

Disk Management

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Disk Management Overview

IBM @server iSeries

Accessing Disk Units

Views

- All disk units
- Towers
- Disk pools
- Graphical view

Actions

- New disk pool
- Add disk unit
- Replace disk unit
- Scan Disk and Format Disk

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Disk Management Overview

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- Graphical view allows user to view disk units by DiskPool, by Tower, by I/O Processor, etc. Displays disk units in table format, as well as picture of the tower
- Add Disk Wizard - Add disk's to existing disk pools (ASPs)
- Create new diskpools and independent disk pools
- Start Compression on disk units
- Start Parity on disk units
- Include a disk unit in a parity set.
- Replace Disk Wizard
 - ▶ Replaces a failed parity disk unit. This powers off the disk unit, allows you to replace it, then powers it back on, and rebuilds parity data on the disk.
 - ▶ Replaces a suspended mirrored unit. Either by exchanging the disk with a brand new disk, or by selecting a non-configured unit to replace it with.
- Install Disk Wizard - Power slot off, put disk in, power on disk into non-config state.
- Clear Disk Unit
- Exclude From Parity (**DST** except independent disk pools)
- Format Disk Unit
- Include In Parity
- Move Disk Unit (**DST** except independent disk pools)
- Remove Disk Unit from disk pool (**DST** except independent disk pools)
- Scan Disk Unit

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Disk Management Overview


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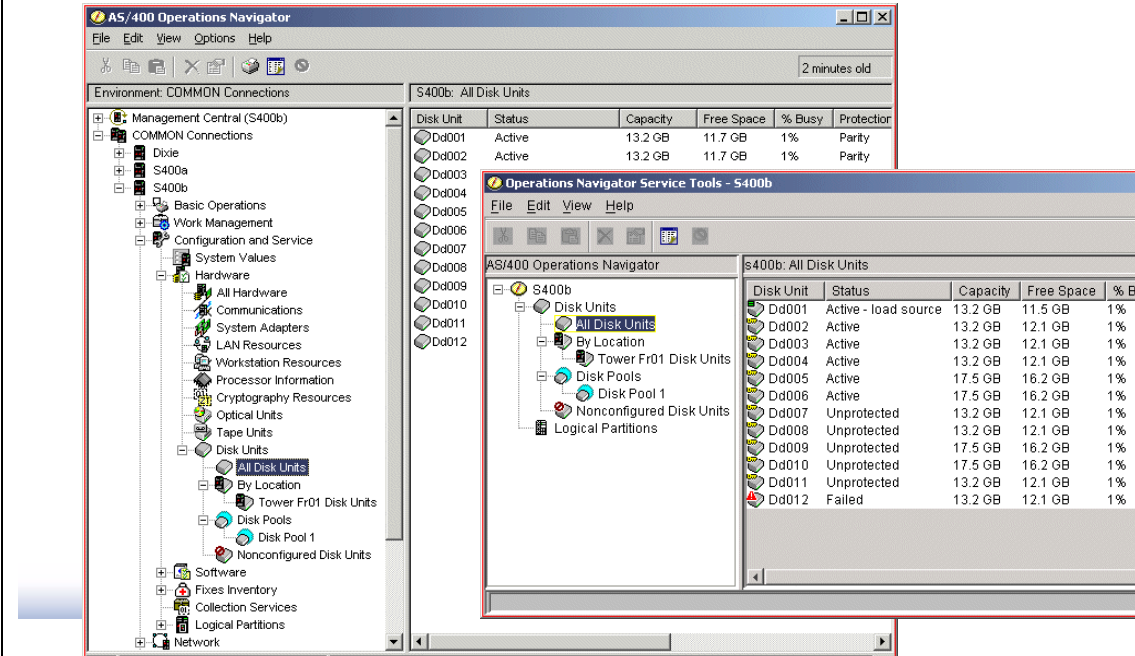
- Clear disk pool (**DST** except Independent disk pools)
- Delete disk pool (**DST** except independent disk pools)
- Disable AutoOverflow Recovery / Enable AutoOverflowRecovery
- Make available (vary on) / Make Unavailable (vary off)
- Recover an independent disk pool configuration
- Recover an independent disk pool configuration source if it is in an unknown state.
- Jobs (what jobs are using the independent disk pool)
- Disable Remote Load Source Mirroring / Enable Remote Load Source Mirroring
- Make Tower X Private / Make Tower X Switchable
- Rename Disk unit
- Resume Mirroring / Suspend Mirroring
- Start Compression / Stop Compression
- Start Mirroring / Stop Mirroring (**DST** except independent disk pools)
- Set threshold on an disk pool

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Accessing Disk Units

- Configuration and Service -> Hardware folder
- Service Tools window

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The screenshot shows the AS/400 Operations Navigator interface. The left pane displays a tree view of the system configuration, with the 'Hardware' folder expanded to show 'All Disk Units'. The right pane shows a table of disk units for the S400b system. A 'Service Tools' window is open over the 'All Disk Units' folder, displaying a detailed table of disk unit information.

Disk Unit	Status	Capacity	Free Space	% Busy	Protection
Dd001	Active	13.2 GB	11.7 GB	1%	Parity
Dd002	Active	13.2 GB	11.7 GB	1%	Parity
Dd003					
Dd004					
Dd005					
Dd006					
Dd007					
Dd008					
Dd009					
Dd010					
Dd011					
Dd012					

Disk Unit	Status	Capacity	Free Space	% B
Dd001	Active - load source	13.2 GB	11.5 GB	1%
Dd002	Active	13.2 GB	12.1 GB	1%
Dd003	Active	13.2 GB	12.1 GB	1%
Dd004	Active	13.2 GB	12.1 GB	1%
Dd005	Active	17.5 GB	16.2 GB	1%
Dd006	Active	17.5 GB	16.2 GB	1%
Dd007	Unprotected	13.2 GB	12.1 GB	1%
Dd008	Unprotected	13.2 GB	12.1 GB	1%
Dd009	Unprotected	17.5 GB	16.2 GB	1%
Dd010	Unprotected	17.5 GB	16.2 GB	1%
Dd011	Unprotected	13.2 GB	12.1 GB	1%
Dd012	Failed	13.2 GB	12.1 GB	1%

Disk Management Overview

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Actions

- New disk pool
- Add disk unit
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- Scan Disk and Format Disk

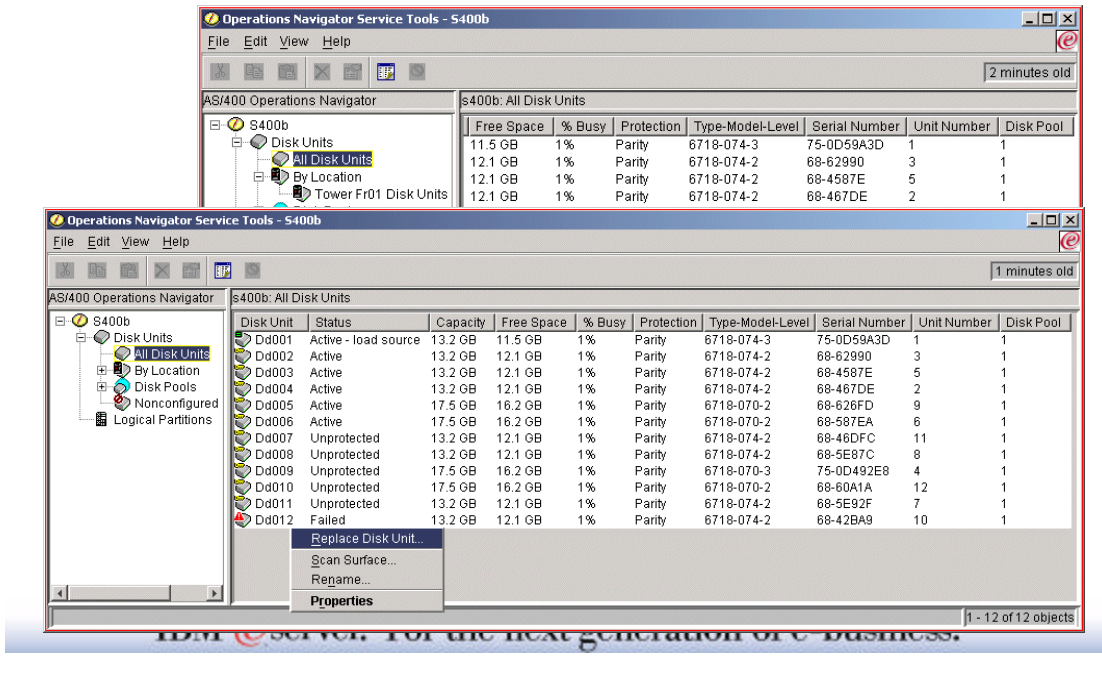
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All Disk Units

Disk Unit Views

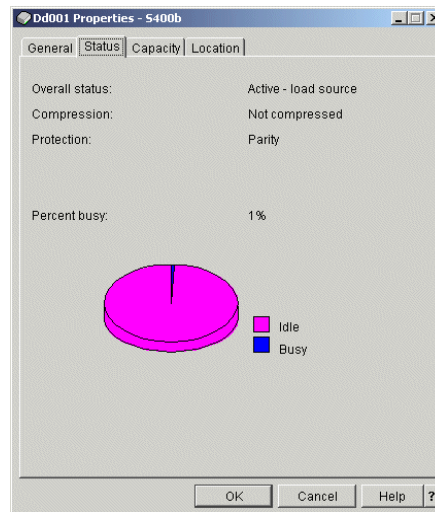
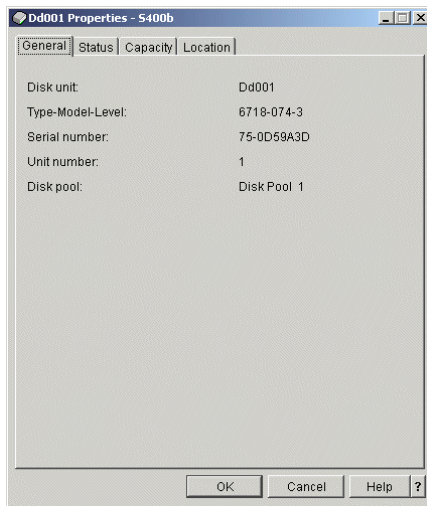


- Shows all disk units in system



Disk Unit Properties

Disk Unit Views

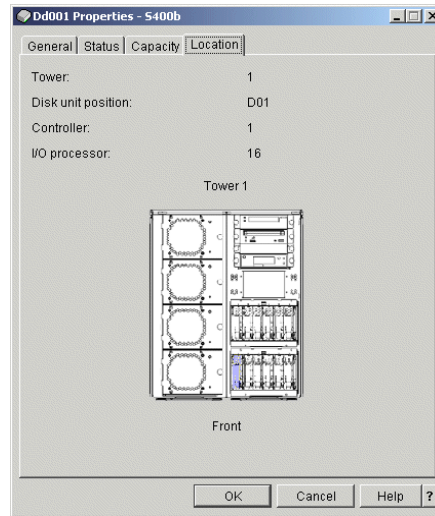
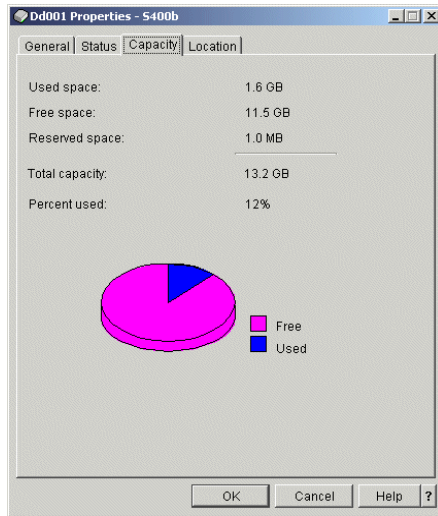


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Disk Unit Properties

Disk Unit Views

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Towers

Disk Unit Views

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- Shows disk units in selected tower
- By Location folder shows all towers in system

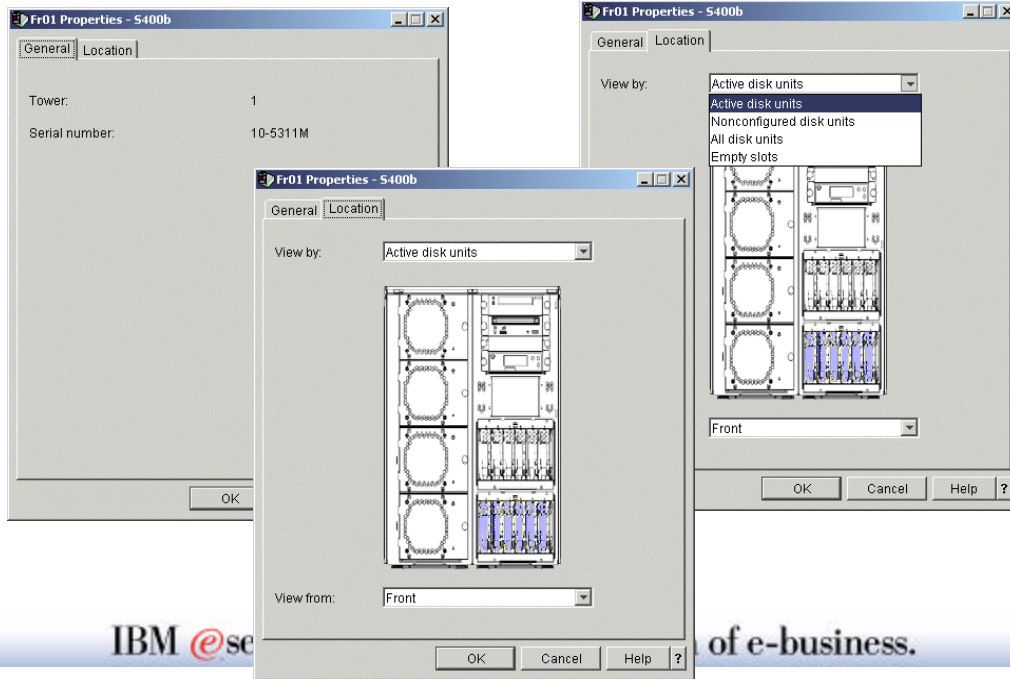
Disk Unit	Status	Capacity	Compression	Type-Model-Level	Serial N
Dd001	Active - load source	13.2 GB	Not compressed	6718-074-3	75-0D59
Dd002	Active	13.2 GB	Not compressed	6718-074-2	68-6299
Dd003	Active	13.2 GB	Not compressed	6718-074-2	68-4587
Dd004	Active	13.2 GB	Not compressed	6718-074-2	68-467D
Dd005	Active	17.5 GB	Not compressed	6718-070-2	68-626F
Dd006	Active	17.5 GB	Not compressed	6718-070-2	68-587E
Dd007	Unprotected	13.2 GB	Not compressed	6718-074-2	68-46DF
Dd008	Unprotected	13.2 GB	Not compressed	6718-074-2	68-5E87
Dd009	Unprotected	17.5 GB	Not compressed	6718-070-3	75-0D49
Dd010	Unprotected	17.5 GB	Not compressed	6718-070-2	68-60A1
Dd011	Unprotected	13.2 GB	Not compressed	6718-074-2	68-5E92
Dd012	Failed	13.2 GB	Not compressed	6718-074-2	68-42BA

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Tower Properties

Disk Unit Views

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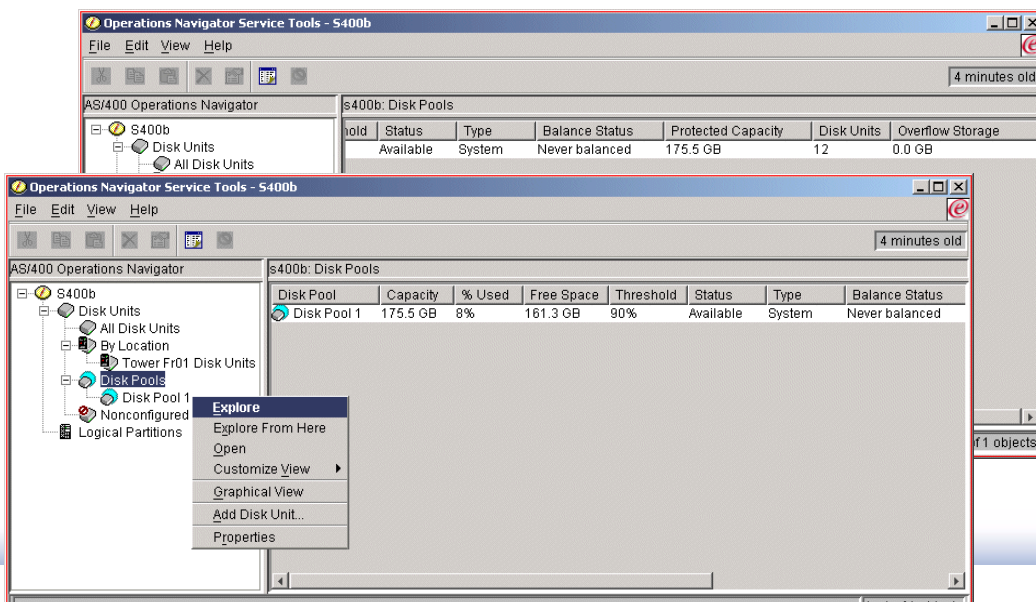


Disk Pools

Disk Unit Views

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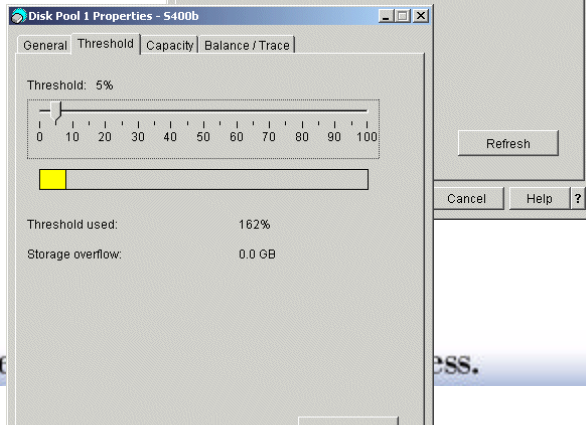
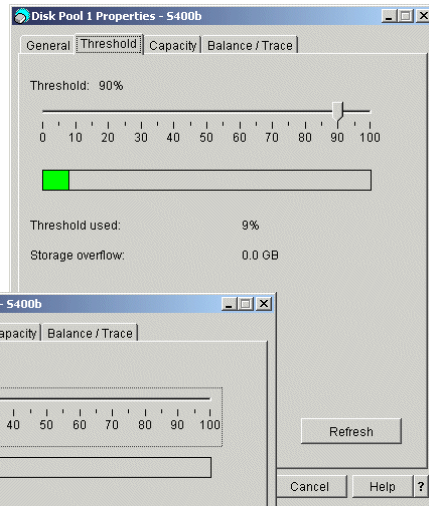
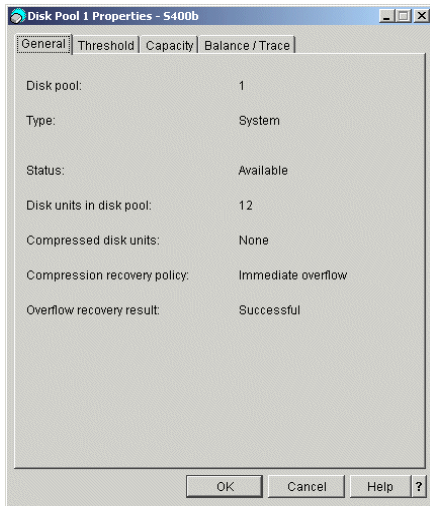
- Shows disk units in selected disk pool
- Disk Pools folder shows all disk pools in system
- Shows information about the each of the disk pools



Disk Pool Properties

Disk Unit Views

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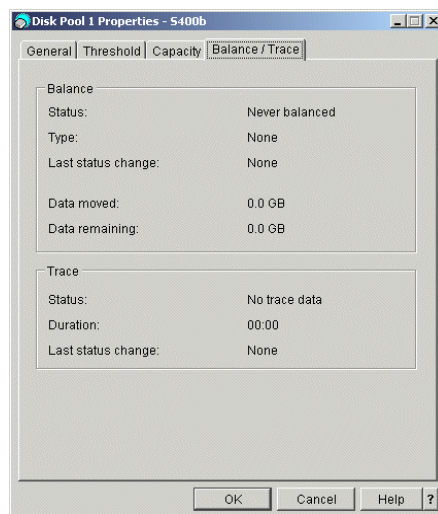
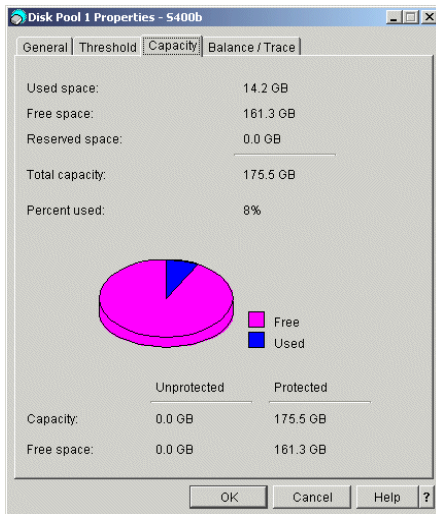
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Disk Pool Properties

Disk Unit Views

IBM  iSeries

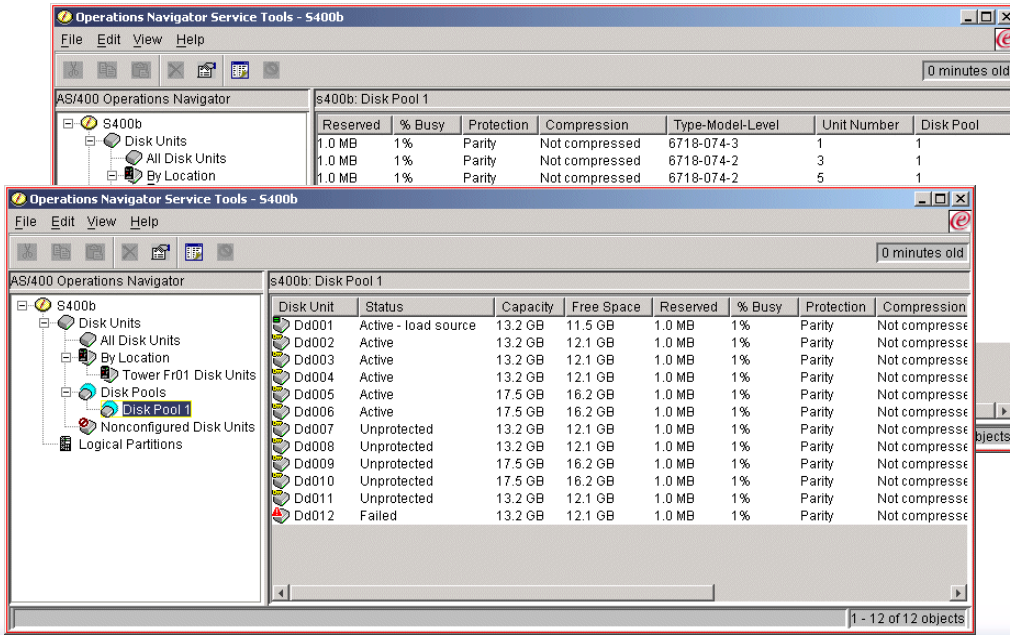


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Disk Units in a Disk Pool

Disk Unit Views

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The screenshot shows two overlapping windows of the Operations Navigator Service Tools. The top window displays a summary table for 's400b: Disk Pool 1' with columns: Reserved, % Busy, Protection, Compression, Type-Model-Level, Unit Number, and Disk Pool. The bottom window shows a detailed table for the same disk pool with columns: Disk Unit, Status, Capacity, Free Space, Reserved, % Busy, Protection, and Compression. A tree view on the left shows the hierarchy: S400b > Disk Units > All Disk Units > By Location > Tower Fr01 Disk Units > Disk Pools > Disk Pool 1.

Reserved	% Busy	Protection	Compression	Type-Model-Level	Unit Number	Disk Pool
1.0 MB	1%	Parity	Not compressed	6718-074-3	1	1
1.0 MB	1%	Parity	Not compressed	6718-074-2	3	1
1.0 MB	1%	Parity	Not compressed	6718-074-2	5	1

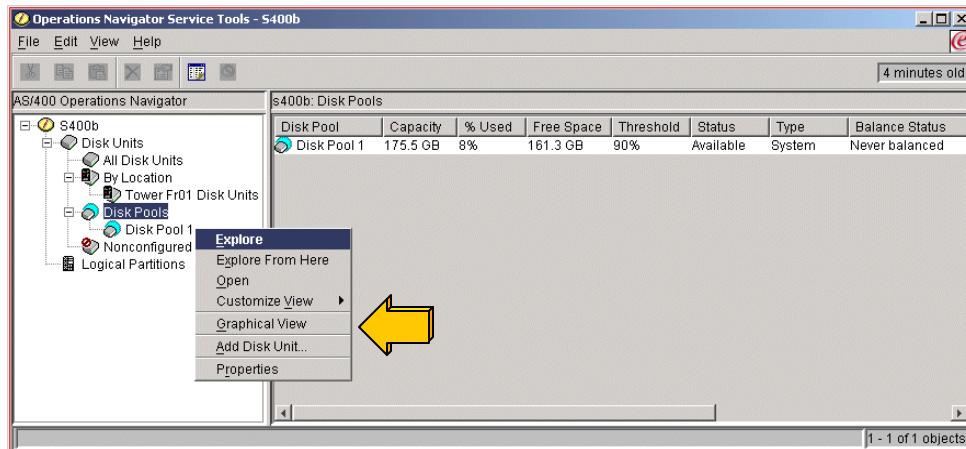
Disk Unit	Status	Capacity	Free Space	Reserved	% Busy	Protection	Compression
Dd001	Active - load source	13.2 GB	11.5 GB	1.0 MB	1%	Parity	Not compressed
Dd002	Active	13.2 GB	12.1 GB	1.0 MB	1%	Parity	Not compressed
Dd003	Active	13.2 GB	12.1 GB	1.0 MB	1%	Parity	Not compressed
Dd004	Active	13.2 GB	12.1 GB	1.0 MB	1%	Parity	Not compressed
Dd005	Active	17.5 GB	16.2 GB	1.0 MB	1%	Parity	Not compressed
Dd006	Active	17.5 GB	16.2 GB	1.0 MB	1%	Parity	Not compressed
Dd007	Unprotected	13.2 GB	12.1 GB	1.0 MB	1%	Parity	Not compressed
Dd008	Unprotected	13.2 GB	12.1 GB	1.0 MB	1%	Parity	Not compressed
Dd009	Unprotected	17.5 GB	16.2 GB	1.0 MB	1%	Parity	Not compressed
Dd010	Unprotected	17.5 GB	16.2 GB	1.0 MB	1%	Parity	Not compressed
Dd011	Unprotected	13.2 GB	12.1 GB	1.0 MB	1%	Parity	Not compressed
Dd012	Failed	13.2 GB	12.1 GB	1.0 MB	1%	Parity	Not compressed

Graphical View

Disk Unit Views

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- Also available from other Disk Unit folders



The screenshot shows the Operations Navigator Service Tools interface. The tree view on the left is expanded to 'Disk Pools > Disk Pool 1'. A context menu is open over 'Disk Pool 1', with a yellow arrow pointing to the 'Graphical View' option. The main pane shows a summary table for 's400b: Disk Pools'.

Disk Pool	Capacity	% Used	Free Space	Threshold	Status	Type	Balance Status
Disk Pool 1	175.5 GB	8%	161.3 GB	90%	Available	System	Never balanced

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Graphical View

Disk Unit Views

The screenshot displays three overlapping windows of the 'Disk Units Graphical View - 5400b' application. Each window shows a 'Tower 1' hardware diagram and a data table.

Window 1 (Top Left): View by: Disk Pools. Table:

Disk Pool	Disk Units	Capacity
Disk Pool 1	12	175.5 GB

Window 2 (Top Right): View by: Parity Sets. Table:

Parity Set	Disk Units	I/O Processor	Total Capacity
Parity Set 2	6	16	1
Parity Set 1	6	16	1

Window 3 (Bottom): View by: All Disk Units. Table:

Disk Unit	Status	Capacity
Dd001	Active	13.2 GB
Dd002	Active	13.2 GB
Dd003	Active	13.2 GB
Dd004	Active	13.2 GB
Dd005	Active	17.5 GB

The IBM @server logo is visible at the bottom left of the main window.

Graphical View

Disk Unit Views

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This screenshot shows the 'Disk Units Graphical View - 5400b' application with a context menu open over a disk unit in the hardware diagram. The table in the background is:

Disk Unit	Status	Capacity
Dd001	Active	13.2 GB
Dd002	Active	13.2 GB
Dd003	Active	13.2 GB
Dd004	Active	13.2 GB
Dd005	Active	17.5 GB

The context menu includes the following options: Scan Surface..., Rename..., and Properties. A tooltip 'DD010 - Unprotected' is also visible near the hardware diagram.

The IBM @server logo and the slogan 'IBM @server. For the next generation of e-business.' are at the bottom.

Disk Management Overview

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- New disk pool
- Add disk unit
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New Disk Pool

Disk Actions

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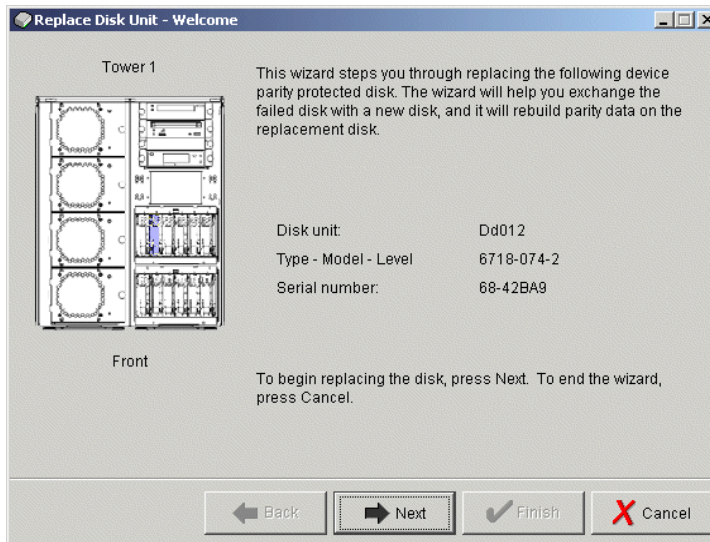
The screenshot displays the 'New Disk Pool' wizard interface. It includes a 'Welcome' dialog box with an image of a server tower and explanatory text. Below it are two configuration dialog boxes. The top configuration dialog shows 'Type of disk pool' set to 'Basic', 'Disk pool' set to '2', and the checkbox 'Protect the data in this disk pool' checked. The bottom configuration dialog shows the same settings but with a dropdown menu for 'Disk pool' open, listing 'Basic' and 'Independent (Private)' as options.

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Replace Disk Unit

Disk Actions

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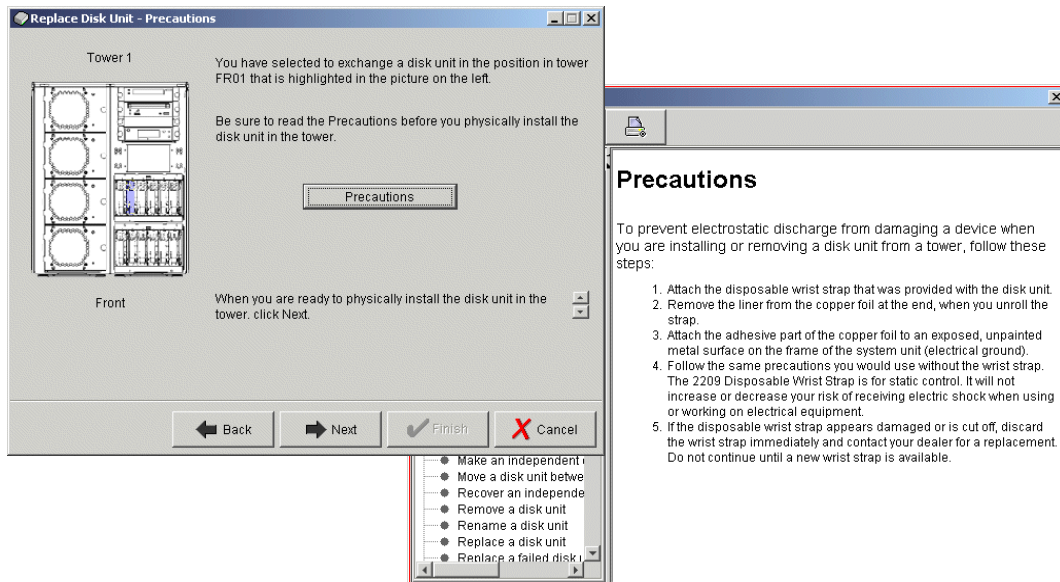


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Replace Disk Unit

Disk Actions

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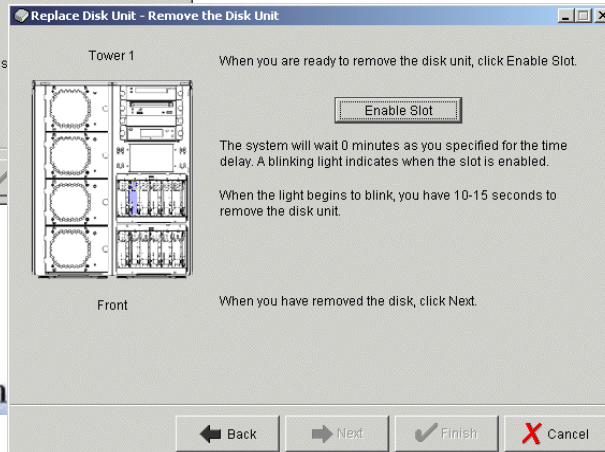
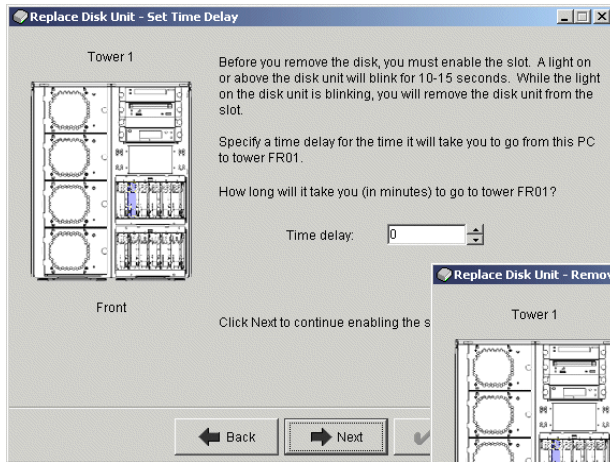


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Replace Disk Unit

Disk Actions

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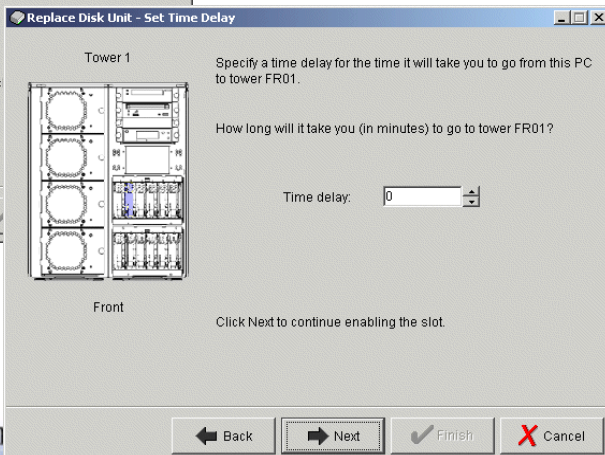
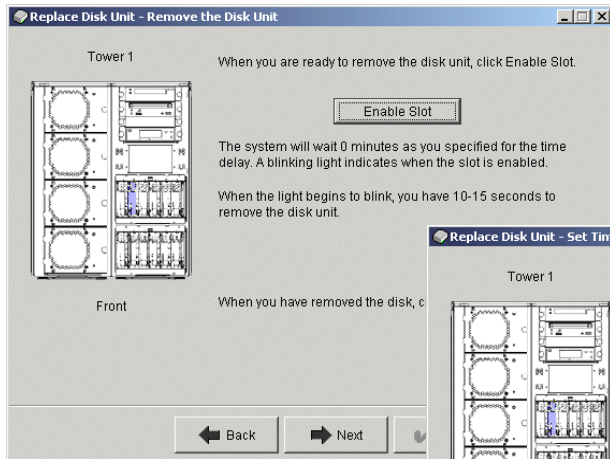


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Replace Disk Unit

Disk Actions

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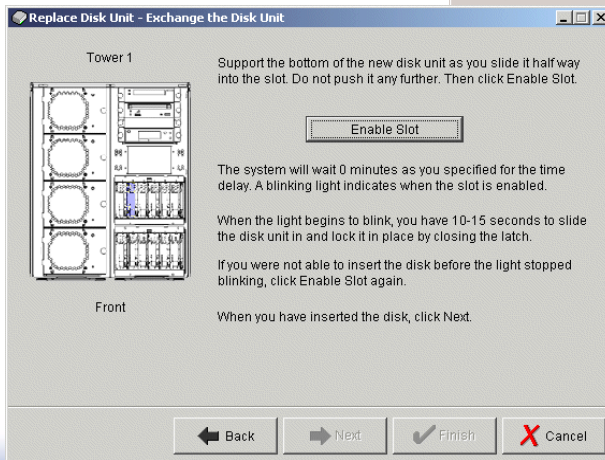
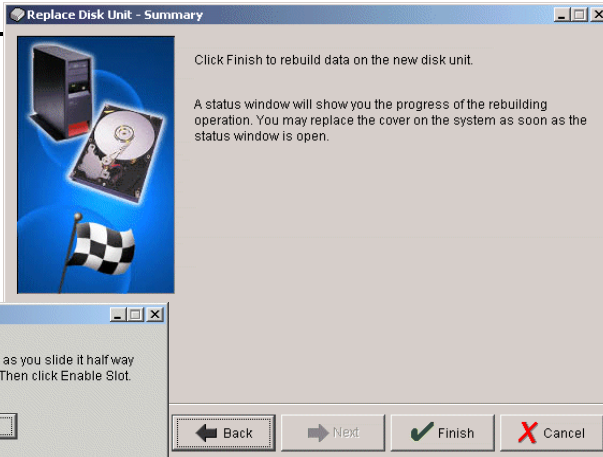


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Replace Disk Unit

Disk Actions

- After clicking Finish an in-progress window appears that shows the status of rebuilding



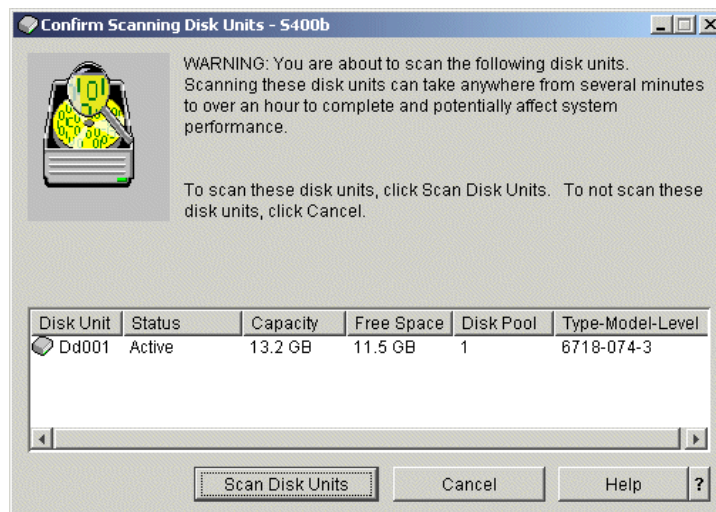
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Scan Disk and Format Disk

Disk Actions

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- Format disk looks similar to Scan Disk
- Both confirm the action before beginning
- Scan Disk can impact system performance



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Overview

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- **Setting up to access hardware functions**
- **Service Tools Security**
 - Service tools user profiles
 - Service tools device profiles
 - Operations Console LAN connectivity
- **Operations Navigator Service Tools Window**
- **Disk Management**
- **Logical Partitions - LPAR**
- **Hardware Inventories**
 - Configuration and Service Folder
 - Management Central Inventory
- **Where to get more information**

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