

Disks

MBR	GPT
Master Boot Record	Protective Master Boot Record
64 byte Partition Table	Backup GUID Partition Entry Array
2 byte stop code	Backup GUID Partition Table Header
Max 4 Primary Partitions	Max 128 Primary Partitions
Max Disk Size 2TB (1024 ⁴)	Max Disk Size 9,4 ZiB (1024 ⁷)

Volume Types

-	Performance	Security
Simple	Normal	none
Spanned	Normal	none
Striped	Faster Read/Write I/O	none
Mirrored	Faster Read I/O	Good

Basic or Dynamic Disk?

Default disktype is basic.
 Basic can be converted to Dynamic with no data loss.
 Dynamic to basic conversion will **lose ALL** data
 Local Disk Manager (LDM) Database replicated among disks with Dynamic disks.

Backup

Backup Full	Creates a full Backup and is time consuming.
Backup Incremental	Creates a backup of everything with Archivebit. Every incremental backup has to be restored in order. Quick at making backups.

Backup (cont)

Backup Differential	Creates a backup of everything with archivebit. Quick at restoring. Usually created daily and is abit slower than incremental.
Backup Copy	Copies everything. It is like a snapshot.

Filesystems

-	Max File Size	Max Volume Size	VSS?
FAT	4 GiB	4 GiB	No
FAT32	4 GiB	16 TiB	No
NTFS	16 EiB	64KB * 2 ⁶⁴	Yes
ReFS	16 EiB	1 YiB	Yes

Filesystems

FAT	File Allocation Table and is a filesystem like NTFS, though it's older.
FAT32	Is also a File Allocation Table, but a 32-bit version.
NTFS	New Technology File System, and supports: file encryption etc. It is the most common filesystem.
ReFS	Resilient File System and is Microsoft newest filesystem. ReFS includes security and control of corrupt files.
DiskMgmt	Diskpart's GUI "Twin"
Diskpart	Is a CMD-Utility to create Partitions, create/delete/alter volumes

Quota og FSRM

FSRM	File Server Resource Manager
File Screening	Filter for allowed files, and is able to exclude file types. (ex. .Exe files)
Quota	Puts a quota on users or volumes. Only works on NTFS
Soft Quota	Tracks storage and warns when the quota limit is breached.
Hard Quota	Tracks Storage and denies data after limit has been hit.
Template	Quota Group Policies

Partition Types

Primary	Contains 1 file system.
Extended	Can be divided into multiple logical partitions (Limited to Drive Letters A-Z)
Logical	Also contains 1 file systems.

RAID

-	Storage	Error(s)	Speed
RAID0	100%	none	2xR 2xW
RAID1	50%	1 disk	2xR 1xW
RAID5	66%	1 disk	2xR 1xW
RAID10	50%	1 disk	4xR 2xW

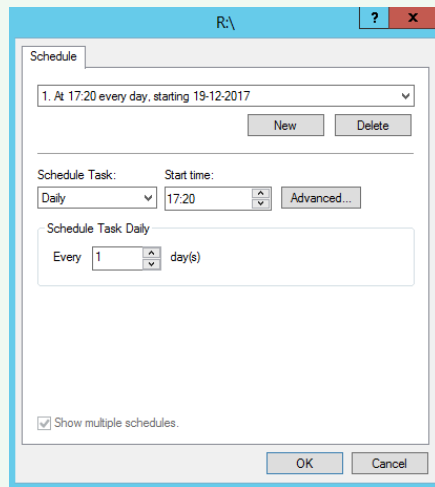


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Shadow Copy



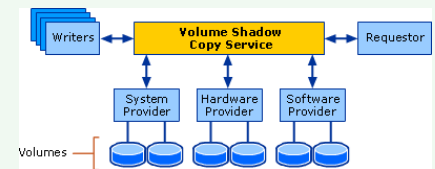
Shadow Copy timeplan.

VSS (Volume Shadow copy Service)

VSS operates in the Block Level of Volumes.

One of the features of Shadow Copy is that it allows the administrator to take backup of files and programs that are currently being used.

VSS Architecture



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