

*Fast Backup and Live Recovery Solutions for Real
Real Protection in a Virtual World*



ActiveImageTM 3.5
PROTECTOR

**for Hyper-V Enterprise
for Hyper-V with SHR**

Innovative backup solutions optimised for Hyper-V environments featuring:

- **SHR (Seamless Hot Restore) feature can quickly start up a VM from an image backup file**
- **ReZoom feature restores a single virtual machine instead of restoring the entire volume**
- **Support for Windows Server 2012 / R2 / R2 Hyper-V**
- **Support for CSVFS backup**
- **Inline Data Deduplication and Compression feature improves backup storage utilisation**



Backup and Recovery Solution optimised for Hyper-V virtual environment

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New Features in ActiveImage Protector for Hyper-V

Inline Data Deduplication and Compression

ActiveImage Protector's new Inline Data Deduplication Compression (IDDC) feature efficiently eliminates duplicate data while compressing image files at a high rate resulting in a significant reduction in backup storage demands. With the proliferation of duplicate data in the ever increasing number of Hyper-V virtual environments, ActiveImage Protector's inline data deduplication technology ensures high-speed backup coupled with minimal image file size and optimum system performance.

Support for Windows Server 2012 / R2 / R2 Hyper-V and Windows 8 / 8.1

ActiveImage Protector supports the Storage Space feature in Windows Server 2012 and Windows 8, and saves backup images to a virtual volume in a storage space. ActiveImage Protector also supports backup of CSVFS volumes, part of Windows Server 2012's Cluster Shared Volume (CSV) feature. ActiveImage Protector is also VSS compliant which, when backing up live virtual machines together with VSS-aware server applications, ensures data consistency. Incremental backup of the ReFS (Resilient File System) is also supported.

Updated Virtualization Utility

ActiveImage Protector supports conversion of image files to the VHDX file format.

ReZoom Feature in Windows 8

If no server is available, you can quickly and easily perform live recovery of a crashed VM to a Hyper-V environment running on a Windows 8 machine.

Backup Multiple Disks to a Single Disk Image

ActiveImage Protector's new Multiple Disks In One Image feature backs up multiple disks into the same disk image. Backup performance is enhanced when combined with Inline Data Deduplication Compression.

Support for the latest uEFI Mother Boards

Pre-Boot AIPBE (Linux boot environment) offers native support for uEFI.

Support for Hyper-V Server (Server Core)

ActiveImage Protector now supports remote backup as well as ReZoom and Seamless Hot Restore for the free version of Hyper-V Server (Server Core).

Features Optimised for Hyper-V Environments

Instantaneous Recovery with Seamless Hot Restore

The Seamless Hot Restore (SHR) feature enables you to quickly boot a fully functional VM from a backup image while simultaneously restoring it to the Hyper-V environment in the background, providing instantaneous recovery with little or no impact to business operations. Any changes made are seamlessly transitioned to the restored VM. In addition, a virtual machine being migrated to another Hyper-V host can be instantaneously booted with minimal or near-zero down time.

ReZoom

ActiveImage Protector's ReZoom technology lets you restore an entire Hyper-V host as well as individual or multiple virtual machines to the original or different Hyper-V host, even on different hardware. ReZoom restores to the exact state when the backup was made, helping you ensure operations can resume with minimal system down time or maintenance costs.

Hot-imaging of a running Windows machine

ActiveImage Protector's Hot-Imaging feature backs up an entire host, including the OS, applications and data files while the machine is active and running. ActiveImage Protector creates safe backups of VSS-aware applications using Hyper-V VSS (Volume Shadow Copy Service) writer, a feature automatically incorporated as part of Hyper-V.

VM Auto-Start Option

This option allows you to configure additional settings for ReZoomed virtual machines before booting up the virtual machines.

Cold-imaging of an entire static Windows machine

Create a backup image of a static system volume by Cold-imaging with ActiveImage Protector. This is particularly useful to back-up new or clean system environments (directly after a Windows OS install) or for taking a snapshot of systems prior to a failure.

Failover-clustering with Hyper-V

ActiveImage Protector for Hyper-V supports CSVFS to enable Smart Sector backup and restore of CSVFS volumes in the same manner as backup and restore of NTFS volumes.

VSS Support on Virtual Machines

ActiveImage Protector uses the Hyper-V VSS (Volume Shadow Copy Service) writer, enabling it to backup virtual machines with live VSS-aware applications such as SQL Server, Exchange Server and Oracle, while ensuring data consistency in the resulting backup image file.

Multiple Destination ReZoom (MDR)

When you restore multiple virtual machines from an image file, you can select the respective destination folders for the restored virtual machines, even if the specified destination is different from the original location.

Backup Features

Fast Backup with Smart Sector Technology

ActiveImage Protector's Smart Sector Technology enables fast backup of only the used sectors of a disk. This translates into smaller backup file sizes.

Command Line Execution Support

The majority of AIP's features can be executed using either the command line or via a script file. AIP's command line interface allows system management tools to seamlessly administer backups via a prepared script file.

Encryption and Compression

ActiveImage Protector can create compressed and encrypted backup images and supports up to 256 bit encryption.

Fast Incremental Backup

Our proprietary filter driver tracks all data changes made since the previous backup. With each new incremental backup only the changes are saved, resulting in both reduced processing time and dramatically smaller backup files.

Reconcile Feature in Continuous Incremental Backup

In the past, the failure, loss or corruption of an incremental backup file would mean a completely new backup would have to be created. ActiveImage Protector's Reconcile Feature allows you to continue the incremental chain even if an incremental file is lost, corrupt or has failed.

Backup Features

Backup Linux partitions from Windows

In a Windows / Linux multi-boot environment, ActiVImage Protector's Smart Sector Technology can backup both Linux (Ext2, Ext3 & Ext4) and Windows partitions from Windows.

Bad Sector Skip Function

In the event of a failing or corrupt disk, ActiVImage Protector's Bad Sector Skip function can continue a backup process even when unreadable or bad sectors are encountered, enabling the recovery of the remaining good sectors.

Flexible Backup Media

Backup image targets/storage can be pointed to any Windows accessible destination including NAS, SAN (fibre channel), USB, FireWire (IEEE1394), eSATA or shared network folder.

Backup Options

Integrated Off-Site Replication

ActiVImage Protector includes Automated Off-site Replication. Backup files can be replicated to a shared folder or an FTP directory over a WAN. Up to three replication targets may be specified for a backup task. In the event of a natural or physical disaster, important backup data can be safeguarded by replicating the backup image file to a remote location for future recovery. Online storage that supports WebDAV can be specified as the replicating destination.

Image Retention Policy

The Image Retention Policy feature can save space by automatically deleting backup images (an entire backup image set) that are older than the most current specified backup image set.

Throttling Feature

With ActiVImage Protector, system resource and network bandwidth usage priorities can be adjusted to ensure ActiVImage Protector's backup process does not affect the performance of other mission critical processes.

Throttling Network Bandwidth Usage

With the network bandwidth throttling feature, network bandwidth usage can be adjusted to lower the overall impact on bandwidth when a backup destination is located on a network share.

Disk-to-Disk Copy

ActiVImage Protector's Disk-to-Disk Copy (D2D) feature can copy or clone the entire hard disk to a new or different disk. If the target drive is larger than the source, volumes can be kept the same size or enlarged proportionally to occupy the additional space on the target disk.

Standard Snapshot Driver (Volsnap)

ActiVImage Protector was designed to use Volsnap, Microsoft's standard snapshot driver. No additional drivers are required.

Point-In-Time Multi-Volume Snapshot

If a database is spread across multiple volumes, a simple backup image may not be restored correctly. The issue is caused not only by the difference in starting times between the backups and their respective volumes, but also by the inconsistency of the data created in the backup images themselves. Restoring inconsistent backup images results in an inconsistent database. ActiVImage Protect solves this problem by taking a point-in-time snapshot of all the volumes.

Restore Features

Restore Wizard

An easy-to-use wizard guides you step-by-step through the simple, fast and secure restoration process of your sector-based backup images.

Fast Bare Metal Recovery

ActiVImage Protector's lightning-fast restore engine dramatically speeds up volume restoration to a new hard disk (Enterprise only).

Linux Based Recovery Environment

Perform faster disaster recovery and static cold back-ups with ActiVImage Protector's Linux based boot environment (Enterprise only).

Shrink On The Fly

ActiVImage Protector provides Shrink on Restore for NTFS volumes. NTFS volumes can be restored to disk drives that are smaller than the original disk. The minimum requirement is that there is enough space on the smaller drive to restore the amount of actual data from the original volume (Enterprise only).

Pre-Boot AIPBE

ActiVImage Protector's Pre-Boot AIPBE feature enables the AIPBE to be booted directly from the hard disk without the use of an optical drive. A very useful feature on machines without optical media drives (Enterprise only). Not available for Hyper-V Server or Server Core.

ActiVImage Protector Boot Environment Builder

In conjunction with the Windows AIK or ADK, a Windows PE based boot environment builder (AIPBE) is provided (Enterprise only).

Virtual Environment Support

Enhanced Support for Virtual Environments

ActiVImage Protector provides virtualisation tools for migrating or restoring virtual or physical machines: V2P (virtual to physical), V2V (virtual to virtual), and P2V (physical to virtual) - (Enterprise only).

Restore to different servers or hardware

ActiVImage Protector's A.I.R.* (Architecture Intelligent Restore), developed using Windows Embedded technology, can restore backup images files to virtual or physical machines on different servers and dissimilar hardware. A.I.R. supports the restore of disks and/or selected volumes (Enterprise only).

* A.I.R. technology enables easy migration across physical and virtual machines. I.e. a tablet PC which has no optical media drive.

Other Features

Support for latest hardware architecture

ActiVImage Protect supports the latest hardware architecture including uEFI mother boards and GPT (GUID partition table) volumes (boot, system, and logical).

Granular File and Folder Restore

In the event of a system crash, ActiVImage Protector can mount an image file as a virtual drive to quickly and conveniently extract any files or folders contained in the image file.

Incremental Consolidation

Multiple incremental backup files can be consolidated into a single incremental file, saving storage space and simplifying backup file management.

Image File Unification Feature

ActiVImage Protector's Image File Unification feature unifies a full base image file and all associated incremental files into a single backup file.

E-Mail Notification

Email notification can be sent (using SSL/TSL) to an email address of your choice. Notifications include successfully completed backups, backup failure, or in the event that AIP encounters an error, a restart or failure.

Remote Backup Management

ActiVImage Protector offers centralised management of AIP installations on remote machines over a network. This feature can be used to push install AIP agents (either new installations or upgrades) to remote machines and manage AIP agents on remote machines, including backup schedule creation, task monitoring and more (Enterprise only).



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