Intel® Rapid Storage Technology 12.5.0.1066 Production Version Release Notes

22 March 2013

Supported Operating Systems

Microsoft Windows 7*
Microsoft Windows 7 x64 Edition*
Microsoft Windows 8*
Microsoft Windows 8 x64 Edition*

Microsoft Windows Server 2008*
Microsoft Windows Server 2008 x64 Edition*
Microsoft Windows Server 2008 R2 x64*

Revision History

Date	Driver Revision	Build Number
22 March 2013	12.5.0.1066 Production Version	1066
08 March 2013	12.5.0.1064 Production Candidate	1064
15 January 2013	12.5.0.1040 Beta	1040
28 December 2012	12.5.0.1032 Pre-Beta	1032
26 October 2012	12.5.0.1007 Alpha	1007
23 August 2012	12.5.0.1003 Pre-Alpha	1003

Notes:

1. Known Issue is defined as a potential RST issue that has been replicated internally by the Rapid Storage Technology team but has not been root caused to be an RST defect.

2. The RST driver and user interface version for this PV release is 12.5.0.1066, while the RAID OROM & UEFI version is 12.5.0.1815. This release has SKU detection enabled so features that are SKU dependent must meet the system requirements.

3. New features in RST 12.5: Device Sleep (DEVSLP), Run Time D3 (RTD3) in AHCI mode, Asynchronous Event Notification & Hybrid Hint support. This is also the first RST release to support 4th Gen Intel® Core™ U and Y Processor based platforms.

4. There are no changes to the RRT or ZPODD implementation/support in RST 12.5 from RST 12.0.

5. Microsoft* .NET Framework 4.5 is required to be installed on the system in order for the Intel® Rapid Storage Technology User Interface to install. Note that not all Microsoft* Operating Systems have .NET 4.5 installed by default. Refer to the Microsoft* website for details.

Contact your Intel® Rapid Storage Technology representative with any questions.

Resolved Issues

Resolved Issues in 12.5.0.1066 Production Version		
Reference No	**Description**	**Affected OS's**
4628726	No standby immediate command is sent upon entering S4	Windows 8-64
4628805	SSHD: BSOD when loading RST driver on Win7 system	Win7, Win7-64, Windows 2008, Windows 2008-64
4628643	Smart Response Technology performs as a HDD when cache is filled before running performance benchmark	Windows 8 - 64

Resolved Issues in 12.5.0.1064 Production Candidate		
Reference No	**Description**	**Affected OS's**
4628610	Hybrid Hint disabled on supported SKU including Core CPU after SKU detection implementation	Windows 8-64

4628617	Hybrid Hinting SKU detection not checking for "Core" in CPU brand string	Windows 8 - 64
4628535	Dynamic Storage Accelerator options are not being set	Windows 8 - 64
4628524	WHQL: Optical Media Burning test failure during write scenario (BLOCKING)	Win7,Win7-64,Windows 8,Windows 8 - 64,Windows Server 8 - 64
4627886	BSOD during hybrid sleep cycle with SRT enabled + SD Media card	Windows 8 - 64
4628511	RST UI disallows acceleration when prospective cache SSD is uninitialized in Disk Manager	Windows 8 - 64
4628338	Attaching SSHD while system is in hibernation induces DPC Watchdog violation BSOD upon resume	Windows 8 - 64
4161045	System Black Screen happened during S4 Longrun on Samsung PM830 128GB SSD	Windows 8 - 64
4161128	RST UI incorrectly allows acceleration to be enabled with dynamic GPT SSDs and induces unknown errors	Windows 8 - 64
4628330	RST UI shows defunct help icons in both status and performance page for SSHD when it is hot-inserted	Windows 8 - 64
4159041	RST UI does not display the correct port number while hot plugging or port swapping the ports during S3	Win7,Windows 8 - 64
4628174	ZPODD device takes >10s to open when ejecting from PowerDVD or WinDVD.	Windows 8 - 64
4628302	RST UI exposes option to change mode on failed RRT volume. Exercising it induces unknown error	Windows 8 - 64
4628398	No Dynamic Storage Accelerator option in UI	Windows 8 - 64
4628309	Actionable link "more help" on acceleration page takes you to Introduction page that does not mention accelerating drives	Windows 8 - 64
4161128	RST UI incorrectly allows acceleration to be enabled with dynamic GPT SSDs and induces unknown errors	Windows 8 - 64
4628018	BSOD 0x7E occurs when Liteon LCS-256M6S SSD is used in SRT configuration	Windows 8 - 64,Win7-64
4628343	Enabling SRT in max mode on Win7 causes the system to default to enhanced mode anyway	Win7
4628123	BSOD occurred while the recovery disk with password protected is plugged-in in RRT mode	Win7,Windows 8,Windows 8 - 64
4628214	BSOD at S3/resume with Intel Cherryville SSD	Windows 8 - 64

4628358	No tray icon to notify user system booted to recovery drive	Windows 8 - 64
4628298	OROM: Capacity is shortened 4.6GB when entering a capacity with just a period at the end	None
4627920	Master drive will become missing/offline status after clicking "Access master disk files" in the UI	Windows 8 - 64,Windows 8
4628020	Error msg pop up when accelerating SATA HDD+SSD under RAID mode after resuming from S3.	Windows 8 - 64,Win7-64
4628201	Accelerometer issue - System hang up if you shake the machine in 12.0 - Dual HDD	Windows 8 - 64
4628314	"Inaccessible Boot Device" BSOD shown trying to boot with ZPODD	Windows 8 - 64
4627735	UI help icon for disabling acceleration for Hybrid Hinting has no instructions for Hybrid Hinting (backed out)	Windows 8 - 64
4627832	UI: refresh button does not function within the "Performance" page	Windows 8 - 64
4627878	RTD3 - Need to add code to meet RTD3 requirement for Hot Plug & External Ports	Windows 8 - 64
4628225	UI allows Seagate RRT recovery drives to be marked as spares when we are accessing recovery files	Windows 8 - 64
4628254	Mixed (x64 and x86) in the same INF; Not properly separated.	Windows 8,Windows 8 - 64
4160239	The write caching of SSD will auto check after resume from S3/S4/CB	Windows 8 - 64
4627969	CSMI commands with ZPODD enabled ATAPI drives fail with latest driver when tray is open	Win7
4627931	The time IOCTL in the driver fails to extend the all-insert mode using SSHD disks (SCT broken with HHDs)	Win7,Windows 8
4627745	HW information show "unknown controller" on RST System report in AHCI mode	Windows 8,Windows 8 - 64,Win7,Win7-64
4627964	WHQL: 0xD1 BSOD during Disk Stress / Disk Verification (BLOCKING)	Windows 8
4628125	UI incorrectly displays "change type" and fails to migrate from RAID1 to RAID0 for >2TB volume	Windows 8 - 64
4627951	HDD PW: Offline disks in volume are not marked normal after unlocking password protected disk when coming out of S4.	Windows 8 - 64
4628099	Driver asserts when attempting to get the IRP for an SRB with SSHD, causes temporary lock up	Windows 8 - 64
4627895	RRT Recovery disk offline in Disk Management after click Access recover disk file link	Windows 8 - 64
4627985	WHQL: Optical Media Burning test failure during	Windows

	write scenario (BLOCKING)	8,Windows 8 - 64
4627572	After resuming from S3, UI allows user to disable acceleration twice; doing so induces UI crash	Windows 8 - 64
4627831	RSTCLI -M -Z fails to remove metadata from SSD if accelerated device has become inaccessible	Windows 8 - 64
4627837	PerformanceLinkPowerTopic link is unresponsive	Win7-64,Windows 8 - 64
4627863	Cannot erase optical media using Windows or Roxio 2012	Win7,Win7-64,Windows 8,Windows 8 - 64
4628015	System BSOD 7B on boot on WTM when RTD3 is enabled	Win7-64,Windows 8 - 64
4628056	UI shows incorrect error message when attempting to enable acceleration with <64 GB SSD	Windows 8 - 64

Resolved Issues in 12.5.0.1040 Beta

Reference No	Description	Affected OS's
4628015	System BSOD 0x7B on boot on WTM when RTD3 is enabled	Win7-64, Windows 8 - 64
4627967	Caching Policy not behaving correctly	Windows 8 - 64
4161479	RSTCLI allows an SSD to accelerate the cache volume; neither it nor the OROM will be able to clear out the resultant config	Windows 8 - 64
4627718	UI: Typo under Link Power Management ("affect" instead of "effect")	Windows 8F
4627751	UI option for setting 2nd array volume to WBC is disabled when it should be enabled	Win7-64
4627782	Error recovery policy sporadically causing black screen while booting from S4 mode	Win7
4627858	ZPODD IOCTL returns incorrect status when ZPODD is connected to a non-ACPI capable port	Win7,Win7-64,Windows 8,Windows 8 - 64
4627863	Cannot erase optical media using Windows or Roxio 2012	Win7,Win7-64,Windows 8,Windows 8 - 64
4627621	UI crashes sporadically after exiting the enable acceleration window when SSD is in Available state	Windows 8 - 64

4627800	CLI shows cache policy as unknown if a RAID volume's policy is set to Write through OR to Read Only	Windows 8 - 64
4627834	Asynchronous Notification (AN) not ENABLED by default in 12.0 and 12.5 baselines	Win7,Win7-64,Windows 8,Windows 8 - 64,Windows Server 8,Windows Server 8 - 64
4161067	WHQL: Failure to write Crashdump/Hiberfile on Win8 RAID (BLOCKING)	Windows 8,Windows 8 - 64,Windows Server 8 - 64
4627790	Readme.txt needs to be updated with latest updates	Win7
4627727	WHQL: Optical Media Burning test failure during media erase (BLOCKING)	Win7,Win7-64,Windows 8,Windows 8 - 64,Windows Server 8 – 64
4160789	Driver: If RRT OS volume is restarted while accessing files on the recovery disk, the recovery disk is not re-associated back into the RRT volume.	Windows 8 - 64
4161135	WHQL: 0xD1 BSOD when Driver Verifier Force IRQL Checking is enabled (BLOCKING)	Win7,Win7-64
4161477	UI offers additional disks through volume "add disk" option when it would exceed the 2TB limit on MBR	Windows Server 8 – 64
4627703	UI shows defunct help icons in both status and performance page for HHD when it is part of RAID volume	Windows 8 - 64
4627769	Hot-enumeration of SSHDs induces page faults and IRQL BSODs, both of which implicate iaStor	Windows 8 - 64
4627787	BLA reporting "No disk attached" in the SATA LPM module.	Win7,Win7-64,Windows 8,Windows 8 - 64
4160283	The accessible RRT recovery disk in On Request mode will become "missing" state after S4 resume	Windows 8,Windows 8 - 64,Win7,Win7-64

Resolved Issues in 12.5.0.1032 Pre-Beta		
Reference No	**Description**	**Affected OS's**
4161440	ODD tray does not eject after resuming from S4 when using a specific ZPODD	Windows 8 - 64
4627767	RST 12.0 INF- Update with Lynx Point-H chipset	Windows

	official name	8,Windows 8 - 64
4160896	Slot load ZPODD does not power down after first power cycle	Win7
4161097	System fails to burn medias with Roxio Creator repeatedly with ZPODD devices	Windows 8 - 64
4161331	BSoD 0xD1 when accessing a specific ODD under Zero Power state	Windows 8 - 64
4161115	Double-clicking ODD in Explorer before media is detected will cause ZPODD tray to open.	Windows 8 - 64
4161096	Roxio ejects ODD automatically before media is detected	Windows 8 - 64
4160922	Power Increase observed as soon as ZPODD is asleep (power is cut off from the ZPODD)	Windows 8,Windows 8 - 64,Win7,Win7-64
4160164	Legacy ODD on port 2 with mechanical presence switch will show 0 GB SATA drive in UI	Windows 8 - 64
4160994	System unexpectedly reboot during S4 stress test	Windows 8 - 64
4627638	Unable to accelerate drive that is not initialized in disk manager due to lack of space for metadata	Win7-64,Windows 8 – 64
4161280	The SATA transfer rate info is incorrectly displayed in the UI	Windows 8 - 64,Win7-64
4627705	Tray Icon notifications on reboot include "enterprise" in title	Windows 8 - 64
4160890	WBC buffer flushing enable/disable setting is incorrect	Win7-64,Windows 8 – 64
4161114	GPT only- Unexpected 2GB data volume created with <64GB SSDs and Full SSD space selected for cache	Win7
4627635	CLI does not wait for transition to enhanced mode to finish before executing transition to off; volume fails on re-acceleration.	Windows 8 - 64
4161061	Rapidly enabling/disabling Dynamic Storage Accelerator causes Driver verifier and page_fault BSODs in Win8	Windows 8 - 64
4161354	Volume write-cache available on RRT Configure Volume page with Windows WC buffer flushing on	Windows 8 - 64
4160419	A1h command (IDENTIFY PACKET DEVICE) failure on ODD with Win8 RST driver	Windows 8 - 64
4161158	Win8 SRT Accelerated Disk in MAX mode loses Acceleration on restart when Fast Boot is Enabled	Windows 8 - 64
4161357	RSTCLI64 construes RAID level 6 as legitimate. It will crash if we attempt to create a volume of that type.	Windows 8 - 64

4627578	RSTCLI will be unable to remove metadata from cache SSD if -M -Z cmd is preceded by mode-change	Windows 8 - 64
4160478*	RST::AccelerateTask::doAccelLoadCacheContent should use internationalized (Unicode) APIs	Windows 8
4160953	UI allows cache mode-change hyperlinks to be clickable BEFORE accel operation completes	Windows 8 - 64
4160963	eSATA port/drive can be "marked as spare."	Windows 8 - 64
4161239	Unknown Error when enabling acceleration in Win 7 / Win 8 on specific SSDs	Win7-64,Windows 8 – 64
4160820	11.7 bug - SRT causing extra cache misses on partial writes - extra spinups in AOAC	Win7,Win7-64,Windows 8,Windows 8 - 64
4161247	2 x 2TB raid1 - UI shows option to "change type" and window pops up when click "OK" button on "change volume type" page	Windows 8 - 64
4160749	Accelerating OS after cache disassociation from missing passthrough disk induces BSOD F4	Win7-64
4158746	UI allows drives to be unlocked when HDD Unlock is disabled in the BIOS BCFS options.	Win7-64
4161380	Cache mode will NOT be retained if we disable write-caching via device manager and then change mode to max	Windows 8 - 64
4159142	Activate LED action link on the UI manage disk page is always available regardless user disable/enable the option in BIOS (both RAID and AHCI mode)	Win7
4161017	RST12.0 UI sporadically crashes during volume deletion and SRT Reset operations	Win7-64,Windows 8 - 64
4161282	Dynamic Storage Accelerator manual mode gear shouldn't follow OS power plan	Win7,Windows 8
4161217	RSTCLI64 will crash when we enter a volume name equivalent to 16 characters	Windows 8 - 64
4160565	Unknown error occurs while creating Recovery volume	Windows 8,Windows 8 - 64
4161023	Used cache-size bar does not update anymore in the 12.0 UI	Win7,Windows 8 - 64
4161277	RSTCLI will crash and mark disks as unknown when we attempt to create a volume without the -n param	Windows 8 - 64
4161059	GPT only- Error Message occurred while migration RAID0 from a single disk to 3 more disks	Windows 8 - 64
4160905	Toggling the Acceleration mode of a volume will alter the volume's member disks' cache state	Windows 8 - 64

4161004	Message "Disc erase unsuccessfully" pops up while "quick erase" CD-RW disc contents via specific utility.	Windows 8 - 64
4161023	Used cache-size bar does not update anymore in the 12.0 UI	Win7,Windows 8 - 64
4159142	Activate LED action link on the UI manage disk page is always available regardless user disable/enable the option in BIOS (both RAID and AHCI mode)	Win7
4160744	11.6 driver .inf needs FeatureScore to ensure the driver outweighs the 11.2 driver in Windows installation	Windows 8
3237278	UI RRT - WBC Help Bubble Not Offered	Win7-64
4160957	Driver is not enabling DIPM if CAP.SALP is 0, but CAP.SALP only pertains to HIPM.	Windows 2008-64
4161007	SRT Incorrectly trying to stage frames past end of volume	Win7,Win7-64,Windows 8,Windows 8 - 64
4161022	Some ODD under ZPODD state does not eject by pressing tray button after resuming from hibernation.	Windows 8 - 64
4160677	0x9F bluescreen when run WinPVT4.2D S3 to S4 Timeout Focus+AP/LAN+ACDC.	Windows 8 - 64
4160698	failure to format BD-R (Blu-ray) disk	Windows 8 - 64
4160707	Dynamic Storage Accelerator is not Enabled in RAID mode	Windows 8,Windows 8 - 64
4158726	UI unknown error after accelerating OS drive, rebooting, and disabling acceleration	Win7-64,Windows 8 - 64
4160816	RSTCLI marks prospective member disks as unknown when we attempt an erroneous CVFD migration	Win7-64
4161049	UI crashes if a Win 8 "Storage Spaces" volume is present	Windows 8,Windows 8 - 64

Known Issues

Known Issues in 12.5.0.1066 Production Version		
Reference No	**Description**	**Affected OS's**
4628800	Some Zero Power ODDs sporadically cannot detect media	Windows 8, Windows 8 - 64
4627759	ATAPI Pass-through path only handles Packet Identify Device	Windows 8,Windows 8 - 64

4628670	Ability to change write-cache buffer flushing policy is broken after changing volume name	Windows 8 - 64
4628030	After configuring Smart Response Technology and conducting Dirty Shutdowns error: Unable to find System Disk	Windows 8
4628677	Abnormally Long S4 Entry Time with RST Driver and RTD3 Enabled	Windows 8
4161487	Error reading files from extra space partition after removal of Acceleration and Cache	Windows 8 - 64
4627952	A failed volume which is then locked and unlocked via S4 becomes normal	Windows 8 - 64
4159107	Hotplugs are unreliable on the Storport driver and sporadically leave absent disks erroneously enumerated	Win7-64
4628641	Dynamic Storage Accelerator Enable help button leads to Introduction help topic	Windows 8 - 64
4627802	DSA: Setting system performance mode to "HighPerformance" does not cause gear to change to gear 3	Windows 8 - 64
4628598	OROM UI incorrectly exposes option to remove acceleration from an accelerated locked volume	Windows 8 - 64
4627795	4-disk RAID10 or 3-disk RAID5 rebuilding after waking from S3	Windows 8 - 64
4161119	RRT failed master disk goes offline when setting disks to normal	Win7,Win7-64,Windows 8,Windows 8 - 64
4628666	RSTCLI allows RAID volume comprised of SSDs to be accelerated	Windows 8 - 64
4628613	RSTCLI incorrectly reports ANY partitioned SSD as system-partitioned SSD in its error report	Windows 8 - 64
4628450	Sequence contains no elements	Win7-64
4628442	Storage system accelerate status details string mismatch	Windows 8 - 64
4628360	System allows SSHD to accelerate spindle if it replaces an SSD while the system is in S3.	Windows 8 - 64
4628357	RST UI Unknown error enabling Volume write-back cache	Windows 8
4628664	RST UI allows locked spare disk to be reset to available after S4 resumption; exercising the option induces errors	Windows 8 - 64
4628509	RST UI displays defunct help icons in performance and status page after we disable acceleration on a hybrid hard drive.	Windows 8 - 64
4161358	RST UI hangs and throws unknown error if we attempt to update data on an OnREQ RRT volume of SSDs	Windows 8 - 64

4628679	Help Icons on Performance Page for Link Power Management not Working	Windows 8 - 64
4628604	When removing ZPODD from system while it is in Awake or Sleep state, the drive remains in Windows Explorer	Windows 8 - 64
4628161	ZPODD power off timer does not reset upon receipt of CSMI I/O	Win7,Windows 8
4628658	ZPODD: Windows Explorer shows media in drive when drive tray is opened	Windows 8 - 64
4627907	ZPODD does not recognize a media inside	Windows 8 - 64
4627784	creating new simple volume on a PT disk converts it to a system disk	Windows 8 - 64