

# Cool things in Navigator for IBM i to be a Rock Star Administrator

iTech Solutions because IBM i (AS/400s) don't come with System Administrators

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## In this session

We are going to go over how to use IBM Director Navigator for i, by first making sure we have all the components required. Then what needs to be started, and then look at the features and functions in the product that you can use.

## What we will cover

- Getting Started

- Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
- Integrated Server Admin: Hosted servers & disk
- Security: Authorization lists, Object authority, and Intrusion Detection.
- Users & Groups: Manage profiles & groups.
- Journal Management: Journals and receivers
- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

## Director Navigator for i

- Introduced with 6.1, Director Navigator for i is a web-based console that provides a single, easy-to-use view of your system.
- There is nothing required to purchase.
- Many Systems Management and Operations functions.
- Confusing name.
- Merger of System i Navigator into a web tool
- Portlet based – Refreshes better.
- New release via PTFs

## System i Navigator (What you were used to)

- Windows based application that runs on a PC
- Contains Management Central to manage multiple systems
- Requires loading IBM i Access (Client Access - iSeries Access) on your PC
- Has limited graphical interface
- A Client/Server application.

## Director Navigator for i

- Uses a web browser
- Nothing additional to load
- Integrated into IBM i base operating system (57xx-SS1 option 3)
- Has over 300 tasks
- URL addressable
- What it does **not** have
  - Management Central
  - Visual Explain
  - Database Navigator
  - Disk Management graphics

## Required Software

- 57xx-SS1 Option 1 – Extended Base Support
  - 57xx-SS1 Option 3 – Extended Base Directory Support
  - 57xx-SS1 Option 12 – Host Servers
  - 57xx-SS1 Option 30 – Qshell
  - 57xx-SS1 Option 33 – Portable Application Solutions Environment (PASE)
  - 57xx-DG1 – IBM i HTTP Server
  - 57yy-JV1 – IBM Developer Kit for Java (6.1 only)
  - 57yy-JV1 - Install default JVM for release
- 
- xx = 61 for IBM i 6.1, 70 for IBM i 7.1, 7.2, & 7.3
  - yy = 61 for IBM i 6.1 & 7.1, 70 for IBM i 7.2 & 7.3

## Required PTFs

### New functionality is delivered via HTTP DG1 Group PTF

- IBM I 7.3 SF99722
  - IBM I 7.2 SF99713 Level 6 or higher
  - IBM I 7.1 SF99368 Level 16 or higher
  - IBM I 6.1 SF99115 Level 28 or higher
- 
- WRKPTFGRP

## Check to make sure this is active

- Start TCP
- Start TCP Servers: STRTCPSVR SERVER(\*HTTP) HTTPSVR(\*ADMIN)
- You need the ADMIN Server under QHTTPSVR subsystem running

The screenshot shows a terminal window titled 'Session A - [24 x 80]' with a menu bar (File, Edit, View, Communication, Actions, Window, Help) and a toolbar. The window displays the following information:

Host: 172.29.6.2    Port: 23    Workstation ID:    Disconnect

```

Work with Active Jobs
                                04/20/15  ITECH07
                                21:04:49

CPU %:      2.1      Elapsed time:  00:00:29      Active jobs:  236
Current
Opt  Subsystem/Job  User      Type  CPU %  Function      Status
---  ---
    QHTTPSVR     QSYS     SBS    .0     PGM-QZHBMAIN  DEQW
    ADMIN       QTMHHTTP BCH    .0     PGM-QZHBMAIN  SIGW
    ADMIN       QTMHHTTP BCI    .0     PGM-QZSRLOG   SIGW
    ADMIN       QTMHHTTP BCI    .0     PGM-QZSRHTTP  SIGW
    ADMIN       ITECHSOL  BCI    .0     PGM-QZSRCGI   TIMW
    ADMIN1      QLWISVR  BCI    .0     JVM-/qibm/prod THDW
    ADMIN2      QLWISVR  BCI    .0     JVM-com.ibm.lw THDW
    ADMIN3      QLWISVR  BCI    .0     JVM-com.ibm.lw THDW
    ADMIN4      QWEBADMIN BCI    .0     JVM-/qibm/prod THDW
    ADMIN5      QLWISVR  BCI    .4     JVM-/qibm/prod THDW
    APACHEDFT   QTMHHTTP BCH    .0     PGM-QZHBMAIN  SIGW
    APACHEDFT   QTMHHTTP BCI    .0     PGM-QZSRLOG   SIGW
    APACHEDFT   QTMHHTTP BCI    .0     PGM-QZSRHTTP  SIGW
    INTAPPSVR   QLWISVR  BCI    .0     JVM-com.ibm.lw THDW
    INTAPPSVR   QTMHHTTP BCH    .0     PGM-QZHBMAIN  SIGW
    
```

More...

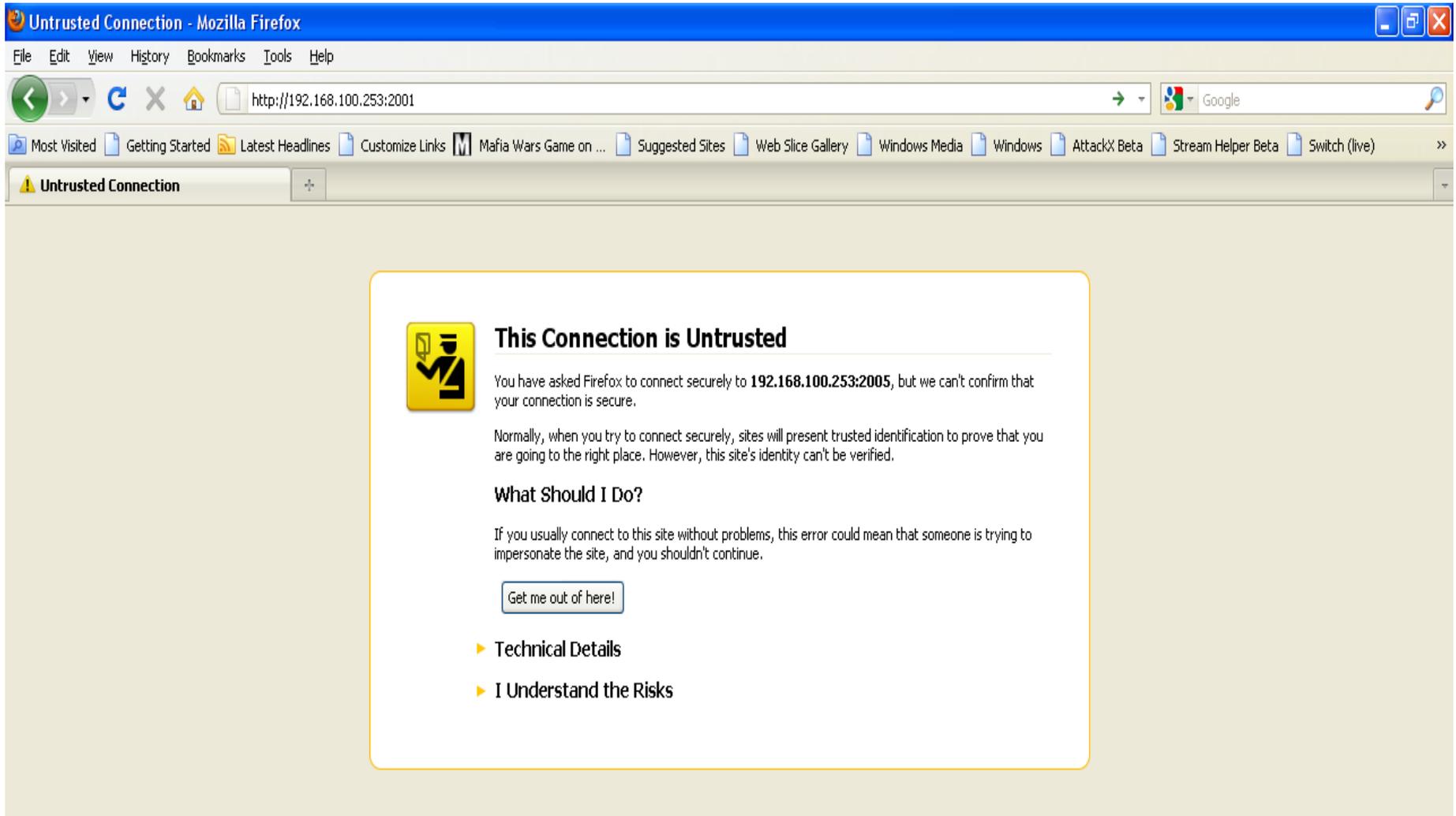
===>

F21=Display instructions/keys

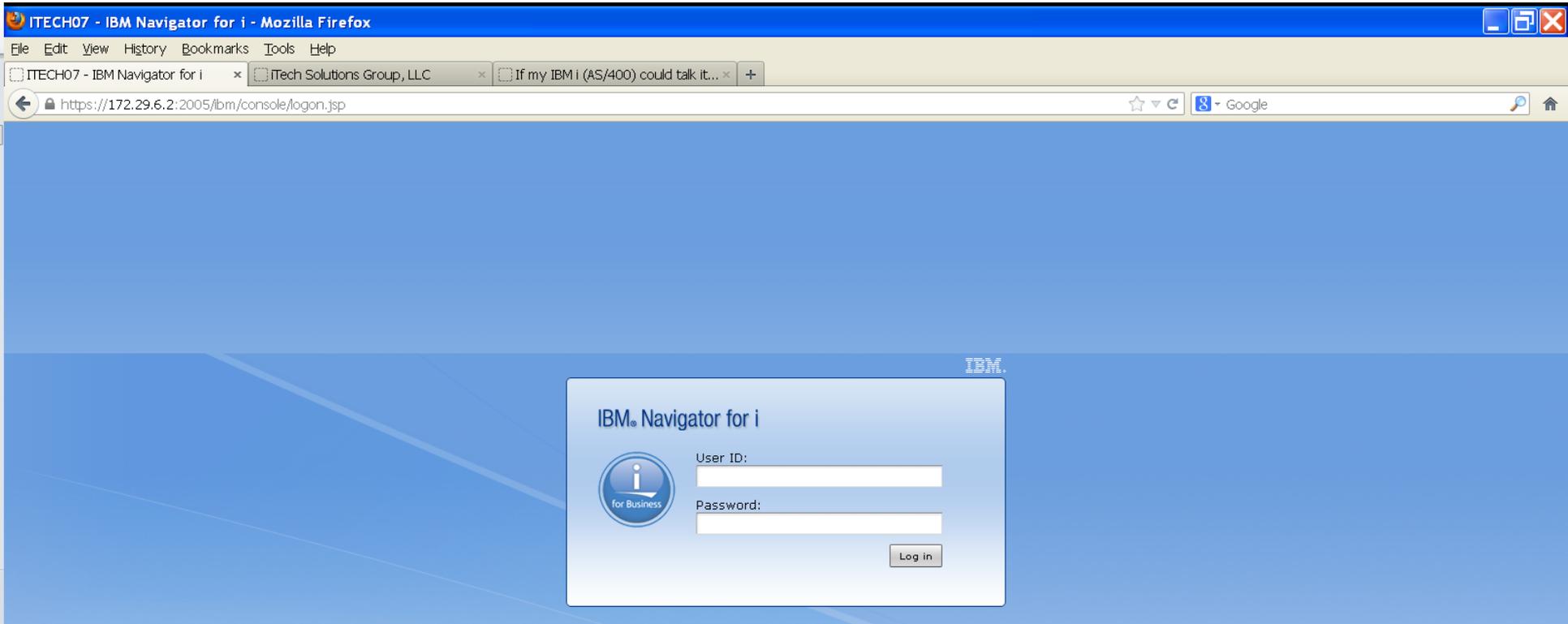
## Optional Plug-ins available

- Backup Recovery Media Services (BRMS) – 57xx-BR1
- IBM i High Availability Solutions Manager – 57xx-HAS
- IBM Performance Tools for IBM i Disk Watcher – 57xx-PT1 Opt1
- IBM i Job Watcher – 57xx-PT1 Opt 3

# How to Connect – URL - http://<systemname>:2001



# This is your sign-on screen – regular User ID & Password



# Without PTFs

WNP - IBM Systems Director Navigator for i5/OS - Mozilla Firefox

File Edit View History Bookmarks Tools Help

192.168.100.253 https://192.168.100.253:2005/ibm/console/logon.jsp

Most Visited Getting Started Latest Headlines Customize Links Mafia Wars Game on ... Suggested Sites Web Slice Gallery Windows Media Windows AttackX Beta Stream Helper Beta Switch (live)

WNP - IBM Systems Director Navigat...

IBM Systems Director Navigator for i5/OS\*

Welcome, enter your information.

User ID:

Password:

Log in

IBM

# Main Screen

https://172.29.6.2:2005/ibm/console/login.do?action=secure

IBM® Navigator for i

Welcome petem Target system: 172.29.6.2 Help | Logout

- Welcome
- IBM i Management
  - Set Target System
  - System
  - Basic Operations
  - Work Management
  - Configuration and Service
  - Network
  - Integrated Server Administration
  - Security
  - Users and Groups
  - Database
  - Journal Management
  - Performance
  - File Systems
  - Internet Configurations
- Settings

Welcome

Welcome to the IBM Navigator for i [About Console](#)

IBM 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](#)

Old 2001 port

## Old 2001 Port screen – IBM i Tasks from Main menu



IBM i Tasks - Itech07.itechsol.com

IBM i Tasks allows you to access the tasks that were previously displayed on the IBM i Tasks web page.



[IBM Web Administration for i](#)

Allows you to manage and configure HTTP servers and application servers (Located in Internet Configurations)



[Digital Certificate Manager](#)

Allows you to create, distribute, and manage Digital Certificates (Located in Internet Configurations)



[IBM Tivoli Directory Server Web Administration Tool](#)

Allows you to administer the IBM Tivoli Directory Server for i (Located in Network)



[IBM IPP Server for i](#)

Allows you to configure the IBM IPP Server (Located in Internet Configurations)

Close

# Director Navigator for i Main Menu

← https://172.29.6.2:2005/ibm/console/login.do?action=secure

IBM® Navigator for i Welcome petem Target system: 17

- Welcome
- [-] IBM i Management

  - Set Target System
  - [-] System
  - [-] Basic Operations
  - [-] Work Management
  - [-] Configuration and Service
  - [-] Network
  - [-] Integrated Server Administration
  - [-] Security
  - [-] Users and Groups
  - [-] Database
  - [-] Journal Management
  - [-] Performance
  - [-] File Systems
    - Internet Configurations

- [-] Settings

Welcome x

---

**Welcome to the IBM Navigator for i**

IBM Navigator for i provides an easy to use interface for the web-enabled IBM i management task

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

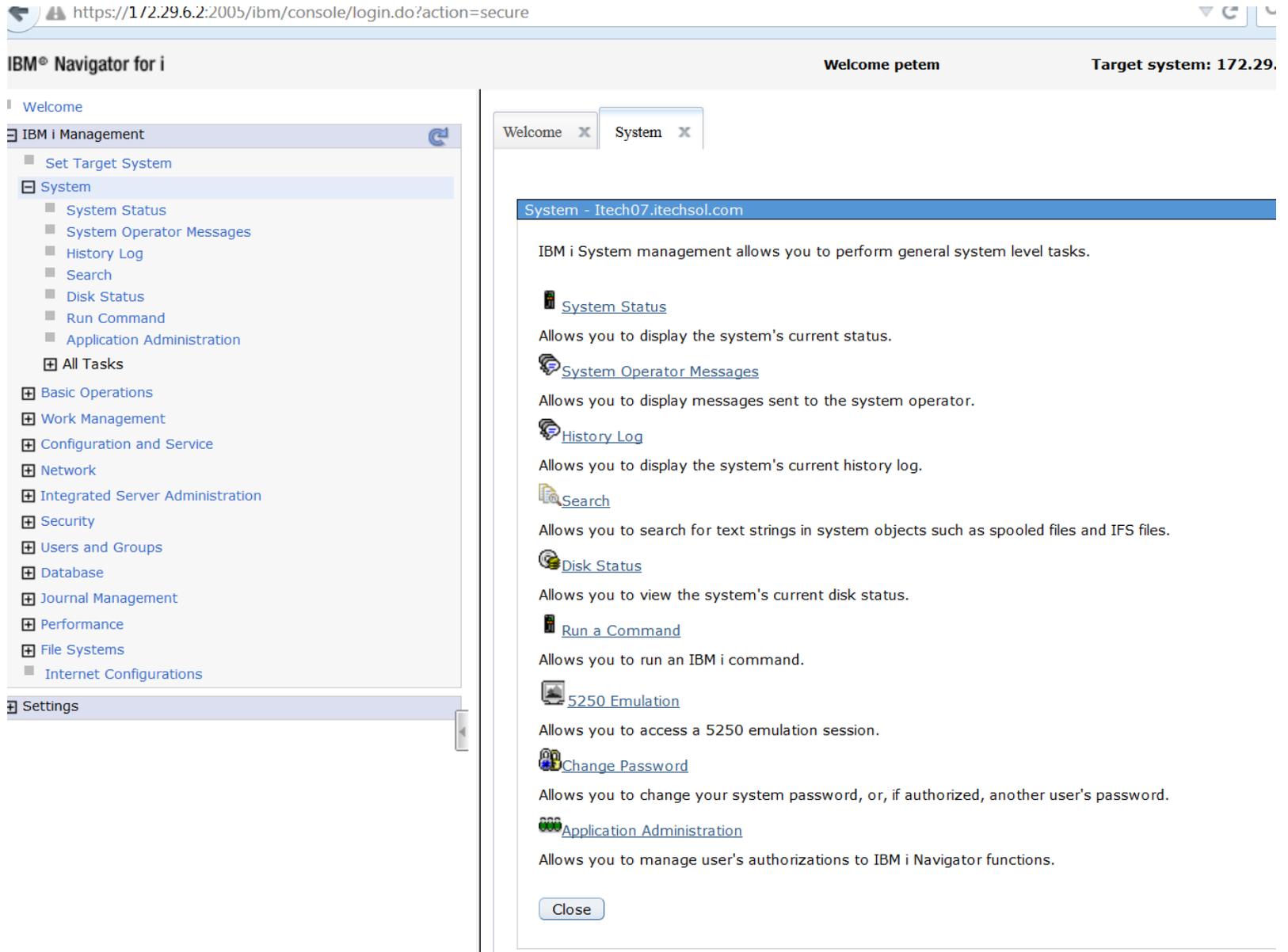
To see the previous version of the 2001 port tasks and where they are located now, click below.

[IBM i Tasks Page](#)

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
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# System Tasks



The screenshot shows the IBM Navigator for i web interface. The browser address bar displays the URL: `https://172.29.6.2:2005/ibm/console/login.do?action=secure`. The page header includes "IBM® Navigator for i" on the left, "Welcome petem" in the center, and "Target system: 172.29." on the right. A left-hand navigation pane is visible, with "System" selected under "IBM i Management". The main content area has a tabbed interface with "System" active. The "System" tab displays a list of tasks with their descriptions:

- 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.
- Search**: Allows you to search for text strings in system objects such as spooled files and IFS files.
- 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 password.
- Application Administration**: Allows you to manage user's authorizations to IBM i Navigator functions.

A "Close" button is located at the bottom of the task list.

# General information on System, Tasks

https://172.29.6.2:2005/ibm/console/login.do?action=secure

Search

IBM® Navigator for i

Welcome petem

Target system: 172.29.6.2

- Welcome
- IBM i Management
  - Set Target System
  - System
    - System Status
    - System Operator Messages
    - History Log
    - Search
    - Disk Status
    - Run Command
    - Application Administration
  - All Tasks
- Basic Operations
- Work Management
- Configuration and Service
- Network
- Integrated Server Administration
- Security
- Users and Groups
- Database
- Journal Management
- Performance
- File Systems
  - Internet Configurations
- Settings

Welcome x System x System Status x

## System Status - ITECH07.itechsol.com

Last refresh:

4/20/15 9:20:03 PM

Elapsed tim

General
Jobs
Processors
Memory
Disk Space
Addresses

### Jobs

Total: 5,858  
Active: 236

### Addresses used

Permanent: 0.009 %  
Temporary: 0.151 %

Total disk space: 1,702.77 GB

### System disk pool

Capacity: 1,702.77 GB  
Usage: 58.146 %

System Resources Health Indicators

Refresh Now

Reset Statistics

# Information on CPU Usage & Processors

Welcome x System x System Status x

System Status - ITECH07.itechsol.com

Last refresh: 4/20/15 9:20:03 PM Elapsed time:

General	CPU usage (elapsed):	0.0 %
Jobs	Type of processors:	Shared - uncapped
<b>Processors</b>	Processing power:	0.20 processing units
Memory	Virtual processors:	2
Disk Space	Interactive performance:	0 %
Addresses	Shared processor pool usage (elapsed):	0.0 %
	Uncapped CPU capacity pool usage (elapsed):	0.0 %

CPU Health Indicators

Refresh Now Reset Statistics

# Memory

Welcome x System x System Status x

System Status - 172.29.6.2

Last refresh: 4/20/15 9:28:33 PM Elapsed time: 00:00:00

General Total memory: 8,184.00 MB

Jobs Active Memory Pools

Processors Memory Pools Health Indicators

**Memory**

Disk Space

Addresses

# Memory Pools: Subset of WRKSYSSTS

Welcome x System x System Status x

## Active Memory Pools - Itech07

Refresh Elapsed time: 00:00:25

Actions Filter

<input type="checkbox"/>	Pool	Description	Current Size (MB)	Current Threads	Maximum Eligible Threads
	No filter applied				
<input type="checkbox"/>	Machine	Used by internal machine functions	597.46	91	0
<input type="checkbox"/>	Base	Default system pool	7,115.98	942	234
<input type="checkbox"/>	Interactive	Used for interactive work	409.2	1	77
<input type="checkbox"/>	Spool	Used for printing	61.36	2	5

# Memory Pools: Health Indicators

## Memory Pools Health Indicators

Perspective Edit View History

### Collection

Name(s): Q110000103

Library: QMPGDATA

Type: Collection Services File Based Collection

File level: 36

### Time

Start: Apr 20, 2015 12:01:03 AM

End: Ongoing

### System

Name: ITECH07

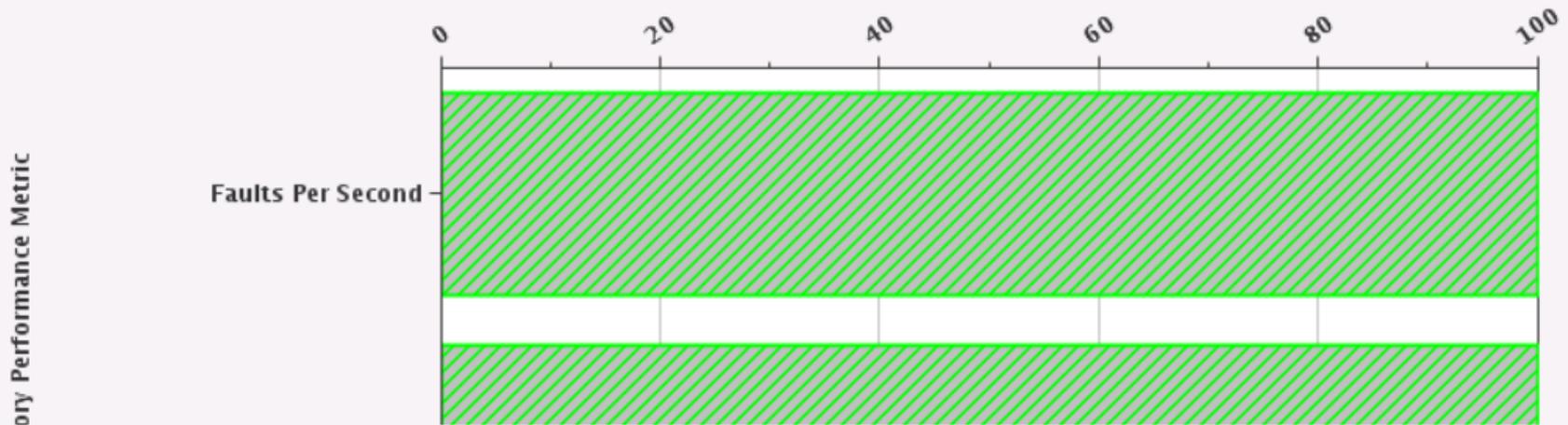
Release: V7R1M0

--- Select Action --- ▼

## Memory Pools Health Indicators



Intervals Distribution (Percent)



# Disk Capacity Information

IBM i Navigator x System x System Status x

System Status - 172.29.6.2

Last refresh: 4/20/15 9:28:33 PM Elapsed time: 00:00:00

General	Total disk space: 1,702.77 GB
Jobs	<b>System disk pool</b>
Processors	Capacity: 1,702.77 GB
Memory	Usage: 58.148 %
<b>Disk Space</b>	<b>Temporary storage used</b>
Addresses	Current: 5,798 MB
	Maximum since last system restart: 8,600 MB

[Disk Status](#)

[Storage System Values](#)

[Disk Health Indicators](#)

# Disk Information - WRKDSKSTS

IBM i Navigator x System x System Status x

## Disk Status - Itech07

[Refresh](#) Elapsed time: 00:00:19



Actions ▾

Filter



<input type="checkbox"/>	Unit	Type	Size (MB)	% Used	% Busy	I/O Requests	Request Size (KB)
<input type="checkbox"/> ... No filter applied <span style="float: right;">x</span>							
<input type="checkbox"/>	1	19A1	243,253	58.1	0	2.1	5.8
<input type="checkbox"/>	3	19A1	243,253	58.1	0	0.5	5.3
<input type="checkbox"/>	4	19A1	243,253	58.1	0	1.1	10.3
<input type="checkbox"/>	5	19A1	243,253	58.1	0	1.2	8.4
<input type="checkbox"/>	6	19A1	243,253	58.1	0	1.8	11.9
<input type="checkbox"/>	7	19A1	243,253	58.1	0	0.5	9.8
<input type="checkbox"/>	8	19A1	243,253	58.1	0	0.6	6.2

## What to do when maximum Disk space is reached

IBM i Navigator x System x System Status x

### Storage System Values - Localhost

#### \*General

\*Maximum system disk pool usage:  %

#### When maximum usage is reached:

- Send message to system operator and system message queue
- Send message to service users
- Run registered exit programs
- End system to restricted state
- Immediately power down and restart system

Automatically clean up unused printer output storage

\* Retention period (0-366):  days

# System Operator messages: like DSPMSG QSYSOPR

System Operator Messages - 172.29.6.2

User: System operator

Actions

<input type="checkbox"/>	From User	Type	Message
	No filter applied		
<input type="checkbox"/>	Qsrvagt	Information	Service Agent is analyzing your system product activity log entries.
<input type="checkbox"/>	Qsys	Information	Journal receivers AUDRCV0138 and *N detached.
<input type="checkbox"/>	Qsys	Information	Job not submitted for job schedule entry QEZBKTTMMON number 000016 because the
<input type="checkbox"/>	Qsys	Information	Journal receivers AUDRCV0137 and *N detached.
<input type="checkbox"/>	Qsys	Information	Log version QHST15110G in QSYS closed and should be saved.
<input type="checkbox"/>	Qsys	Information	Log version QHST15110F in QSYS closed and should be saved.
<input type="checkbox"/>	Qsys	Information	Log version QHST15110E in QSYS closed and should be saved.
<input type="checkbox"/>	Qsys	Information	Log version QHST15110D in QSYS closed and should be saved.
<input type="checkbox"/>	Qsys	Information	Log version QHST15110C in QSYS closed and should be saved.
<input type="checkbox"/>	Qsys	Information	Journal receivers AUDRCV0136 and *N detached.

# History Log

IBM i Navigator x System x System Status x System Operator Messages x History Log x

History Log - 172.29.6.2

Start: (Current date Previous hour )



Actions

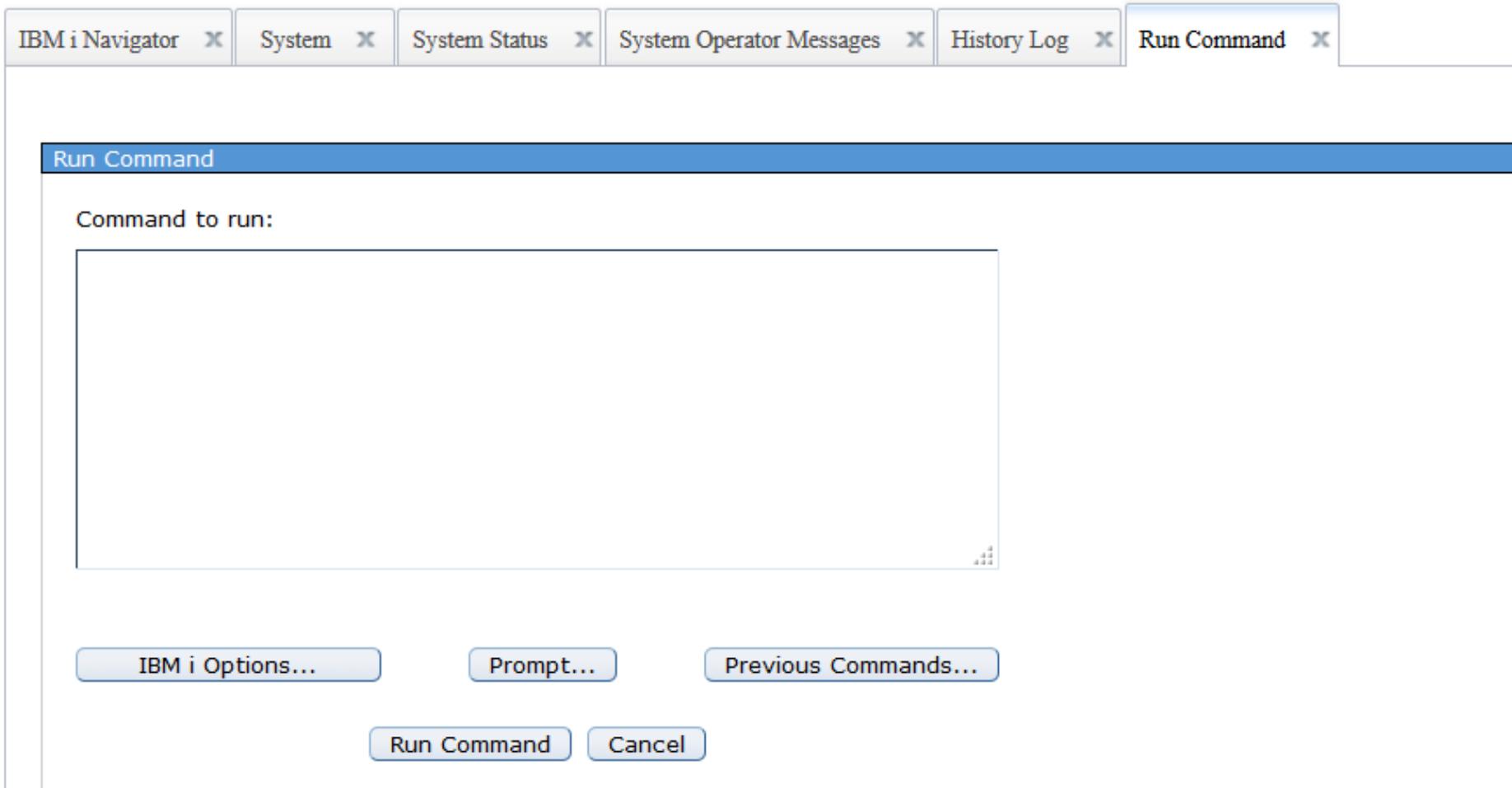
Filter



<input type="checkbox"/>	Message ID	Severity	Type	Message
	No filter applied			
<input type="checkbox"/>	CPIAD09	0	Info	User PETEM from client ITECH07.itechsol.com connected to jc
<input type="checkbox"/>	CPIAD09	0	Info	User PETEM from client ITECH07.itechsol.com connected to jc
<input type="checkbox"/>	CPF1124	0	Info	Job 616678/QUSER/QZDASOINIT started on 04/20/15 at 21
<input type="checkbox"/>	CPF1124	0	Info	Job 616679/QUSER/QZDASOINIT started on 04/20/15 at 21
<input type="checkbox"/>	CPIAD09	0	Info	User PETEM from client 127.0.0.1 connected to job 485252/C
<input type="checkbox"/>	CPIAD0B	0	Info	*SIGNON server job 593832/QUSER/QZSOSIGN processing i
<input type="checkbox"/>	CPF1124	0	Info	Job 616673/QUSER/QZRCSRVS started on 04/20/15 at 21:2
<input type="checkbox"/>	CPF1124	0	Info	Job 616672/QUSER/QZRCSRVS started on 04/20/15 at 21:2
<input type="checkbox"/>	CPIAD09	0	Info	User PETEM from client ITECH07.itechsol.com connected to jc
<input type="checkbox"/>	CPIAD0B	0	Info	*SIGNON server job 593832/QUSER/QZSOSIGN processing i

1 - 28 of 28 items      5 | 10 | 25 | 50 | **100** | All      << 1 >>

## Run an IBM i Command



## Application Administration

- Control what users have access to FTP & what they can do.
- Control what FTP commands users can perform
  - Change Directory
  - Receive files
  - Send files
  - CL Commands
- Control what users can upload and download data using IBM i Access, and ODBC.
- Everyone can do until one person is entered.
- This and Index Advisor worth price of entire conference.



**Tip**

# Application Control

Welcome

IBM i Management

- Set Target System
- System
  - System Status
  - System Operator Messages
  - History Log
  - Search
  - Disk Status
  - Run Command
  - Application Administration
- All Tasks
  - Basic Operations
  - Work Management
  - Configuration and Service
  - Network
  - Integrated Server Administration
  - Security
  - Users and Groups
  - Database
  - Journal Management
  - Performance
  - File Systems
    - Internet Configurations
- Settings

IBM i Navigator x Application Administration x

Application Administration (Local Settings) - localhost

Select the functions or applications available to users.

System i Navigator	Select	Function	Default Access	All Object Access	Customized Access
Client Applications	<input type="radio"/>	localhost in My Connections	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Host Applications	<input type="radio"/>	Basic Operations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Work Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Configuration and Service	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Network	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Integrated Server Administration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Security	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Users and Groups	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Databases	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	File Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Multimedia (Pre-V5R1M0 clients only)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Backup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Application Development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	AFP Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="radio"/>	Application Administration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Application Control FTP

Select the functions or applications available to users.

Select	Function	Default Access	All Object Access	Customized Access
<input type="radio"/>	▶ CIMOM Server ▶	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶ Digital Certificate Manager (DCM) ▶	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="radio"/>	▶ IBM i ▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶ iSeries Navigator Tasks on the Web ▶	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶ Management Central ▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶ QIBM_EJB_PRODUCT ▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	▼ TCP/IP Utilities for iSeries ▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▼ File Transfer Protocol (FTP) ▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶ FTP Client ▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶ FTP Server ▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1 of 1 |   | Rows    | Total: 10 Selected: 1

# Application Control - FTP Server - Logon Server

IBM i Navigator x Application Administration x

Customize Access (Local Settings) - localhost

Function: Logon Server  
Product: TCP/IP Utilities for iSeries  
Function Description: Permission to logon to the FTP Server. Must be allowed to use other server operations.  
Access:

Default access  
 Users with all object system privilege

**Customized access for users and groups**

Users and groups:

- All Users
- Groups
- Users Not in a Group

Access Allowed:

[Empty] Go

Add ->

Remove <-

Access denied:

[Empty] Go

Add ->

Remove <-

# Control FTP Commands

IBM i Navigator

Application Administration

## Host Applications

<input type="radio"/>	▶  Digital Certificate Manager (DCM) ▶▶	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="radio"/>	▶  IBM i ▶▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶  iSeries Navigator Tasks on the Web ▶▶	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶  Management Central ▶▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶  QIBM_EJB_PRODUCT ▶▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▼  TCP/IP Utilities for iSeries ▶▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▼ File Transfer Protocol (FTP) ▶▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▶ FTP Client ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	▼ FTP Server ▶▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	Logon Server ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	▼ Specific Operations ▶▶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	Change Directory ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	CL Commands ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	Create Directory/Library ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	Delete Directory/Library ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	Delete Files ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	List Files ▶▶	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1 of 2

1

Go

Rows 18

Total: 22 Selected: 1

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
- Integrated Server Admin: Hosted servers & disk
- Security: Authorization lists, Object authority, and Intrusion Detection.
- Users & Groups: Manage profiles & groups.
- Journal Management: Journals and receivers
- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

## Database

- Index Advisor – Show what indexes are required
  - Easy to use
  - Great way of getting performance
  - Resolve long running jobs that create AP
  - Second best feature of DN.
- SQL Plan cache
- Create SQL Statements
- SQL Packages
- Performance monitors



**Tip**

## Database Main menu

- Welcome
- IBM i Management
  - Set Target System
  - System
    - System Status
    - System Operator Messages
    - History Log
    - Search
    - Disk Status
    - Run Command
    - Application Administration
  - All Tasks
  - Basic Operations
  - Work Management
  - Configuration and Service
  - Network
  - Integrated Server Administration
  - Security
  - Users and Groups
  - Database
    - Databases
      - S108e6be
        - Schemas
        - Database Maintenance
        - SQL Performance Monitors
        - SQL Plan Cache
        - Transactions
    - All Tasks
  - Journal Management

IBM i Navigator x Application Administration x Database x

Databases - Itech07.itechsol.com

IBM i Databases allows you to manage your databases.

Current database: S108e6be      Current schema: Qusrsys

[Databases](#)  
Displays a list of the databases on the system from which you can perform all database tasks.

[All Objects](#)  
Allows you to work with all database objects for a specific database and schema.

[Tables](#)  
Allows you to work with the database tables for a specific database and schema.

[Views](#)  
Allows you to work with database views for a specific database and schema.

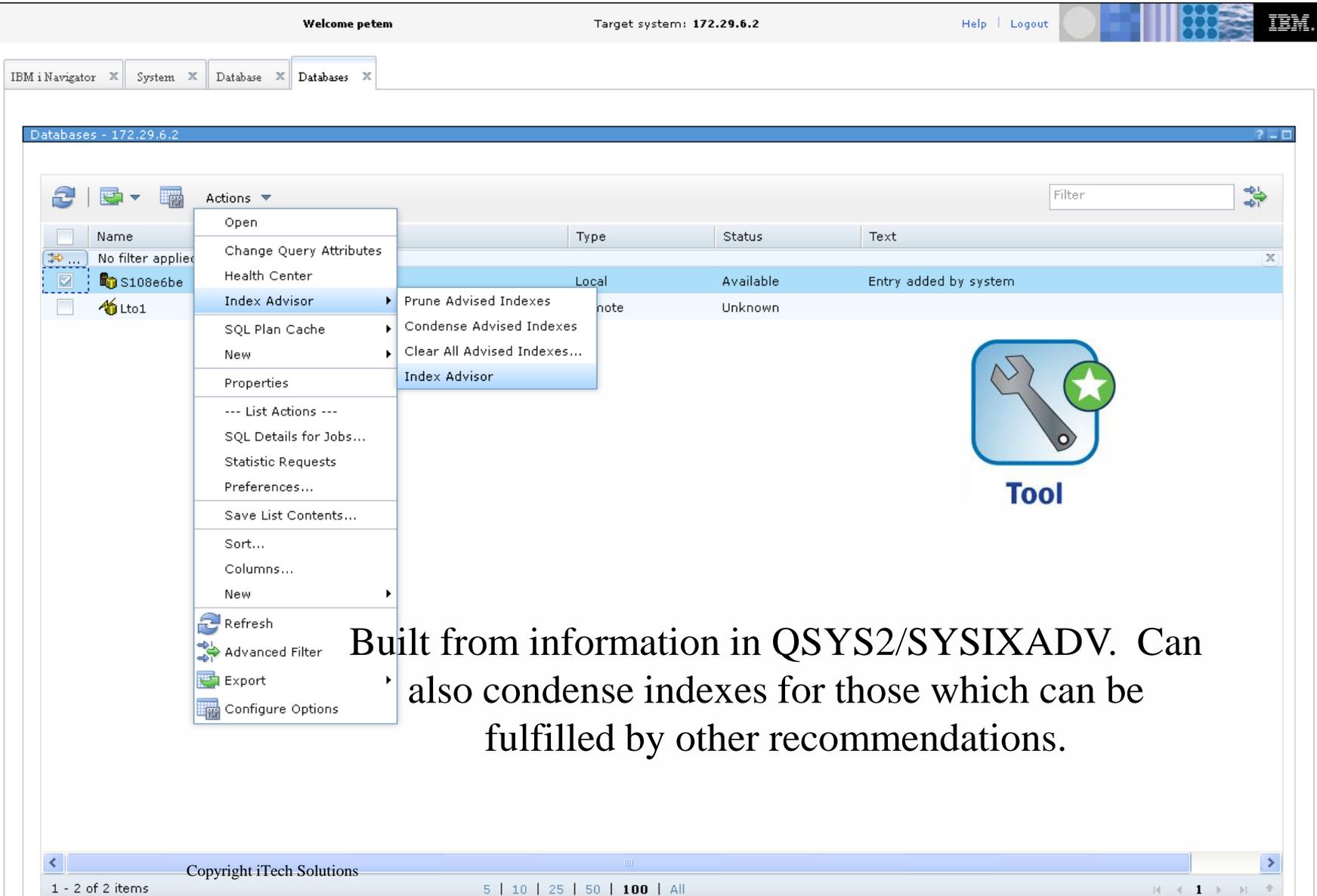
[Indexes](#)  
Allows you to work with database indexes for a specific database and schema.

[Performance Monitors](#)  
Allows you to monitor the performance of a specific database.

[Health Center](#)  
Allows you to monitor the current health of a specific database.

Set Database / Schema to Use with Database Tasks

# Index Advisor: An AMAZING Tool



The screenshot shows the IBM Navigator for i interface. At the top, it says "Welcome petem" and "Target system: 172.29.6.2". There are tabs for "IBM i Navigator", "System", "Database", and "Databases". The main window is titled "Databases - 172.29.6.2" and contains a table with columns "Name", "Type", "Status", and "Text". The table has two rows: "Local" (Available) and "note" (Unknown). A context menu is open over the "Local" row, with "Index Advisor" selected. The "Index Advisor" submenu is also open, showing options: "Prune Advised Indexes", "Condense Advised Indexes", "Clear All Advised Indexes...", and "Index Advisor". A "Tool" icon (a wrench and a star) is visible in the bottom right of the table area.

Name	Type	Status	Text
Local	Local	Available	Entry added by system
note	note	Unknown	

**Tool**

Built from information in QSYS2/SYSIXADV. Can also condense indexes for those which can be fulfilled by other recommendations.

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1 - 2 of 2 items | 5 | 10 | 25 | 50 | 100 | All

## Times no Index was found and the time to build

Index Advisor - Iseries						
				Filter		
<input type="checkbox"/>	Table for Which Index was Advised	Keys Advised	Advised Index Type	Last Advised for Query Use	Times Advised for Query Use	Estimated Index Time
No filter applied						
<input type="checkbox"/>	BCW1403	W1PAL#	Binary Radix	4/20/15 4:16:19 PM	4,564,760	00:00:01
<input type="checkbox"/>	BCW1403	W1CO#, W1FWHS, W1FLOC, W1PRD, W1PAL#	Binary Radix	4/20/15 4:16:19 PM	2,943,922	00:00:05
<input type="checkbox"/>	FFDFILE	WHNAME, WHFLDI	Binary Radix	4/20/15 7:03:13 PM	2,637,084	00:00:01
<input type="checkbox"/>	WBPPKOD	HDCO#, HDLOT	Binary Radix	4/18/15 6:29:57 PM	2,102,233	00:00:02
<input type="checkbox"/>	INPIDBS	SBCO#, SBDTTP, SBDVAR, SBDSIZ	Binary Radix	4/20/15 5:45:24 PM	935,515	00:00:01
<input type="checkbox"/>	BCW1403	W1CO#, W1FWHS, W1FLOC, W1PRD	Binary Radix	4/20/15 7:09:51 AM	876,904	00:00:01
<input type="checkbox"/>	GAPBNT	BTCO, BTTTYP, BTLOT, BTSTAT	Binary Radix	4/20/15 6:52:32 PM	665,297	00:00:16
<input type="checkbox"/>	SAPORD	ODCO#, ODCUSH, ODCUS, ODPRD, ODCMD	Binary Radix	4/20/15 4:08:45 AM	644,080	00:00:41
<input type="checkbox"/>	SAPORD	ODCO#, ODCUSH, ODCUS, ODPRD, ODSTKT, ODOF	Binary Radix	4/20/15 4:08:45 AM	644,080	00:00:47
<input type="checkbox"/>	SAPORD	ODCO#, ODCUSH, ODCUS, ODPRD, ODDTSH	Binary Radix	4/20/15 4:08:45 AM	644,080	00:00:40
<input type="checkbox"/>	ARPCUS	CUFCUS, CUCO#, CUCUSH, CUCUS	Binary Radix	4/20/15 4:08:45 AM	644,080	00:00:01
<input type="checkbox"/>	GAPBNT	BTCO, BTBOWN, BTTTYP, BTLOAD, BTBIN, BTLOT,	Binary Radix	4/20/15 6:48:27 PM	539,907	00:00:24
<input type="checkbox"/>	GAPBNT	BTCO, BTBOWN, BTTTYP, BTLOAD, BTBIN, BTLOT,	Binary Radix	4/20/15 6:48:27 PM	539,907	00:00:23
<input type="checkbox"/>	GAPALC	LCCO#, LCSUPS, LCSUPL, LCPOOL, LCLLOT, LCCCHG	Binary Radix	4/20/15 2:38:28 AM	525,759	00:00:04
<input type="checkbox"/>	GAPALC	LCCO#, LCCCHG, LCSUPS, LCSUPL, LCPOOL, LCLLOT	Binary Radix	4/20/15 2:38:28 AM	525,759	00:00:04
<input type="checkbox"/>	WBPGLR	GLCO#, GLLOT	Binary Radix	4/20/15 2:38:06 AM	507,428	00:00:26
<input type="checkbox"/>	CAMQ40	W1LOT	Binary Radix	4/20/15 2:38:06 AM	494,108	00:00:01

1 - 100 of 250 items      5 | 10 | 25 | 50 | **100** | All      1 2 3

## Click Actions then Columns to customize

### Index Advisor - Columns

Available Columns:

- Title
- Schema
- System Schema
- System Name
- Partition
- Leading Keys Order Independent

Add >

< Remove

Add All >>

Move Up

Move Down

Current Columns:

- Title
- Table for Which Index was Advised
- Keys Advised
- Advised Index Type
- Last Advised for Query Use
- Times Advised for Query Use
- Estimated Index Creation Time
- Reason Advised
- Logical Page Size Advised (KB)
- Most Expensive Query Estimate
- Average of Query Estimates
- Rows in Table when Advised
- NI SS Table Advised

# Sorted by Index creation time

IBM® Navigator for i Welcome petem Target system: 192.168.100.253 Help Logout

Welcome

IBM i Management

- Set Target System
- System
- Basic Operations
- Work Management
- Configuration and Service
- Network
- Integrated Server Administration
- Security
- Users and Groups
- Database
  - Databases
  - All Tasks
- Journal Management
- Performance
- File Systems
- Internet Configurations

Settings

Welcome x Databases x

Index Advisor - Wnp

Database: S1019fea Advised Indexes for S1019fea

Actions Filter

sys Advised	Leading Keys Order Independent	Advised Index Type	Last Advised for Query Use	Times Advised for Query Use	Estimatec Index Creation Time	Reason Advised
No filter applied						
3SMNO, SBLOC, SBCMP	SBSMNO, SBLOC, SBCMP	Binary Radix	4/26/12 10:40:46 AM	12	02:18:09	Row selection
PRVN	IFPRVN	Binary Radix	5/2/12 10:47:10 AM	36	01:54:17	Row selection
3VND	IGVND	Binary Radix	4/29/11 10:31:40 AM	32	00:53:51	Row selection
3LOC, SACMP, SAINDT, SACUST	SALOC, SACMP	Binary Radix	10/15/12 1:58:11 PM	4	00:09:02	Row selection
3CMP, PBVEND, PBDEL	PBCMP	Binary Radix	7/31/12 10:14:59 AM	2	00:07:53	Row selection
3LOC, SACMP, SAINDT	SALOC, SACMP	Binary Radix	2/8/12 9:13:46 AM	5	00:05:20	Row selection
3CMP, PDLOC, PDRQTY	PDCMP, PDLOC	Binary Radix	3/29/10 1:21:12 PM	1	00:03:59	Row selection
3TYPE, TGCMP, TGPPRD, TGSMNO, TGTRDT, TGCUS		Binary Radix	4/1/13 1:06:10 PM	60	00:03:34	Row selection
3FOLO, TGTYPE, TGCMP, TGCUST, TGSTAT, TGCNTY,		Binary Radix	3/15/13 3:06:33 PM	128	00:03:32	Row selection
3DEL, TGCMP, TGPPRD		Binary Radix	3/29/13 10:43:11 PM	40	00:03:15	Row selection
3CMP, SALOC, SAINDT	SACMP, SALOC	Binary Radix	2/8/12 9:11:03 AM	4	00:02:48	Row selection
PO, IJCMP, IJTYPE, IJVEND, IJITEM, IJDATE	IJPO, IJCMP, IJTYPE	Binary Radix	10/15/12 12:04:51 PM	34	00:02:40	Row selection
3ITEM	SBITEM	Binary Radix	2/13/13 3:07:44 PM	16	00:02:28	Row selection
3PHYP	SAPHYP	Binary Radix	3/3/10 4:19:04 PM	4	00:02:28	Row selection
3CMP, PBVEND	PBCMP	Binary Radix	6/22/12 11:17:30 AM	2	00:02:08	Row selection
TYPE, IJDATE, IJCMP, IJVEND, IJPO	IJTYPE, IJDATE, IJCMP	Binary Radix	4/2/13 5:11:27 PM	1,413	00:01:41	Row selection
3PPRD, TGAMT	TGPPRD, TGAMT	Binary Radix	10/25/11 1:02:20 PM	1	00:01:39	Row selection
3PPRD	TGPPRD	Binary Radix	10/25/11 1:02:40 PM	1	00:01:39	Row selection
3TCDE, RFPSBA	RFTCDE	Binary Radix	4/1/13 11:01:00 PM	889	00:01:26	Row selection
TYPE, IJCMP, IJVEND, IJPO	IJTYPE, IJCMP	Binary Radix	1/16/12 5:38:05 PM	2	00:01:26	Row selection
3SHDT	SBSHDT	Binary Radix	10/7/11 10:26:16 AM	1	00:01:26	Row selection

1 - 100 of 1002 items 5 | 10 | 25 | 50 | **100** | All

List is incomplete. Total number of items not known yet.

Close

41

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# Create a Permanent Index

The screenshot shows the IBM Navigator for i interface. At the top, there's a browser window with the URL `/ibm/console/login.do?action=secure`. Below that, the application header displays "Welcome itechsol" and "Target system: 192.168.1.6".

The main window is titled "Index Advisor - Iseries". It features a left-hand pane with a tree view of database objects. The "SAPORD" object is selected. An "Actions" menu is open over this object, with "Create Index" highlighted. Other menu items include "Remove from List", "Show SQL", "Show Statements...", "Trigger", "New", "Index Advisor", "Data", "Table", "--- List Actions ---", "Save List Contents...", "Sort...", "Include...", "Columns...", "Save as Favorite", "Refresh", "Advanced Filter", "Export", and "Configure Options".

The main area displays a table of "Keys Advised". The table has columns for "Keys Advised", "Advised Index Type", and "Last Advised". The data is as follows:

Keys Advised	Advised Index Type	Last Advised
W1PAL#	Binary Radix	4/20/15 4
W1CO#, W1FWHS, W1FLOC, W1PRD, W1PAL#	Binary Radix	4/20/15 4
WHNAME, WHFLDI	Binary Radix	4/20/15 7
HDCO#, HDLOT	Binary Radix	4/18/15 6
SBCO#, SBDTTP, SBDVAR, SBDSIZ	Binary Radix	4/20/15 9
W1CO#, W1FWHS, W1FLOC, W1PRD	Binary Radix	4/20/15 7
BTCO, BTTTYP, BTLOT, BTSTAT	Binary Radix	4/20/15 6
ODCO#, ODCUSH, ODCUS, ODPRD, ODCMD	Binary Radix	4/20/15 4
ODCO#, ODCUSH, ODCUS, ODPRD, ODSTKT, ODOF	Binary Radix	4/20/15 4
ODCO#, ODCUSH, ODCUS, ODPRD, ODDTSH	Binary Radix	4/20/15 4
CUFCUS, CUCO#, CUCUSH, CUCUS	Binary Radix	4/20/15 4
BTCO, BTBOWN, BTTTYP, BTLOAD, BTBIN, BTLOT,	Binary Radix	4/20/15 6
BTCO, BTBOWN, BTTTYP, BTLOAD, BTBIN, BTLOT,	Binary Radix	4/20/15 6
LCCO#, LCSUPS, LCSUPL, LCPOOL, LCLOT, LCCCHG	Binary Radix	4/20/15 6
LCCO#, LCCCHG, LCSUPS, LCSUPL, LCPOOL, LCLOT	Binary Radix	4/20/15 2
GLCO#, GLLLOT	Binary Radix	4/20/15 2
W1LOT	Binary Radix	4/20/15 1

At the bottom of the table, there's a pagination control showing "1 - 100 of 250 items" and "5 | 10 | 25 | 50 | 100 | All".

## Build our logical file that was “missing”

New Index - Localhost(S064972r)

<b>Index</b>	Name:	<input type="text"/>
Key	Schema:	@_GSDB ▼
WHERE clause	System name:	System-generated ▼ <input type="text"/>
Options	Table schema:	@_GSDB ▼
	Table name:	SAPORD
	Index type:	Not unique ▼
	<input type="checkbox"/> Preferred storage media is solid-state drive	
	<input type="checkbox"/> Keep in memory	
	Text:	<input type="text"/>

## Show SQL: Easy way to learn SQL

### Show SQL

#### SQL statements:

```
/* Creating index @_GSDB.IATEST01  
When creating this index the database connection should have a sort sequence of *HEX. */  
CREATE INDEX @_GSDB.IATEST01 ON @_GSDB.SAPORD (ODCO# ASC, ODCUSH ASC, ODCUS ASC, ODPRD ASC, ODCMD ASC) UNIT SSD ;
```

You can generate SQL for most database objects regardless if created by SQL or DDS. If you generate SQL for file that has triggers or constraints, the SQL for those are also generated.

## SQL Performance Monitor

- **Great tool**
- **Can generate lots of data – Don't forget you started it.**
- **Find performance problems.**
- **Be specific when you can**
- **CPU & Disk Intensive**
- **Cleanup collection**
- **Wizard**

IBM® Navigator for i

Welcome petem Target system: 172.29.6.2 Help Logout

IBM i Management

- Set Target System
- System
  - System Status
  - System Operator Messages
  - History Log
  - Search
  - Disk Status
  - Run Command
  - Application Administration
- All Tasks
- Basic Operations
- Work Management
- Configuration and Service
- Network
- Integrated Server Administration
- Security
- Users and Groups
- Database
  - Databases
    - S108e6be
      - Schemas
      - Database Maintenance
      - SQL Performance Monitors
      - SQL Plan Cache
      - Transactions
  - All Tasks
  - Journal Management
  - Performance

IBM i Navigator x SQL Performance Monitors x

Name	Status	Schema	Table	Created By
test	Ended	QZRSYS	QZG000000	PETEM

1 - 1 of 1 item

25 | 50 | 100 | All

SQL Performance Monitor

## Specify collection criteria

SQL Performance Monitor Wizard - Localhost(S108e6be)



To limit the amount of data collected, specify which filters to use. When filters are provided, only statements that specified filter values will be captured.

If you would like to limit the amount of data collected specify which filters to use:

<input type="checkbox"/> Initial number of records:	<input type="text" value="0"/>
<input type="checkbox"/> Minimum estimated query runtime:	<input type="text" value="0"/>
<input type="checkbox"/> Minimum estimated temporary storage:	<input type="text" value="0"/>
<input type="checkbox"/> Job name:	<input type="text" value="QZDASOINIT"/>
<input type="checkbox"/> Job user:	<input type="text" value="QUSER"/>
<input type="checkbox"/> Current user or group profile:	<input type="text" value="PETEM"/>
<input type="checkbox"/> Client location:	<input type="text"/>
<input type="checkbox"/> Local port:	<input type="text" value="Use entry from below"/> <input type="text"/>
<input type="checkbox"/> Query Governor limits:	<input type="text" value="Always collect information when exceeded"/>
<input type="checkbox"/> Statement result or SQL code:	<input type="text" value="Error or warning"/> <input type="text"/>

### Client registers

<input type="checkbox"/> Accounting string:	<input type="text"/>
<input type="checkbox"/> Application name:	<input type="text"/>

# SQL Performance monitor started

SQL Performance Monitors - 172.29.6.2

Database: S108e6be

Actions

Name	Type	Status	Schema	Table	Created B
No filter applied					
<input type="checkbox"/> test	Detailed	Ended	QUSRSYS	QZG0000000	PETEM
<input type="checkbox"/> test72	Detailed	Started	QUSRSYS	QZG0000007	PETEM

# Overview of Collected information: Full presentation

IBM® Navigator for i Welcome petem Target system: 192.168.100.253 Help | Logout

- Welcome
- IBM i Management
  - Set Target System
  - System
  - Basic Operations
  - Work Management
  - Configuration and Service
  - Network
  - Integrated Server Administration
  - Security
  - Users and Groups
  - Database
    - Databases
      - S1019fea
  - All Tasks
    - Objects
    - Actions
      - Health and Performance
        - SQL Performance Monitors
        - Create SQL Performance Monitor
        - Health Center
        - Index Advisor
  - Journal Management
  - Performance
  - File Systems
    - Internet Configurations
  - Settings

Welcome x Databases x SQL Performance Monitors x

SQL Performance Data Analysis - test - Localhost(S1019fea)

File Actions Help

--- Select Action ---

Select		Value	Summary Available	Statements Available
<input type="radio"/>	4/2/13 8:13:35 PM to Present			
<input type="radio"/>	Overview			
<input type="radio"/>	SQL Statements	1	✓	✓
<input type="radio"/>	Users	1	✓	
<input type="radio"/>	Jobs	1	✓	
<input type="radio"/>	Threads	1		
<input type="radio"/>	Average Table Rows	0		
<input type="radio"/>	Average Rows Returned	0		
<input type="radio"/>	Average Runtime			
<input type="radio"/>	Average Parallel Degree Used	0		
<input type="radio"/>	Maximum Parallel Degree			
<input type="radio"/>	SQE	0	✓	✓
<input type="radio"/>	CQE	0	✓	✓
<input type="radio"/>	System Naming	0	✓	✓
<input type="radio"/>	SQL Naming	1	✓	✓
<input type="radio"/>	Unique Open Statements	0	✓	
<input type="radio"/>	Full Opens	0	✓	✓
<input type="radio"/>	Pseudo Opens	0	✓	✓
<input type="radio"/>	Table Scans	0	✓	✓
<input type="radio"/>	Average MQTs Used	0	✓	✓
<input type="radio"/>	Average Indexes Used	0	✓	✓
<input type="radio"/>	Full Indexes Created	0	✓	✓
<input type="radio"/>	Sparse Indexes Created	0	✓	✓
<input type="radio"/>	Index From Index Created	0	✓	✓
<input type="radio"/>	Index Creates Advised	0	✓	✓
<input type="radio"/>	Advised Statistics	0	✓	✓
<input type="radio"/>	Temporary Tables	0	✓	✓
<input type="radio"/>	Sorts	0	✓	✓
<input type="radio"/>	Access Plans Rebuilt	0	✓	✓
<input type="radio"/>	Sort Sequence	0	✓	✓
<input type="radio"/>	Call Statements	1	✓	✓
<input type="radio"/>	Error	0	✓	✓

# SQL Plan Cache

The screenshot shows the IBM Navigator for i interface. The left-hand navigation tree is expanded to 'Database' > 'S1019fea' > 'SQL Plan Cache'. The main content area displays a table with the following data:

Name	Description
No filter applied	
Schemas	Work with DB2 for i objects.
Database M...	Manage database maintenance activities
Database N...	Work with Database Navigator maps.
SQL Perform...	Work with SQL performance monitors.
SQL Plan C...	Work with SQL plan cache snapshots and event monitors.
Transaction...	with transactions.

The context menu for the 'SQL Plan Cache' item includes the following options:

- Open
- Show Statements...
- Properties
- List Actions ---
- Change Query Attributes
- Health Center
- Index Advisor
- SQL Plan Cache
- New
- Properties
- Refresh
- Advanced Filter
- Export
- Configure Options

The plan cache is a repository that contains access plans for queries that were optimized by SQE. SQL Plan Cache is always available. Can go back in time, but can't look back at SQL Performance monitor if it wasn't started.

# SQL Plan Cache

The screenshot shows the IBM Navigator for i interface. The left-hand navigation tree is expanded to 'Health and Performance' > 'SQL Performance Monitors'. The main content area displays the 'SQL Plan Cache Properties - Localhost(S1019fea)' window. The window title bar includes 'Welcome petem' and 'Target system: 192.168.100.253'. The main area contains a table with the following data:

Description	Value
No filter applied	
Time Of Summary	2013-04-02-20.18.37.97517
Active Query Summary	
Number of Currently Active Queries	31
Number of Queries Run Since Start	7027
Number of Query Full Opens Since Start	2512
Plan Usage Summary	
Current Number of Plans in Cache	413
Current Plan Cache Size	18 MB
Plan Cache Size Threshold	512 MB
Total Number of Plans Built Since Start	608
Total Times Plans Used from Cache	1904
Total Plans Pruned	0
Plan Cache Maintenance Summary	
Plan Cache Creation Time	2013-03-31-01.48.54.06120

At the bottom of the table, there is a pagination bar showing '1 - 14 of 14 items' and a 'Refresh' button. The 'Total Times Plans Used from Cache' row is highlighted with a dashed blue box.

# SQL Plan Cache Statements

IBM® Navigator for i

Welcome petem Target system: 192.168.100.253 Help | Logout

SQL Plan Cache Statements - Localhost(S1019fea)

Filters: Statements

Actions:

- Work with SQL Statement
- Save to New...
- Show Longest Runs
- Show Active Jobs
- Show User History
- Plan
- Work with SQL Statement and Variables
- Refresh
- Advanced Filter
- Export
- Configure Options

Time	Average Processing Time (sec)	Statement
4/2/13 6:53	0.0447	SELECT RMCMP, RMCUST, RMNAME, RMCITY, RMSTAT, RMM
4/2/13 6:53	0.1555	SELECT IFCOMP, IFITEM, IFLOC, IFQOH, IFQCM, IFPRVN, I
4/2/13 1:15	0.6292	DELETE FROM WEBTEST/WTDPRDCTG WHERE WBPRID >
4/2/13 8:50	0.0391	SELECT DATASIZE, BLOB(DATA) FROM QMGTC.QAYIVDTA
4/1/13 8:50	0.0434	SELECT DATASIZE, BLOB(DATA) FROM QMGTC.QAYIVDTA
4/2/13 8:15	0.0012	SELECT RMCMP, RMCUST, RMNAME, RMCITY, RMSTAT, RMM
4/1/13 8:45	0.3037	DELETE FROM QMGTC.QAYIVRIG WHERE SYSTEM = ? AND
4/2/13 6:45	0.0055	SELECT ACCMP, ACVEND, ACNAME, ACCITY, ACSTAT, ACM
4/2/13 8:49:37 AM	0.2123	0.2629 2
4/2/13 2:13:32 AM	0.0451	0.2460 342
4/1/13 8:26:19 AM	0.1734	0.2286 3
4/2/13 6:00:49 PM	0.0098	0.2220 37
4/2/13 7:40:18 AM	0.1720	0.2110 6
4/2/13 6:00:00 PM	0.0110	0.2007 300

1 - 100 of 283 items 5 | 10 | 25 | 50 | 100 | All

Status: Complete Columns... Save Results... Refresh

# Health Center

The screenshot displays the IBM Navigator for i Health Center interface. The left sidebar shows a navigation tree with categories like 'IBM i Management', 'All Tasks', and 'Health and Performance'. The main window is titled 'Health Center - Localhost(S1019fea)' and contains a 'Settings for analysis' section with a 'Change...' button. Below this is a table showing metrics for the schema 'R36FILES' as of 4/2/13 8:26:36 PM. The table lists various database components and their counts. At the bottom of the table, there are navigation controls including 'Page 1 of 2', 'Go', 'Rows 15', and 'Total: 18'. A 'Close' button is located at the bottom left of the main window.

Metric - 4/2/13 8:26:36 PM	Value
Schemas	1
Tables	
Non-partitioned tables	3
Partitioned tables	0
Distributed tables	0
Materialized query tables	0
Physical files	653
Source files	1
Views	
Indexes	
Binary radix indexes	6
Encoded vector indexes	0
Constraints	
Triggers	
Aliases	

The health center provides an overview of your system databases, and the information within the database.

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
- Integrated Server Admin: Hosted servers & disk
- Security: Authorization lists, Object authority, and Intrusion Detection.
- Users & Groups: Manage profiles & groups.
- Journal Management: Journals and receivers
- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

## Basic Operations

### Basic Operations - Itech07.itechsol.com

IBM i Basic Operations allows you to manage messages, printer output, printers, and your own jobs.

 [Send a Message](#)

Allows you to send a message to other users or message queues.

 [Messages](#)

Allows you to manage your messages.

 [Printer Output](#)

Allows you to manage printer output.

 [Add a Printer](#)

Allows you to add and configure a new printer for IBM i.

 [Printers](#)

Allows you to manage printers.

 [User Jobs](#)

Allows you to manage your jobs.

Close

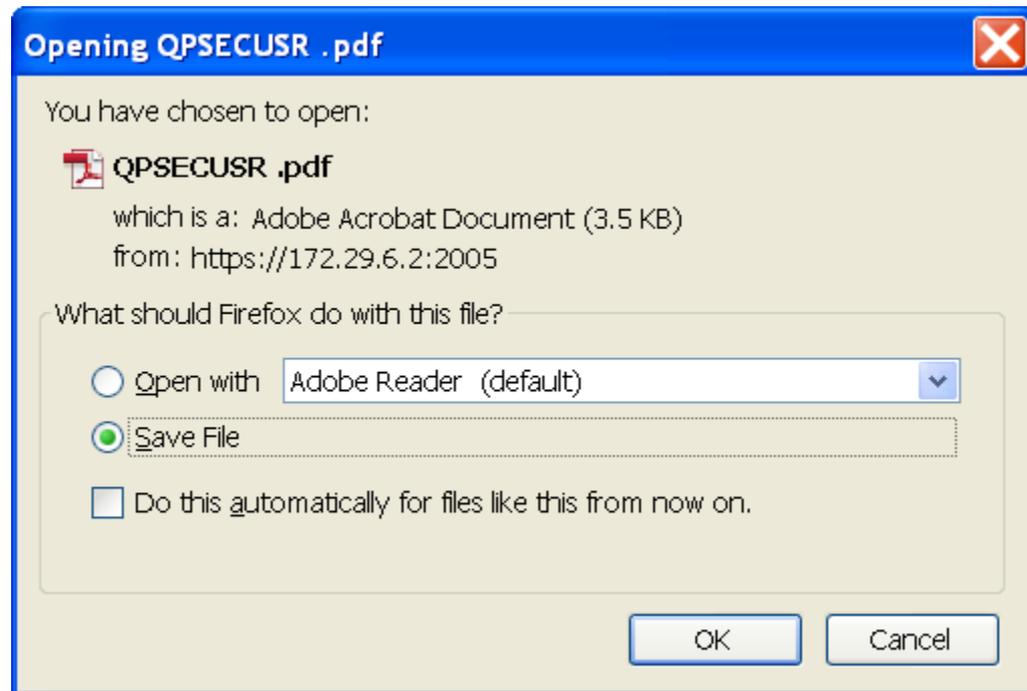
# Printer Output: PDF Output made E-A-S-Y

The screenshot shows the IBM Navigator for i interface. At the top, there are browser tabs for 'gator for i', 'ITECH07 - IBM Navigator for i', and 'ISERIES - IBM Navigator for i'. The address bar shows a URL starting with '0.6.2:2005/ibm/console/xLaunch.do?'. The main header area includes 'Welcome petem', 'Target system: 172.29.6.2', and 'Help | Logout'. Below this, there are navigation tabs for 'IBM i Navigator', 'SQL Performance Monitors', 'Basic Operations', and 'Printer Output'. The 'Printer Output' tab is active, displaying a window titled 'Printer Output - 172.29.6.2'. Inside this window, the user is identified as 'Petem'. A list of print jobs is shown with columns for 'File Name', 'User', 'Status', and 'Out'. A context menu is open over the 'Qprint' job, with the option 'PDF using Transform Services' selected. The menu also includes options like 'Open', 'View as PDF', 'Reply...', 'Hold...', 'Release', 'Print Next', 'Send', 'Move...', 'Delete...', 'Advanced', 'Install AFP Viewer', and 'Properties'. The 'Qprint' job in the list has a status of 'Ready to print' and an output of 'Qpr'. The bottom of the window shows '1 - 49 of 49 items' and a pagination control.

File Name	User	Status	Out
No filter applied			
Qpsecusr	Petem	Ready to print	Qpr
Qpsecusr	Petem	Ready to print	Qpr
Qpsecusr	Petem	Ready to print	Qpr
Qprtlibl	Petem	Ready to print	Qpr
Qpsecusr	Petem	Ready to print	Qpr
Qpsecusr	Petem	Ready to print	Qpr
Qprint	Petem	Ready to print	Qpr
Qpsavobj	Petem	Ready to print	Qpr
Ftpcmdrqs	Petem	Ready to print	Qpr
Ftplogon	Petem	Ready to print	Qpr

## PDF output

- Doesn't get easier than this
- Can set up PDF printer
- Can email these printouts



## Printer Configuration Wizard

### Printer Configuration Wizard



## Welcome to the i5/OS Add Printer Wizard for TCP/IP network-attached printers.

This wizard will help you configure and then add a printer to **i5/OS**.

Click Next to continue.

< Back

Next >

Finish

Cancel

# Printer Configuration Wizard

## Printer Configuration Wizard



### Location of the printer

You must indicate the location of the printer by specifying its DNS name, its TCP/IP address or its IPP URL. If your printer is not directly connected to the network but is attached to a print server, specify the address of the print server and check the "Printer is connected to a print server" checkbox.

DNS name of printer or print server:

*Example: OFFICE*

**TCP/IP address of printer or print server:**

*Example: 9.5.0.100*

URL of internet printer:

*Example: http://server/ipp/printers/office*

Printer is connected to a print server

Details...

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
- Integrated Server Admin: Hosted servers & disk
- Security: Authorization lists, Object authority, and Intrusion Detection.
- Users & Groups: Manage profiles & groups.
- Journal Management: Journals and receivers
- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

# Configuration

## Configuration and Service - Itech07.itechsol.com

IBM i Configuration and Service allows you to perform system configuration.

 [System Values](#)

Allows you to change the system values that determine how your system operates.

 [Time Management](#)

Allows you to manage time on your system.

 [Disk Units](#)

Allows you to manage disk units on your system.

 [Disk Pools](#)

Allows you to manage disk pools on your system.

 [Add Disk Unit](#)

Allows you to add a disk unit to your system.

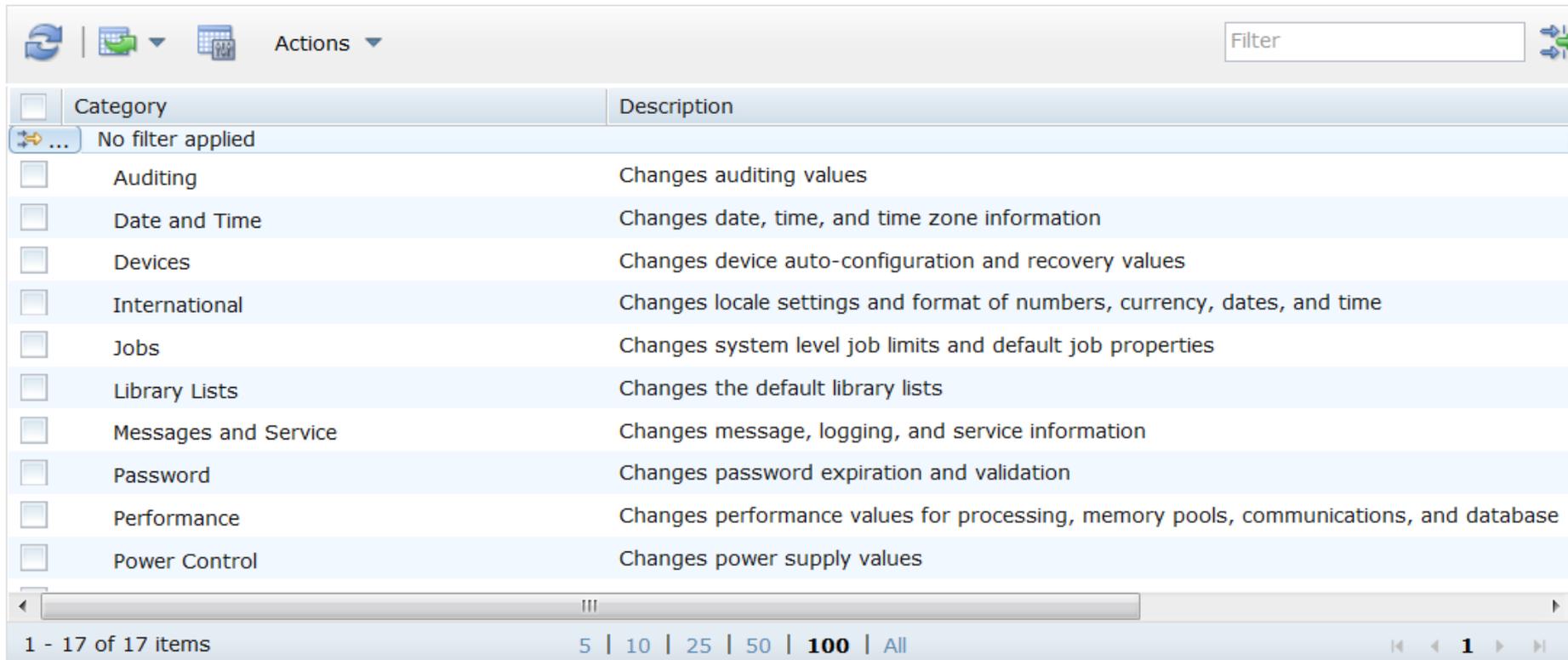
 [New Disk Pool](#)

Allows you to create a disk pool on your system.

Close

# Configuration: System Values

System Values - Itech07.itechsol.com



<input type="checkbox"/>	Category	Description
 ...	No filter applied	
<input type="checkbox"/>	Auditing	Changes auditing values
<input type="checkbox"/>	Date and Time	Changes date, time, and time zone information
<input type="checkbox"/>	Devices	Changes device auto-configuration and recovery values
<input type="checkbox"/>	International	Changes locale settings and format of numbers, currency, dates, and time
<input type="checkbox"/>	Jobs	Changes system level job limits and default job properties
<input type="checkbox"/>	Library Lists	Changes the default library lists
<input type="checkbox"/>	Messages and Service	Changes message, logging, and service information
<input type="checkbox"/>	Password	Changes password expiration and validation
<input type="checkbox"/>	Performance	Changes performance values for processing, memory pools, communications, and database
<input type="checkbox"/>	Power Control	Changes power supply values

1 - 17 of 17 items      5 | 10 | 25 | 50 | **100** | All      << 1 >>

## Configuration: System Values: Performance

### Performance System Values - Localhost

#### **General**

Memory Pools

Communications

Database

Library Lists

Affinity

- Dynamically adjust job priorities of interactive jobs
- Dynamically adjust job priorities within priority bands

## Task Categories

- System: System Status, Messages, disk status
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- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
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- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

# Network

## Network - Itech07.itechsol.com

IBM i Network Management allows you to manage TCP/IP and internet support.

 [Create IPv4 Object](#)

Allows you to create IP version 4 objects.

 [Create IPv6 Object](#)

Allows you to create IP version 6 objects.

 [Lines](#)

Allows you to manage and configure physical lines.

 [TCP/IP Servers](#)

Allows you to manage and configure TCP/IP servers.

 [DNS Servers](#)

Allows you to manage and configure Domain Name System (DNS) servers.

 [IBM Tivoli Directory Server Web Administration Tool](#)

Allows you to administer the Tivoli Directory Server for i.

Close

# Manage TCP Servers

TCP/IP Servers - Itech07.itechsol.com

<input type="checkbox"/>	Name	Status	Description
                    Actions ▾ <span style="float: right;">Filter <input type="text"/></span>			
 ...	No filter applied		
<input type="checkbox"/>	 BootP	Stopped	BootP Server
<input type="checkbox"/>	 BootP DHCP Relay Agent	Stopped	BootP DHCP Relay Agent
<input type="checkbox"/>	 DDM	Started	DRDA DDM Server TCP/IP
<input type="checkbox"/>	 DHCP	Stopped	Dynamic Host Configuration Protocol
<input type="checkbox"/>	 DLFM	Stopped	Datalink File Manager
<input type="checkbox"/>	 EDRSQL	Stopped	Extended Dynamic Remote SQL
<input type="checkbox"/>	 FTP	Started	File Transfer Protocol
<input type="checkbox"/>	 HTTP Administration	Started	HTTP Server
<input type="checkbox"/>	 IAS	Started	Integrated Web Application Server
<input checked="" type="checkbox"/>	 IBM i NetServer	Started	IBM i Support for Windows Network Neighborhood
<input type="checkbox"/>	 IBM Tivoli Directory Server for IBM i	Started	IBM Tivoli Directory Server for IBM i (LDAP)
1 - 32 of 32 items <span style="float: right;">5   10   25   50   <b>100</b>   All</span>			

## Properties on each TCP/IP Server selected

IBM i NetServer Properties - Itech07.itechsol.com

Subsystems	IBM i Support for Windows Network Neighborhood	
<b>General</b>	Start when TCP/IP is started:	Yes
Advanced	Server name:	ITECH07
Security	Allow IBM i NetServer access using the system name:	No
WINS Configuration	Domain name:	ITECHSOL.COM
	Description:	OS/400
	Logon server role:	None

[Next Start](#)

# Manage Lines

Lines - 172.29.6.2

Actions

<input type="checkbox"/>	Line Name	Status	Line Type	IPv6	MAC Address
 ...	No filter applied 				
<input type="checkbox"/>	 ETHBRIDGE	Unknown (0)	Ethernet	No	
<input type="checkbox"/>	 ETHLINE1	Active	Ethernet	No	E4:1F:13:06:23:61
<input type="checkbox"/>	 Loopback	Active	None	No	00:00:00:00:00:00

## Task Categories

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- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

# Integrated Server Administration

Integrated Server Administration - Itech07.itechsol.com

Use Integrated Server Administration to manage servers that are hosted by IBM i.



[Servers](#)

Manage integrated and virtual servers. Also manage IBM i user and group enrollment to Windows servers.



[Create Server](#)

Create a new iSCSI attached server.



[All Virtual Storage](#)

Manage virtual storage that IBM i provides to integrated and virtual servers.



[New Virtual Storage](#)

Create new virtual storage and assign it to a server.



[Network Server Host Adapters](#)

Manage IBM i network server host adapter (NWSH) configuration objects for IBM i iSCSI target adapters.



[New Network Server Host Adapter](#)

Create a new network server host adapter (NWSH) configuration.



[Remote Systems](#)

Manage IBM i remote system configuration objects for iSCSI attached servers.



[New Remote System Configuration](#)

Create a new remote system configuration for iSCSI attached servers.



[Service Processors](#)

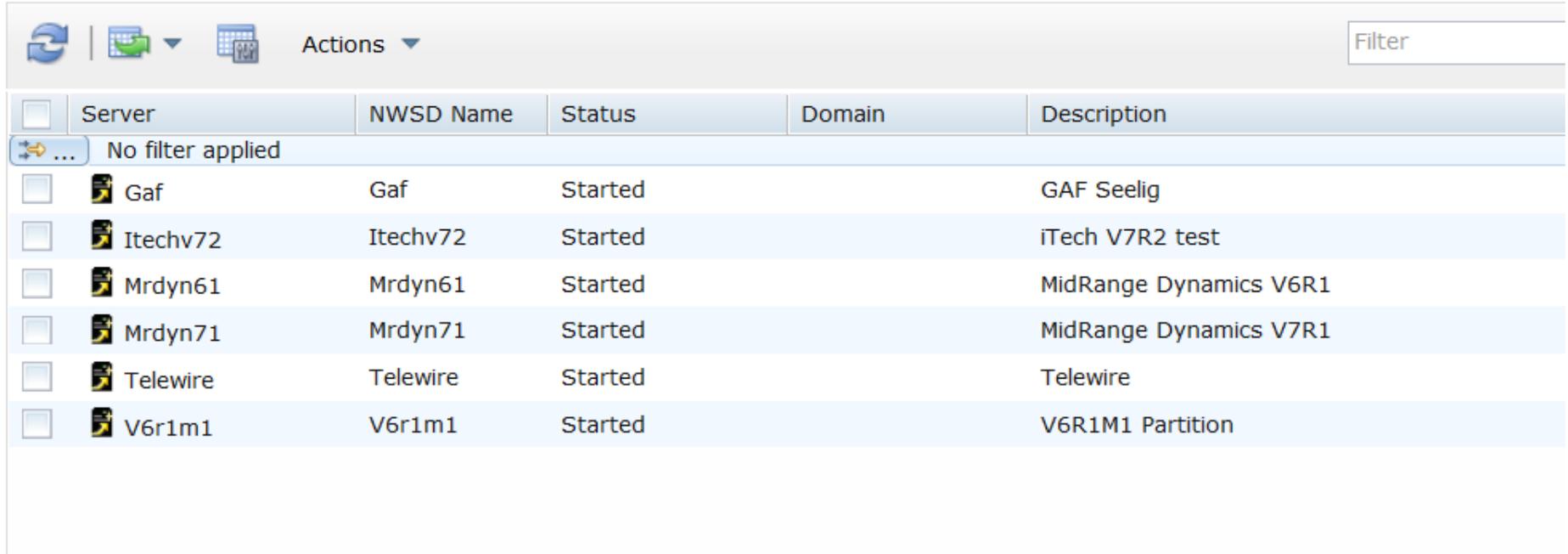
Manage IBM i service processor configuration objects for iSCSI attached servers.



[New Service Processor Configuration](#)

## Network Server Descriptions

Servers - Itech07.itechsol.com



The screenshot shows the IBM Navigator for i interface. At the top, there is a blue header bar with the text "Servers - Itech07.itechsol.com". Below the header, there is a toolbar with several icons: a refresh icon, a server icon, a calendar icon, and an "Actions" dropdown menu. To the right of the toolbar is a "Filter" input field. Below the toolbar is a table with the following columns: "Server", "NWSD Name", "Status", "Domain", and "Description". The table contains six rows of data, each representing a server partition. The first row is "Gaf" with NWSD Name "Gaf", Status "Started", and Description "GAF Seelig". The second row is "Itechv72" with NWSD Name "Itechv72", Status "Started", and Description "iTech V7R2 test". The third row is "Mrdyn61" with NWSD Name "Mrdyn61", Status "Started", and Description "MidRange Dynamics V6R1". The fourth row is "Mrdyn71" with NWSD Name "Mrdyn71", Status "Started", and Description "MidRange Dynamics V7R1". The fifth row is "Telewire" with NWSD Name "Telewire", Status "Started", and Description "Telewire". The sixth row is "V6r1m1" with NWSD Name "V6r1m1", Status "Started", and Description "V6R1M1 Partition".

Server	NWSD Name	Status	Domain	Description
<input type="checkbox"/> Gaf	Gaf	Started		GAF Seelig
<input type="checkbox"/> Itechv72	Itechv72	Started		iTech V7R2 test
<input type="checkbox"/> Mrdyn61	Mrdyn61	Started		MidRange Dynamics V6R1
<input type="checkbox"/> Mrdyn71	Mrdyn71	Started		MidRange Dynamics V7R1
<input type="checkbox"/> Telewire	Telewire	Started		Telewire
<input type="checkbox"/> V6r1m1	V6r1m1	Started		V6R1M1 Partition

These are some Virtual IBM i hosted partitions, which this partition is actually hosting. How to build Virtual IBM i partitions can be found in my other session.

You can manage Blade, IXA, IXS, Linux, and hosted partitions.

# Management of Servers

The screenshot shows the IBM Navigator for i web interface. At the top, there's a browser window with tabs for 'Navigator for i', 'ITECH07 - IBM Navigator for i', and 'ISERIES - IBM Navigator for i'. The address bar shows a URL starting with '9.6.2:2005/ibm/console/xLaunch.do?'. Below the browser, the application header includes 'Welcome petem', 'Target system: 172.29.6.2', and 'Help | Logout'. A breadcrumb trail shows: 'Monitors > Basic Operations > Printer Output > Network > TCP/IP Servers > IPv4 Connections > Lines > Integrated Server Administration > Servers'. The main content area is titled 'Servers - Itech07.itechsol.com' and shows a table of servers. An 'Actions' menu is open over the 'Itechv72' server row. The table has columns for 'Server', 'Domain', and 'Description'. The 'Itechv72' server is selected and highlighted in blue. The 'Actions' menu includes options like 'Open', 'Shut Down...', 'Shut Down and Restart...', 'Linked Virtual Storage', 'New Virtual Storage...', 'Add Link...', 'Properties', 'Refresh', 'Advanced Filter', 'Export', and 'Configure Options'. The table shows 6 items, with 'Itechv72' being the second item.

Server	Domain	Description
No filter applied		
Gaf		GAF Seelig
Itechv72		iTech V7R2 test
Mrdyn61		MidRange Dynamics V6R1
Mrdyn71		MidRange Dynamics V7R1
Telewire		Telewire
V6r1m1		V6R1M1 Partition

## Network Server Disks

All Virtual Storage - 172.29.6.2

<input type="checkbox"/>	Storage	GB	% Used	Server	Description
   <span>Actions ▾</span> <span style="float: right;">Filter</span>					
	No filter applied				
<input type="checkbox"/>	 Gaf01	34.2	0%	Gaf	GAF Seelig Virtual Disk 01
<input type="checkbox"/>	 Gaf02	17.1	0%	Gaf	GAF Seelig Virtual Disk 02
<input type="checkbox"/>	 Gaf03	17.1	0%	Gaf	GAF Seelig Virtual Disk 03
<input type="checkbox"/>	 Gaf04	17.1	0%	Gaf	GAF Seelig Virtual Disk 04
<input type="checkbox"/>	 Gaf05	17.1	0%	Gaf	GAF Seelig Virtual Disk 05
<input type="checkbox"/>	 Gaf06	17.1	0%	Gaf	GAF Seelig Virtual Disk 06
<input type="checkbox"/>	 Itech72ls	77.2	0%	Itechv72	ITECH72LS
<input type="checkbox"/>	 Mrdyn6101	34.2	0%	Mrdyn61	MidRange Dynamics V6R1 Disk 1
<input type="checkbox"/>	 Mrdyn6102	34.2	0%	Mrdyn61	MidRange Dynamics V6R1 Disk 2
<input type="checkbox"/>	 Mrdyn7101	34.2	0%	Mrdyn71	Midrange Dynamics Disk 1
<input type="checkbox"/>	 Mrdyn7102	34.2	0%	Mrdyn71	MidRange Dynamics Disk 2
1 - 23 of 23 items					
5   10   25   50   <b>100</b>   All					

## Task Categories

- System: System Status, Messages, disk status
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- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

# Security

Security - Itech07.itechsol.com

IBM i Security allows you to configure and manage security settings for your system.

 [Authorization Lists](#)

Allows you to manage authorization lists.

 [Create an Authorization List](#)

Allows you to group objects with similar security requirements and associate the group with a list of users and user authorities.

 [Change Object Permissions](#)

Allows you to change permissions for an IBM i object.

 [Application Administration](#)

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

 [Cryptographic Services Key Management](#)

Allows you to store and manage master keys and keystores.

 [Cryptographic Coprocessor](#)

Allows you to configure the cryptographic coprocessor.

 [Intrusion Detection](#)

Allows you to set up and manage policies that notify you of any intrusions detected against your server.

Close

# Intrusion Detection: Could be 3<sup>rd</sup> Coolest thing

Cool things in Navigator for IBM i to be a Star Administrator

## Intrusion Detection Management - localhost

Intrusion detection allows you to set up policies to notify you of any network intrusions that are detected against your system. The different types of policies can also notify you of possible intrusions or areas of concern that may need further review. As an example, if you're scanning for the number of connections through a certain port and the threshold is reached, you may need to verify that the threshold was set correctly for the application or environment.



Intrusion detection notification status: Stopped

Note: Applies to all enabled policies



[Intrusion detection system setup.](#)

Manage intrusion detection system properties such as your e-mail addresses and message queue for notification.



[Manage intrusion detection policies](#)

Create and manage intrusion detection policies for your system.



[Display intrusion detection events](#)

Display the list of intrusion detection events that have been sent based on your intrusion detection policies.

Intrusion detection and prevention system notifies you of attempts to hack into or disrupt your system. ID also monitors if someone is using your system to launch attacks. This uses policies to monitor your system. A must for any company with their machine on the Internet.

# Intrusion Detection: Setup Notifications

IDS Properties - localhost

**\* Notification**

ICMP

Send message notifications

\* Message queue: \* QSYSOPR

\* Library: \* QSYS

**Where to send e-mail notifications**

E-mail address 1: pmassiello@itechsol.com

E-mail address 2:

E-mail address 3:

# Intrusion Detection: Setup Wizard

## Intrusion Detection Policies - localhost

Once all the policy changes have been made in the table, click the OK button to apply the changes.

Intrusion Detection Notification: Started

View:  ▼

### Intrusion Detection Policies




Actions ▼

<input type="checkbox"/>	Name	Policy Type	Stat us	Local IP Addresses	Local Ports	Remote IP Addresses	Remote Ports	Description
<span>🔍 ...</span> No filter applied								
<input type="checkbox"/>	QIBM_Ad	Attack (Address Poi	Enabl	All	All	All	All	IBM-supplied default addr
<input type="checkbox"/>	QIBM_Flc	Attack (Flood)	Enabl	All	All	All	All	IBM-supplied default floor
<input type="checkbox"/>	QIBM_Frz	Attack (Fraggle)	Enabl	All	All	All	All	IBM-supplied default Frag
<input type="checkbox"/>	QIBM_ICI	Attack (ICMP Redire	Enabl	All	All	All	All	IBM-supplied default ICMP
<input type="checkbox"/>	QIBM_IP_	Attack (IP Fragment	Enabl	All	All	All	All	IBM-supplied default IP fr
<input type="checkbox"/>	QIBM_Ma	Attack (Malformed P	Enabl	All	All	All	All	IBM-supplied default malf
<input type="checkbox"/>	QIBM_Ou	Attack (Outbound R	Enabl	All	All	All	All	IBM-supplied default outt
<input type="checkbox"/>	QIBM_Pei	Attack (Perpetual Ec	Enabl	All	All	All	All	IBM-supplied default perp
<input type="checkbox"/>	QIBM_Pin	Attack (Ping of Deat	Enabl	All	All	All	All	IBM-supplied default ping
<input type="checkbox"/>	QIBM_Re	Attack (Restricted IF	Enabl	All	All	All	All	IBM-supplied default resti



**Tool**

## Intrusion Detection: All setup and working

### Intrusion Detection Management - localhost

Intrusion detection allows you to set up policies to notify you of any network intrusions that are detected against your system. The different types of policies can also notify you of possible intrusions or areas of concern that may need further review. As an example, if you're scanning for the number of connections through a certain port and the threshold is reached, you may need to verify that the threshold was set correctly for the application or environment.



Intrusion detection notification status: Started

Note: Applies to all enabled policies



[Intrusion detection system setup.](#)

Manage intrusion detection system properties such as your e-mail addresses and message queue for notification.



[Manage intrusion detection policies](#)

Create and manage intrusion detection policies for your system.



[Display intrusion detection events](#)

Display the list of intrusion detection events that have been sent based on your intrusion detection policies.

# Manage Authority Lists

Welcome petem

Target system: 192.168.100.253

Welcome x Intrusion Detection x Authorization Lists x

Authorization Lists - 192.168.100.253

<input type="checkbox"/>	Name	
<input type="checkbox"/>	No filter applied	
<input type="checkbox"/>	Qiwsadm	Administrators
<input checked="" type="checkbox"/>	Qlwisvr	
<input type="checkbox"/>	Qoptsec	Authorization List
<input type="checkbox"/>	Qpmccdata	
<input type="checkbox"/>	Qpmccfcn	
<input type="checkbox"/>	Qpwfserver	
<input type="checkbox"/>	Qsylvmtjava	
<input type="checkbox"/>	Quseadpaut	
<input type="checkbox"/>	Qwebqry	IBM DB2 WEB QUERY FOR SYSTEM I BASEAPP
<input type="checkbox"/>	Qzsrvhttp	

Actions ▾

- Delete
- Permissions
- Properties
- List Actions ---
- New ▶
- Refresh
- Advanced Filter
- Export ▶
- Configure Options

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
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- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

## Manage your Users from here

### Users and Groups - Itech07.itechsol.com

IBM i User Management allows you to manage your users and groups.



Allows you to manage the users on your server. You can also view the list of user objects for the user.



Allows you to manage any existing users that are not currently in a group.



Allows you to create a new user.



Allows you to change the properties of an existing user.



Allows you to manage any existing groups or create new ones.



Allows you to create a new group.

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
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- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

## Journal Management

### Journal Management - Itech07.itechsol.com

IBM i Journal Management allows you to manage your journals and journal receivers.

Current database: S108e6be

Current library: Qusrsys

 [Journals](#)

Allows you to manage all journals.

 [Create a journal](#)

Allows you to create a new journal.

Set Database / Library to Use with Journal Tasks

Close

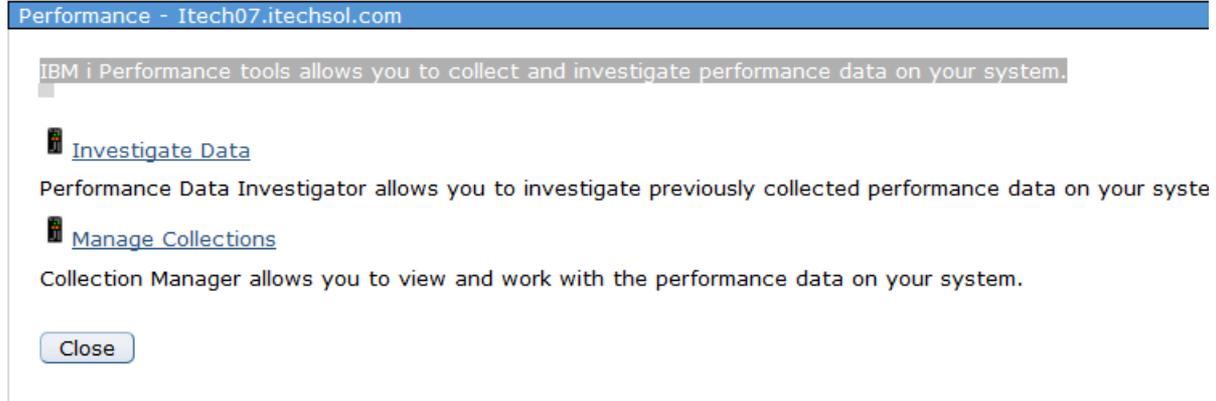
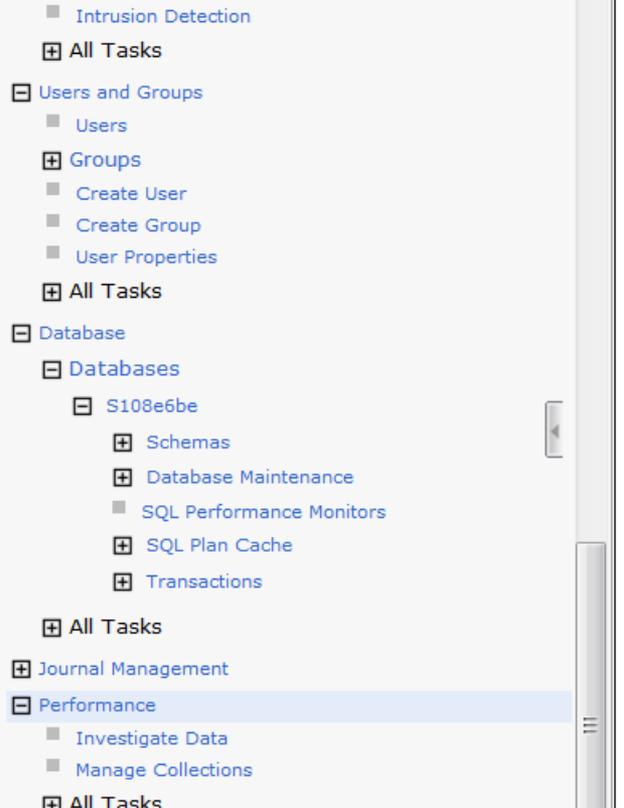
# Manage all your journals

The screenshot shows the IBM Navigator for i interface. At the top, there's a browser window with tabs for 'TECH07 - IBM Navigator for i' and 'ISERIES - IBM Navigator for i'. The address bar shows a URL starting with '/xLaunch.do?'. Below the browser, the application header displays 'Welcome petem' and 'Target system: 172.29.6.2'. A navigation bar contains several tabs: 'ons', 'Printer Output', 'Network', 'Intrusion Detection', 'Intrusion Detection', 'Authorization Lists', 'Users and Groups', 'Journal Management', and 'Journals'. The 'Journals' tab is active, showing a 'Journals list - Itech07.itechsol.com' window. The main content area is titled 'Journal Management - Database: S108E6BE Library: QUSRSYS'. It features a table with columns 'Name' and 'Text'. A list of journal names is on the left, with 'QDSNX' selected. An 'Actions' menu is open over the table, listing options like 'Delete...', 'View Entries...', 'Permissions', 'Add Remote Journal', 'Change Receivers', 'Properties', 'Journal Receivers', 'Show Journalled Objects', 'Remote Journals', '--- List Actions ---', 'Columns...', 'New', 'Refresh', 'Advanced Filter', and 'Export'. The table lists various journals such as 'Journal for DIA files', 'JOURNAL FOR SOCKS CONFIGURATION FILE', 'JOURNAL FOR MANAGED SYSTEM LOG', 'JOURNAL FOR DSNX LOG', 'Journal for license management', 'JOURNAL FOR ORDER DATABASE', 'Journal for SNADS files', and 'JOURNAL FOR PROBLEM DATABASE'. At the bottom, there's a pagination control showing '1 - 15 of 15 items' and a page number '1'.

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
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## Performance



This is the tool to find out what is happening on your machine. We will view just a few of the many graphs available, but you will see the power of the graphs, which is based upon the data of Collection Services.

# Performance: Collections: Investigate

## Investigate Data - Performance Data Investigator

### Perspectives

- [-] Health Indicators
  - [System Resources Health Indicators](#)
  - [CPU Health Indicators](#)
  - [Disk Health Indicators](#)
  - [Memory Pools Health Indicators](#)
  - [Response Time Health Indicators](#)
- [+] Collection Services
- [-] Database
  - [I/O Reads and Writes](#)
  - [SQL CPU Utilization by Job or Task](#)
  - [Database Locks Overview](#)
  - [+] [Database I/O](#)
  - [+] [SQL Cursor and Native DB Opens](#)
  - [+] [SQL Performance Data](#)
- [+] [Disk Watcher](#)
- [+] [Performance Explorer](#)

### Selection

#### Name

Database

#### Description

Chart and table views over a variety of database related performance Performance Monitor and SQL Plan Cache performance data.

### Collection

Collection Library

QPFRDATA ▾

Collection Name

Q11000004 (\*CSMGTCOL) - Apr 20, 2015 12:00:04 AM ▾

Display

Search

Save as Favorite

Options

Close

# Resource Utilization

## Resource Utilization Overview

Perspective Edit View History

### Collection

Name(s): Q110000004  
Library: QPFRDATA  
Type: Collection Services File Based Collection  
File level: 36

### Time

Start: Apr 20, 2015 12:00:04 AM  
End: Ongoing

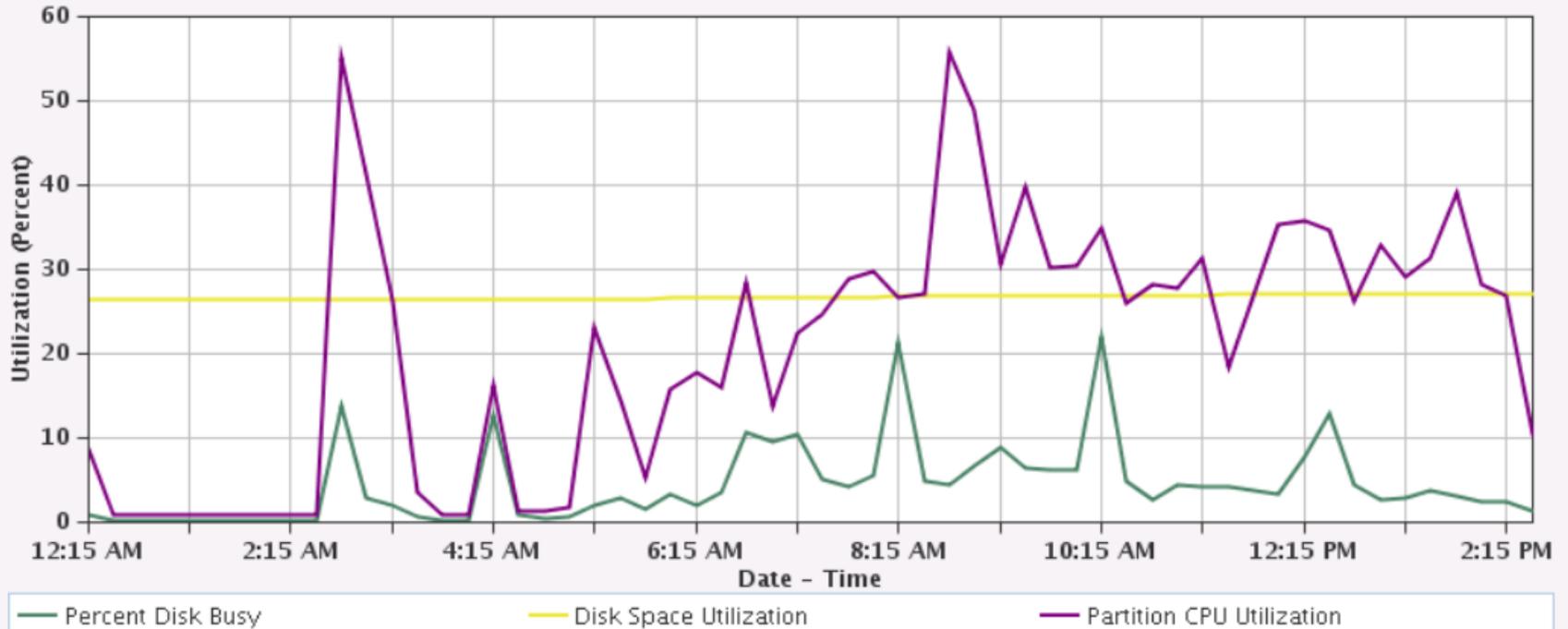
### System

Name: MISSION  
Release: V7R1M0

## Resource Utilization Percentages

--- Select Action --- ▼

### Resource Utilization Percentages



# 5250 Transactions per second & Average Response time

## 5250 Display Transactions Overview

Perspective Edit View History

### Collection

Name(s): Q11000004  
Library: QPFRDATA  
Type: Collection Services File Based Collection  
File level: 36

### Time

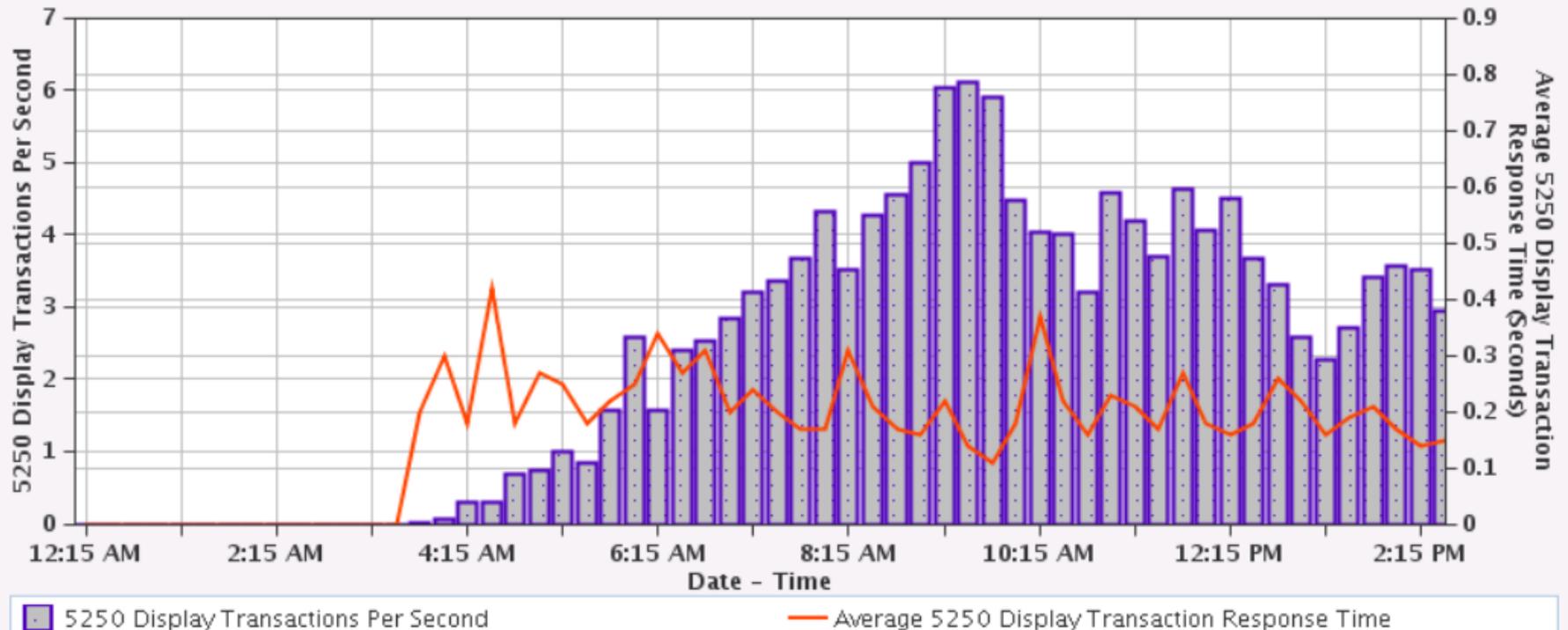
Start: Apr 20, 2015 12:00:04 AM  
End: Ongoing

### System

Name: MISSION  
Release: V7R1M0

--- Select Action --- ▼

## 5250 Display Transactions Overview



# Performance Graphs

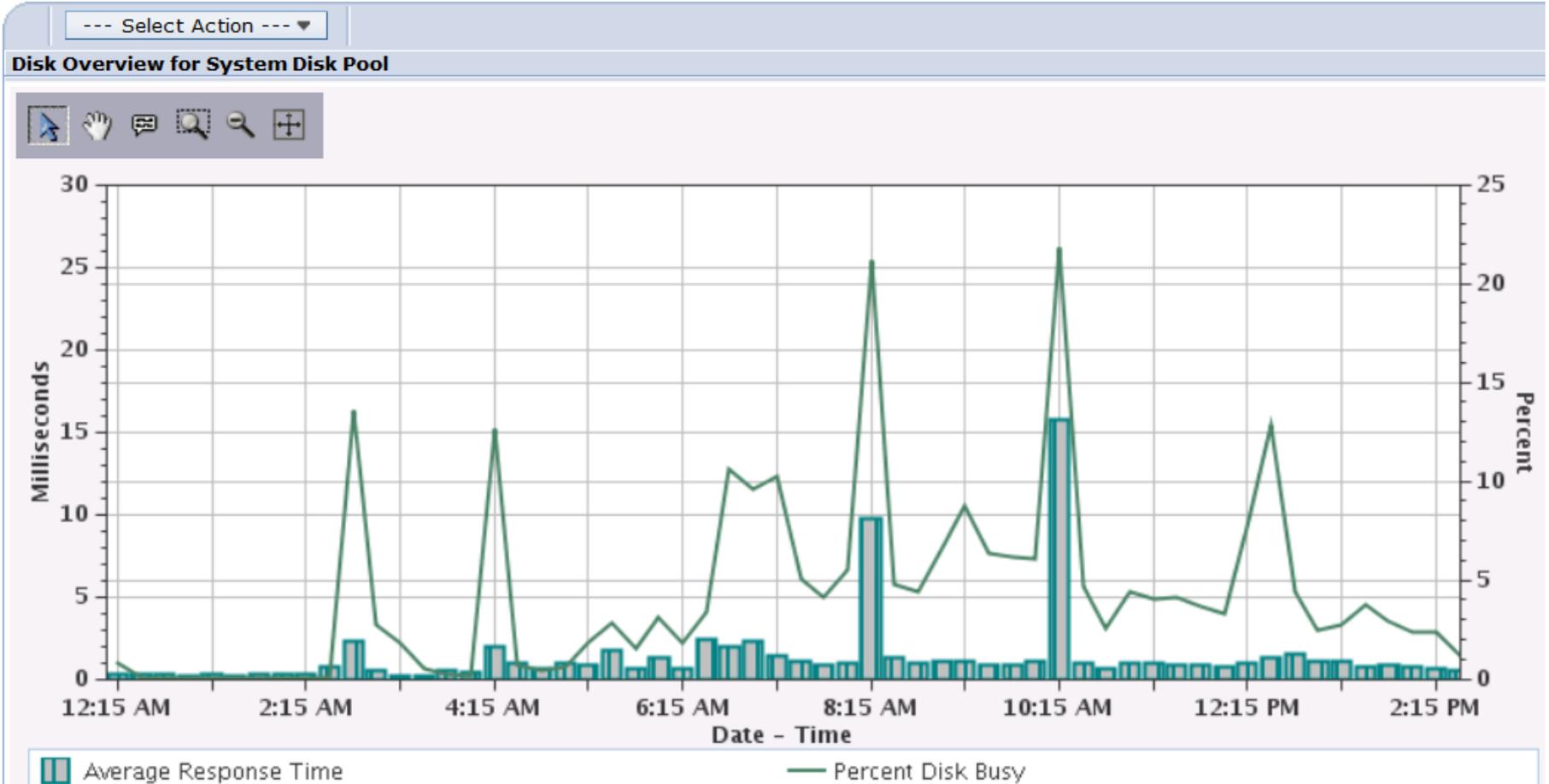
The image shows a navigation tree in IBM Navigator for i, divided into two main sections. The left section is under the 'Disk' folder, and the right section is under the 'Health Indicators' folder. Both sections are expanded to show their respective sub-items.

- Left Section (Disk):**
  - Job Statistics Overviews
  - Waits
  - CPU
  - Disk**
    - Disk Response Time
    - Storage Allocation
      - Disk Overview for System Disk Pool
      - Disk Throughput Overview for Disk Pools
      - Disk Overview by IOP Name
      - Disk Overview by Adapter Name
      - Disk Overview by Disk Pool
      - Disk Overview by Disk Unit
      - Disk Overview by Disk Path
      - Disk Details by IOP Name
      - Disk Details by Adapter Name
      - Disk Details by Disk Pool
      - Disk Details by Disk Unit
      - Disk Details by Disk Path
      - Disk Overview for IOPs
      - Disk Overview for Adapters
      - Disk Overview for Disk Pools
      - Disk Overview for Disk Units
      - Disk Overview for Disk Paths
      - Disk Details for IOPs
      - Disk Details for Adapters
      - Disk Details for Disk Pools
      - Disk Details for Disk Units
      - Disk Details for Disk Paths
    - Physical Disk I/O

- Right Section (Health Indicators):**
- Health Indicators**
  - System Resources Health Indicators
  - CPU Health Indicators
  - Disk Health Indicators
  - Memory Pools Health Indicators
  - Response Time Health Indicators
- Collection Services**
  - CPU Utilization and Waits Overview
  - CPU Utilization by Thread or Task
  - Resource Utilization Overview
  - Job Statistics Overviews
  - Waits
  - CPU
  - Disk**
    - Physical Disk I/O
    - Synchronous Disk I/O
    - Memory
    - Page Faults
    - Logical Database I/O
    - Virtual I/O
    - Communications
    - 5250 Display Transactions
    - Physical System
    - Java
    - Timeline
    - Workload Group
    - Collection Services Database Files
- Database**
  - I/O Reads and Writes
  - SQL CPU Utilization by Job or Task
  - Database Locks Overview

# Average Disk Response time & Percent busy

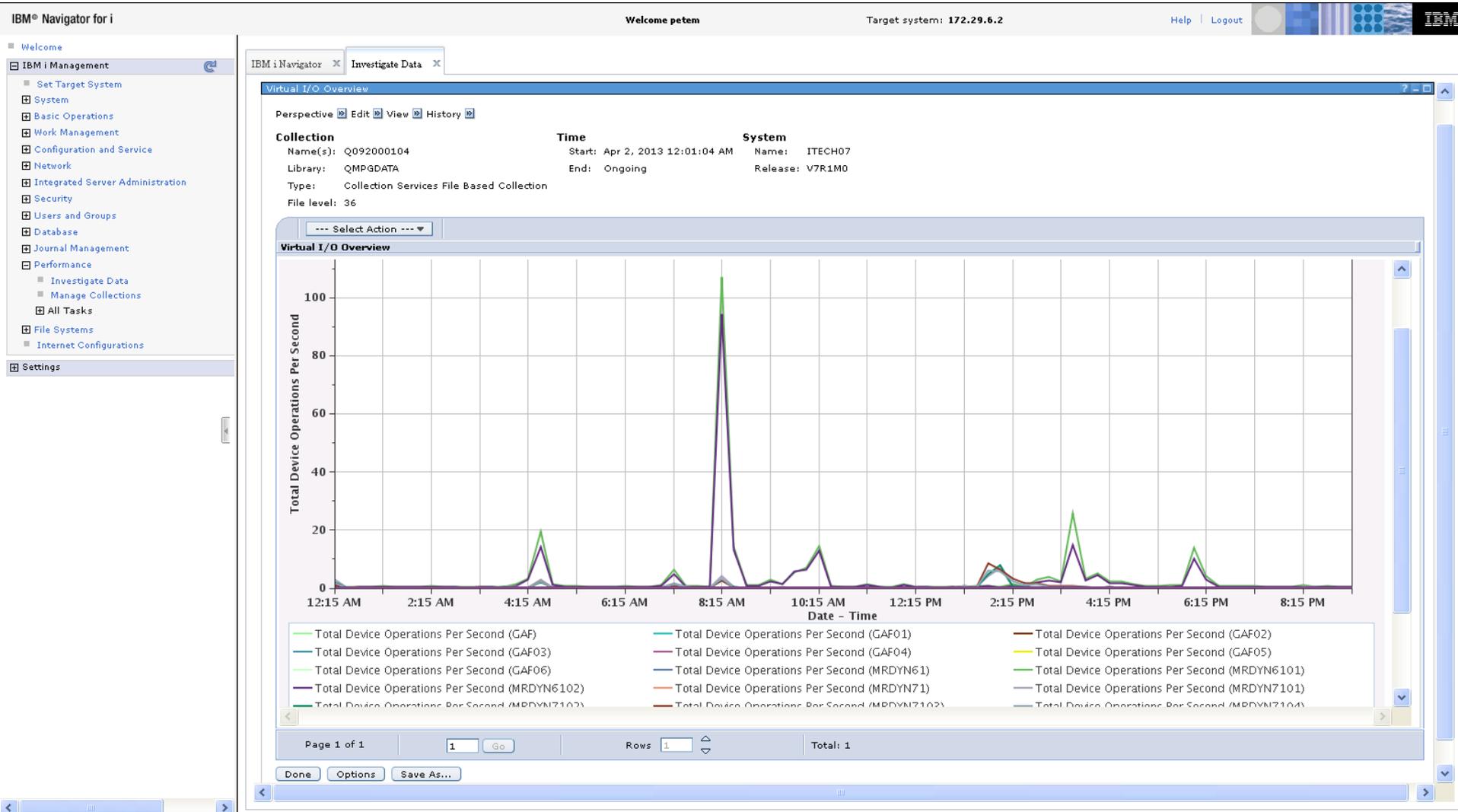
## Disk Overview for System Disk Pool



# I/O Adapter Utilization

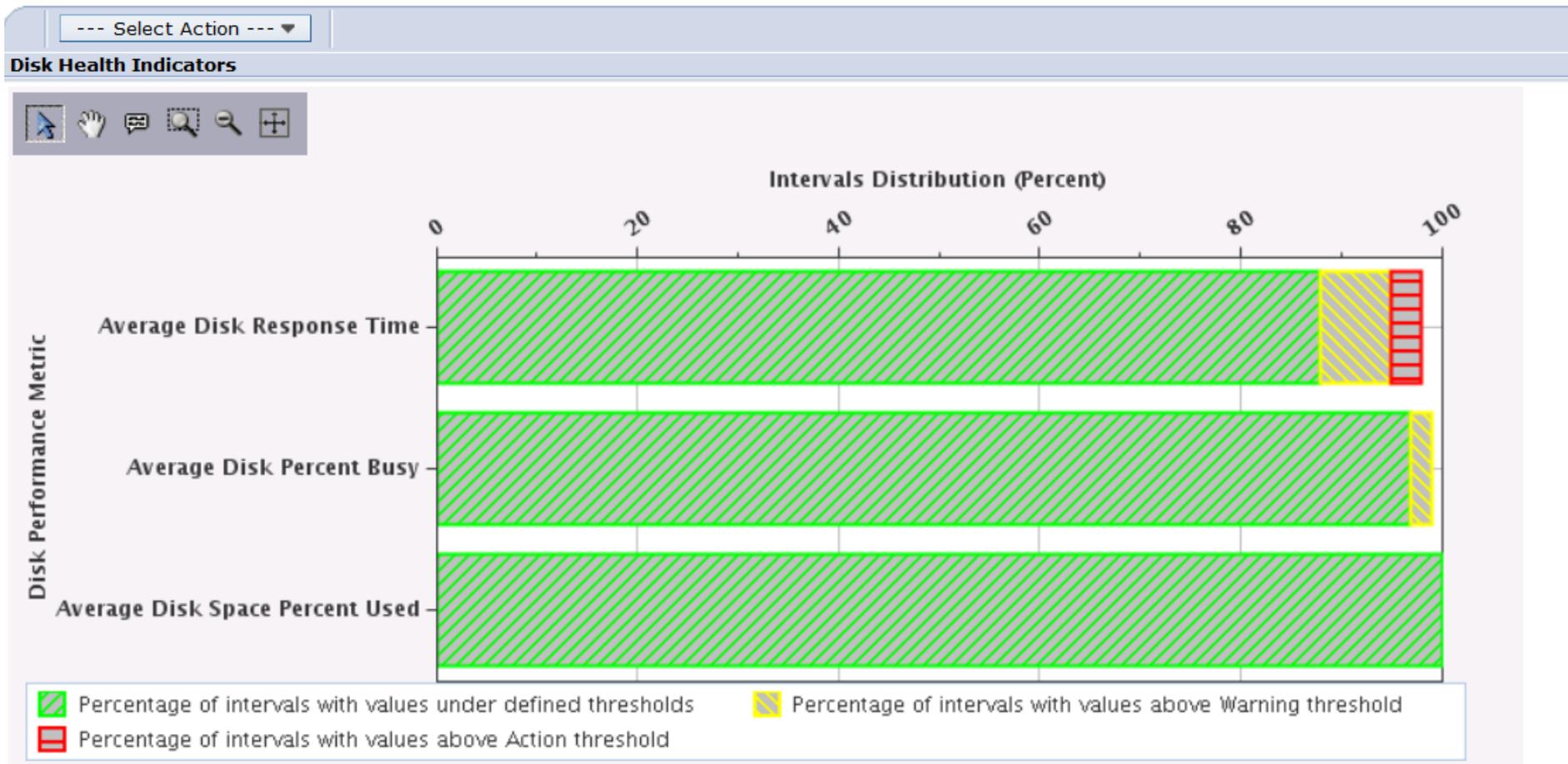


# Virtual I/O device Performance



## Disk Health

This chart shows Disk health indicators by analyzing all collection time intervals according to the defined thresholds for disk. Use this chart to determine the proportion of intervals where Disk health indicators exceeded the defined thresholds.



## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
- Integrated Server Admin: Hosted servers & disk
- Security: Authorization lists, Object authority, and Intrusion Detection.
- Users & Groups: Manage profiles & groups.
- Journal Management: Journals and receivers
- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

## File Systems

File Systems - Iseries.missionpro.com

IBM i File Systems allows you to manage the file system.

 [Integrated File System](#)

Allows you to manage the file system contents, IBM i NetServer file shares, and permissions.

 [File Shares](#)

Allows you to manage IBM i NetServer file shares.

 [Create File Share](#)

Allows you to create an IBM i NetServer file share.

Close

# Working with the IFS

Welcome petem

Target system: 172.29.6.2

[Help](#) | [Logout](#)



IBM i Navigator x File Systems x Integrated File System x

Root - 172.29.6.2

Path: /

Actions

- Open
- New Folder...
- Delete...
- Rename...
- Download...
- Upload...
- Move...
- Copy...
- Check Out
- Check In
- Folder Attribute Information ▶
- NFS Export ▶
- NFS Mount ▶
- Sharing ▶
- Journaling
- Permissions
- Properties
- List Actions ---
- New Folder...
- Upload...
- Check Out
- Check In
- Folder Attribute Information ▶
- NFS Export ▶
- Sharing ▶
- Permissions
- Columns...
- Include

Size	Type	Changed	Accessed
	File Folder	Dec 4, 2012 11:33:04 AM	Mar 31, 2013 5:09:51 AM
	File Folder	Oct 29, 2012 3:41:44 PM	Mar 31, 2013 5:08:34 AM
	File Folder	Oct 26, 2012 1:56:57 PM	Mar 31, 2013 5:09:29 AM
	File Folder	Jan 8, 2013 1:35:29 PM	Mar 31, 2013 5:09:49 AM
	File Folder	Mar 20, 2013 4:15:41 PM	Mar 31, 2013 5:09:16 AM
	File Folder	Mar 21, 2013 9:17:19 AM	Mar 31, 2013 5:08:35 AM
	File Folder	Mar 22, 2013 9:03:54 AM	Mar 31, 2013 5:09:11 AM
	File Folder	Mar 21, 2013 9:18:53 AM	Mar 31, 2013 5:09:06 AM
	File Folder	Mar 29, 2013 10:29:10 AM	Mar 31, 2013 5:09:49 AM
	File Folder	Mar 21, 2013 9:40:41 AM	Mar 31, 2013 5:09:23 AM
	File Folder	Aug 27, 2012 3:17:01 PM	Mar 31, 2013 5:09:11 AM
	File Folder	Apr 26, 2012 2:06:48 PM	Mar 31, 2013 5:09:26 AM
	File Folder	Aug 31, 2012 10:45:43 AM	Mar 31, 2013 5:09:28 AM
	File Folder	Jan 4, 2013 12:33:50 PM	Mar 31, 2013 5:09:11 AM
	File Folder	Feb 15, 2013 2:26:14 PM	Mar 31, 2013 5:09:14 AM
	File Folder	Mar 22, 2012 11:25:39 AM	Mar 31, 2013 5:09:11 AM
	File Folder	Feb 14, 2013 10:39:30 AM	Mar 31, 2013 5:09:20 AM
	File Folder	Oct 10, 2012 3:59:43 PM	Mar 31, 2013 5:09:25 AM
	File Folder	Dec 19, 2006 12:34:32 PM	Apr 2, 2013 9:18:30 PM
5KB	Text Document	Apr 2, 2013 1:46:16 PM	Apr 10, 2011 10:28:28 PM
	File Folder	Aug 30, 2010 4:13:55 PM	Mar 31, 2013 5:00:03 AM
	File Folder	Mar 29, 2013 3:56:20 PM	Mar 31, 2013 5:00:13 AM

1 - 47 of 47 items

5 | 10 | 25 | 50 | 100 | All

## Task Categories

- System: System Status, Messages, disk status
- Database: Performance monitors and Index Advisor
- Basic Operations: View Messages, Out Queues, Printers, Jobs.
- Configuration: Manage hardware, software, and system values.
- Network: TCP/IP
- Integrated Server Admin: Hosted servers & disk
- Security: Authorization lists, Object authority, and Intrusion Detection.
- Users & Groups: Manage profiles & groups.
- Journal Management: Journals and receivers
- Performance: Tools & Graphs to Analyze performance
- Files: Manage objects and IFS
- Internet Configurations: HTTP Server, Digital Certificates

## Internet Configuration

### Internet Configurations - 192.168.1.6

IBM i Internet Configurations allows you to perform internet configuration tasks.

#### [IBM Web Administration for i](#)

Allows you to manage and configure HTTP servers and application servers.

#### [Digital Certificate Manager](#)

Allows you to create, distribute, and manage Digital Certificates.

#### [IBM IPP Server for i](#)

Allows you to configure the IBM IPP Server.



#### [Internet Setup Wizard](#)

Allows you to use the internet setup wizard to configure your internet environment.

Close

# Optional BRMS Plug-in

The screenshot shows the IBM Systems Director Navigator for i web interface. The browser title is "ITECH07 - IBM Systems Director Navigator for i - Mozilla Firefox". The address bar shows the URL: https://192.168.0.25:2005/ibm/console/xLaunch.do?pageID=com.ibm.i5OS.webnav.navigationElement.W. The page title is "Welcome petem".

The left sidebar contains a navigation tree with the following items:

- 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
- Settings
  - Credential Store
  - Console Logging and Tracing

The main content area displays the "Backup, Recovery and Media Services" page. It includes a "Welcome" message and a list of actions:

Do not show welcome

List	Description
Backup, Recovery, and Media Services for IBM i	Select actions such as displaying the global policy properties, restoring data, printing reports, and managing devices.
Archive Control Groups	Create, run, display and maintain archive control groups
Backup Control Groups	Create, run, display and maintain backup control groups
Media Policies	Display media policies information
Move Policies	Display move policy information
Volumes	Display volume information
Media Pools	Display media pool information
Tasks	Tasks which are scheduled, executing, or have been completed

Page 1 of 1 | 1 | Go | Rows: 8 | Total: 8 | Filtered: 8

## 7 Key Points to take home

- This is free and ready to use on 6.1, 7.1, 7.2, & 7.3
- Only need \*ADMIN HTTP server running to access it.
- Use your machines IP address and the 2001 port
- Look at Performance graphs first get some bench marks.
- Use Index Advisor to find logical files you can create to improve performance.
- If machine is on the Internet make sure you setup Intrusion Detection.
- Create quick and easy PDFs using the Basic Operations and Output Queues.

Your Turn!



**Questions?**



**How to contact me:**

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**Twitter: [petem59](https://twitter.com/petem59)**