

# Intel Rapid Start Technology

## A. System Requirements

1. Windows 7 with SP1
2. An SSD with size larger than the total system memory
3. Intel Rapid Start Technology enabled in BIOS Setup
4. AHCI/RAID mode supported (please note if the SSD has been assigned as a member of a RAID array, it cannot be used to set up Intel Rapid Start store partition); IDE mode not supported
5. All motherboard drivers correctly installed

## B. Creating a Primary Store Partition

Below it is assumed Windows 7 is already installed on the SATA hard drive.

Open Disk Management Tool

Step 1: Go to Control Panel > System and Security > Administrative Tools > Computer Management > Storage > Disk Management.

Step 2: Select the SSD on which you want to create the store partition (if the SSD is unallocated, create a new partition first), and right-click on the partition you select and select **Shrink Volume**. (Figure 1)

Step 3: Enter the size of the required partition (it should be at least equal to the size of the memory currently installed on the system. (1 GB=1024 MB. For example, to set 8 GB, enter 8192 MB). The recommendation is to create a partition equal to the maximum memory capacity supported on the system, in order to take care of future memory upgrade scenarios.)

Step 4: When completed, click **Shrink**. (Figure 2)

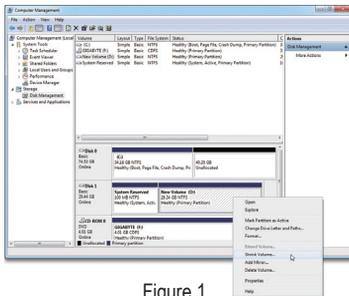


Figure 1

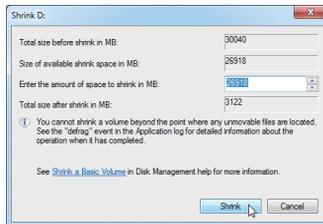


Figure 2

## C. Launching DiskPart Disk Partitioning Tool to Set up Intel Rapid Start Store Partition

Open the command prompt window and run diskpart.exe (enter "diskpart" at the C:\> command prompt and press <Enter>). At the diskpart prompt, type the following commands in sequence. Note: The commands for MBR format and GPT format are different. Refer to the commands below. After entering all of the commands, be sure to restart your computer.

**MBR format:**

```
DISKPART>list disk  
DISKPART>select disk X
```

(Lists the disks and information about them)  
(Selects a disk. "X" is the disk number where you want to create the store partition. Refer to results from "list disk" for the exact disk number)

```
DISKPART>create partition primary
```

(Create the primary store partition)

```
DISKPART>detail disk
```

(Displays the properties of the selected disk and the volumes on that disk)

```
DISKPART>select volume X
```

(Selects the specified volume. "X" is volume of your store partition. Refer to the results from "detail disk" for exact volume number)

```
DISKPART>set id=84 override
```

(Change the partition type) (Figure 3)

### GPT format:

Follow the commands for MBR format. When you execute the last command where you change the partition type (set id="XXX"), enter the following command instead (Figure 4):

```
DISKPART>set id=D3BFE2DE-3DAF-11DF-BA40-E3A556D89593
```

You have created the Intel Rapid Start Technology store partition after completing the commands above. Restart your computer.

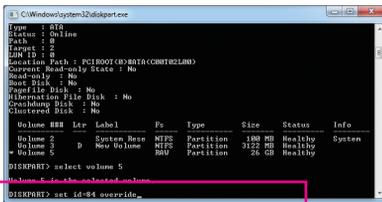


Figure 3

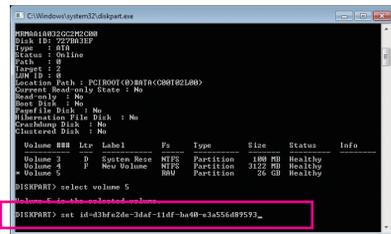


Figure 4

### D. Enabling the Intel Rapid Start Technology in BIOS Setup

1. When the system restarts, press <Delete> to enter the BIOS Setup program. Go to the **Peripherals** menu and set **Intel Rapid Start Technology** to **Enabled**.
2. Save the settings and exit BIOS Setup.

### E. Installing and Configuring the Intel Rapid Start Application

1. While in the operating system, insert the motherboard driver disk, go to Application Software\Install Application Software, and select **Intel Rapid Start Technology** to install. After the installation is complete, we recommend that you restart the system.
2. Launch the **Intel Rapid Start Technology Manager** application from Start\All Programs\Intel or click the  icon in the notification area.



### Instructions:

The Intel Rapid Start application allows you to enable or disable the Intel Rapid Start Technology. The **Timer** slider in **Advanced Settings** allows you to set when to copy and move the data from the memory to the SSD after entering S3 mode.

# Intel Smart Connect Technology

Intel Smart Connect Technology<sup>(Note)</sup> allows user's computer to automatically update programs designed to work with the Internet to obtain their data while your system is suspended (sleeping). The user can obtain the latest data when the computer is waked up.

## A. System Requirements

1. Intel Smart Connect Technology enabled in BIOS Setup
2. Windows 7 with SP1
3. Normal network connection

## B. Configuring Intel Smart Connect Technology

Step 1:

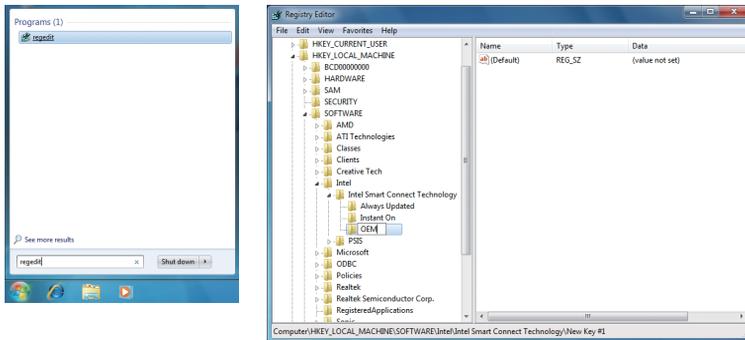
After installing the operating system and motherboard drivers, install the Intel Smart Connect Technology application. Restart your computer when completed.

Step 2:

As shown in the left screenshot below, click the **Start** button and type `regedit` in the search field to open the registry editor. Look for the following directory in the registry editor:

Computer\HKEY\_LOCAL\_MACHINE\SOFTWARE\Intel\Intel Smart Connect Technology

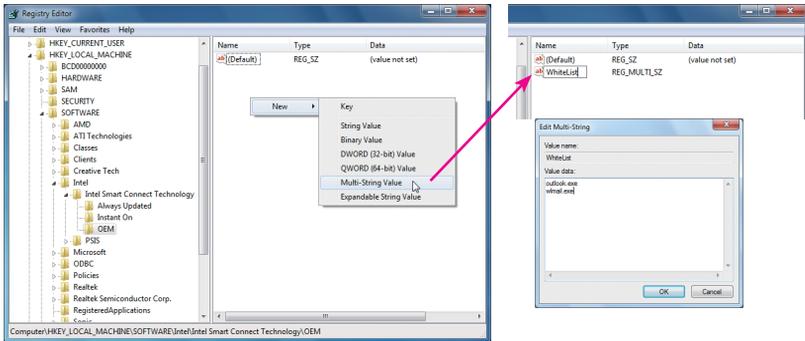
Right-click on **Intel Smart Connect Technology** and select **New > Key**. Type `OEM`.



(Note) Intel Smart Connect Technology is for S3 mode only. During the updating process, the monitor will not light up and no sound will be output from the speaker. This feature works best with programs designed to work automatically with the Internet to obtain their data such as Microsoft Outlook®, Microsoft Windows Live™ Mail, and Seismic®.

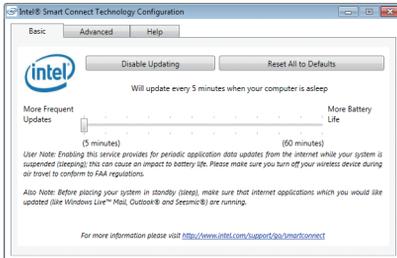
### Step 3:

As shown in the left screenshot below, right-click on **OEM**, select **New > Multi-String Value**, and type **WhiteList**. Double-click **WhiteList** and type the application name to be added in **Edit Multi-String**. For example, to add Microsoft Outlook, type `outlook.exe`; to add Microsoft Windows Live, type `wlmail.exe`. Restart your computer when completed.

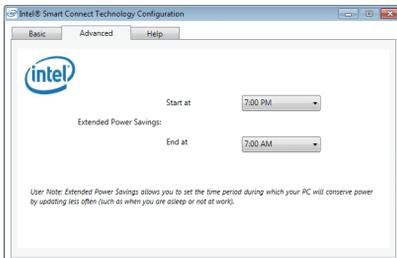


### Step 4:

After completing the steps above, go to Start\All Programs\Intel and launch **Intel(R) Smart Connect Technology**. On the **Intel® Smart Connect Technology Configuration** menu, click **Enable Updating** on the **Basic** tab. (The **Enable Updating** button has now changed to **Disable Updating**.)



On this menu, the user can set the update frequency to 5 to 60 minutes. (Default: 15 minutes)



The **Advanced** tab allows you to set the time period during which the updates will be performed only every two hours (such as when you are asleep).

# Intel Smart Response

## A. System Requirements

1. An Intel Chipset-based motherboard
2. An Intel Core series processor
3. RAID enabled for the Intel SATA controllers in BIOS Setup
4. A conventional SATA disk and an SSD <sup>(Note 1)</sup>
5. Windows 7 with SP1 <sup>(Note 2)</sup>
6. All motherboard drivers correctly installed



If you have installed the operating system before configuring the Smart Response Technology, all original data on the hard disk will be lost once you enable RAID mode. It is recommended that you back up the hard disk before enabling the Smart Response Technology.

## B. Configuring Intel Smart Response Technology

Step 1:

While in the operating system, use the "Xpress Install" function of the motherboard driver disk to install all motherboard drivers, including the Intel Rapid Storage Technology driver. Restart your computer when completed.



Make sure the Intel Rapid Storage Technology driver version is 11.0 or above.

Step 2:

Find the IRST icon  in the notification area and double-click it to open the Intel Rapid Storage Technology utility.

Step 3:

On the main screen, click the **Accelerate** button and then click **Enable acceleration**.



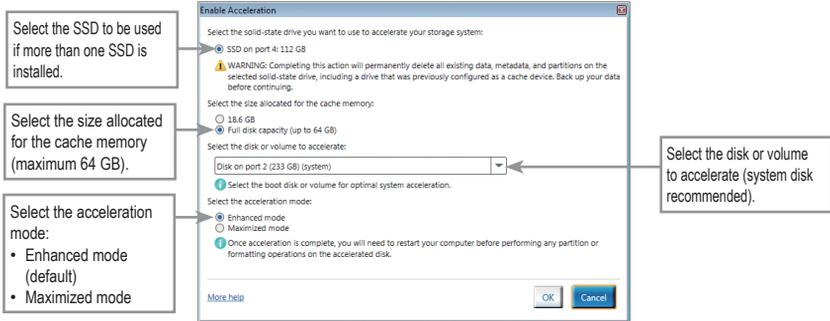
(Note 1) The SSD works as a cache of the hard disk. The maximum cache memory size is 64 GB. If you use an SSD larger than 64 GB, the space beyond 64 GB can still be used for storing your data.

(Note 2) The operating system must be installed to the SATA disk.

#### Step 4:

After selecting the SSD you want to use, the size of the SSD allocated for the cache memory, the hard disk/volume to accelerate, and the acceleration mode, click **OK** to complete the configuration of the Intel Smart Response Technology.

#### The "Enable Acceleration" Dialog Box:



- **Enhanced mode (default)**

In this mode, data is written to the cache memory and the disk simultaneously. In the event that the accelerated disk or volume is disconnected, there is no risk of data loss because data on the disk is always synchronized with the data in the cache memory.

- **Maximized mode**

In this mode, cached data is written to the accelerated disk or volume at intervals to increase performance. If the cache device is reported as missing or failed and it contained data that had not yet been written to the accelerated disk or volume, then that data will be lost.