ASROCK Technical Reference - Q&A

1. Q: What are the basic requirements for Intel Smart Response Technology?

- A: According the Intel document, for a system to support Intel Smart Response Technology it must have the following:
 - . Intel® Z68/Z77 Express Chipset-based desktop board
 - . Intel[®] Core[™] i3/i5/i7 Processor in the LGA 1155 package
 - · System BIOS with SATA mode set to RAID
 - . Intel Rapid Storage Technology software 10.5 version release or later
 - Single Hard Disk Drive (HDD) or multiple HDD's in a single RAID volume
 - Solid State Drive (SSD) with a minimum capacity of 18.6GB
 - Operating system: Microsoft Windows Vista 32-bit Edition and 64-bit Edition, Microsoft Windows 7 32-bit and 64-bit Edition.

For more information, please refer to the user guide of Intel Smart Response Technology: http://download.intel.com/support/chipsets/sb/intel_smart_response_technology_user_guide.pdf

2. Q: I cannot finish the AXTU installation under Japanese Windows7, what can I do?

- A: Please install the AXTU v0.1.216 or later for Japanese Windows 7. AXTU v0.1.216 download link: http://download.asrock.com/utility/AXTU/AXTU(v0.1.216).zip
- 3. Q: When I set SATA as RAID or AHCI mode, I can not view S.M.A.R.T values with some utility like AIAX64 or CrystalDiskInfo, why?
 - A: Please enter Intel Rapid Storage Technology to check S.M.A.R.T values under RAID or AHCI mode. Because of S.M.A.R.T. values are reported as S.M.A.R.T. alerts by the Intel Rapid Storage Technology user interface and tray icon.

For detail, please refer Intel official website: http://www.intel.com/support/chipsets/imsm/sb/cs-015002.htm

4. Q: When I connect SATA3 HDD and ODD on H67M motherboard, it takes a little bit longer to boot into Windows XP, how could I do?

A: Please follow below two methods to connect HDD and ODD on corresponding SATA port.
 Method1: If you connect HDD on SATA3_0 port, please connect ODD on SATA2_2 or SATA2_4 ports.
 Method2: If you connect HDD on SATA3_1 port, please connect ODD on SATA2_3 or SATA2_5 ports.

Please refer below table for detail:

HDD connect on Please connect ODD on Location.
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SATA3_0 port	SATA2_2 or SATA2_4 ports.	
		SATA3 6Gb/S
SATA3_1 port	SATA2_3 or SATA2_5 ports	

5. Q: How to install OS on over 2.2TB RAID volume on ASRock 970/990FX motherboard?

A: Please follow below SOP to install Windows Vista/7 64bit OS on the RAID volume:

Step 1: Flash BIOS to latest version.

Step 2: Connect all HDDs then do below settings:

Set [SATA Mode] as [RAID Mode]

Change [Onboard RAID 3TB+ Unlocker] to [EFI Compatible ROM]

The options are located in BIOS > [Advanced] > [Storage Configuration]

Then press F10 to save settings.

Step 3: Press F11 during boot up and choose boot to [Built-in EFI Shell].

Step 4: Key in "drvcfg", and you will see the information like below:

Drv[4E] Ctrl[B5] Lang[eng]



Step 5: Key in "dh [Drv number]", for example: key in "dh 4E".



Step 6: Key in "drvcfg -s [Drv number] [Ctrl number]" to enter Raid Utility.

For example: key in "drvcfg -s 4E B5"

Press ESC in 4 second	is to skip startup.nsh, any other
shell> drvcfg	
Configurable Componer	nts
Drv[4E] Ctr1[85]	Lang [eng]
Shell> dh 4E	
Handle 4E (01797018)	
Image (178B240)	File:PromiseRaidX64
ParentHandle:	1001F18
SystemTable:	6FB72F18
DeviceHandle:	1008A98
FilePath:	C468B382-4550-4909-AD57-249614183E
PdbFileName:	F:\edk104\Sample\Platform\X64\uefi
ImageBase:	17FA000 - 1818580
ImageSize:	21580
CodeType:	BS_code
DataType:	BS data
DriverBinding (18	19720)
ComponentName2 (1)	819750)
Configuration (18	197AB)
4C8H2451-C207-405	B-9694-99EA13251341 (0178EF28)
Shell> drvcfg -s 4E	B5_

Step 7: Choose [Logical Drive Main Menu] to set up Raid Drive.



Step 8: Choose [Logical Drive Create Menu] to create a Raid Drive.



Step 9: Choose [Usable Physical Drive List] to select Raid HDD.



Step 10: Press Space on keyboard to toggle checkbox.



Step11: Choose [Ld Size setting], and key in the Raid size.

Usable Physical Dri	ve List	
 Basic Setting Raid Mode Stripe Block (KB) Initialization Gigabyte Boundary Read Policy Write Policy Ld Name 		<raid 0=""> <128> <fast> <1> <read ahead=""> <write back=""> Asrock</write></read></fast></raid>
+ Ld Size Setting - Ld Max Size - Ld Size (GB)	: 3000.41 GB :	Key in Raid size

Step12: After set up Raid size, please click [Start to Create]



Step13: Press "F10" to Exit Utility.

Step14: During reboot, please press "F11" to enter Boot Menu.

Choose UEFI: CD/DVD Drive



* This option only shows on Windows7 64bit and Vista 64bit OS.

Step 15: Follow Windows Installation Guide to install OS.

Please load latest SATA RAID driver ver.3.3.1540.22 during OS installation from our website Step 16: Install latest drivers from ASRock website.