


IBM Systems Director ~ IBM Systems Director Navigator for i ~ System i Navigator

Compare and Contrast



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Product Names and Terminology (and shortcut terminology)



IBM Systems Director
Director



System i Navigator
Navigator

Aka, Operations Navigator, iSeries Navigator,
Navigator for i

IBM Systems Director Navigator for i
Director Navigator

http://ibmsystemsmag.blogs.com/i_can/2010/03/i-can-direct-the-use-of-navigator-or-is-that-navigate-the-use-of-director.html

Comparison Overview

Installation

IBM Systems Director requires server installation

IBM i agent installation required for full functionality

- Discover systems

- Collect comprehensive platform and operating system inventory data

- Monitor health and status

- Manage alerts

- Perform remote access, including transferring files

- Perform power management function

- Additional event support

- Monitor processes and resources, and set critical thresholds send notifications when triggered

- Manage operating system resources and processes

- Manage updates

Comparison Overview

Installation, continued ...

System i Navigator requires Windows client installation

IBM Systems Director Navigator for i requires nothing to be installed on your PC. It is installed and available to use out-of-the-box in IBM i 6.1 and later.

IBM i 6.1

IBM HTTP Server for i	5761DG1
Qshell	5761SS1 option 30
Portable App Solutions Env (PASE)	5761SS1 option 33
IBM Developer Kit for Java	5761JV1
J2SE 5.0 32 bit	5761JV1 option 8
IBM Toolbox for Java 5761JC1	
Host Servers	5761SS1 option 12

IBM i 7.1

IBM HTTP Server for i	5770DG1
Qshell	5760SS1 option 30
Portable App Solutions Env (PASE)	5760SS1 option 33
IBM Developer Kit for Java	5761JV1
J2SE 5.0 32 bit	5761JV1 option 8
Host Servers	5770SS1 option 12

Comparison Overview

Scope

IBM Systems Director

Cross-platform management

A wide variety of function across multiple platforms

Launches to other consoles for deep platform function (IBM i, AIX, HMC)

System i Navigator

Management of many IBM i systems

IBM Systems Director Navigator for IBM i

Manage only the server where you point your Web browser. Not a complete replacement for System i Navigator. There is substantial function (over 300 web-enabled functions) that have been Web enabled as of IBM i 6.1 and more in 7.1

New in IBM i 7.1 – Manage a remote IBM i partition from your Web based Navigator interface!
Allows you to manage 5.4 partitions from the Web.

Comparison Overview – Continued

Unique Function

Systems Director

Virtualization, energy, blade fabric management, service and support, topology mapping, notification, automation, storage management,

System i Navigator – Management Central

Multi-system users and groups

Detailed IBM i monitoring

Software distribution

Director Navigator

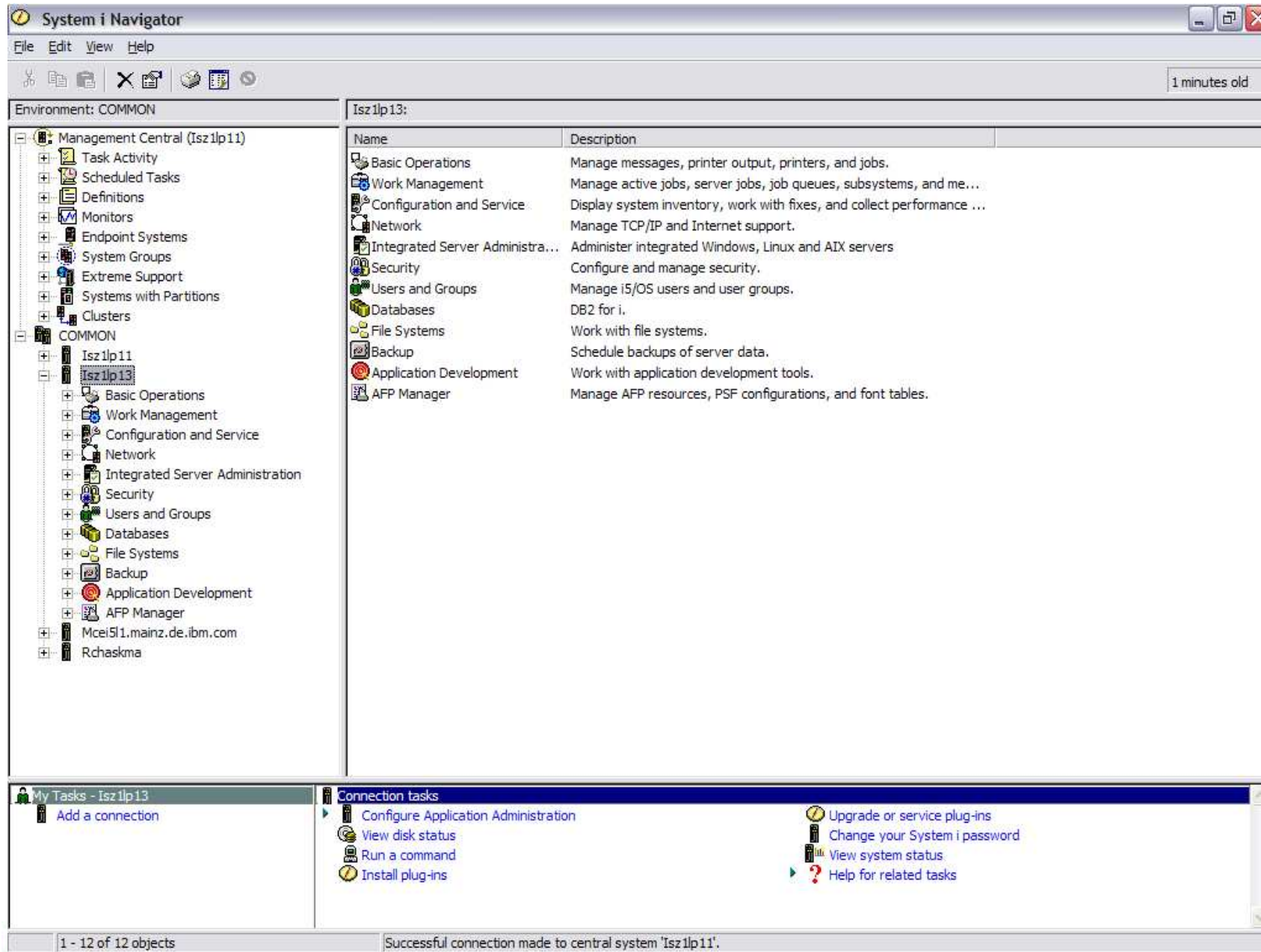
Performance Data Investigator

High Availability Solutions Manager

Backup, Recovery, & Media Services

New in IBM i 7.1 Native Operating System interface (ok...access to green screen from the Web)

System i Navigator



System i Navigator

File Edit View Help

Environment: COMMON

Isz1p13:

Name	Description
Basic Operations	Manage messages, printer output, printers, and jobs.
Work Management	Manage active jobs, server jobs, job queues, subsystems, and me...
Configuration and Service	Display system inventory, work with fixes, and collect performance ...
Network	Manage TCP/IP and Internet support.
Integrated Server Administra...	Administer integrated Windows, Linux and AIX servers
Security	Configure and manage security.
Users and Groups	Manage i5/OS users and user groups.
Databases	DB2 for i.
File Systems	Work with file systems.
Backup	Schedule backups of server data.
Application Development	Work with application development tools.
AFP Manager	Manage AFP resources, PSF configurations, and font tables.

My Tasks - Isz1p13

Add a connection

Connection tasks

- Configure Application Administration
- View disk status
- Run a command
- Install plug-ins
- Upgrade or service plug-ins
- Change your System i password
- View system status
- Help for related tasks

1 - 12 of 12 objects

Successful connection made to central system 'Isz1p11'.

IBM Systems Director Navigator for i

http://systemname:2001

IBM® Systems Director Navigator for i

Welcome, enter your information.

User ID:

Password:

IBM® Systems Director Navigator for i

Welcome dmmay

Help | Logout

--- Select Action ---

View: All tasks

- Welcome
- My Startup Pages
- IBM i Management**
 - Set Target System
 - System
 - Basic Operations
 - Work Management
 - Configuration and Service
 - Network
 - Integrated Server Administration
 - Security
 - Users and Groups
 - Databases
 - Journal Management
 - Performance
 - File Systems
 - Internet Configurations
 - Backup, Recovery and Media Services
 - High Availability Solutions Manager
 - Cluster Resource Services
- Settings

Welcome


Welcome to the IBM Systems Director Navigator for i

[About Console](#)

The IBM Systems Director Navigator for i provides an easy to use interface for the web-enabled IBM i management tasks, including all previous IBM i Navigator tasks on the web, and 2001 port tasks.

Expand IBM i Management in the left-hand navigation area to get started.

To see the previous version of the 2001 port tasks and where they are located now, click below.

 [IBM i Tasks Page](#)

Web application
Included with IBM i 6.1 or later

IBM Systems Director Overview

End-to-end Management



Platform Management

Director Navigator for IBM i
AIX web console
HMC web console
Remote Access



IBM and non-IBM hardware

IBM Systems Director Overview

Topology



Three-tiered architecture

Thousands of managed nodes

Upward Integration modules supporting

Tivoli, Computer Associates, Hewlett Packard, Microsoft



IBM® Systems Director

Welcome dmmay

Problems

0

25

Compliance

View: All tasks

- Welcome
- My Startup Pages
- Find a Task
- Find a Resource
- Navigate Resources

Automation

Availability

Inventory

Release Management

Security

System Configuration

System Status and Health

Task Management

Settings

Welcome

Welcome to IBM® Systems Director

Find a
resource

Find a
task

Start

Manage

Learn

IBM® Systems Director contains the following plug-ins. Depending on its "readiness," the plug-in might be ready to use, or might require additional setup and configuration.

Refresh

Last refreshed: September 3, 2010 12:04:30 PM CDT



IBM Systems Director Server

6.2.0

Ready
Manage
Users



Discovery Manager

6.2.0

No access to 124 systems. 270 Systems have no inventory collected.

System
Discovery

View systems needing
access

Navigate
Resources

View and Collect
Inventory



Status Manager

6.2.0

Ready
Health
Summary

Monitors



Update Manager

6.2.0

Web application

Download server installation package

<http://www.ibm.com/systems/management/director/downloads/>

Types of Managed Systems

Agentless

Best for environments that require very small footprints and are used for specific tasks, such as one-time inventory collection, firmware and driver updates and remote deployment

Platform Agent

Provides agentless functions and....

Common Information Model (CIM) events and monitoring

Inventory

Group and cumulative PTF support

Common Agent

Provides agentless functions and platform agent functions and ...

Additional monitoring features

Monitoring message queues

File transfer

IBM Systems Director and IBM i - Agents

Types of Agents for IBM i

Agentless: SSH (5733-SC1 Option 1)

Platform Agent: CIMOM (5722-UME, 5770-UME)
IBM Universal Manageability Enablement for i

Common agent

Legacy (5722-DA1)

CAS for IBM i

http://publib.boulder.ibm.com/infocenter/director/v6r1x/index.jsp?topic=/director.tbs_6.1/fqm0_tbs_ibm_i_endpoints.html

IBM Systems Director Versions and IBM i Agent Support Summary

Note: The 5722-DR1 product could be used in place of 5722-DA1 to provide the legacy agent function since the DR1 product ships the server and the agent.

Layout IBM Systems Director

Basics

Web UI, Java Applet

Ajax – dynamic updates

Wizards

Distributed, direct

Navigation

Groups

Indented Views

Topology Map

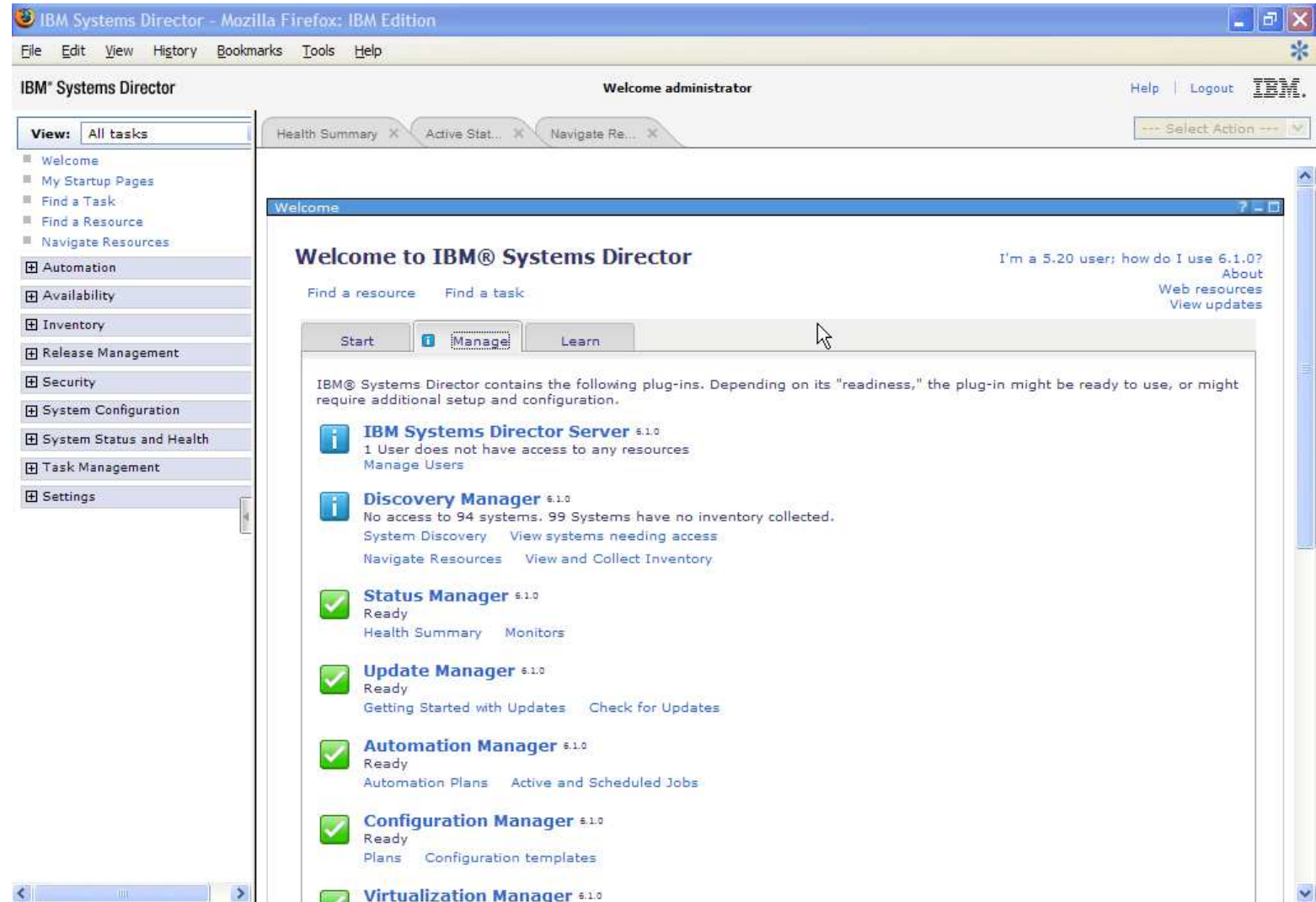
Search

Tasks

High level tasks

Customized tasks

Search



Layout System i Navigator

Basics

Installed Windows

Menu options

Toolbar options

Distributed, direct

Navigation

By group content

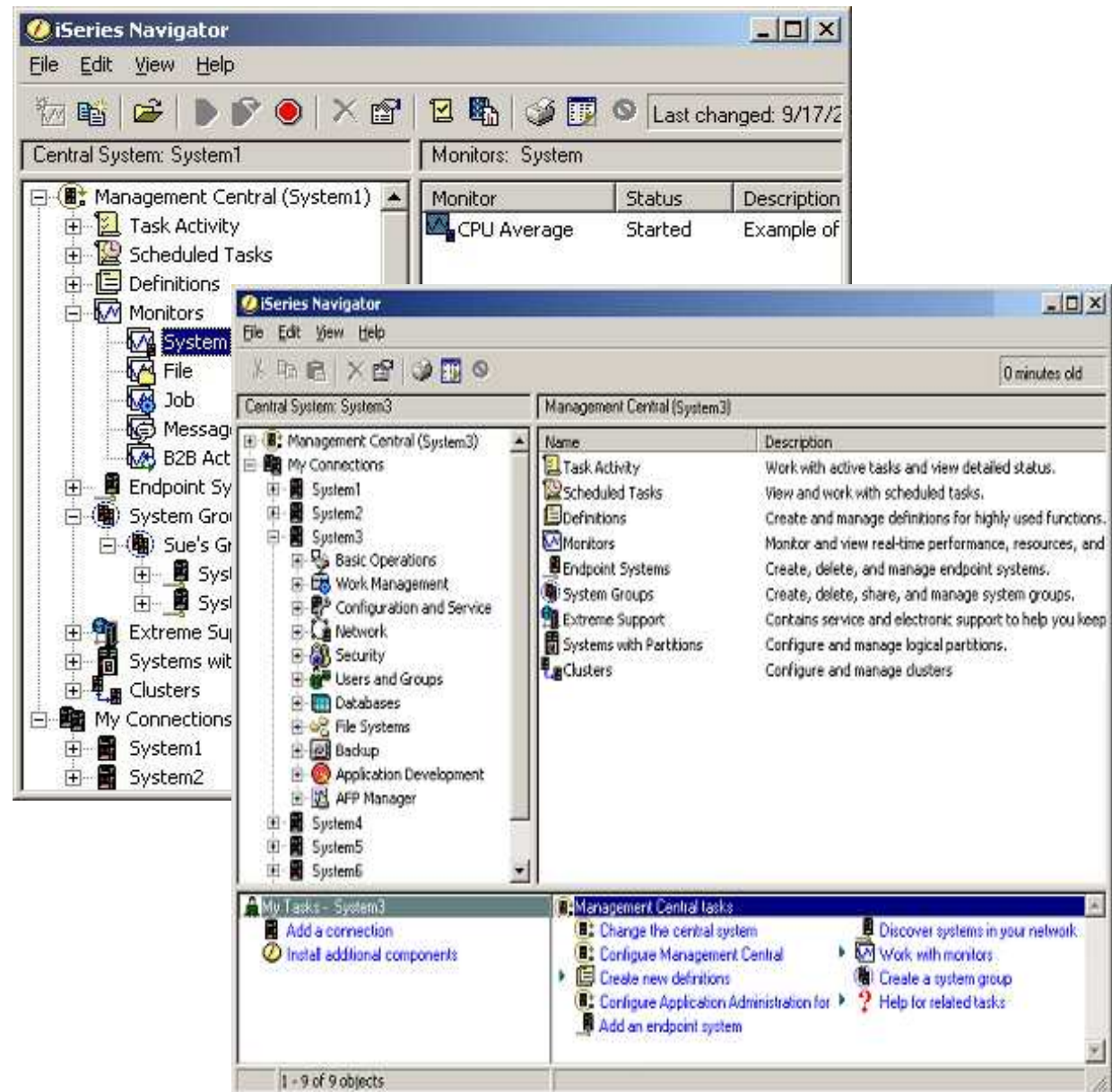
Object tree view

Tasks

Object based tasks

Customized tasks

Drag & Drop



Layout Director Navigator

Basics

Web UI

One instance only **

Menu options

Direct Only

“tunnel” directly to other IBM i systems

Navigation

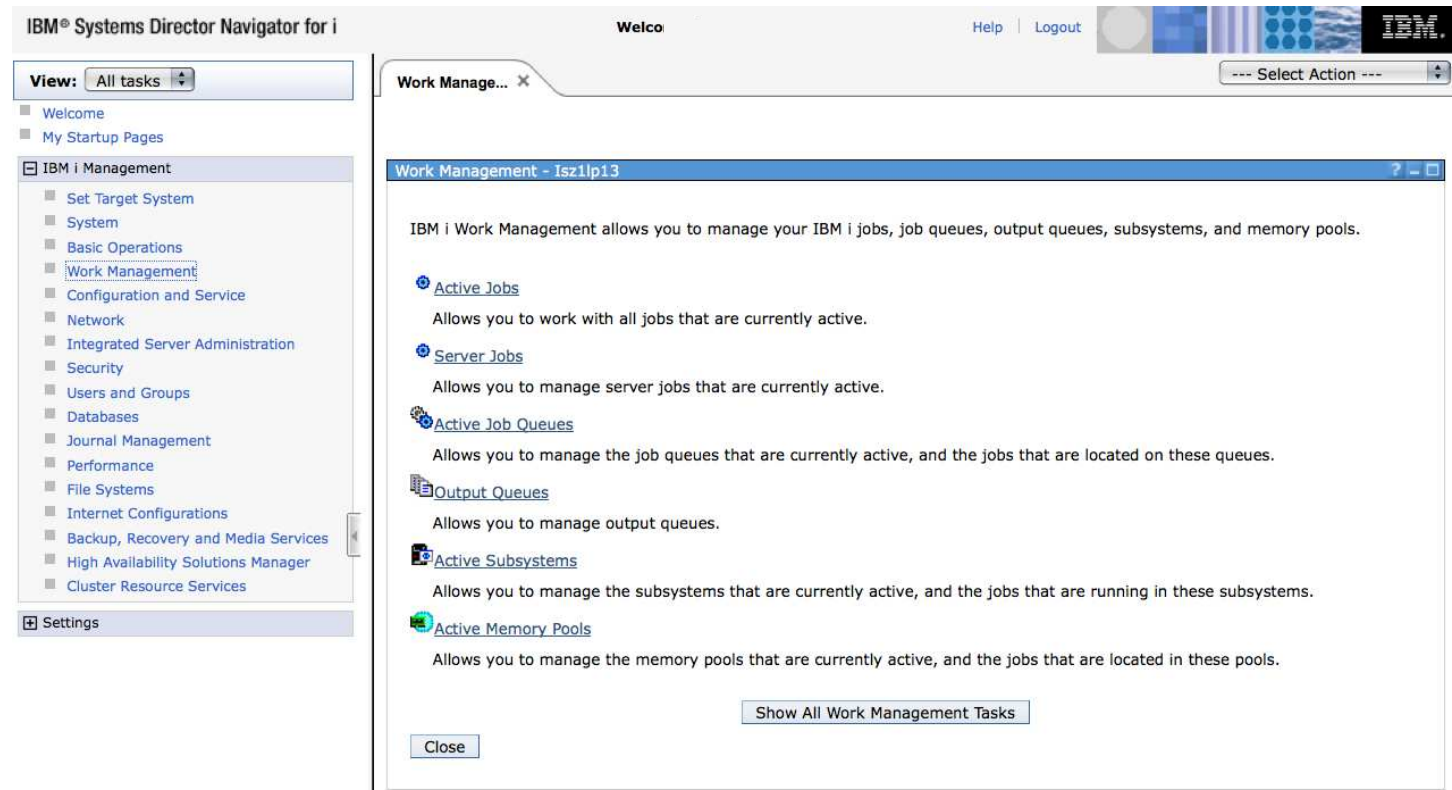
Single system only **

Object table view

Tasks

Category based tasks

Customized tasks



** enhancements in 7.1 remove these restrictions; covered later in this presentation

Discovery Systems Director

System types

Physical and virtual servers

Storage systems

Network devices

Operating Systems

HMC

Methods

Basic Discovery

Single hostname or IP address

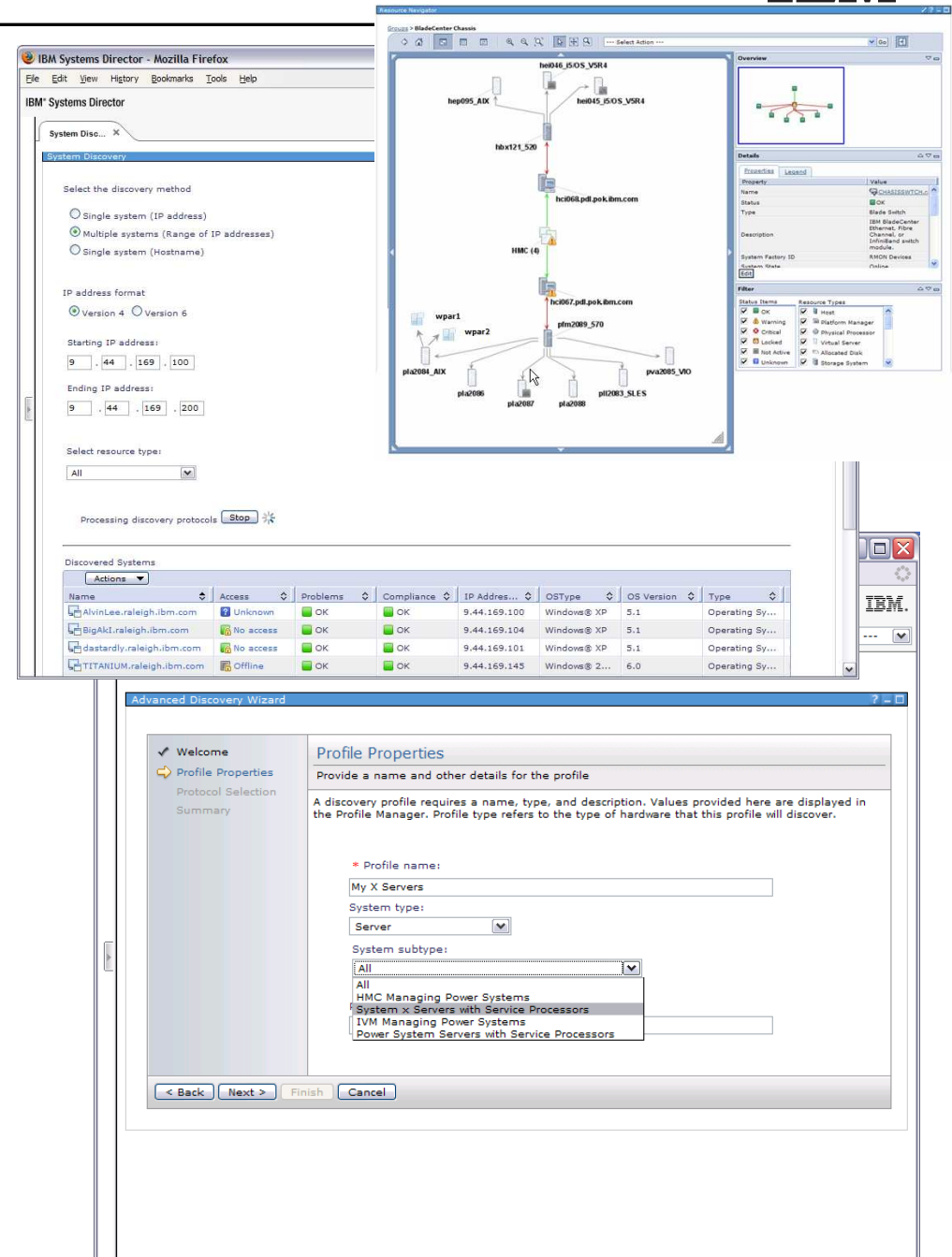
Range of IP addresses

Advanced Discovery

Wizard to streamline advanced discovery settings for one or more system types and related protocols

Complete discovery workflows: Discovery, authentication, collection of inventory

Each workflow can be saved and executed, or scheduled to perform the advanced system discovery.



Discovery System i Navigator

System types

OS/400

i5/OS

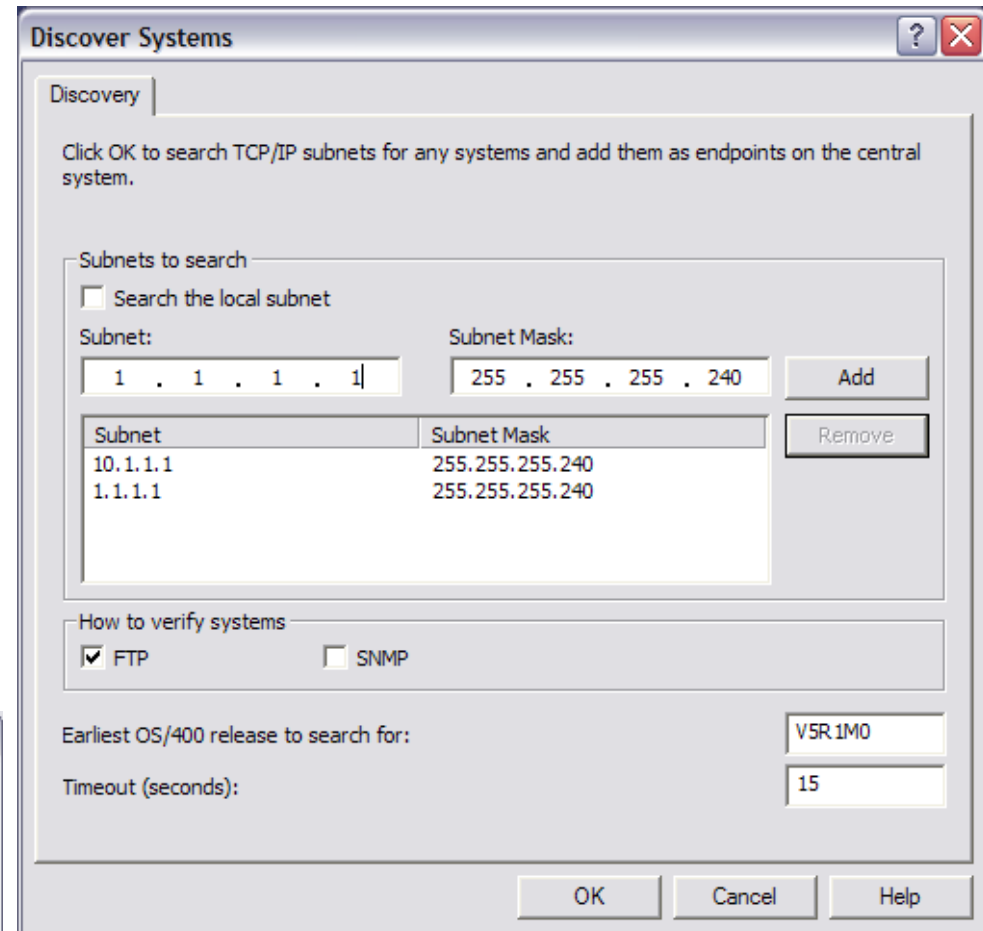
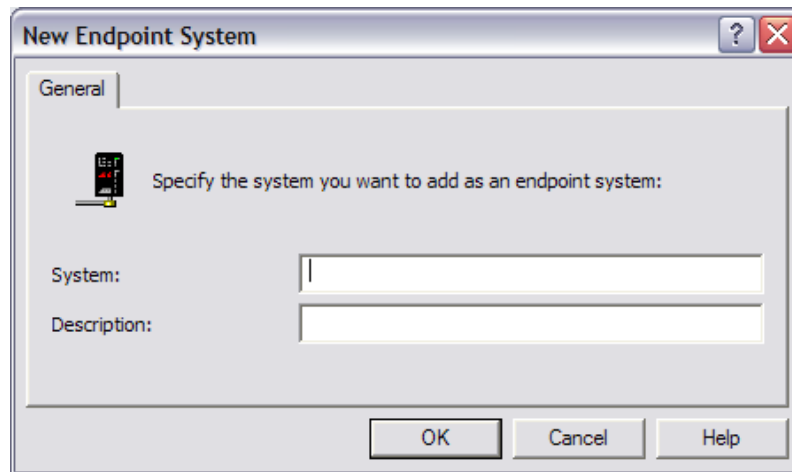
IBM i

Methods

Discovery

“My connections”

Add specific node



Discovery Director Navigator

Single system management

Pre-installed

No discovery needed

Human enters system name in web address



Discovery Director Navigator *New IBM i 7.1

Set Target System

Specify the remote system you want to manage

Supports systems at IBM i 5.4, IBM i 6.1 & IBM i 7.1

Current system being managed!!!

Support
S

5.4

6.1

7.1

Specify System Name

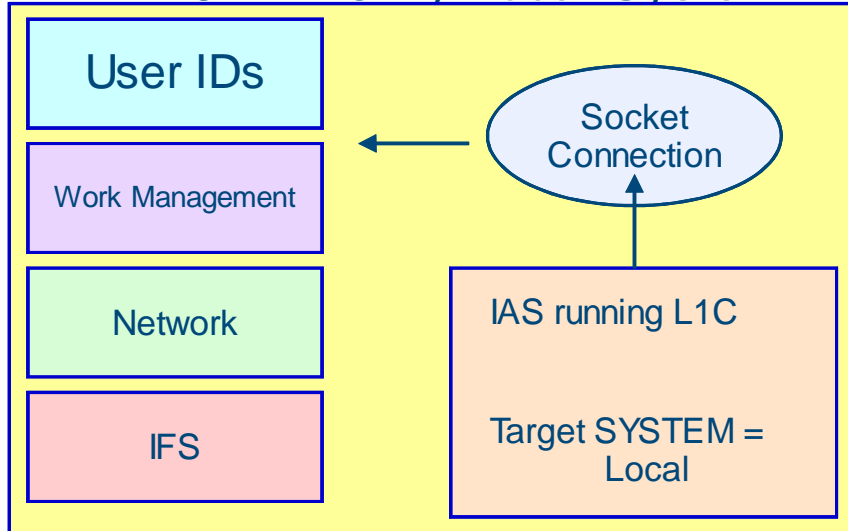
User ID

Password

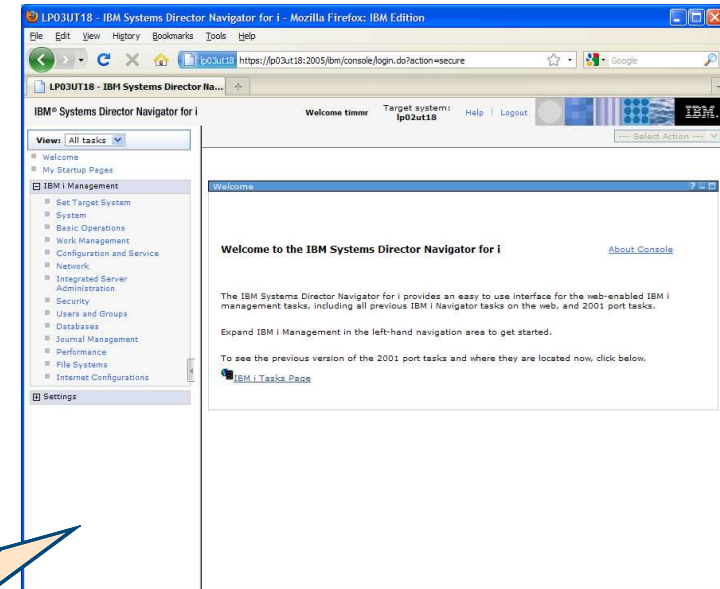
The screenshot shows the IBM Systems Director Navigator for i interface. On the left is a navigation tree with 'Set Target System' highlighted under 'IBM i Management'. The main panel displays the 'Set Target System' dialog. At the top, a status bar shows 'Target system: lp03ut18' circled in red with a blue arrow pointing to it from the text 'Current system being managed!!!'. The dialog has a 'Set Target ... X' tab. Below the title bar, it shows 'Target system: lp03ut18' and 'Release: v7r1m0'. A message states: 'Your target system can be the local system where you are running IBM Systems Director Navigator, or a different system to manage.' There are two radio buttons: 'Manage local system' (unselected) and 'Manage another system' (selected). Below these are three input fields: '*System name: lp02ut18', '* User ID: timmr', and '* Password: ****'. At the bottom are 'OK' and 'Cancel' buttons.

System Management with Set Target System

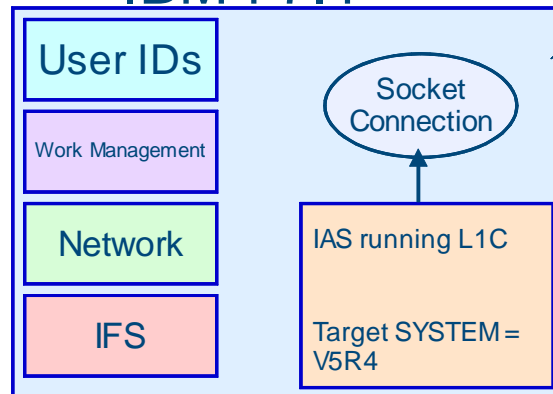
IBM i 6.1 – Only Local System



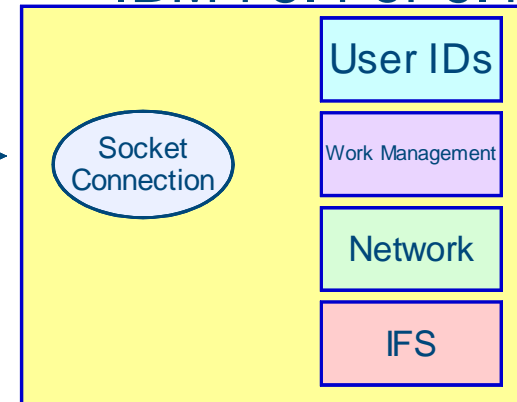
New in 7.1



IBM i 7.1

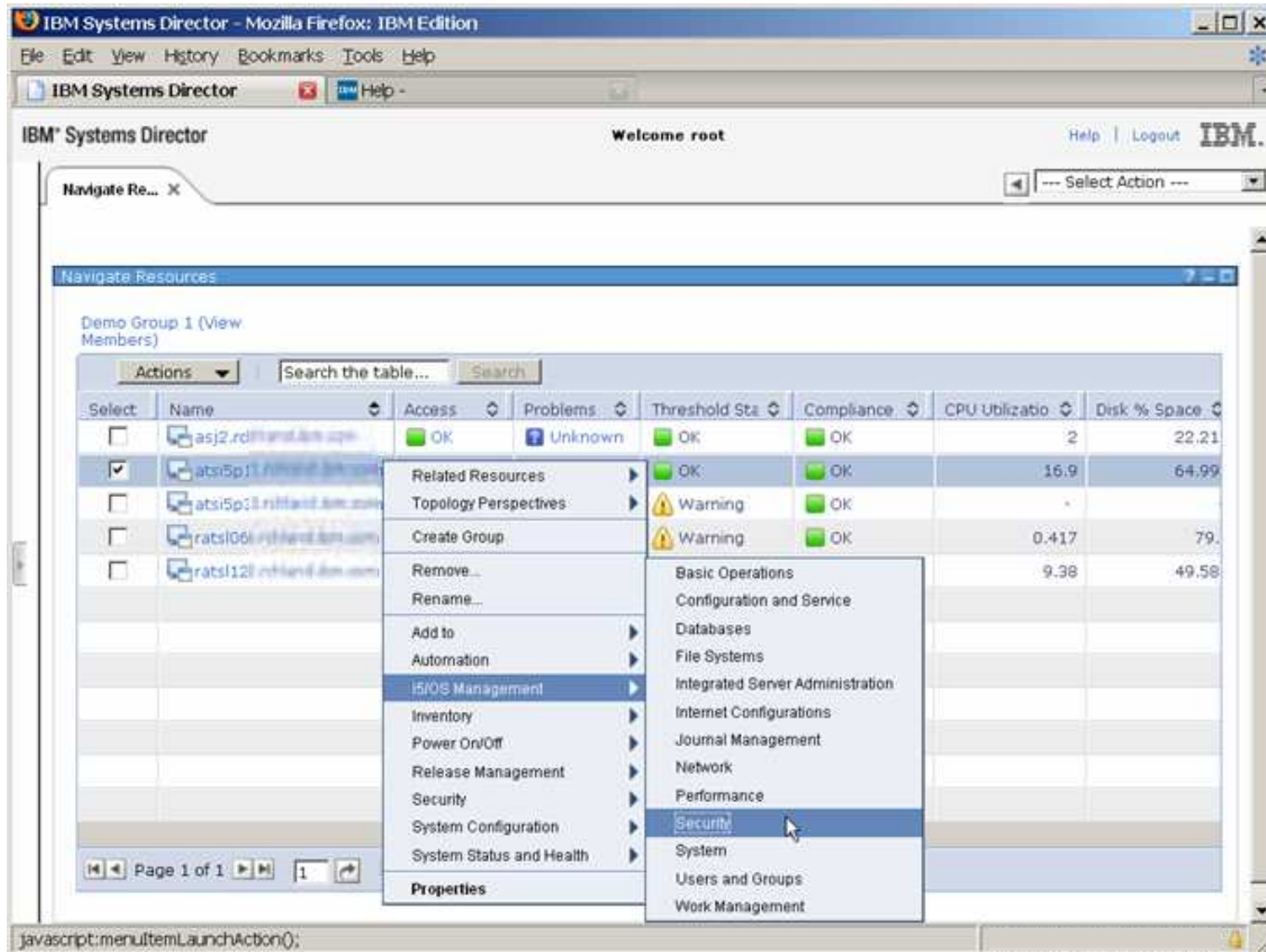


IBM i 5.4 or 6.1



IBM Systems Director

Director Navigator Integration



Fixes

Systems Director

Update Manager
You are ready to manage the updates in your environment.
Set up connection to IBM
Recommended Thresholds and automation

System Compliance (monitoring 49 systems)
Update status for 49 monitored systems:

Update status summary:
 1 system (red X)
 0 systems (yellow warning)
 0 systems (blue info)
 48 systems (green checkmark)
[View All Issues](#)

Manage
 Check for updates
 Last check for updates: Jul 2, 2009 8:40:02 AM
 Next scheduled check for updates: Jul 3, 2009 8:40:00 AM
[Show updates](#)
 Show all updates acquired since the last check for updates
[Show update groups](#)
 Group updates for categorization and use in compliance

Search
 Search all updates:

Compliance
 Specify the compliance checks to use when monitoring this system's compliance
☒ Use the following compliance checks to monitor this system

Updates:

Select	Name	Type	Version	Compliant
<input type="checkbox"/>	Brian's Group (32)	Update Group	-	Yes
<input type="checkbox"/>	Management Module FX	Update	1.2.1	No

Selected: 0 Total: 2 Shown: 2 Filtered: 0 Page 1 of 1

ProfileNavigatorPortlet
 Use update profiles to manage updates and monitor update profiles stay current.

Update Profiles > brian01

Select	Name	Softw
<input checked="" type="checkbox"/>	Broadcom (tg3) NetXtreme Driver	50
<input type="checkbox"/>	i5/OS PTF SF12345	50
<input type="checkbox"/>	Core Agent Feature	50
<input type="checkbox"/>	IBM Preboot Diagnostics Flash Update	50
<input type="checkbox"/>	HMC Driver SQ7_0616A (0502) Rev 1.0	50
<input type="checkbox"/>	IBM BIOS Flash	50

Actions:
 Create Group...
 TemporaryFix
 Topology Map
Install...
 Uninstall...
 Distribute...
 Download...
 Add to update profile...
 Locations...
 Properties

Summary page for single view

Integrated actions for download, distribute, install and uninstall

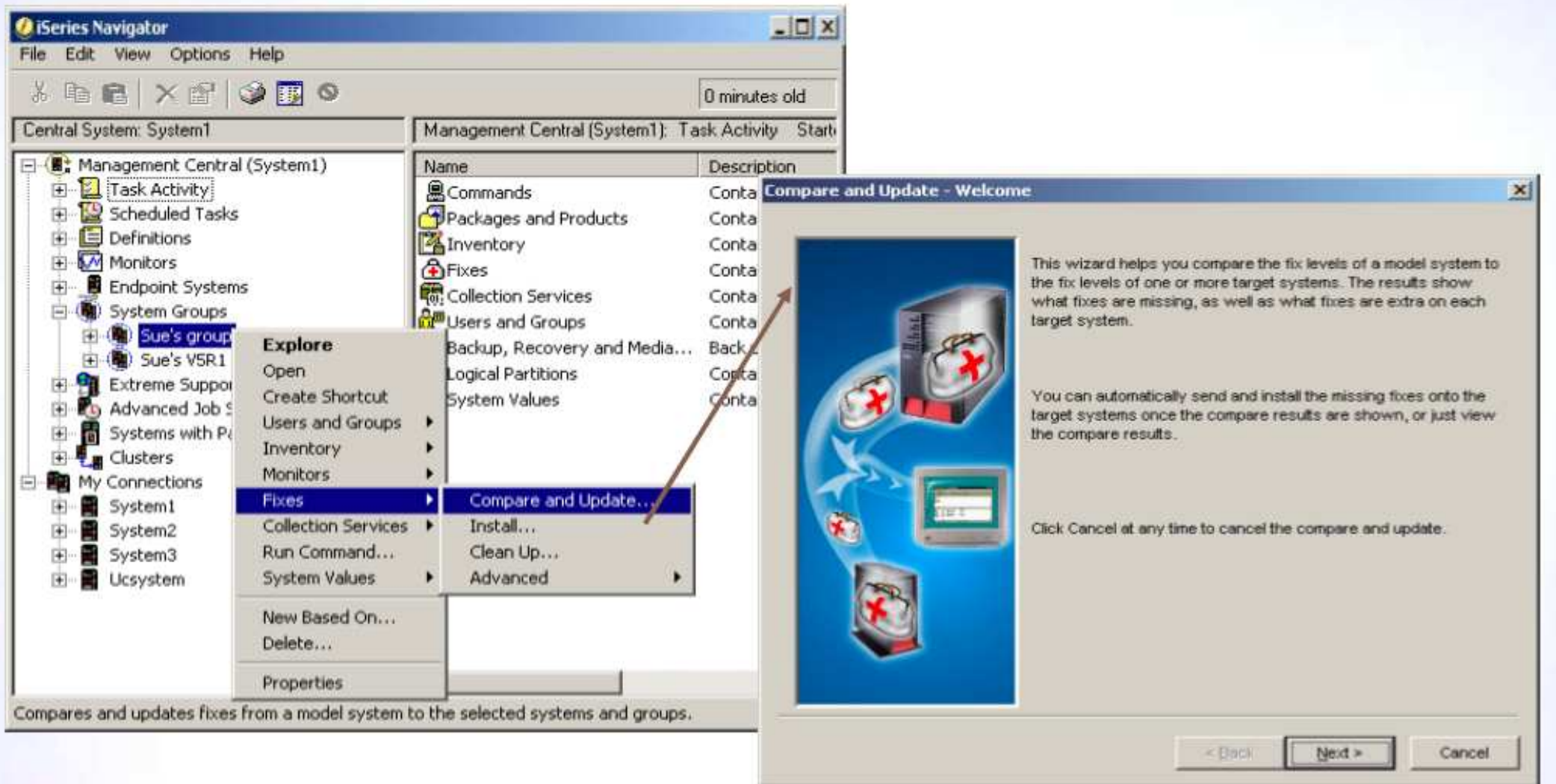
Identify updates which are tested and should be deployed

Fixes System i Navigator

Compare and Update

Define model system with fixes

Update target systems with same fixes



Access Control Systems Director

Management server

Roles and Users

Permissions - access to
tasks

Credentials – single
signon

Access to server wide
options

Access to systems and
groups

Roles

Create... Create Like... Edit... Delete View... Actions		
Select	Name	Description
<input type="checkbox"/>	 GroupRead	This permission grants a user the ability to
<input type="checkbox"/>	 SMAdministrator	The Administrator role has full authority to
<input type="checkbox"/>	 SManager	The Manager role can perform a subset of t
<input type="checkbox"/>	 SMonitor	The Monitor role can access those administ
<input type="checkbox"/>	 SUser	The User role includes any authenticated us

IBM Systems Director Status

System: alakazam.rchland.ibm.com

Status: ■ OK (last restart: 2/3/09 4:44 PM)

25 Systems discovered

Authentication type:

Known ports in-use: 2089, 8421, 9513, 8422, 9512, 9511 All possible ports

Trace and error logs: C:\PROGRA~1\IBM\Director\lwi\logs

Database:

Apache Derby 10.3

Apache Derby Embedded JDBC Driver 10.3.3.1 - (677131)

Server:

N/A CPU Utilization

N/A Memory Usage

N/A Storage used

1 Active users

Common tasks

[System discovery](#)
[Advanced system discovery](#)
[Collect and view inventory](#)
[Find a task](#)
[Find a resource](#)
[Navigate resources](#)

- ☒ Security
 - ☐ Users
 - ☐ Roles
 - ☐ Credentials

Users and Roles

1 User does not have access to any resources

6 Total users are defined

5 Roles are defined

Common tasks

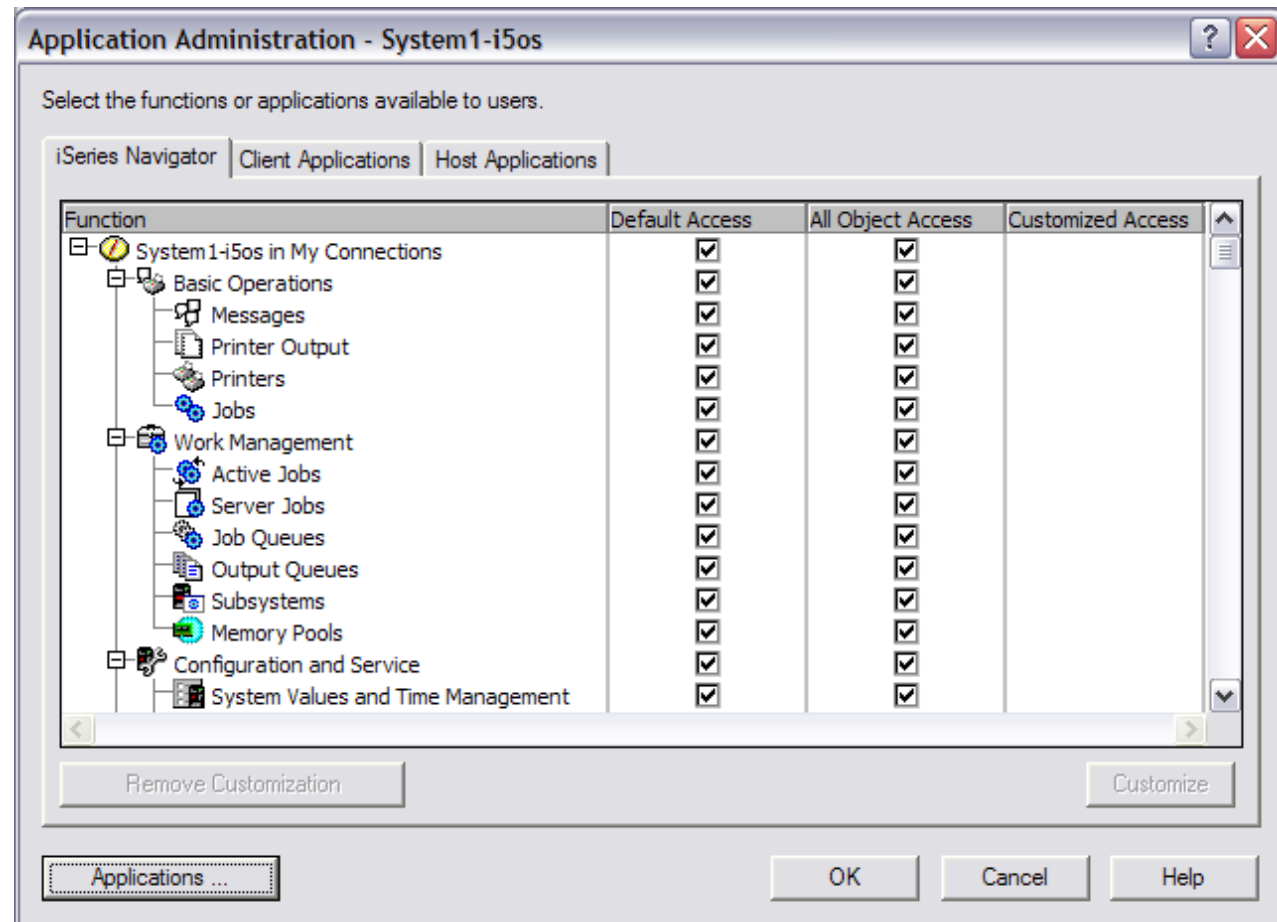
[Manage Users](#)
[Manage Roles](#)
[Add a role](#)

Access Control System i Navigator

Customizable - management server

Customizable - user

Access to tasks



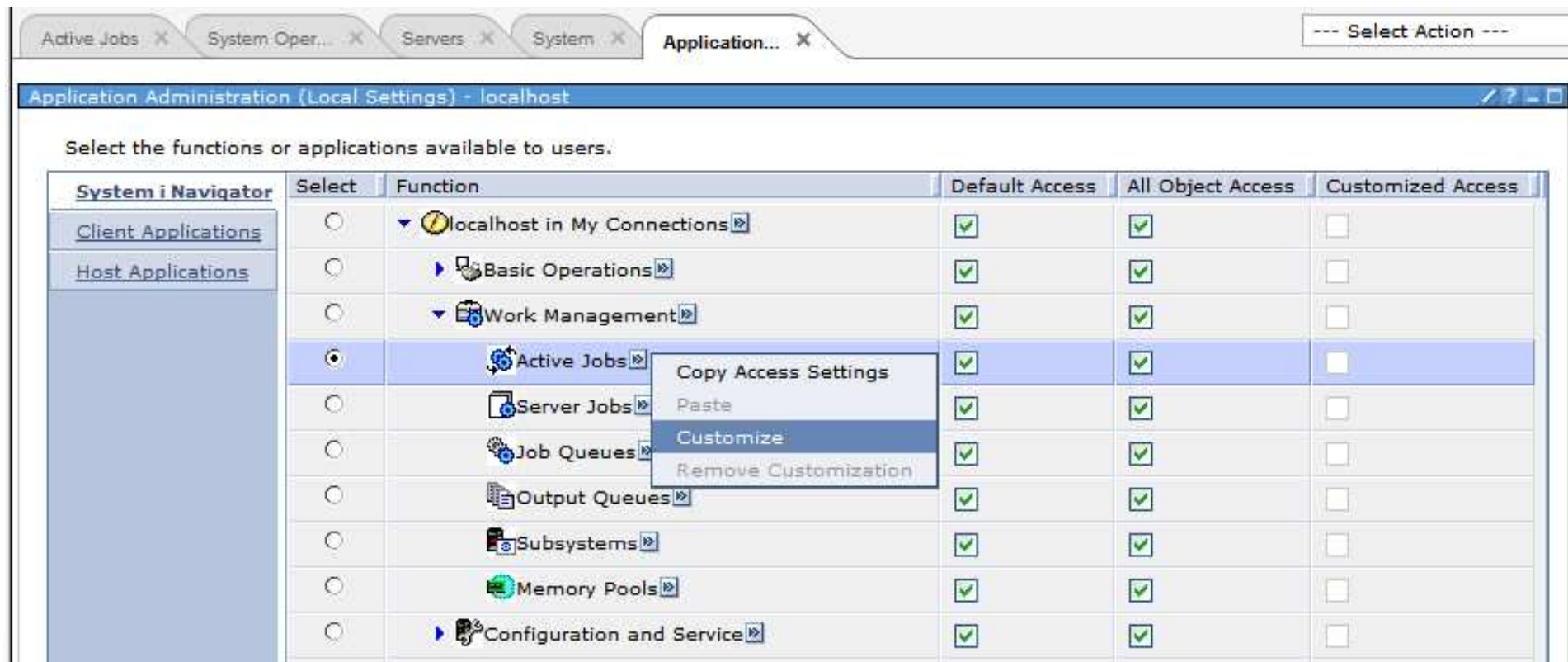
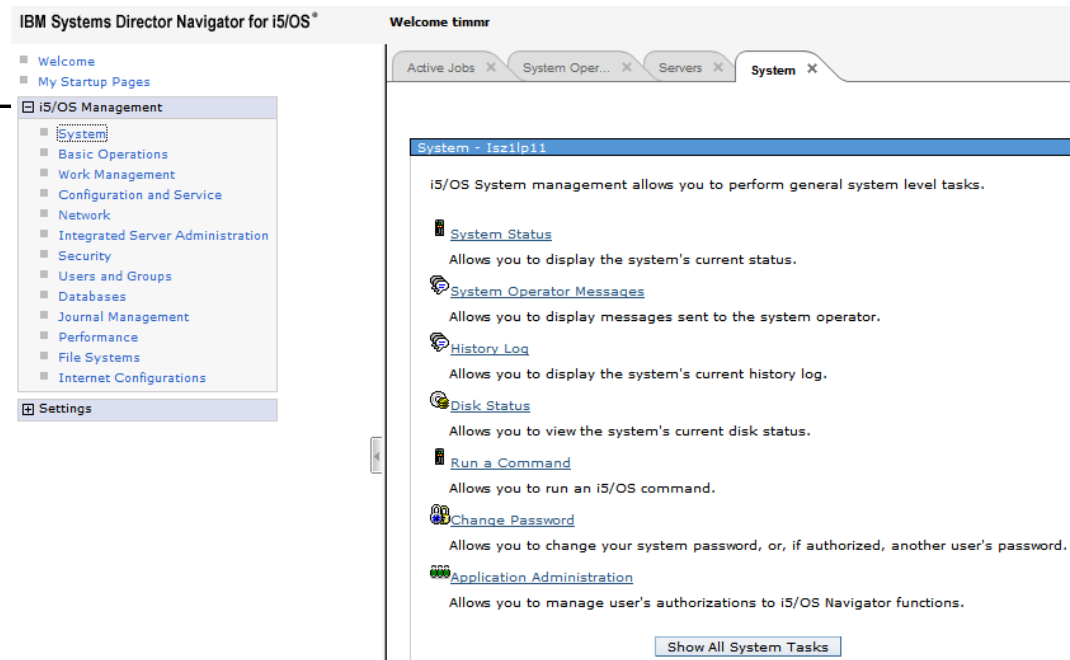
Access Control Director Navigator

Application Administration under
System tasks

Customizable - management server

Customizable - user

Access to tasks



Inventory Systems Director

Collects on schedule

Collects via task

Hardware information

Software information

Fix information

Static data on management server

Customized columns

Saved reports

Simple export/print

The screenshot shows the IBM Inventory Systems Director web interface. At the top, there are tabs for General, Active Status, Applied Activities, Configuration, Event Log, and Inventory. Below the tabs, a message states: "To view the inventory of any resource, select a profile and select any resource. To collect the most current inventory values, click Collect Inventory." Below this, there is a section for "Inventory Profiles" with a dropdown menu set to "All Inventory" and a "Last collected" timestamp of "November 24, 2008 9:36 AM". A "Collect Inventory" button is also present.

The "Collected Items" section on the left shows a tree view of the inventory structure. The "Processor" item is highlighted, and a red arrow points from the "Software information" text to it. Another red arrow points from the "Fix information" text to the "Network" item.

The "Inventory details: Processor" section on the right shows a table with the following data:

Select	Name	System nam	State
<input type="checkbox"/>	proc0	otto01.austin.ibr	
<input type="checkbox"/>	proc2	otto01.austin.ibr	
<input type="checkbox"/>	proc4	otto01.austin.ibr	
<input type="checkbox"/>	proc6	otto01.austin.ibr	

At the bottom of the table, there is a pagination bar showing "Page 1 of 1", "1" items, and "Selected: 0 Total: 4 Filtered: 4".

Inventory System i Navigator

Collects on Schedule

Collects via Task

Hardware Information

Software Information

Fix Information

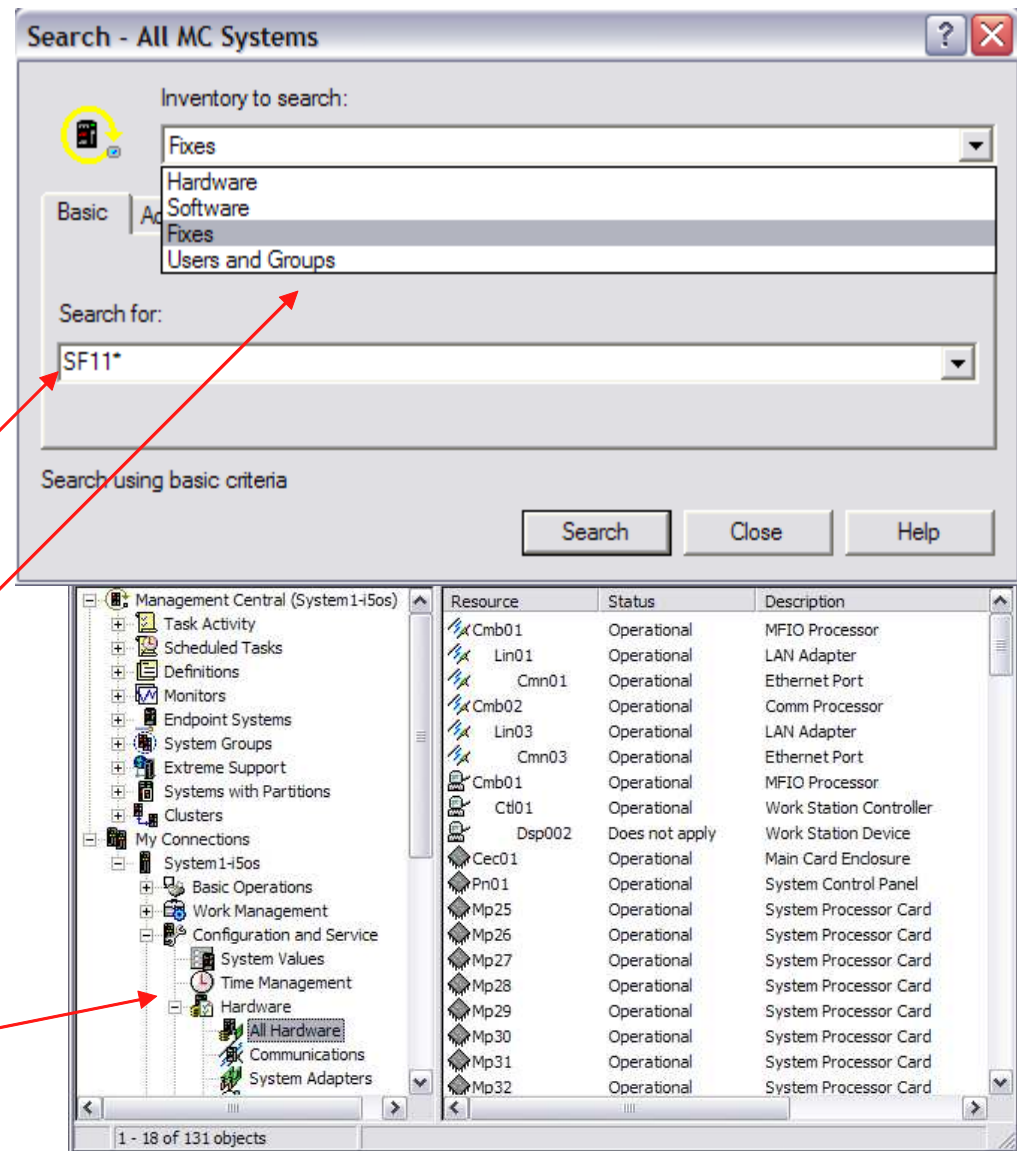
Static data on Central System

Customized Columns

Wildcard searching

Additional Information

Real-time data available



Inventory Director Navigator

No collection
All real-time
Basic print/
export

LP13UT9 - IBM Systems Director Navigator for i5/OS - Mozilla Firefox: IBM Edition

File Edit View History Bookmarks Tools Help

Integrated Solutions Console

Welcome gregg

Help | Logout

View: All tasks

- Welcome
- My Startup Pages
- i5/OS Management
 - System
 - Basic Operations
 - Work Management
 - Configuration and Service
 - Network
 - Integrated Server Administration
 - Security
 - Users and Groups
 - Databases
 - Journal Management
 - Performance
 - File Systems
 - Internet Configurations
 - Cluster Resource Services
 - High Availability Solutions Manager
 - Backup, Recovery and Media Services
- Settings

Users and Groups

Users

--- Select Action ---

Users - Lp13ut9

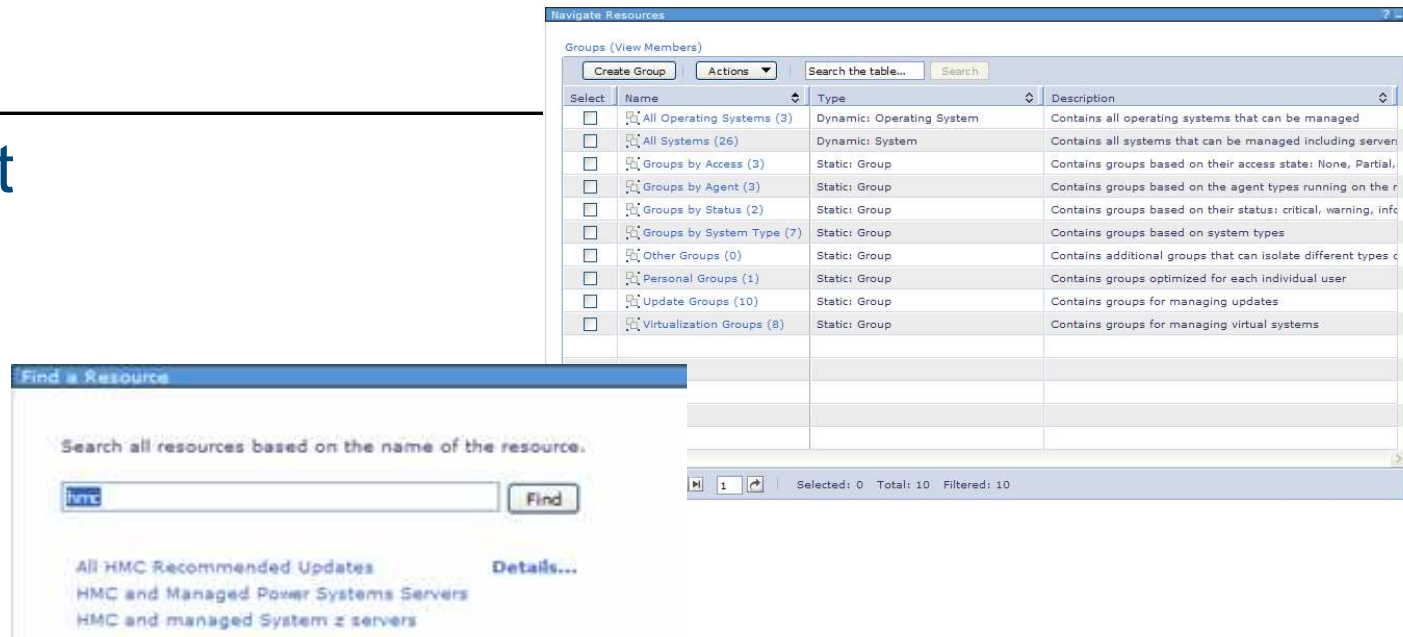
Refresh

--- Select Action --- Go

Select	Name	Description	Privilege Class	Previous Sign-On	Storage Used (KB)
<input type="checkbox"/>	Aenciso		Security officer	Jun 3, 2008 3:50:28 PM	12
<input type="checkbox"/>	Charrond	Dave Charron (db.guix) 3-3859	Security officer	Sep 18, 2008 12:56:40 PM	32
<input type="checkbox"/>	Danny	Dan Moravec	Security officer	May 22, 2008 11:22:13 AM	12
<input type="checkbox"/>	Db2xml	5722DE1 - XML EXTENDER	User	Jan 1, 2000 12:00:00 AM	18236
<input type="checkbox"/>	Dhqb	PW changed with CHGSYSSEC on 08/09/01 at 05:00:01	Security officer	Sep 4, 2008 3:27:14 AM	464696
<input type="checkbox"/>	Esperanz	Esperanza Medina, Guad	Security officer	Feb 5, 2008 6:08:29 AM	12
<input type="checkbox"/>	Fabianlp		Security officer	Sep 10, 2008 3:38:04 PM	1808
<input type="checkbox"/>	Flanagan	Jim Flanagan	Security officer	Sep 22, 2008 4:02:16 PM	104
<input type="checkbox"/>	Gascon	GASCON@MX1.IBM.COM	Security officer	Sep 10, 2008 5:50:41 PM	5388
<input type="checkbox"/>	Glenn	Glenn Pederson	Security officer	May 27, 2008 3:46:04 PM	20
<input type="checkbox"/>	Gregg	Greg Hintermeister	Security officer	Sep 30, 2008 2:34:17 PM	404
<input type="checkbox"/>	Huyongbo		Security officer	Sep 25, 2008 4:51:51 AM	12
<input type="checkbox"/>	Javier	Javier Guzman	Security officer	Jan 22, 2008 11:23:29 AM	292
<input type="checkbox"/>	Jswanson	Jeff Swanson 3-6192	Security officer	Sep 26, 2008 3:26:56 PM	3626592
<input type="checkbox"/>	Konirek	Gary Konirek	Security officer	Jan 15, 2008 1:55:45	12

Group Management Systems Director

Where
Navigate Resources
Search
Types
Static
Dynamic
Default
All Systems
Dynamic by
OS
Status
Type
Relationships

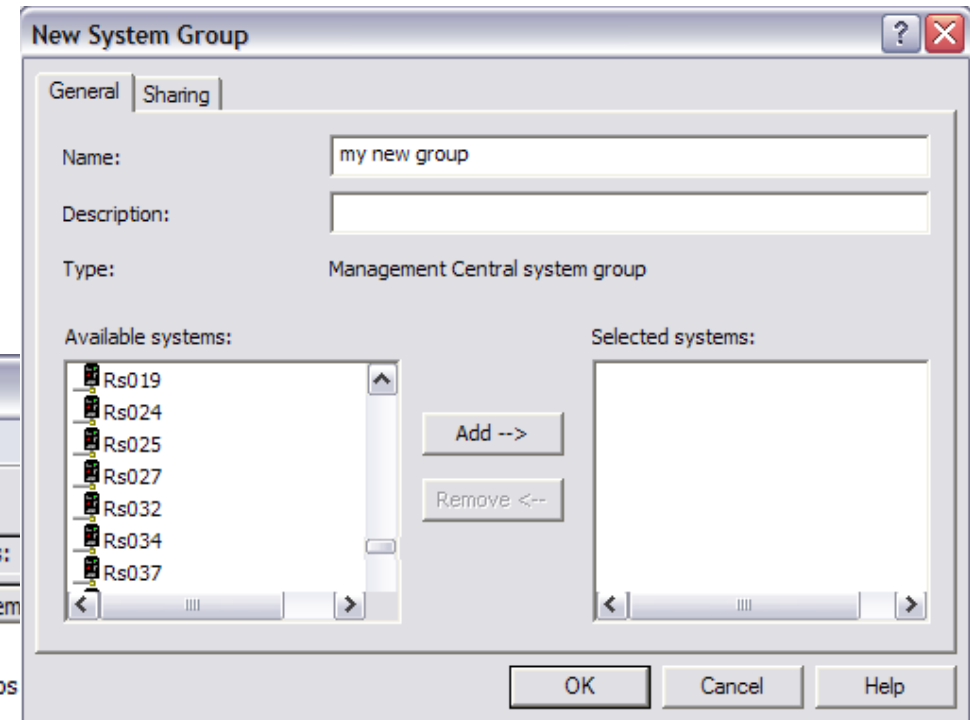
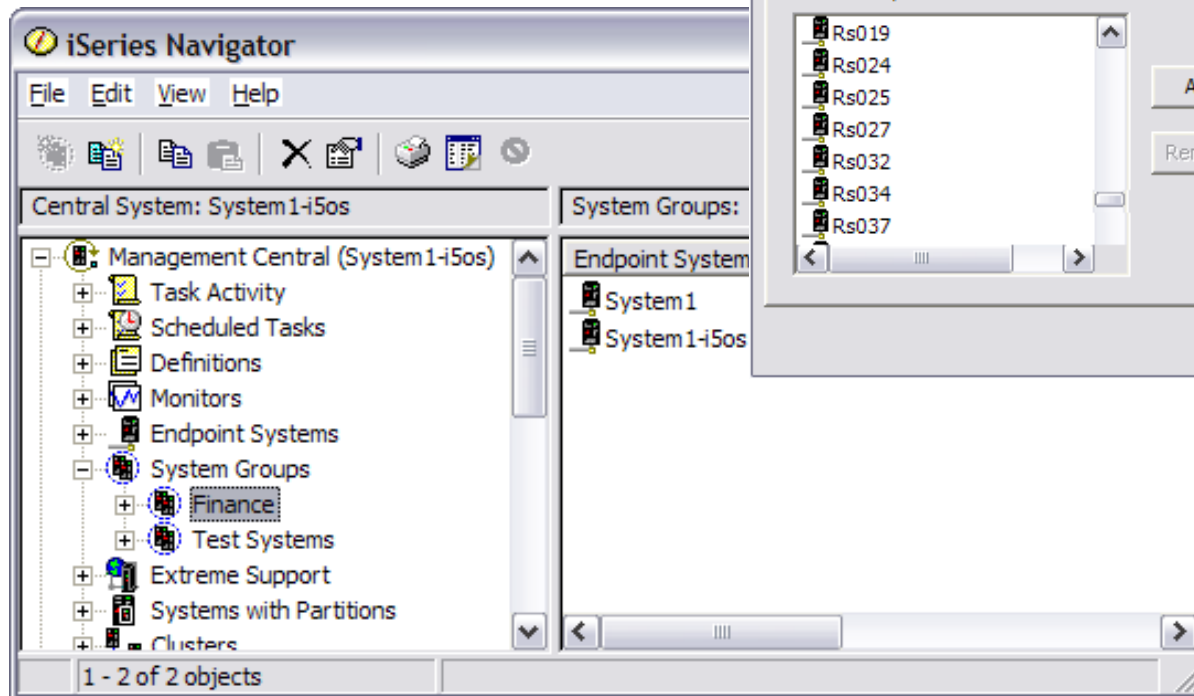


The 'Virtual Servers and Hosts' window displays a table of virtual servers and hosts. The table has columns for Name, State, Access, Problems, Compliance, IP Address, CPU Utilization, and Processors. The table contains 24 rows of data, including various virtual machines and hosts.

Select	Name	State	Access	Problems	Compliance	IP Address	CPU Utilization	Processors
<input checked="" type="checkbox"/>	vsmesx1-host		OK	OK	OK	9.5.23.51	1%	2
<input type="checkbox"/>	2003Server_Base	Stopped	OK	OK	OK		0%	2
<input type="checkbox"/>	2003Server_gwr59a	Suspended	OK	OK	OK		0%	2
<input type="checkbox"/>	bws_fc8	Suspended	OK	OK	OK		0%	1
<input type="checkbox"/>	hatteras	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	Ken	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	MIKE	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	rh5install	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	testgreg	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	vm1	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	vsmesx2-host		OK	OK	OK	9.5.23.53	2%	2
<input type="checkbox"/>	Dan	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	gary	Suspended	OK	OK	OK		0%	1
<input type="checkbox"/>	Greg	Stopped	OK	OK	OK		0%	2
<input type="checkbox"/>	gwrtest	Stopped	OK	OK	OK		0%	2
<input type="checkbox"/>	vm2	Suspended	OK	OK	OK		0%	1
<input type="checkbox"/>	wlmcewen	Started	OK	OK	OK		1%	2
<input type="checkbox"/>	vsmesx3-host		OK	Information	OK	9.5.23.11	5%	2
<input type="checkbox"/>	2003Server_Base_3	Stopped	OK	OK	OK		1%	2
<input type="checkbox"/>	2003Server_gwr79a	Suspended	OK	OK	OK		0%	2
<input type="checkbox"/>	2003Server_gwr80a	Suspended	OK	OK	OK		0%	2

Group Management System i Navigator

Where
Under Management Central
Types
Static
Default
None



Process Management Systems Director

Manage Processes - Requires CAS Agent “WRKACTJOB” via Director



Manage Processes

Select a system on which to view processes. Viewing processes for target: ratsl031.rchland.ibm.com

Select a target:

ratsl031.rchland.ibm.com

Select a view:

Applications
Servers
Subsystems
Manage Processes
(ratsl031.rchland.ibm.com)

Run command Actions Search the table... Search

Select	Name	Job ID	Job Type	User	Thread Co...	Priority	% CPU	Monitor
<input type="radio"/>	ADMIN	384252	Batch	QTMHHTTP	1	25	0.0%	False
<input type="radio"/>	ADMIN	382225	Batch	QTMHHTTP	1	25	0.0%	False
<input type="radio"/>	ADMIN	382215	Batch	QTMHHTTP	1	25	0.0%	False
<input type="radio"/>	ADMIN	382233	Batch	QTMHHTTP	12	25	0.0%	False
<input type="radio"/>	ADMIN1	382621	Batch	QLWISVR	35	25	0.0%	False
<input type="radio"/>	ADMIN2	382631	Batch	QLWISVR	53	25	0.0%	False
<input type="radio"/>	ADMIN3	382620	Batch	QLWISVR	34	25	0.0%	False
<input type="radio"/>	ADMIN4	382622	Batch	QWEBADMIN	68	25	0.0%	False
<input type="radio"/>	CAS	383265	Batch	QCPMGTDIR	96	25	0.9%	False
<input type="radio"/>	CAS	383190	Batch	QTMHHTTP	1	25	0.0%	False
<input type="radio"/>	CAS	383191	Batch	QTMHHTTP	1	25	0.0%	False
<input type="radio"/>	CAS	383193	Batch	QTMHHTTP	47	25	0.0%	False
<input type="radio"/>	CRTPFDRDTA	387104	Batch	QSYS	1	50	0.0%	False
<input type="radio"/>	Q1ABRMNET	382185	Subsystem Mo...	QSYS	2	0	0.0%	False
<input type="radio"/>	Q1ACPDST	382189	Batch	QBRMS	1	30	0.0%	False

Page 1 of 16 1 Selected: 0 Total: 240 Filtered: 240

Process Management System i Navigator

Work Management

Jobs

Subsystems

Servers

Job Queues

Job-specific actions

Call stack

Locked objects

Many more...

Job Monitor resources

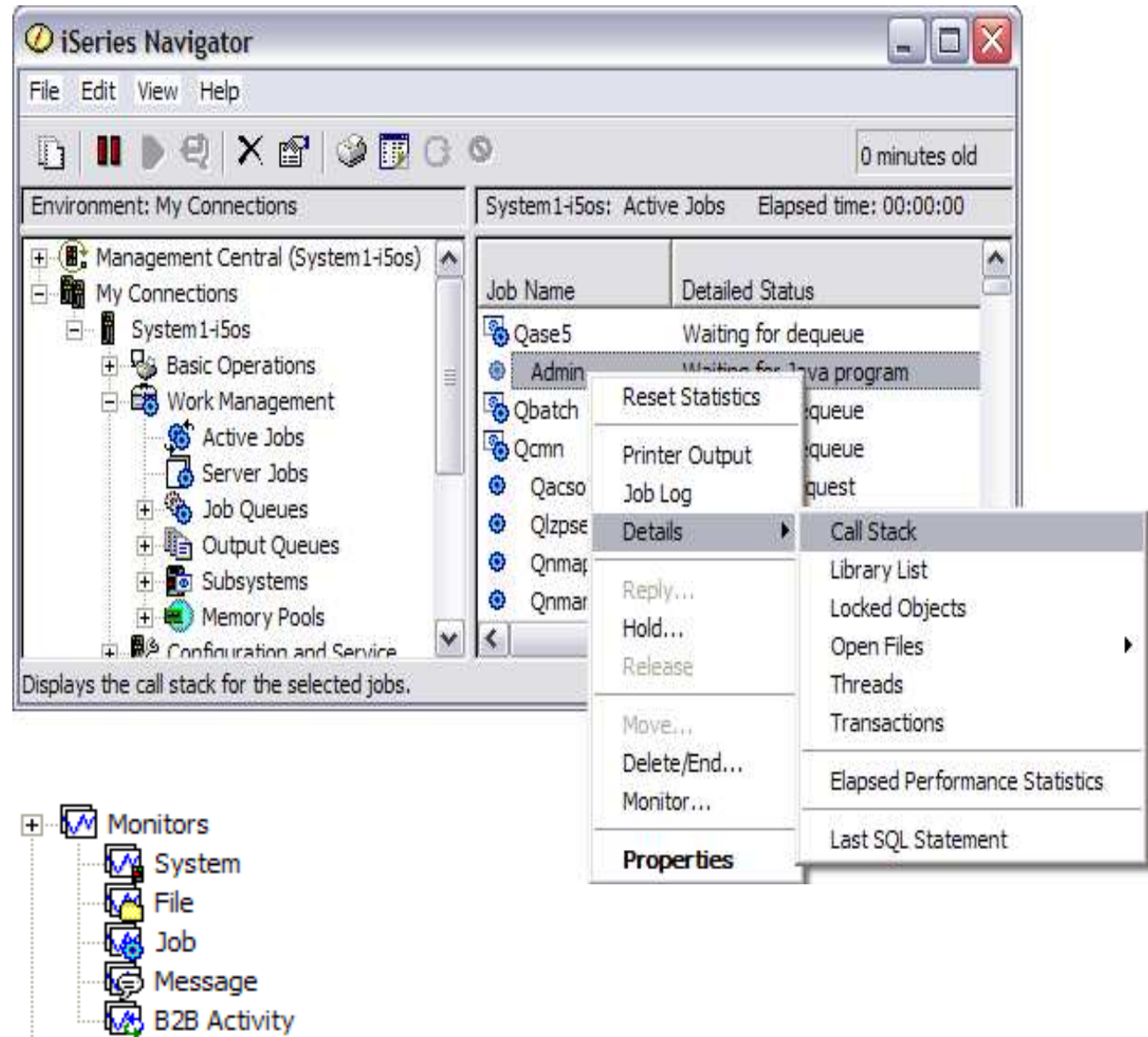
Status

Wildcards

Misc

Find

Filter



Process Management Director Navigator

Work Management
Jobs
Subsystems
Servers
Job Queues
Job-specific actions
Call stack
Locked objects
Many more...
Misc
Find
Filter

Work Management - Lp13ut9

i5/OS Work Management allows you to manage your i5/OS jobs, job queues, output queues, subsystems, and memory pools.

- [Active Jobs](#)
Allows you to work with all jobs that are currently active.
- [Server Jobs](#)
Allows you to manage server jobs that are currently active.
- [Active Job Queues](#)
Allows you to manage the job queues that are currently active, and the jobs that are located on these queues.
- [Output Queues](#)
Allows you to manage output queues.
- [Active Subsystems](#)
Allows you to manage the subsystems that are currently active, and the jobs that are running in these subsystems.
- [Active Memory Pools](#)
Allows you to manage...

[Close](#)

Server Jobs - Lp13ut9

[Refresh](#) Status: Active jobs

--- Select Action --- [Go](#)

Select	Job Name	Current User	Detailed Status	Server
<input type="checkbox"/>	Qtbootp	Qtcp	Waiting for select	BootP Server
<input type="checkbox"/>	Qumecimom	Qsecofr	Waiting for select	CIM Object Manager
<input type="checkbox"/>	Crtprfdrta		Waiting for dequeue	Collection Services Server
<input type="checkbox"/>	Qtesdbghu		Waiting for select	Graphical Debug Server
<input type="checkbox"/>	Qgldpuba		Waiting for signal	LDAP Publishing Agent
<input type="checkbox"/>	Qgldpube		Waiting for dequeue	LDAP Publishing Engine
<input type="checkbox"/>	Qusrdir		Waiting for signal	IBM Tivoli Directory Server for i5/OS - Qusrdir
<input type="checkbox"/>	Qxdaedrsq	Quser	Waiting for select	Extended Dynamic Remote SQL
<input type="checkbox"/>	Qtftp00035	Qtcp	Waiting for dequeue	FTP
<input type="checkbox"/>	Qtftp00038	Qtcp	Waiting for time interval	FTP
<input type="checkbox"/>	Qtftp00039	Qtcp	Waiting for dequeue	FTP
<input type="checkbox"/>	Qibmhelp	Qibmhelp	Waiting for time interval	Help Server
<input type="checkbox"/>	Admin	Qtmhhttp	Waiting for signal	HTTP Server - Admin

Context menu for Crtprfdrta:

- Printer Output
- Job Log
- Details
- Hold...
- Delete/End...
- Properties

Command Definitions Systems Director

Type

IBM i OS commands

QSHLL, CL

Windows, AIX, Linux
commands

Run

System

Group

Scheduled

Web UI to run

Applet to create

Command Automation

Use command definitions to run commands and command-line programs using a specified user ID and password on target systems.

Command Definitions

Run Create Create Like Edit Delete Actions Search the table... Search

Select	Name	Command	UserId	Log	Timeout(Sec)
<input type="checkbox"/>	FixMe	FixMe	greg	false	60

Process Task : Cleanup output

File Help

Command

Command

Timeout (Seconds) ☒ Log

Login

User ID

Password

Process Task : Run accounting EOD

File Help

Command

Command

Timeout (Seconds) ☐ Log

Login

User ID

Password

Command Definitions System i Navigator

Type

Via native command line

Run

System

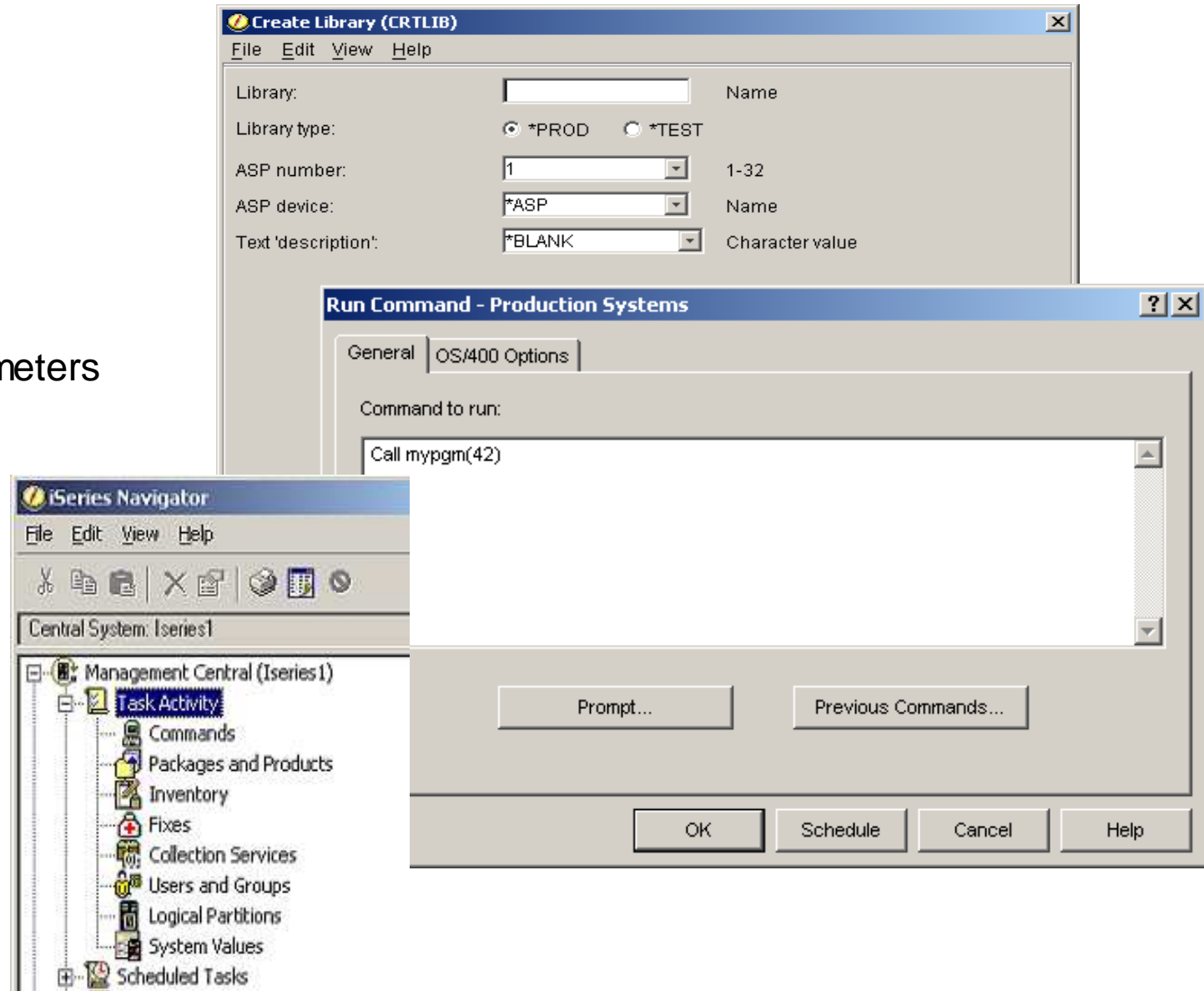
Group

Scheduled

Prompt for command parameters

Previous commands

Command Definitions



Command Definitions

Director Navigator

Type

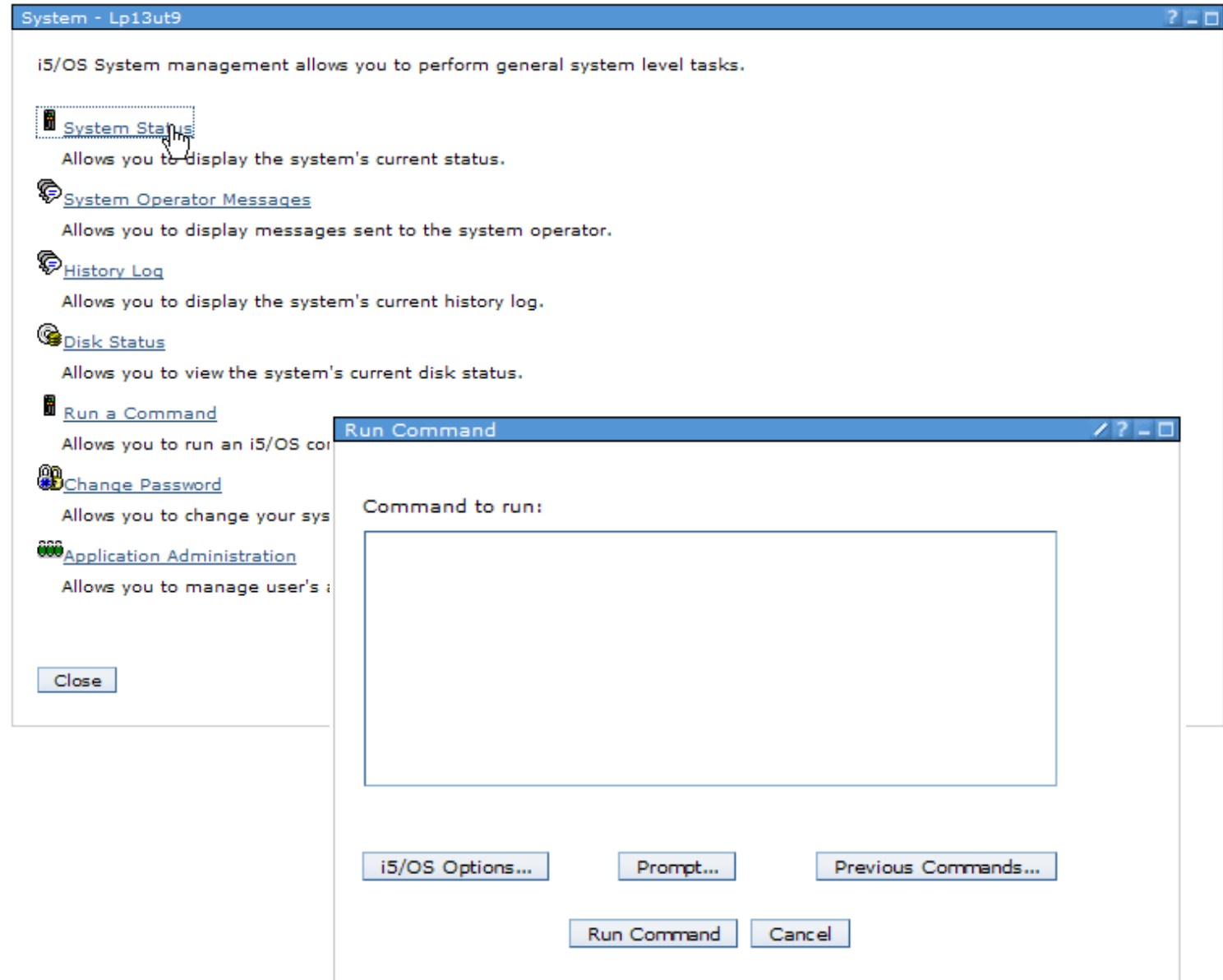
No saved definitions

Run commands in real-time

No saved commands

Prompting

Previous commands



Going Beyond Command Definitions - 5250 Director Navigator - *New 7.1

Green Screen on the Web!

System x

System - Isz1lp13

IBM i System management allows you to perform general system level tasks.

[System Status](#)

Allows you to display the system's current status.

[System Operator Messages](#)

Allows you to display messages sent to the system operator.

[History Log](#)

Allows you to display the system's current history log.

[Disk Status](#)

Allows you to view the system's current disk status.

[Run a Command](#)

Allows you to run an IBM i command.

[5250 Emulation](#)

Allows you to access a 5250 emulation session.

[Change Password](#)

Allows you to change your system password, or, if authorized, another user's.

[Application Administration](#)

Allows you to manage user's authorizations to IBM i Navigator functions.

5250 Emulation

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
F13	F14	F15	F16	F17	F18	F19	F20	F21	F22	F23	F24

Sign On

System : RCHASTVA
Subsystem : QBASE
Display : DMTAY0

User

Password

Program/procedure

Menu

Current library

(C) COPYRIGHT IBM CORP. 1980, 2007.

37

6,53

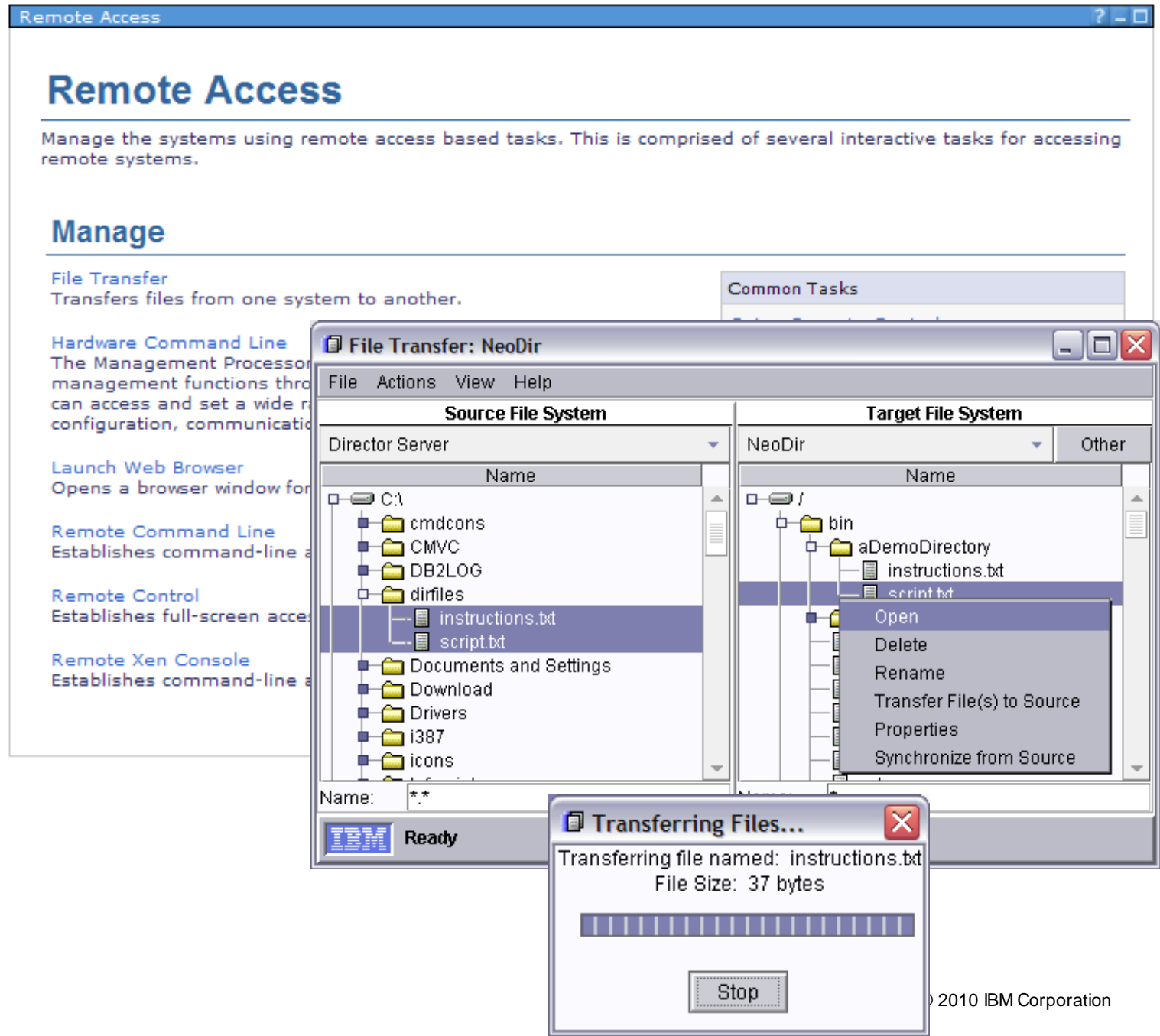
Keyboard function keys Keyboard focus

Enter	Attention	Refresh Screen	Page Up
System Request	Stop Session	Reset	Page Down

Signon to a full function
5250 screen

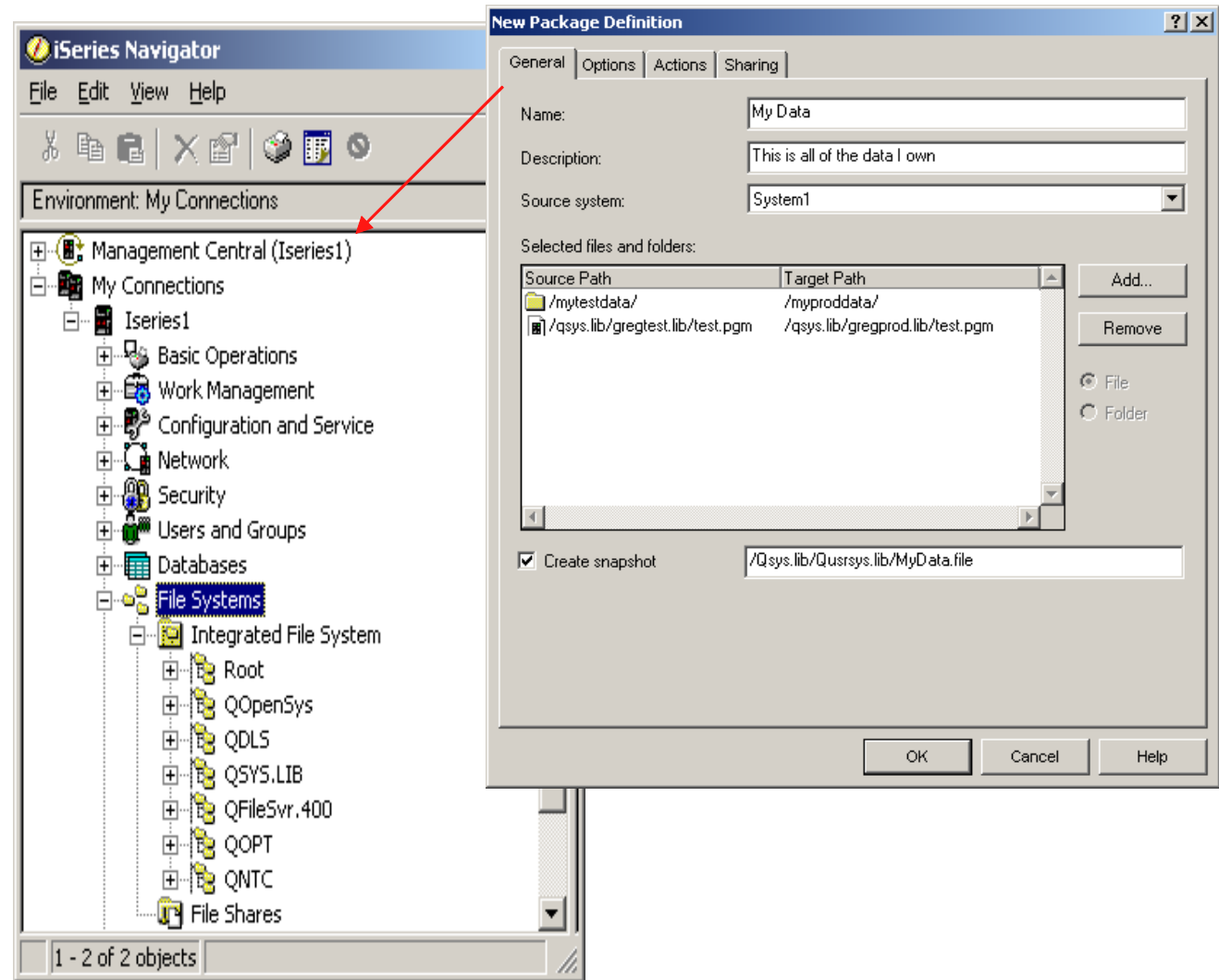
File Transfer and Management Systems Director

How
Java Applet
What
Manage Files
Monitor Files
Where
System to System
Status
Interactive
Options
File
Directory



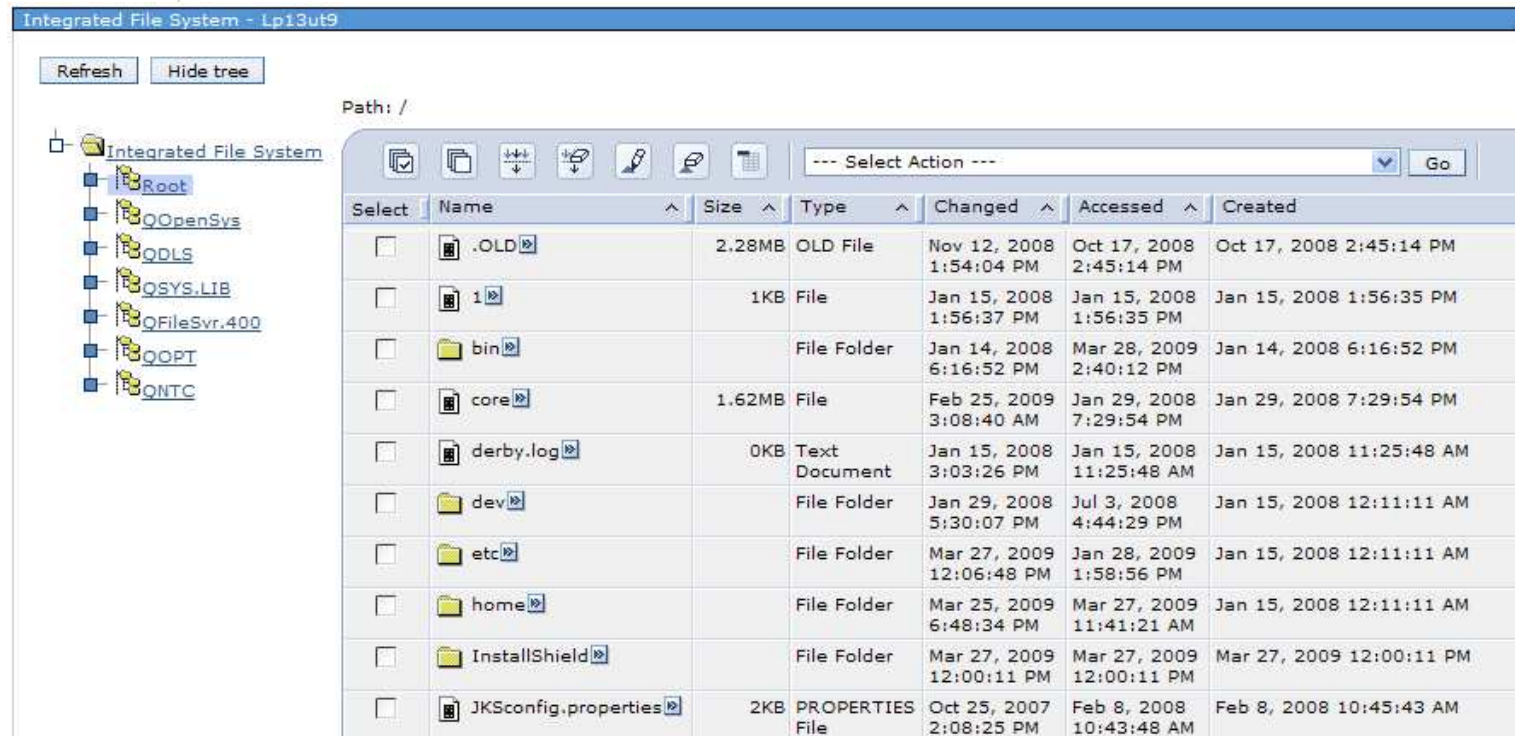
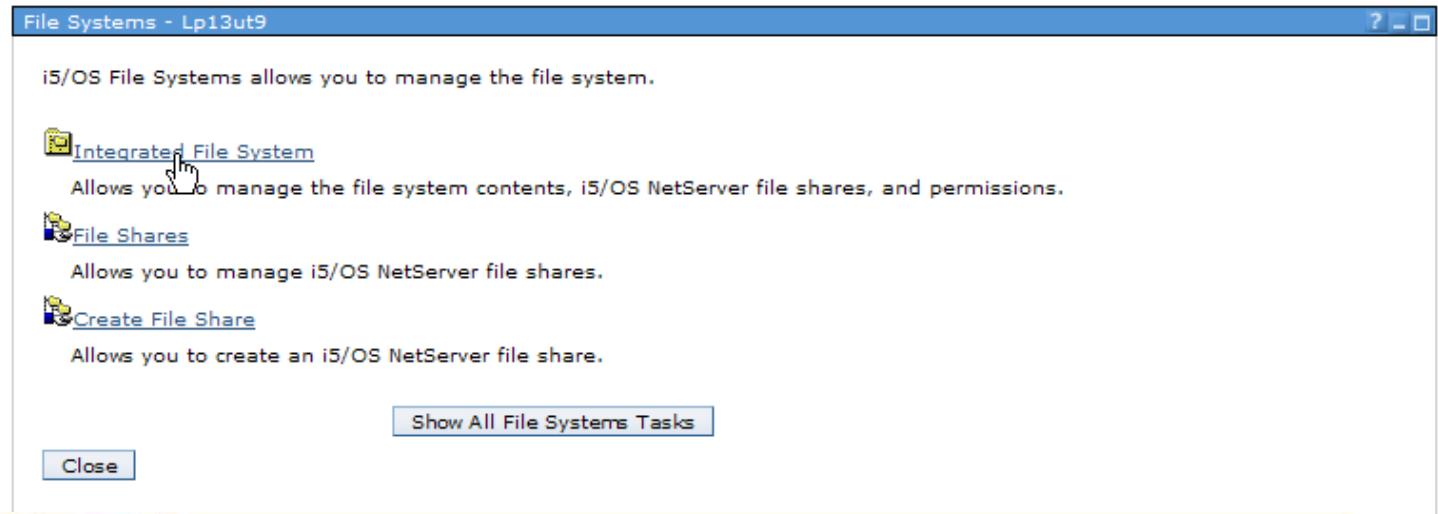
File Transfer and Management System i Navigator

What
Manage Files
Manage File Security
Where
System to System
System to Groups
Status
Interactive
Scheduled
Options
File
Directory



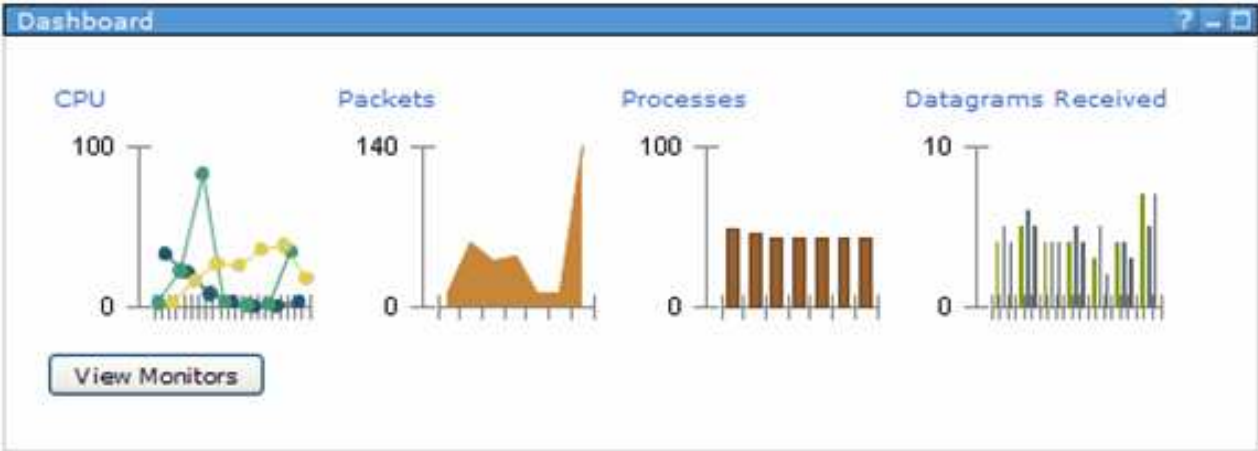
File Transfer and Management Director Navigator

What
Manage Files
Manage File Security
Where
Single System only
Status
Interactive
Options
File
Directory



Monitoring Systems Director

- Monitor by selecting...
- Dashboard/Graphs
- Monitor Views
- System or Group
- Update Compliance
- Status
- Threshold
- Security
- Offline



Update Management

Search:

Use update management to manage updates for your systems. Create update compliance checks on systems to ensure they remain current. Schedule a check for updates to ensure you always have the latest updates.

Systems (monitoring 73 out of 291 total)

Update compliance summary:



- 6 systems
- 12 systems
- 2 systems
- 53 systems

- [Modify system compliance checks...](#)
- [Show updates needed by a system...](#)
- [Show updates installed on a system...](#)

20 systems have not passed their update compliance checks

Updates

- 3 update groups
Use groups to categorize updates and to simplify update compliance on your systems
- 4 update compliance reports
Use compliance reports to ensure your systems have the updates they should

- [Check for updates...](#)
- [Install an update...](#)
- [Uninstall an update...](#)
- [Show all updates...](#)
- [Import an update...](#)

Settings

You are ready to manage updates.

- [Getting started...](#)
- [Change settings...](#)

Monitors			
Select a system or group to monitor, then select a view to show. Create your own view to group moni			
otto01.austin.ibm.com <input type="button" value="Browse..."/>			
Monitor Views			
<input type="button" value="Show Monitors..."/> <input type="button" value="Create"/> <input type="button" value="Actions"/> <input type="text" value="Search the table..."/> <input type="button" value="Search"/>			
Select	Name	Read Only	Description
<input type="checkbox"/>	AIX monitors	False	
<input type="checkbox"/>	All Monitors	True	All monitors available
<input type="checkbox"/>	Column Management Monitors	False	Monitors available as
<input type="checkbox"/>	Common CIM Monitors	True	Common monitors av
<input type="checkbox"/>	Common Monitors	True	Common monitors av
<input type="checkbox"/>	UNIX Monitors	False	
<input type="checkbox"/>	Virtualization Manager Monitors	True	Virtualization manager monitors

Monitoring System i Navigator

Monitor by selecting...

Resource type

Predefined metrics

System and/or Group

Enabled with...

Event logging

Trigger/Reset notification

CL Command Automation

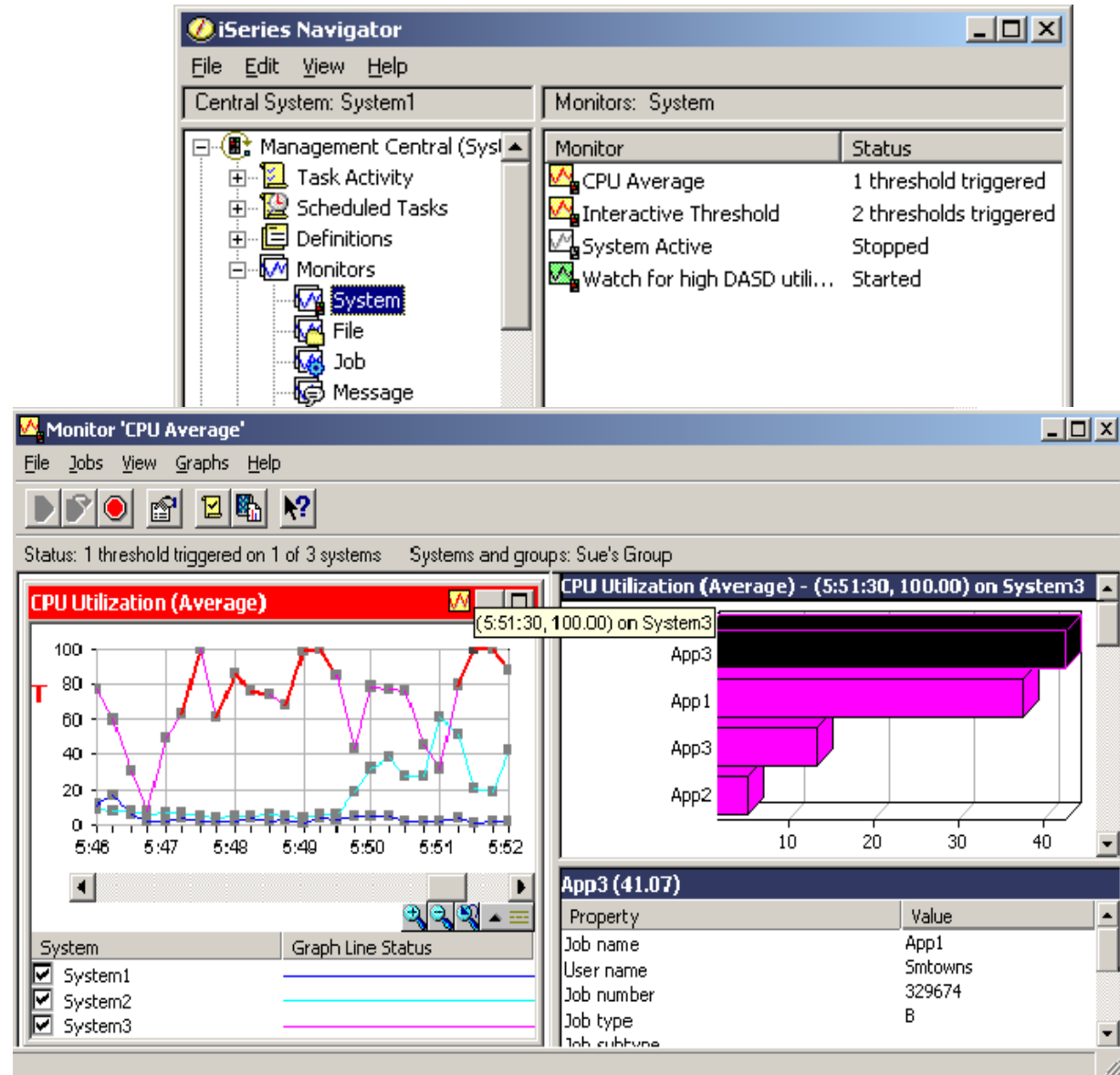
System Actions

Job actions (hold,
release...)

Variety of views

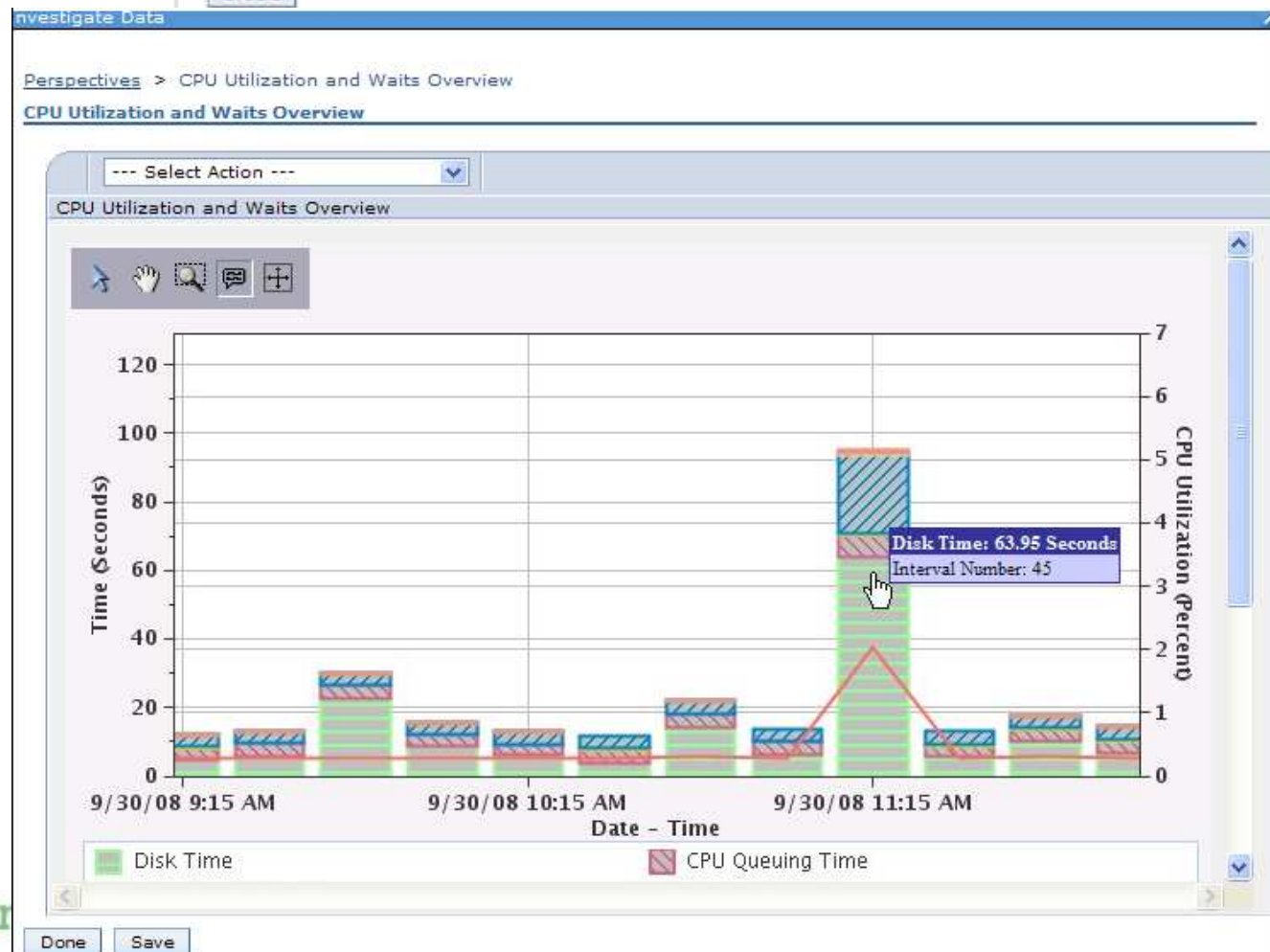
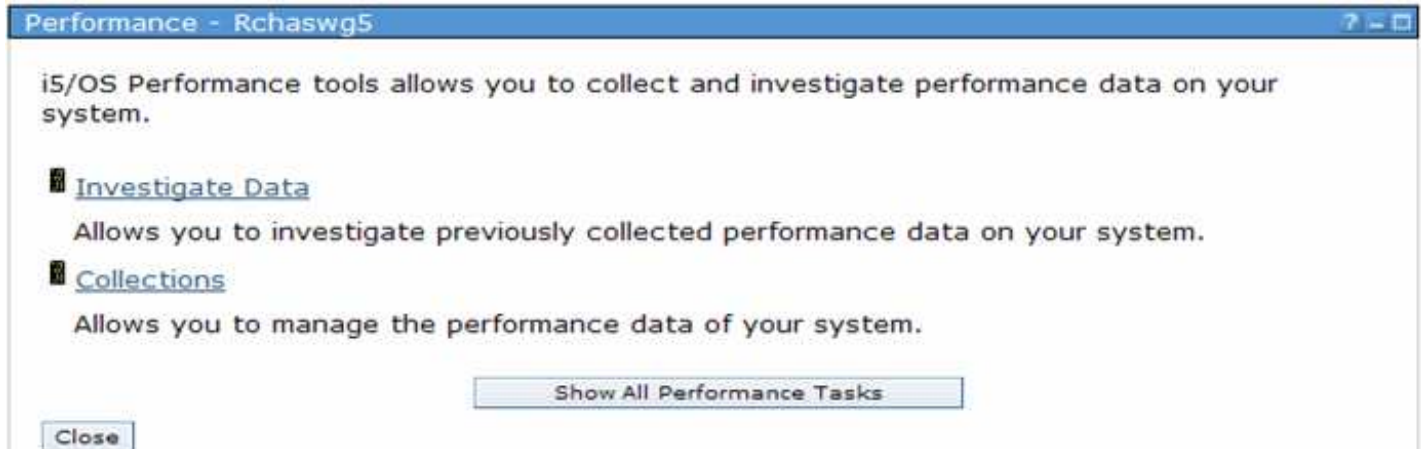
Graphs

Lists



Monitoring Director Navigator

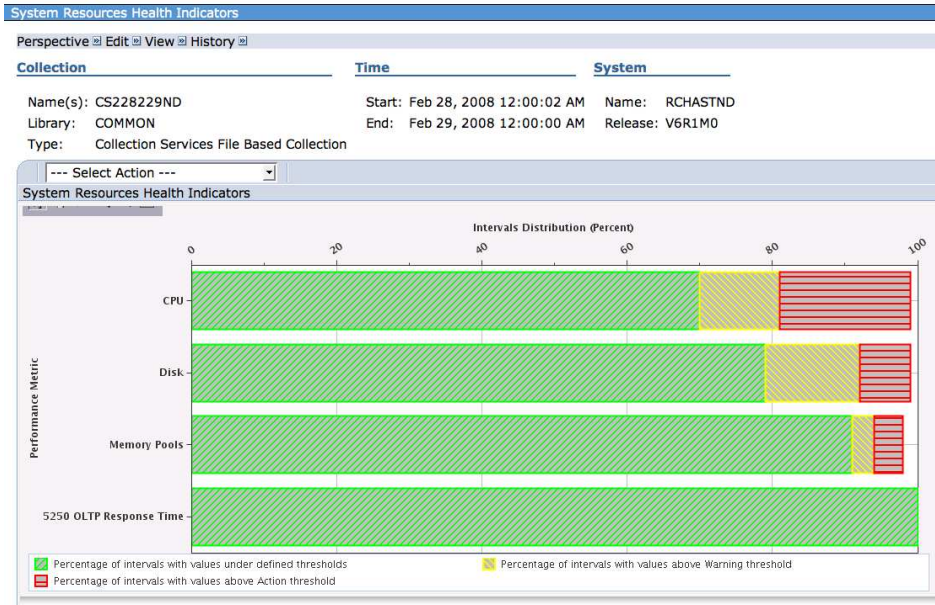
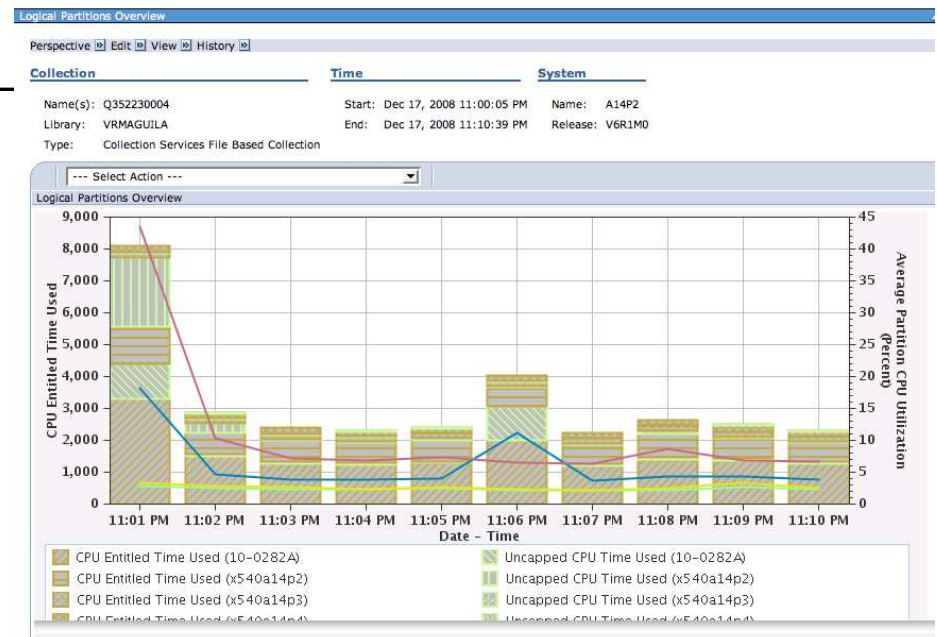
Performance Views
Health Indicators
Thresholds



Monitoring Director Navigator *New October 2009

Logical Partitions Overview

http://ibmsystemsmag.blogs.com/i_can/2009/10/i-can-display-cpu-utilization-for-all-partitions.html



System Resource Health Indicators

Thresholds Systems Director

Defined per Monitor

One threshold on a monitor

System

Group

Several levels

Generates events

Triggers for automation

Monitor View

This page displays the Common Monitors monitors:
otto01.austin.ibm.com

Actions Search the table... Search

Select	Name	Monitor Name	Monitor Type	Threshold St	Current	Warn
<input type="checkbox"/>	otto01.austin.ibm.com	Active Virtual Memory (%)	Individual		126%	
<input type="checkbox"/>	otto01.austin.ibm.com	Active Virtual Memory (4K Pages)	Individual		564814	
<input type="checkbox"/>	otto01.austin.ibm.com	CPU Utilization	Individual	Activated	1.19%	>= 85
<input type="checkbox"/>	otto01.austin.ibm.com	Disk % Space Used	Individual		86.89%	
<input type="checkbox"/>	otto01.austin.ibm.com	Disk Space Remaining	Individual		67 Megabytes Fr	
<input type="checkbox"/>	otto01.austin.ibm.com	Disk Space Used	Individual		444 Megabytes U	
<input type="checkbox"/>	otto01.austin.ibm.com	IP Packets Received with Errors/sec	Individual		0 Packets/sec	
<input type="checkbox"/>	otto01.austin.ibm.com	IP Packets Received/sec	Individual		26 Packets/sec	
<input type="checkbox"/>	otto01.austin.ibm.com	IP Packets Sent/sec	Individual		22.77 Packets/se	
<input type="checkbox"/>	otto01.austin.ibm.com	IPv6 Error Packets Received/sec	Individual		0 Packets/secon	
<input type="checkbox"/>	otto01.austin.ibm.com	IPv6 Packets Received/sec	Individual		0 Packets/secon	
<input type="checkbox"/>	otto01.austin.ibm.com	IPv6 Packets Sent/sec	Individual		0 Packets/secon	
<input type="checkbox"/>	otto01.austin.ibm.com	Memory Usage	Individual		1818591232 Meg	
<input type="checkbox"/>	otto01.austin.ibm.com	Paging Space Free (%)	Individual	Activated	81.21%	
<input type="checkbox"/>	otto01.austin.ibm.com	Paging Space Remaining (4K Pages)	Individual		425789	

Page 1 of 2 1 Selected: 0 Total: 23 Filtered: 23

Threshold

Selected Monitor is CPU Utilization

Threshold Options

Monitor values that are too high:

☒ Critical: 95

☒ Warning: 85

Monitor values that are too low:

☐ Warning:

☒ Critical: 1

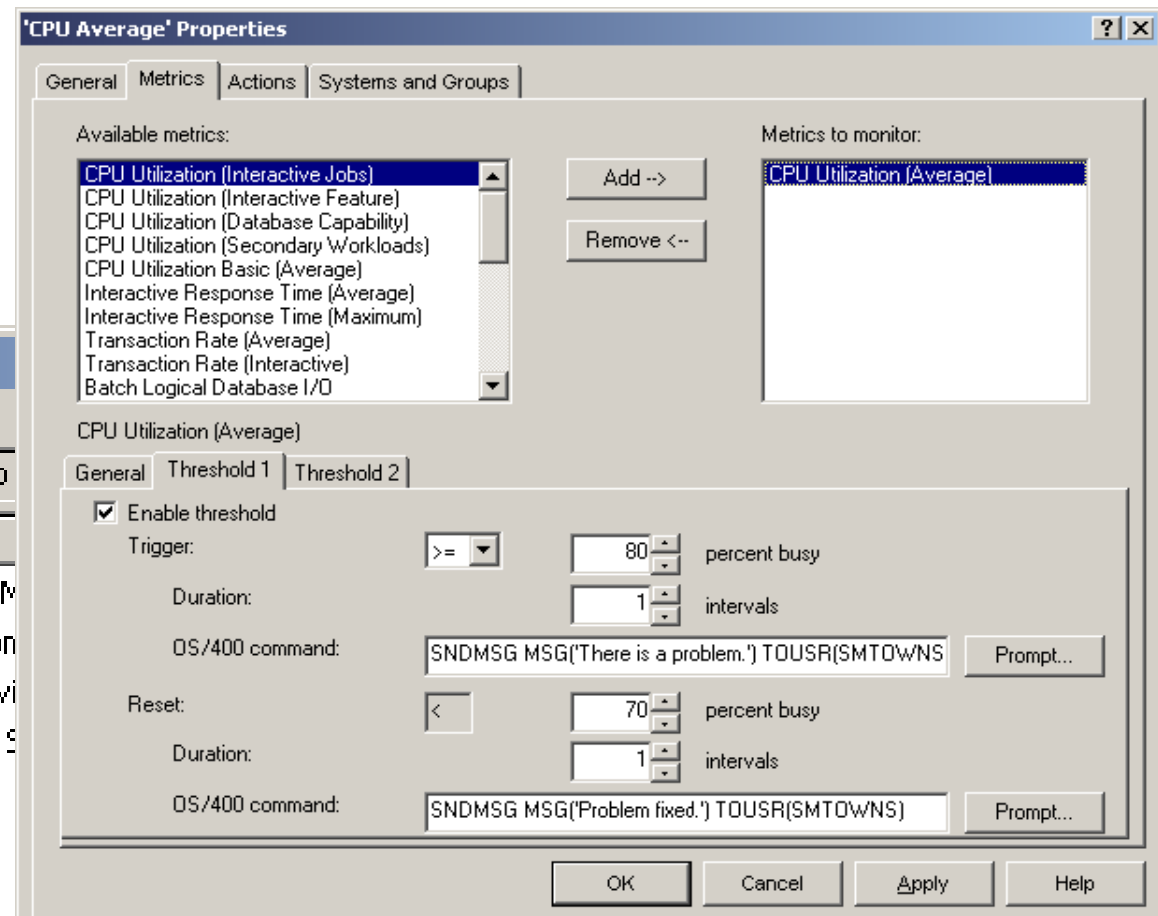
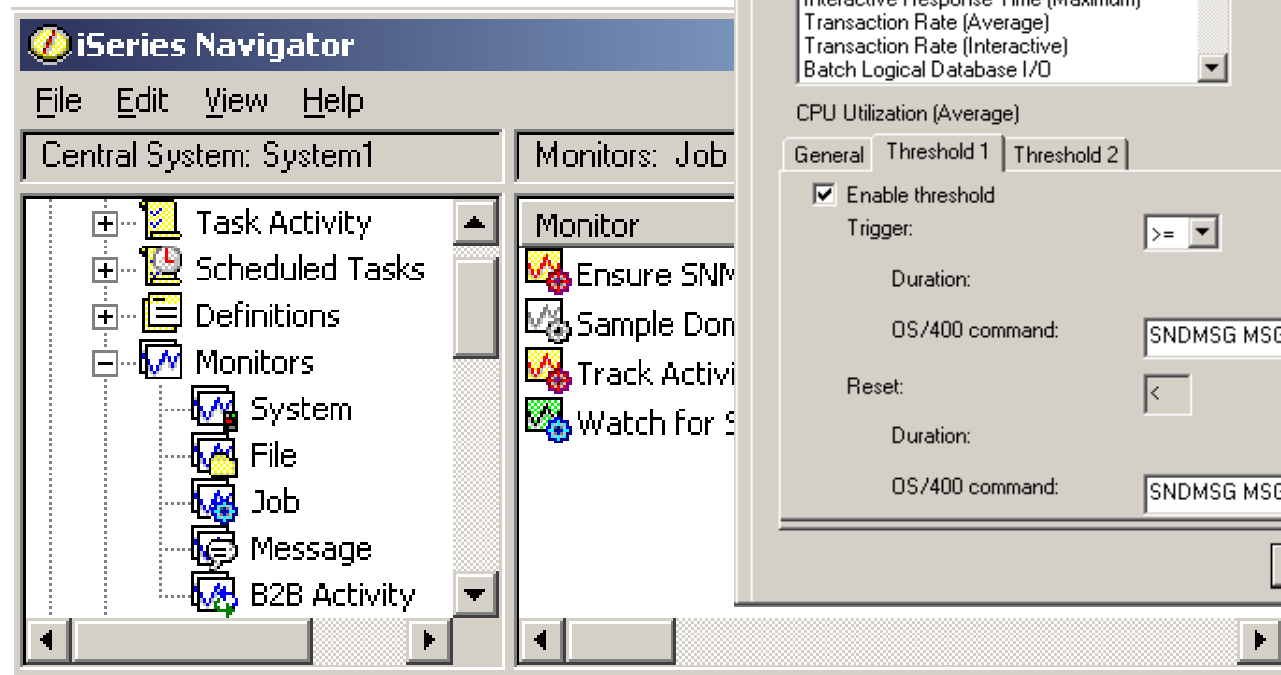
OK Cancel

Thresholds System i Navigator

Defined with Monitor

View via Monitor

Activated with Monitor



Thresholds Director Navigator

Customizable with Health Indicators

The screenshot shows the 'System Resources Health Indicators' window. It has a title bar with standard window controls. The main area is divided into four panes: 'System Resources Health Indicators' (listing CPU, Disk, Memory Pools, and 5250 OLTP Response Time), 'Available Indicators' (currently empty), 'Selected Indicators' (containing 5250 OLTP Response Time, CPU, Disk, and Memory Pools), and 'Current Threshold Values' (with Warning and Action thresholds set to 0). Buttons for 'Add >>' and 'Remove <<' are located between the Available and Selected panes.

“Design Mode” allows thresholds to be added to performance charts

This screenshot shows a dropdown menu titled '--- Select Action ---'. The menu is open, displaying a list of actions: Waits Overview, Seizes and Locks Waits Overview, Contention Waits Overview, Disk Waits Overview, Journal Waits Overview, Classic JVM Waits Overview, CPU Utilization by Thread or Task, Resource Utilization Overview, CPU Health Indicators, Edit View (highlighted), Export, Modify SQL, Size next upgrade, Change Context, and Show as table.

The screenshot shows the 'Thresholds' window. It has a title bar and a main area with an 'Add...' button, an 'Edit...' button, and a 'Delete' button. The main area is currently empty, indicated by '[Empty]'.

The screenshot shows the 'Add Threshold' dialog box. It has a title bar and several input fields: 'Name' (text box), 'Field' (dropdown menu showing 'Partition CPU Utilization'), 'Color' (dropdown menu showing 'Random'), 'Current Value' (text box), 'Percent' (checkbox), 'Default Value' (text box), and 'Percent' (checkbox). There are also buttons for 'Reset to Default Value', 'Update to Current Value', 'OK', and 'Cancel'.

Events Systems Director

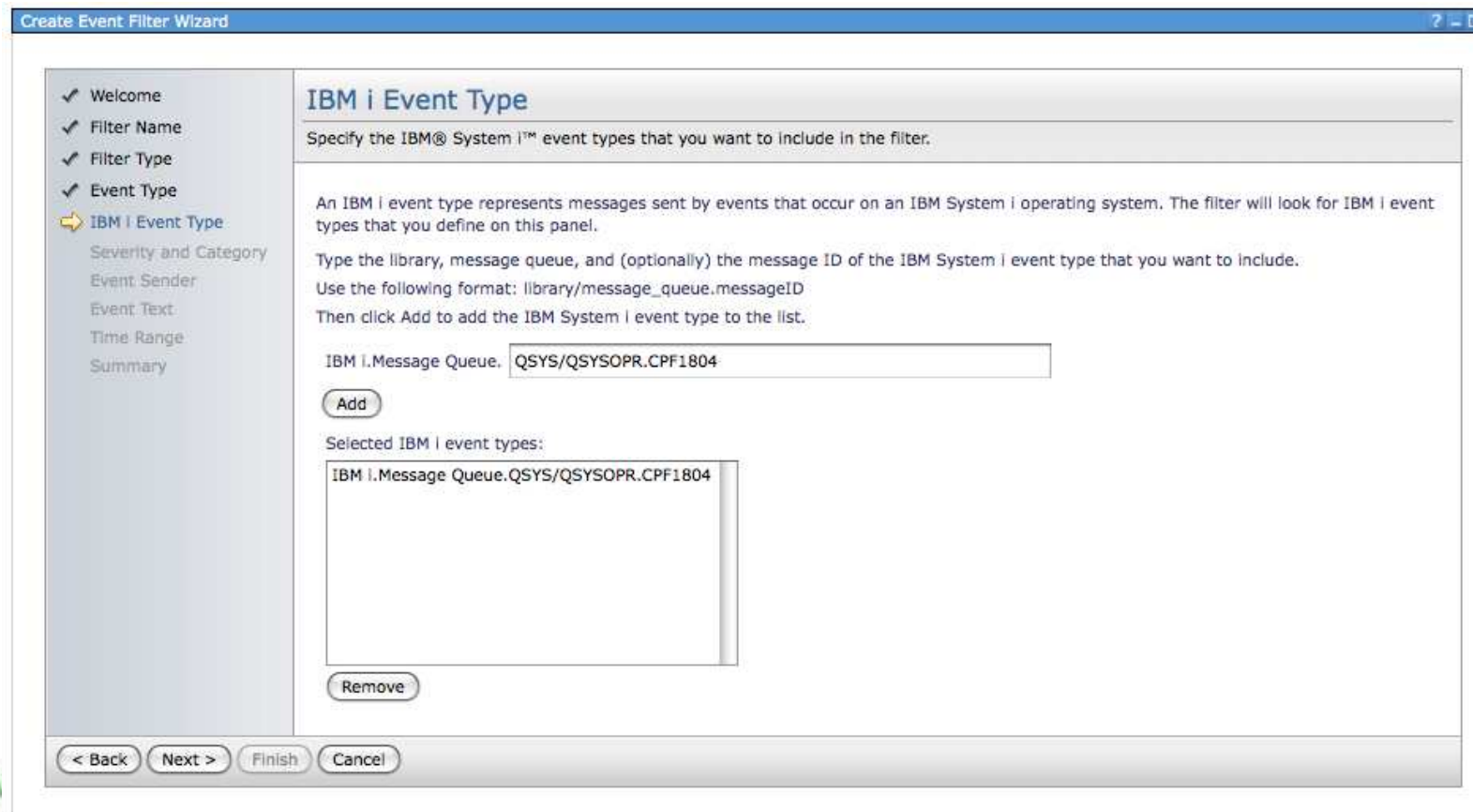
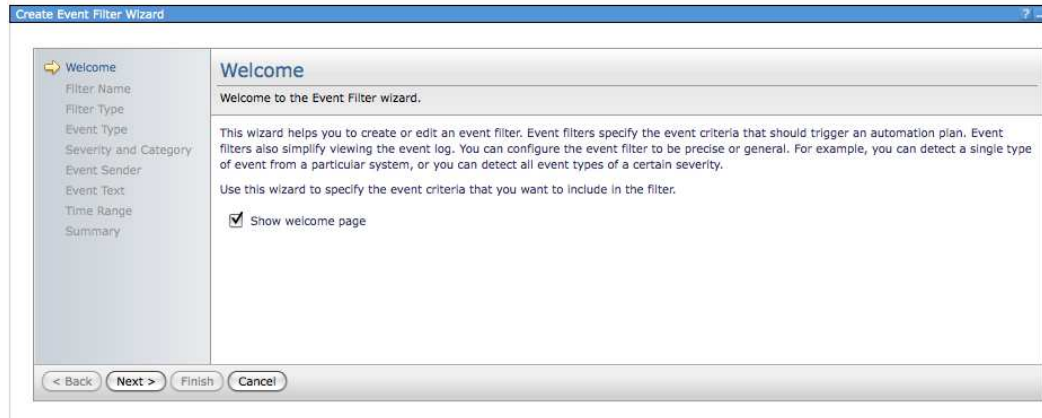
Multi-pane View

All

Types....

View Details

Create Event Filters – IBM i messages are supported event types



Events

System i Navigator

View by type
Property Details

Event Properties

General | Trigger

Event type: Trigger

Date: 5/4/2002

Time: 7:16:30 PM

System: System3

Metric: CPU Utilization (Average)

Monitor: CPU Average

OK Cancel Help

System Event Log

File View Options Help

System or group: All Metric: All Monitor: CPU Average


Event	Date	Time	System	Metric
✗ Trigger	5/4/2002	7:10:01 PM	System3	CPU Utilization
✓ Reset	5/4/2002	7:09:30 PM	System3	CPU Utilization
✗ Trigger	5/4/2002	7:08:45 PM	System3	CPU Utilization
✗ Trigger	5/4/2002	7:07:00 PM	System3	CPU Utilization
✓ Reset	5/4/2002	7:05:30 PM	System3	CPU Utilization
✗ Trigger	5/4/2002	7:03:01 PM	System3	CPU Utilization
✓ Reset	5/4/2002	7:01:15 PM	System3	CPU Utilization
✗ Trigger	5/4/2002	6:59:46 PM	System3	CPU Utilization
✓ Reset	5/4/2002	6:59:01 PM	System2	CPU Utilization
✗ Trigger	5/4/2002	6:58:46 PM	System2	CPU Utilization
✓ Reset	5/4/2002	6:58:46 PM	System3	CPU Utilization
✗ Trigger	5/4/2002	6:57:46 PM	System3	CPU Utilization
✓ Reset	5/4/2002	6:57:30 PM	System3	CPU Utilization
✗ Trigger	5/4/2002	6:54:46 PM	System3	CPU Utilization

Events

Director Navigator

Messages

Message queues

System i Navigator Tasks							
Refresh User: System operator							
<div>  <div>--- Select Action ---</div> <div>Go</div> </div>							
Select	From User	Type	Message	Sent	Message ID	Severity	
	Filter	Filter	Filter	Filter	Filter	Filter	
<input type="checkbox"/>	Qsrvagt	Information	Service Agent is analyzing your system product activity log entries.	3/28/09 4:12:38 PM	CPIEF01	0	
<input type="checkbox"/>	Dhqb	Completion	Job 156286/DHQB/ANZDFTPWD3 completed normally on 03/28/09 at 16:00:01.	3/28/09 4:00:01 PM	CPF1241	0	
<input type="checkbox"/>	Qsys	Completion	Job 156286/DHQB/ANZDFTPWD3 submitted for job schedule entry ANZDFTPWD3 number 001841.	3/28/09 4:00:00 PM	CPC1236	0	
<input type="checkbox"/>	Qsys	Information	Log version QHST09087B in QSYS closed and should be saved.	3/28/09 1:39:41 PM	CPF2456	0	
<input type="checkbox"/>	Qsrvagt	Information	Service Agent is analyzing your system product activity log entries.	3/28/09 12:12:41 PM	CPIEF01	0	
<input type="checkbox"/>	Dhqb	Completion	Job 156275/DHQB/ANZDFTPWD2 completed normally on 03/28/09 at 12:00:01.	3/28/09 12:00:01 PM	CPF1241	0	
<input type="checkbox"/>	Qsys	Completion	Job 156275/DHQB/ANZDFTPWD2 submitted for job schedule entry ANZDFTPWD2 number 001840.	3/28/09 12:00:00 PM	CPC1236	0	
<input type="checkbox"/>	Qsrvagt	Information	Service Agent is analyzing your system product activity log entries.	3/28/09 8:12:44 AM	CPIEF01	0	
<input type="checkbox"/>	Qsys	Information	Log version QHST09087A in QSYS closed and should be saved.	3/28/09 6:52:25 AM	CPF2456	0	
<input type="checkbox"/>	Qsys	Information	Log version QHST09086C in QSYS closed and should be saved.	3/28/09 6:49:11 AM	CPF2456	0	
<input type="checkbox"/>	Dhqb	Completion	Job 155499/DHQB/ANZDFTPWD1 completed normally on 03/28/09 at 06:00:01.	3/28/09 6:00:01 AM	CPF1241	0	
<input type="checkbox"/>	Qsys	Completion	Job 155499/DHQB/ANZDFTPWD1 submitted for job schedule entry ANZDFTPWD1 number 001839.	3/28/09 6:00:00 AM	CPC1236	0	
<input type="checkbox"/>	Qsrvagt	Information	Service Agent is analyzing your system product activity log entries.	3/28/09 4:12:48 AM	CPIEF01	0	
<input type="checkbox"/>	Dhqb	Completion	Job 155492/DHQB/ANZDFTPWD5 completed normally on 03/28/09 at 01:00:01.	3/28/09 1:00:01 AM	CPF1241	0	

Automation Systems Director

Separate Configuration

Automation Plans

Event Filters

Event Actions

Creativity to combine

Variety of defined actions

Customizable actions

Automation Manager

Automation summary within the last 30 days.

Scheduled Jobs

Number of jobs scheduled: 0
 Number of jobs completed successfully: 1
 Number of jobs failed with errors: 0

Upcoming job runs:
 None.

Most recent job runs:

Date	Job	Status
11/14/08 2:22 PM	Collect Inventory - November 14, 2008 2:22:33 PM EST	Completed

Systems with the Most Frequent Critical or Warning Events

System	Events
NETX103	29
NETVQ10	2
scenariox141.scenario.netfinity.com	2
scenariox142.scenario.netfinity.com	1



Event Automation Plans

Number of active plans: 1
 Number of inactive plans: 0

Event type

CIM.Directory Agent Events.Generic Event.
 Managed Resource.Managed System Resource.Logical Resource.System.Co
 Processor. (OperationalCondition: ConfigError)
 ManagedSystemElement.LogicalElement.ServiceAccessPoint.RemoteService
 (Common Agent State: stopped)
 Managed Resource.Managed System Resource.Logical Resource.Logical De

IBM Systems Director - Mozilla Firefox

Automation Plans

Create Action

Select the type of action that you want to create.

Actions Search the table... Search

Select	Name
<input type="radio"/>	Start a program on a system
<input type="radio"/>	Start a program on the system that generated the event
<input type="radio"/>	Send an e-mail to a mobile phone
<input type="radio"/>	Start a program on the management server
<input type="radio"/>	Send an e-mail (Internet SMTP)
<input type="radio"/>	Send an alphanumeric page (using TAP)
<input type="radio"/>	Static group: add or remove group members
<input type="radio"/>	Post to a newsgroup (NNTP)
<input type="radio"/>	Send an SNMP trap reliably to a NetView host
<input type="radio"/>	Send a Tivoli Enterprise Console event
<input type="radio"/>	Static group: add or remove the event-generating system
<input type="radio"/>	Send an SNMP inform request to an IP host
<input type="radio"/>	Send an SNMP trap to an IP host
<input type="radio"/>	Modify an event and send it
<input type="radio"/>	Timed alarm that starts a program

Page 1 of 2 | Selected: 0 Total: 21 Filtered: 21

OK Cancel Help

< Back Next > Finish Cancel

IBM Systems Director - Mozilla Firefox

Event Autom...

Automation Plans

Events

Specify one or more events that will trigger this event automation plan.

Events: Common

Common Agent Advanced Event Filters

Common Agent filters that monitor for events of common interest in your systems-management environment. For example, the Fans event type filter is triggered by any fan events. To learn more, click each event type name in the list to display a description and any additional settings for that event type.

Select event types from the following list:

General

- ☐ Common Agent
- ☐ Updates
- ☐ User Login Security
- ☐ Event Severity

Thresholds

- ☐ CPU Utilization
- ☐ Memory Usage
- ☐ Disk % Space Used

Hardware

- ☐ Processors (CPU)
- ☐ Disks
- ☐ Fans
- ☐ Memory
- ☐ Network and switches

< Back Next > Finish Cancel

Automation System i Navigator

Defined with Monitor
IBM i commands
Integrated prompter

'CPU Average' Properties

General Metrics Actions Systems and Groups

Available metrics:

- CPU Utilization (Interactive Jobs)
- CPU Utilization (Interactive Feature)
- CPU Utilization (Database Capability)
- CPU Utilization (Secondary Workloads)
- CPU Utilization Basic (Average)
- Interactive Response Time (Average)
- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)
- Batch Logical Database I/O

Metrics to monitor:

- CPU Utilization (Average)

CPU Utilization (Average)

General Threshold 1 Threshold 2

☒ Enable threshold

Trigger: \geq 80 percent busy

Duration: 1 intervals

OS/400 command: SNDMSG MSG('There is a problem.') TOUSR(SMTOWNS) Prompt...

Reset: $<$ 70 percent busy

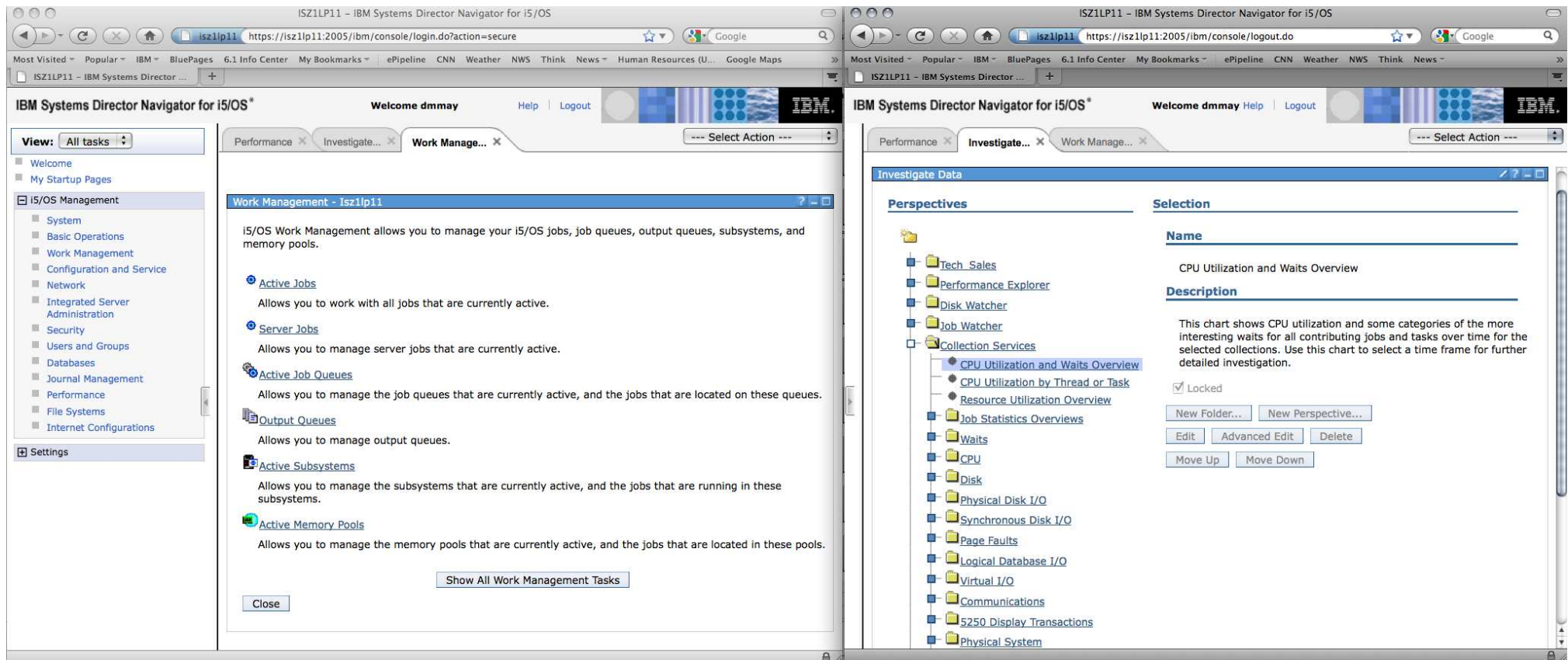
Duration: 1 intervals

OS/400 command: SNDMSG MSG('Problem fixed.') TOUSR(SMTOWNS) Prompt...

OK Cancel Apply Help

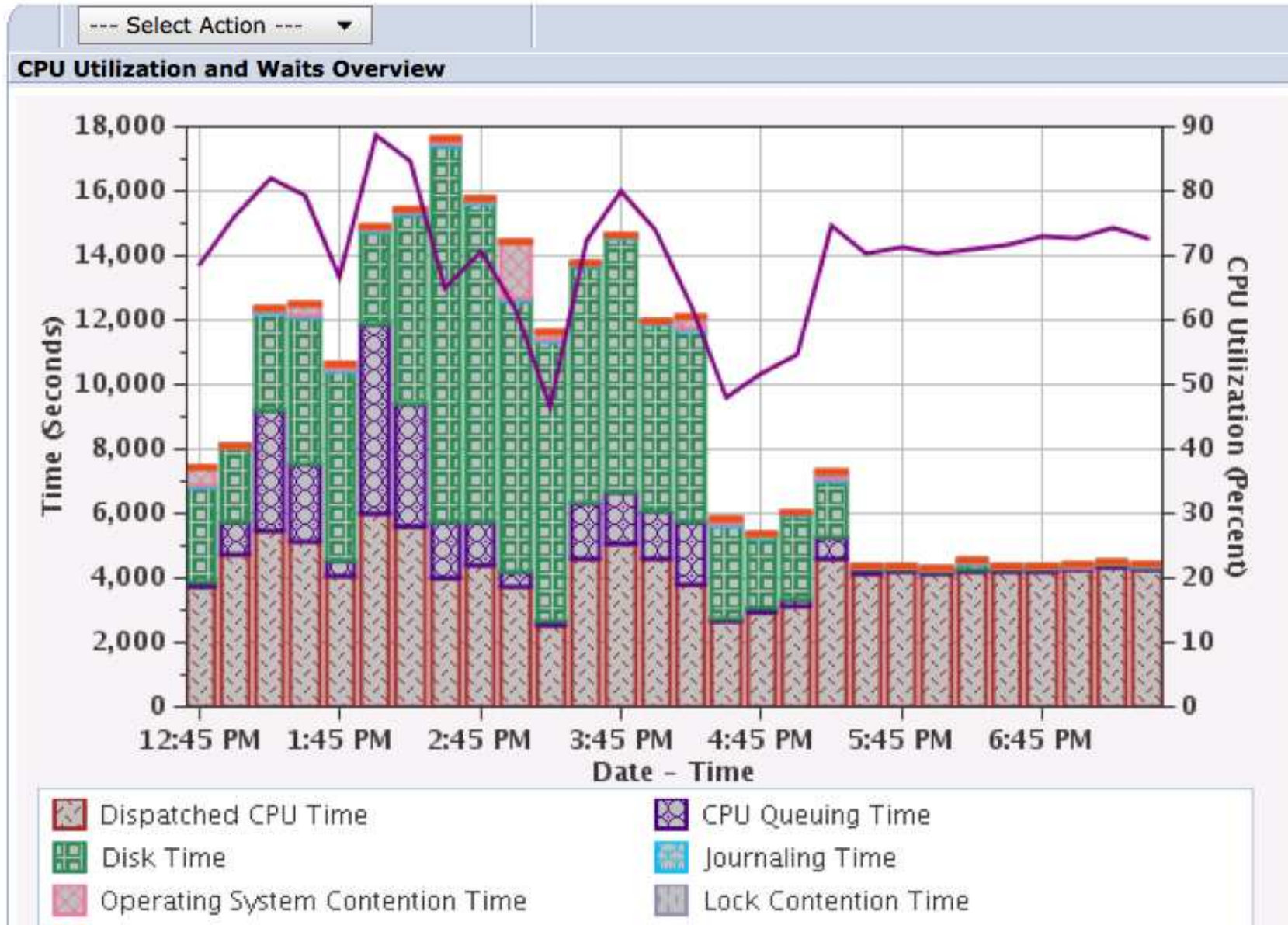
Going Beyond the Basics Director Navigator

Multiple window support * New in 7.1



Going Beyond the Basics

Director Navigator – Investigate Data



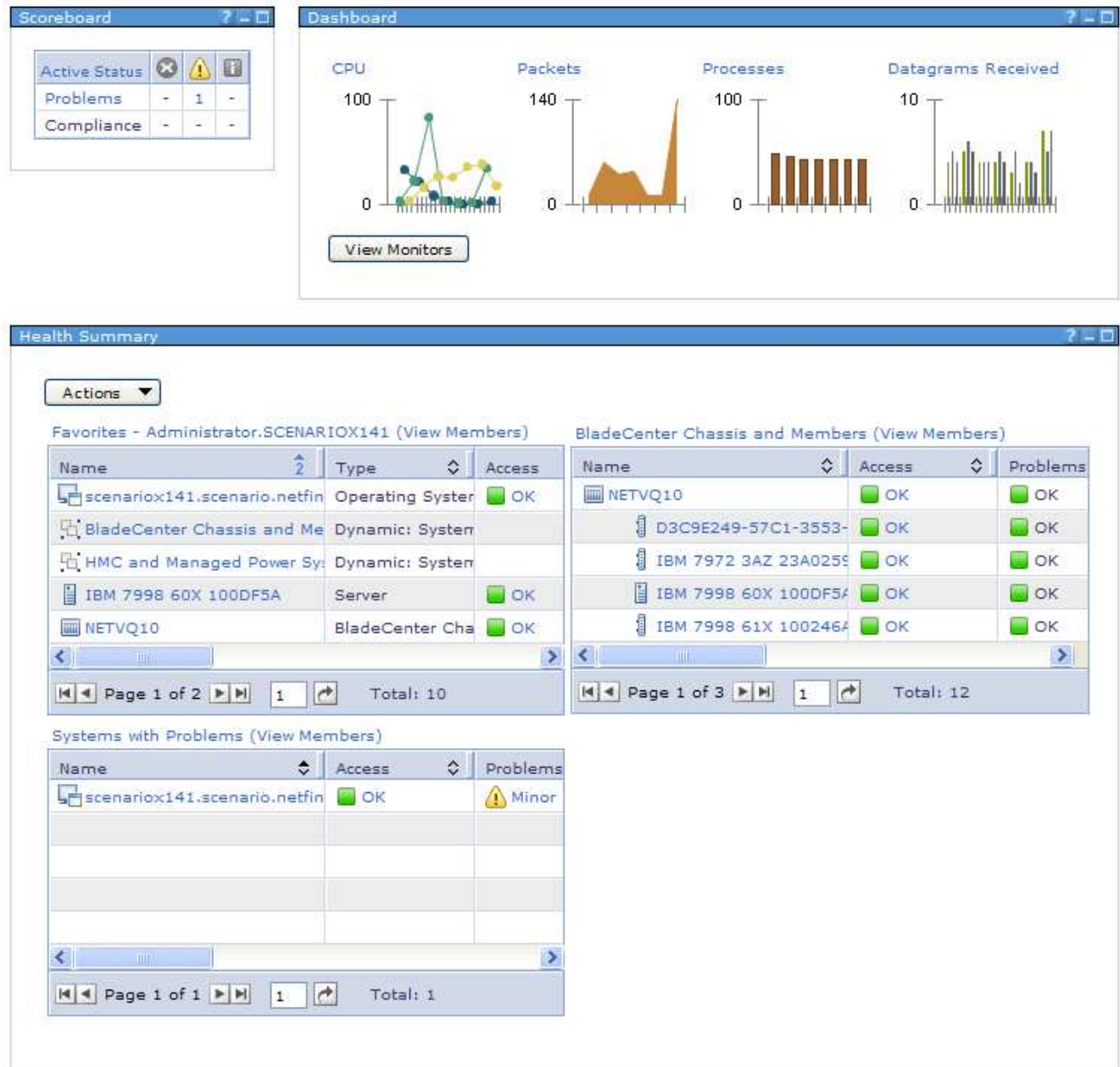
Going Beyond the Basics Systems Director

Health summary

Favorite systems

Critical monitors

Group thumbnails



Going Beyond the Basics Systems Director

Enhanced System Details

Power Systems summary

Launch-point

Familiar

Intuitive groups

Drilldown to properties

Search

Finger-tip troubleshooting

Contextual tasks

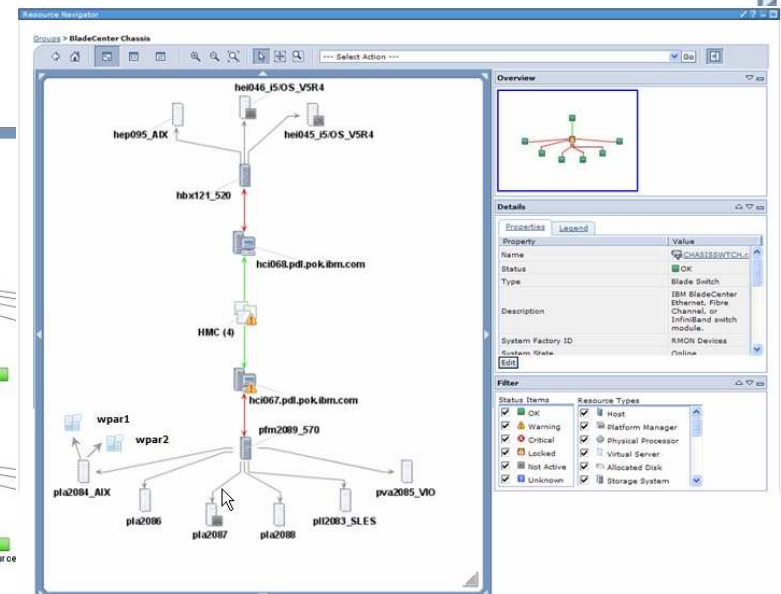
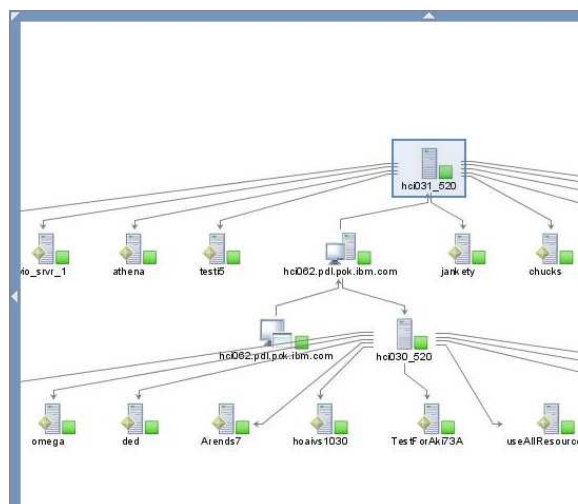
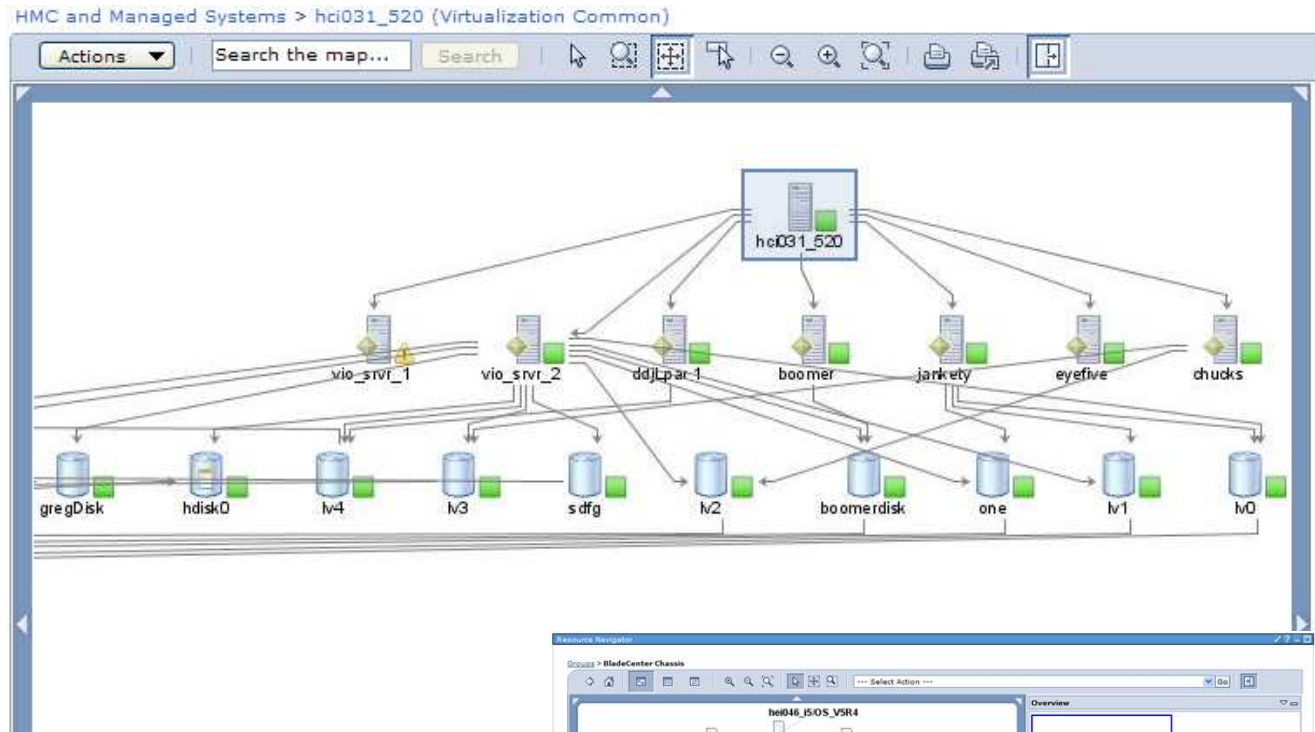
Inventory

View topology map

Relationships

Dependencies

Launch embedded tasks



Going Beyond the Basics Systems Director

Energy Management

Energy Usage Summary

Configuring Energy

Power capping

Power savings mode

Configure PDU

Update PDU firmware



Monitoring, Automation

power and temperature values

Trend Data

Watt-Hour Meter

Topology Map

System “plugged into” PDU

This page displays the Active Energy Monitors monitors.

0B4F0000-F1C6-11DA-8D44-0...

Actions ▾ Search the table... Search					
Select	Name ↕	Monitor Name ↕	Monitor Type ↕	Threshold St ↕	Current ↕
<input type="checkbox"/>	0B4F0000-F1C6-	Ambient Temperature	Individual		25.00
<input type="checkbox"/>	0B4F0000-F1C6-	Average Input Power	Individual		449.40
<input type="checkbox"/>	0B4F0000-F1C6-	Average Output Power	Individual		428.00
<input type="checkbox"/>	0B4F0000-F1C6-	Effective CPU Speed	Individual		100.00
<input type="checkbox"/>	0B4F0000-F1C6-	Exhaust Temperature	Individual		40.00

Summary

Decide what operating systems to manage

Decide homogenous verse heterogeneous

Decide what is important for you and your company!!!

References

IBM Systems Director Navigator Redbooks Publication

<http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/sg247789.html?Open>

IBM I 7.1 Technical Overview Redbooks Publication

<http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/sg247858.html?Open>

IBM Systems Director Redbooks Publication

<http://www.redbooks.ibm.com/abstracts/sg247694.html?Open>

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