

# Intel® Rapid Storage Technology (Intel® RST) 16.0.2.1086 Production Version Release

April 2018

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## Supported Operating Systems

**Microsoft Windows\* 10 RS2 x64**  
**Microsoft Windows\* 10 RS3 x64**  
**Microsoft Windows\* Server 2016 x64 Edition**

## Revision History

Date	Driver Revision	Build Number
April 2018	16.0.2.1086 PV Release	1086

**Notes:**

1. The RAID OROM & UEFI version for this release is 16.0.2.3402, the driver and user interface version is 16.0.2.1086. For Intel® RST Premium features (e.g. RAID, Intel® Optane™ memory, CPU Attached Storage), it is recommended that both the Intel® RST pre-OS and Intel® RST OS driver components are updated.
2. If RTD3 is enabled, Windows can turn off disk for very short time (e.g. 20ms). The minimum off time for some disks can be much longer (even 1s). If the disk is turned on too fast, it can hang in some undefined state. RTD3 should be disabled if the disk specification states longer minimum off time.

## Supported Hardware

Intel® RST Release Version	Intel® Chipset	Segment	Intel® Chipset SKUs
16.0	Intel® 300 Series Chipset Intel® X299 Chipset Mobile Intel® 300 Series Chipset Mobile Intel® CM246 Chipset	Desktop	Intel® H310 Chipset <sup>(A)</sup> Intel® Q370 Chipset Intel® H370 Chipset Intel® B360 Chipset <sup>(O)</sup> Intel® Z370 Chipset
		High End Desktop	Intel® X299 Chipset
		Mobile	Intel® HM370 Chipset Intel® QM370 Chipset Intel® CM246 Chipset
Previous Generation (N-1) Support			
	Intel® H110 Chipset Intel® 200 Series Chipset Intel® C236 Chipset Mobile Intel® 100 Series Chipset Mobile Intel® CM238 Chipset	Desktop	Intel® H110 Chipset <sup>(A)</sup> Intel® Q250 Chipset <sup>(O)</sup> Intel® H270 Chipset Intel® B250 Chipset <sup>(O)</sup> Intel® Z270 Chipset
		Workstation	Intel® C236 Chipset
		Mobile	Intel® HM175 Chipset Intel® QM175 Chipset Intel® CM238 Chipset

<sup>(A)</sup> This base SKU of the chipset supports AHCI mode only

<sup>(O)</sup> This base SKU of the chipset supports both AHCI and Intel® Optane™ memory modes only (non-RAID)

### Resolved Issues In 16.0.2.1086 PV Release

ID	Title	Operating System
1805826565	Intel® Optane™ memory Volume is disabled when downgrading from 16.0.1 to 15.9 driver	
1805897167	[CLI] Incorrect volume information is seen when Intel® Optane™ memory Data Drive is enabled	
1805836528	Waking up from S3/S4/S5 is resulting in Bug Check 1A with 2x NVMe SSD's(2TB) as DATA drives (RST Controlled)	windows.10_rs2.x64* windows.10_rs3.x64*
1805837451	BSOD SYSTEM_THREAD_EXCEPTION_NOT_HANDLED (7E) occurred after Intel® Optane™ memory separation	windows.10_rs3.x64*
1805867987	"Logs are here" characters are not translated to non-English language in Intel® RST Installation UI.	windows.10_rs3.x64*
1805814595	RAID 0 performance does not meet expectation with 3 760p drives.	windows.10_rs3.x64*

### Known Issues In 16.0.2.1086 PV Release

ID	Title	Operating System
1805935657	Intel® Rapid Storage Technology UI content will be cut off on Brazil & Spanish OS	windows.10_rs3.x64*
1805935651	Intel® Optane™ memory volume - System will show black screen without Back Light (BSOD 0x9F) when run S4 stress.	windows.10_rs3.x64*
1805935644	Intel® Optane™ memory enable item is greyed out and cannot launch after resume from S3	windows.10_rs3.x64*
1805911640	SYSTEM hang (BSOD with bugcheck code: 0x1000007E)	windows.10_rs3.x64*
1805894760	RAID 10 volume cannot be created using SATA ports 6, 7 and two other ports between 0 - 5.	windows.10_rs2.x64*

ID	Title	Operating System
1805893933	Intel® RST - Spend too much time when run the ADK Standby performance test.	windows.10_rs3.x64*
1805878931	Report error for "unsupported chipset" when RST driver is installed for Intel® Optane™ memory.	windows.10_rs3.x64*
1805878923	Intel® RST - In RAID 5 mode, HDD utilization is always high.	windows.10_rs3.x64*
1805867425	The "Auto-rebuild on hot plug" option in Preferences page cannot be enabled.	windows.10_rs3.x64*
1805856154	Plugging some thunderbolt device with DP monitor will hang or causes BSOD	windows.10_rs3.x64*
1805827543	System show BSOD - 0x133 DPC_WATCHDOG_VIOLATION when run stress S4 test.	windows.10_rs3.x64*
1805823478	Intel® Optane™ memory Volume gets disabled if we use rstcli to clear cache.	windows.10_rs1.x64*
1805816635	Updating storage driver intermittently causes drive letter swaps	
1805815700	Sporadically restart option does not show up after enabling/disabling Intel® Optane™ memory	windows.10_rs3.x64*
1805800222	[CATERR][CPUattached] Issue observed after restart from OS	windows.10_rs3.x64*
1805782067	Certain SATA SSD's cannot boot to OS after installing Intel® RST driver.	windows.10_rs3.x64*
1805490049	Intel® RST UI crashes after system wakes up from Hybrid S3 or Deep S4 or Hibernate, only if RST UI application was open earlier.	windows.10_rs3.x64*
1805480510	Windows is not detecting Intel® Optane™ memory drive after disruptive power off during disabling process	windows.10_rs2.x64*
1805464013	Error event log ID7000/ID7009 (iaStorAfsService) show up after PBR reset/refresh.	windows.10_rs2.x64*
1305482762	Volume label of ODD drive remain unchanged after ejecting CD/DVD disc	windows.10_rs3.x64*

ID	Title	Operating System
1805898415	Data corruption may occur in extreme stress testing corner case scenario	windows.10_rs3.x64*

## Terminology

Common Terms and Acronyms	Definition
AEN	Asynchronous Event Notification
AHCI	Advanced Host Controller Interface
ATA	Advanced Technology Attachment
ATAPI	Advanced Technology Attachment Packet Interface
BIOS	Basic Input / Output System
BUS PROTOCOL GROUP	A bus protocol group represents a set of bus protocols with similar performance characteristics. Bus Protocol Groups are listed here in descending order of speed:  1- PCIe* 2- SATA
Chipset	A term used to define a collection of The PNHCI components required to make a PC function.
CSMI	OEM Common Storage Management Interface for reporting RAID configurations and SMP, SSP, STP pass through.
DEVSLP	Serial ATA Device Sleep
DMA	Direct Memory Access
DOS	Disk Operating System
DIPM	Device Initiated Power Management
Disk's Write Cache	A memory device within a hard drive, which is allocated for the temporary storage of data before that data is copied to its permanent storage location.
GB	Gigabyte = 1024 <sup>3</sup> bytes
HDD	Hard Disk Drive
HIPM	Host Initiated Power Management
Hot Plug	A term used to describe the removal or insertion of a SATA disk while the system is powered on.
ICH	Input / Output Controller Hub
InstantGo*	Microsoft Windows* 8.1 connected standby low-power state that features extremely low power consumption while maintaining Internet connectivity.
KB	Kilo-byte = 1024bytes
LPM	Link Power Management



SSD	Solid State Drive – non volatile memory used as storage media
SSHD	Solid-State Hybrid Drive
TB	Tera-byte = 1024 <sup>4</sup> bytes
UEFI	UEFI pre-OS driver
UI	User Interface
VC	Validation Candidate
ZPODD	Zero Power Optical Disk Drive