variables, Module Memory Information, OS Information, Registry Information, Running Tasks, Services (selected), Startup Programs, System, and PCIe. The main area is titled "Startup Programs" and contains a table with columns: Name, Command, User, and Location. The table lists startup programs:

Name	Command	User	Location
OneDriveSetup	C:\Windows\SysWOW64\OneDriveSetup.exe /t hfirstsetup	NT AUTHORITY\LOCAL SERVICE	HKU\S-1-5-19\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
OneDriveSetup	C:\Windows\SysWOW64\OneDriveSetup.exe /t hfirstsetup	NT AUTHORITY\NETWORK SERVICE	HKU\S-1-5-20\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
CompareUtility	CompareUtility.lnk	GAR\krachamx	Startup
Send to OneNote	Send to OneNote.lnk	GAR\krachamx	Startup
OneDrive	C:\Users\krachamx\AppData\Local\Microsoft\OneDrive\OneDrive.exe /background	GAR\krachamx	HKU\S-1-5-21-1004336348-1383384898-1417001333-827744\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
Google Update	C:\Users\krachamx\AppData\Local\Google\Update\1.3.35.302\GoogleUpdateCore.exe	GAR\krachamx	HKU\S-1-5-21-1004336348-1383384898-1417001333-827744\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
Lync	C:\Program Files (x86)\Microsoft Office\Office15\lync.exe /fromrunkey	GAR\krachamx	HKU\S-1-5-21-1004336348-1383384898-1417001333-827744\SOFTWARE\Microsoft\Windows\CurrentVersion\Run

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System

4. System Information

Click on the “System” tab for viewing the system information.

Fig 4.0 System

The screenshot shows the INTEL SYSTEM SCOPE TOOL version 3.4.1001. The interface has a dark blue header with the Intel logo and the title "INTEL SYSTEM SCOPE TOOL". Below the header is a navigation bar with tabs: XSDT, FACP, TCPA, SSDT, SSDT1, TPM2, UEFI, SSDT2, SSDT3, ECDT, HPET, APIC, MCFG, SSDT4, DBGP, DBG2, BOOT, and BATB. The "XSDT" tab is highlighted. On the left, there is a sidebar with a search bar and a tree view of system components: System, ACPI, Battery Information, BCD Store Entries, BIOS Options, Bluetooth, Components Information, DMA, FPDT, Firmware Version, Generic System Information, Graphics Information, and ICC Information. The main content area displays the XSDT table with various fields and their values. At the bottom, there is a copyright notice: "Copyright © 2019 Intel Corporation. All rights reserved."



System

4.1 ACPI

Click on “ACPI” tab to view the ACPI details. This tab will give the complete information of Advanced configuration and power interface.

Fig 4.1 ACPI

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The top navigation bar includes "File", "Tools", and "Help". On the left, a sidebar menu lists various system components: System, ACPI (which is currently selected and highlighted in blue), Battery Information, BCD Store Entries, BIOS Options, Bluetooth, Components Information, DMA, FPDT, Firmware Version, Generic System Information, Graphics Information, and ICC Information. The main content area is titled "Table Contents" and displays the "XSDT" section. It contains several lines of assembly-like code starting with "/". Below the code, there are copyright notices: "* Intel ACPI Component Architecture", "* AML/ASL+ Disassembler version 20160527-32", "* Copyright (c) 2000 - 2016 Intel Corporation", and "* Disassembly of C:/Program Files/Intel Corporation/Intel(R) System Scope Tool/SupportedBinaries/XSDT.dat, Wed Oct 02 13:00:12 2019". Further down, it says "* ACPI Data Table [XSDT]", "*", and "* Format: [HexOffset DecimalOffset ByteLength]FieldName :FieldValue". At the bottom of the content area, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."



System

4.2 Battery Information

Display the complete information of the battery connected to the computer system.

Fig 4.2 Battery Information

The screenshot shows the Intel System Scope Tool interface. The left sidebar has a tree view with nodes like System, ACPI, Battery Information (which is selected and highlighted in blue), BCD Store Entries, BIOS Options, Bluetooth, Components Information, DMA, FPDT, Firmware Version, Generic System Information, Graphics Information, and MCC Information. The main content area is titled 'Battery Information' and contains a table with two columns: 'Name' and 'Value'. The table is divided into sections: 'Battery Power Capabilities' and 'Microsoft AC Adapter'. The 'Battery Power Capabilities' section includes rows for Battery Life (the device is connected to AC power), Battery Saver (Battery saver is off), Battery Status (Fully Charged), and Battery PowerSource (System Running on AC). The 'Microsoft AC Adapter' section includes rows for Caption (Microsoft AC Adapter), Instance ID (ACPI\ACPI0003\0), Hardware ID (ACPI\VEN_ACPI&DEV_0003ACPI\ACPI0003*ACPI0003), Manufacturer (Microsoft), and Class GUID ({72631E54-78A4-11D0-BCF7-00AA00B7B32A}). At the bottom of the main area, there is a copyright notice: 'Copyright © 2019 Intel Corporation. All rights reserved.'

Name	Value
Battery Power Capabilities	
Battery Life	the device is connected to AC power.
Battery Saver	Battery saver is off.
Battery Status	Fully Charged
Battery PowerSource	System Running on AC
Battery Life Percent	100
Microsoft AC Adapter	
Caption	Microsoft AC Adapter
Instance ID	ACPI\ACPI0003\0
Hardware ID	ACPI\VEN_ACPI&DEV_0003ACPI\ACPI0003*ACPI0003
Manufacturer	Microsoft
Class GUID	{72631E54-78A4-11D0-BCF7-00AA00B7B32A}

4.3 BCD Store Entries

Display the complete information of the BCD Store Entries. It retrieves the key and value of Window boot manager and window boot loader.

Fig 4.3 BCD Store Entries

INTEL SYSTEM SCOPE TOOL 3.4.1001

File ▾ Tools ▾ Help ▾

Name	Value
identifier	{bootmgr}
device	partition=Device\HarddiskVolume1
path	\EFI\Microsoft\Boot\bootmgfw.efi
description	Windows Boot Manager
locale	en-US
inherit	{globalsettings}
badmemoryaccess	Yes
isolatedcontext	Yes
fverecoverurl	---->https://passreset.intel.com<----
default	{current}
resumeobject	{b31b1c3d-776f-11e9-8c04-ee0f778614a5}

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System

4.4 Components Information

This tab display the Complete Component information available on board. It displays the Information about the camera device, input device, multimedia, ports, sound device and USB Device available on machine.

Fig 4.4 Components Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a tree view with nodes like "Battery Information", "BCD Store Entries", "BIOS Options", "Bluetooth", "Components Information" (which is expanded to show "Camera Device", "Input Device", "Audio Video Codecs", "Ports", "Sound Device", "USB Device", "DMA", and "FPDT"), and "Search...". The main content area is titled "Camera Information" and contains a table with columns "Name" and "Value". The table rows include:

Name	Value
Availability	Not Available
Caption	Integrated Camera
Class Guid	{6bdd1fc6-810f-11d0-bec7-08002be2092f}
Compatible ID	Not Available
Config Manager Error Code	Device is working properly
Config Manager User Config	FALSE
Creation Class Name	Win32_PnPEntity
Description	Integrated Camera
Device ID	USB\VID_5986&PID_0708&MI_00\6&2D82A1BA&0&0000
Error Cleared	Not Available

At the bottom, it says "Copyright © 2019 Intel Corporation. All rights reserved."



System

4.5 FPDT

Click on “FPDT” tab, it displays the FPDT information, FPDT log, GUID and GUID without string.

Fig 4.5 FPDT

The screenshot shows the INTEL SYSTEM SCOPE TOOL interface version 3.4.1001. The left sidebar contains a navigation tree with categories like Battery Information, BCD Store Entries, BIOS Options, Bluetooth, Components Information, DMA, FPDT (which is selected and highlighted in dark blue), Firmware Version, Generic System Information, Graphics Information, ICC Information, IRQ, and ME Information. The top menu bar includes File, Tools, and Help. The main content area has tabs for FPDT Information, FPDTLog, GUID, and GUID[WithOut Name String]. The FPDT Information tab is active, displaying a table titled "Firmware Performance Data Table" with the following data:

Name	Value
Signature	FPDT
Length	68(0x44)
Revision	1
CheckSum	0xfb
OEMID	LENOVOTPRO7™
OEMTableID	TPR07™
OEMRevision	0x2260
Creator ID	0x43455450
Creator Revision	0x2
(0):FBPT_PTR	
Length	16

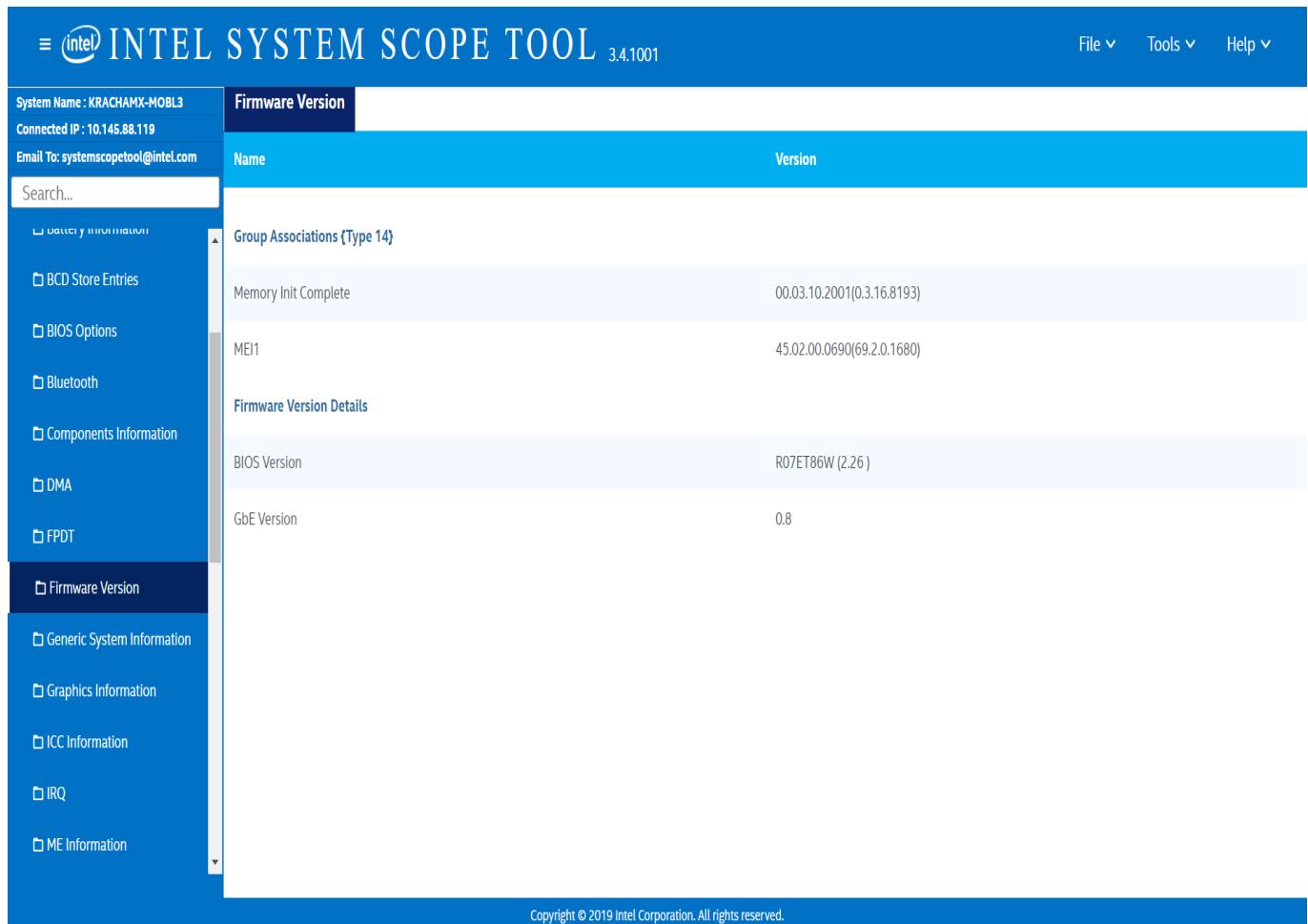
At the bottom of the main window, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."

System

4.6 Firmware Version

Displays the Firmware versions for the device. It displays the version and component name of Group associates with different types.

Fig 4.6 Firmware Version Info



The screenshot shows the Intel System Scope Tool interface. The left sidebar has a dark blue background with white text, listing various system components like Battery Information, BCD Store Entries, BIOS Options, Bluetooth, Components Information, DMA, FPDAT, Firmware Version (which is selected and highlighted in dark blue), Generic System Information, Graphics Information, ICC Information, IRQ, and ME Information. A search bar labeled "Search..." is also present. The main content area has a light blue header with the title "Firmware Version" and the version number "3.4.1001". Below this, there are two tables. The first table, titled "Group Associations {Type 14}", lists "Memory Init Complete" with version "00.03.10.2001(0.3.16.8193)" and "MEI1" with version "45.02.00.0690(69.2.0.1680)". The second table, titled "Firmware Version Details", lists "BIOS Version" as "R07ET86W (2.26)" and "GbE Version" as "0.8". At the bottom of the main content area, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."

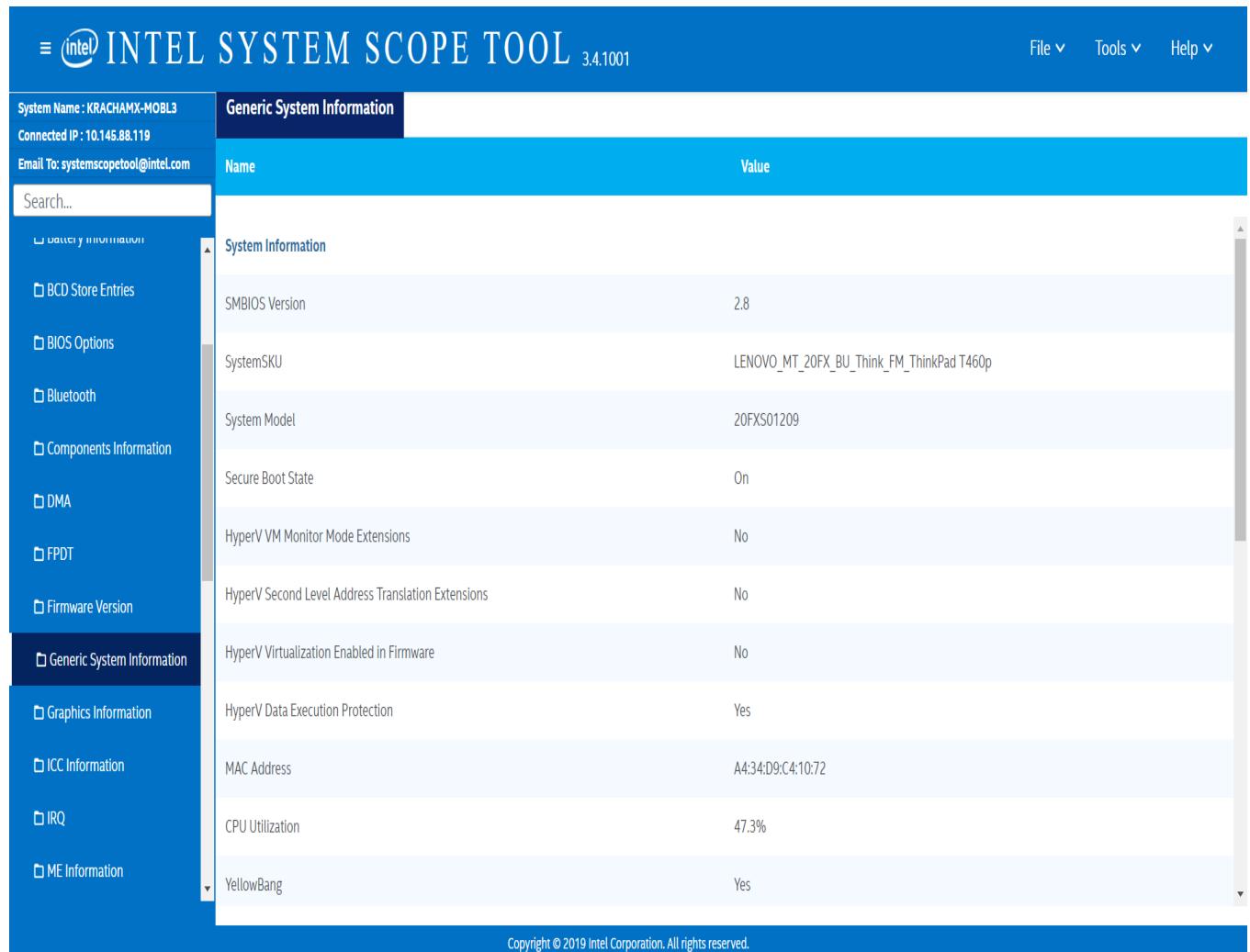
System

4.7 Generic System Information

Displays complete information of the System summary information and system power capabilities

Available on the board. This tab will give information about generic system information and System power capabilities.

Fig 4.7 Generic System Information



The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a "Search..." field and a tree view with nodes like "System Name: KRACHAMX-M0BL3", "Connected IP: 10.145.88.119", "Email To: systemscopetool@intel.com", and categories such as "CPU", "Memory", "PCIe", "Storage", "Power", "Thermal", "Fan", "CPU Options", "BIOS Options", "Components", "DMA", "FPDT", "Firmware Version", "Generic System Information" (which is selected and highlighted in blue), "Graphics", "ICC", "IRQ", and "ME". The main content area is titled "Generic System Information" and displays a table of system information:

Name	Value
SMBIOS Version	2.8
SystemSKU	LENOVO_MT_20FX_BU_Think_FM_ThinkPad T460p
System Model	20FXS01209
Secure Boot State	On
HyperV VM Monitor Mode Extensions	No
HyperV Second Level Address Translation Extensions	No
HyperV Virtualization Enabled in Firmware	No
HyperV Data Execution Protection	Yes
MAC Address	A4:34:D9:C4:10:72
CPU Utilization	47.3%
YellowBang	Yes

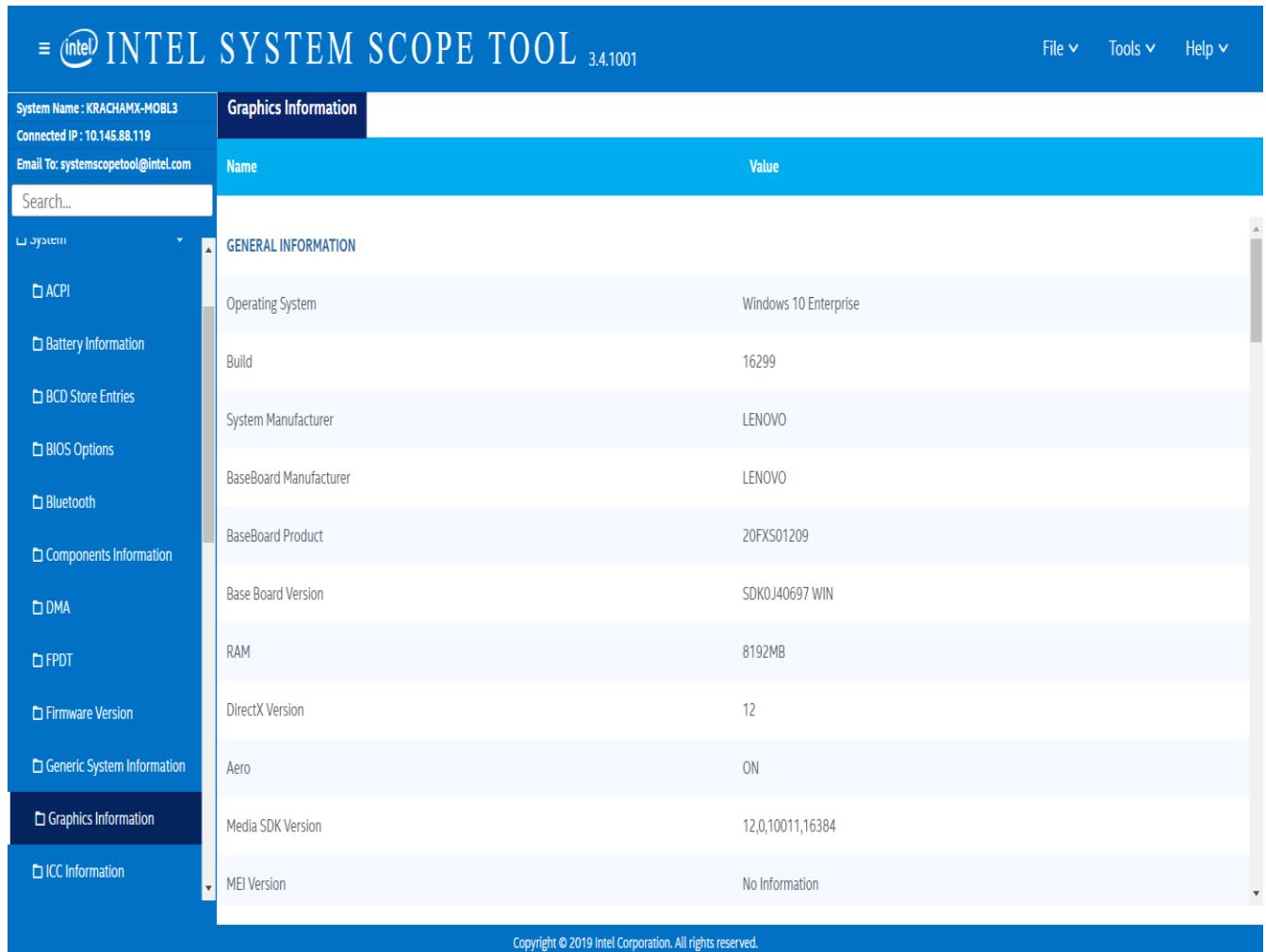
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System

4.8 Graphic Information

This shows information about the graphics. It shows the value of the T3 panel timing, Baseband version, Baseband product and some general information and graphics.

Fig 4.8 Graphic Information



The screenshot shows the Intel System Scope Tool interface. The left sidebar has a tree view with nodes like System, ACPI, Battery Information, BCD Store Entries, BIOS Options, Bluetooth, Components Information, DMA, FPDAT, Firmware Version, Generic System Information, Graphics Information (which is selected and highlighted in blue), and ICC Information. The main area has a title bar "INTEL SYSTEM SCOPE TOOL 3.4.1001" with "File ▾", "Tools ▾", and "Help ▾". Below the title bar is a "Graphics Information" tab. The main content area has a table with "Name" and "Value" columns. The table is titled "GENERAL INFORMATION" and contains the following data:

Name	Value
Operating System	Windows 10 Enterprise
Build	16299
System Manufacturer	LENOVO
BaseBoard Manufacturer	LENOVO
BaseBoard Product	20FXS01209
Base Board Version	SDK0J40697 WIN
RAM	8192MB
DirectX Version	12
Aero	ON
Media SDK Version	12.0.10011.16384
MEI Version	No Information

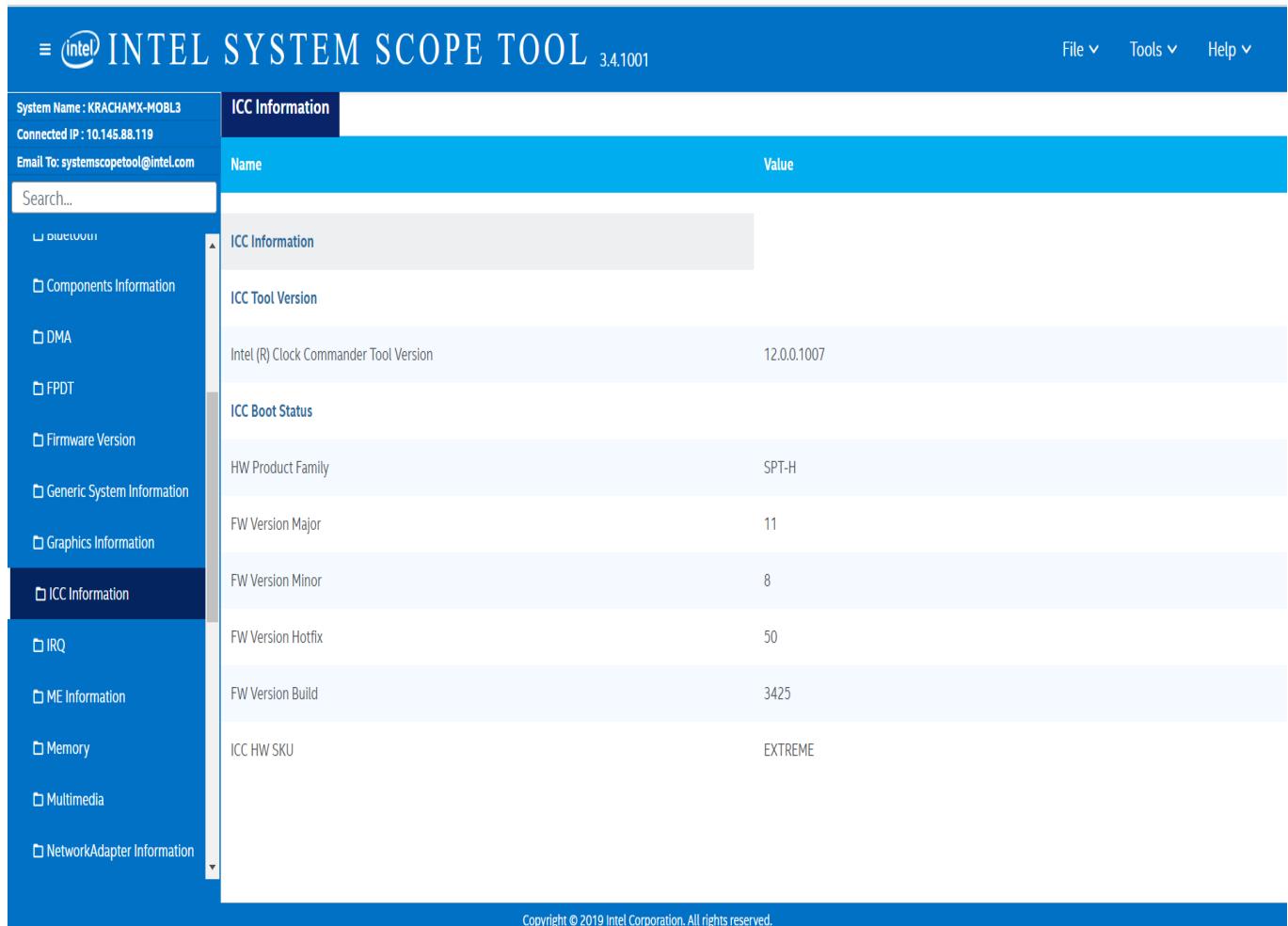
At the bottom of the main area, it says "Copyright © 2019 Intel Corporation. All rights reserved."

System

4.9 ICC Information

Displays complete Information of the ICC content on the board. This tab will give integrated Clock circuit tool version and clock details.

Fig 4.9 ICC Information



The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a "System Name: KRACHAMX-MOBL3" section with "Connected IP: 10.145.88.119" and "Email To: systemscopetool@intel.com". A search bar says "Search...". Below it is a tree view of system components: Bluetooth, Components Information, DMA, FPDT, Firmware Version, Generic System Information, Graphics Information, **ICC Information** (which is selected and highlighted in blue), IRQ, ME Information, Memory, Multimedia, and NetworkAdapter Information. The main content area is titled "ICC Information" and contains the following table:

Name	Value
ICC Information	
ICC Tool Version	
Intel (R) Clock Commander Tool Version	12.0.0.1007
ICC Boot Status	
HW Product Family	SPT-H
FW Version Major	11
FW Version Minor	8
FW Version Hotfix	50
FW Version Build	3425
ICC HW SKU	EXTREME

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System

4.10 ME Information

Displays the complete set of Information about the ME Information, ME firmware version and ME capabilities and IPT related Information. Install ME driver to view complete Information.
(ME driver version should be greater than or equal to ME firmware version)

Fig 4.10 ME Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The top navigation bar includes "File", "Tools", and "Help". On the left, a sidebar menu lists various system components: CPU, Components Information, DMA, FPDT, Firmware Version, Generic System Information, Graphics Information, ICC Information, IRQ, ME Information (which is selected and highlighted in blue), Memory, Multimedia, and NetworkAdapter Information. The main content area is titled "ME Information" and displays two sections: "ME Software" and "ME Information". The "ME Software" section contains the following data:

Name	Value
Intel(R) Security Assist installed	Not Installed
Intel(R) Security Assist Version	Not Available
Intel(R) IPT Installed	Not Installed
Intel(R) IPT Version	Unable to retrieve information
Intel(R) IPTSupported	Unable to Locate Setup File
Intel(R) IPT WithPTD(Protected Transaction Display)Version	Unable to retrieve information

The "ME Information" section contains the following data:

Name	Value
Intel(R)MEInfoVersion	11.8.70.3626
BIOS Version	R07ET86W (2.26)
MEBx Version	11.0.0.0010
GbE Version	0.8

At the bottom of the main content area, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."

System

4.11 Memory

Click on “Memory tab” to get the memory details.

This tab will give the information about memory.

The details of all memories connected to the system (Hard disk, RAM and Removable Storage).

Fig 4.11 Memory

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The top navigation bar includes "File", "Tools", and "Help". On the left, a sidebar lists various system components: Bluetooth, Components Information, DMA, FPDT, Firmware Version, Generic System Information, Graphics Information, ICC Information, IRQ, ME Information, Memory (which is selected and highlighted in dark blue), Multimedia, and NetworkAdapter Information. A search bar is also present in the sidebar. The main content area has a header "Memory" and a table with columns "Name" and "Value". The table displays details for "Physical Memory Channel0-Slot0" and "Physical Memory Array 0".

Name	Value
Capacity	8.00 GB
Total Width	64 bits
Device Locator	Channel0-Slot0
Form Factor	Unknown
Manufacturer	Samsung
Memory Type	Unknown
Removable	Not Supported
Replaceable	Not Supported
Serial Number	982A87FA
Speed	2133 MHZ

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System

4.12 Bluetooth

This module gives the data of Paired and Visible Bluetooth Devices.

Figure 4.26 Bluetooth

INTEL SYSTEM SCOPE TOOL 3.4.1001

System Name : KRACHAMX-MOBL3
Connected IP : 10.145.88.119
Email To: systemscoptool@intel.com

File ▾ Tools ▾ Help ▾

Bluetooth

Name Address Class Connected Authenticated Remembered

No Paired Device Found NA NA NA NA NA

Paired Devices

SHAIKAX-MOBL1 7C:7A:91:90:51:45 0x002a010c false false false

HEMACHAX-MOBL E8:B1:FC:08:ED:5E 0x0002010c false false false

Redmi 5A 22:22:EA:69:25:70 0x005a020c false false false

YAKULAX-MOBL 5C:51:4F:F4:C9:4F 0x002a010c false false false

Redmi 5 38:E6:0A:21:8B:FE 0x005a020c false false false

MNEELA1X-MOBL A0:A8:CD:B0:DE:56 0x0002010c false false false

AKUNNATX-MOBL1 0C:84:DC:DC:04:92 0x002a010c false false false

DRAMAMUX-MOBL 5C:51:4F:F4:C9:86 0x002a010c false false false

UP4-CNVI-GC 84:FD:D1:E9:43:C7 0x002a010c false false false

Visible Devices

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System

4.13 Network Adapter Information

Display the complete set of information about the network adaptors. This tab retrieves the Complete information about network data. It displays the description and value of net connection ID, status, Mac address and information relate to network adapters.

Fig 4.13 Network Adaptor Information

The screenshot shows the INTEL SYSTEM SCOPE TOOL interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The top navigation bar includes "File", "Tools", and "Help". On the left, a sidebar menu lists various system components: Memory, Multimedia, NetworkAdapter Information (which is selected and highlighted in blue), PCH, Processor Information, Sensor Information, SMBIOS, Storage, System Responsiveness Information, TPM Information, USB, and WWAN. Below the sidebar is a search bar labeled "Search...". The main content area is titled "NetworkAdapter Information". It contains a table with two columns: "Name" and "Value". The table rows provide details for an "Ethernet" adapter, including its Adapter Name, Adapter Description, Adapter Address, Adapter Type, Adapter GUID, Adapter Alias, Tunnel Type, NDIS MediaType, Ndis Medium, Administrative Status, and Connection State.

Name	Value
Ethernet	
Adapter Name	{C41D740A-B0B5-4213-9E97-DDA01F1DA3D6}
Adapter Description	Intel(R) Ethernet Connection (2) I219-LM
Adapter Address	50-7B-9D-AC-67-BC
Adapter Type	Ethernet CSMACD type of network interface.
Adapter GUID	{C41D740A-B0B5-4213-9E97-DDA01F1DA3D6}
Adapter Alias	Ethernet
Tunnel Type	Unknown tunnel type
NDIS MediaType	Ethernet
Ndis Medium	802.3
Administrative Status	Interface up and enabled
Connection State	The interface is connected to the network.

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System

4.14 PCH Information

Click on “PCH” tab, it displays the complete information of the processor controller hub details
PCH DEVID, PCH STEPPING VALUE.

Fig 4.14 PCH Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a tree view with nodes like Memory, Multimedia, NetworkAdapter Information, PCH (which is selected), Processor Information, Sensor Information, SMBIOS, Storage, System Responsiveness Information, TPM Information, USB, WWAN, and PRfL. The main content area has a tab labeled "PCH" which is selected. A table titled "PCH Information" shows two rows: "PCH DEVID" with value "SKL PCH-H" and "PCH STEPPING VALUE" with value "Not Available". The bottom of the window has a copyright notice: "Copyright © 2019 Intel Corporation. All rights reserved."

4.15 WWAN

This module gives the interface capabilities and basic information of connected WWAN device.

Figure 4.15 WWAN

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a tree view with nodes like Memory, Multimedia, NetworkAdapter Information, PCH, Processor Information, Sensor Information, SMBIOS, Storage, System Responsiveness Information, TPM Information, USB, WWAN (which is selected), and PRfL. The main content area has a tab labeled "WWAN" which is selected. A table titled "Interface Capability" shows one row: "Interface Capability" with value "No details found on this platform". The bottom of the window has a copyright notice: "Copyright © 2019 Intel Corporation. All rights reserved."



System

4.16 Processor Information

Click on “Processor Information” to view the complete processor information. It contains topology, Instructions, p state. This will displays the complete information about processor available on Board.

Fig 4.16 Processor Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a "Processor Information" section selected, which is highlighted in dark blue. The main content area is titled "Processor Information" and displays a table of processor details under the heading "Basic Information".

Name	Value
Name	Intel(R) Core(TM) i5-6440HQ CPU @ 2.60GHz
Address Width	64 bits
Architecture	x64
Current Clock Speed	2600 MHz
Data Width	64 bits
Description	Intel64 Family 6 Model 94 Stepping 3
Device ID	CPU0
Manufacturer	GenuineIntel
Maximum Clock Speed	2601 MHz
Processor ID	BFEFBFF000506E3
Processor Type	Central Processor

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System

4.17 Sensor Information

Displays complete information of the sensors available on the board. This tab will give information About sensors. It displays the information about sensor properties available on machine.

Fig 4.17 Sensor Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 34.1001". The left sidebar has a "Sensor Information" tab selected, which is highlighted in blue. Other tabs include "Memory", "Multimedia", "NetworkAdapter Information", "PCH", "Processor Information", "SMBIOS", "Storage", "System Responsiveness Information", "TPM Information", "USB", "WWAN", and "PCIe". A search bar is also present in the sidebar. The main content area displays sensor information in a table format with columns "Name" and "Value". The table includes sections for "Intel(R) Integrated Sensor Solution Utility Tool", "FW Information", and "Drivers Information". The "FW State" entry shows an error message: "not responding, err_code:8193, Cannot locate Intel(R) Integrated Sensor Solution driver". The "FW Status" entry shows another error message: "err_code:8224, Failed to get device address". In the "Drivers Information" section, both "Intel(R) Integrated Sensor Solution Driver version" and "ISS Dynamic Bus Enumerator version" show the error message "err_code:8220, Failed to get driver version". The "HID PCI Minidriver for ISS version" also shows the same error message. At the bottom of the tool, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."

Name	Value
Version	3.1.0.3513
FW State	not responding, err_code:8193, Cannot locate Intel(R) Integrated Sensor Solution driver
FW Status	err_code:8224, Failed to get device address
Intel(R) Integrated Sensor Solution Driver version	err_code:8220, Failed to get driver version
ISS Dynamic Bus Enumerator version	err_code:8220, Failed to get driver version
HID PCI Minidriver for ISS version	err_code:8220, Failed to get driver version

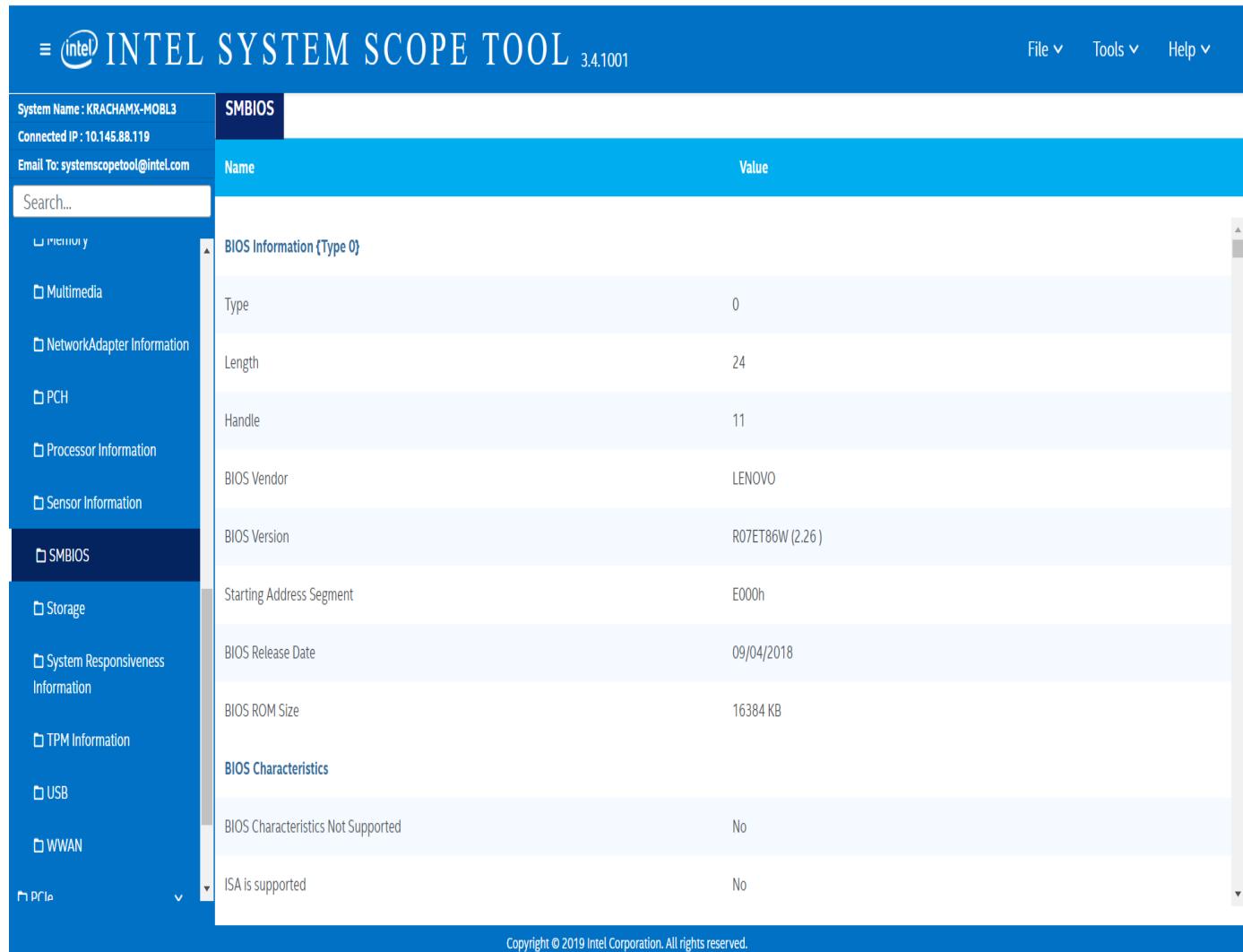
System

4.18 SMBIOS

Click on “SMBIOS” tab to view the complete information. This is BIOS dependent.

SMBIOS needs to export this information through SMBIOS details.

Figure 4.18 SMBIOS



The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a "Search..." field and a tree view with nodes like Memory, Multimedia, NetworkAdapter Information, PCH, Processor Information, Sensor Information, **SMBIOS** (which is selected), Storage, System Responsiveness Information, TPM Information, USB, WWAN, and Pcie. The main content area is titled "BIOS Information {Type 0}" and contains the following table:

Name	Value
Type	0
Length	24
Handle	11
BIOS Vendor	LENOVO
BIOS Version	R07ET86W (2.26)
Starting Address Segment	E000h
BIOS Release Date	09/04/2018
BIOS ROM Size	16384 KB
BIOS Characteristics	
BIOS Characteristics Not Supported	No
ISA is supported	No

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System

4.19 Storage

Click on “Storage” tab to get the storage details. This tab will give the information about the Caption, firmware revision, interface type, manufacturer, media type, model and serial number.

Figure 4.19 Storage

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a tree view with nodes like System Name, Connected IP, Email To, and various system information categories. The "Storage" category is selected and expanded, showing a list of storage devices. The main pane displays detailed information for "Storage Information 0", which is identified as an INTEL SSDSC2BF180A4. The table lists the following details:

Name	Value
Caption	INTEL SSDSC2BF180A4
FirmwareRevision	SC22
Manufacturer	(Standard disk drives)
MediaType	Fixed hard disk media
Model	INTEL SSDSC2BF180A4
SerialNumber	CVDA4481052W1802GN
InterfaceType	SSD
FriendlyName	INTEL SSDSC2BF180A4
PhysicalLocation	Integrated : Adapter 0 : Port 0
FirmwareVersion	SC22
Size	180045766656 Bytes

At the bottom, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."



System

4.20 System Responsiveness Information

Click on complete System Responsiveness Information to view the timing information for boot, Hibernate and sleep.

Figure 4.20 System Responsiveness Information

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar lists various system components: Memory, Multimedia, Network Adapter Information, PCH, Processor Information, Sensor Information, SMBIOS, Storage, System Responsiveness Information (which is selected and highlighted in blue), TPM Information, USB, WWAN, and PRtP. The main content area is titled "System Responsiveness Information" and contains a table with the following data:

Name	Value
S3:Button-to-Image(Total Time)	165Sec
BIOS Resume Duration	0 ms
Sleep Duration	10635mSec
Wake duration	420mSec
Bios Init Duration	0mSec

At the bottom of the tool, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."

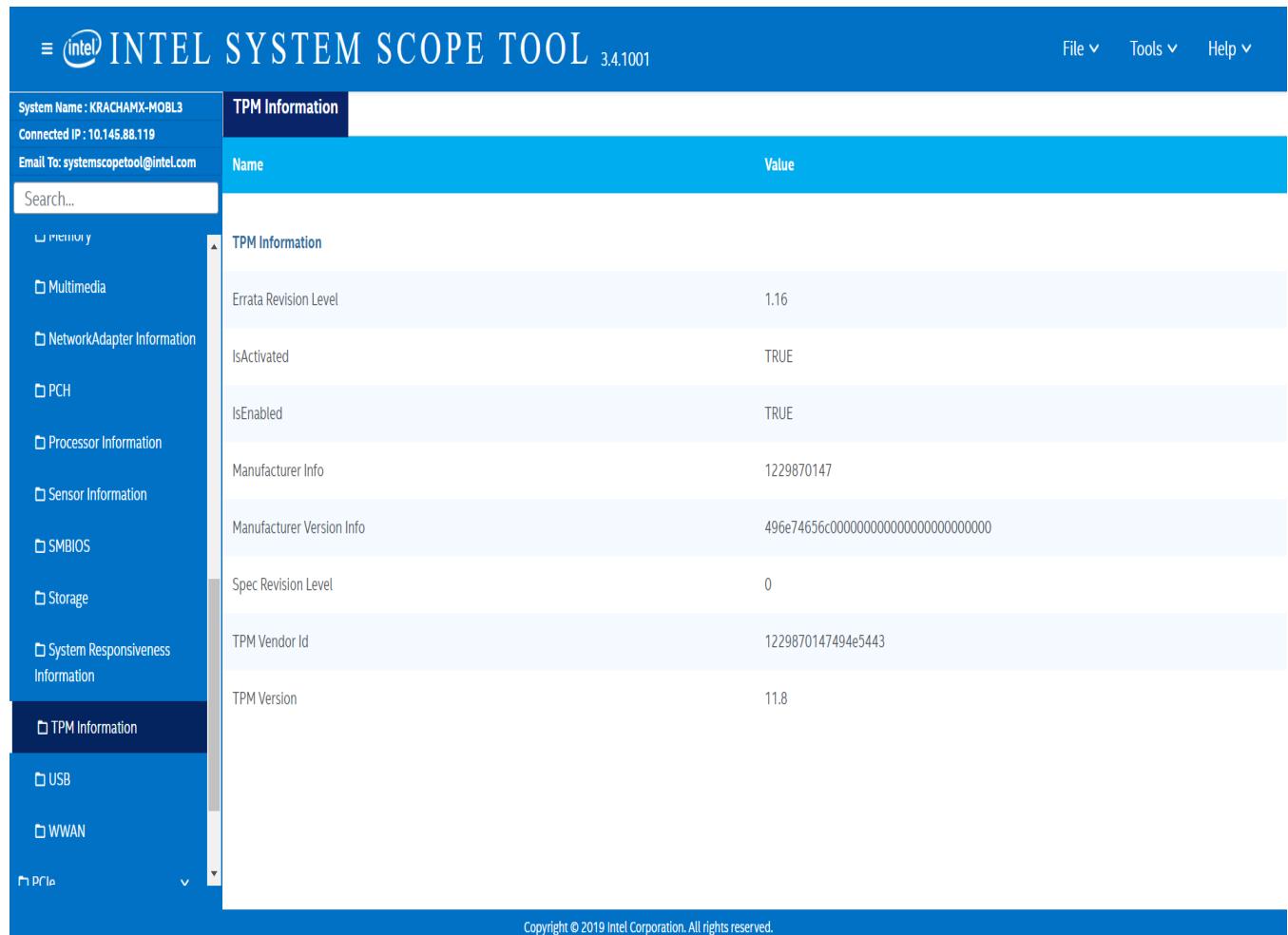
System

4.21 TPM Information

Click on “TPM Information” tab to get the TPM details. This tab will give information about TPM.

This tab displays the manufacturer info and TPM vendor ID and version.

Figure 4.21 TPM Information



The screenshot shows the Intel System Scope Tool interface. The top navigation bar includes the Intel logo, the title "INTEL SYSTEM SCOPE TOOL 3.4.1001", and links for File, Tools, and Help. On the left, a sidebar lists various system components: memory, Multimedia, NetworkAdapter Information, PCH, Processor Information, Sensor Information, SMBIOS, Storage, System Responsiveness Information, TPM Information (which is selected and highlighted in blue), USB, WWAN, and PRfLs. The main content area is titled "TPM Information" and contains a table with the following data:

Name	Value
TPM Information	
Errata Revision Level	1.16
IsActive	TRUE
IsEnabled	TRUE
Manufacturer Info	1229870147
Manufacturer Version Info	496e74656c00000000000000000000000000000000
Spec Revision Level	0
TPM Vendor Id	1229870147494e5443
TPM Version	11.8

At the bottom of the content area, a copyright notice reads "Copyright © 2019 Intel Corporation. All rights reserved."



System

4.22 DMA

This module gives the information about DMA (Direct Memory Access).

Figure 4.22 DMA

The screenshot shows the Intel System Scope Tool interface. The left sidebar has a tree view with nodes like 'System Name : KRACHAMX-M0BL3', 'Connected IP : 10.145.88.119', 'Email To : systemscopetool@intel.com', and a search bar. The 'DMA' node is selected in the tree. The main panel has a title 'DMA' and a table with columns 'Name' and 'Value'. The table contains the following data:

Name	Value
DMA	
Caption	Channel 4
DMAChannel	4
MaxTransferSize	0
Port	Not Available
Status	OK

At the bottom, it says 'Copyright © 2019 Intel Corporation. All rights reserved.'

4.23 IRQ

This module give the information about all the Resource – Device IRQ numbers.

Figure 4.23 IRQ

The screenshot shows the Intel System Scope Tool interface. The left sidebar has a tree view with nodes like 'System Name : KRACHAMX-M0BL3', 'Connected IP : 10.145.88.119', 'Email To : systemscopetool@intel.com', and a search bar. The 'IRQ' node is selected in the tree. The main panel has a title 'IRQ' and a table with columns 'IRQNumber', 'Name', and 'Status'. The table contains the following data:

IRQNumber	Name	Status
IRQ0	System timer	OK
IRQ100	Microsoft ACPI-Compliant System	OK
IRQ101	Microsoft ACPI-Compliant System	OK
IRQ102	Microsoft ACPI-Compliant System	OK
IRQ103	Microsoft ACPI-Compliant System	OK
IRQ104	Microsoft ACPI-Compliant System	OK
IRQ105	Microsoft ACPI-Compliant System	OK
IRQ106	Microsoft ACPI-Compliant System	OK
IRQ107	Microsoft ACPI-Compliant System	OK
IRQ108	Microsoft ACPI-Compliant System	OK
IRQ109	Microsoft ACPI-Compliant System	OK

At the bottom, it says 'Copyright © 2019 Intel Corporation. All rights reserved.'

System

4.24 BIOS Options

This module displays all the options in the Bios page along with their current value.

Figure 4.24 BIOS Options

Name	Value	Prompt	Description
MipiCam_ControlLogic0	Disabled	Control Logic 1	Control Logic 1
MipiCam_ControlLogic1	Disabled	Control Logic 2	Control Logic 2
MipiCam_ControlLogic2	Disabled	Control Logic 3	Control Logic 3
MipiCam_ControlLogic3	Disabled	Control Logic 4	Control Logic 4
MipiCam_Link0	Disabled	Camera1	Camera1
MipiCam_Link1	Disabled	Camera2	Camera2
MipiCam_Link2	Disabled	Camera3	Camera3
MipiCam_Link3	Disabled	Camera4	Camera4
MipiCam_Link0_SensorModel	OV16860	Sensor Model	Sensor Model
MipiCam_Link0_UserHid	0x00000000000000000000000000000000	Custom HID	Custom HID
MipiCam_LanesClkDiv	4422	Lanes Clock division	Lanes Clock division
MipiCam_Link0_DriverData_CrdVersion	CRD-G2	CRD Version	CRD Version

System

4.25 Multimedia

This module gives the data of all the audio and video devices.

Figure 4.27 Multimedia

INTEL SYSTEM SCOPE TOOL 3.4.1001

File ▾ Tools ▾ Help ▾

System Name : KRACHAMX-MOBL3
Connected IP : 10.145.88.119
Email To: systemscoptool@intel.com
Search...

Multimedia

Name	Description	JackType	State
Audio Devices			
Speaker/HP (Realtek High Definition Audio)	Speaker/HP	{DFF21CE1-F70F-11D0-B917-00A0C9223196}	ACTIVE
Microphone Array (Realtek High Definition Audi o)	Microphone Array	{DFF21BE5-F70F-11D0-B917-00A0C9223196}	ACTIVE
Video Devices			
Integrated Camera	Not Available	Not Available	ACTIVE

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5. PCIe Information

Click on the “PCIe” tab for viewing the PCIe Information.

5.1 PCI DevList

Click on “PCI DevList” tab to get the details of pcidevlist. This tab gives complete PCI information, PCI Header Register and PCI dump

Figure 5.1.0 PCI DevList

Description	Value
Seg:Bus:Dev:Fun	S0:B0:D0:F0
Physical Address	0x0000000F8000000
Vendor ID	8086
Device ID	1910
Vendor Name	Intel Corporation
Description	Skylake Host Bridge/DRAM Registers
Sub Vendor ID	17aa
Sub Device ID	17aa Lenovo 5050
Sub Vendor Name	Lenovo 5050
Class	BRIDGE_DEV, Host
Non PCIe Device	Vendor Specific

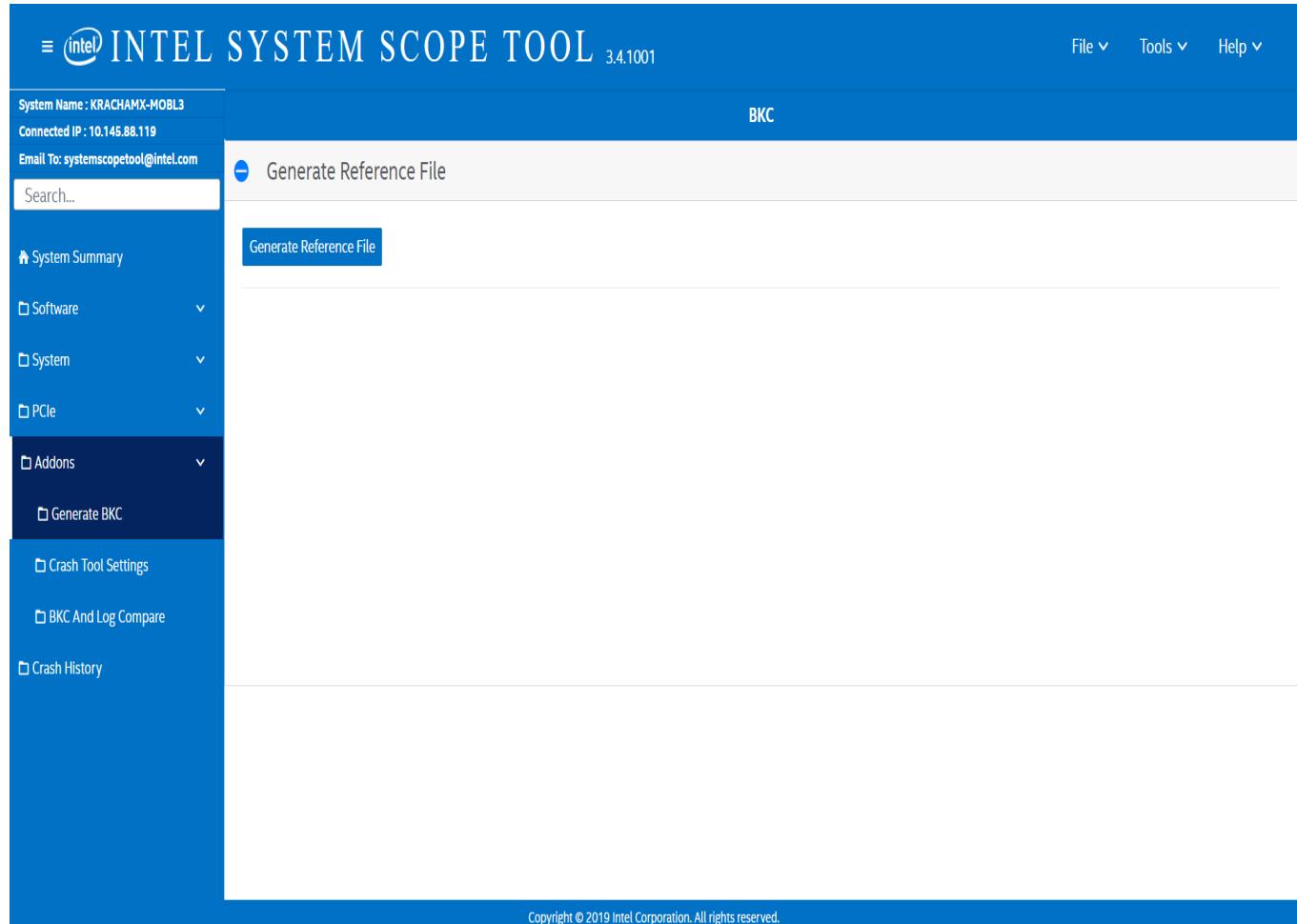
Generate BKC

6. Generate BKC

After select the Generate BKC from add-on, the following BKC page is displayed.

Click on “Generate BKC” tab to generate and compare BKC’s.

Figure 6.0 Generate BKC





Generate BKC

6.1 Generate Reference File

Use this option to generate the reference file for the selected one.

Click on “Generate Reference File”, displays the list. Select any one from the list and click on “Save reference file”.

Figure 6.1 Generate Reference File

The screenshot shows the INTEL SYSTEM SCOPE TOOL interface. The left sidebar has a tree view with categories like System Summary, Software, System, PCIe, Addons, and others. The 'Addons' category is expanded, and 'Generate BKC' is selected. The main area is titled 'Generate Reference File'. It shows a hierarchical list of items under 'ROOT': Software (Applications, Bkmeta Information, Drivers, Environment Variables, Module Memory Information, OS Information, RunningTasks, Startup Programs), System, and a 'Default Config File' section. At the bottom are 'IFWI String (Optional)', 'Save Reference File' button, and a copyright notice.

Figure 6.1.1 Generated Reference File Result

This screenshot shows the same interface as above, but a modal dialog box is open in the center. The dialog title is 'Intel® System Scope' and its message is 'Reference Save Completed. Please check the below file'. Below the message is a link to the saved XML file: 'C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\KRACHAMX-MOBL3_BkcData_10_145_88_119_2019-10-02_13_58_28.xml'. A 'Close' button is at the bottom right of the dialog.

Click on the hyperlink to open the file. File will be opened in default browser.



Generate BKC

Figure 6.2.2 BKC Generation from Template / Config File

The screenshot shows the Intel System Scope Tool interface version 3.4.1001. The left sidebar displays system information: System Name: KRACHAMX-MOBL3, Connected IP: 10.145.88.119, and Email To: systemscopetool@intel.com. A search bar is also present. The main menu bar includes File, Tools, and Help. The central area is titled 'BKC' and contains a 'Generate Reference File' dialog. This dialog has a title bar 'Generate Reference File' and a tree view under 'Generate Reference File' which shows the following structure:

- (-) ROOT
 - Software
 - (+) Applications
 - (+) Bkcmeta Information
 - (+) Drivers
 - (+) Environment Variables
 - (+) Module Memory Information
 - (+) OS Information
 - (+) RunningTasks
 - (+) Startup Programs
 - System

Below the tree view, there is a section for 'Default Config File:' and 'Custom Config File:' with a text input field 'Custom Config File (Optional)'. There are also two optional fields for 'IFWI String (Optional)' and a 'Save Reference File' button.

User can also generate BKC File by selecting the ‘Default Config File’ option. This will create BKC File for the default BKC Template present in the tool install location.

User can also enter any custom path for BKC Template by selecting the ‘Custom Config File’ option and enter the file name.

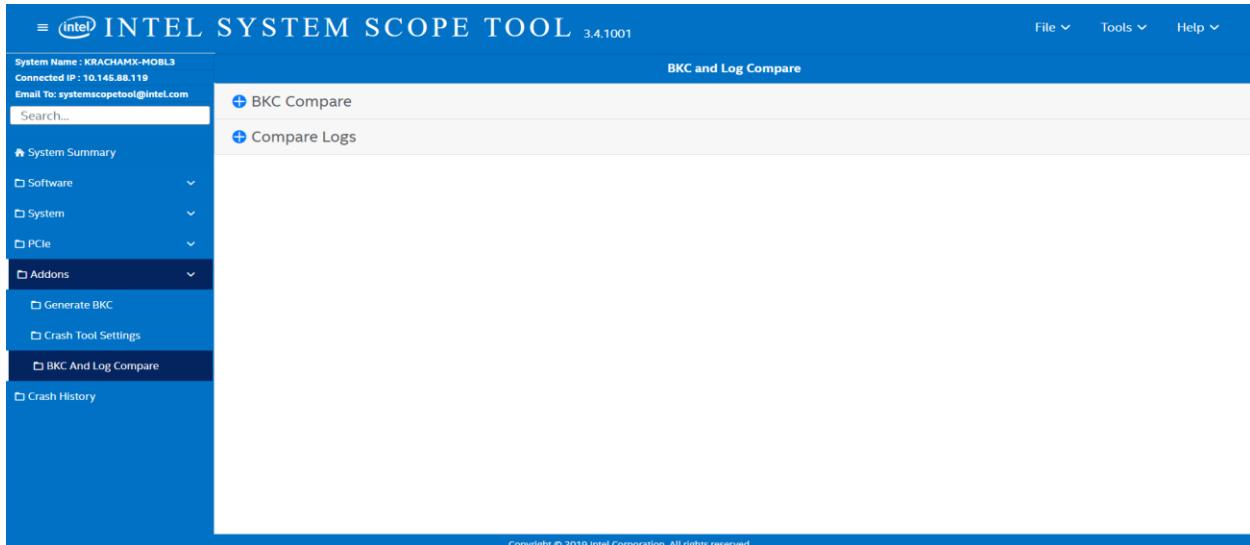


BKC And Log Compare

7. BKC and Log Compare

BKC and Log Compare Tab from add-on, has two features namely BKC Compare and Compare Logs.

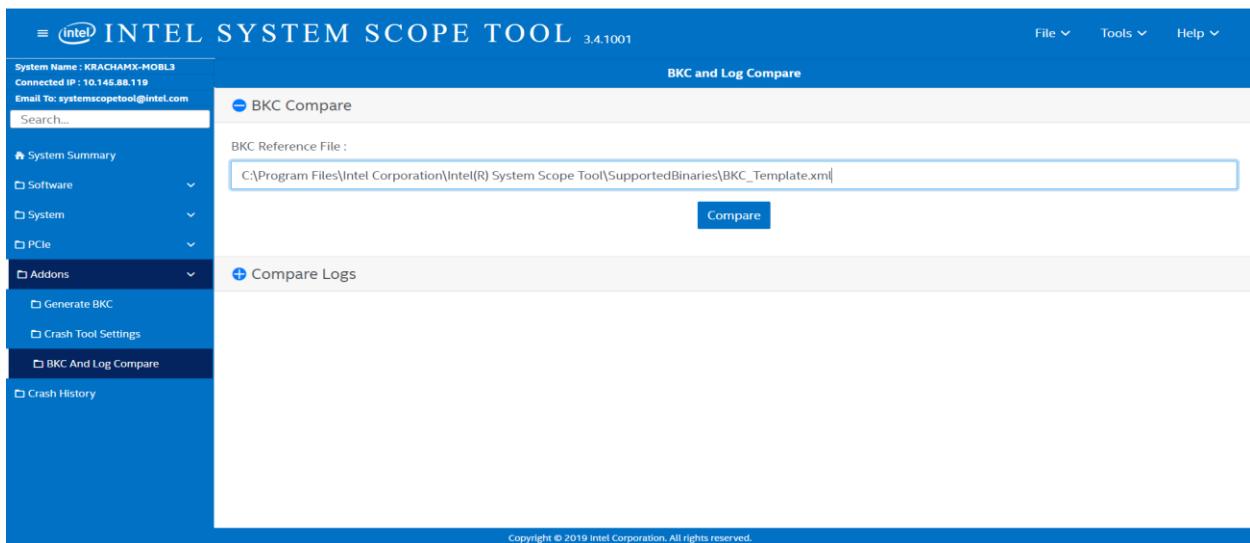
Figure 7.0 BKC And Log Compare



7.1 BKC Compare

On click on BCK Compare, corresponding tab will expand. Here we can compare the BKC File With system configuration. We can provide BKC Reference File, BKC Template and XML log file.

Figure 7.1.0 BKC Compare





BKC and Log Compare

After Click on Compare, Overall Summary of the Comparison will be displayed and Comparison HTML and XLS report will be saved. After Click on View result the comparison report will open in the default browser. Result file is accessible from browser, only if the user is an administrator.

Figure 7.1.1 BKC Overall Summary

The screenshot shows the INTEL SYSTEM SCOPE TOOL version 3.4.1001. On the left, there is a navigation sidebar with the following menu items:

- System Name : KRACHAMX-MOBL3
- Connected IP : 10.145.88.119
- Email To: systemscopetool@intel.com
- Search...
- System Summary
- Software
- System
- PoCle
- Addons
- Generate BKC
- Crash Tool Settings
- BKC And Log Compare** (highlighted in blue)
- Crash History

The main content area has a title "BKC and Log Compare". It includes a "BKC Reference File :" input field containing "C:\OWER\meta.spec" and a "Compare" button. Below this is a section titled "Reference Overall Summary" with a "View Result" button. A "Detailed Summary" table follows:

Total Compared	27
Matched	0 (0.00%)
UnMatched	26 (96.30%)
Newer than Reference File	1 (3.70%)
Optional Unmatched	0 (0.00%)

Figure 7.1.2 BKC Compare HTML Report

The report header includes:

- IP Address : 10.145.88.119
- System Name : KRACHAMX-MOBL3
- Created on: 2019-10-02_14:31:16

Legend: passed (green), failed (red), Newer than reference (blue), NonMandatory (yellow).

BKC Overall Summary:

Result	Total Compared	Matched	UnMatched	Newer than reference	NonMandatory
UnMatched	27	0 (0.00%)	26 (96.30%)	1 (3.70%)	0 (0.00%)

KEY

KEY	BkcMeta.xml	CurrentSystemConfig
Drivers		
ADSP	1.0.1069.0	Not Available
AudioCode:HDA	6.0.8710.3	Not Available
BT - Intel(R) Wireless Bluetooth(R)	21.20.0.4	20.60.0.4
CSME - Intel(R) Management Engine Interface	1910.13.0.1060	11.0.0.1172
Camera	42.17134.2.210165	Not Available
Chipset - Intel(R) Management Engine Interface	0.0.1	11.0.0.1172
DPTF	8.6.10401.9906	Not Available
FPS	3.0.17.9	Not Available
GFX	25.20.100.7007	Not Available
GNA	1.0.0.1381	Not Available
GNSS	3.18362.1.3	Not Available
HIDEventFilter	2.2.1.377	Not Available
ISH	3.1.0.4024	Not Available
ITH	10.0.18339.68	Not Available
LAN - Intel(R) Ethernet Connection (2) I219-LM	12.18.9.6	12.15.23.9
LPSS	30.100.1916.1	Not Available
RST - Intel(R) 100 Series C230 Chipset Family SATA AHCI Controller	17.5.2.1024	13.2.0.1020
SD	1.1.101.1032	Not Available
SGX	2.3.100.49813	Not Available
TBT	1.41.448.5	Not Available
WIFI - Intel(R) Dual Band Wireless-AC 8260	20.70.11.3	20.40.0.4
WWAN	15.0.33.567	Not Available
WWAN	10.6.17743.94	Not Available



BKC And Log Compare

7.2 Compare Logs

Compare Logs Option will compare multiple Systemscope xml Logs. Input should be the folder Path which contains all the xml logs which are to be compared. Click on compare, on successful Comparison the report will be saved in XLS format.

Figure 7.2.0 Compare Logs

The screenshot shows the Intel System Scope Tool interface. On the left, there is a sidebar with the following navigation options:

- System Name : KRACHAMX-MOBL3
- Connected IP : 10.145.88.119
- Email To: systemscopetool@intel.com
- Search...
- System Summary
- Software
- System
- PCIe
- Addons
- Generate BKC
- Crash Tool Settings
- BKC And Log Compare** (highlighted in dark blue)
- Crash History

The main content area has a blue header bar with the text "BKC and Log Compare". Below this, there are two buttons: "BKC Compare" and "Compare Logs". A text input field labeled "Log Folder Path:" contains the path "C:\ProgramData\Intel Corporation\SystemScopeTool\Logs". A blue "Compare" button is located to the right of the input field. At the bottom of the main content area, there is a copyright notice: "Copyright © 2019 Intel Corporation. All rights reserved."



BKC And Log Compare

Figure 7.2.1 Compare Logs Result Pop up

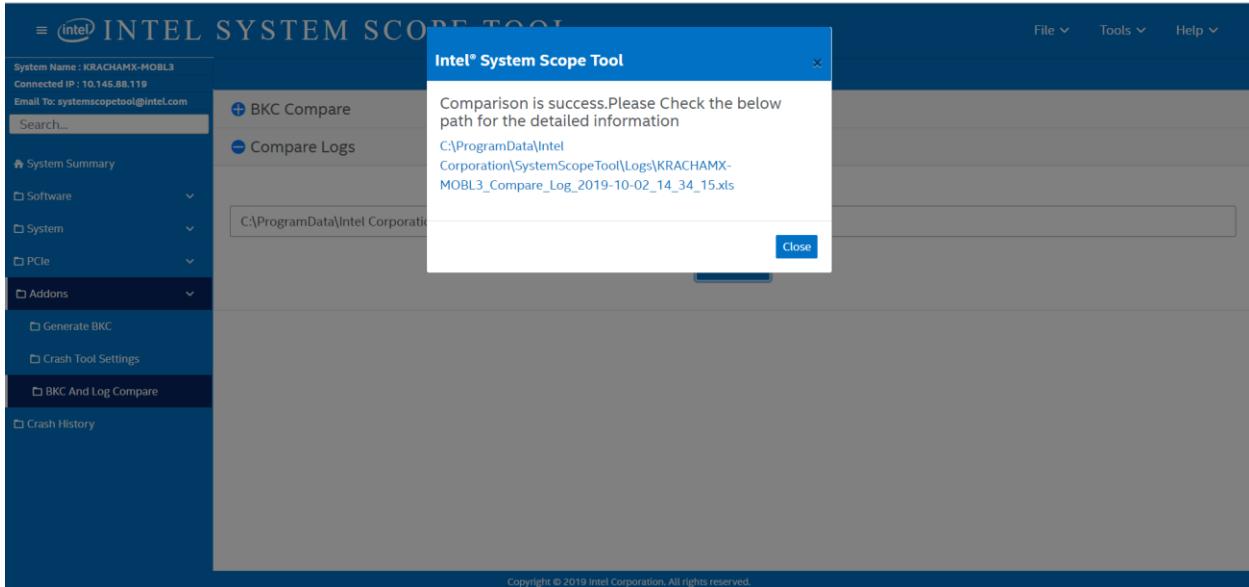


Figure 7.2.2 Compare Logs Sample XLS Report

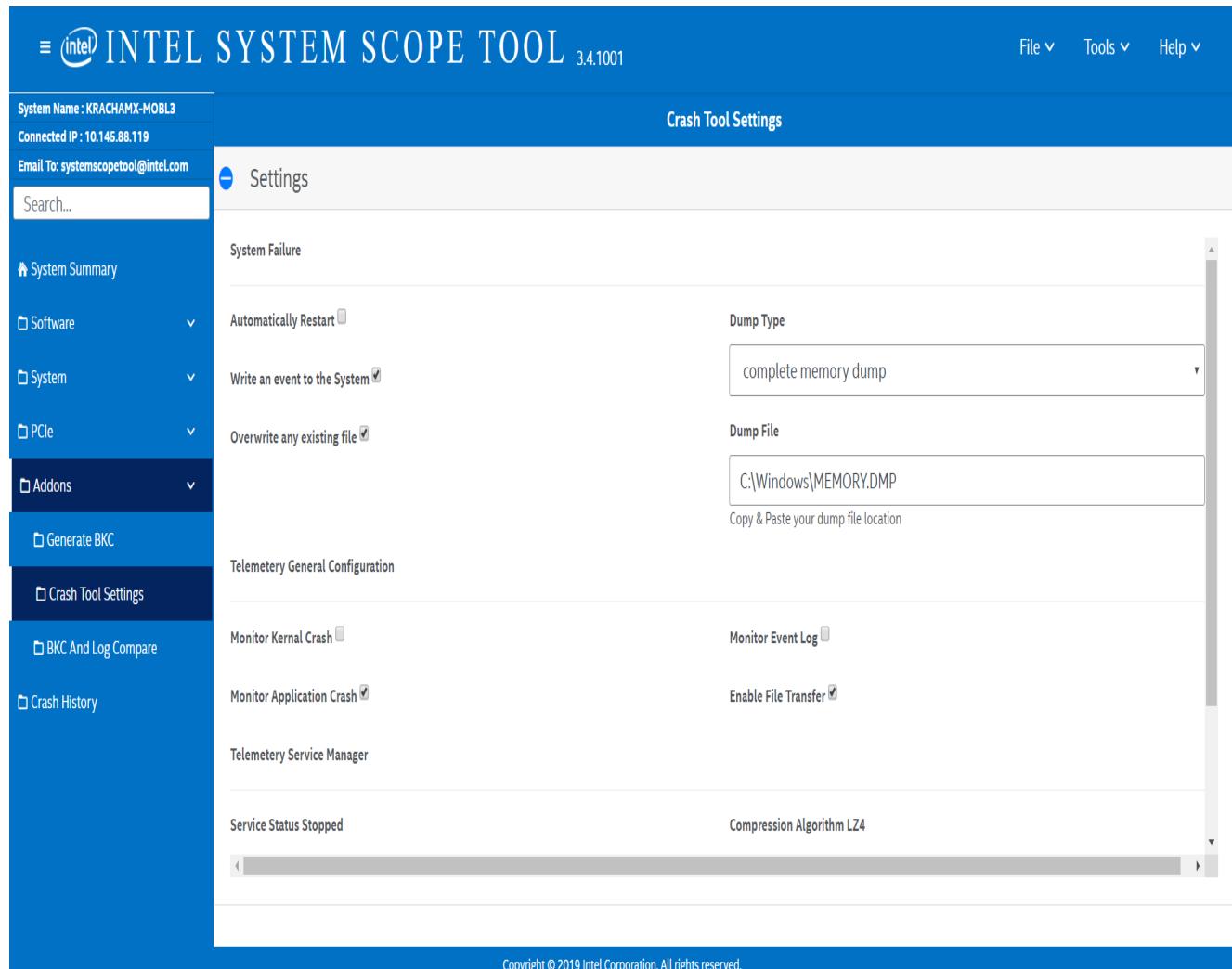
System Details	
Tool Version	SystemScopeTool 3.4.1001
Module	
Module	KRACHAMX-MOBL3_SystemScope_1KRACHAMX-MOBL3_SystemScope_10_145_88_119_2019-10-02_14_33_14.xml
Bluetooth	
Visible Devices	
Redmi 5A	false
shree	-
shree	false
Module Memory Information	
Module Memory Details	
BROWCL.DLL	
EndAddress	-
StartAddress	0x80013FFF
MDMSettingsProv.dll	
EndAddress	-
StartAddress	0x7FFB635E0000
DeviceRegistration.DLL	
EndAddress	0x80039FFF
StartAddress	-
browcl.dll	
EndAddress	0x7FB5F6F0000
StartAddress	-
ModuleMemInfo.dll	
EndAddress	0x8009EFFF
StartAddress	-
ModuleMemInfo.dll	
StartAddress	0x7FB3A8D0000
browcl.dll	
EndAddress	0x7FB2E260000
StartAddress	-
browcl.dll	
EndAddress	0x80013FFF
StartAddress	-
ModuleMemInfo.dll	
StartAddress	0x7FB3A900000
browcl.dll	
EndAddress	0x7FB635E0000
StartAddress	-

Crash Tool Settings

8. Crash Tool Settings

After select the crash tool settings from add-on, the following crash tool page is displayed.

Figure 8.0 Crash Tool Setting





Crash Tool Settings

8.1 Settings

Initially registry form filled with some default values, for saving that values just click on “Save” button. Settings will be saved successfully.

Figure 8.1 Settings

The screenshot shows the Intel System Scope Tool interface with the title bar "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a dark blue background with white text, listing various monitoring and configuration options: System Name (KRACHAMX-MOBL3), Connected IP (10.145.88.119), Email To (systemscoptool@intel.com), Search..., System Summary, Software, System, PCIe, Addons (selected), Generate BKC, Crash Tool Settings (selected), BKC And Log Compare, and Crash History. The main content area is titled "Crash Tool Settings" and contains several configuration sections: "System Failure" with "Automatically Restart" (unchecked), "Write an event to the System" (unchecked), and "Overwrite any existing file" (checked); "Dump Type" set to "complete memory dump"; "Dump File" set to "C:\Windows\MEMORY.DMP" with a "Copy & Paste your dump file location" link; "Telemetry General Configuration" with "Monitor Kernal Crash" (unchecked), "Monitor Application Crash" (unchecked), and "Enable File Transfer" (unchecked); "Telemetry Service Manager" showing "Service Status Stopped" and "Compression Algorithm LZ4"; and a footer note "Copyright © 2019 Intel Corporation. All rights reserved."



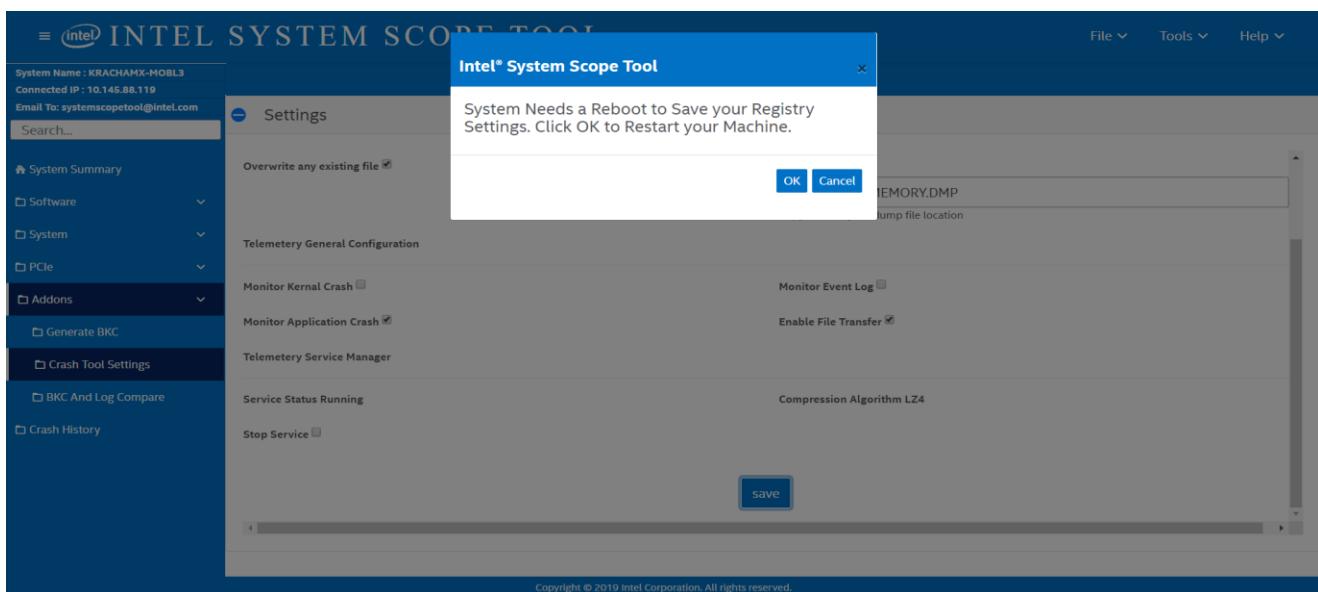
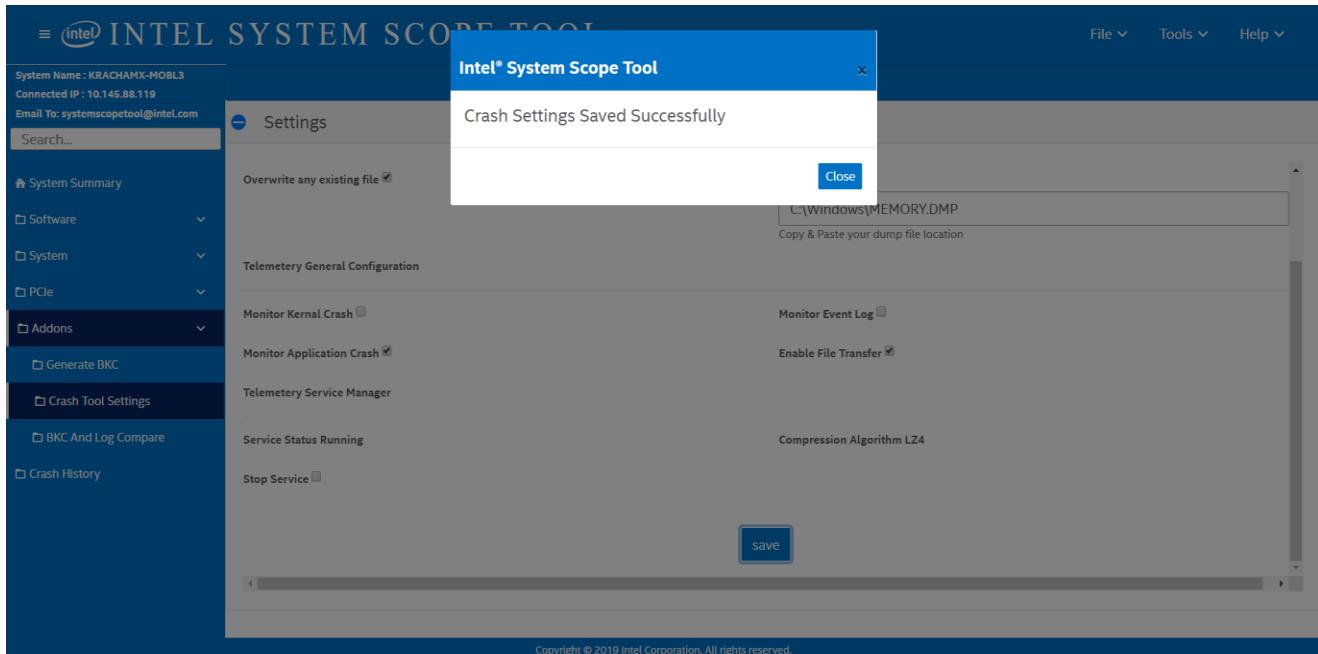
Crash Tool Settings

If user wants to change the initial register values, then change the values and click on “save”.

System reboot popup is appear.

If click on “ok”, the system is reboot.

If click on “cancel”, the registry values are displayed.





SystemSummary

9. System Summary

This feature of SystemScopeTool lists all the important fields of the Tool when the tool is Launched and also when the user clicks on the System Summary tab.

Fig 9.0 System Summary

The screenshot shows the Intel System Scope Tool interface. The title bar reads "INTEL SYSTEM SCOPE TOOL 3.4.1001". The left sidebar has a search bar and a tree view with nodes: System Summary, Software, System, PCIe, Addons, and Crash History. The main content area displays a table of system information:

Item	Value
AMT Status	Enabled
BIOS Version	R07ET86W (2.26)
BKC Version	2019WW29.0.218
CPU Internal Stepping	R0
CPU Name	SKL
Display Resolution	Not Available
Hyper Threading	Not Supported
Hyper-V status in Firmware -System Information	No
Memory Size	180045766656 Bytes
Microcode version	0.0.0.c6
Name	Intel(R) Core(TM) i5-6440HQ CPU @ 2.60GHz
Number of GT cores	Unknown
Number of Logical Cores	4

At the bottom, it says "Copyright © 2019 Intel Corporation. All rights reserved."



Crash History

10. Crash History

On Click of Crash History Tab, Intel (R) Crash Analysis Tool.html page will open. It will display all the crashes reported.

Figure 10.0 Crash History

The screenshot shows the Intel System Scope Tool interface. On the left, there is a navigation sidebar with sections: System Summary, Software, System, PCIe, Addons, and Crash History. The Crash History section is highlighted with a red box. The main panel displays system configuration details:

Item	Value
AMT Status	Enabled
BIOS Version	R07ET86W (2.26)
BKC Version	2019WW29.0.218
CPU Internal Stepping	R0
CPU Name	SKL
Display Resolution	Not Available
Hyper Threading	Not Supported
Hyper-V status in Firmware -System Information	No
Memory Size	180045766656 Bytes
Microcode version	0.0.0.c6
Name	Intel(R) Core(TM) i5-6440HQ CPU @ 2.60GHz
Number of GT cores	Unknown
Number of Logical Cores	4

At the bottom, the URL is file:///C:/Program Files/Intel Corporation/Intel(R) System Scope Tool/index.html and the copyright notice is Copyright © 2019 Intel Corporation. All rights reserved.

Figure 10.1 Crash tool HTML page

The screenshot shows the Intel Crash Analysis Tool interface. On the left, there is a navigation sidebar with sections: Crash History, Kernel, TDR, Application, and Crash Log. The Crash History section is highlighted with a red box. The main panel displays the message "No Data Available". In the top right corner, there is a status bar with fields for Program Name, User Name, and Mac Address, all currently empty. At the bottom, the copyright notice is Copyright © 2019 Intel Corporation. All rights reserved.

Workspace

11. Workspace

SST provides an option to save all the settings in a workspace file and transfer this file to other Machines and even across operating systems.

Once all the settings are finalized, go to File-> save workspace and save the .xml file.

Refer Figure 19.2 and 19.3 to find a way to save and load the workspace.

When you want to transfer these settings to another machine, copy this workspace file to the new Machine and load the workspace file using File-> Load workspace.

Figure 11.0 Workspace



Workspace

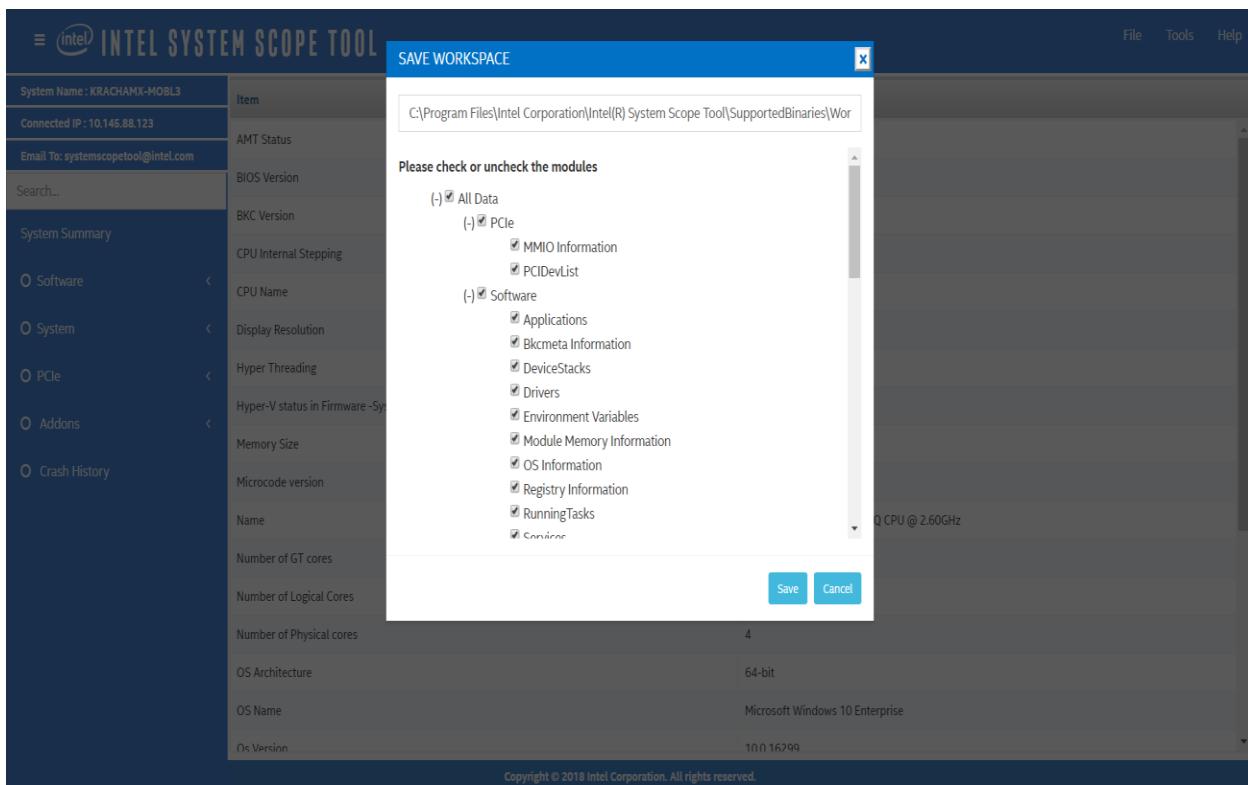
11.1 Save workspace

The user has an option to save the following options in to a workspace file.

1. **General:** Under Tools->settings->General tab user can save enable auto refresh, polling Period, participate SST3 improvement and FPDT settings.
2. **Logging:** Under Tools->settings->Logging tab user can save default path for log file, Format option (html, xml, csv and both xml and html) and module selection.

After clicking save workspace, below dialog box will appear. You can save the work space at Default location or else you can enter a location of choice.

Figure 11.1 save Workspace



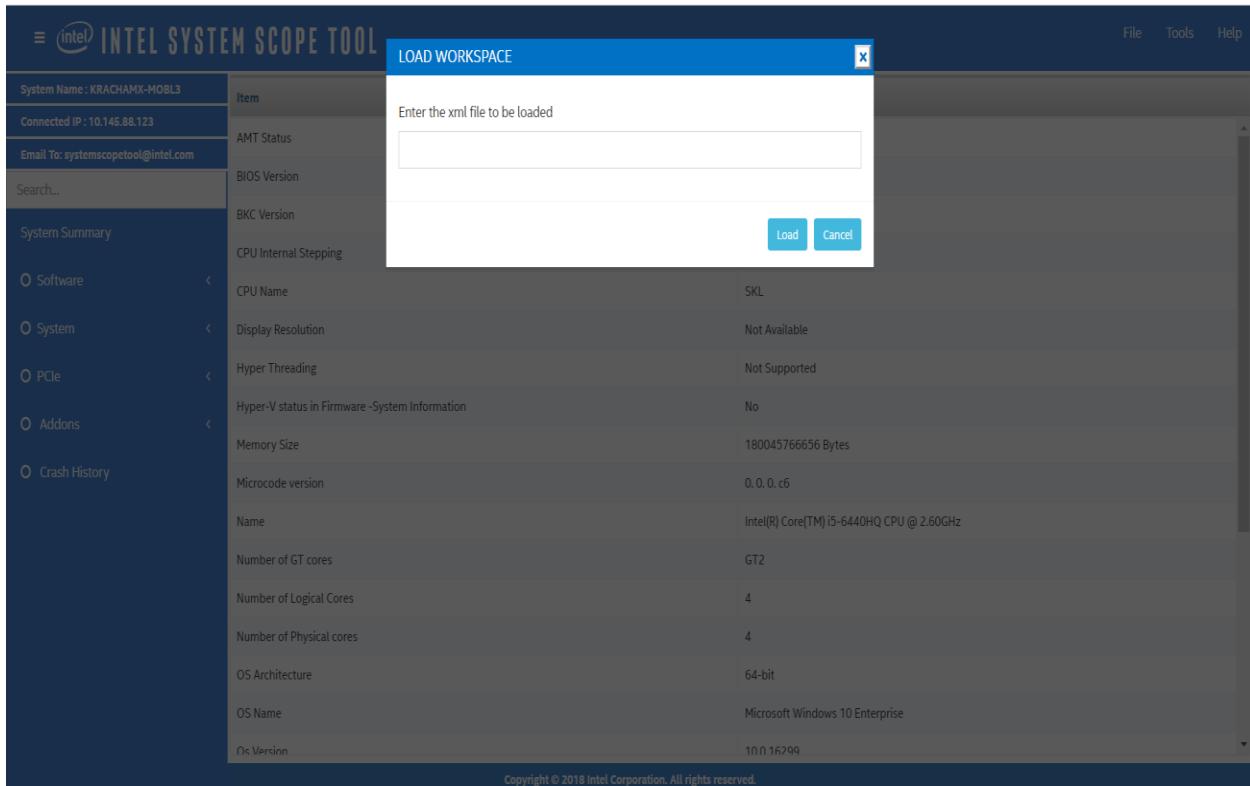
Workspace

11.2 Load Workspace

Clicking on the load workspace option in Figure 19.0 will open the below dialog box.

Choose the required workspace file and click on “submit” button for loading the workspace.

Figure 11.3 Load Workspace





Settings

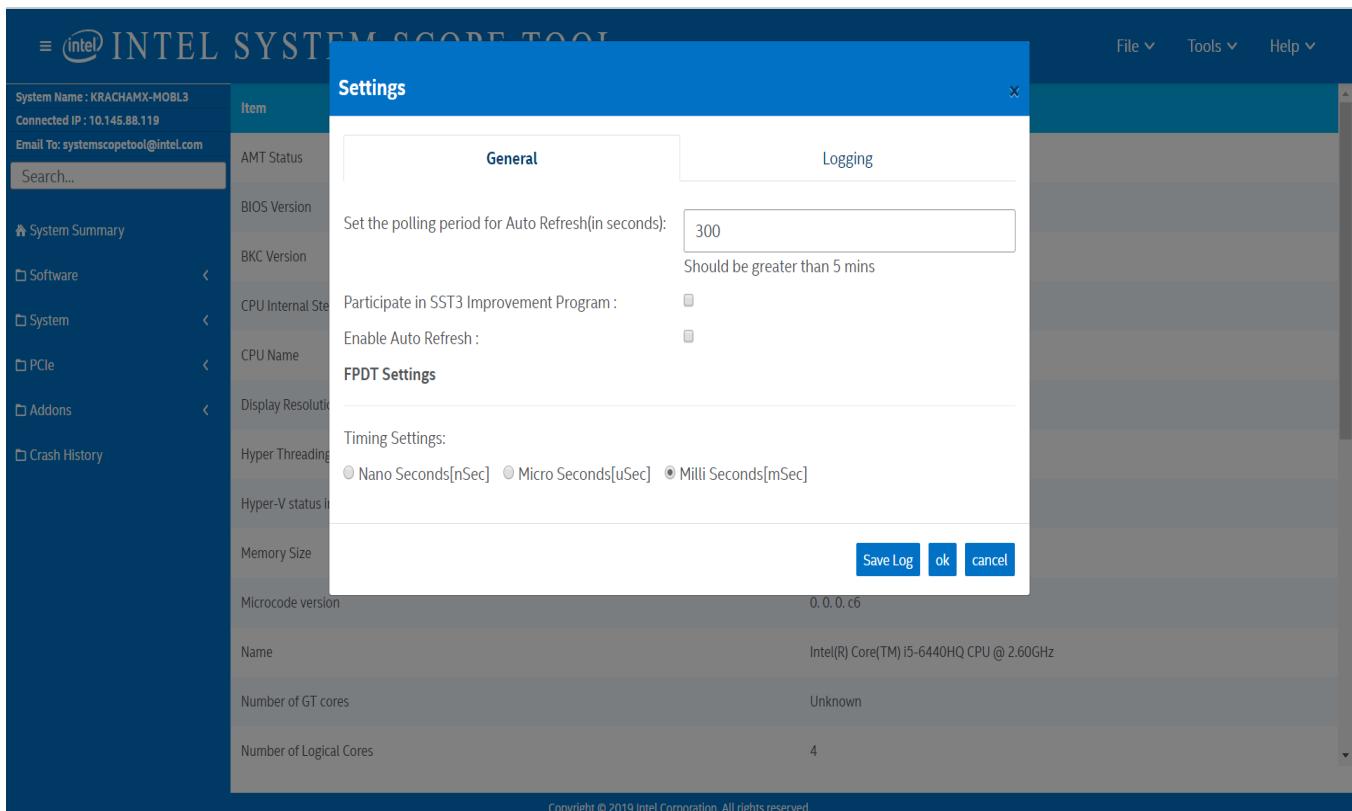
12. Settings

Click on “Settings” menu item to view/modify general and logging settings under Tools menu.

12.1 General

This window allows the user after submitting FPDT settings, then for any next module if we Opened, it should refreshes whole tab.

Figure 12.0 General





Settings

12.1.1 Participate in SST3 improvement program

System Scope Tool has a product improvement program, you can participate by accepting the License agreement of Intel® participate improvement program after installation or after launching UI enable it from Setting -> General tab. Please refer to Figure 12.0 for the options screen shot.

12.1.2 Auto refresh

If user enter polling period value (The value greater than 5 minutes and should be enter in Milliseconds. The default is 5 minutes) and check the “Enable Auto Refresh” option, then Select any FPDT settings and click on “Ok” for any next module if we opened, it should refresh Whole tab after complete the polling period time. . Please refer to Figure 12.0 for the options Screen shot.

Note: “Enable Auto Refresh” option should be selected in order to save Polling Period with custom time.



Settings

12.1.3 Save Log

This window allow the user to choose the format of log file.

It also provides an option to view/modify the logging features from here by clicking on the “Log Settings” button. It redirects to “Settings” window.

Figure 12.1.3 Save Log popup

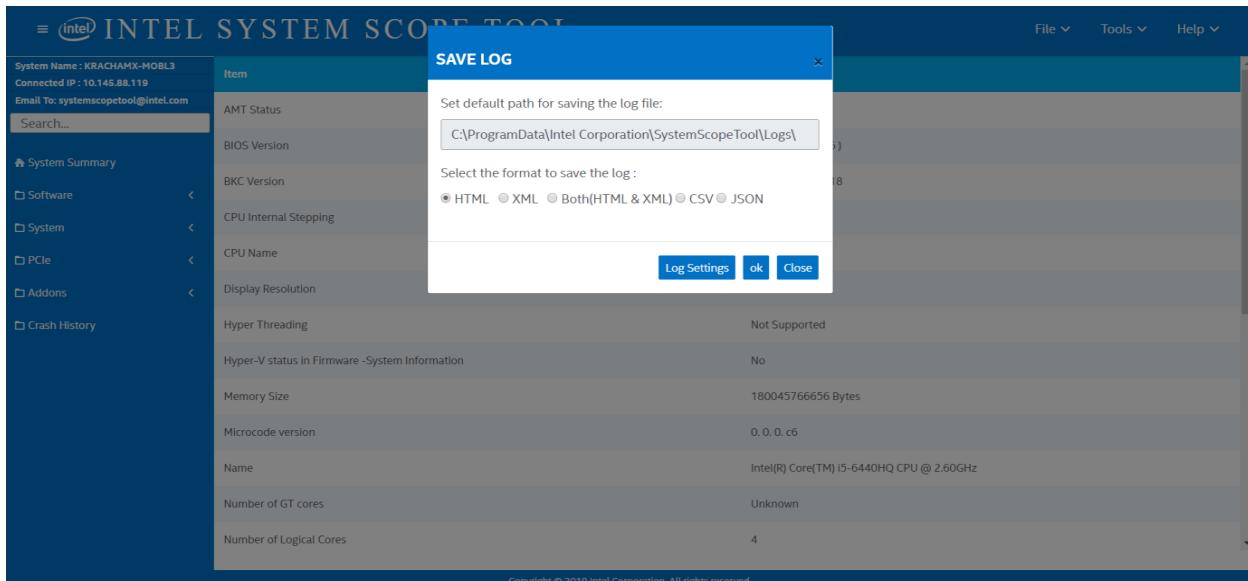
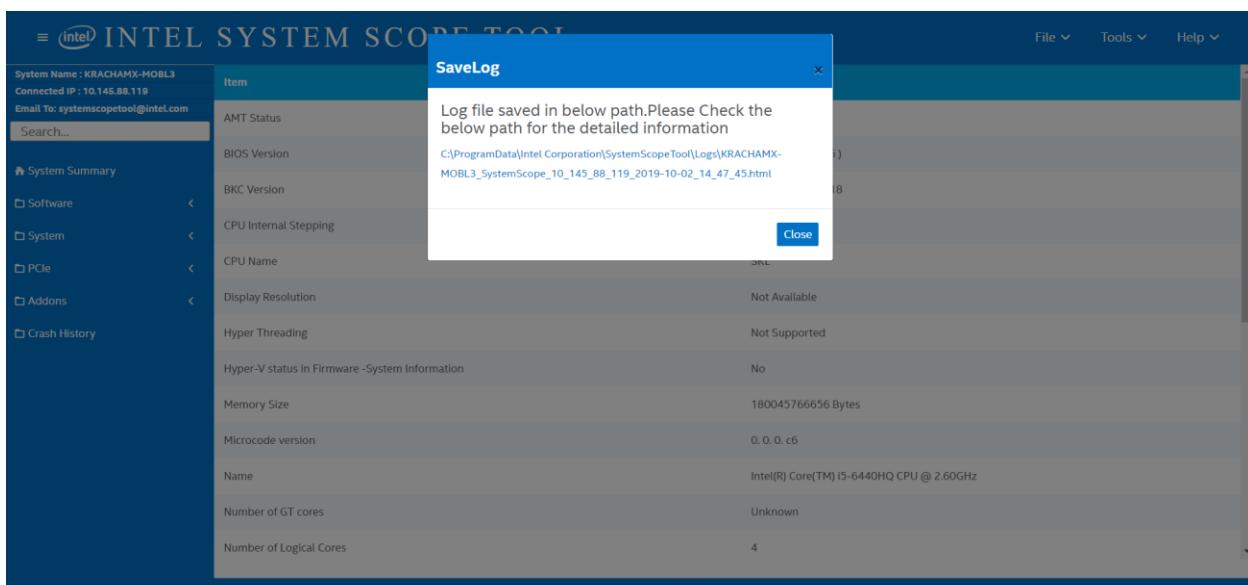


Figure 12.1.4 save Log Result

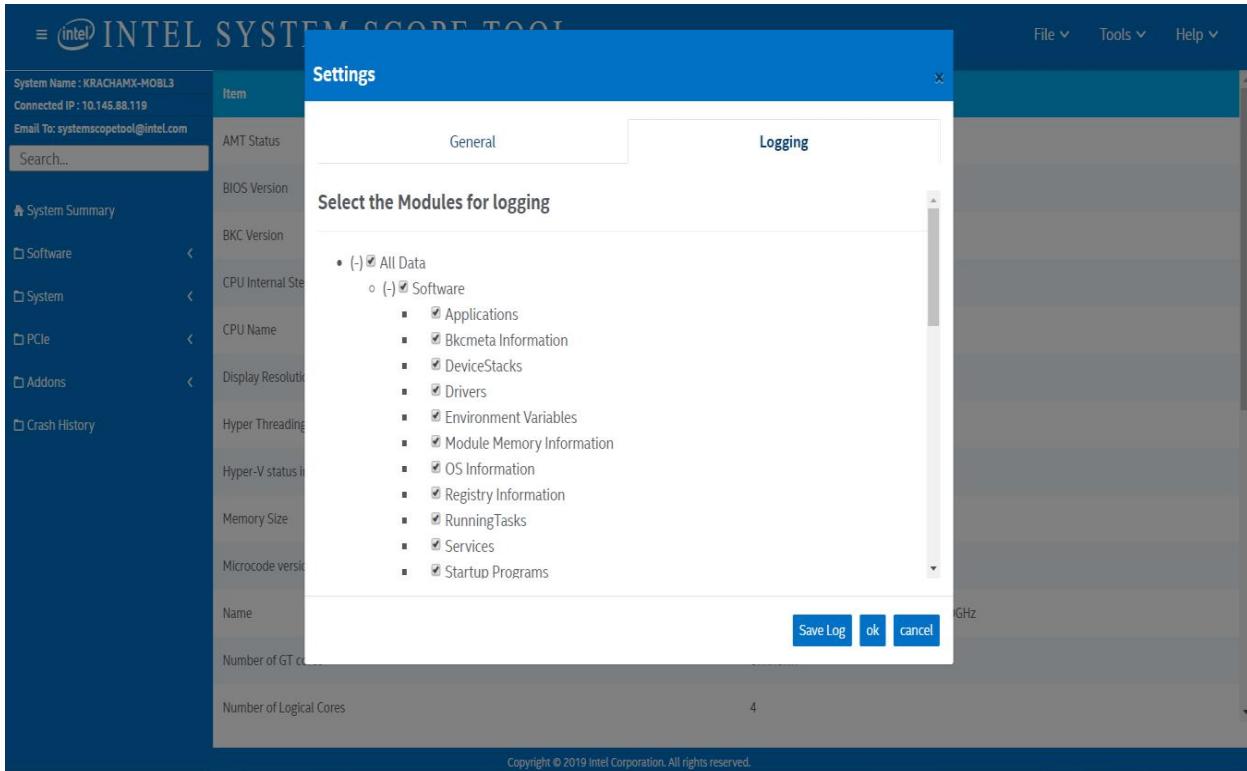


Settings

12.2 Logging

This window allows the user to choose the features to be logged. You can save the log file from Here by clicking on the “Save Log” button. It redirects to save log window.

Figure 12.2 Logging



This window allow the user to choose the format of log file. It provides an option to select the Folder where the log file has to be saved.

It also provides an option to view/modify the logging features from here by clicking on the “Log Settings” button. It redirects to “Settings” window.

13. Command Line Operations

Saving the log from command prompt.

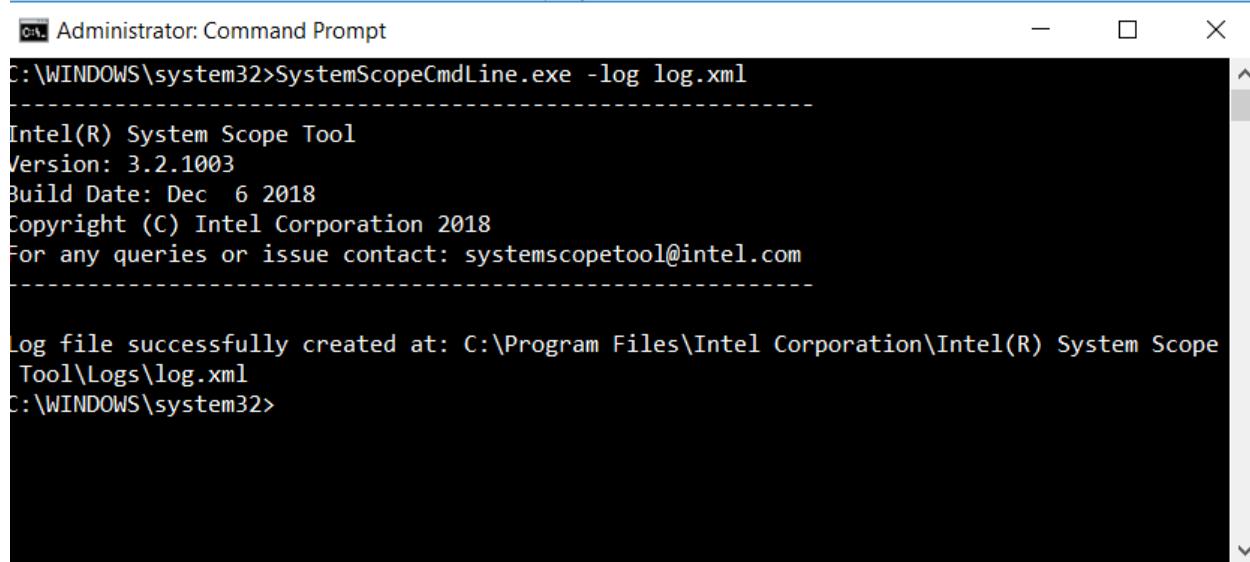
Syntax: SystemScopeCmdLine.exe –log <Log file name.format> [-options].

Here,

-log	: Log command
Log filename	: file path
Format	: xml/html/json/csv
Options	: Optional parameter, if it's not passing, it generates entire log Otherwise specified module(s)/plugin(s) combination of modules And plugins.

Note: If the user doesn't give File path, log file will save in tool install location.

Figure 13.1 Saving the System Scope entire log in xml format



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.2 Saving the Applications List

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -applicationlist
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.3 Saving the Operating Systems Info

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -osinfo
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.4 Saving the Operating System Architecture

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -osarch
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.5 Saving the Operating System Version

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -osversion
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.6 Saving the Driver List

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -driverlist
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.7 Saving the Device Stack List

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -devstacklist
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.8 Saving the Services List

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -servicelist
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.9 Saving the Registry Info

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -registryinfo
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.10 Saving the BKC Meta Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -bkcmetainfo
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.11 Saving the Module Memory Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -modulememoryinformation
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.12 Saving the ACPI Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -acpi
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

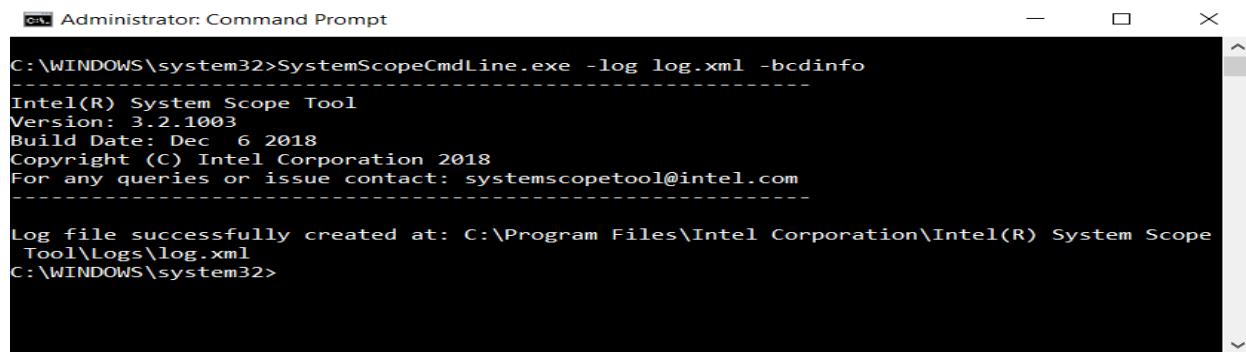
Figure 13.13 saving the sensor Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -sensor
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



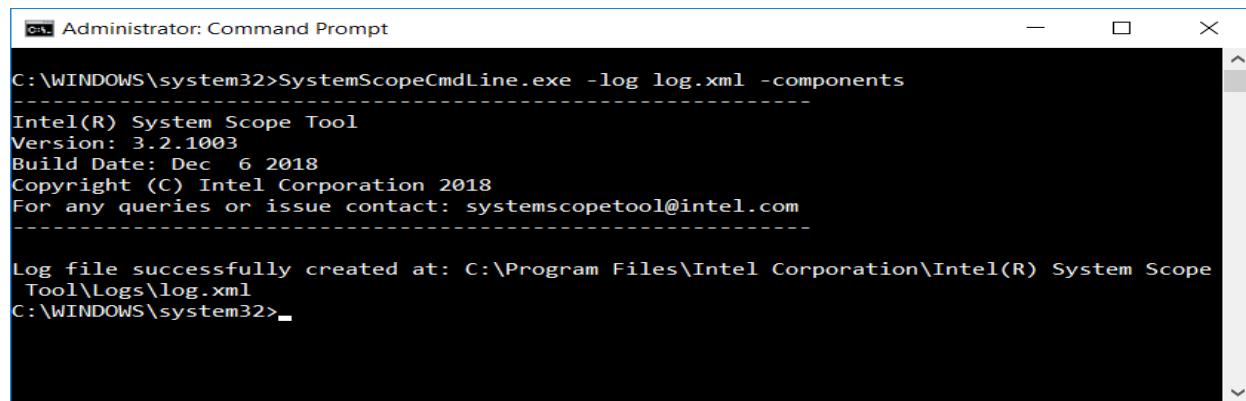
Command Line Operations

Figure 13.14 saving the BCD Info



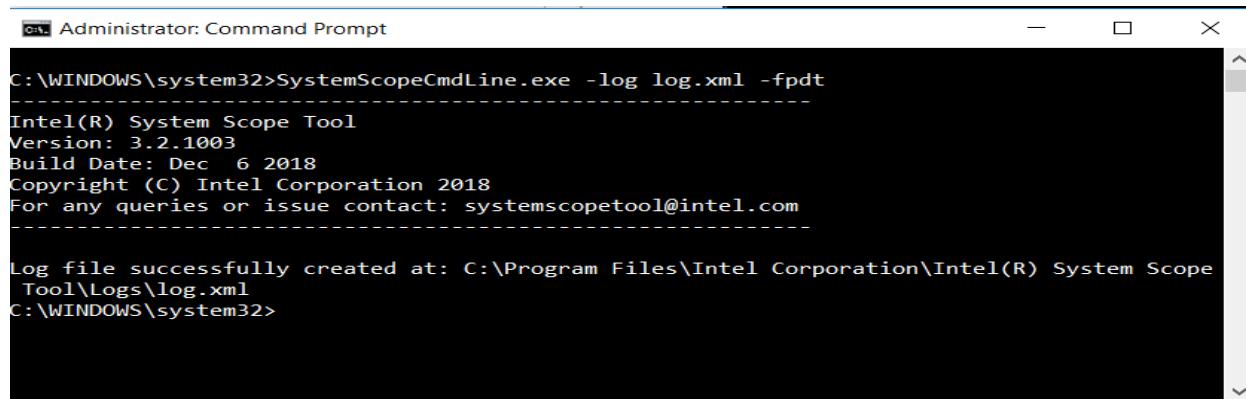
```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -bcdinfo
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.15 Saving the Components Information



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -components
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.16 Saving the FPDT Information



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -fpdt
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



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Figure 13.17 Saving the Firmware Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -firmwareversion
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.18 Saving the Bluetooth Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -bluetooth
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.19 Saving the ICC Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -iccinfo
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.20 Saving the ME Info

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.16299.785]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -meinfo
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.21 Saving the Memory Info

```
Administrator: Command Prompt
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -memory
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.22 Saving the Network Adaptor Information

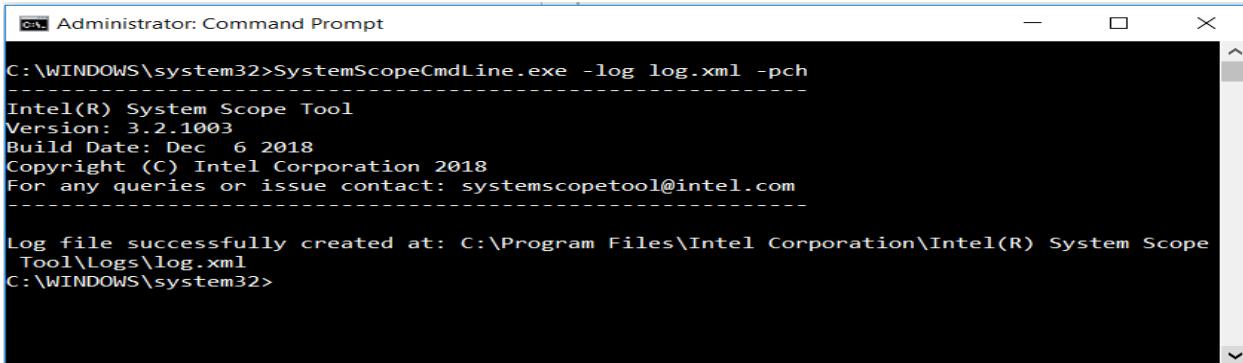
```
Administrator: Command Prompt
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -networkadapter
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```



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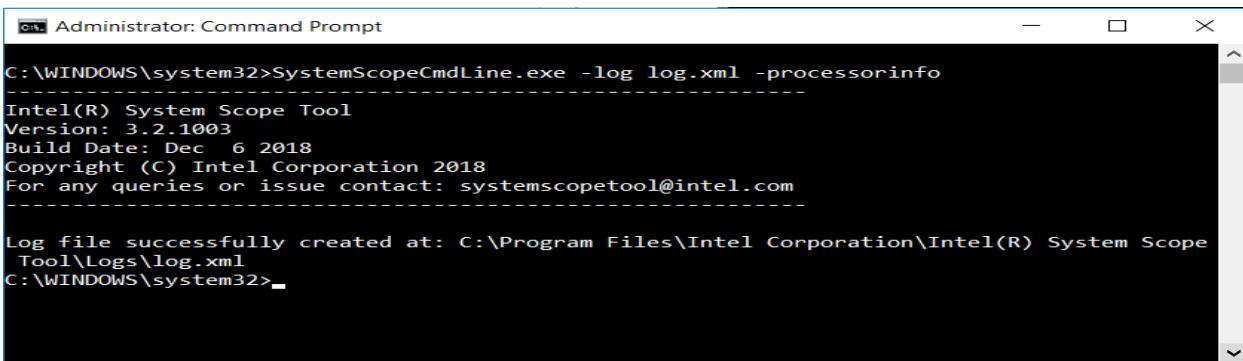
Figure 13.23 Saving the PCH Information



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -pch
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

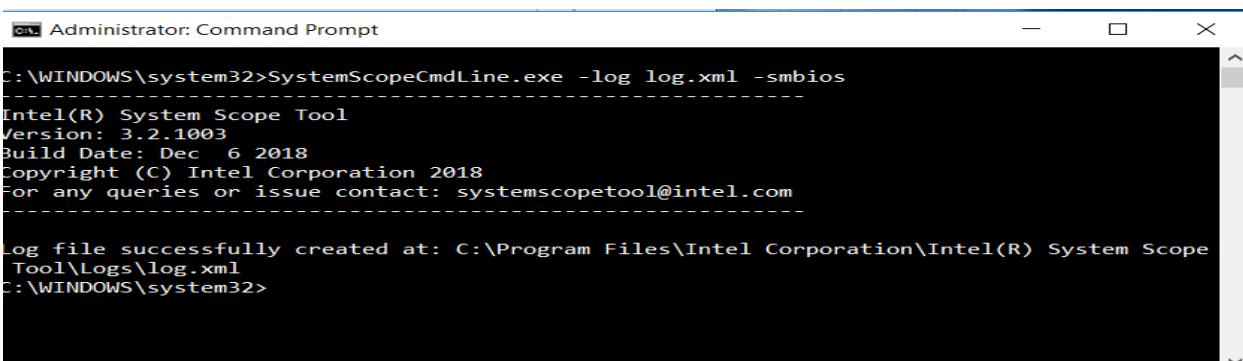
Figure 13.24 Saving the Processor Information



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -processorinfo
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.25 Saving the SMBIOS Information



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -smbios
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.26 Saving the Multimedia Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -multimedia
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.27 Saving the Storage Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -storage
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.28 Saving the System Responsiveness information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -systemresponsiveness
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```



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Figure 13.29 Saving the Generic System Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -systemsummaryinfo
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.30 Saving the TPM Information

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -tpm
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.31 Saving the PCIDevList

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -pcidevlist
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope
Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.32 Saving the Complete Software Information

A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -software". The output shows the Intel(R) System Scope Tool version 3.2.1003, build date Dec 6 2018, and copyright information. It also indicates that a log file was successfully created at C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml. The prompt then changes to "C:\WINDOWS\system32>".

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -software
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.33 Saving the Complete System Information

A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -system". The output shows the Intel(R) System Scope Tool version 3.2.1003, build date Dec 6 2018, and copyright information. It also indicates that a log file was successfully created at C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml. The prompt then changes to "C:\WINDOWS\system32>".

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -system
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.34 Saving the PCIe

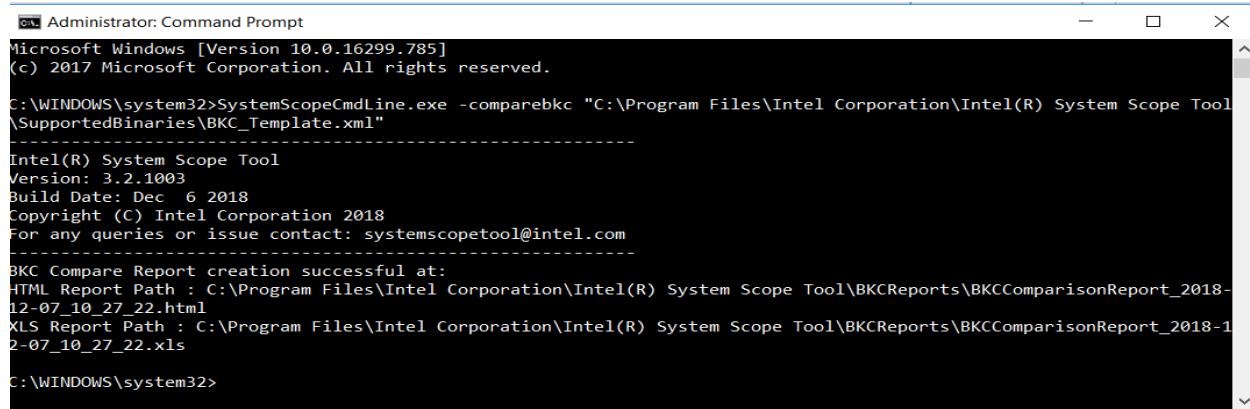
A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -pcie". The output shows the Intel(R) System Scope Tool version 3.2.1003, build date Dec 6 2018, and copyright information. It also indicates that a log file was successfully created at C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml. The prompt then changes to "C:\WINDOWS\system32>".

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -pcie
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```



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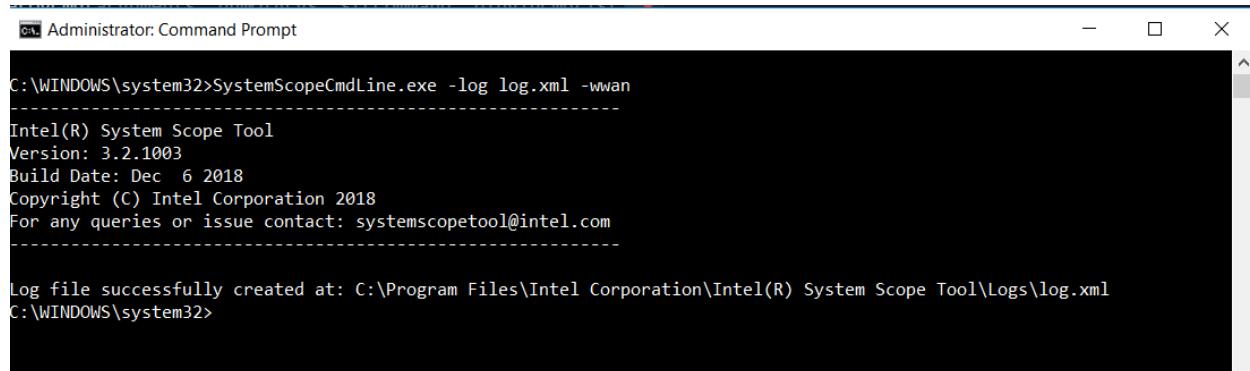
Figure 13.35 Saving the BKC Compare Log



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.16299.785]
(c) 2017 Microsoft Corporation. All rights reserved.

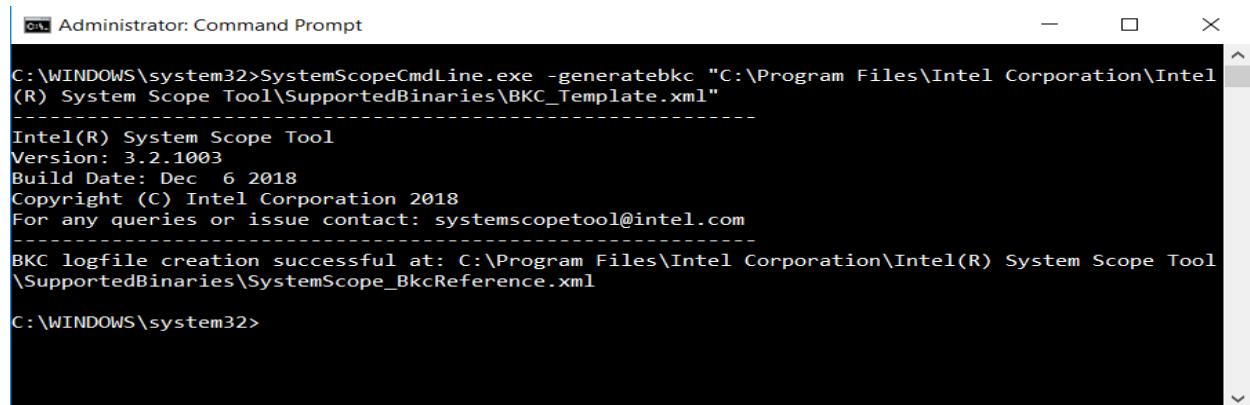
C:\WINDOWS\system32>SystemScopeCmdLine.exe -comparebkc "C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\BKC_Template.xml"
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
BKC Compare Report creation successful at:
HTML Report Path : C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\BKCReports\BKCComparisonReport_2018-12-07_10_27_22.html
XLS Report Path : C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\BKCReports\BKCComparisonReport_2018-12-07_10_27_22.xls
C:\WINDOWS\system32>
```

Figure 13.36 Saving the WWAN Information



```
Administrator: Command Prompt
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -wwan
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.37 Saving the Generate BKC Reference File

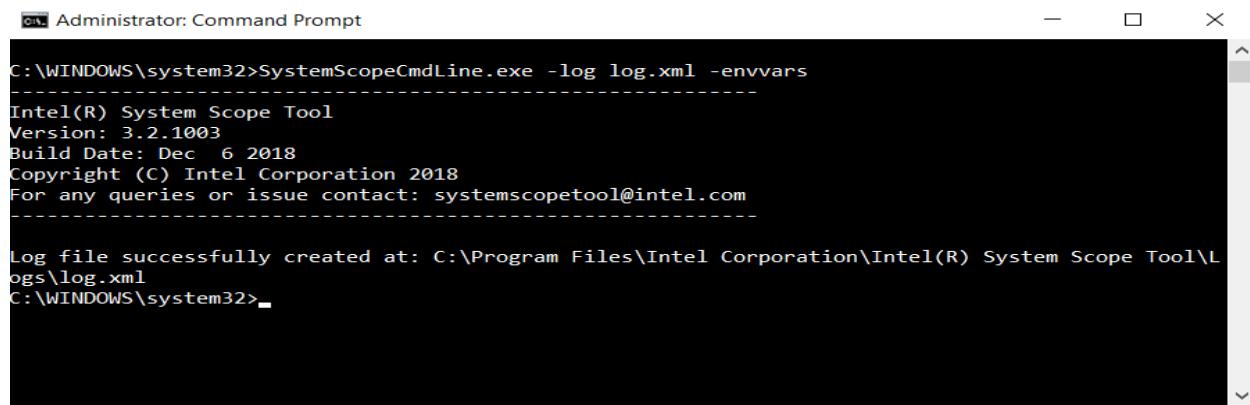


```
Administrator: Command Prompt
C:\WINDOWS\system32>SystemScopeCmdLine.exe -generatebkc "C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\BKC_Template.xml"
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
BKC logfile creation successful at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\SystemScope_BkcReference.xml
C:\WINDOWS\system32>
```



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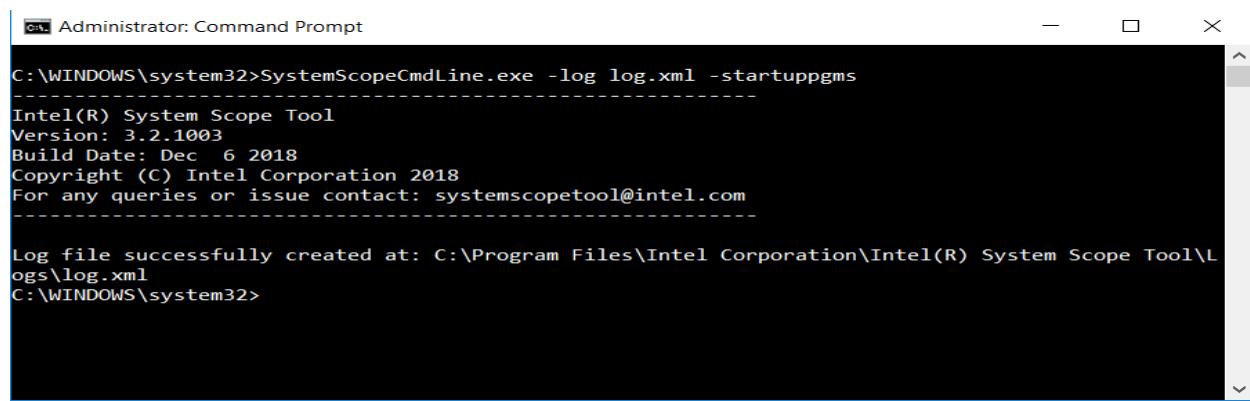
Figure 13.38 Saving the Environmental Variables



A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -envvars". The output shows the Intel System Scope Tool version 3.2.1003, build date Dec 6 2018, and a log file successfully created at C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml.

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -envvars
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

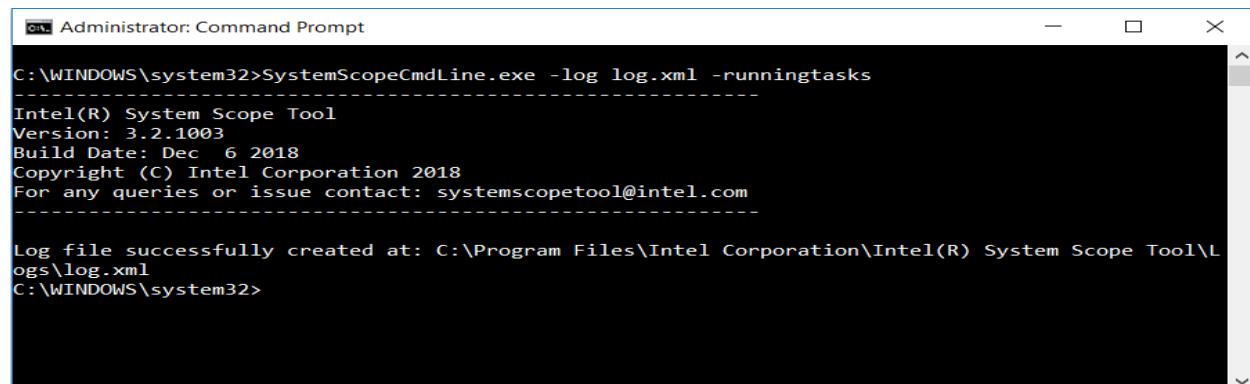
Figure 13.39 Saving the Startup Programs



A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -startuppgrms". The output shows the Intel System Scope Tool version 3.2.1003, build date Dec 6 2018, and a log file successfully created at C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml.

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -startuppgrms
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.40 Saving the Running Tasks



A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -runningtasks". The output shows the Intel System Scope Tool version 3.2.1003, build date Dec 6 2018, and a log file successfully created at C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml.

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -runningtasks
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```



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Figure 13.41 Saving the DMA

A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -dma". The output shows the Intel(R) System Scope Tool version 3.2.1003 from December 6, 2018. It confirms that a log file was successfully created at "C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml". The prompt then returns to "C:\WINDOWS\system32>".

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -dma
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```

Figure 13.42 Saving the IRQ

A screenshot of an Administrator Command Prompt window. The title bar says "Administrator: Command Prompt". The command entered is "C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -irq". The output shows the Intel(R) System Scope Tool version 3.2.1003 from December 6, 2018. It confirms that a log file was successfully created at "C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml". The prompt then returns to "C:\WINDOWS\system32>".

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -log log.xml -irq
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log file successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\log.xml
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.43 System Scope Tool All Commands List

```
Administrator: Command Prompt
C:\WINDOWS\system32>SystemScopeCmdLine.exe -help

Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com

-ip: To connect to remote machine this command has to be provided. This can be used with any of the below mentioned commands. This will fetch the remote machine information. This should be provided as the first argument only. This is an optional argument, if this is not provided, local machine information will be fetched. Example: -ip <ipaddress> [any valid SystemScope command]
-port: This is also an optional parameter. If the target service on the remote machine is running on some other port number than the default port, then port number can be provided through this argument. This argument should be provided only if ipaddress is provided. Example: -ip <ipaddress> -port <portnumber> [any valid SystemScope command]

Intel (R) System Scope is a tool to provide the current snapshot of the system information which includes the platform hardware, BKC, Firmware, OS and the software details.

Usage:
-applicationlist: This will provide the details about the applications installed in the system and their versions.
-bkcmetainfo: Gives the details about BKC installed on the system [C] This is valid only for OWR image.
-devstacklist: Gives all the devices details which includes Device name, HardwareID. Etc
-driverlist: Provides the details of driver installed in the system and the versions.
-envvars: Displays all Environment variables set.
-modulememoryinformation: Gives the memory details for all the modules in the system.
-osinfo: This gives the OS information installed on the system
-osarch: To retrieve only the OS architecture.
-osversion: To retrieve only the OS version.
-registryinfo: To retrieve information about the registry.
-runningtasks: Shows all the running task names with versions.
-serviceclist: Gives the details about all the services in the system.
-startuppgms: Displays all the programs which are scheduled during system startup.
-software: Gives the complete details of Applications/Drivers/OSInformation/Services in the system
-acpi: Gives the details about ACPI tables useful for power configuration.
-apachepass: To retrieve the Apache Pass Memory information.
-batteryinfo: Gives the details about battery connected to the system.
-bcdinfo: Gives the boot manager and boot loader information.
-biosoptions: Gives Platform Configuration Details.
-bluetooth: Gives all the list of visible and paired bluetooth devices.
-bmc: Gives the details about baseboard management controller on server systems.
-components: Gives the details about Camera, Multimedia and USB ports.
-dma: Shows DMA details.
-fpdt: Gives details about the time taken for each BIOS module to boot during S3/S4/S5.
-fpdtlog: To retrieve the complete FPDT Log information.
-fpdt [millisec,nanosec,microsec]: To retrieve the complete FPDT in milliseconds,microseconds,nanoseconds Example=-FPDT MilliSec.
-fpdtlog [millisec,nanosec,microsec]: To retrieve the complete FPDT in milliseconds,microseconds,nanoseconds Example=-FPDTLog MilliSec.
-firmwareversion: Gives the firmware version details.
-systemsummaryinfo: To retrieve the complete Systemsummary information.
-gfxinfo: Provides the details about gfx such as display resolution, Refresh rate, color depth. Etc.
-icclinfo: Provides the details about Integrated clock circuit.
-irq: Displays all the Resource-Device IRQ numbers .
-meinfo: Gives the details about ME firmware and ME software on the system.
```



Command Line Operations

In Command line, if the user enters the invalid command other than the valid System Scope Commands, and if that entered command is present in CustomLog.xml file, a log file will be generated with the modules corresponding to that command present in the CustomLog.xml file. This XML file is present in "C:\Program Data\SystemScopeTool". User can edit the file and can change the Modules list as per their requirement.

Figure 13.44 Saving the Custom Log Modules

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe crashanalysis
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Log XML and HTML files successfully created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\CustomLog_crashanalysis_2018-12-11_09_12_47.xml and C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\CustomLog_crashanalysis_2018-12-11_09_12_47.html
C:\WINDOWS\system32>
```

Figure 13.45 Format of CustomLog.xml

This XML file does not appear to have any style information associated with it. The document tree is shown below.

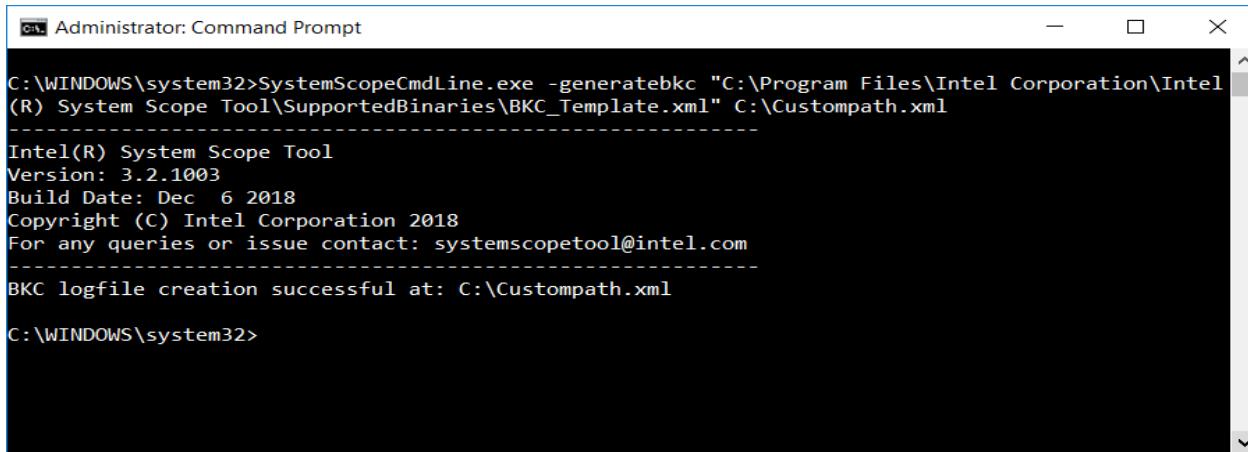
```
<><CustomSystemScopeCmd>
  <><Command>
    <Item command="crashanalysis"/>
    <Item modules="-smbios,-osinfo"/>
  </Command>
  <><Command>
    <Item command="hsd"/>
    <Item modules="-applicationlist,-driverlist"/>
  </Command>
</CustomSystemScopeCmd>
```



Command Line Operations

In Command line, for –generatebkc, -comparebkc, -compare2bkc the user has to provide the input file name and the result will be saved in default file. Now there is an option to provide the output file name along with the command. If the user enters the custom path the file will be save in Custom path or else if the user doesn't provide any file name the output will be saved in default file only. This is an optional parameter.

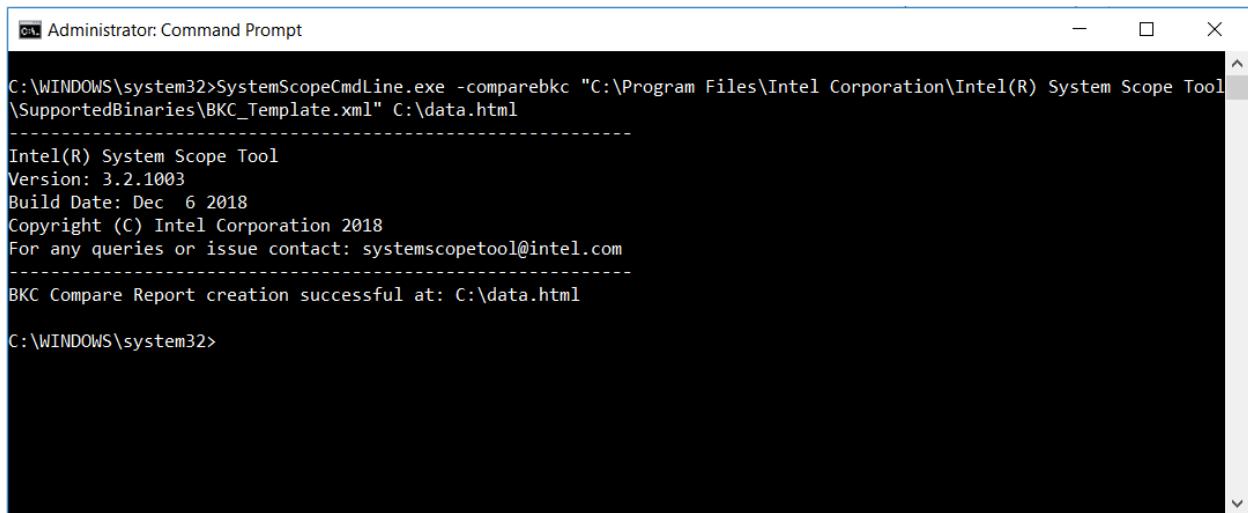
Figure 13.46 Custom path option for generatebkc



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -generatebkc "C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\BKC_Template.xml" C:\Custompath.xml
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
BKC logfile creation successful at: C:\Custompath.xml
C:\WINDOWS\system32>
```

Figure 13.47 Custom path for comparebkc

Third Parameter is the custom path here. Supported report formats are html, xls and json. Sample Screen shot of html format is attached below.



```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -comparebkc "C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\BKC_Template.xml" C:\data.html
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
BKC Compare Report creation successful at: C:\data.html
C:\WINDOWS\system32>
```



Command Line Operations

Figure 13.48 Compare Multiple Logs

```
C:\WINDOWS\system32>SystemScopeCmdLine.exe -comparemultiplelog C:\Users\krachamx\Desktop\SystemScopeLogs
-----
Intel(R) System Scope Tool
Version: 3.2.1003
Build Date: Dec 6 2018
Copyright (C) Intel Corporation 2018
For any queries or issue contact: systemscopetool@intel.com
-----
Compare logfile creation successful at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\Compare_Logs_2018-12-07_12_30_16.xls
C:\WINDOWS\system32>
```

Figure 13.49 Comparing Meta.spec with SystemScopeLog

This option will compare meta.spec file with SystemScopeLog and saves the result in HTML File.

```
C:\Windows\System32\cmd.exe
C:\Program Files\Intel Corporation\Intel(R) System Scope Tool>SystemScopeCmdLine.exe -comparespecwithlog C:\OWR\meta.spec "C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\Logs\ICL_SystemScope_10_106_232_93_2019-06-08_16_48_49.xml"
-----
Intel(R) System Scope Tool
Version: 3.2.1010
Build Date: Jun 7 2019
Copyright (C) Intel Corporation 2019
For any queries or issue contact: systemscopetool@intel.com
-----
BKC Compare Report creation successful at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\BKCReports\BKCComparisonReport.html
C:\Program Files\Intel Corporation\Intel(R) System Scope Tool>
```



Command Line Operations

Figure 13.50 Logging the HSD-ES Fields (-hsdfields)

This option will log all the required fields for HSD-ES in JSON Format.

```
Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.17763.503]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Program Files\Intel Corporation\Intel(R) System Scope Tool>SystemScopeCmdLine.exe -hsdfields
-----
Intel(R) System Scope Tool
Version: 3.2.1010
Build Date: Jun 7 2019
Copyright (C) Intel Corporation 2019
For any queries or issue contact: systemscopetool@intel.com
-----
HSD-ES Fileds Data Obtained successfully. File created at: C:\Program Files\Intel Corporation\Intel(R) System Scope Tool\SupportedBinaries\HSD_ES_Fields.json
C:\Program Files\Intel Corporation\Intel(R) System Scope Tool>
```



Main window

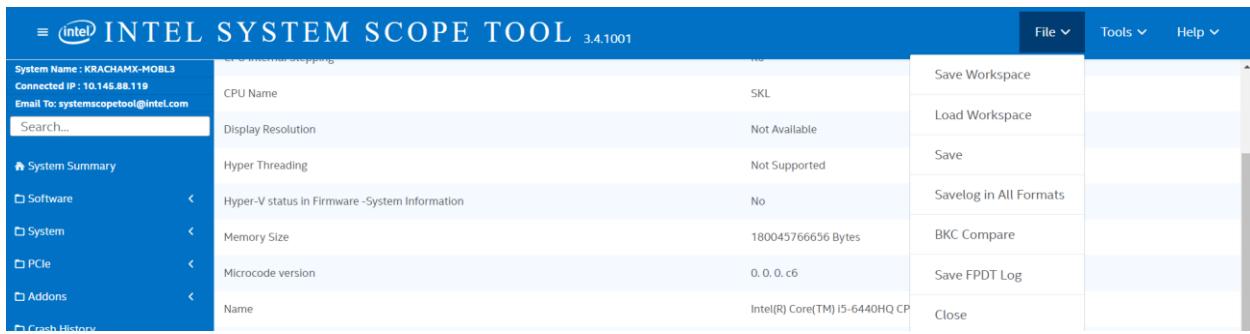
14. Main Window

14.1 File Menu

Click on the “File” menu item to get the options.

The menu allows you to launch the “Save Log” window

Figure 14.1 File Menu



14.2 Tools Menu

Click on the “Tools” menu item to get the options.

The menu allows you to launch the “Settings” & “Manage Connection” window.

Figure 14.2 Tools Menu





Main window

14.3 Help Menu

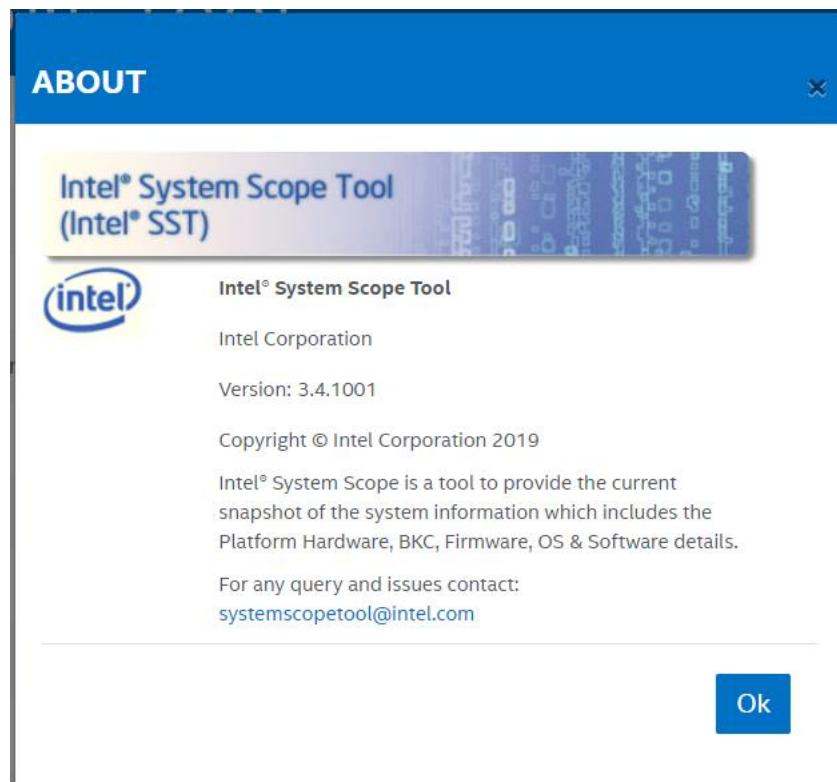
Click on the “About” menu item to get the options.

The menu allows you to launch the “About” & “Help” window.

Figure 14.3 Help Menu



Figure 14.3.1 About



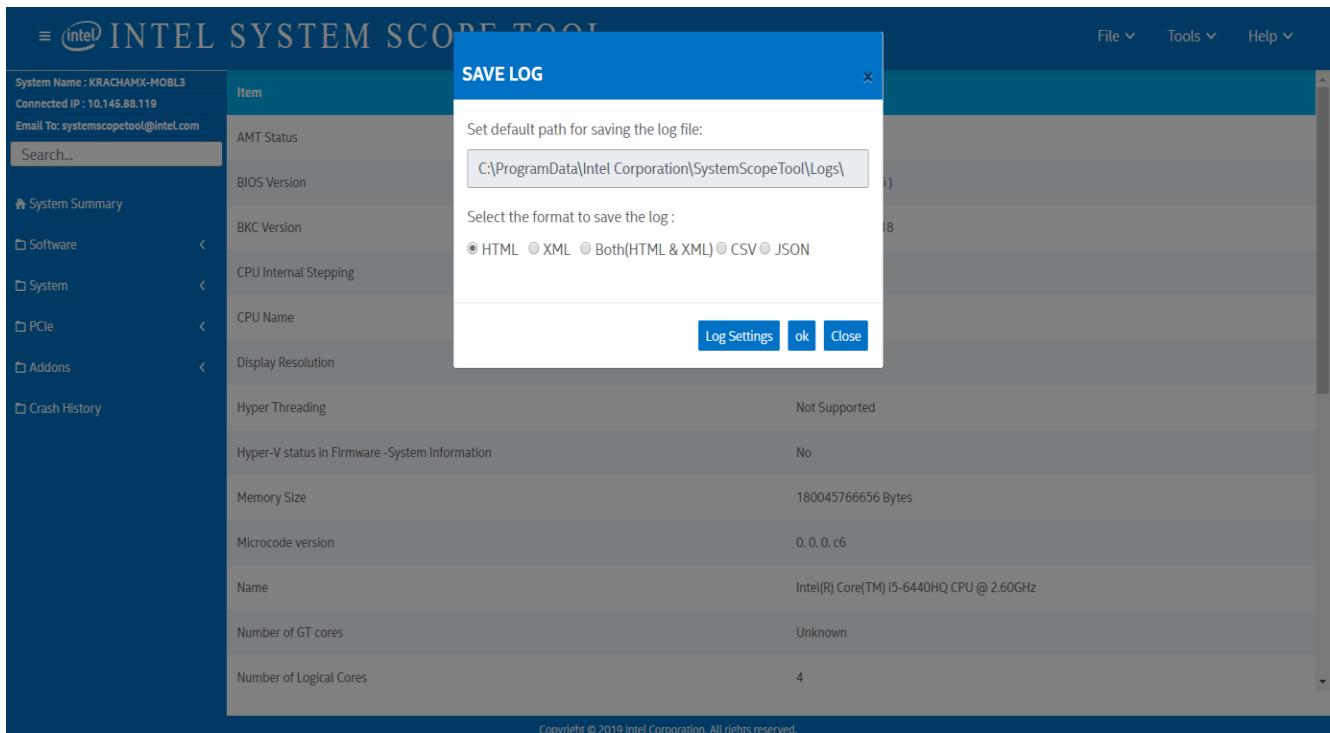
Save and Save FPDT Log

15. Save and Save FPDT Log

15.1 Save

Save option can be used for saving the system scope data. We can save the data in xml, html, Csv or both xml and html formats.

Figure 15.0 Save

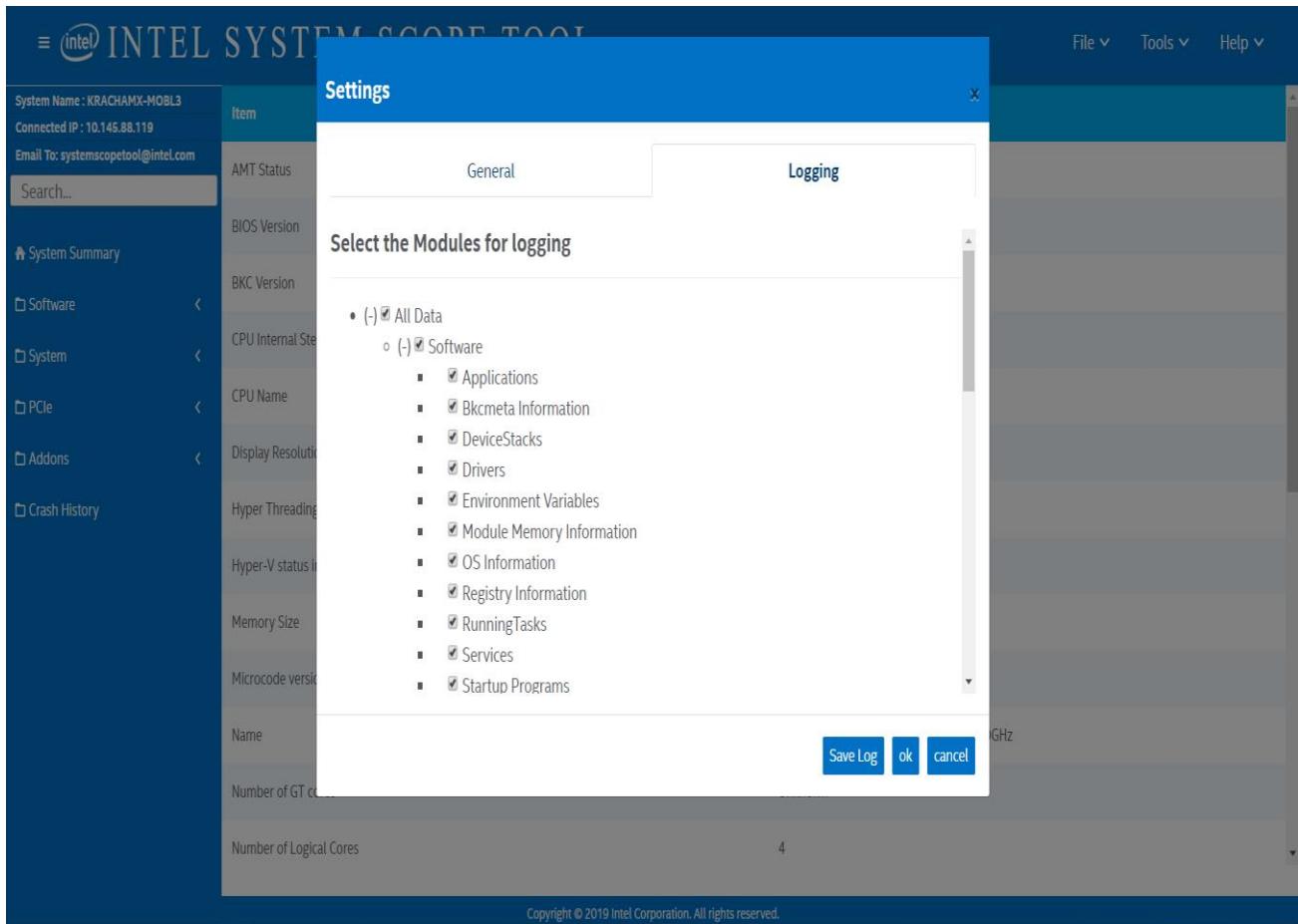




Save and Save FPDT Log

If user want to change settings just click on “Log Settings” button. Then modify the Log data By checking or unchecking the required fields.

Figure 15.1 Modifying the Log



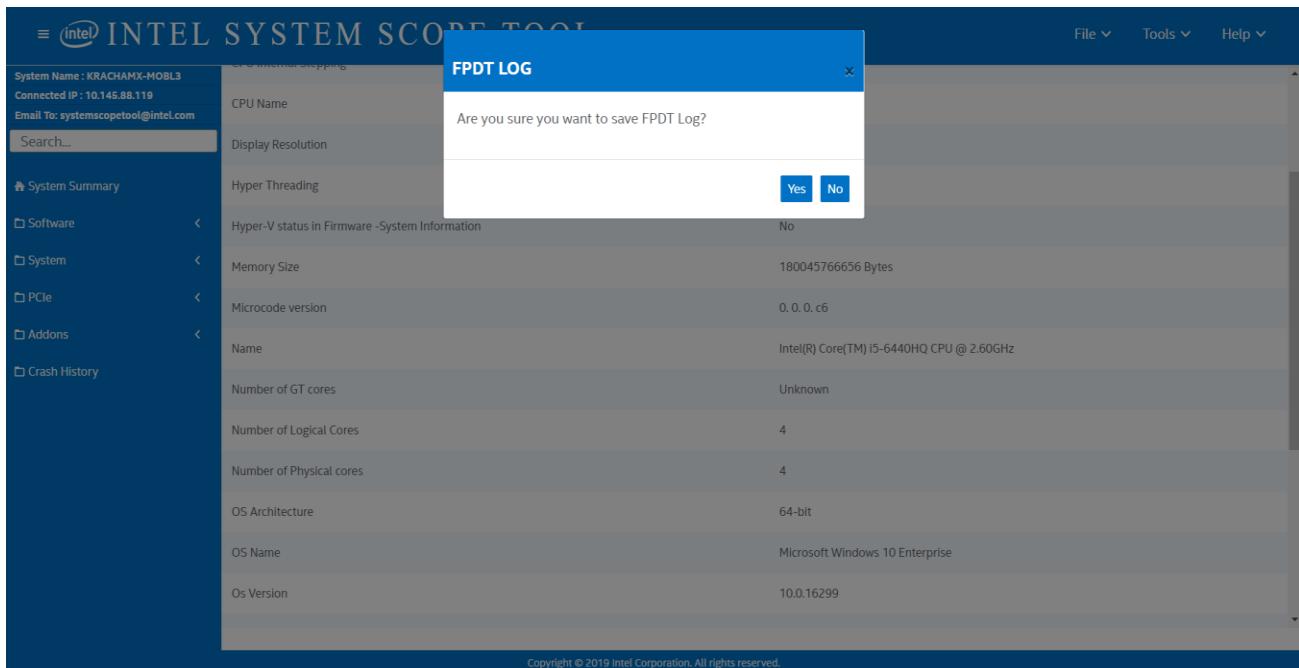


Save and Save FPDT Log

15.2 Save FPDT Log

Save FPDT log option can be used to save the FPDT log.

Figure 15.2 Saving the FPDT Log



If select “yes”, it will be saved.

If select “no”, popup will be closed.

SaveLog in All Formats And BkcCompare

16. Save Log in All Formats and BKC Compare

SST provides an option to save the System Scope Log files in all supported formats (.xml, .html, .csv and .json) and also to compare BKC with system Configuration in single click. These two options are added under File Menu. This operations can also be done by clicking the shortcuts present in start menu.

16.1 Save log in All Formats

On clicking this option, System Scope log with all the modules present will be save in all the Mentioned formats.

Figure 16.0 save log in All Formats

The screenshot shows the INTEL SYSTEM SCOPE TOOL version 3.4.1001. The left sidebar contains a navigation tree with categories like System Summary, Software, Bkcmeta Information, DeviceStacks, Environment Variables, Module Memory Information, Registry Information, Running Tasks, Services, Startup Programs, System, PCIe, and Adapters. The main panel displays various system configuration details such as AMT Status, BIOS Version, BKC Version, CPU Internal Stepping, CPU Name, Display Resolution, Hyper Threading, Hyper-V status, Memory Size, Microcode version, Name, Number of GT cores, and Number of Logical Cores. The top right menu bar includes File, Tools, and Help. A context menu is open over the table, with 'SaveLog in All Formats' highlighted in blue, indicating it is the selected option.

Once the save log operation is done, a popup is displayed with paths of all the formats created



SaveLog in All Formats And BkcCompare

16.2 BKC Compare

On Clicking this option BKC file is compared with the system configuration. User can input the BKC file in the **SingleClick.ini** file provided at the time of installation. If no file is present BKC file is Generated from the Default BKC template provided and comparison will be done with that file.

Figure 16.1 BKC Compare

The screenshot shows the Intel System Scope Tool interface. The top navigation bar includes File, Tools, and Help. On the left, there's a sidebar with sections for System Summary, Software, System, PCIe, Addons, and Crash History. The main content area displays various system configuration details. A context menu is open over the 'BKC Version' row, listing options: Save Workspace, Load Workspace, Save, Savelog in All Formats, BKC Compare (which is highlighted in blue), Save FPDT Log, and Close. At the bottom of the screen, a copyright notice reads 'Copyright © 2018 Intel Corporation. All rights reserved.'

Item	Value	Action
AMT Status	Enabled	Load Workspace
BIOS Version	R07ET86W (2.26)	Save
BKC Version	2018WW29.3.4	Savelog in All Formats
CPU Internal Stepping	R0	BKC Compare
CPU Name	SKL	Save FPDT Log
Display Resolution	Not Available	Close
Hyper Threading	Not Supported	
Hyper-V status in Firmware -System Information	No	
Memory Size	18004576656 Bytes	
Microcode version	0.0.0.c6	
Name	Intel(R) Core(TM) i5-6440HQ CPU @ 2.60GHz	
Number of GT cores	GT2	
Number of Logical Cores	4	
Number of Physical cores	4	
OS Architecture	64-bit	
OS Name	Microsoft Windows 10 Enterprise	
Os Version	10.0.16299	

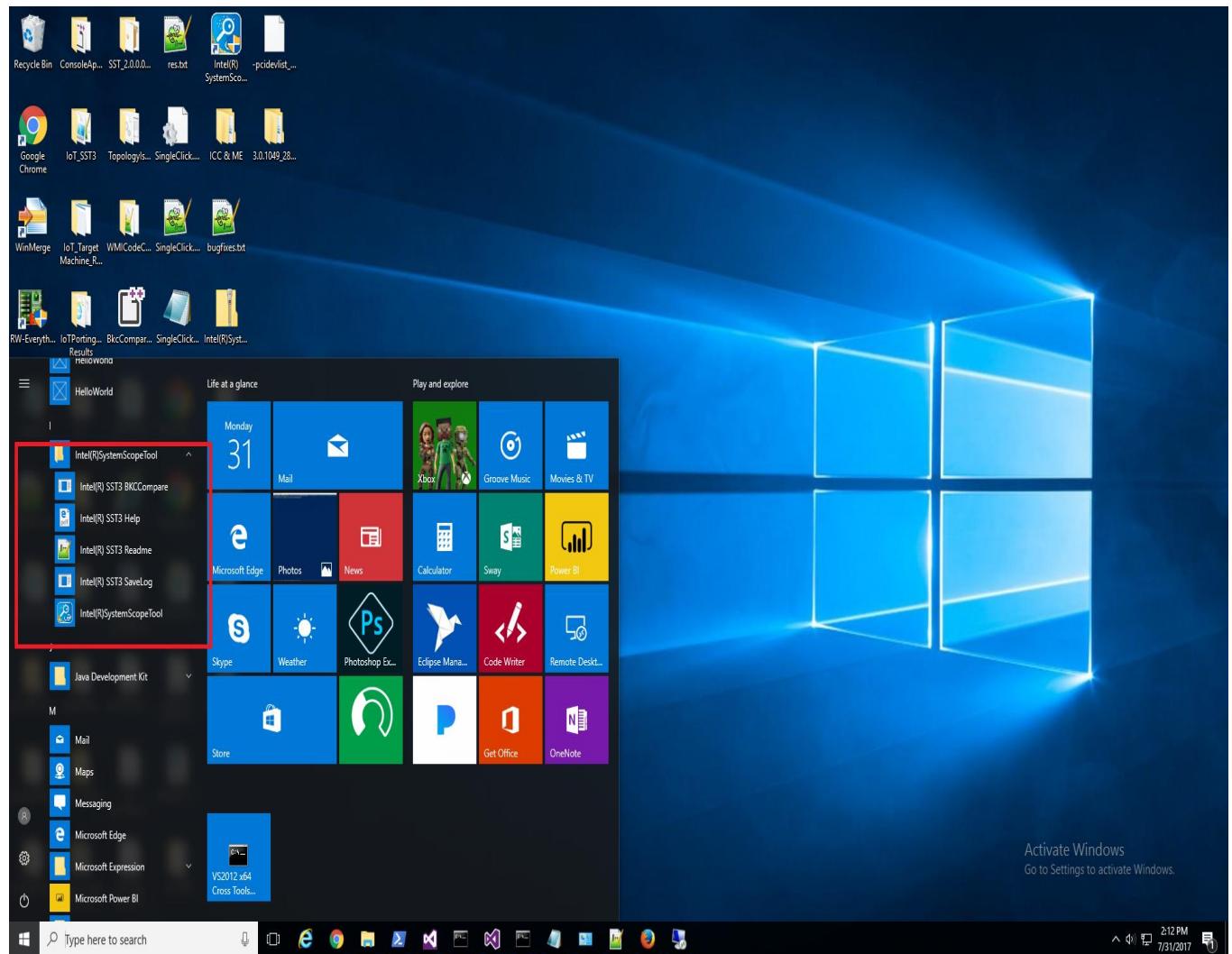
Once the BKC compare operation is done, a pop up is displayed showing the path of the Comparison result.



SaveLog in all Formats And BkcCompare

There is another option for these single click operations. By clicking on the shortcut present in the start menu we can get the results without opening the System Scope tool UI or Command Line.

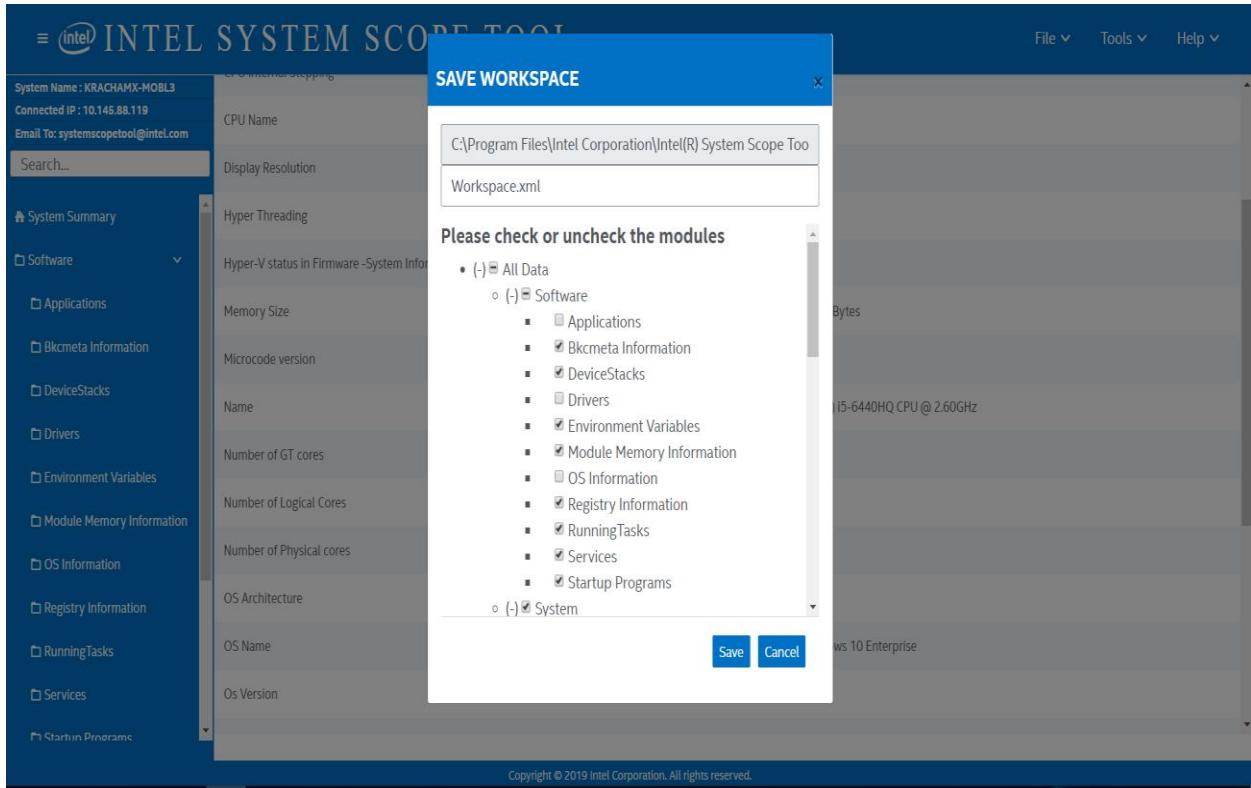
Figure 16.2 Shortcut option on Desktop



17. Load Custom Modules

This is a feature of System Scope Tool, which displays only the modules user intended. On click of Save Workspace option under File Menu, a pop-up is displayed that shows the tree list of all the presented modules in the platform. Here the user can uncheck the modules which they don't want to see or load.

Fig 17.1 Save Workspace popup to select modules to load



After unchecking the modules, click on save option and the workspace will be saved. Now click On the load Workspace option under the File Menu and select the workspace file and click on load. Then The tool will display on the modules which the user has selected.



Load Custom Modules

Fig 17.2 Loading of Custom Modules

The screenshot shows the INTEL SYSTEM SCOPE TOOL version 3.4.1001. The left sidebar has a 'Software' section with several options: Bkcmeta Information, DeviceStacks, Environment Variables, Module Memory Information, Registry Information, Running Tasks, Services, and Startup Programs. The 'Startup Programs' option is highlighted with a red box. The main panel displays system information for a CPU named SKL, including Hyper Threading (Not Supported), Hyper-V status (No), Memory Size (180045766656 Bytes), Microcode version (0.0.0.c6), Name (Intel(R) Core(TM) i5-6440HQ CPU @ 2.60GHz), Number of GT cores (Unknown), Number of Logical Cores (4), Number of Physical cores (4), PCH DEVID (SKL PCH-H), PCH STEPPING VALUE (Not Available), and Primary Display (Platform Not Supported). The bottom of the screen says 'Copyright © 2019 Intel Corporation. All rights reserved.'

If the user again wants to load all the modules, click on save workspace under File Menu
And check all the modules, save that workspace and load that again to see or load all the available
Modules in the platform.



Support

18. Support

Please contact your Intel representative or drop a mail to systemscoptool@intel.com, to report any bugs or error events related to SystemScopeTool.

Kindly provide as many details as possible about the issue. This would help us resolve the issue faster without the need for many email exchanges.