

Intel® Rapid Start Technology User Guide for UEFI Mode

With Intel® Rapid Start Technology, your computer can go from being in a very deep-sleep to fully awake in a flash. This responsiveness capability enables your device to consume lower levels of power when you're not using it, yet resume quickly when you want to use it.

System Requirements:

- Intel® Z77/H77/Q77 Express Chipset-based desktop board
- Intel® Core™ Processor in the LGA1155 package
- Solid State Drive (SSD)
- Hard disk drive (optional for Intel® Smart Response Technology)
- Operating system: Microsoft Windows 7* 64-bit edition or Windows 8* installed in UEFI mode
- Intel Rapid Start Technology software

Before you begin

- If you plan to also install Intel Smart Response Technology:
 - Set SATA mode in BIOS to RAID
 - Install the operating system on a hard disk drive (HDD) instead of the SSD
 - [Install Smart Response Technology](#) BEFORE setting up Rapid Start Technology
- Instructions for enabling Intel Smart Response Technology will not be covered in this user guide.
- If installing the operating system on a solid state drive (SSD), make sure there is enough unallocated partition space on the SSD to create a hibernation partition. The size of the hibernation partition must be equal to or larger than the amount of system memory.

Setup Guide for Intel Rapid Storage Technology

Configuring your computer for Intel Rapid Start Technology is a 6-step process:

1. [Install the operating system](#)
2. [Enable Intel Rapid Start Technology in BIOS Setup](#)
3. [Create a primary store partition on the SSD](#)
4. [Verify the primary store partition](#)
5. [Install the Intel Rapid Start Technology software](#)
6. [Test the Intel Rapid Start Technology](#)

Step 1: Install the operating system

1.1. Install the operating system in UEFI mode on the SSD.

1.2. Install all required device drivers. **Do not install the Intel Rapid Start Technology software yet.**

Step 2: Enable Intel Rapid Start Technology in BIOS Setup

If your computer has Intel® Visual BIOS:

- 2.1. Press the **F2** key during boot to enter the Visual BIOS.
- 2.2. Click the button for **Advanced Setup**, and then click **Power**.
- 2.3. Locate the setting for **Intel Rapid Start Technology**, and click the check box to enable it.
- 2.4. Set the option for **Hibernation Timer** to **Immediately**.
- 2.5. Press the **F10** key to save settings, exit BIOS, and restart the computer.

If your computer has non-Visual BIOS or Classic Mode:

- 2.1. Press the **F2** key during boot to enter the BIOS setup.
- 2.2. Scroll to the **Power** menu.
- 2.3. Locate the setting for **Intel Rapid Start Technology**, and click the check box to enable it.
- 2.4. Set the option for **Hibernation Timer** to **Immediately**.
- 2.5. Press the **F10** key to save settings, exit BIOS, and restart the computer.

Step 3: Create primary store partition on the SSD

Important Note: If the store partition will be created on an SSD where the operating system is NOT installed, go to [Alternate Step 3: Create primary store partition on a non-OS SSD](#).

- 3.1. In the operating system, click the Windows Start button.
- 3.2. In the Search box, type in **cmd.exe**.
- 3.3. Right-click on the cmd.exe file and select **Run as administrator**.
- 3.4. A command line utility will open. Type in **diskpart.exe** and press Enter.
- 3.5. At the DISKPART> prompt, type the following commands, in the order shown:

DISKPART>**list disk**

```
DISKPART> list disk
  Disk ###  Status         Size         Free         Dyn  Gpt
  -----  -
  Disk 0    Online         74 GB        4096 MB
  -----  -
DISKPART>
```

DISKPART>**select disk X**

(X is the disk number where you want to create the store partition. Refer to results from "list disk" for the exact disk number. The disk selected must be an SSD)

DISKPART>create partition primary size=YYYY

(YYYY is the hibernation partition size in megabytes for the partition. For example, for 4 GB of system memory, this value should be 4096 or higher.)

DISKPART>detail disk

```
DISKPART> detail disk
INTEL SSDSC2CW060A3
Disk ID: B6BD0A40
Type : RAID
Status : Online
Path : 0
Target : 1
LUN ID : 0
Location Path : PCIROOT(0)#PCI(1F02)#RAID(P00T01L00)
Current Read-only State : No
Read-only : No
Boot Disk : Yes
Pagefile Disk : Yes
Hibernation File Disk : No
Crashdump Disk : Yes
Clustered Disk : No
```

Volume ###	Ltr	Label	Fs	Type	Size	Status	Info
Volume 2	C		NTFS	Partition	51 GB	Healthy	Boot
* Volume 3			RAW	Partition	4096 MB	Healthy	

DISKPART>select Volume Z

(Z is the newly created RAW partition. Refer to results from “detail disk” for exact volume number)

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

DISKPART>exit

3.6. Type **Exit** to close the command line utility.

Alternate Step 3: Create primary store partition on a non-OS SSD

- 3.1. In the operating system, click the Windows Start button.
- 3.2. In the Search box, type in **cmd.exe**.
- 3.3. Right-click on the cmd.exe file and select **Run as administrator**.
- 3.4. A command line utility will open. Type in **diskpart.exe** and press Enter.
- 3.5. At the DISKPART> prompt, type the following commands, in the order shown:

DISKPART>list disk

```
DISKPART> list disk
```

Disk ###	Status	Size	Free	Dyn	Gpt
Disk 0	Online	74 GB	4096 MB		*

```
DISKPART>
```

DISKPART>**select disk X**

(X is the disk number where you want to create the store partition. Refer to results from "list disk" for the exact disk number. The disk selected must be an SSD)

DISKPART>**convert gpt**

Note: *If you previously configured the computer for Intel Smart Response Technology, this step will affect the setup. Please re-configure Intel Smart Response Technology using the Intel Rapid Storage Manager tool before continuing on to the next command.*

DISKPART>**create partition primary size=YYYY**

(YYYY is the hibernation partition size in megabytes for the partition. For example, for 4 GB of system memory, this value should be 4096 or higher.)

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

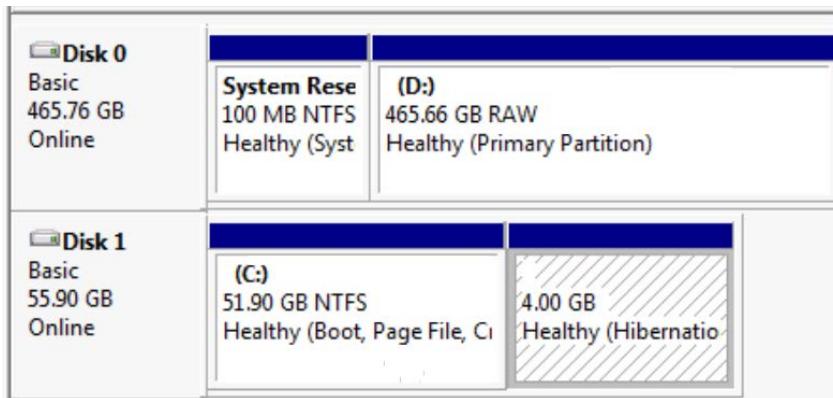
DISKPART>**exit**

3.6. Type **Exit** to close the command line utility.

Step 4: Verify the primary store partition

4.1. Go to **Control Panel > System and Security > Administrative Tools > Computer Management > Disk Management**.

4.2. Confirm in Disk Management that there is now a primary partition on the SSD with the correct size specified earlier.



4.3. Close Disk Management and restart the computer for the BIOS to identify the newly created partition.

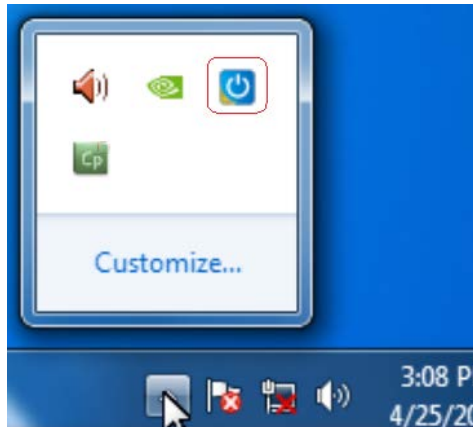
Step 5: Install the Intel Rapid Start Technology software

5.1. Download the Intel Rapid Storage Technology software from [Download Center](#).

5.2. Unzip the download and run the **Setup.exe** file.

5.3. Complete the installation process.

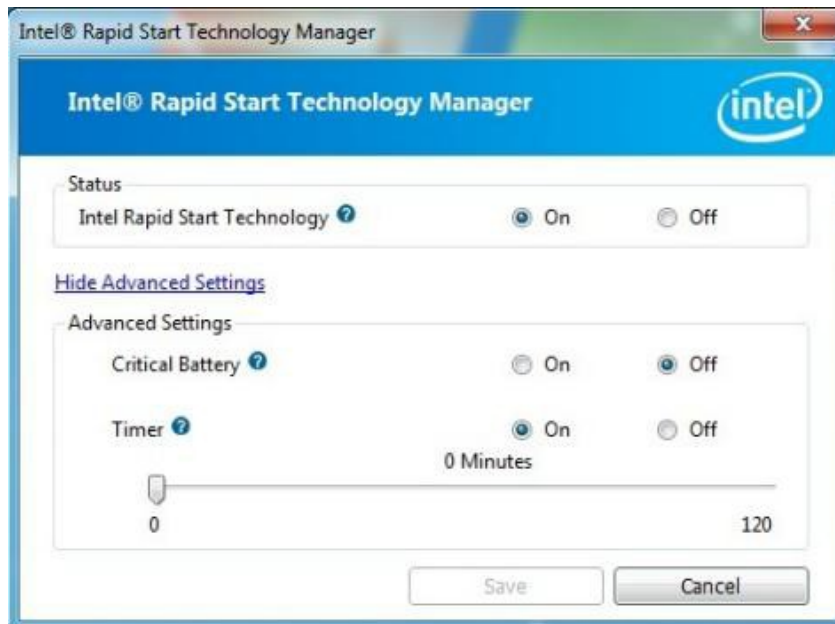
5.4. After installation is complete, click the Task Bar on the bottom right of the desktop and look for the icon for Intel Rapid Start Technology Manager. Click to launch the tool.



5.5. Check the following items in the Manager tool:

- Status is **On**.
- Timer is **On**
- Timer slider bar is at **position 0**.

This ensures the system will immediately begin utilizing Intel Rapid Start Technology once the system is put into sleep (S3) mode.



Step 6: Test the Intel Rapid Start Technology

6.1. Click the Windows **Start** button, and then click **Sleep**. This puts the computer into the S3 sleep state.

Observe that the computer goes into sleep mode, and then quickly wakes up again before going into a sleep state again. This is normal behavior as the system first transitions into the S3 state and then Intel Rapid Start Technology briefly wakes the computer and moves it into the S4 sleep state.

When the computer is in the S4 state, it cannot be woken up using USB devices such as keyboard or mouse.

6.2. Press the Power Button to wake the computer.

Observe that the resume time is as fast as a wake from an S3 sleep state.

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