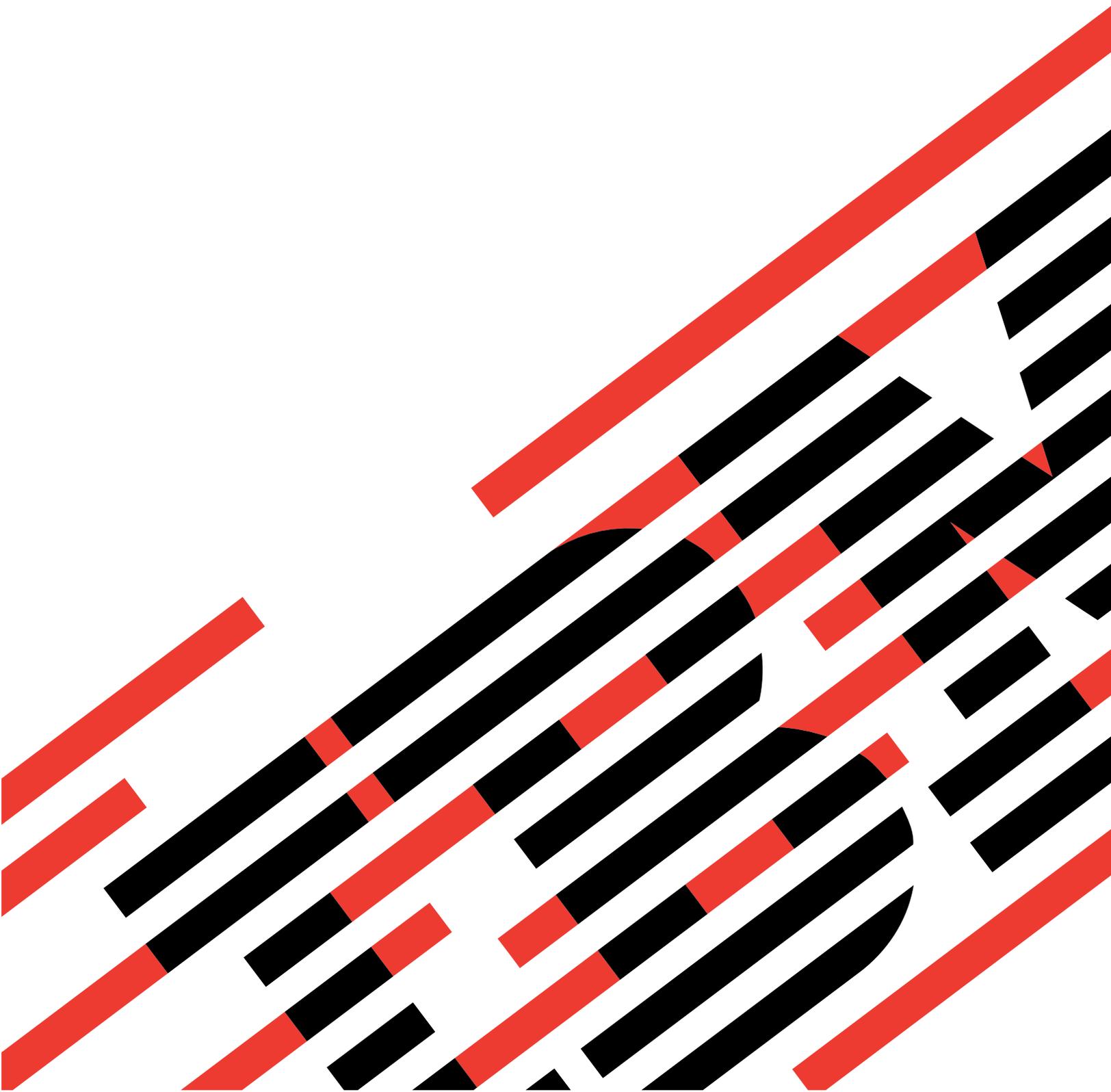




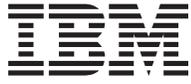
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iSeries

Manage disk pools







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iSeries

Manage disk pools



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# Manage disk pools

Managing your disk units and disk pools is a straightforward process with the help of iSeries Navigator. iSeries Navigator implements a graphical view so you can see exactly where your disk units are located and obtain configuration information about each one. iSeries Navigator offers several wizards that simplify configuration tasks.

Disk pools, also called auxiliary storage pools, allow you to consolidate related information on groups of disk units for recovery, availability, and performance reasons. A disk pool is a software definition of how the disk units are arranged. It does not necessarily correspond to the physical placement of disk units in the server.

The two main categories of disk pools are the system disk pool and user disk pools. The two types of user disk pools are basic disk pools and independent disk pools. Basic disk pools are always available for data storage and access; they cannot be made unavailable or switched between nodes in a clustered environment. Independent disk pools allow you the flexibility to decide when you want them to be available or unavailable and to switch to another node in a clustered environment.

Once you have your disk pools and disk units configured, you can use iSeries Navigator to customize and manage disk unit performance. To learn more about the disk management possibilities available to you, see the following topics:

**Note:** In this topic the word **tower** is used to refer to an **expansion unit**, a feature that can be connected to a system unit to provide additional storage and processing capacity.

## **What's new for V5R2**

Highlights the changes and improvements made to Manage disk pools.

## **Print this topic**

You can view and print a PDF version of Manage disk pools and other topics.

## **Plan for disk management**

Before you start, make sure you can access the Disk Units folder in iSeries Navigator as well as the iSeries server through the service tools server. Also, find the right procedural checklist and a table to help calculate the space needed to perform actions in disk pools. Finally, learn how the graphical view helps you plan and configure disk units.

## **Configure and manage disk pools**

Find out how easy it is to combine several disk configuration procedures into one with the Add Disk Unit and New Disk Pool wizards. Learn how to move, remove, and replace disk units to suit your needs. Also, find out how to delete or clear disk pool data.

## **Protect data on disk units**

Learn to protect your data with device parity protection and mirrored protection through iSeries Navigator.

## **Optimize disk unit performance**

Find out how preventing disk pool overflow, enabling automatic overflow recovery, balancing disk pools, and starting disk compression can contribute to more efficient data management.

## **Manage independent disk pools**

Learn how to create a switchable or dedicated independent disk pool. Find out how to make towers switchable and disk pools available. Also, learn how to recover an independent disk pool.

### Related information

View iSeries Information Center topics and manuals (in PDF format) that relate to managing disk pools.

The topics listed above give you an overview of disk management using iSeries Navigator. If you need more information, consult the iSeries Navigator online help for disk units.

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## What's new for V5R2

This topic highlights changes to Manage disk pools for V5R2.

### New tools and capabilities

For V5R2, a disk space calculator has been added to eliminate your having to do pencil and paper calculations before making disk configuration changes. You can also optimize parity sets for capacity or performance or for a balanced mix. For more information, see the following:

- Disk space calculator
- Parity set optimization

### How to see what's new or changed

To help you see where technical changes have been made, this information uses:

- The  image to mark where new or changed information begins.
- The  image to mark where new or changed information ends.

To find other information about what's new or changed this release, see the Memo to Users .

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## Print this topic

To view or download the PDF version, select Manage disk pools (about 255 KB or 25 pages).

You can view or download these related topics:

- Independent disk pools (about 500 KB) contains the following topics:
  - Plan, configure, and manage independent disk pools
  - Scenarios
- Disk protection (about 405 KB) contains the following topics:
  - Disk pools
  - Device parity protection
  - Mirrored protection

### Other information

You can also view or print the Backup and Recovery  manual (about 700 pages).

### Saving PDF files

To save a PDF on your workstation for viewing or printing:

1. Right-click the PDF in your browser (right-click the link above).
2. Click **Save Target As...**
3. Navigate to the directory in which you would like to save the PDF.

4. Click **Save**.

### Downloading Adobe Acrobat Reader

If you need Adobe Acrobat Reader to view or print these PDFs, you can download a copy from the Adobe Web site ([www.adobe.com/products/acrobat/readstep.html](http://www.adobe.com/products/acrobat/readstep.html))  .

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## Plan for disk management

Changing the disk configuration of your server is a time-consuming process, so you want to plan carefully to be as efficient as possible. Before you begin disk management using iSeries Navigator, go through this short list to ensure that you are ready.

### 1. Access disk units in iSeries Navigator

You must install the Configuration and Service component of iSeries Navigator before you can access the Disk Units folder.

### 2. Set up communication

You must configure the service tools server and set the service IP address so that you can access your server from your PC to perform disk management functions.

### 3. Evaluate current configuration

Use the graphical view in iSeries Navigator to see your current configuration and plan your disk strategy.

### 4. Calculate space requirements

Check your disk pool space requirements before you make changes to your disk configuration.

## Access disk units in iSeries Navigator

Before you can perform any disk management tasks with iSeries Navigator, you need to install the Configuration and Service component and enable the Disk Units folder. Follow these steps to access the Disk Units folder:

### Install the Configuration and Service component

1. From the **File** menu of iSeries Navigator select **Install Options** —> **Selective Setup**.
2. Follow the instructions on the resulting dialog to install the Configuration and Service component.

### Enable the Disk Units folder

1. In iSeries Navigator right-click the server connection and select **Application Administration**.
2. On the resulting window, click **OK**.
3. Click the **Host Applications** tab.
4. Expand **Operating System/400** —> **Service**.
5. Select **Disk Units** to have **Default Access** or **All Object Access**.
6. Click **OK**.
7. Restart iSeries Navigator.

### Access the Disk Units folder to perform all disk management functions

1. In **iSeries Navigator**, expand **My Connections** (or your active environment).
2. Expand any iSeries server.
3. Expand **Configuration and Service**.
4. Expand **Hardware**.

## 5. Expand **Disk Units**.

### **Set up communication**

iSeries Navigator allows you to access the iSeries server from your PC through the service tools server to perform disk management functions at two different levels. You can access the iSeries server when it is fully restarted, or you can access the server when it is in dedicated service tools (DST) mode. DST provides some additional functions for disk management that are not available when the server is fully restarted. Before you attempt to use any disk management functions, you must configure the service tools server. If you want to access DST functions, you must also set a service IP address.

#### **Configuring the service tools server**

To access disk management functions in iSeries Navigator, you must first configure the service tools server with DST access and user IDs. Be familiar with Service tool concepts before you start. See *Configure the service tools server* and *Configure service tools user IDs* for instructions.

#### **Setting the service IP address**

To access DST functions on your server from iSeries Navigator, you need to specify a service IP address for the server. The service IP address specifies the TCP/IP address of the system when it is at DST. This address takes the form *xxx.xxx.xxx.xxx* where *xxx* is an integer from 0 to 255. The address can also be a Domain Name System (DNS) that resolves to an address as described above. Contact your network administrator for this information. Make sure you have configured the service tools server before you continue with these instructions.

To set the service IP address for your system, follow these steps:

1. In iSeries Navigator, expand **My Connections** (or your active environment).
2. Right-click the server for which you want to specify a service IP address, and select **Properties**.
3. Click the **Service** tab.
4. If your server is fully restarted, click **Lookup**. The system will attempt to locate the correct service IP address. If your server is at DST, specify the service IP address. Click **OK** to enact the changes.

Once the service IP address is set, you can connect to the system when it is in DST mode by using iSeries Navigator. Simply start iSeries Navigator as you normally would to connect to the system. iSeries Navigator opens with a subset of functions that you can perform in DST.

**Note:** If you are unable to configure the service IP address, you can still access DST disk management functions. In the Environment tasks window, click *Open iSeries Navigator service tools window* and follow the instructions on the resulting displays.

### **Evaluate the current configuration using the graphical view**

Before you change the disk configuration of your server, it is important to know exactly where the existing disk units are located in relation to disk pools, I/O adapters, and towers. The graphical view of iSeries Navigator eliminates the painstaking process of compiling all this information by providing a graphical representation of how your server is configured. You can use the graphical view to perform any function that is possible through the Disk Units list view of iSeries Navigator, with the added benefit of being able to see a visual representation. If you right-click any object in the table, such as a specific disk unit, disk pool, parity set, or tower, you see the same options that you would get in the main iSeries Navigator window.

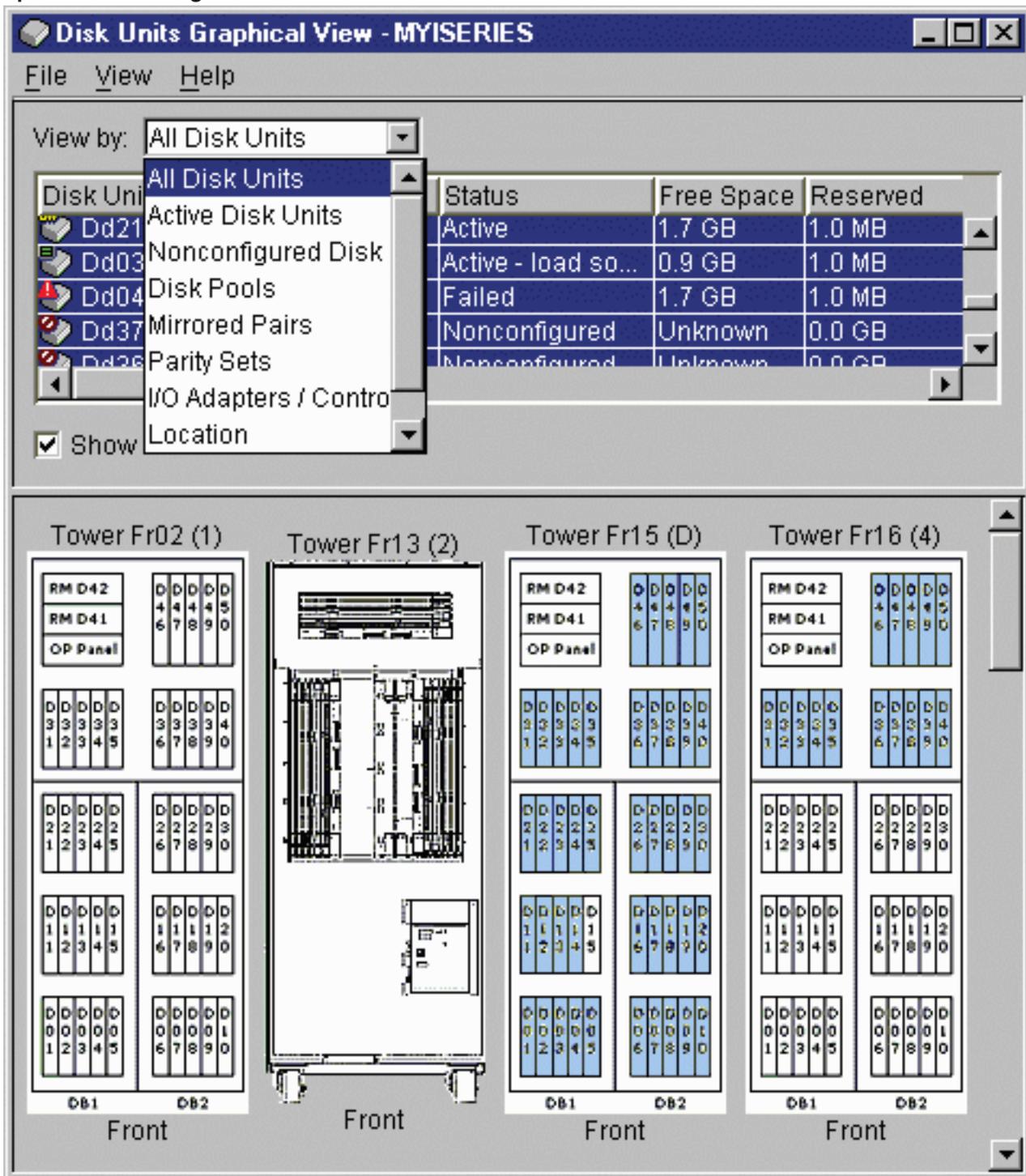
You can choose how to view the hardware in the Graphical View window. For example, you can select to view by disk pools, and then select a disk pool in the list to display only those towers that contain the disk units that make up the selected disk pool. You can select **Show all towers** to see all towers whether or not they contain disk units in the selected disk pool.

You can right-click any highlighted blue disk unit in the graphical view and select an action to perform on the disk unit. For example, you can select to start or stop compression on a disk unit, include the disk unit in a parity set (or exclude it), or rename the disk unit. If the disk unit has mirrored protection (that is, it is one of a mirrored pair), you can suspend or resume mirroring on the disk unit. If you right-click an empty disk unit slot, you can start the Install Disk Unit wizard.

To activate the graphical view, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Right-click **All Disk Units**, and select **Graphical View**.

Figure 1: Example of the graphical view in iSeries Navigator. The View by menu lists several options for viewing disk units.



To find more information about the graphical view, consult the online help for disk units.

## Calculate disk space requirements

➤ Before you change the disk configuration or the disk protection on your system, you need to calculate the space requirements for the change. This helps you ensure that your system has sufficient disk storage for the changes.

You can use the Disk space calculator to determine if your disk pool contains sufficient storage space to perform changes. To use the calculator, you need to know how much free space and used space exists in the disk pool. You can find this information by viewing your disk pool configuration:

1. In iSeries Navigator, expand **Disk Units**.
2. Expand **Disk Pools**.
3. Right-click the source disk pool you want to view and select **Properties**.
4. Select the **Capacity** tab.

The **Capacity** tab displays the used space, free space, total capacity, threshold, and percentage of disk space used for the disk pool.

Take note of the used space, free space, and the threshold from the **Capacity** tab. You will need to enter the used space and free space in the calculator. You can also enter the threshold in the calculator if you like. If you do, the calculator will warn you if your disk usage exceeds your threshold.

For an example on using the calculator, see the scenario on how to calculate disk space when moving a disk unit.

The calculator uses Javascript to function. Ensure that you are using a browser that supports Javascript, and that Javascript is enabled. <<

### Disk space calculator

**Warning: This finder uses Javascript, but Javascript is either not available or enabled in your browser.**

Enter the existing amounts of used and free space, along with the threshold of the disk pool if you desire, and click **Calculate**. If you do not know these values, use iSeries Navigator to look up the free space, used space, and threshold on the disk pool.

### Scenario: Calculate disk space when moving a disk unit

>> You are planning to remove a disk unit from a disk pool. Before the disk unit is removed from the source disk pool, the data on the disk unit is copied to the other disk units in the source disk pool. You need to ensure that you have sufficient free space on your source disk pool for this data.

After following the steps on this page to view the disk pool configuration, you find out that you have 180 GB of used space, 40 GB of free space, and the threshold is set to 90%. Enter these values in the disk space calculator and click **Calculate** to see a graphical representation of the used and free space on your system. You will also see the total disk space, the percent used, and your threshold.

Assume that the disk unit you are removing from the disk pool has a capacity of 18 GB. From the disk space calculator, select **Remove disk space from disk pool** and enter in 18 for the amount. Click **Calculate** once again and you will see a new graphic showing the used and free space. The percentage of disk space used is now 89.1%. This number just fits under your threshold, but not by much. <<

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## Configure and manage disk pools

The Add Disk Unit and New Disk Pool wizards simplify the process of initially configuring your disk units. As your storage needs change, you can use iSeries Navigator to move, remove, and replace disk units. The interface also allows you to clear or delete disk pools when you no longer need the information categorized in that way. As a part of disk unit management, you can also rename, format, or scan disk units.

**Note:** Before changing the disk configuration of your server, you should have already read Planning for disk management.

To add disk units and disk pools or to maintain disk unit configuration, see the following:

- Choose the correct procedure to configure disks
- Add disk units or disk pools
- Manage disk unit configuration

## Choose the correct procedure for configuring disks

This topic contains several checklists for performing configuration procedures. Use this table to determine which checklist to use for your situation.

Task description	Procedure to follow	Requires DST?
Configure your system for the first time.	Checklist 1: Configure disks on a new system	Yes
Add one or more disk units that will not have device parity protection. This checklist applies to disk units that are capable of device parity protection if you do not plan to start device parity protection for the disks.	Checklist 2: Add disk units without device parity protection	No
Add one or more disks to an existing input/output adapter (IOA) that has built-in device parity capability. Use this checklist if you plan to protect some or all of the new disks with device parity protection.	Checklist 3: Add disk units to an IOA	No
Add a new IOA that has built-in device parity capability. Use this checklist if you plan to protect some or all of the new disks with device parity protection.	Checklist 4: Add a new IOA	Yes
Move disk units between existing disk pools that do not have mirrored protection.	Checklist 5: Move disk units between nonmirrored disk pools	Yes
Move disk units between existing disk pools that have mirrored protection.	Checklist 6: Move disk units between mirrored disk pools	Yes
Delete a basic disk pool.	Checklist 7: Delete a disk pool	Yes
Remove one or more disk units that do not have device parity protection.	Checklist 8: Remove disk units without device parity protection	Yes <sup>1</sup>
Remove one or more disk units from an IOA. Use this checklist if device parity protection is started for some or all of the disk units that are attached to the IOA and if they are in disk pools without mirrored protection.	Checklist 9: Remove disk units with device parity protection from disk pool without mirrored protection	Yes
Remove one or more disk units from an IOA. Use this checklist if device parity protection is started for some or all of the disks units that are attached to the IOA and if they are in disk pools with mirrored protection.	Checklist 10: Remove disk units with device parity protection from a mirrored disk pool	Yes

Task description	Procedure to follow	Requires DST?
<sup>1</sup> Unassigned disk units can be removed from offline independent disk pools without requiring the system to be in DST mode.		

### Checklist 1: Configuring disks on a new system

This checklist shows the sequence of tasks that you use to configure disks on a new iSeries server. Whether you need to perform all the tasks depends on the disk protection that you want on your system. Setting up disk protection for your data provides more information about the disk protection that is available.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, print a copy of this checklist. Check off the configuration tasks as you perform them. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include references to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Display your disk configuration. Currently, all of your disk units except the load source unit appear as nonconfigured.	Use the graphical view
2.____	Use the Add Disk Unit wizard to add nonconfigured disks to the correct disk pools. You will have the option to start device parity protection or to start compression, if disks are available for these actions.	Use the Add Disk Unit and New Disk Pool wizards
3.____	The default storage threshold for each disk pool is 90%. You can change this to a different storage threshold for any disk pool, if desired.	Set the disk pool threshold
4.____	If you chose to create protected disk pools and included pairs of disk units to be mirrored, you may want to restart to dedicated service tools (DST) level and start mirroring for those disk pools now.	Work with mirroring
5.____	If you started mirrored protection for the system disk pool or a basic disk pool, wait until your system completely restarts.	
6.____	Verify that your disk configuration is correct.	Use the graphical view
7.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 

### Checklist 2: Add disk units without device parity protection

This checklist shows the sequence of tasks that you use to configure disks on a new iSeries server. Whether you need to perform all the tasks depends on the disk protection that you want on your system. Disk protection provides more information about the disk protection that is available.

#### Add to a disk pool with mirrored protection

You can add disk units to a disk pool that has mirrored protection without stopping and starting mirrored protection. You must add disk units in pairs with equal capacities. The added units will always be paired with each other. You may want to choose a later time, when your system can be unavailable for several hours, to stop and start mirrored protection. When you start mirrored protection again, the system evaluates the pairing for all disk units on your system. This may provide a higher level of availability for failures that affect a controller, an input/output processor (IOP), or a bus.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, print a copy of this checklist. Check off the configuration tasks as you perform them. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include references to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Use the graphical view to find empty slots for the disk units you want to install.	Use the graphical view
2.____	Right-click an empty slot and start the Install Disk Unit wizard to guide you through the process.	
3.____	Use the Add Disk Unit wizard to add nonconfigured disks to existing or new disk pools. You will have the option to start compression or to add disk units of equal capacity to mirror-protected disk pools if disks are available for these actions.	Add a disk unit or disk pool
4.____	The default storage threshold for each disk pool is 90%. Change to a different storage threshold for any disk pool if desired.	Set the disk pool threshold
5.____	If you chose to create protected disk pools and you included pairs of disk units to be mirrored, you may want to restart to the dedicated service tools (DST) level and start mirroring for those disk pools now.	Work with mirroring
6.____	If you started mirrored protection for the system disk pool or for a basic disk pool, wait until your system completely restarts.	
7.____	Verify that your disk configuration is correct.	Use the graphical view
8.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 

### Checklist 3: Add disk units to an existing I/O adapter

This checklist shows the sequence of tasks that you use to add one or more disks to an existing input/output adapter that has built-in device parity protection. Use this checklist if you plan to protect some or all of the new disk units with device parity protection. If you do not plan to protect any of the new disk units, use Checklist 2.

You can use this procedure whether or not you have mirrored protection on your system because you start device parity protection before you add the disk units to a disk pool.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you or the service representative perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Physically attach disk units using the Install Disk Unit wizard available in the graphical view.	Use the graphical view
2.____	Use the Add Disk Unit wizard to add nonconfigured disks to the correct disk pools. The wizard will allow you to include the disk units that you want to protect in device parity protection	Use the Add Disk Unit and New Disk Pool wizards
3.____	The default storage threshold for each disk pool is 90%. If you want a different storage threshold for any disk pool, you can change it.	Set the disk pool threshold
4.____	Verify that your disk configuration is correct.	Use the graphical view
5.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 

#### Checklist 4: Add a new I/O adapter

This checklist shows the sequence of tasks that you use to add a new input/output adapter (IOA) and new disk units to your system. Use this checklist if you plan to protect some or all of the new disks with device parity protection. You can use this procedure whether or not you have mirrored protection on your system because you start device parity protection before you add the disk units to a disk pool. If you do have mirrored protection and you are adding disks that do not have device parity protection, you must add them in pairs that have equal capacities.

**Note:** If you do not plan to start device parity protection for any of the new disks, use the procedure in Checklist 2 to add them.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you or the service representative perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Install the new input/output adapter in the server. This is normally done by a service representative.	Using the graphical view
2.____	Physically attach disk units to the new IOA using the Install Disk Unit wizard, which you can access from the Graphical View.	Using the graphical view

Task	What to do	Where to learn more
3.____	Use the Add Disk Unit wizard to add nonconfigured disks to the correct disk pools. Take the option to start device parity protection.	Using the Add Disk Unit and New Disk Pool wizards
4.____	The default storage threshold for each disk pool is 90%. If you want a different storage threshold for any disk pool, change it.	Setting the disk pool threshold
5.____	You may want to restart to the dedicated service tools (DST) level in order for the device parity protection to take effect.	Working with device parity protection
6.____	Wait until your system completely restarts.	
7.____	Verify that your disk configuration is correct.	Using the Graphical View
8.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 

### Checklist 5: Move disk units between nonmirrored disk pools

This checklist shows the sequence of tasks that you use to move one or more disk units from one basic disk pool to another basic disk pool. Use these tasks when you do not have mirrored protection active for the disk pools. You must restart your server to DST mode to perform the tasks in this checklist.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Display your current disk configuration.	Using the graphical view
2.____	Calculate the space requirements for both the source and target disk pools for the disk units.	Calculating disk pool space requirements
3.____	Use option 21 from the Save menu to save your entire system.	Saving your server with the GO SAVE command
4.____	Restart your server and choose the option to use dedicated service tools (DST).	How to start dedicated service tools (DST) in Backup and Recovery  . From the taskpad in iSeries Navigator, select <b>Open iSeries Navigator service tools window</b> .
5.____	From the graphical view window, right-click the disk unit you want to move and select Move.	Maintaining disk unit configuration
6.____	Verify that your disk configuration is correct.	Using the graphical view
7.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 
8.____	Restart your server.	

## Checklist 6: Move disk units between mirrored disk pools

This checklist shows the sequence of tasks that you use to move one or more disk units from one basic disk pool to another basic disk pool. Use these tasks when one or more of the disk pools has mirrored protection. You cannot move disk units when mirrored protection is active. Instead, you remove mirrored pairs from the source disk pool and add them to the target disk pool. You must restart your server to dedicated service tools (DST) mode to perform the tasks in this checklist.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Display your current disk configuration.	Use the graphical view
2.____	Calculate the space requirements for both the source and target disk pools for the disk units.	Calculate disk pool space requirements
3.____	Use option 21 from the Save menu to save your entire system.	Save your server with the GO SAVE command
4.____	Restart your server and choose the option to use dedicated service tools (DST).	How to start dedicated service tools (DST) in Backup and Recovery  . From the taskpad in iSeries Navigator, select <b>Open iSeries Navigator service tools window</b> .
5.____	In the <b>graphical view</b> , filter by mirrored pair, and then hold the Ctrl key until you have selected each disk unit of the mirrored pair. Right-click one of the selected disk units and select <b>Remove</b> .	Manage disk unit configuration
6.____	Add nonconfigured disk units to the correct disk pools. If you are adding disk units to a protected disk pool and the new disk units do not have device parity protection, you must add pairs of disk units that have identical capacities.	Add disk units
7.____	If you created a new disk pool when you added disk units, the system set the storage threshold of the disk pool to 90%. If you want a different storage threshold for any disk pool, change it.	Set the disk pool threshold
8.____	If you created any new disk pools and you want those disk pools to have mirrored protection, start mirrored protection now.	Work with mirroring
9.____	Verify that your disk unit configuration is correct.	Use the graphical view
10.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 

## Checklist 7: Delete a disk pool

This checklist shows the sequence of tasks that you use to delete a basic disk pool or an independent disk pool. If you want to delete or clear an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your system to DST before clearing or deleting them.

**Attention:** Make sure that you have completely saved your system in the event that you need to recover from an error situation. Also note that when a disk pool is deleted, all data remaining in that disk pool is lost.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Display your current disk configuration.	Use the graphical view
2.____	Calculate the space requirements for the remaining disk pools.	Calculate disk pool space requirements
3.____	Use option 21 from the Save menu to save your entire system.	Save your server with the GO SAVE command
4.____	Remove objects from the disk pool that you are deleting or move the objects to a different disk pool.	Backup and Recovery manual 
5.____	Restart your server and choose the option to use dedicated service tools (DST).	How to start dedicated service tools (DST) in Backup and Recovery  . From the taskpad in iSeries Navigator, select <b>Open iSeries Navigator service tools window</b> .
6.____	Delete the disk pool. This procedure places all of the disks that were assigned to the deleted disk pool in nonconfigured status.	Manage disk unit configuration
7.____	If you want to add the now nonconfigured disk units to a different disk pool, refer to Checklist 2 or 3.	Checklist 2 or Checklist 3
8.____	Verify that your disk unit configuration is correct.	Use the graphical view
9.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 
10.____	Restart your server.	

## Checklist 8: Remove disk units without device parity protection

This checklist shows the sequence of tasks that you use to remove one or more disk units from your system when the disk units do not have device parity protection. Use these tasks when you are permanently removing disk units from your system. Do not use these tasks when you are repairing or replacing a failed disk unit. You must restart your server to dedicated service tools (DST) mode to perform the tasks in this checklist.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Display your current disk configuration.	Use the graphical view
2.____	Calculate the space requirements for the disk pools that are involved in disk removal.	Calculate disk pool space requirements
3.____	Use option 21 from the Save menu to save your entire system.	Save your server with the GO SAVE command
4.____	Restart your server and choose the option to use dedicated service tools (DST).	How to start dedicated service tools (DST) in Backup and Recovery  . From the taskpad in iSeries Navigator, select <b>Open iSeries Navigator service tools window</b> .
5.____	Remove disk units that you plan to remove from the system.	Manage disk unit configuration
6.____	Verify that your disk unit configuration is correct.	Use the graphical view
7.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 
8.____	Continue restarting your server.	

### Checklist 9: Remove disk units that have device parity protection from a disk pool without mirrored protection

This checklist shows the sequence of tasks that you use to remove one or more disk units from an input/output adapter with built-in device parity protection. These tasks apply when the disk pools containing the disk units do not have mirrored protection and when device parity protection is started for the IOA. Use these tasks when you are permanently removing disk units from your system. Do not use these tasks when you are repairing or replacing a failed hard disk. You must restart your server to dedicated service tools (DST) mode to perform the tasks in this checklist.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you or the service representative perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Display your current disk configuration.	Use the graphical view
2.____	Calculate the space requirements for the disk pools that are involved in disk removal.	Calculate disk pool space requirements
3.____	Use option 21 from the Save menu to save your entire system.	Save your server with the GO SAVE command

Task	What to do	Where to learn more
4.____	Restart your server and choose the option to use dedicated service tools (DST).	How to start dedicated service tools (DST) in Backup and Recovery  . From the taskpad in iSeries Navigator, select <b>Open iSeries Navigator service tools window</b> .
5.____	Remove disk units that you plan to remove from the system.	Manage disk unit configuration
6.____	Exclude the disk units from device parity protection. If you were successful in excluding the disk units, skip to task 8. Otherwise, continue to task 7.	Work with device parity protection
7.____	Stop device parity protection for all the disk units in the IOP.	Work with device parity protection
8.____	Physically remove disk units. If you stopped device parity protection in task 7, then continue with task 9. If you did not stop device parity protection, then skip to task 10.	Maintain disk unit configuration
9.____	Start device parity protection again.	Work with device parity protection
10.____	Verify that your disk unit configuration is correct.	Use the graphical view
11.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 
12.____	Restart your server.	

### Checklist 10: Remove disk units that have device parity protection from a disk pool with mirrored protection

This checklist shows the sequence of tasks that you use to remove one or more disk units from an input/output adapter that is capable of device parity protection. These tasks apply when the disk pools that contain the disk units have mirrored protection and when the disk units have device parity protection. Use these tasks when you are permanently removing disk units from your system. Do not use these tasks when you are repairing or replacing a failed disk unit. You must restart your server to the dedicated service tools (DST) mode to perform the tasks in this checklist.

**Attention:** When you perform the tasks in this checklist, the system moves large amounts of data. Make sure that you have completely saved your system in the event that you need to recover from an error situation.

Before you begin, make a copy of this checklist. Fill in the appropriate areas as you perform the configuration tasks. This checklist provides an important record of your actions. It may help you diagnose any problems that occur.

Most tasks in the checklist include links to other topics. Refer to these topics if you need more information about how to perform a particular task.

Task	What to do	Where to learn more
1.____	Display your current disk configuration.	Use the graphical view
2.____	Calculate the space requirements for the disk pools that are involved in disk removal.	Calculate disk pool space requirements
3.____	Use option 21 from the Save menu to save your entire system.	Save your server with the GO SAVE command

Task	What to do	Where to learn more
4.____	Restart your server and choose the option to use dedicated service tools (DST).	How to start dedicated service tools (DST) in Backup and Recovery  . From the taskpad in iSeries Navigator, select <b>Open iSeries Navigator service tools window</b> .
5.____	Remove disk units that you plan to remove from the system.	Manage disk unit configuration
6.____	Exclude the disk units from device parity protection. If you were successful in excluding the disk units, skip to task 9. Otherwise, continue to task 7.	Work with device parity protection
7.____	Stop mirrored protection for the disk pools that will have disk units removed. When you stop mirrored protection, one disk unit from each mirrored pair becomes nonconfigured. You need to stop mirrored protection only if the disk pool contains other disk units that are attached to the IOP and have device parity protection.	Work with mirroring
8.____	Stop device parity protection for all the disk units in the IOP.	Work with device parity protection
9.____	Physically remove disk units. This is normally done by a service representative. If you stopped device parity protection in task 8, then continue with task 10. If you did not stop device parity protection, then skip to task 14.	
10.____	Start device parity protection again.	Work with device parity protection
11.____	Add nonconfigured disk units to the correct disk pools. These disk units became nonconfigured when you stopped mirrored protection in task 7.	Add disk units to a disk pool
12.____	If you created a new disk pool on your system when you added disk units, the system set the storage threshold of the disk pool to 90%. If you want a different storage threshold for any disk pool, you can change it.	Set the disk pool threshold
13.____	Start mirrored protection for the disk pools that had mirrored protection stopped in task 7.	Work with Mirroring
14.____	Verify that your disk unit configuration is correct.	Use the graphical view
15.____	Print your disk configuration to have in case of a recovery situation.	How to display your disk configuration in Backup and Recovery 

## Add a disk unit or disk pool

The Add Disk Unit and New Disk Pool wizards save you time by bundling several time-consuming configuration functions into one efficient process. They also take the guesswork out of disk unit configuration because they understand the capabilities of your system and only offer valid choices. For instance, the wizard does not list the option to start compression unless your server has that capability.

Both the Add Disk Unit and New Disk Pool wizards allow you to create a basic disk pool or independent disk pool or to use an existing disk pool to add new or nonconfigured disk units. When you choose to add disk units to a *protected* disk pool, the wizard forces you to include the disk units in device parity protection or to add enough disk units of the same capacity to start mirrored pair protection. The wizard

also gives you the option of balancing data across the disk pool or starting disk compression if these are permissible actions for your system configuration. You decide which options to choose so that the operation is tailored to your system.

**Note:** Before changing the disk configuration of your server, you should have already read Planning for disk management.

To use the Add Disk Unit and New Disk Pool wizards, follow these simple steps:

1. In iSeries Navigator, expand **Disk Units**.
2. To add disk units, right-click **All Disk Units** and select **Add Disk Unit**.
3. To create a new disk pool, right-click **Disk Pools** and select **New Disk Pool**.
4. Follow the instructions in the wizard to complete the task.

## Manage disk unit configuration

iSeries Navigator gives you the flexibility to move disk units to other disk pools or to replace a failed disk unit in an existing disk pool. You can delete a disk pool or clear data from a disk pool. You can also rename, format, and scan disk units.

**Note:** Before changing the disk configuration of your server, you should have already read Planning for disk management. Planning is necessary to determine which procedural checklist to use and to calculate disk pool space requirements.

### Move and remove disk units

As your storage needs change, you can select to move a disk unit from one disk pool to another disk pool. When you move a disk unit, the server first moves all of the data on that disk unit to other disk units in the original disk pool. You cannot move disk units to or from an independent disk pool. For disk units in system disk pools and basic disk pools, you need to restart your system to dedicated service tools (DST) mode before moving them.

When you remove a disk unit, the server redistributes the data on that disk unit to other disk units in the disk pool. If you want to remove a disk unit from an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your system to DST before removing them.

Depending on disk unit capacity and performance, the move or remove process can take from several minutes to over an hour to complete, potentially affecting system performance.

To move or remove a disk unit from a disk pool, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Right-click the disk unit you want to move and select **Move** or **Remove**.
3. Follow the instructions on the resulting dialog.

### Replace a disk unit

If you need to replace a failed disk unit or exchange a disk unit to prevent failure, the **Replace Disk Unit** wizard makes the process a simple task. The disk unit to be replaced or exchanged must be running with either mirrored protection or device parity protection. To replace a mirrored disk unit, you must first suspend mirroring. A disk unit that is running with device parity protection can be exchanged only if it has failed. A disk unit running with device parity protection cannot be replaced with a nonconfigured disk even if it has failed.

To replace a failed disk unit or exchange a suspended mirrored unit, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Select **All Disk Units**.
3. Right-click the disk unit that you want to replace and select **Replace Disk Unit**.
4. Follow the wizard's instructions to replace the failed disk unit.

### Delete a disk pool or clear data from a disk pool

If you never need to access the data in a disk pool again, you can choose to clear the disk pool or delete the disk pool. Both actions destroy all data on the disk units in the disk pool. If you choose to clear the disk pool, the disk units are still available for new data storage. If you delete the disk pool all disk units are removed and you can no longer access the disk pool. If you want to delete or clear an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your system to DST mode before clearing or deleting them.

» If you delete an independent disk pool that is participating in a clustered environment, it is strongly recommended that you first remove the disk pool from the cluster resource group (CRG) using the Remove Cluster Resource Group Device Entry (RMVCRGDEVE) command. Under certain circumstances, you must end the CRG first; for example, use the End Cluster Resource Group (ENDCRG) command first if you plan to remove a subset of an independent disk pool group or remove the last independent disk pool in the CRG. If you must delete the independent disk pool first, make sure you remove it from the CRG afterward. «

To delete or clear a disk pool, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Expand **Disk Pools** and select the disk pools you want to clear.
3. Right-click a selected disk pool and select **Clear** or **Delete**.
4. Follow the instructions on the dialog that is displayed.

### Rename a disk unit

iSeries Navigator gives you the option of changing the default disk unit name to something more helpful to you. For instance you could change Dd001 to LoadSource. You cannot specify names with spaces in them.

To rename the disk unit, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Select the disk unit you want to rename.
3. Right-click the disk unit and select **Rename**.
4. Follow the instructions on the resulting dialog.

### Format a disk unit

You can select to clear all data from a nonconfigured disk unit and write the sectors, which prepares the disk unit for use in an iSeries server. Depending on disk unit capacity and performance, formatting a disk unit can take from several minutes to over an hour to complete, potentially affecting system performance.

To format a disk unit, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Right-click the disk unit you want to format and select **Format**.
3. Follow the instructions on the resulting dialog.

### Scan a disk unit

You can select to simply scan a disk unit to check the surface of the disk units and correct any sectors with errors. Depending on disk unit capacity and performance, scanning a disk unit can take anywhere from several minutes to over an hour to complete, potentially affecting system performance.

To scan a disk unit, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Right-click the disk unit you want to scan and select **Scan**.
3. Follow the instructions on the resulting dialog.

---

## Protect data on disk units

To obtain optimal data protection, use iSeries Navigator to protect all the disk units on your system with either device parity protection or mirrored protection. This prevents the loss of information when a disk failure occurs. In many cases, you can keep your system running while a disk unit is being repaired or replaced.

- Work with device parity protection
- Work with mirrored protection

Visit Disk Protection for more conceptual information about device parity protection and mirrored protection.

## Work with device parity protection

Device parity protection uses a data redundancy technique that protects data by spreading the parity data across multiple disk units in the parity set. When a failure occurs on a disk unit that has device parity protection, the data is reconstructed.

### Parity set optimization

➤ If you use a V5R2 adapter and OS/400 V5R2, you can now choose how you would like your parity sets to be optimized. When you select to optimize a parity set, the I/O adapter will choose disk units for parity sets according to the optimization value you have chosen. Depending on your configuration, different parity set optimizations may generate the same parity sets. You have several options for parity set optimization:

#### Capacity

A parity set optimized for capacity stores the most data possible. The I/O adapter may generate fewer parity sets with more disk units in each parity set. For example, if an I/O adapter has 15 disk units and is optimized for capacity, the result could be one parity set containing 15 disk units.

#### Balanced

A balanced parity set compromises between the ability to store large amounts of data and also provide fast access to data. For example, if an I/O adapter has 15 disk units and you choose balanced parity optimization, the result could be two parity sets, one with nine disk units and one with six disk units.

#### Performance

Parity sets optimized for performance provide the fastest data access. The I/O adapter may generate more parity sets with fewer numbers of disk units. For example, if an I/O adapter had 15 disk units and is optimized for performance, the result could be three parity sets with five disk units each.

### Change parity set optimization

Use the following steps to change the parity set optimization for all new parity sets that are created. This change stays in effect until you change it again. If you need to start parity, you can also change the parity set optimization as part of the start parity process.

1. Expand **Disk Units**.
2. Right-click **Parity Sets** and select **Change Optimization**.<<

### Start device parity protection

The best time to start device parity protection is when you add new or nonconfigured disk units. The Add Disk Unit wizard has steps for including disk units in a parity set and starting device parity protection. It is also possible to start device parity protection at a later time.

The following are the basic rules for starting device parity protection on V5R2 IOAs:

- Maximum number of parity sets allowed: 8 (some adapters may support fewer parity sets)
- Maximum number of devices per parity set: 18
- Minimum number of devices per parity set: 3
- All devices in a parity set must be the same capacity

To start device parity protection (if you did not do this step with the Add Disk Unit wizard), follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Select the disk units for which you want to start device parity protection.
3. Right-click a selected disk unit and select **Start Parity**.
4. From the resulting dialog, click **Start Parity** to start device parity protection on the displayed disk units.

### Stop device parity protection

You can select to stop device parity protection on the displayed disk units. The list displays all of the disk units in the parity set. When preparing to stop device parity protection, the system performs validity checking to make sure that stopping device parity protection does not leave the system in a configuration that is not supported. Depending on disk unit capacity and performance, stopping device parity protection can take from several minutes to over an hour to complete, potentially affecting system performance.

You cannot stop device parity protection on a disk unit that is in a mirrored disk pool. To stop device parity protection, you must first stop mirrored protection.

To stop device parity protection on the disk units in a parity set, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Select the disk units for which you want to stop device parity protection.
3. Right-click a selected disk unit and select **Stop Parity**.
4. From the resulting dialog, click **Stop Parity** to stop device parity protection.

### Include or exclude disk units from a parity set

You can select which disk units you want to include in a parity set. When you attach a new disk unit to an existing I/O processor that has device parity protection, you can include the disk unit in a device parity set with other disk units of the same capacity. The I/O processor determines the fewest number of parity sets needed to protect all the disk units of the same capacity.

You can also select which disk units you want to exclude from the parity set. When you exclude a disk unit from the parity set, the data on this disk unit remains there but is no longer protected by device parity protection. If the disk pool is protected, you are not allowed to exclude a disk unit that belongs to that disk pool from a parity set. The system does not allow unprotected disk units to reside in a protected disk pool.

If you want to include or exclude a disk unit from an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your system to dedicated service tools (DST) mode before including or excluding them from a parity set.

To include a disk unit in a parity set, follow these steps:

1. Expand **Disk Units**.
2. Select the disk units that you want to include.
3. Right-click a selected disk unit and select **Include in Parity Set**.
4. From the resulting dialog, click **Include** to include the selected disk units in a parity set.

To exclude a disk unit from a parity set, follow these steps:

1. Expand **Disk Units**.
2. Select the disk units that you want to exclude.
3. Right-click a selected disk unit and select **Exclude from Parity Set**.
4. From the resulting dialog, click **Exclude** to exclude the disk units from a parity set.

For more conceptual information about device parity protection, see [Device parity protection](#).

## Work with mirrored protection

Mirrored protection is beneficial if you have a multibus server or a server with a large single bus. A greater number of disk units provides more opportunity for failure and increased recovery time. Mirrored protection works to prevent outage on the server by keeping a second copy of the data on a mirrored disk unit. If one disk unit fails, the server relies on the mirrored disk unit.

### Start mirrored protection

The Add Disk Unit and New Disk Pool wizards guide you through the process of adding pairs of identical capacity disk units to a protected disk pool. When you have your disks configured correctly, you are ready to start mirroring. If you want to start mirroring on an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your system to the dedicated service tools (DST) mode before starting mirrored protection.

To start mirroring, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Expand **Disk Pools**.
3. Right-click the disk pools you want to mirror, and select **Start Mirroring**.

### Stop mirrored protection

When you stop mirrored protection, one unit from each mirrored pair becomes nonconfigured. Before you can stop mirrored protection for a disk pool, at least one unit in each mirrored pair in that disk pool must be present and active. To control which mirrored unit of each pair becomes nonconfigured, you may suspend the storage units that you want to become nonconfigured. For units that are not suspended, the selection is automatic.

If you want to stop mirroring on an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your system to the dedicated service tools (DST) mode before stopping mirrored protection.

To stop mirrored protection, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Expand **Disk Pools**.

3. Select the disk pools you want to mirror.
4. Right-click any selected disk pool, and select **Stop Mirroring**.
5. Click **Stop Mirroring** from the resulting confirmation dialog.

### Enable remote load source mirroring

You may also want to consider using iSeries Navigator to enable remote load source mirroring. This action makes it possible for the two disk units of the load source mirrored pair to be on different I/O processors or system buses. Remote load source mirroring allows you to protect against a site disaster by dividing the disk storage between the two sites, mirroring one site to another.

To enable remote load source mirroring, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Expand **Disk Pools**.
3. Expand **Disk Pool 1**.
4. Right-click the load source disk unit and select **Enable Remote Load Source Mirroring**.

**Note:** Enabling remote load source mirroring does not start mirrored protection on the disk units. Remote load source mirroring affects only the load source disk units.

### Suspend mirrored protection

If a disk unit in a mirrored pair fails, you will need to suspend mirroring to repair or replace it. If you want to suspend mirroring on an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your system to the dedicated service tools (DST) mode before suspending mirroring.

To suspend mirrored protection, follow these steps:

1. In iSeries Navigator, expand **Disk Units**.
2. Double-click **All Disk Units**.
3. Select the disk unit for which you want to suspend mirrored protection.
4. Right-click the selected disk unit and select **Suspend Mirroring**.

For more conceptual information about mirroring, see [Mirrored protection](#).

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## Optimize disk unit performance

Here you can find overviews and procedures for using several tools that can help you manage your data

more efficiently. The tools are available through iSeries Navigator. The Backup and Recovery  manual and the online help for disk units contain more detailed information.

### Set the threshold of a disk pool

You can eliminate recovery problems that occur when a disk pool overflows by setting a disk pool threshold. When the data stored in the disk pool exceeds the specified threshold, the server sends a warning message, allowing you time to add more storage space or delete unnecessary objects. The default threshold of a disk pool is set to 90%. You can change this value by dragging a pointer up or down the threshold scale.

To change the threshold of a disk pool, follow these steps:

1. Expand **Disk Pools**.
2. Right-click the disk pool for which you want to change the threshold and select **Properties**.

3. From the **Threshold** tab, increase or decrease the threshold for the disk pool.

### Enable automatic overflow recovery

If a basic disk pool fills up and the data in the basic disk pool overflows into the system disk pool, the basic disk pool is said to be in an overflow state. If you enable automatic overflow recovery, you can recover the data that overflowed to the system disk pool by performing a normal restart of your system. If you have created sufficient space in the basic disk pool, the system will copy the overflow data to the disk pool from the system disk pool. If automatic overflow recovery is disabled, you need to manually restart your server to the dedicated service tools (DST) mode and recover the overflow data using DST from the command prompt.

To enable automatic overflow recovery, follow these simple steps:

1. Expand **Disk Pools** and select the disk pools on which you want to enable automatic overflow recovery.
2. Right-click a selected disk pool and select **Enable Overflow Recovery**.
3. Follow the instructions on the resulting dialog.

### Balance a disk pool

You can improve the server performance by ensuring that the disk units in the disk pool have equal percentages of data residing on them. The capacity balancing function ensures that the disk units in the disk pool are balanced. You can balance a disk pool when you use the Add Disk Unit or New Disk Pool wizards. To customize your system with usage balancing or hierarchical storage management (HSM)

balancing, consult Backup and Recovery .

You have two ways to balance the capacity of disk pools using iSeries Navigator:

- Use the Add Disk Unit wizard.
- Use the New Disk Pool wizard.

### Start disk compression

Compression increases the apparent capacity of disk units by encoding the data to take up less physical storage space. Compression does affect performance because of the overhead required to compress and decompress the data. You may choose to compress data that you access infrequently or that does not require high I/O performance rates. If you want to compress a nonconfigured disk unit or a disk unit in an independent disk pool that is unavailable, you can do so when your system is fully restarted. For all other disk pools, you need to restart your server to the DST mode before compressing them.

To start disk compression, follow these steps:

1. Expand **All Disk Units**.
2. Select the disk units that you want to compress.
3. Right-click a selected disk unit and select **Start Compression**.
4. Follow the the instructions on the resulting dialog to start compression on the selected disk units.

---

## Manage independent disk pools

An independent disk pool gives you the flexibility to perform some disk management functions while the server is fully restarted, as long as the tasks are performed within the independent disk pool that is varied off. An independent disk pool can also save processing time during a system restart or reclaim storage if you choose to keep large amounts of data that are not used for day-to-day business processing offline. You can increase your flexibility by creating a switchable independent disk pool in a clustered environment,

or you can make use of these benefits with an independent disk pool dedicated to one server. See [Independent disk pools](#) for information about planning, configuring, and managing independent disk pools with iSeries Navigator.

For more information about clusters, see the [Clusters](#) topic.

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## Related information

Listed below are the iSeries Information Center topics and iSeries manuals (in PDF format) that relate to managing disk pools. You can view or print any of the PDFs.

### iSeries Information Center topics

- [Independent disk pools](#) (about 50 pages)
- [Disk protection](#) (about 50 pages)

### Manuals

- [Backup and Recovery](#)  (about 700 pages)

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