MICROSOFT WINDOWS – HOW TO EXTEND A PARTITION OR VOLUME

Introduction

This article describes how to use the *Diskpart.exe* command-line utility to extend a data volume into unallocated space. You can use the Diskpart.exe utility to manage disks, partitions, and volumes from a **command-line** interface. You can use Diskpart.exe on both **Basic** disks and **Dynamic** disks.

If an **NTFS** volume resides on a hardware **RAID 5** container that has the capability of adding space to the container, you can extend the **NTFS** Volume with *Diskpart.exe* while the disk remains a Basic disk. Use the **extend** command to incorporate unallocated space into an existing volume while preserving the data.

Requirements for the extend command

The following are the requirements for the **extend** command:

- The volume must be formatted with the **NTFS** file system.
- For **Basic** volumes, the unallocated space for the extension must be the next contiguous space on the same disk.
- For **Dynamic** Volumes, the unallocated space can be any empty space on any **Dynamic** disk on the system.

Only the extension of data volumes is supported. **System** or **boot** volumes may be blocked from being extended, and you may receive the following error:

Quote:

```
Diskpart failed to extend the volume. Please make sure the volume is valid for
extending
```

- You cannot extend the partition if the system page file is located on the partition. Move the page file to a partition that you do not wish to extend.
- To extend a partition or volume, you must first select the volume to give it the focus, and then you can specify how large to make the extension.

To extend a volume, follow these steps:

- At a command prompt, type **diskpart.exe**.
- Type **list volume** to display the existing volumes on the computer.
- Type **Select volume** *volume number* where volume number is number of the volume that you want to extend.
- Type **extend [size=n] [disk=n] [noerr]**. The following describes the parameters:
    - **size=n:** The space, in megabytes (**MB**), to add to the current partition. If you do not specify a size, the disk is extended to take up all of the next contiguous unallocated space.
    - **disk=n:** The *dynamic* disk on which to extend the volume. Space equal to **size=n** is allocated on the disk. If no disk is specified, the volume is extended on the current disk.
    - **noerr:** For scripting only. When an error is thrown, this parameter specifies that **Diskpart** continue to process commands as if the error did not occur. Without the **noerr** parameter, an error causes **Diskpart** to quit with an error code.
- Type **exit** to quit **Diskpart.exe**.

When the extend command is complete, you should receive a message that states that **Diskpart** successfully extended the volume. The new space should be added to the existing drive while maintaining the data on the volume.

Note: In **Microsoft Windows XP** and in **Microsoft Windows 2000**, you cannot use *Diskpart.exe* to extend a simple volume on a **Dynamic** disk that was originally created on a **Basic** disk. You can extend only simple volumes that were created after the disk was upgraded to **Dynamic** disk.

If you try to extend a simple volume on a **Dynamic** disk that was originally created on a **Basic** disk, you receive the following error message.

This restriction was removed in **Microsoft Windows Server 2003**.

Quote:

```
Diskpart failed to extend the volume.
Please make sure the volume is valid for extending
```