



## COURSE DESCRIPTION

The *Veritas InfoScale Storage 7.3.1 for Windows: Administration* course is designed for IT professionals tasked with installing, configuring, and maintaining Veritas InfoScale Storage.

This training provides fundamental concepts and operational procedures for Veritas InfoScale Storage for Windows. The course enables you to gain the necessary skills that are required to manage a disparate range of storage. It also enables you to deploy and configure InfoScale Storage in your environment and to explore InfoScale Storage as a robust and scalable storage management solution.

### Delivery Method(s)

This course is available in the following delivery methods:

- [Instructor-led training \(ILT\)](#)
- [Virtual instructor-led training \(VILT\)](#)
- [Learning Lab](#)

### Duration

- Instructor-led training - ILT: 2 days, including 6 months of lab access
- Virtual instructor-led training - VILT: 2 days, including 6 months of lab access
- Learning Lab – Self-paced lesson guide plus 6 months of lab access

### Course Objectives

By the completion of this course, you will be able to:

- Install InfoScale Enterprise (Availability and Storage).
- Identify the virtual objects that are created by InfoScale Storage to manage data storage.
- Define InfoScale Storage RAID levels and identify virtual storage layout types used by InfoScale Storage.
- Initialize an operating system disk as an InfoScale Storage disk and create disks and disk groups.
- Identify the features, advantages, and disadvantages of volume layouts supported by InfoScale Storage.
- Create concatenated, striped, and mirrored volumes by using the VEA and the command-line interfaces.
- Create partitions and logical drives.
- Add a mirror to and remove a mirror from an existing volume, add a log, and change the volume read policy.
- Deport a disk group from one system and import it on another system.
- Describe common offline and off-host processing tasks.
- Duplicate the contents of volumes by using volume snapshots.
- Manage the performance of off-host processing tasks by enabling FastResync and Fast File Resync.
- Implement off-host processing by combining FastResync, snapshots, and disk group split and join functionality.
- Describe mirror resynchronization processes.
- Manage the configuration backup and restore process.
- Manage the hot relocation process at the host level.

- Manage arrays and individual disks and configure paths to disks in a DMP configuration.
- Configure load balancing settings.
- Describe the SmartIO feature in InfoScale Storage and for caching on SSDs.

### Who Should Attend

This course is for system administrators, system engineers, technical support personnel, network/SAN administrators, and systems integration/development staff, who will be installing, operating, managing, and working with InfoScale Storage.

### Prerequisites

Knowledge of and hands-on experience with Microsoft Windows operating system administration is required. Working knowledge of networking is also required.

### Hands-On

This course includes practical hands-on exercises that enable you to test your new skills and begin to transfer them into your working environment.

## COURSE OUTLINE

### Course Introduction

- About this course

### Installing InfoScale Storage

- Storage management and storage virtualization
- Introducing the Veritas InfoScale product suite
- Introducing the Veritas InfoScale Storage for Windows
- Installing InfoScale products

#### Labs:

- Exercise A: Performing a SORT Pre-Installation Verification Check
- Exercise B: Installing InfoScale Storage Using the Veritas Product Installer (VPI)

### Virtual Objects

- Physical and virtual data storage
- InfoScale Storage objects
- InfoScale Storage RAID levels and volume layouts

#### Labs:

- Exercise A: Creating Volumes in Windows Disk Management
- Exercise B: Determining Disk Management Volume Properties
- Exercise C: Determining Maximum Volume Size

### Working with Disk Groups and Volumes

- Preparing disks and disk groups for volume creation
- Creating a volume
- Displaying disk, disk group, and volume information
- Removing volumes, disks, and disk groups

#### Labs:

- Exercise A: Creating a New Dynamic Disk Group: VEA
- Exercise B: Managing Disks: CLI
- Exercise C: Creating a New Dynamic Volume: VEA

- Exercise D: Evacuating a Volume: VEA
- Exercise E: Deleting a Dynamic Volume: VEA
- Exercise F: Deleting a Disk Group: VEA
- Exercise G: Creating a New Dynamic Disk Group: CLI
- Exercise H: Creating a New Dynamic Volume: CLI
- Exercise I: Shredding a Dynamic Volume
- Exercise J: Deleting a Volume: CLI
- Exercise K: Deleting a Disk Group: CLI

### Working with Volumes with Different Layouts

- Comparing volume layouts
- Creating volumes with various layouts
- Creating a partition and a logical drive

#### Labs:

- Exercise A: Create Partitions and Logical Drives.
- Exercise B: Upgrading Basic Volumes to Dynamic Volumes.
- Exercise C: Creating Volumes: VEA
- Exercise D: Creating Volumes: CLI

### Making Configuration Changes

- Administering mirrored volumes
- Resizing a volume
- Changing a drive letter or path
- Moving data between systems
- Upgrading a dynamic disk group

#### Labs:

- Exercise A: Changing Drive Letters and Expanding Volumes
- Exercise B: Performing Mirror Operations: VEA
- Exercise C: Performing Mirror Operations: CLI
- Exercise D: Performing Log Operations
- Exercise E: Changing a Volume's Read Policy
- Exercise F: Upgrading the Disk Group Version: VEA
- Exercise G: Switching a Disk Group Between Systems: VEA
- Exercise H: Switching and Renaming a Disk Group Between Systems: CLI

### Implementing Offline and Off-Host Processing

- Offline and off-host processing tasks
- Creating a volume snapshot
- Performing dynamic disk group split and join
- Enabling fast resynchronization
- Implementing off-host processing

#### Labs:

- Exercise A: Verifying Your Setup
- Exercise B: Performing Volume Snapshot Operations: VEA
- Exercise C: Performing Volume Snapshot Operations: CLI
- Exercise D: Performing Disk Group Split and Join Operations: VEA
- Exercise E: Performing Disk Group Split and Join Operations: CLI

### Using Recovery Features

- Monitoring objects and events

- Maintaining data consistency
- Configuration backup and restore
- Managing hot relocation at the host level
- Troubleshooting disk replacement and recovered volumes

#### Labs:

- Exercise A: Removing Previously Created Volumes
- Exercise B: Simulating a Disk Failure
- Exercise C: Recovering Disks and Volumes
- Exercise D: Failing a RAID 0+1 Volume
- Exercise E: Configuring Backup and Restore

### Administering DMP

- Overview of dynamic multipathing
- Managing arrays, individual disks, and paths
- Displaying performance information
- Specifying load balancing settings
- Specifying control timer settings for an array

#### Labs:

- Exercise A: Removing Previously Created Volumes
- Exercise B: Enabling Multipathing Support
- Exercise C: Configuring Weighted Paths
- Exercise D: Administering Multipathing for an Active/Passive Array and Disk

### Administering SmartIO

- SmartIO in InfoScale Storage
- Support for caching on Solid State Drives (SSDs)

#### Labs:

- Exercise A: Configuring VxVM Caching
- Exercise B: Enabling SmartIO for a Data Volume
- Exercise C: Viewing Cache Area Properties
- Exercise D: Monitoring Caching Statistics
- Exercise E: Disabling SmartIO for a Data Volume
- Exercise F: Deleting a Cache Area