

StarWind RAM Disk SDK

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StarWind Documents



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About StarWind

StarWind is a pioneer in virtualization and a company that participated in the development of this technology from its earliest days. Now the company is among the leading vendors of software and hardware hyper-converged solutions. The company's core product is the years-proven StarWind Virtual SAN, which allows SMB and ROBO to benefit from cost-efficient hyperconverged IT infrastructure. Having earned a reputation of reliability, StarWind created a hardware product line and is actively tapping into hyperconverged and storage appliances market. In 2016, Gartner named StarWind “Cool Vendor for Compute Platforms” following the success and popularity of StarWind HyperConverged Appliance. StarWind partners with world-known companies: Microsoft, VMware, Veeam, Intel, Dell, Mellanox, Citrix, Western Digital, etc.

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NOTE: The content of the RAM disk device is lost when it is deleted or when the host turns off or reboots.

Explanation

RAM disk devices can be managed via the RAM Disk tool or by using the commands for StarRAM driver that are described in this article. StarRAM driver can be installed during the RAM Disk initial configuration described [here](#) or manually as it is described in StarRAM Driver Installation section. RAM devices can be managed via StarRAMCtl utility or via API calls to StarRAM driver using DeviceIOControl() function from the user's C/C++ application.

Sdk Components

SDK contains the following components:

- StarRAM Windows Driver for x64 and x86 architecture.
- "DrvInst.exe" driver installation utility
- "StarRAMCtl" StarRAM management utility with a source code for Visual Studio C/C++.

StarRAM Driver is installed on the target machine with DrvInst.exe utility.

Starram Driver Installation

Install the driver Use the following command to install StarRAM driver: `DrvInst.exe -install root\starram <full path to StarRAM.inf file>` for example:
`DrvInst.exe -install root\starram "c:\Program Files\StarWind Software\RAM Disk\StarRAM.inf"` **Check if the driver is installed** Use the following command to check if StarRAM driver is installed in the system: `DrvInst.exe -check root\starram` If the driver is installed, the application returns the exit code 0. If the driver is not present, the application returns non-zero exit code. **Update the existing driver** `DrvInst.exe -update root\starram <path to StarRAM.inf file>` **Remove the driver** Check that all StarWind RAM disk devices are removed from the system before removing the driver. If devices are opened via the system or application and can't be closed, the system should be rebooted. Use the following command to remove StarRAM driver: `DrvInst.exe -uninstall root\starram`
DrvInst.exe exit codes 0 - Operation is completed successfully. Reboot is not required. 1 - Operation is completed successfully. Reboot is required. 2 - Operation is not completed (if installation is performed, the driver exists: if checking or uninstallation is performed, the driver does not exist). 10 - Invalid command line parameters. >10 - Other

errors. In this case, please contact StarWind support.

Managing The Ram Disk Devices

Using the command line application StarRAMctl Create RAM disk:

StarRAMctl.exe insert #ram <Size in MB> [*] * - create unformatted disk.

StarRAMctl.exe insert_p #ram <Size in MB> [*] Remove RAM disk:

StarRAMctl.exe remove <targetId> Get the list of RAM disks: StarRAMctl.exe








list Query maximum available memory, in MBs: StarRAMctl.exe query #ram

NOTE: To get more information about API calls to StarRAM driver, please contact StarWind support.

Request A Product Feature

To request a new product feature or to provide feedback on a StarWind product, please send an email to support@starwind.com and put "Product Feature Request" in the subject line.

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