

Session: C64



iSeries Operations Navigator: What's New in V5R1

IBM @server iSeries

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Table of Contents

Introduction

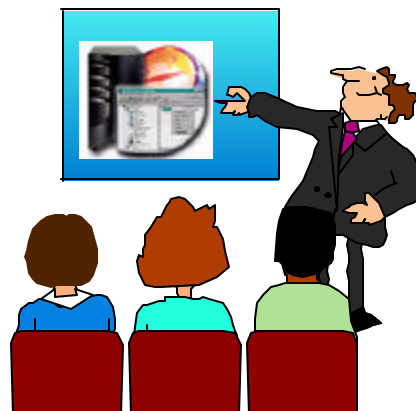
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General Ease of Use Enhancements

- TaskPads
- GUI prompter
- Auto-detection of plug-ins

V5R1 Functions

- Pruning the tree...
- Work management
- TCP/IP
- System values
- File systems
- Database
- Disk management
- BRMS
- LPAR
- Simple clusters
- AFP Manager
- Management Central
- EZ Setup



In Summary..

- Performance considerations
- Use the help!

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Additional Information

- Operations Navigator website:
 - http://www.ibm.com/eserver/iseries/oper_nav
- Management Central website:
 - <http://www.ibm.com/eserver/iseries/sftsol/mgmtcentral.htm>
- Redbooks (www.redbooks.ibm.com):
 - Managing AS/400 V4R4 with Operations Navigator, SG24-5646-00
 - Management Central: A Smart Way to Manage AS/400 Systems, SG24-5407-00
 - AS/400 Client Access Express for Windows: Implementing V4R4M0, SG24-5191-00
- iSeries Information Center
 - Repository of iSeries and AS/400 documentation. Installed locally via the Information Center CD, or accessed on the internet at <http://www.ibm.com/eserver/iseries/infocenter>
- INFO APARs
 - Available at the Operations Navigator web site
 - Have information on known problems and PTFs required
- Client Access information
 - Available at www.ibm.com/eserver/iseries/clientaccess

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Value of Advanced UI

Advanced UI techniques enhance our image and our ease of use

- iSeries value proposition has always been ease of use, low cost of ownership

Three major initiatives for iSeries user interface:

- Visualization
 - Useful, meaningful pictures, not just icons
- Wizards
 - Significant ease of use for complex and infrequently done tasks
 - Don't let the user fail
- Integration
 - Not just standalone GUI utilities, but a highly integrated user interface



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Value of Advanced UI Notes

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The key point about the V5R1 Operations Navigator is that the user interface is not just a graphical; it's an advanced user interface. There are three major initiatives that characterize our V5R1 work:

- Visualization
Operations Navigator uses maps, graphs, and drawings to help the user understand the relationships between objects on their system.
- Integration
Our GUI isn't just a collection of standalone utilities. Our GUI components are highly integrated; that means that the same GUI is available from multiple spots--wherever the user might need to do something, there is a user interface for doing it.
- Wizards
Wizards are a key way to provide ease-of-use. Their simple, step-by-step approach and their ability to lead the user to always be successful make Operations Navigator a user interface that helps drive down cost of ownership.

Management Central Basic Concepts

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- **Management Central is an optional subcomponent of Operations Navigator**
- **But think of it as a technology OpNav uses to:**
 - Do things to multiple systems with one request
 - Manage long running tasks from a GUI asynchronously
 - Schedule tasks
- **Instead of connecting to each system individually, requests are sent to a system you designate as the "Central System"**
- **AS/400 or iSeries servers connected to the central system can be managed; these are referred to as Endpoints**
 - The central server gets a request from the Operations Navigator PC and fans it out to the targeted systems
 - Status and any results flow back from the endpoints to the central server
 - The Operations Navigator PC gets status and results from the central server
 - Tasks can be long-running or scheduled, PC is not required to wait for tasks to complete
- **Endpoints can be collected into System Groups for convenience**
 - Can operate against a group with one request

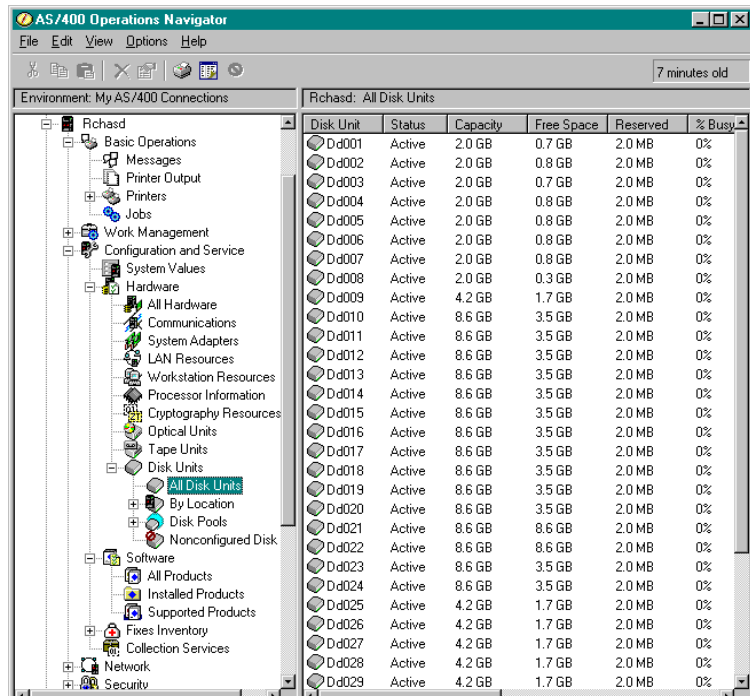


V5R1: iSeries Advanced User Interface

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In V5R1, system GUI will double in size!

- Function "tree" is twice the size of the one for V4R5
- Lines of code have almost doubled



The screenshot shows the AS/400 Operations Navigator interface. On the left is a tree view of system components, and on the right is a table titled 'Richasd: All Disk Units'.

| Disk Unit | Status | Capacity | Free Space | Reserved | % Busy |
|-----------|--------|----------|------------|----------|--------|
| Dd001 | Active | 2.0 GB | 0.7 GB | 2.0 MB | 0% |
| Dd002 | Active | 2.0 GB | 0.8 GB | 2.0 MB | 0% |
| Dd003 | Active | 2.0 GB | 0.7 GB | 2.0 MB | 0% |
| Dd004 | Active | 2.0 GB | 0.8 GB | 2.0 MB | 0% |
| Dd005 | Active | 2.0 GB | 0.8 GB | 2.0 MB | 0% |
| Dd006 | Active | 2.0 GB | 0.8 GB | 2.0 MB | 0% |
| Dd007 | Active | 2.0 GB | 0.8 GB | 2.0 MB | 0% |
| Dd008 | Active | 2.0 GB | 0.3 GB | 2.0 MB | 0% |
| Dd009 | Active | 4.2 GB | 1.7 GB | 2.0 MB | 0% |
| Dd010 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd011 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd012 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd013 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd014 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd015 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd016 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd017 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd018 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd019 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd020 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd021 | Active | 8.6 GB | 8.6 GB | 2.0 MB | 0% |
| Dd022 | Active | 8.6 GB | 8.6 GB | 2.0 MB | 0% |
| Dd023 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd024 | Active | 8.6 GB | 3.5 GB | 2.0 MB | 0% |
| Dd025 | Active | 4.2 GB | 1.7 GB | 2.0 MB | 0% |
| Dd026 | Active | 4.2 GB | 1.7 GB | 2.0 MB | 0% |
| Dd027 | Active | 4.2 GB | 1.7 GB | 2.0 MB | 0% |
| Dd028 | Active | 4.2 GB | 1.7 GB | 2.0 MB | 0% |
| Dd029 | Active | 4.2 GB | 1.7 GB | 2.0 MB | 0% |

V5R1: iSeries Advanced User Interface Notes

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Operations Navigator and its coverage of tasks within OS/400 was a major focus for V5R1. Much, much more of OS/400 is now covered by this GUI, including the use of numerous easy-to-use configuration wizards which have been written to help with complex or infrequently done tasks.

V5R1 Enhancements

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- Work Management
 - Active jobs, job queues, memory pools, subsystems
- Backup and Recovery
 - BRMS GUI plug-in
- All System Values
 - Includes ability to copy to other servers via Management Central
- Database Enhancements
 - Pictorial representation of database objects and their relationships, generate SQL
- Distributed user and group management
 - Manage users and groups across the network via Management Central
- LPAR configuration and management
- Disk Management, stage 2
 - Balancing, compression, manage ASPs, manage disk units
- Simple (two-node) cluster configuration
- Integrated Netfinity Server
 - Manage Windows server users and groups, disk storage
- Extreme Support
- LP and fix definition and installation across the network
 - Create LPs and fixes, distribute and install via Management Central
- TCP/IP Enhancements
 - Quality of service support, server security and performance enhancements, availability enhancements
- File System GUI Enhancements
 - Additional IFS attributes, IFS journaling, list sorting, and performance enhancements
- New monitors and monitoring enhancements in Management Central
- AFP Manager
- EZ Setup integration
 - Now shipped with Client Access
 - Includes a 2nd stage "Custom Setup" set of wizards accessible from OpNav
- Taskpads
- GUI CL command prompter
- Auto-detection of plug-ins

V5R1 Enhancements Notes

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Operations Navigator has been extended to cover many areas not yet included. Most notable in this list are LPAR configuration, Work Management (work with active jobs), Backup and Restore via the BRMS GUI plug-in, and a graphical command prompter. Existing pieces of GUI have been enhanced with many new functions, all aimed at providing more valuable information and assistance to the administrator.

Note: Most of these new functions require not only the V5R1 version of Operations Navigator installed on the PC (that is, they've installed the V5R1 version of Client Access Express), but also the servers that are being managed need to have V5R1 OS/400 installed. The reason for this is that many of these new functions required more than just GUI code written for the PC; they also require code within OS/400 itself--new or changed APIs usually.

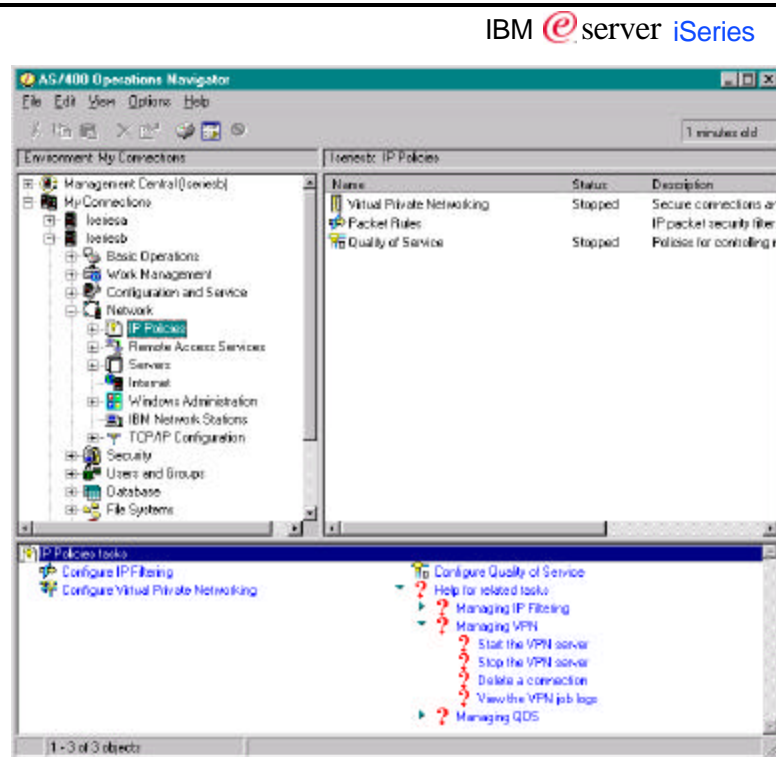
General Ease of Use Enhancements



TaskPads

V5R1: TaskPads

- Optional third pane in the window
 - Controlled under the view pulldown menu
- Provides visibility for key tasks
 - Don't need to know where to right click to find what you want
- Content changes based on area of navigation tree in focus
- Single click to begin a task or get specific help



 GUI Prompter

GUI Prompter

The screenshot shows two overlapping windows. The background window is titled 'Run Command - Rchash3d' and has a 'Command to run:' field containing 'crtsavf'. A 'Prompt...' button is visible below the field. The foreground window is titled 'Create Save File [CRTSAVF]' and contains fields for 'Save file:' (MYSAVF), 'Library:' (MYLIB), and 'Text (description):' ('Sample save file'). It also has 'Advanced Parameters' for 'Maximum records:', 'Auxiliary storage pool ID:', 'Maximum file wait time:', 'Share open data path:', and 'Authority:'.

- Retrieves command and help from server
- Works on customer-created commands
- "Prompt" pushbutton appears anywhere you can enter a command (Object and Product package, Monitors, etc.)
- Can be used in applications
 - API in Java Toolbox

GUI Prompter

The screenshot shows two overlapping windows. The background window is titled 'Run Command - Iseriesb' and has a 'Command to run:' field containing 'sav*'. A 'Prompt...' button is visible below the field. The foreground window is titled 'Select Command' and contains a table with columns 'Command', 'Library', and 'Description'. The 'SAVLIB' command is highlighted.

| Command | Library | Description |
|-------------|---------|------------------------|
| SAV | QSYS | Save Object |
| SAVAPARDDTA | QSYS | Save APAR Data |
| SAVBLDEVT | QSYS | Save Build Environ... |
| SAVBRM | QSYS | Save Object using ... |
| SAVBUILDER | QSYS | Save Builder |
| SAVCFG | QSYS | Save Configuration |
| SAVCHGOBJ | QSYS | Save Changed Obj... |
| SAVDLO | QSYS | Save Document Lib... |
| SAVDLOBRM | QSYS | Save DLO using B... |
| SAVFLRLBRM | QSYS | Save Folder List us... |
| SAVLIB | QSYS | Save Library |
| SAVLIBBRM | QSYS | Save Library using ... |

- Prompter Function keys (F1, F4, F5, F9, F10, F11, F14...) work just like on green screen
- Supports retrieving a generic list of comands!
 - E.g., prompting for sav* generates the list of all save commands

Auto-Detection of Plug-ins

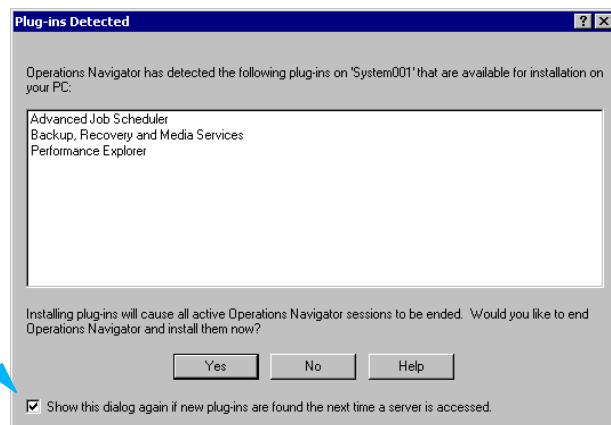
Auto-Detection of Plug-ins

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- In previous releases, plug-ins had to be pulled-down from the server
 - You needed to know which plug-ins were available from where
 - You needed to initiate the plug-in installation via Client Access selective setup function

- In V5R1, when you connect to a server:
 - Server will inform you of any plug-ins that are available from it
 - Give you the option of installing them

- This function can be turned off
 - Also from the Options pulldown menu (click on User Preferences, Plug-ins tab)



V5R1 Functions

 Pruning the Tree...

Functions no longer in Operations Navigator

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Multimedia (Ultimedia Support Facility) Folder

- Legacy multimedia repository product, first shipped with Windows 3.1 Client Access, later ported to Client Access for Win95/NT and Client Access Express
- GUI was removed, but APIs remain in Express

ODBC Data Sources Folder

- Part of our database GUI since V3R7
- A function that allowed centralized management of ODBC data sources from the AS/400
 - But ODBC end users needed to have the database GUI in order to use the data sources
- Little used, industry standard alternatives have emerged since this implementation

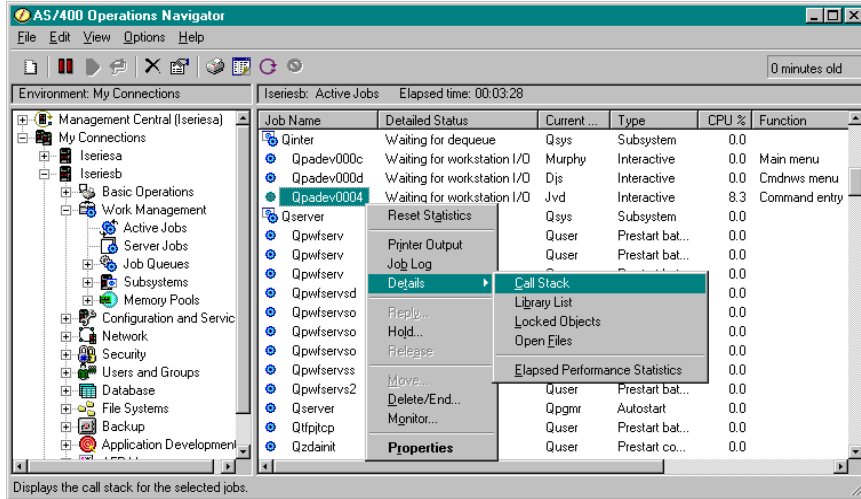


Work Management

Work Management: Active Jobs



- Grouped by subsystem
- Customizable!!
 - Sort
 - Include
 - Columns
 - Shortcuts
- New menu options
 - Call Stack
 - Locked Objects
 - Open Files
 - Library List

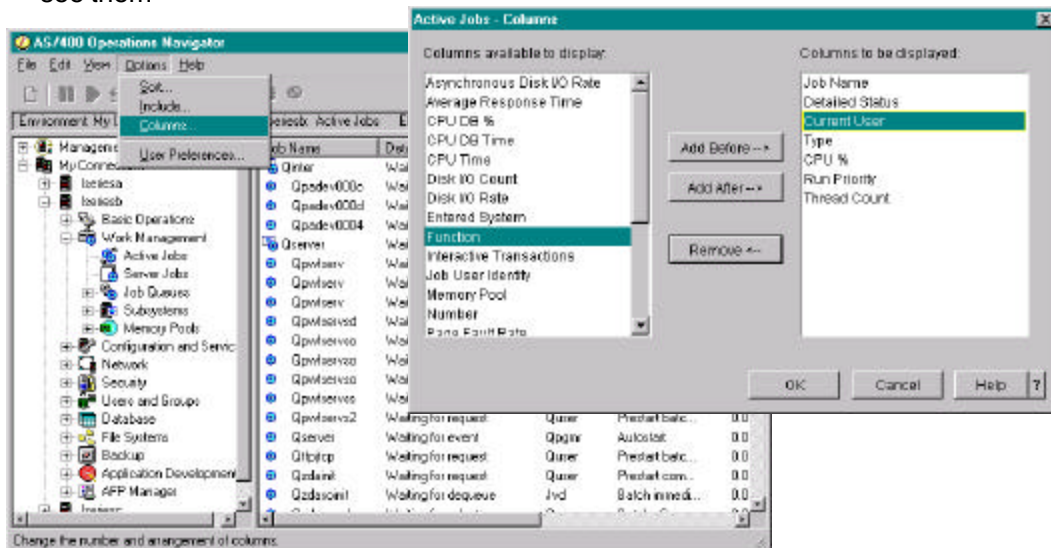


- Just like WRKACTJOB, but much more customizable and flexible, e.g.:
 - Use Find (Edit pulldown menu or use CTRL-F) to locate a job quickly in the list using a string that could be in any column)
 - Click sort on column headings (Note: Use the Sort function under the Options pulldown to remove the column sorting and go back to default view by subsystem)

Work Management: Active Jobs--Column Options



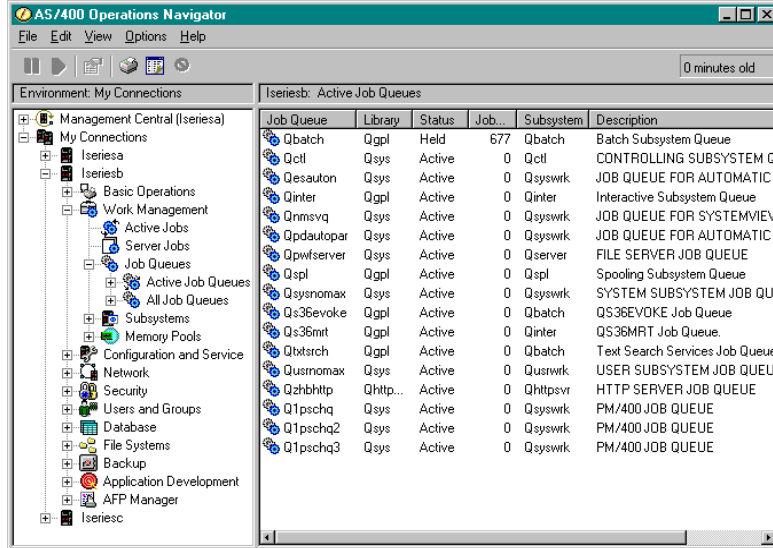
- There are 30 possible columns you can have in your Active Jobs list
 - Seven appear by default (see the screen snap below)
- Job Name must appear first
- After Job Name you can choose the columns you want in the order you want to see them



Work Management: Job Queues



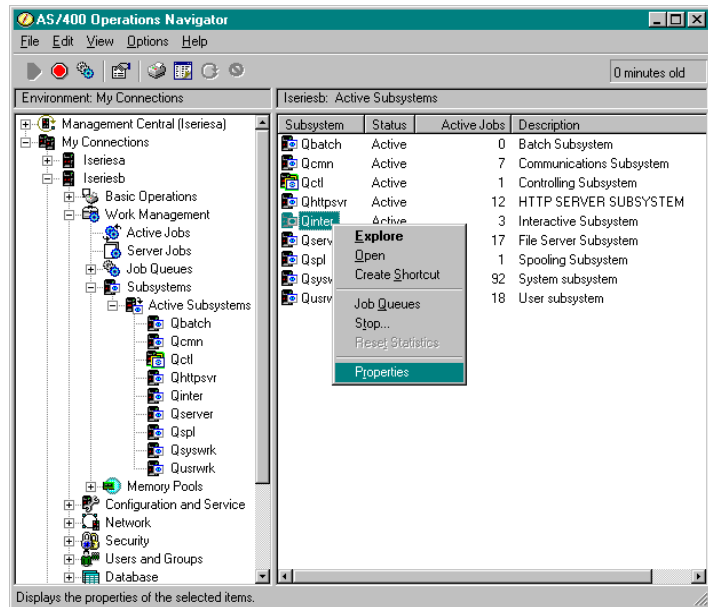
- Active Job Queues
 - All job queues allocated to active subsystems
- All Job Queues
 - All job queues defined on the system
- Menu options
 - Explore/Open (work with jobs)
 - Hold
 - Release
 - Clear
 - Properties
- Jobs can be moved within and between queues using drag and drop



Work Management: Subsystems



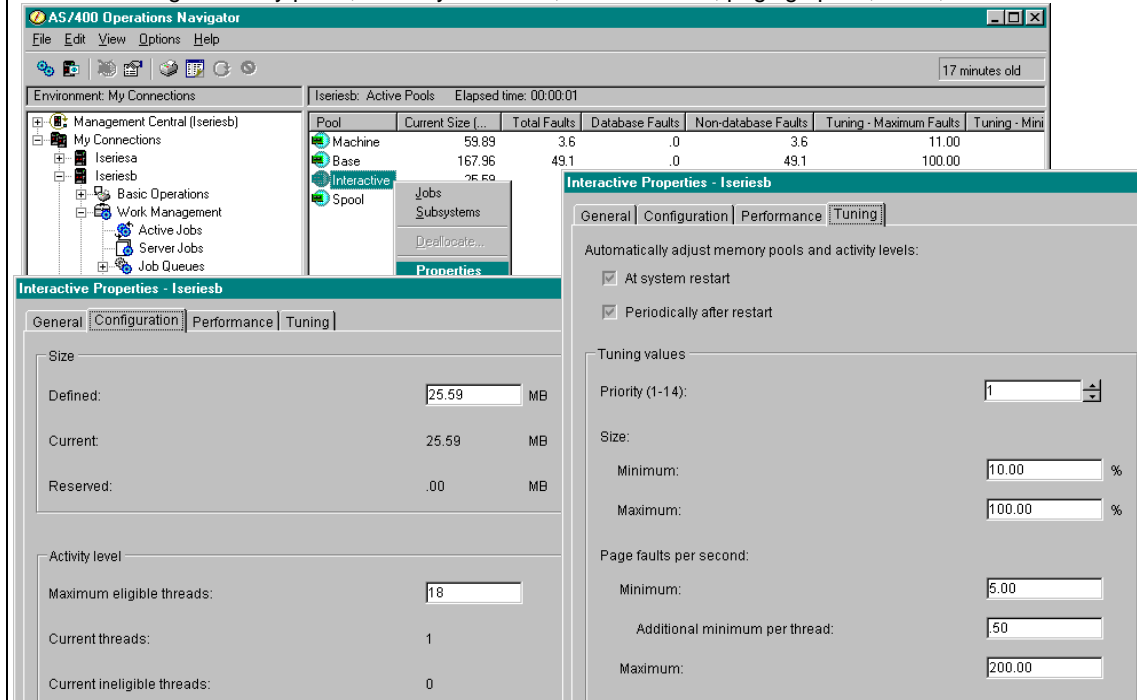
- Active Subsystems
 - All subsystems that have been started
- Menu options
 - Explore/Open (work with jobs)
 - Job Queues
 - Start
 - Stop
 - Properties



Work Management: Memory Pools

- The "middle" of the WRKSYSSTS display
 - Manage memory pools, memory allocation, active threads, paging option, faults, and more

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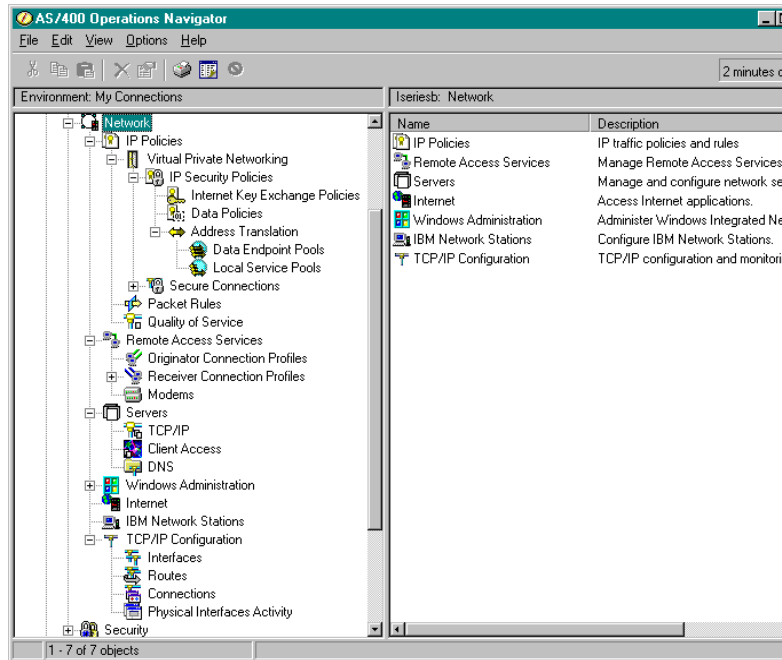
The screenshot displays the AS/400 Operations Navigator interface. At the top, the title bar reads "AS/400 Operations Navigator" with standard menu options (File, Edit, View, Options, Help) and a "17 minutes old" timestamp. The main window is divided into several panes. On the left is a tree view of the system hierarchy, including "Management Central (Iseriesb)", "My Connections", "Iseriesa", "Iseriesb", "Basic Operations", "Work Management", "Active Jobs", "Server Jobs", and "Job Queues". The central pane shows a table of "Active Pools" with columns for Pool, Current Size, Total Faults, Database Faults, Non-database Faults, Tuning - Maximum Faults, and Tuning - Min. The table lists four pools: Machine (59.89 MB, 3.6 faults), Base (167.96 MB, 49.1 faults), Interactive (25.59 MB, 0 faults), and Spool (0 MB, 0 faults). A context menu is open over the "Interactive" pool, showing options: Jobs, Subsystems, Deallocate..., and Properties. The "Interactive Properties - Iseriesb" dialog box is open, showing the "Tuning" tab. It includes checkboxes for "Automatically adjust memory pools and activity levels" (checked), "At system restart" (checked), and "Periodically after restart" (checked). The "Tuning values" section contains several input fields: Priority (1-14) set to 1, Size Minimum set to 10.00%, Size Maximum set to 100.00%, Page faults per second Minimum set to 5.00, and Additional minimum per thread set to .50. The "General" tab of the dialog shows "Size" (Defined: 25.59 MB, Current: 25.59 MB, Reserved: .00 MB) and "Activity level" (Maximum eligible threads: 18, Current threads: 1, Current ineligible threads: 0).

 TCP/IP

TCP/IP: Reorganized Network Tree



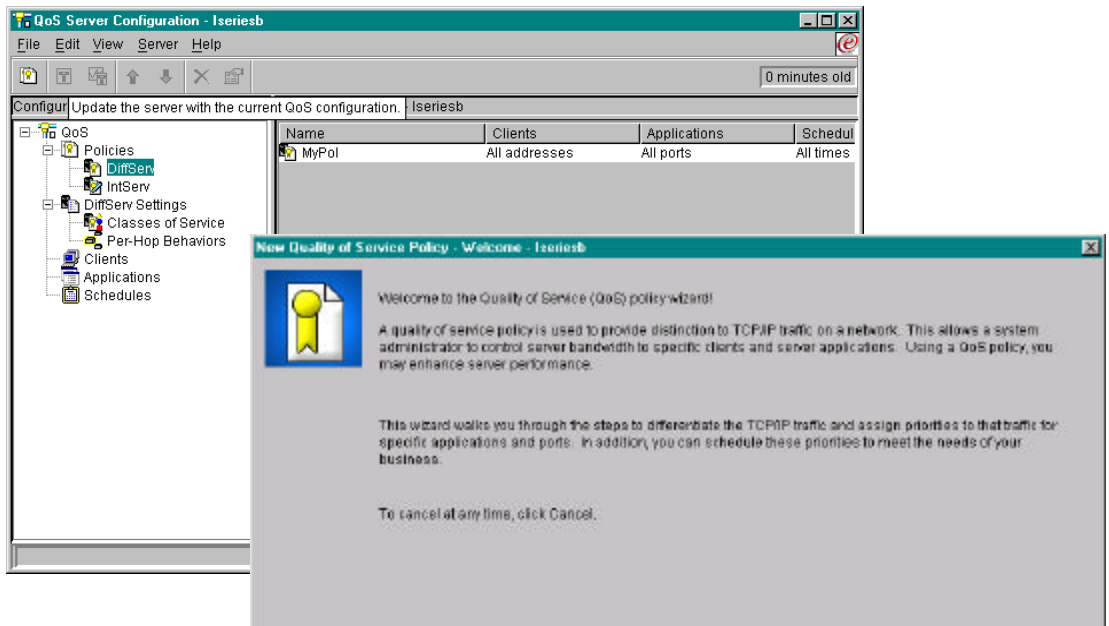
- IP Policies folder for VPN, IP Security (Network Address Translation), Quality of Service
- PPP Now under Remote Access Services
- NetStat type functions under new TCP/IP folder



TCP/IP: Quality of Service (QoS)



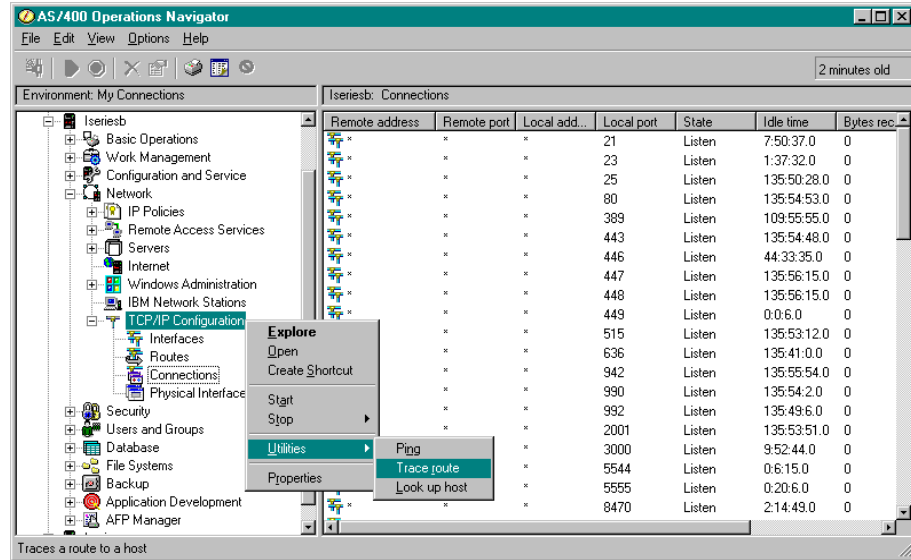
- TCP/IP traffic management tool
- Wizard assists with QoS policy setup



TCP/IP: NetStat



- A graphical version of NetStat (a TCP/IP monitoring and debugging utility)
- Support for monitoring TCP/IP interfaces, routes, and connections
- Also traceroute has been added

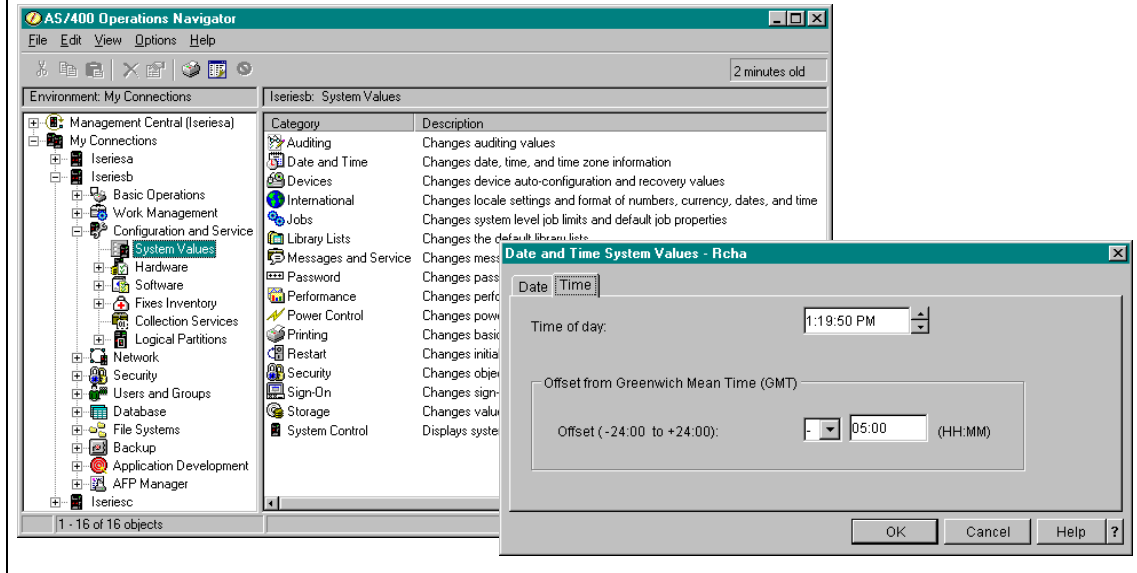


 System Values

System Values

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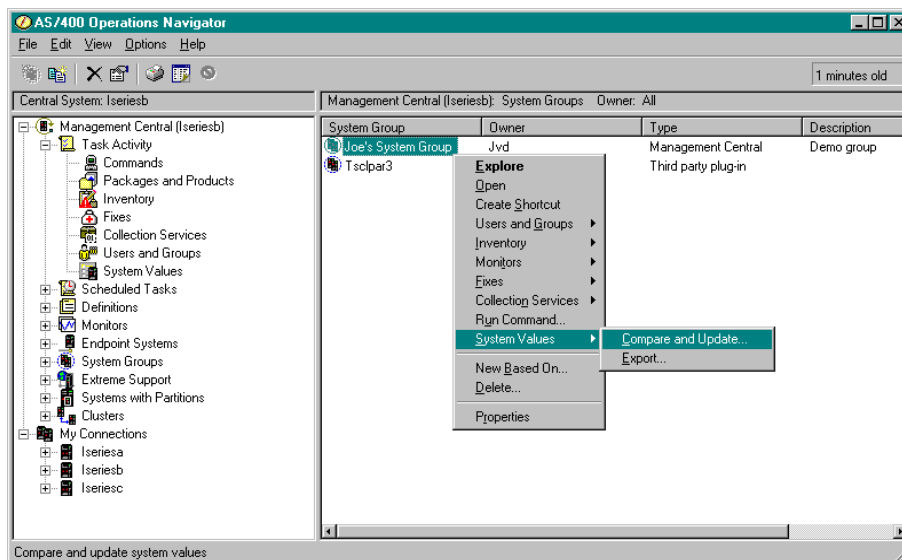
- In previous releases the GUI only included the security and auditing system values
- IN V5R1 we've done the equivalent of WRKSYSVAL...



System Values: Compare and Update

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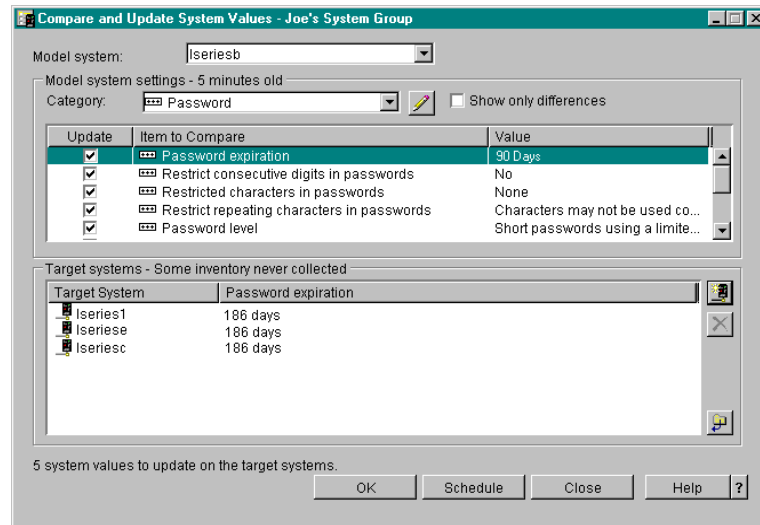
- ... but made it better
- GUI system values are built on top of Management Central technology
- System Values ->Compare and Update menu option on System and Endpoint popup menus allows you to **synchronize values across servers**



System Values: Compare and Update

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- Set up a "model" system to use for comparisons
- View the differences between the model and target servers
- Can update the targets with values from the model (immediate or scheduled)

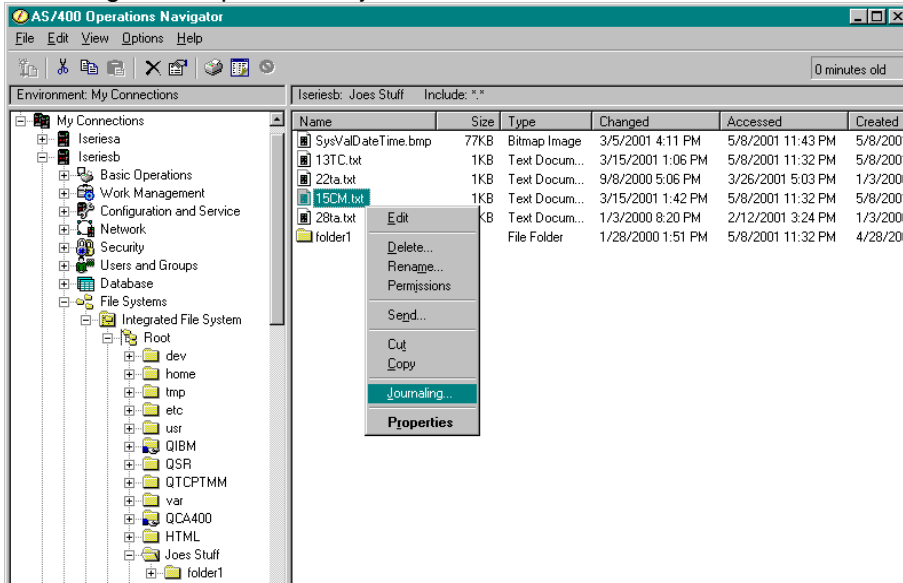


File Systems

File Systems

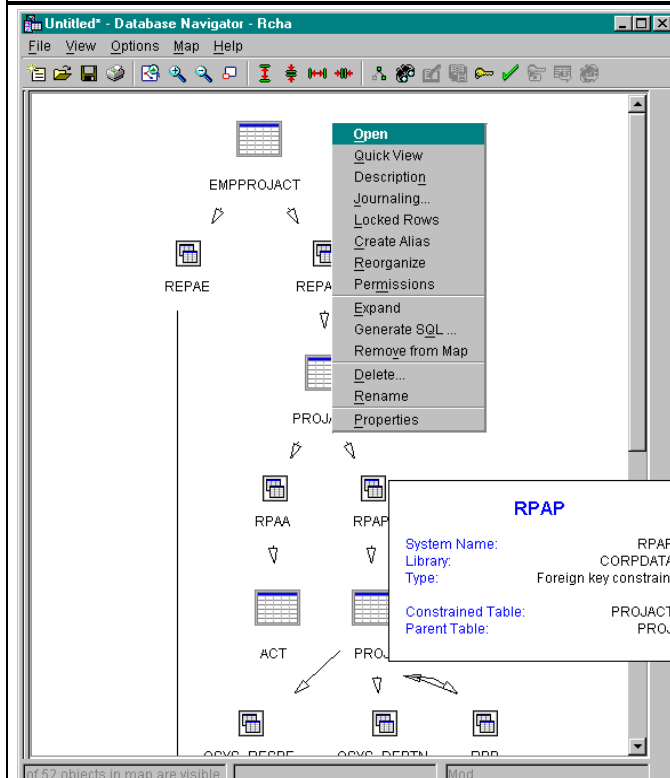


- Performance Enhancements
- Enhanced columns and filtering support
 - Click sorting supported, size of object in view, filtering is persistent (used to be reset when a list refreshed)
- Journaling menu option for objects in QSYS.LIB and the rest of IFS



Database

Database Navigator



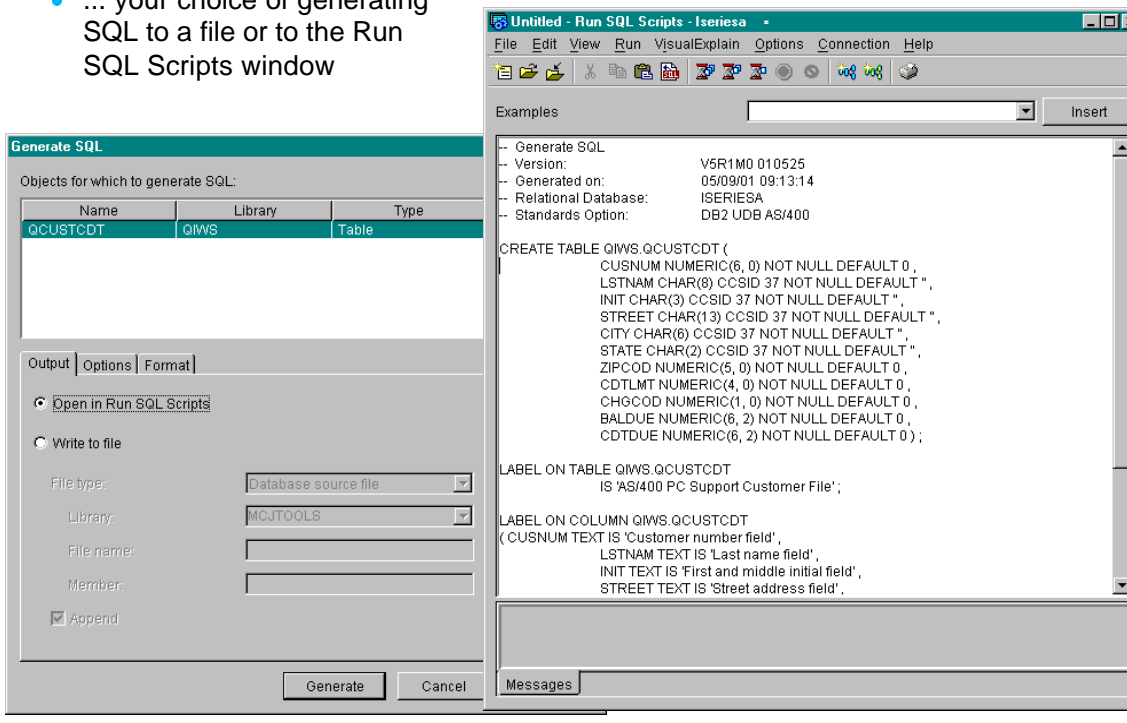
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- Pictorial view of database objects
- Includes tables, views, journals, indexes, keys, constraints
- Object menus available to work on items in the picture
- Generate SQL from existing dB objects...

Database: Generate SQL

- ... your choice of generating SQL to a file or to the Run SQL Scripts window

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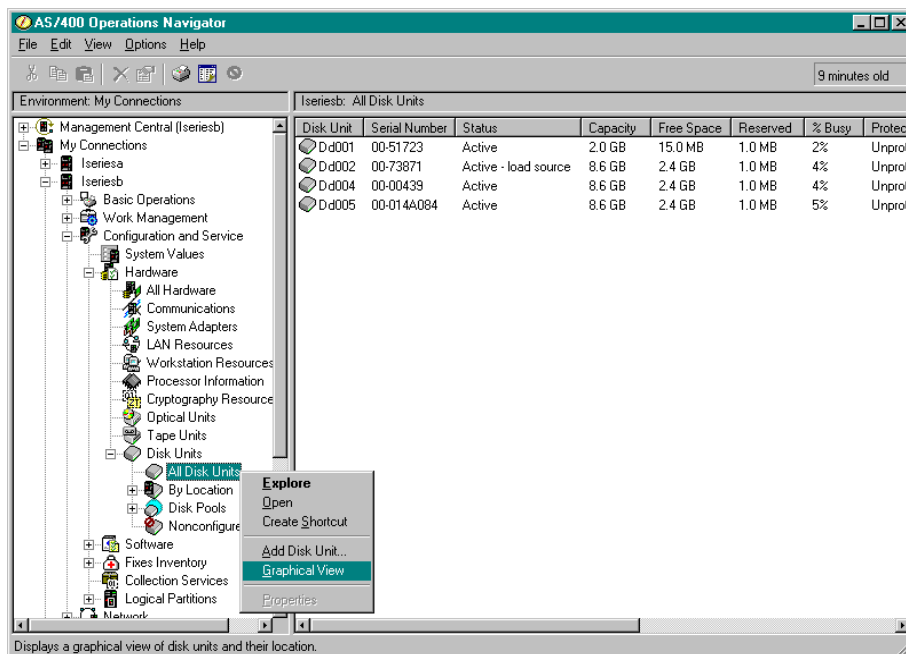


 Disk Management


V5R1: New Disk Unit Graphical View

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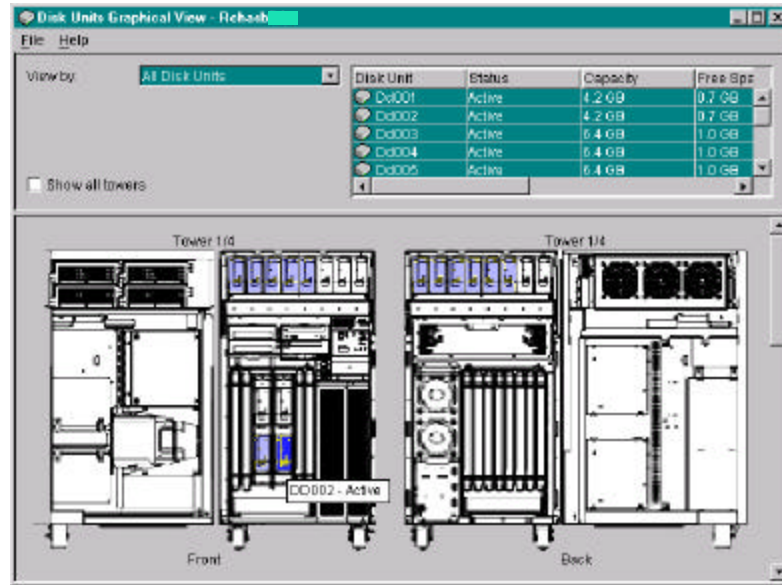
- A new, all encompassing view of racks and disk units...



V5R1: Graphical View

- View all or by disk pools, locations, etc.
- Can see units across all towers
- Graphics are now hot! 
 - Mouse over to see name and status of the disk unit

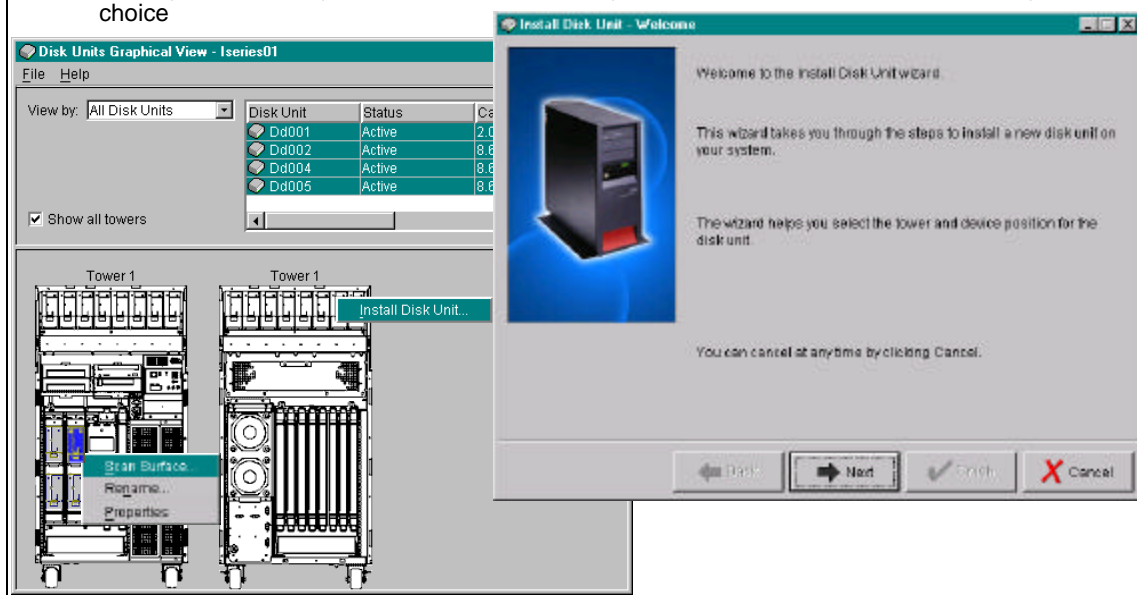
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V5R1: Graphical View

- Right click on a slot will give you a popup menu of valid actions on that disk unit or empty slot
- If slot is empty, you can run the Install Disk Unit Wizard
 - Takes you from empty slot to active, balanced (if you choose) disk unit in the disk pool of your choice

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Notes: Disk Management

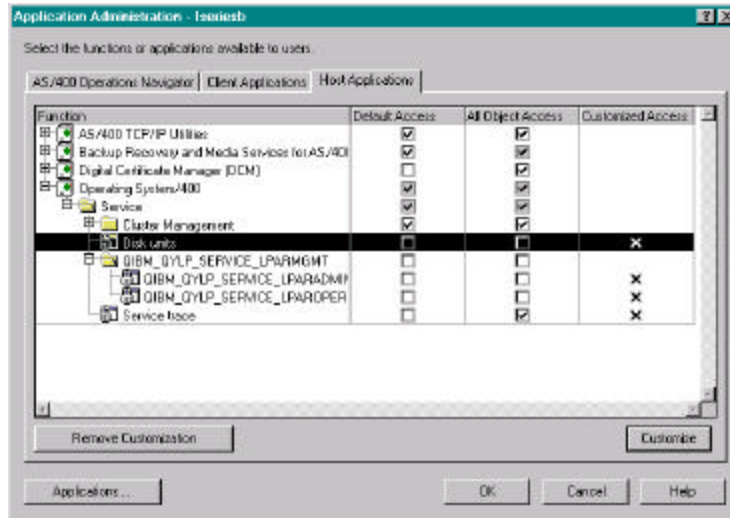


Disk unit management is an administrative area that needs to be tightly controlled because of the potential for actions that would be seriously disruptive to a business. Only people trained in the administration of disks should have access to this GUI.

For that reason, this is one area of GUI that is by default not available in the GUI. A security administrator must use the Application administration function in Operations Navigator to allow anyone to access it. Access is granted through the Host Applications portion of Application Administration, and then allowing access to OS/400, Service, and then Disk Units as shown below. This access can be granted to user or group profiles, or all individuals with *ALLOBJ privilege. It is not recommended that you allow default access (all users).

In addition, for each system on which you want to use the Disk Management GUI (also LPAR GUI) you need to enable the service tools server since the GUI will access functions that are part of DST.

For more information, see the online book "*Tips and Tools for Securing Your iSeries*", Chapter 7. *Tips for Managing and Monitoring Authority* in the V5R1 Information Center. To get to this book and chapter in the Info center quickly, do a search for the phrase "Service Tools Server (STS)".

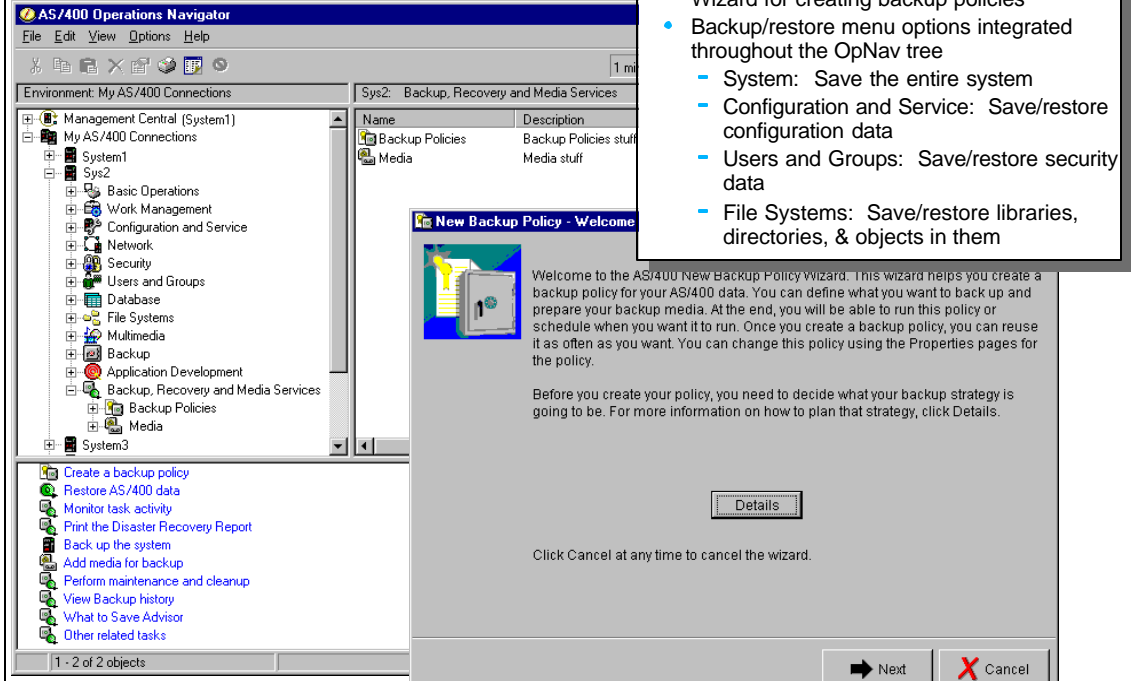


Backup, Recovery, and Media Services

BRMS

BRMS plug-in for Operations Navigator

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AS/400 Operations Navigator

File Edit View Options Help

Environment: My AS/400 Connections

Sys2: Backup, Recovery and Media Services

| Name | Description |
|-----------------|-----------------------|
| Backup Policies | Backup Policies stuff |
| Media | Media stuff |

New Backup Policy - Welcome

Welcome to the AS/400 New Backup Policy wizard. This wizard helps you create a backup policy for your AS/400 data. You can define what you want to back up and prepare your backup media. At the end, you will be able to run this policy or schedule when you want it to run. Once you create a backup policy, you can reuse it as often as you want. You can change this policy using the Properties pages for the policy.

Before you create your policy, you need to decide what your backup strategy is going to be. For more information on how to plan that strategy, click Details.

Click Cancel at any time to cancel the wizard.

Next Cancel

- Wizard for creating backup policies
- Backup/restore menu options integrated throughout the OpNav tree
 - System: Save the entire system
 - Configuration and Service: Save/restore configuration data
 - Users and Groups: Save/restore security data
 - File Systems: Save/restore libraries, directories, & objects in them

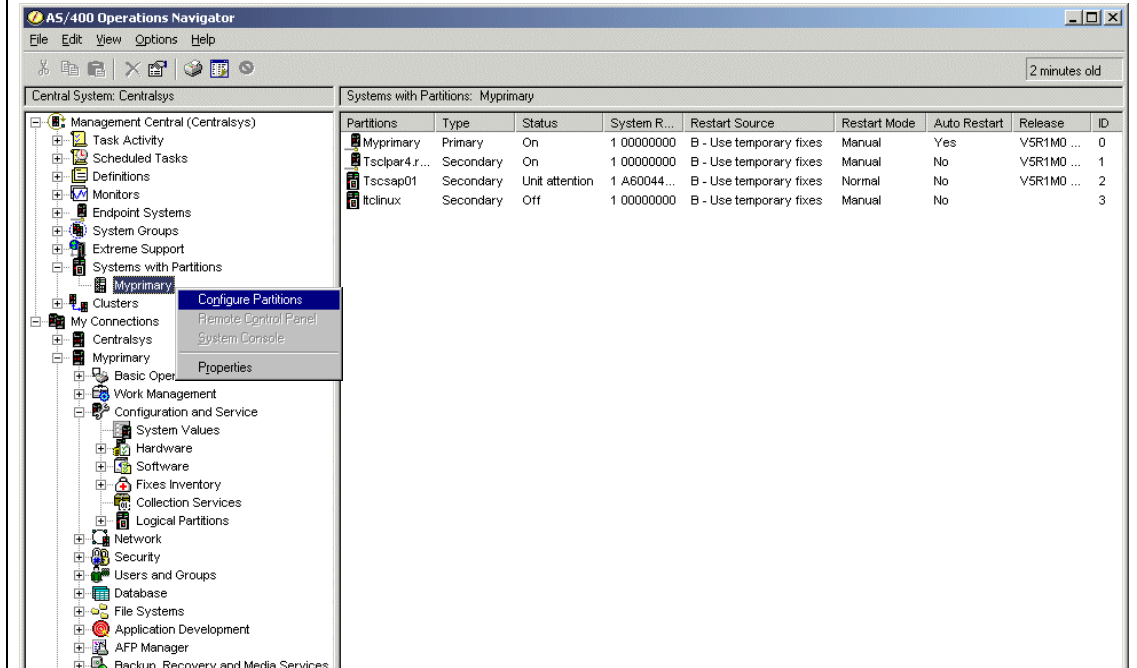
Logical Partitioning (LPAR)

LPAR

View LPAR configuration and status



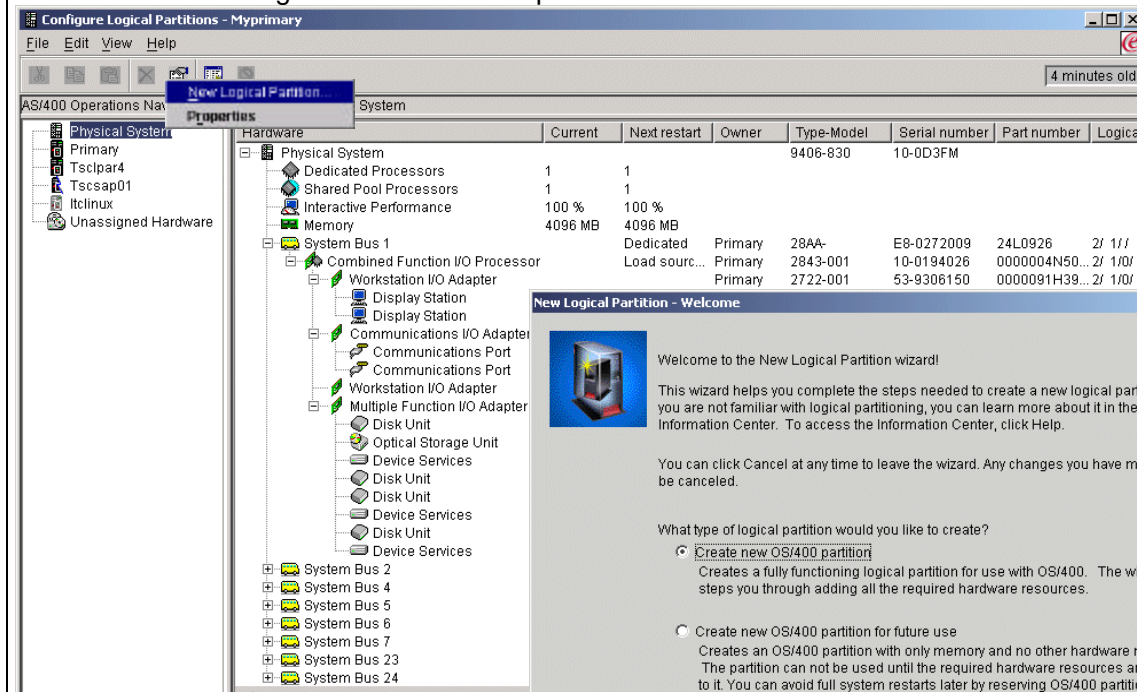
- Use the Configure Partitions menu option for LPAR configuration



LPAR: Configure Logical Partitions



- View hardware assigned to partitions
- Use the New Logical Partition menu option to launch the wizard



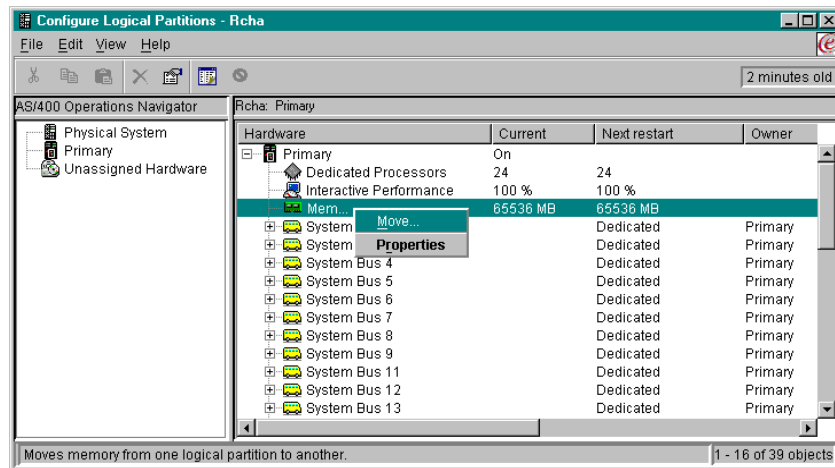
LPAR: Configure Logical Partitions


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Select a partition to see the hardware assigned to it

Move menu option is available to move resources

- To another partition
- To unassigned



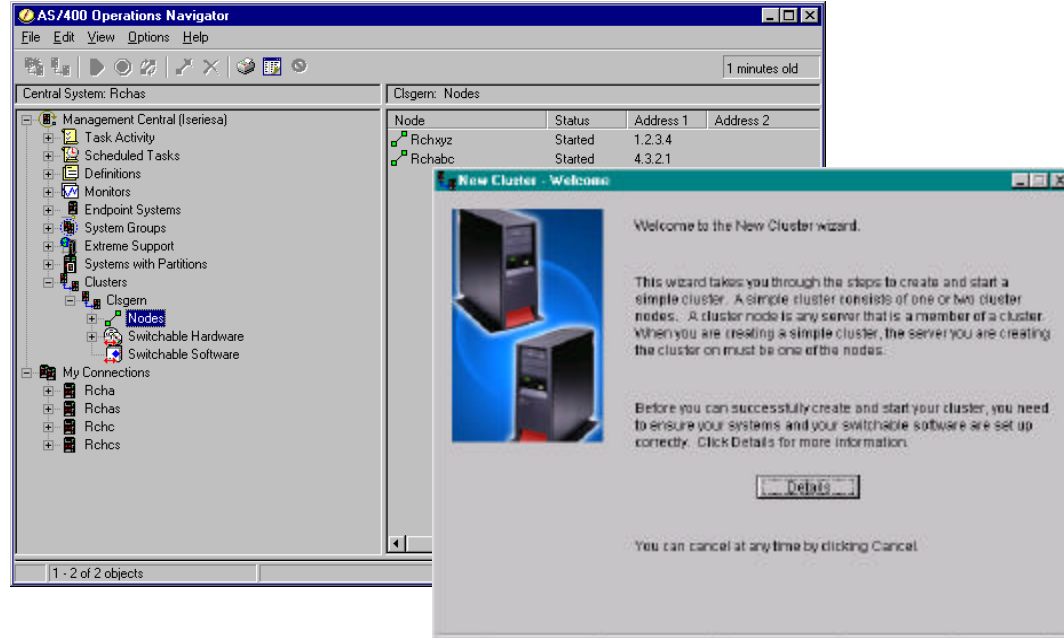
 Simple Cluster Management

Simple Cluster Management

IBM Simple Cluster Management Facility

IBM  iSeries

- Create and manage a two-node cluster using an Independent Auxiliary Storage Pool (IASP) for application and data availability



The screenshot displays the AS/400 Operations Navigator interface. On the left, a tree view shows the system hierarchy under 'Central System: Richas', including 'Management Central (Iseriesa)', 'Task Activity', 'Scheduled Tasks', 'Definitions', 'Monitors', 'Endpoint Systems', 'System Groups', 'Extreme Support', 'Systems with Partitions', 'Clusters', and 'My Connections'. The 'Clusters' folder is expanded to show 'Clsgern: Nodes'. A table lists the nodes:

| Node | Status | Address 1 | Address 2 |
|---------|---------|-----------|-----------|
| Richxyz | Started | 1.2.3.4 | |
| Richabc | Started | 4.3.2.1 | |

Overlaid on the right is a 'New Cluster - Welcome' dialog box. It features an image of two server racks and contains the following text:

Welcome to the New Cluster wizard.

This wizard takes you through the steps to create and start a simple cluster. A simple cluster consists of one or two cluster nodes. A cluster node is any server that is a member of a cluster. When you are creating a simple cluster, the server you are creating the cluster on must be one of the nodes.

Before you can successfully create and start your cluster, you need to ensure your systems and your switchable software are set up correctly. Click Details for more information.

You can cancel at any time by clicking Cancel.



AFP Manager

AFP Manager

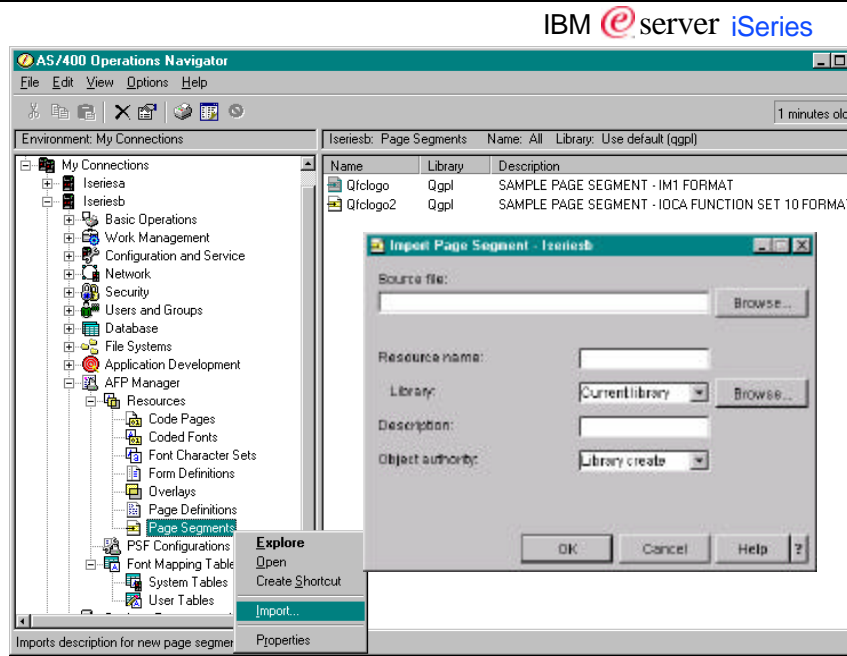
Work with:

- AFP resources
- Font mapping tables
- PSF configuration objects.

Import AFP resources

- AFP object from the PC is saved as an AFP object on the AS/400

Create font mapping tables and PSF configuration objects.



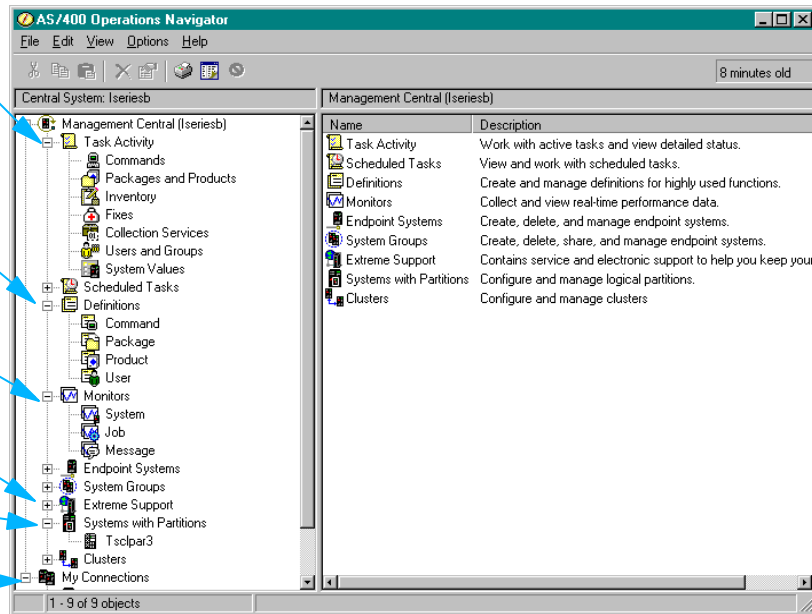
Management Central Tree Changes

Management Central Folder

IBM  iSeries

Used for objects and functions that don't pertain to just a single system

- Task Activity and Scheduled Tasks now have subfolders for different types of tasks
- New Definitions
 - Products (LPs)
 - Users
- New Monitors
 - Job
 - Message
- Extreme Support
- Systems with Partitions
- Clusters



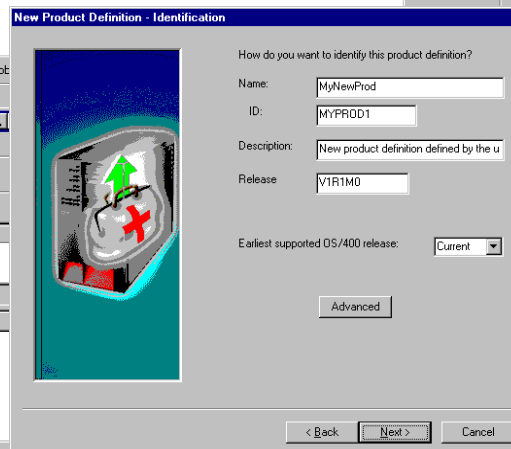
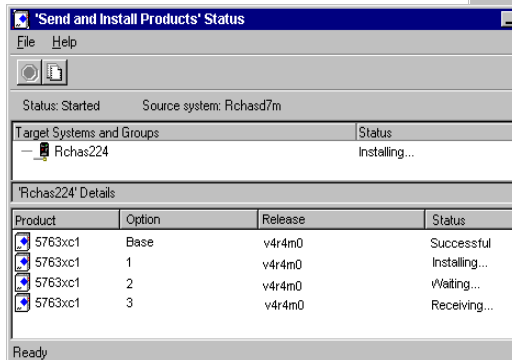
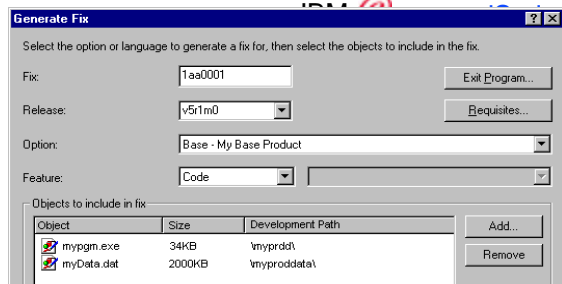
New Definition: Product and Fix Packager

Manage your own products

- Create
- Distribution with post command
- Fixes

Integrated with...

- MC Task Activity
- Scheduling
- Software inventory



Notes: Product and Fix Packager

IBM  server 

Managing a product is easy with the product package function. A product is an application program that has been packaged using the product packaging function. The system provides management functions for software that is identified as a product. To use the management functions for your own software, the software must be identified to the system as a product.

You need to create a product definition before you can convert your application into a product that the AS/400 system identifies as a product. A product definition contains all the information that you need to send and install a product across multiple systems. A product definition also gives you the ability to manage fixes for the product.

After you have created and installed your product on your source system, you can send and install that product on other target systems by using the product definition.

To send and install a product from your software inventory list, follow these steps:

1. Expand Management Central
2. Expand Definitions
3. Select Product
4. Right-click the product definition that you want to send and install and select 'Send and Install'. You can send and install only product definitions with a status of Installed or Managed.
5. Follow the wizard's instructions for sending and installing the product on the target systems.

Once you have installed a product, you can encounter situations when you need to provide fixes to correct problems or potential problems found within your installed product. This function will also allow you to create your own fixes for your product.

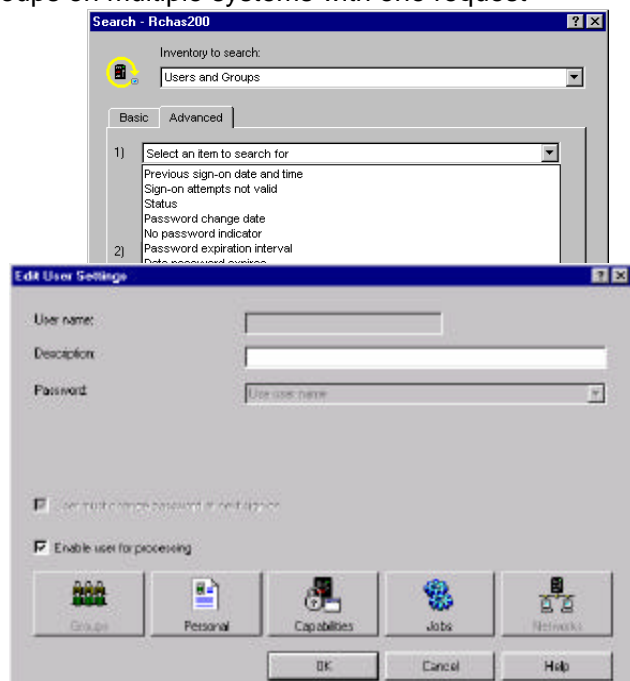
Products and Fixes created using this tool will be included during inventory collection and fix management tasks.

New Definition: User

Distributed User Administration

IBM  server 

- Create, change, delete users or groups on multiple systems with one request
- Create profile from a template
- Integrated as Task Activity
 - Create
 - Delete (scan for owned objects)
 - Change
 - Send
 - ◆ SDD entry
 - ◆ private authorities
 - ◆ privileges
 - ◆ password
- Integrated with Inventory
 - Schedule collection
 - Search
 - ◆ expired passwords
 - ◆ sign-on dates
 - ◆ and more...
 - Export



Notes: User Administration



You can now manage your users and groups across multiple systems. You can collect an inventory of the users and groups on one or more endpoint systems, and then view, search, or export the results to a PC file. You can send users and groups from one systems to multiple endpoint systems or system groups. You can create, edit or delete users and groups across multiple endpoint systems or system groups.

Users and Groups Administration can be any one of the following actions:

- Send users and groups
- Create user and groups
- Edit users and groups
- Delete users and groups

Searches the following fields in the users and groups inventory on the selected systems and groups:

- AS/400 user name
 - Description
 - First name
 - Preferred name
 - Middle name
 - Last name
 - Full name

The Advanced search page allows you to search on additional fields.

System Monitors



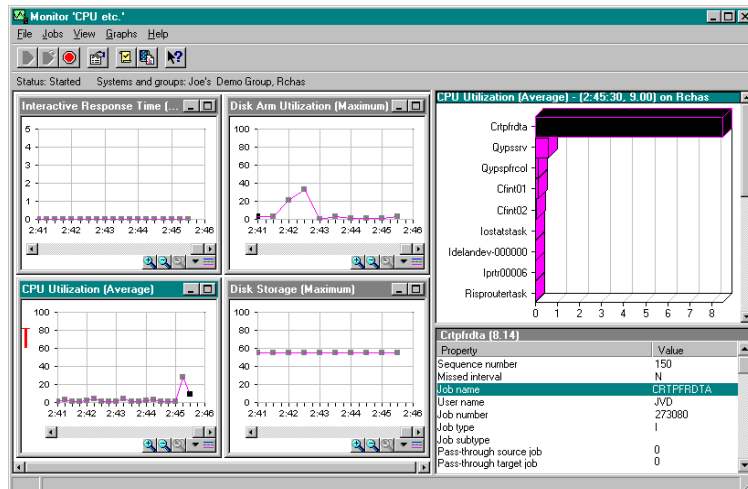
View performance metrics on multiple systems

- Real-time
 - set thresholds
 - trigger automation
 - detailed data
 - drill-down
- Near real-time
 - previous 7 to 30 days
 - detailed data
 - drill-down
- Historical
 - overview data
 - weeks/months/years

Thresholds

- Trigger events
- Reset events

Automated actions

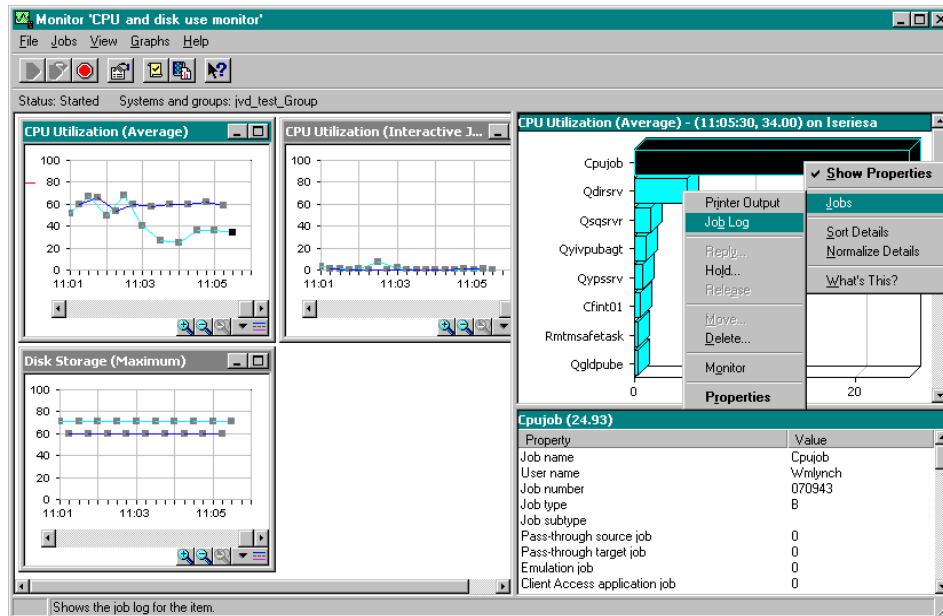


System Monitors

Monitor graphs are now hot!

IBM  iSeries

- Right click on a job in the "top 20" CPU-using jobs bar chart to control it



Notes: System Monitors

IBM  iSeries

Visualize what's going on with your systems with detailed graphs that monitor the real-time performance of multiple AS/400 systems. You can view and change information about the monitor, including the metrics to be collected by the monitor.

Use the Graph History window to see a graphical view of the metrics that have been collected for an extended period of time for a particular monitor. You can contrast this data with the real-time data for the last hour shown in the Monitor window.

The Monitor window shows a graphical view of the metrics for a monitor as they are being collected. You can have more than one monitor window open at the same time, and you can work with other windows while the Monitor windows are open. The Monitor window contains three panes: Graphs, Details, and Properties. From the Details pane, you can now perform specific job actions such as hold, release, end, etc..

From the Monitor window, you can change the properties of the monitor. You can change which metrics are being collected by the monitor and the values for the thresholds that are being monitored for each metric. You can change the collection interval, the retention period, or the maximum graphing. You can also change the actions that occur whenever a threshold is triggered or reset. You can change the properties of any monitor whether it is started or stopped. If you change the properties of a monitor that is running, the changes will take effect immediately.

With the addition of Management Central - Pervasive, the power of Management Central can be accessed from Internet phones, Personal Digital Assistants (PDAs), or web browsers. Use the system monitor support that is available in Management Central to set up complex monitors and detailed thresholds, and then use Management Central - Pervasive to view the status from anywhere.

After you set up a Web server on your central system, you type the URL into your Web phone, PDA, or browser to check the availability of your systems and any active Management Central monitors. For example, you can check the availability of your systems to find out if a restart completed or check one of your active monitors to see if any thresholds for CPU were exceeded.

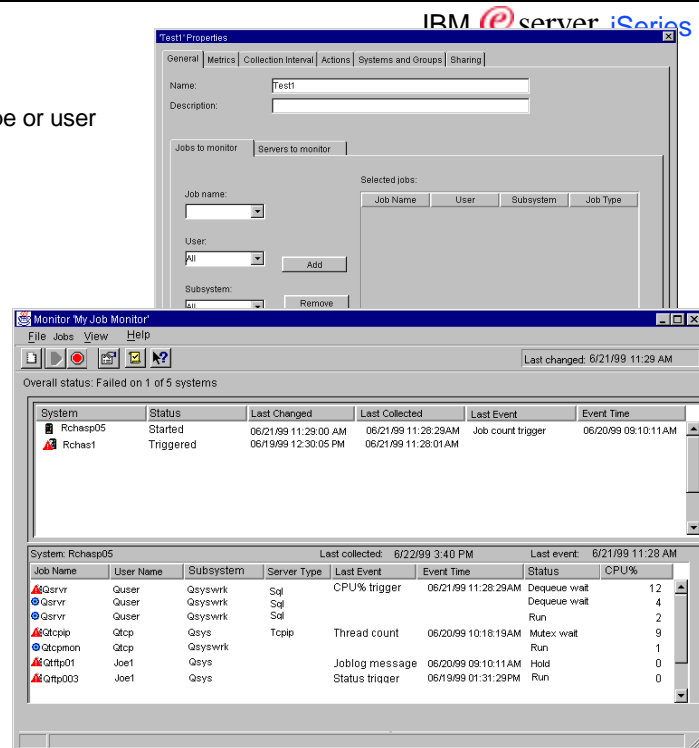
Job and Server Monitors

Monitor jobs by selecting...

- Job criteria
 - subsystem, job name, job type or user
- Server name
 - web server, ftp server...

Enabled with...

- Event logging
- Trigger/Reset notification
- CL Command Automation
- Predefined metrics
 - job status, job count...
- Job actions available
 - Hold, release, end...



Notes: Job and Server Monitors

IBM  server iSeries

You can use a job monitor to monitor a job or list of jobs based on job name, job user, job type, subsystem, or server type. For example, you might want to monitor a job's CPU usage, job status, or job log messages.

Once you have setup the criteria, you will need to select the metrics you want to collect and specify any needed thresholds. For a job monitor, available metrics include job count, job status, job log messages, CPU utilization, logical I/O rate, disk I/O rate, communications I/O rate, transaction rate, and more. The thresholds are similar to the System monitors commands for numeric metrics but job monitors have status and message metrics as well.

As the job monitor runs, it collects job information, filters it, checks for thresholds. When the end user, opens a job monitor, they will see the systems, status and jobs which match the criteria for the system selected. A cool feature here is the ability to perform specific actions on the jobs in the list such as hold, release, end, etc.


Message Monitors

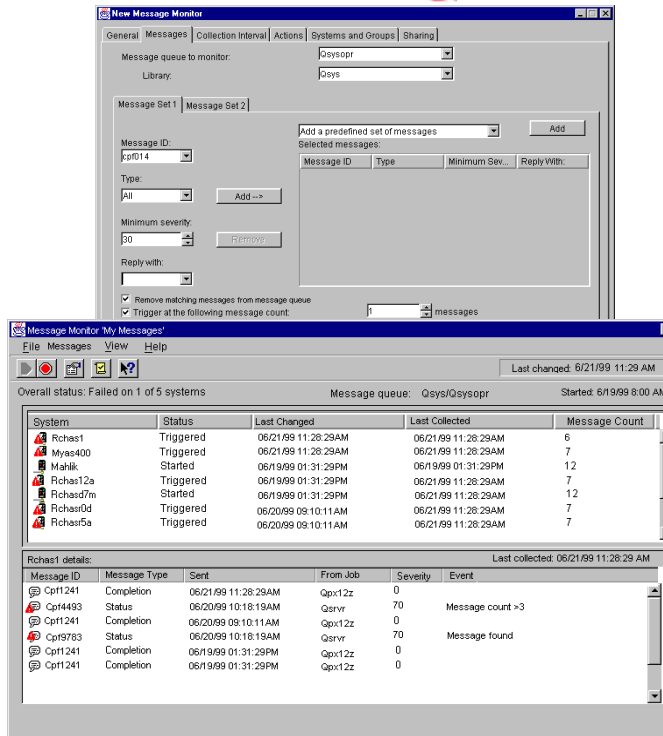
Monitor message queue

- A single message queue
- Message criteria
 - id, severity or type

Enabled with...

- Event logging
- Trigger notification
- Manual reset
- CL Command Automation
- Predefined metrics
 - count...
- Message actions available
 - Reply, delete...

IBM 



Message Monitor Configuration:

Message queue to monitor: Qsysopr
Library: Qsys

Message Set 1: Message ID: Cpf014, Type: All, Minimum severity: 30, Reply with: [empty]

Remove matching messages from message queue
 Trigger at the following message count: 1 messages

Message Monitor 'My Messages'

Overall status: Failed on 1 of 5 systems
Message queue: Qsys/Qsysopr
Started: 6/19/99 8:00 AM
Last changed: 6/21/99 11:29 AM

| System | Status | Last Changed | Last Collected | Message Count |
|----------|-----------|---------------------|---------------------|---------------|
| Rchas1 | Triggered | 06/21/99 11:28:29AM | 06/21/99 11:28:29AM | 6 |
| Wsys400 | Triggered | 06/21/99 11:28:29AM | 06/21/99 11:28:29AM | 7 |
| Matrk | Started | 06/19/99 01:31:29PM | 06/19/99 01:31:29PM | 12 |
| Rchas12a | Triggered | 06/19/99 01:31:29PM | 06/21/99 11:28:29AM | 7 |
| Rchas7m | Started | 06/19/99 01:31:29PM | 06/21/99 11:28:29AM | 12 |
| Rchas0d | Triggered | 06/20/99 09:10:11AM | 06/21/99 11:28:29AM | 7 |
| Rchas5a | Triggered | 06/20/99 09:10:11AM | 06/21/99 11:28:29AM | 7 |

Rchas1 details: Last collected: 06/21/99 11:28:29 AM

| Message ID | Message Type | Sent | From Job | Severity | Event |
|------------|--------------|---------------------|----------|----------|------------------|
| Cpf1241 | Completion | 06/21/99 11:28:29AM | Qpx12z | 0 | |
| Cpf4493 | Status | 06/20/99 10:18:19AM | Qsrvt | 70 | Message count >3 |
| Cpf1241 | Completion | 06/20/99 09:10:11AM | Qpx12z | 0 | |
| Cpf9783 | Status | 06/20/99 10:18:19AM | Qsrvt | 70 | Message found |
| Cpf1241 | Completion | 06/19/99 01:31:29PM | Qpx12z | 0 | |
| Cpf1241 | Completion | 06/19/99 01:31:29PM | Qpx12z | 0 | |

Notes: Message Monitors

IBM 

You can create message monitors to monitor for specified messages on a message queue. For example, you might create a message monitor to determine whether an application completed successfully. Or you might create a message monitor to monitor the system operator message queue for a specific message that indicates when a critical storage condition exists. When you create that monitor, you can specify commands to run when the message is detected. In this case, you would want to free up storage space by specifying commands to delete unused objects or spooled files.

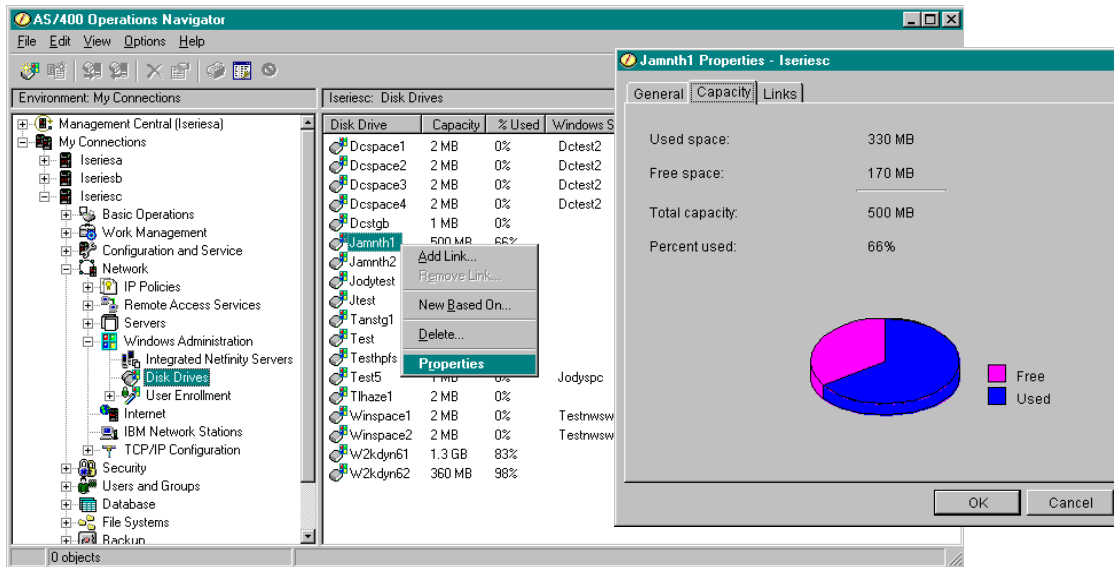
You can also see the details of a message, reply to a message, send a message, delete a message, and see or change the properties of a message.

 **Integrated xSeries Server Management**

Integrated xSeries Server Management

IBM  iSeries

- Windows Server management came in V4R5
- V5R1 enhancements allow administration of Windows Server disks...



The screenshot displays the AS/400 Operations Navigator interface. The main window shows a tree view of 'My Connections' with 'Iseriesc' expanded to 'Disk Drives'. A table lists disk drives with columns for Disk Drive, Capacity, % Used, and Windows S. The 'Jamnth1' drive is selected, and a context menu is open over it, with 'Properties' highlighted. A 'Jamnth1 Properties - Iseriesc' dialog box is open, showing the 'Capacity' tab. It displays a pie chart and the following statistics:

| Stat | Value |
|-----------------|--------|
| Used space: | 330 MB |
| Free space: | 170 MB |
| Total capacity: | 500 MB |
| Percent used: | 66% |

The pie chart shows a pink slice for 'Free' space and a blue slice for 'Used' space. The dialog box has 'OK' and 'Cancel' buttons at the bottom.

Integrated xSeries Server Management



... and Windows users and groups

- Enroll OS/400 users and groups to Windows servers

The screenshot displays the AS/400 Operations Navigator interface. On the left, a tree view shows the navigation structure, with 'Users' selected under 'User Enrollment'. A context menu is open over the 'Users' folder, with 'Enroll Users...' highlighted. The main pane shows a table of users with columns for 'Windows User', 'Enrollment Status', and 'Enrolled'. A dialog box titled 'Enroll Users in Nap - Rcha' is open, showing a list of unenrolled users with checkboxes. 'Aanew3' is selected. The dialog also includes a 'Windows user template' field and 'Enroll', 'Cancel', and 'Help' buttons.

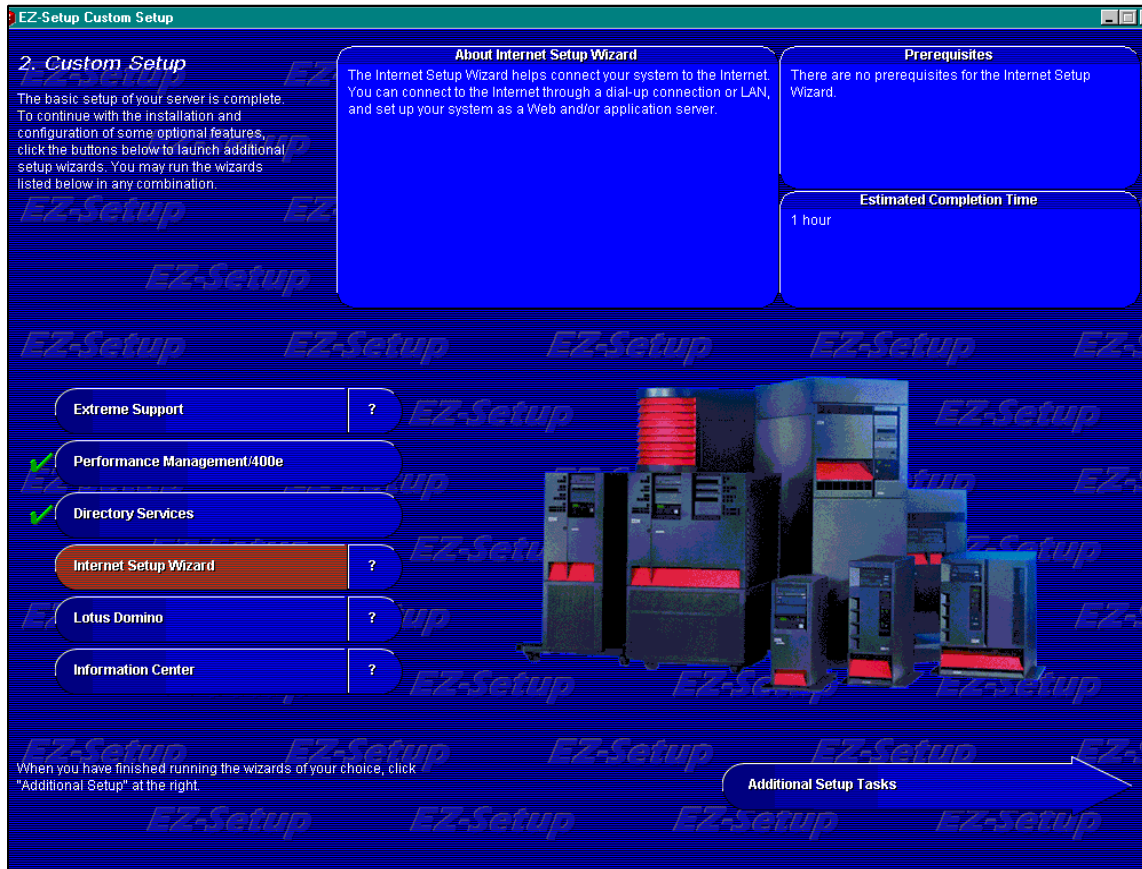
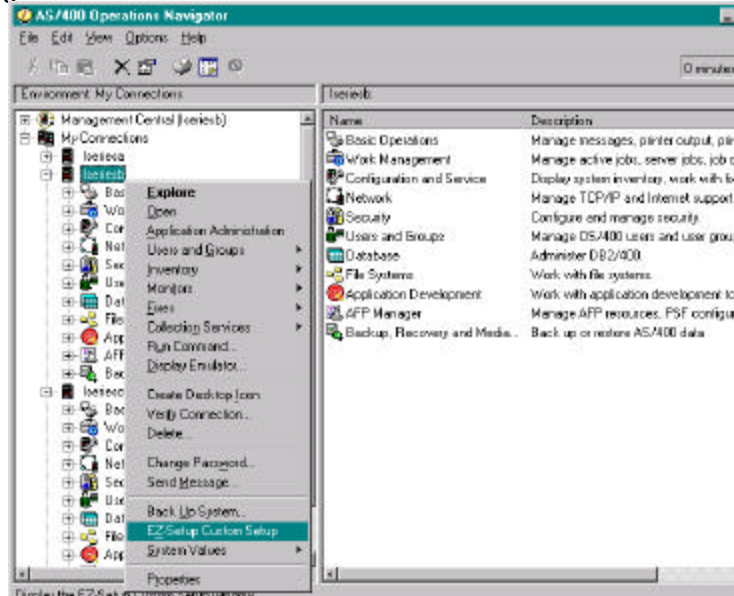
| Windows User | Enrollment Status | Enrolled |
|--------------|-----------------------|----------|
| Critusr001 | Enrollment pending... | Citgrp2 |
| Critusr002 | Enrollment pending... | Citgrp2 |
| Critusr003 | Enrollment pending... | Citgrp2 |
| Critusr004 | Enrollment pending... | Citgrp2 |
| Critusr005 | Enrollment pending... | Citgrp2 |
| Critusr006 | Enrollment pending... | Citgrp2 |
| Critusr007 | Enrollment pending... | Citgrp2 |
| Critusr008 | Enrollment pending... | Citgrp2 |
| Critusr009 | Enrollment pending... | Citgrp2 |
| Critusr010 | Enrollment pending... | Citgrp2 |
| Critusr011 | Enrollment pending... | Citgrp2 |
| Critusr012 | Enrollment pending... | Citgrp2 |
| Critusr013 | Enrollment pending... | Citgrp2 |
| Critusr014 | Enrollment pending... | Citgrp2 |
| usr015 | Enrollment pending... | Citgrp2 |
| usr016 | Enrollment pending... | Citgrp2 |
| usr017 | Enrollment pending... | Citgrp2 |
| usr018 | Enrollment pending... | Citgrp2 |
| usr019 | Enrollment pending... | Citgrp2 |
| usr020 | Enrollment pending... | Citgrp2 |



EZ Setup

EZ Setup

- Now included with Client Access
- First stage wizard steps through initial system setup
 - User profiles, system values, LAN
- Second stage "Custom Setup" includes more detailed setup tasks and is available in Operations Navigator
 - Extreme Support
 - PM/400
 - Directory Services (LDAP)
 - Internet Setup Wizard
 - Domino installation
 - Information Center (installs a local copy)



In Summary...

Performance Considerations

IBM  iSeries

If the GUI seems slow...

- GUIs come with richer, more integrated function than any command line/green screen
 - And yes, there's a cost for that additional ease of use
- Performance improves during the course of a session
 - More caching, more things loaded in memory
- Exceed PC size recommendations provided by Client Access, especially for memory
 - Use at least a **400-500 mHz CPU, 128 MB memory; more is better**
 - Keep up to date with Client Access service packs
- Turn off the taskpad
 - It's a helpful way to find key tasks, but if you know where they are on the popup menus, turning off the taskpad will improve GUI performance
- Use include/filtering where possible to subset a large list, especially in the File Systems folder
- If you have multiple things to do and don't want to wait for tasks to complete and have plenty of PC memory:
 - You can start multiple copies of Operations Navigator and multi-task between them

Use the Help!

V5R1 adds a tremendous amount of function

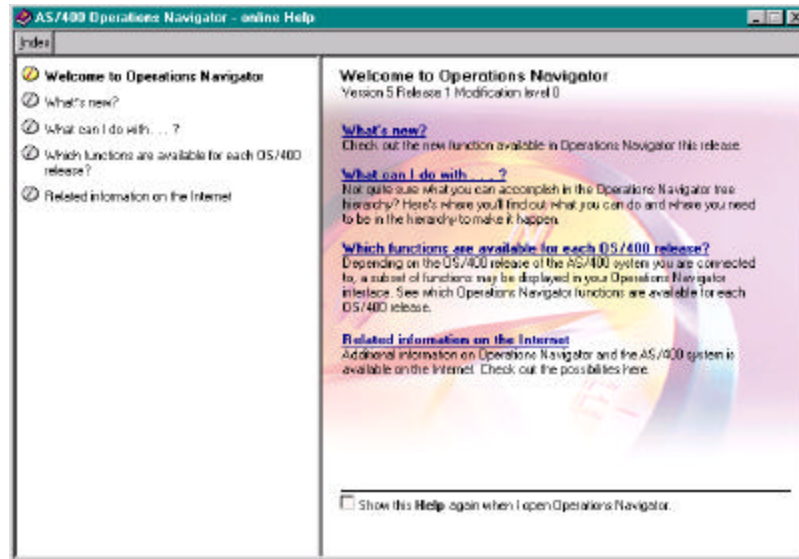
IBM  iSeries

Couldn't go into much depth on anything in this session

- Go to the detailed sessions in your area of interest while at Common
- Visit us at the Expo

When you go home...

- Use the online help and the Information Center
- Check out the Help Topics window to help get oriented (click on Help Topics in the OpNav Help pulldown menu)



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IBM  iSeries

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