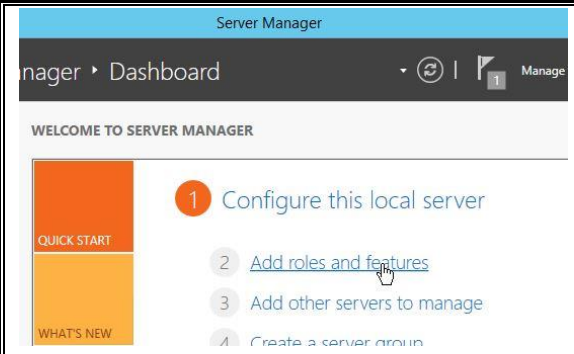
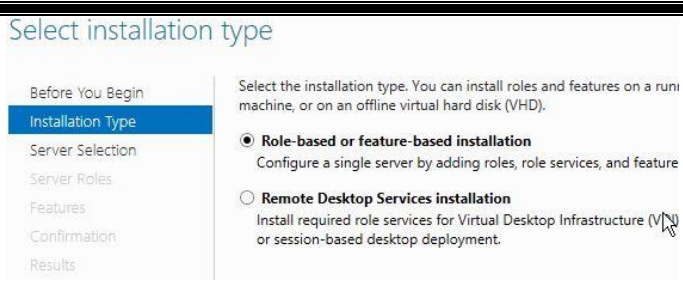
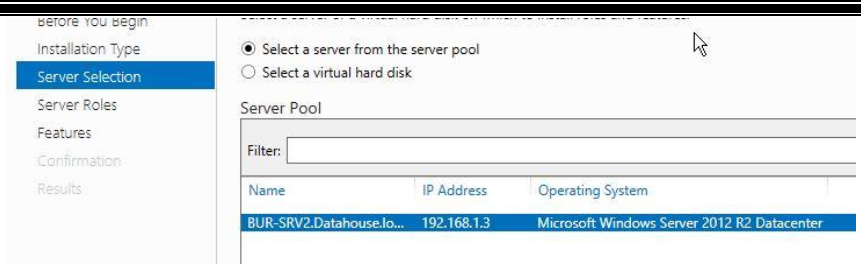
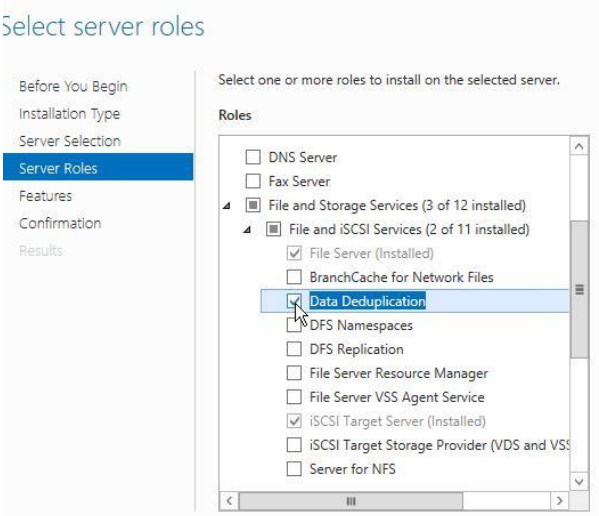
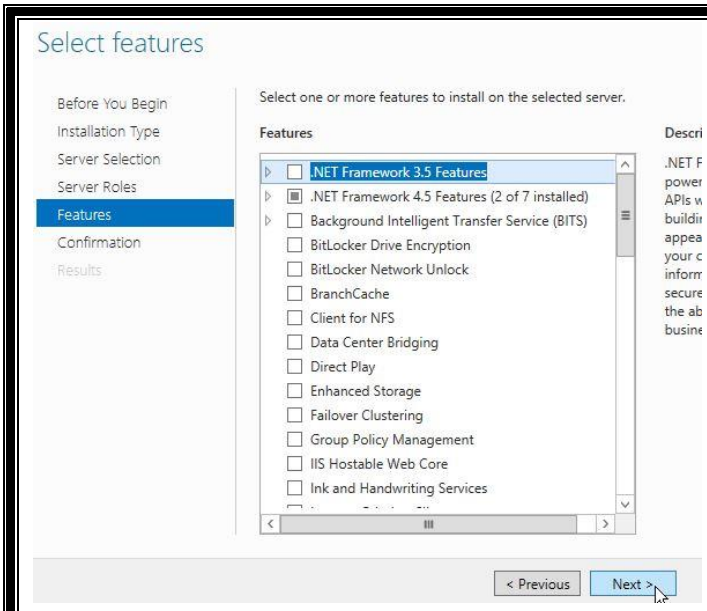
LAB: DATA DEDUPLICATION

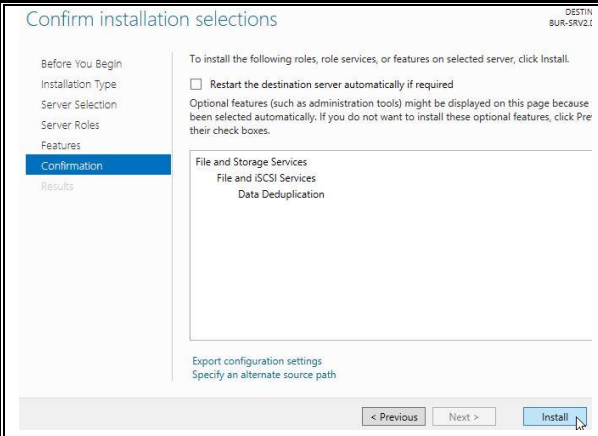


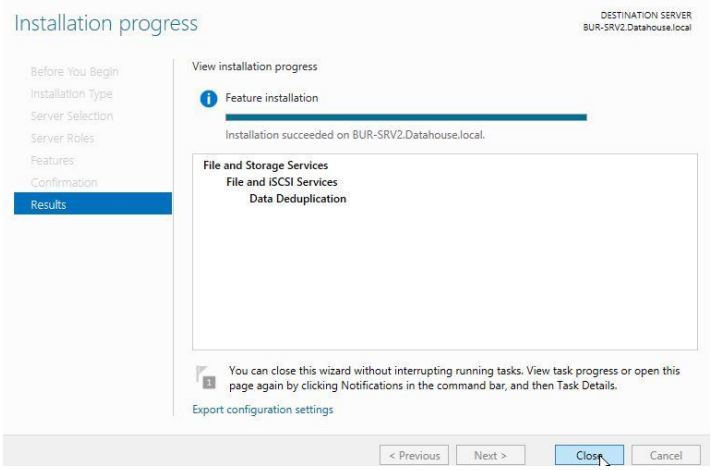


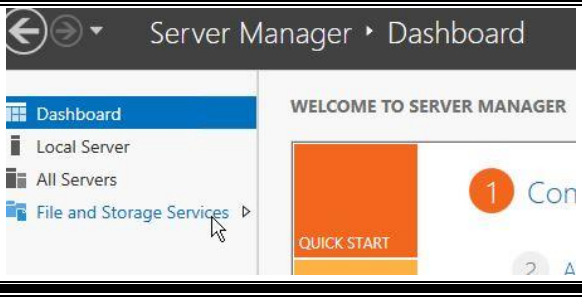


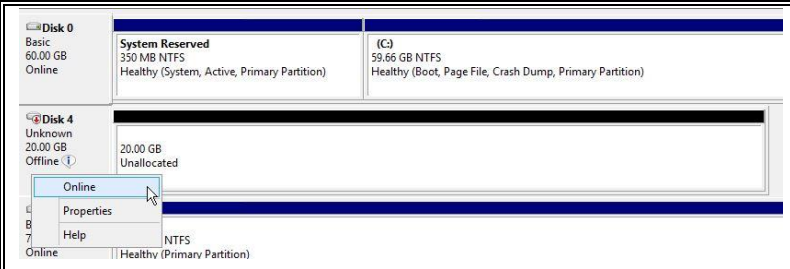


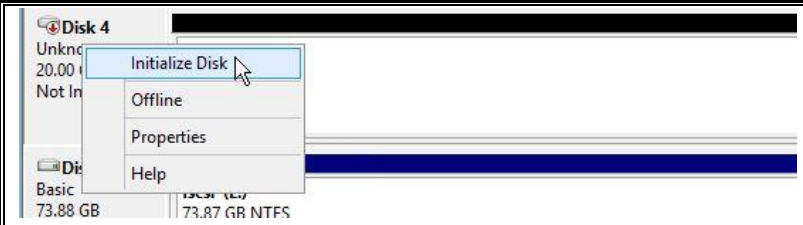

Select features
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more features to install on the selected server.
Features
.NET Framework 3.5 Features
.NET Framework 4.5 Features (2 of 7 installed)
Background Intelligent Transfer Service (BITS)
BitLocker Drive Encryption
BitLocker Network Unlock
BranchCache
Client for NFS
Data Center Bridging
Direct Play
Enhanced Storage
Failover Clustering
Group Policy Management
IIS Hostable Web Core
Ink and Handwriting Services
< Previous
Next >

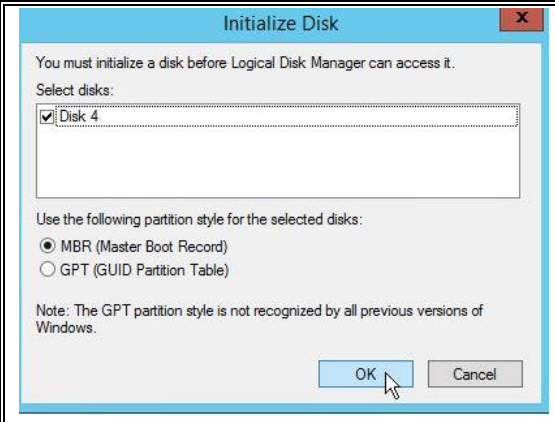

Confirm installation selections
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
To install the following roles, role services, or features on selected server, click Install.
Restart the destination server automatically if required
Optional features (such as administration tools) might be displayed on this page because
been selected automatically. If you do not want to install these optional features, click Pre
their check boxes.
File and Storage Services
File and iSCSI Services
Data Deduplication
Export configuration settings
Specify an alternate source path
< Previous
Next >
Install

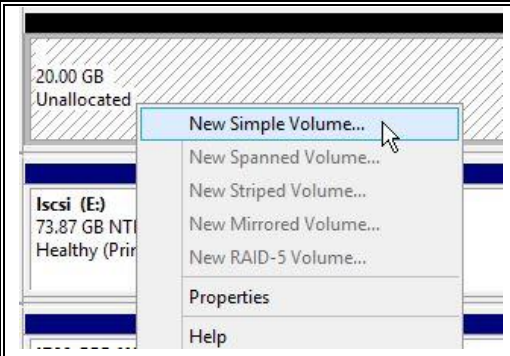

Installation progress
DESTINATION SERVER
BUR-SRV2.Datahouse.local
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
View installation progress
Feature installation
Installation succeeded on BUR-SRV2.Datahouse.local.
File and Storage Services
File and iSCSI Services
Data Deduplication
You can close this wizard without interrupting running tasks. View task progress or open this
page again by clicking Notifications in the command bar, and then Task Details.
Export configuration settings
< Previous
Next >
Close
Cancel


Server Manager • Dashboard
Dashboard
Local Server
All Servers
File and Storage Services
WELCOME TO SERVER MANAGER
QUICK START
1

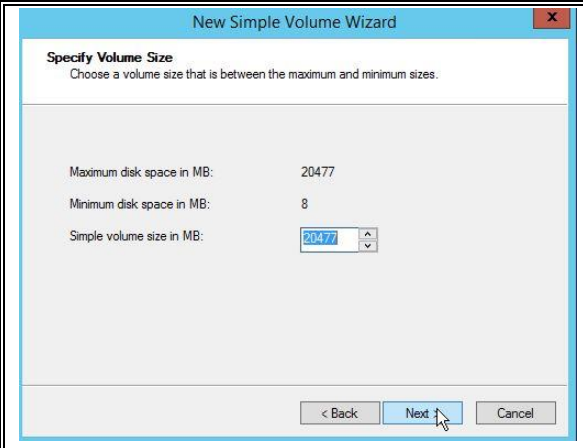

Disk 0
Basic
60.00 GB
Online
System Reserved
350 MB NTFS
Healthy (System, Active, Primary Partition)
(C:)
59.66 GB NTFS
Healthy (Boot, Page File, Crash Dump, Primary Partition)
Disk 4
Unknown
20.00 GB
Offline
20.00 GB
Unallocated
Online
Properties
Help
NTFS
Healthy (Primary Partition)


Disk 4
Initialize Disk
Offline
Properties
Help
Basic
73.88 GB

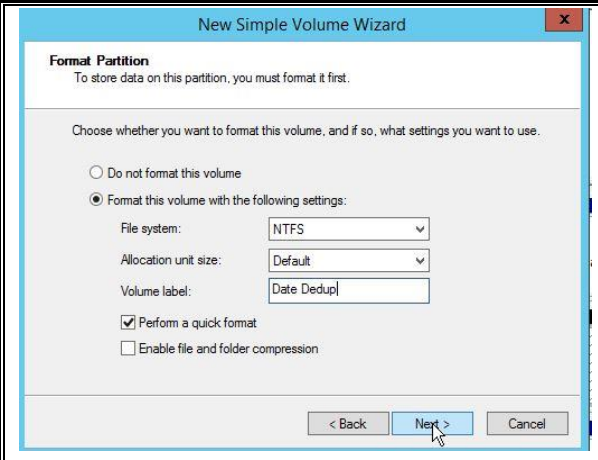

Initialize Disk
You must initialize a disk before Logical Disk Manager can access it.
Select disks:
Disk 4
Use the following partition style for the selected disks:
MBR (Master Boot Record)
GPT (GUID Partition Table)
Note: The GPT partition style is not recognized by all previous versions of Windows.
OK
Cancel

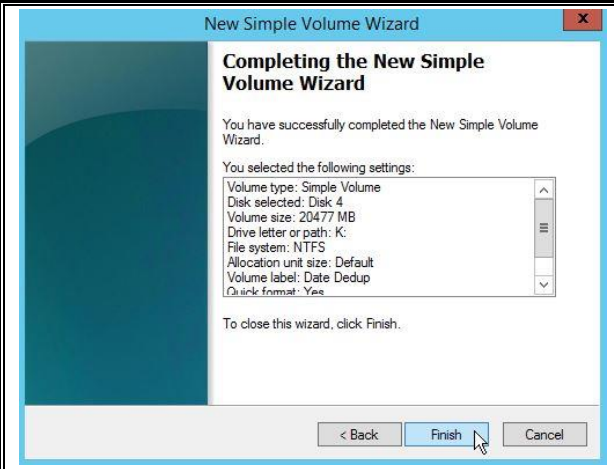

20.00 GB
Unallocated
New Simple Volume...
New Spanned Volume...
New Striped Volume...
New Mirrored Volume...
New RAID-5 Volume...
Properties
Help
Iscsi (E:)
73.87 GB NTI
Healthy (Prir

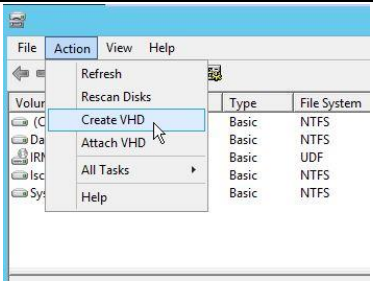
New Simple Volume Wizard
Welcome to the New Simple Volume Wizard
This wizard helps you create a simple volume on a disk.
A simple volume can only be on a single disk.
To continue, click Next.
< Back
Next >
Cancel

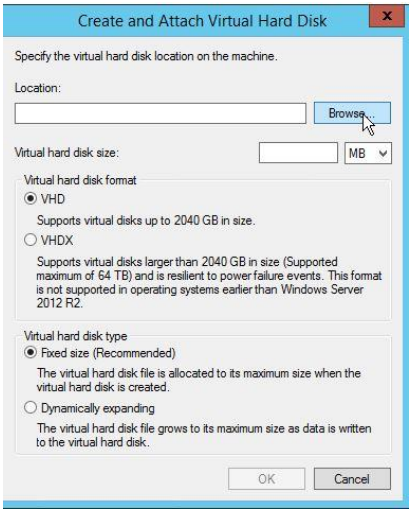

New Simple Volume Wizard
Specify Volume Size
Choose a volume size that is between the maximum and minimum sizes.
Maximum disk space in MB: 20477
Minimum disk space in MB: 8
Simple volume size in MB: 20477
< Back
Next >
Cancel

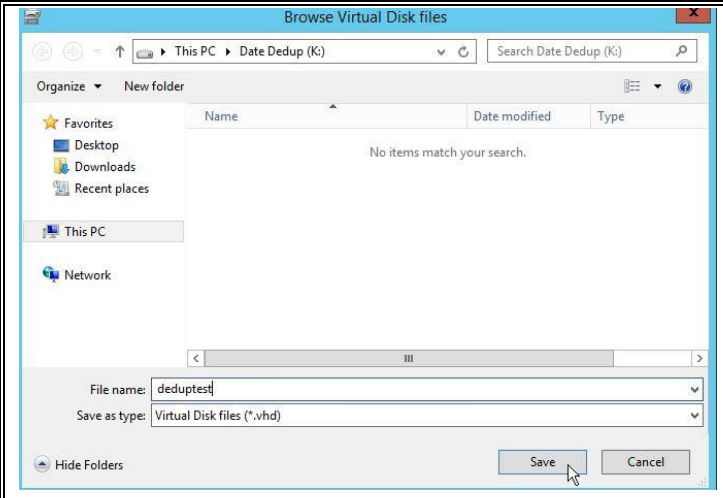
New Simple Volume Wizard
Assign Drive Letter or Path
For easier access, you can assign a drive letter or drive path to your partition.
Assign the following drive letter: K
Mount in the following empty NTFS folder:
Browse...
Do not assign a drive letter or drive path
< Back
Next >
Cancel

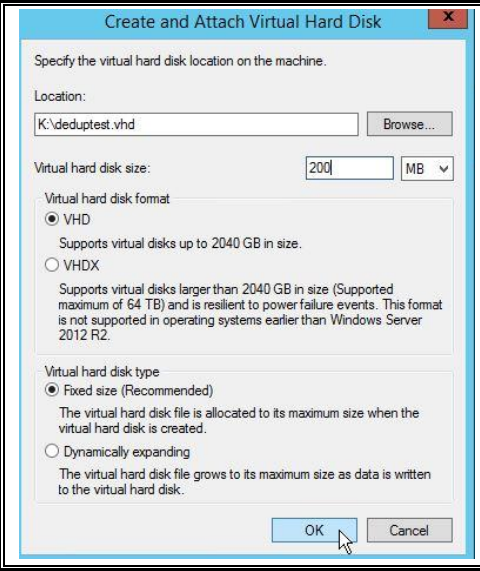

New Simple Volume Wizard
Format Partition
To store data on this partition, you must format it first.
Choose whether you want to format this volume, and if so, what settings you want to use.
Do not format this volume
Format this volume with the following settings:
File system: NTFS
Allocation unit size: Default
Volume label: Date Dedup
Perform a quick format
Enable file and folder compression
< Back
Next >
Cancel

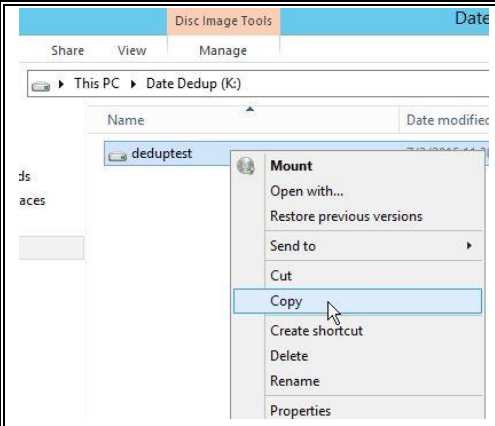

New Simple Volume Wizard
Completing the New Simple Volume Wizard
You have successfully completed the New Simple Volume Wizard.
You selected the following settings:
Volume type: Simple Volume
Disk selected: Disk 4
Volume size: 20477 MB
Drive letter or path: K:
File system: NTFS
Allocation unit size: Default
Volume label: Date Dedup
Quick format: Yes
To close this wizard, click Finish.
< Back
Finish
Cancel

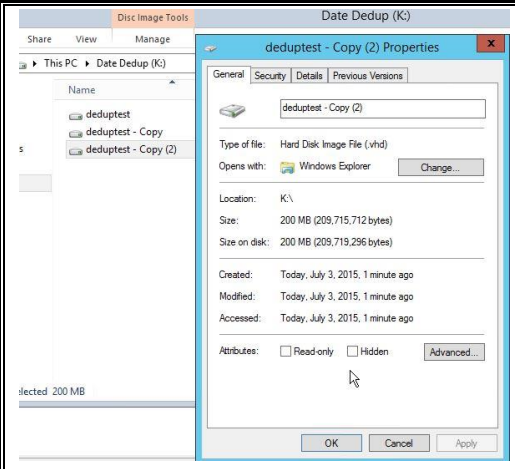

File
Action
View
Help
Refresh
Rescan Disks
Create VHD
Attach VHD
All Tasks
Help
Type
File System
Basic
NTFS
Basic
NTFS
Basic
UDF
Basic
NTFS
Basic
NTFS

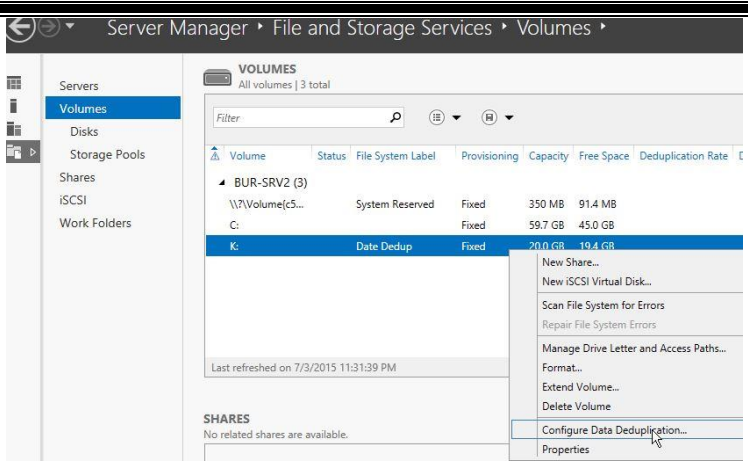

Create and Attach Virtual Hard Disk
Specify the virtual hard disk location on the machine.
Location:
Browse...
Virtual hard disk size:
MB
Virtual hard disk format
VHD
Supports virtual disks up to 2040 GB in size.
VHDX
Supports virtual disks larger than 2040 GB in size (Supported maximum of 64 TB) and is resilient to power failure events. This format is not supported in operating systems earlier than Windows Server 2012 R2.
Virtual hard disk type
Fixed size (Recommended)
The virtual hard disk file is allocated to its maximum size when the virtual hard disk is created.
Dynamically expanding
The virtual hard disk file grows to its maximum size as data is written to the virtual hard disk.
OK
Cancel

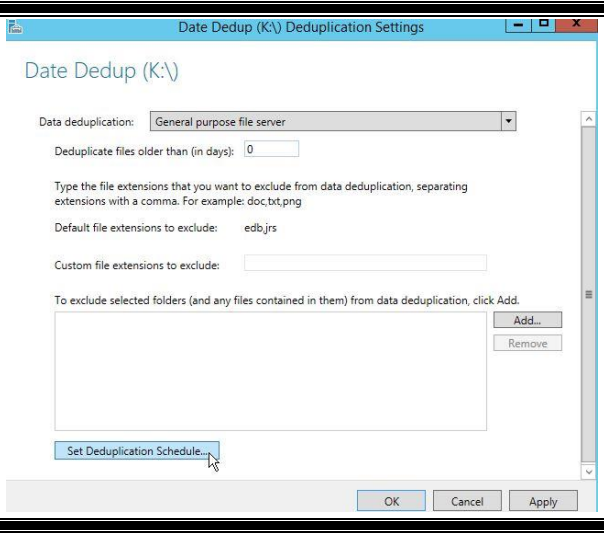

Browse Virtual Disk files
This PC
Date Dedup (K:)
Search Date Dedup (K:)
Organize
New folder
Favorites
Desktop
Downloads
Recent places
This PC
Network
Name
Date modified
Type
No items match your search.
File name:
deduptest
Save as type:
Virtual Disk files (*.vhd)
Hide Folders
Save
Cancel

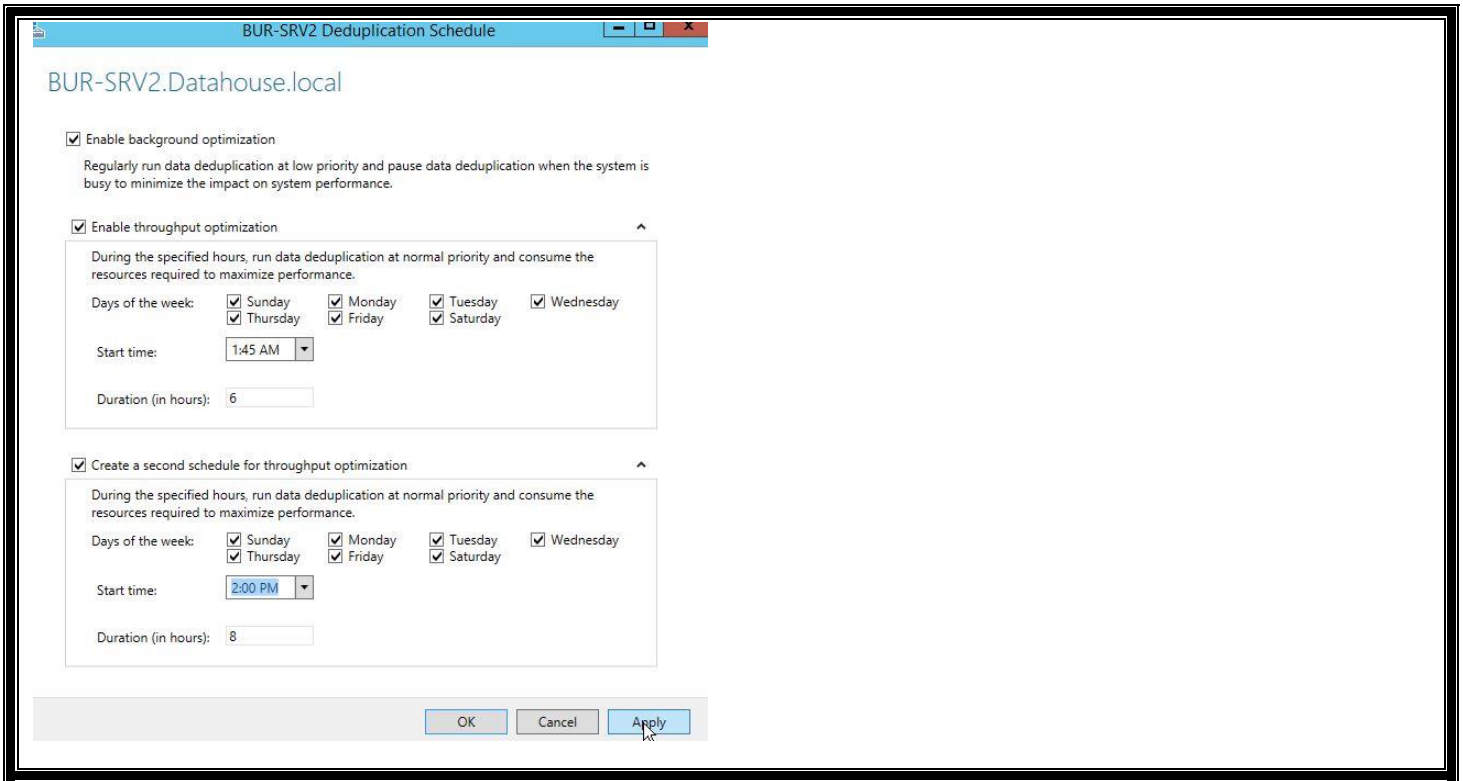

Create and Attach Virtual Hard Disk
Specify the virtual hard disk location on the machine.
Location:
K:\deduptest.vhd
Browse...
Virtual hard disk size:
200
MB
Virtual hard disk format
VHD
Supports virtual disks up to 2040 GB in size.
VHDX
Supports virtual disks larger than 2040 GB in size (Supported maximum of 64 TB) and is resilient to power failure events. This format is not supported in operating systems earlier than Windows Server 2012 R2.
Virtual hard disk type
Fixed size (Recommended)
The virtual hard disk file is allocated to its maximum size when the virtual hard disk is created.
Dynamically expanding
The virtual hard disk file grows to its maximum size as data is written to the virtual hard disk.
OK
Cancel

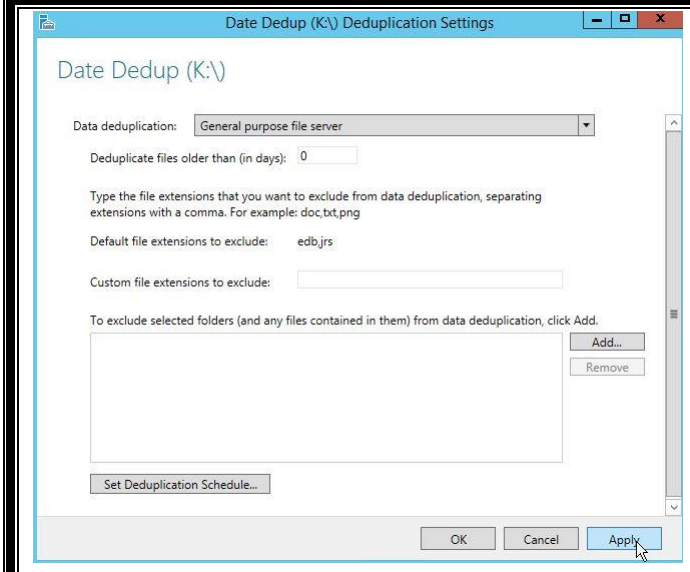

Disc Image Tools
Share
View
Manage
This PC ▸ Date Dedup (K:)
Name
deduptest
Mount
Open with...
Restore previous versions
Send to
Cut
Copy
Create shortcut
Delete
Rename
Properties

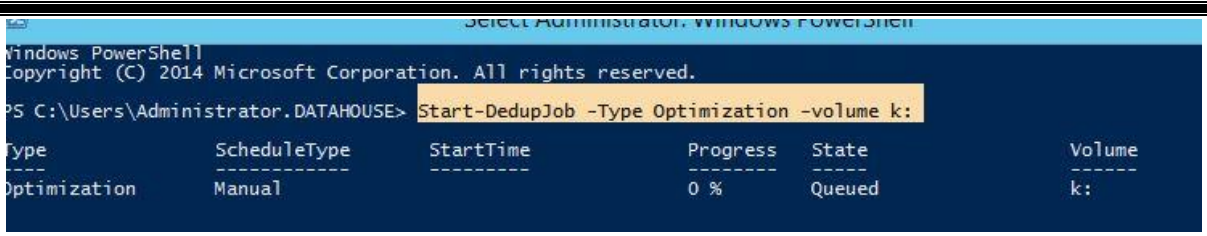

Disc Image Tools
Date Dedup (K:)
Share
View
Manage
This PC ▸ Date Dedup (K:)
Name
deduptest
deduptest - Copy
deduptest - Copy (2)
deduptest - Copy (2) Properties
General
Security
Details
Previous Versions
deduptest - Copy (2)
Type of file: Hard Disk Image File (.vhd)
Opens with: Windows Explorer
Change...
Location: K:\
Size: 200 MB (209,715,712 bytes)
Size on disk: 200 MB (209,719,296 bytes)
Created: Today, July 3, 2015, 1 minute ago
Modified: Today, July 3, 2015, 1 minute ago
Accessed: Today, July 3, 2015, 1 minute ago
Attributes: Read-only Hidden
Advanced...
OK
Cancel
Apply

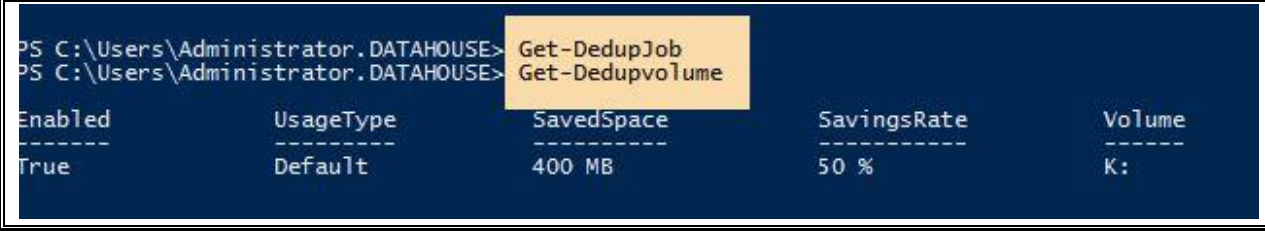

Server Manager ▸ File and Storage Services ▸ Volumes ▸
Servers
Volumes
Disks
Storage Pools
Shares
iSCSI
Work Folders
VOLUMES
All volumes | 3 total
Filter
Volume
Status
File System Label
Provisioning
Capacity
Free Space
Deduplication Rate
BUR-SRV2 (3)
\\?\Volume{c5...
System Reserved
Fixed
350 MB
91.4 MB
C:
Fixed
59.7 GB
45.0 GB
K:
Date Dedup
Fixed
20.0 GB
19.4 GB
New Share...
New iSCSI Virtual Disk...
Scan File System for Errors
Repair File System Errors
Manage Drive Letter and Access Paths...
Format...
Extend Volume...
Delete Volume
Configure Data Deduplication...
Properties
Last refreshed on 7/3/2015 11:31:39 PM
SHARES
No related shares are available.

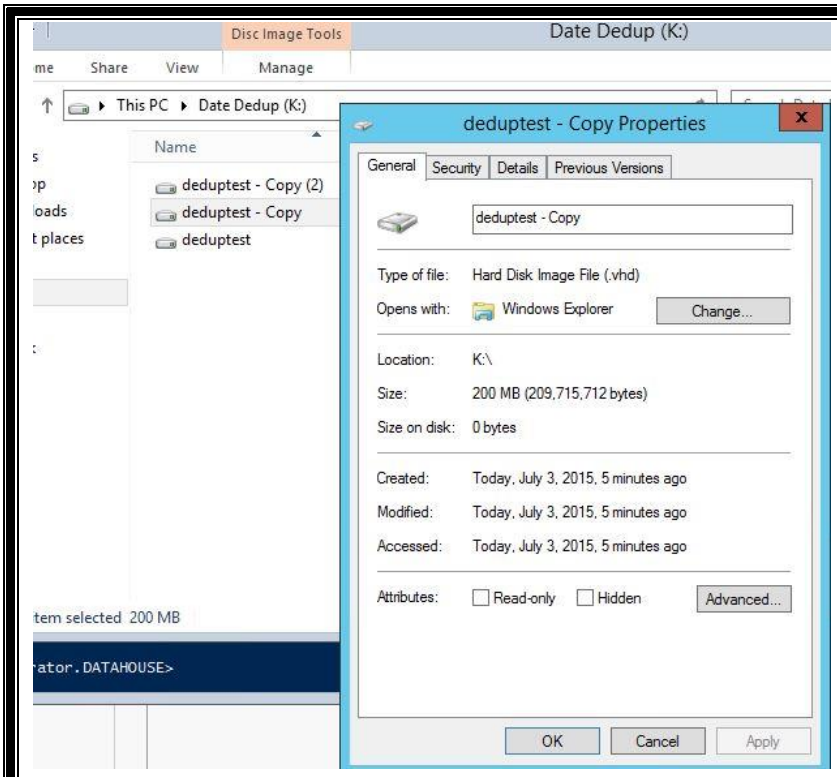

Date Dedup (K:\) Deduplication Settings
Date Dedup (K:\)
Data deduplication: General purpose file server
Deduplicate files older than (in days): 0
Type the file extensions that you want to exclude from data deduplication, separating extensions with a comma. For example: doc,txt,png
Default file extensions to exclude: edb,jrs
Custom file extensions to exclude:
To exclude selected folders (and any files contained in them) from data deduplication, click Add.
Add...
Remove
Set Deduplication Schedule...
OK
Cancel
Apply

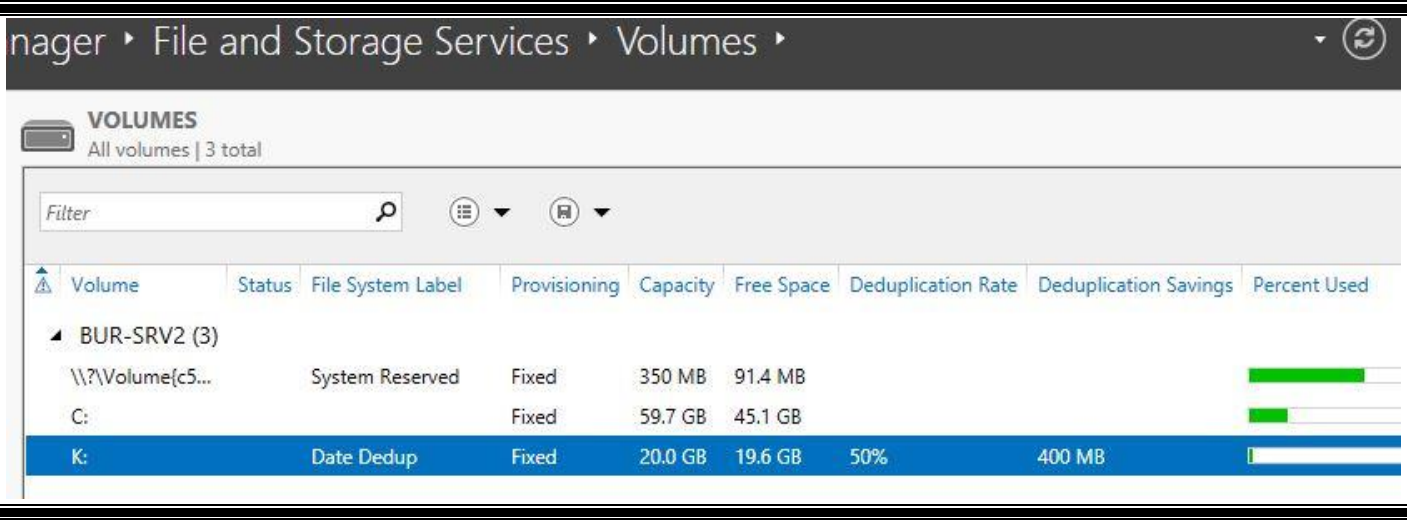

BUR-SRV2 Deduplication Schedule
BUR-SRV2.Datahouse.local
Enable background optimization
Regularly run data deduplication at low priority and pause data deduplication when the system is busy to minimize the impact on system performance.
Enable throughput optimization
During the specified hours, run data deduplication at normal priority and consume the resources required to maximize performance.
Days of the week:
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Start time:
1:45 AM
Duration (in hours):
6
Create a second schedule for throughput optimization
During the specified hours, run data deduplication at normal priority and consume the resources required to maximize performance.
Days of the week:
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Start time:
2:00 PM
Duration (in hours):
8
OK
Cancel
Apply


Date Dedup (K:\) Deduplication Settings
Date Dedup (K:\)
Data deduplication:
General purpose file server
Deduplicate files older than (in days):
0
Type the file extensions that you want to exclude from data deduplication, separating extensions with a comma. For example: doc,txt,png
Default file extensions to exclude:
edb,jrs
Custom file extensions to exclude:
To exclude selected folders (and any files contained in them) from data deduplication, click Add.
Add...
Remove
Set Deduplication Schedule...
OK
Cancel
Apply


Windows PowerShell
Copyright (C) 2014 Microsoft Corporation. All rights reserved.
PS C:\Users\Administrator.DATAHOUSE> Start-DedupJob -Type Optimization -volume k:
Type ScheduleType StartTime Progress State Volume
Optimization Manual 0 % Queued k:


PS C:\Users\Administrator.DATAHOUSE> Get-DedupJob
PS C:\Users\Administrator.DATAHOUSE> Get-Dedupvolume
Enabled UsageType SavedSpace SavingsRate Volume
True Default 400 MB 50 % K:


Disc Image Tools
Date Dedup (K:)
me
Share
View
Manage
This PC ▸ Date Dedup (K:)
Name
deduptest - Copy (2)
deduptest - Copy
deduptest
tem selected 200 MB
ator.DATAHOUSE>
deduptest - Copy Properties
General
Security
Details
Previous Versions
deduptest - Copy
Type of file: Hard Disk Image File (.vhd)
Opens with: Windows Explorer
Change...
Location: K:\
Size: 200 MB (209,715,712 bytes)
Size on disk: 0 bytes
Created: Today, July 3, 2015, 5 minutes ago
Modified: Today, July 3, 2015, 5 minutes ago
Accessed: Today, July 3, 2015, 5 minutes ago
Attributes: Read-only Hidden
Advanced...
OK
Cancel
Apply


nager ▸ File and Storage Services ▸ Volumes ▸
VOLUMES
All volumes | 3 total
Filter
Volume
Status
File System Label
Provisioning
Capacity
Free Space
Deduplication Rate
Deduplication Savings
Percent Used
BUR-SRV2 (3)
\\?\Volume{c5...
System Reserved
Fixed
350 MB
91.4 MB
C:
Fixed
59.7 GB
45.1 GB
K:
Date Dedup
Fixed
20.0 GB
19.6 GB
50%
400 MB