



System i

# Connecting to System i iSeries Navigator for Wireless

*Version 5 Release 4*







System i

Connecting to System i  
iSeries Navigator for Wireless

*Version 5 Release 4*

**Note**

Before using this information and the product it supports, read the information in “Notices,” on page 31.

**Fourth Edition (February 2006)**

This edition applies to version 5, release 4, modification 0 of IBM i5/OS (5722-SS1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CISC models.

© Copyright International Business Machines Corporation 2002, 2006. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

# Contents

## **iSeries Navigator for Wireless . . . . . 1**

What's new for V5R4 . . . . .	2
Printable PDF . . . . .	2
Setting up iSeries Navigator for Wireless . . . . .	3
Hardware and software requirements . . . . .	3
Selecting a device. . . . .	4
Selecting a device: Internet-ready telephones. . . . .	4
Selecting a device: PDAs . . . . .	5
Selecting a device: PCs . . . . .	6
Developing an Internet protection program . . . . .	6
Configuring your wireless environment . . . . .	7
Configuring a Web application server . . . . .	7
Configuring your ASF Jakarta Tomcat servlet engine for HTTP Server (powered by Apache) . . . . .	8
Configuring your WebSphere Application Server, Base Edition, Version 5.1 . . . . .	9
Configuring your WebSphere Application Server, Express Edition, Version 5.1 . . . . .	10
Configuring your WebSphere Application Server, Version 6.0 . . . . .	11
Configuring your firewall . . . . .	12
Configuring Management Central . . . . .	13

Selecting a language . . . . .	14
Connecting to your central system. . . . .	15
Customizing your connection . . . . .	17
Managing your systems with iSeries Navigator for Wireless . . . . .	19
Working with systems. . . . .	20
Working with Integrated xSeries Servers. . . . .	20
Working with tasks. . . . .	21
Running commands across multiple systems . . . . .	22
Viewing and interacting with monitors . . . . .	23
System monitors. . . . .	24
Job monitors . . . . .	26
Message monitors . . . . .	27
File monitors . . . . .	27
B2B activity monitors . . . . .	27
Related information for iSeries Navigator for Wireless . . . . .	28

## **Appendix. Notices . . . . . 31**

Programming Interface Information . . . . .	32
Trademarks . . . . .	33
Terms and conditions . . . . .	33



---

## iSeries Navigator for Wireless

iSeries™ Navigator for Wireless is an i5/OS® program that runs on a Web application server. With iSeries Navigator for Wireless, administrators can remotely monitor and manage system performance, status, jobs, and messages using an Internet-ready telephone, a personal digital assistant (PDA) with a wireless modem, or a traditional Web browser on a workstation.



Managing multiple systems is one of the more challenging aspects of running a growing business. IBM introduced Management Central to help administrators manage their systems. Users have enjoyed the ease, flexibility, and power of Management Central. From managing fixes and running commands across multiple systems to viewing real-time graphs of their systems performance, administrators have used Management Central to do their jobs much more efficiently.

With iSeries Navigator for Wireless, administrators have more flexibility in how they access and interact with Management Central.

After you have configured iSeries Navigator for Wireless to run on a Web server on your central system, enter the system URL into your Internet-ready telephone, PDA, or browser to perform the following tasks:

- Watch system status.
- View properties of the system.
- View detailed summaries:
  - Commands
  - Packages and products
  - Inventory
  - Fixes
  - Collection services
  - Users and groups
  - System values
- Manage Integrated xSeries® Servers: Run commands on all Integrated xSeries Servers at the same time or on just one server, and start or shut down the servers.
- Run i5/OS commands across multiple systems.
- View and interact with monitors:
  - **System monitors:** View the metrics and current values being monitored, as well as the top 20 items (jobs, disk units, and so forth) that make up the metric value. Work with jobs listed in the monitor (display details, hold, release, end).
  - **Job and message monitors:** View all jobs and messages across systems matching monitor criteria. See metrics and current values being monitored. Work with the jobs and messages listed in the monitor (display details, hold, release, end, delete, reply).
  - **File monitors:** View detailed status of files, including system path, size, date modified, and the text that triggered the file.

- **B2B activity monitors:** View business-to-business transaction details, and see metrics and current values being monitored.
- Limit what users can do by enabling read-only support, or by setting user-access levels with Application Administration. Allow users to view status information without the ability to take action.

This information is intended to help you start using iSeries Navigator for Wireless by providing tips on which devices to use, how to install and configure the required elements, and by giving you an overview of the functions.

---

## What's new for V5R4

This topic highlights changes to iSeries Navigator for Wireless in V5R4.

New in V5R4, you can configure your iSeries Navigator for Wireless to share multiple monitors across multiple users. This new feature allows you to see shared monitors along with ones that you have created. For more on these new easy setup instructions, see “Configuring a Web application server” on page 7.



### What's new as of April 2007

iSeries Navigator for Wireless does not support WebSphere® Application Server Version 5.0, 6.1, or later.

In the user options file, the SHARE\_MON property specifies whether shared monitors display on your wireless device. See “Customizing your connection” on page 17 for more information.

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

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

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

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

---

## Printable PDF

Use this to view and print a PDF of this information.


To view or download the PDF version of this document, select iSeries Navigator for Wireless (about 637 KB).

### Saving PDF files

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

1. Right-click the PDF in your browser (right-click the link above).
2. Click the option that saves the PDF locally.
3. Navigate to the directory in which you want to save the PDF.
4. Click **Save**.

### Downloading Adobe Reader

You need Adobe Reader installed on your system to view or print these PDFs. You can download a free copy from the Adobe Web site ([www.adobe.com/products/acrobat/readstep.html](http://www.adobe.com/products/acrobat/readstep.html)) .



---

## Setting up iSeries Navigator for Wireless

To use iSeries Navigator for Wireless, you must meet certain software and hardware requirements. You must decide which kind of wireless device to use and what kind of applications you need to install and configure.

### Related concepts

“Managing your systems with iSeries Navigator for Wireless” on page 19

You can manage your systems from a wireless device. Use iSeries Navigator for Wireless to interact with monitors in Management Central and in Integrated xSeries Servers. You can run commands, work with tasks and systems, and control user access.

## Hardware and software requirements

Before setting up iSeries Navigator for Wireless, you should determine whether you have all the necessary software and hardware to run iSeries Navigator for Wireless.

The following elements are required to run the latest enhancements of iSeries Navigator for Wireless:

- Licensed Product 5722-XP1: The iSeries Access for Wireless product that includes iSeries Navigator for Wireless.
- A device to run the function:
  - An Internet-enabled telephone with a wireless Internet service
  - A personal digital assistant (PDA) with a Web browser, a wireless modem, and a wireless Internet service
  - A traditional Web browser on a workstation
- A system running OS/400® V5R2, or later, in a TCP/IP network. This will be your central system used by Management Central.
- A Web application server running on your central system, such as these:
  - Apache Software Foundation (ASF) Jakarta Tomcat application server
  - WebSphere Application Server

**Note:** iSeries Navigator for Wireless does not support WebSphere Application Server Version 5.0, 6.1, or later.

- Any other application server that runs on the central system and that can host servlets

The following figure shows that a wireless device sends and receives information through the Internet and through a firewall when it is connected to a Management Central central system. iSeries Navigator for Wireless and your Web application server are both installed on the central system. The central system points to four endpoint systems.

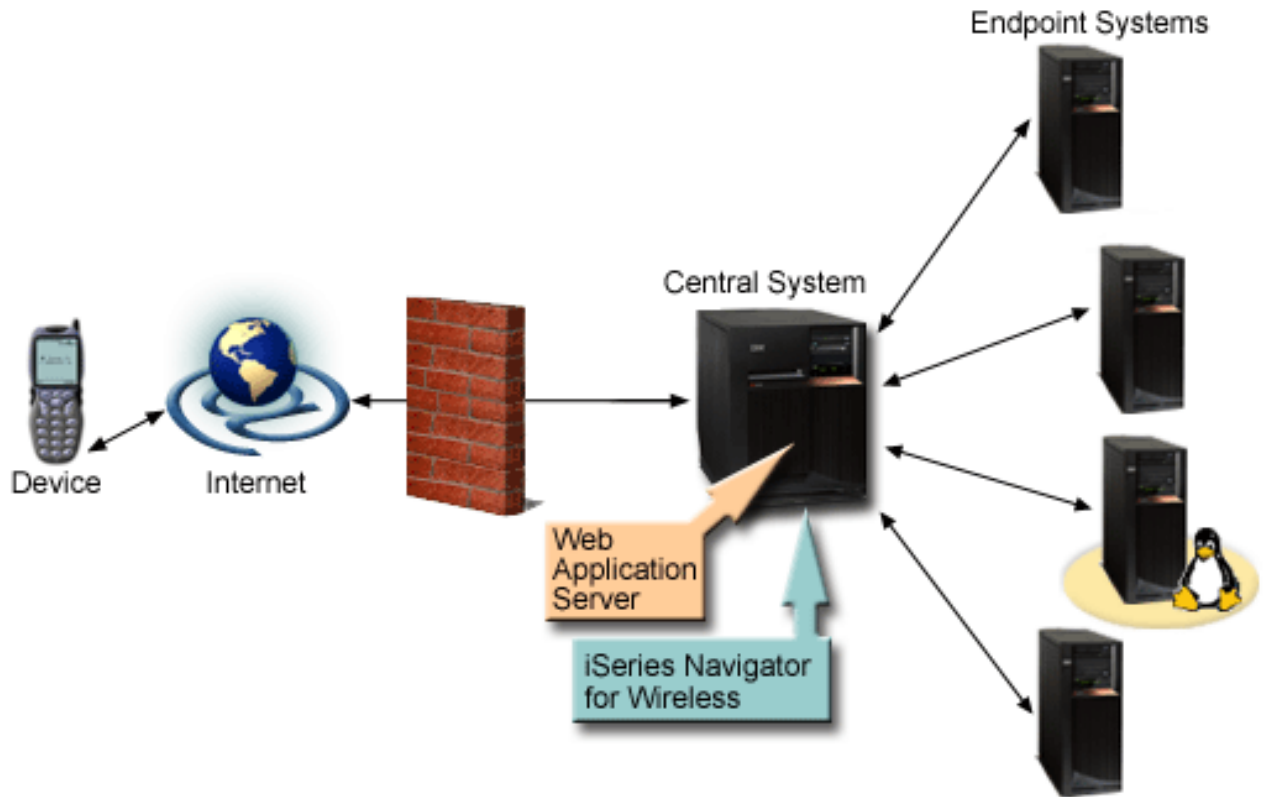


Figure 1. Wireless device connecting to Management Central

## Selecting a device

You must choose devices that are compatible with iSeries Navigator for Wireless.

Internet-ready telephones and wireless personal digital assistants (PDAs) are a rapidly changing technology. They differ in screen size and many other significant characteristics. This information helps you choose devices that are compatible with iSeries Navigator for Wireless. Other wireless devices might also be compatible if they support wireless Internet browsing, but the interaction might be different.

### Selecting a device: Internet-ready telephones

When you select an Internet-ready telephone to use with iSeries Navigator for Wireless, you should consider the telephone's physical characteristics, its compatibility with iSeries Navigator for Wireless, the Web browser supported, and the wireless Internet services available.

Consider the following elements when you select an Internet-ready telephone to use with iSeries Navigator for Wireless:

- The physical characteristics of the telephone itself (display size, button location, and so forth)
- The Web browser (often called a microbrowser or a minibrowser) supported on the telephone
- The wireless Internet services available with the Internet-ready telephone in the geographical areas where you want to use it

The display size of the Internet-ready telephone often affects how easy it is to use. In general, the more horizontal lines the telephone displays, the easier it is to view data. Regardless of the display size, you will often need to scroll down in the telephone display using buttons or other scrolling mechanism. The width of the displayed lines should also be a consideration.

An Internet-ready telephone is typically already loaded with a microbrowser. When you select a particular telephone, you are also making your browser choice. iSeries Navigator for Wireless currently supports the Openwave Mobile Browser, Version 3.1, and later (formerly called UP.Browser). For best results, choose a telephone that supports this microbrowser.

The wireless Internet service is what transports the data to and from your Internet-ready telephone. It is not the same as the voice service for your telephone, although the two might be packaged together by a particular provider. Make sure that the telephone you select is supported by a wireless Internet service available in the geographical areas where you want to use it.



### Compatibility with iSeries Navigator for Wireless

The following Internet-ready telephones are compatible with iSeries Navigator for Wireless.

Telephone	Type of testing	Wireless service	Comments
Mitsubishi T250	Device	AT&T PocketNet	Small font preference is recommended.
<b>Note:</b> Other phones have been tested with a simulator, including the Ericsson R280 LX.			

Other Internet-ready telephones might also be compatible. The Openwave Mobile Browser is licensed by a number of telephone manufacturers around the world. Any HTML browsers, WML phones, and Blackberries with the OS version 4.0, which contains an HTML browser, will work with iSeries Access for Wireless. In addition, many of the manufacturers offer support on more than one model of telephone. The list of telephones supported by the OpenWave Mobile Browser can be found at the Openwave: Supported Phones Web page.

#### Related information

-  [Openwave: Supported Phones Web page](#)
-  [Openwave Web site](#)

### Selecting a device: PDAs

iSeries Navigator for Wireless uses a Web browser running on your personal digital assistant (PDA). Unlike Internet-ready telephones, the selection of a browser is not tied to your choice of PDA device.

If a Web browser was packaged with your PDA when you bought it, you can install additional Web browsers. You can download many Web browsers for PDA devices over the Internet.

### PDA browser compatibility with iSeries Navigator for Wireless

Many different Web browsers exist for PDA devices. Often, the browsers differ in the HTML elements they support. Some browsers handle text differently from others. Some display images and tables, while others do not. Some browsers offer higher levels of protection or security than others. The following browsers support the necessary elements to run iSeries Navigator for Wireless from a PDA:

- AvantGo Version 3 or later
- EudoraWeb Version 1.1 or later
- Go.Web Version 6.0 - for RIM Blackberry

Other Web browsers that run on PDAs might also be compatible. Be aware that the differences in how browsers display HTML can cause iSeries Navigator for Wireless to appear and behave differently from the browsers listed previously.

If you need extra security, use a browser that supports Secure Sockets Layer (SSL).

## PDA compatibility with iSeries Navigator for Wireless

The following PDAs are compatible with iSeries Navigator for Wireless:

PDA	Operating system	Wireless modem	Wireless service
Palm V or Vx	Palm OS Version 3.3	Minstrel V	AT&T
Palm III or IIIx	Palm OS Version 3.3	Minstrel III	AT&T
RIM Blackberry	RIM	Built in	GoAmerica
Kyocera QCP 6035	Palm OS	Built in	Sprint

Many other PDAs are most likely compatible. Because iSeries Navigator for Wireless runs in a browser, the choice of PDA should not make a difference. However, only the PDAs listed previously were tested. Any device that lets you perform Web browsing and that supports HTML might be compatible with iSeries Navigator for Wireless.

### Modem and wireless Internet service for the PDA

You need to choose a modem that is compatible with your PDA selection. In addition, you need to find a wireless Internet Service Provider (ISP). The wireless Internet service transports the data to and from your PDA using the modem. When choosing a modem and service, make sure that you select a combination that is supported in the geographical areas where you want to use your PDA.

#### Related information



AvantGo



Eudora Web site



GoAmerica Communications Web site

### Selecting a device: PCs

You can also use a traditional Web browser with iSeries Navigator for Wireless.

IBM® iSeries Navigator for Wireless is designed to run on an Internet-ready telephone or PDA. However, because it runs on a browser in a PDA, iSeries Navigator for Wireless can also run on a traditional Web browser. Any current workstation Web browser should work because PDA browsers have more limitations.

Because iSeries Navigator for Wireless only needs a small display, one suggestion is for you to put a small window of your browser in the corner of your workstation. Then you can keep current on your systems and monitors without having to clutter your desktop.

If you are using a traditional Internet browser on your PC, you can select **Get Report** from the main menu to display all information in a full browser.

### Developing an Internet protection program

Because user authentication of iSeries Navigator for Wireless takes place over the Internet, you should develop an Internet protection program to protect authentication information.

Because the iSeries Navigator for Wireless servlet needs to obtain the user ID of the remote user, the Web application server needs to be configured or set up to authenticate the user. The servlet uses this user ID to communicate with Management Central. Because this authentication can take place over the Internet, a protection plan is necessary to protect the authentication information (user ID and password).

Also, the data that is transferred between the client and the server contains systems management information. An analysis should be done to determine the level of protection you require for this data. The following questions need to be considered in developing this plan.

- What services will be used to access the servlet (use the Internet, use browsers on clients attached to the central system, or both)?
- What client devices will be used and what are the security capabilities of the browsers used on the devices?
- How will the desired protection be configured or be set up on a Web application server, such as IBM WebSphere Application Server, Apache Software Foundation (ASF) Tomcat servlet engine, and IBM HTTP Server for i5/OS?
- What is the sensitivity of the data transferred between the client and server?

When developing a protection plan, refer to *AS/400® Internet Security Scenarios: A Practical Approach*. The IBM WebSphere Application Server Web page and ASF Jakarta Tomcat home page might also be helpful in developing a protection plan. These pages also provide documentation on the security protection capabilities of the client devices and browsers to be used.

#### **Related information**

 [AS/400 Internet Security Scenarios: A Practical Approach](#)

 [IBM WebSphere Application Server](#)

 [ASF Jakarta Tomcat](#)

## **Configuring your wireless environment**

Before using iSeries Navigator for Wireless, ensure that you have properly configured your Web application server and firewall.

#### **Related concepts**

“Connecting to your central system” on page 15

To begin using iSeries Navigator for Wireless, you must first establish your connection to the central system. Enter the URL of your central system into your wireless device.

“Configuring your ASF Jakarta Tomcat servlet engine for HTTP Server (powered by Apache)” on page 8

These tasks help you set up an Apache Software Foundation (ASF) Tomcat servlet engine for HTTP Server to run iSeries Navigator for Wireless.

“Configuring your WebSphere Application Server, Base Edition, Version 5.1” on page 9

These tasks help you set up iSeries Navigator for Wireless to run using WebSphere Application Server v5.1, Base Edition.

“Configuring your WebSphere Application Server, Express Edition, Version 5.1” on page 10

These tasks help you set up iSeries Navigator for Wireless to run using WebSphere Application Server v5.1, Express Edition.

“Configuring your WebSphere Application Server, Version 6.0” on page 11

These tasks help you set up iSeries Navigator for Wireless to run using WebSphere Application Server v6.0.

## **Configuring a Web application server**

You can choose one among several Web application servers to run the iSeries Navigator for Wireless servlet; for example, an Apache Software Foundation (ASF) Jakarta Tomcat servlet engine or a WebSphere Application Server.

The configuration steps for a Web application server vary depending on what kind of Web application server you use.

| **Note:** iSeries Navigator for Wireless does not support WebSphere Application Server Version 5.0, 6.1, or  
| later.

### Related tasks

“Configuring Management Central” on page 13

You can take full advantage of the capability that iSeries Navigator for Wireless provides when you interact with Management Central. iSeries Navigator for Wireless does not need a PC to run, but you need a PC to set up Management Central.

## Configuring your ASF Jakarta Tomcat servlet engine for HTTP Server (powered by Apache):

These tasks help you set up an Apache Software Foundation (ASF) Tomcat servlet engine for HTTP Server to run iSeries Navigator for Wireless.

### Prerequisites

Before you begin, you must have QSECOFR authority and IBM HTTP Server (5722-DG1) installed.

**Note:** The following steps create an instance of an HTTP server. Therefore, you cannot use these instructions to set up iSeries Navigator for Wireless on an existing HTTP server.

To set up your Tomcat servlet engine, follow these steps:

1. Run the following command to add the iSeries Navigator for Wireless servlet to the ASF Jakarta Tomcat servlet engine. It also sets up an IBM HTTP Server named *<HTTPInstanceName>* that listens for requests on port *<port number>*.

```
CALL QSYSDIR/QYPVSETUP '-tomcat [-httpinstance <HTTPInstanceName>] [-port <port number>][-javaversion <java version>]'
```

The parameters in this command are defined as follows:

#### **-tomcat**

This parameter specifies that ASF Tomcat is the servlet engine used to run iSeries Navigator for Wireless.

#### **-httpinstance <HTTPInstanceName>**

This parameter specifies the name of the HTTP instance used to run the ASF Tomcat servlet engine. The name cannot include spaces and must be less than 10 characters long. If you do not specify an instance name, the default is MCP.

#### **-port <port number>**

This parameter specifies the port for the HTTP Server to listen for requests. If the port is not specified, the default is 8110.

#### **-javaversion <java version>**

This parameter specifies the version of Java™ Developer’s Kit to use. Valid values for this parameter are 1.3 and 1.2. If you do not specify a Java version, the default is 1.3 if it is installed; otherwise 1.2 is used.

ASF Tomcat runs in process. This means that it starts and ends when the HTTP server starts and ends.

2. Run the following command to start your HTTP server.

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(<HTTPInstanceName>)
```

Now that you have finished setting up your Web application server, you can continue to configure your wireless environment.

### Related concepts

“Configuring your wireless environment” on page 7

Before using iSeries Navigator for Wireless, ensure that you have properly configured your Web application server and firewall.

## Related information

 [Apache Tomcat home page](#)

### Configuring your WebSphere Application Server, Base Edition, Version 5.1:

These tasks help you set up iSeries Navigator for Wireless to run using WebSphere Application Server v5.1, Base Edition.

#### Prerequisites

Before you begin, you must have QSECOFR authority and must have the following products installed:

- IBM HTTP Server (5722-DG1)
- WebSphere Application Server Version 5.1, or later

#### Notes:

1. The following steps create an instance of an HTTP server. Therefore, you cannot use these instructions to set up iSeries Navigator for Wireless on an existing HTTP server.
2. The following steps assume that you are already running WebSphere Application Server. For setup information and to determine prerequisites, go to the WebSphere Application Server home page and select the appropriate version.

To set up your WebSphere Application Server, follow these steps:

1. Make sure that the QEJBAS51 subsystem is running. If it is not, run the following command:

```
STRSBS QEJBAS51/QEJBAS51
```

2. Run the following command to set up iSeries Navigator for Wireless to run using WebSphere Application Server v5.1, Base Edition as the servlet engine. It creates an instance of WebSphere Application Server named `<WASInstanceName>` and an IBM HTTP Server named `<HTTPInstanceName>` that listens for requests on port `<port number>`.

```
CALL QSYSDIR/QYPVSETUP '-wasversion 5733W51 [-nodename <node name>] [-wasinstance <WASInstanceName>] [-httpinstance <HTTPInstanceName>] [-port <port number>]'
```

The parameters in this command are defined as follows:

#### **-wasversion 5733W51**

This parameter specifies that Websphere Application Server v5.1, Base Edition is used to run iSeries Navigator for Wireless.

#### **-nodename <system name>**

This parameter specifies the short name of the system that iSeries Navigator for Wireless is being set up for. For example, if the system name is `yoursystem.yourcompany.com`, the `<system name>` is `yoursystem`.

#### **-wasinstance <WASInstanceName>**

This parameter specifies the name of the WebSphere instance that is created to run iSeries Navigator for Wireless. The instance that is specified cannot exist yet; otherwise, you will receive an error when the command is run. If you do not specify an instance name, the name of the instance is MCP.

#### **-httpinstance <HTTPInstanceName>**

This parameter specifies the name of the HTTP instance used to run the WebSphere servlet engine. The name cannot include spaces and must be less than 10 characters long. If you do not specify an instance name, the default is MCP.

#### **-port <port number>**

This parameter specifies the first number of a block of six ports. The HTTP Server listens for requests on `<port number>`, and the application server listens on `<port number> + 1` through

- |           <port number> + 5. If you do not specify a port number, the default is 8110 for the HTTP  
|           Server and 8111 - 8115 for the application server.
- | 3. Run the following command from the QSHELL command line to start your WebSphere Application  
|    Server.  
|    /QIBM/ProdData/WebAS51/Base/bin/startServer iSeriesNavigatorForWireless -instance <WASInstanceName>  
|    The port number for the administration console of this instance of the WebSphere Application Server  
|    is displayed after the application server has started.
- | 4. Run the following command to start your HTTP server.  
|    STRTCPSVR SERVER(\*HTTP) HTTPSVR(<HTTPInstanceName>)

| Now that you have finished setting up your Web application server, you can continue to configure your  
| wireless environment.

|    **Related concepts**

|    “Configuring your wireless environment” on page 7  
|    Before using iSeries Navigator for Wireless, ensure that you have properly configured your Web  
|    application server and firewall.

|    **Configuring your WebSphere Application Server, Express Edition, Version 5.1:**

| These tasks help you set up iSeries Navigator for Wireless to run using WebSphere Application Server  
| v5.1, Express Edition.

|    **Prerequisites**

| Before you begin, you must have QSECOFR authority and must have the following products installed:

- | • IBM HTTP Server (5722-DG1)
- | • WebSphere Application Server Version 5.1, or later

|    **Notes:**

- |    1. The following steps create an instance of an HTTP Server. Therefore, you cannot use these  
|    instructions to set up iSeries Navigator for Wireless on an existing HTTP server.
- |    2. The following steps assume that you are already running WebSphere Application Server. For  
|    setup information and to determine prerequisites, go to the WebSphere Application Server  
|    home page and select the appropriate version.

| To set up your WebSphere Application Server, follow these steps:

- | 1. Make sure that the QASE51 subsystem is running. If it is not, run the following command:  
|    STRSBS QASE51/QASE51
- | 2. Run the following command to set up iSeries Navigator for Wireless to run using WebSphere  
|    Application Server v5.1, Express Edition as the servlet engine. It creates an instance of WebSphere  
|    Application Server named <WASInstanceName> and an IBM HTTP Server (powered by Apache)  
|    named <HTTPInstanceName> that listens for requests on port <port number>.  
|    CALL QSYSDIR/QYPVSETUP '-wasversion 5722E51 [-wasinstance <WASInstanceName>]  
|    [-httpinstance <HTTPInstanceName>] [-port <port number>]'

| The parameters in this command are defined as follows:

|    **-wasversion 5722E51**

|    This parameter specifies that WebSphere Application Server v5.1, Express Edition is used to  
|    run iSeries Navigator for Wireless.

|    **-wasinstance <WASInstanceName>**

|    This parameter specifies the name of the WebSphere instance that is created to run iSeries



Navigator for Wireless. The instance that is specified cannot exist yet; otherwise, you will receive an error when the command is run. If you do not specify an instance name, the name of the instance is iSeriesNavigatorForWireless.

**-httpinstance** <HTTPInstanceName>

This parameter specifies the name of the HTTP instance used to run the WebSphere servlet engine. The name cannot include spaces and must be less than 10 characters long. If you do not specify an instance name, the default is MCP.

**-port** <port number>

This parameter specifies the first number of a block of six ports. The HTTP Server listens for requests on <port number>, and the application server listens on <port number> + 1 through <port number> + 5. If you do not specify a port number, the default is 8110 for the HTTP Server and 8111 - 8115 for the application server.

3. Run the following command from the QSHHELL command line to start your application server.

```
/QIBM/ProdData/WebASE51/ASE/bin/startServer <WASInstanceName> -instance <WASInstanceName>
```

The port number for the administration console of this instance of the WebSphere Application Server is displayed after the application server has started.

4. Run the following command to start your HTTP server.

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(<HTTPInstanceName>)
```

Now that you have finished setting up your Web application server, you can continue to configure your wireless environment.

**Related concepts**

“Configuring your wireless environment” on page 7

Before using iSeries Navigator for Wireless, ensure that you have properly configured your Web application server and firewall.

**Configuring your WebSphere Application Server, Version 6.0:**

These tasks help you set up iSeries Navigator for Wireless to run using WebSphere Application Server v6.0.

**Prerequisites**

Before you begin, you must have QSECOFR authority and must have the following products installed:

- IBM HTTP Server (5722-DG1)
- WebSphere Application Server Version 6.0, or later

**Notes:**

1. The following steps create an instance of an HTTP server. Therefore, you cannot use these instructions to set up iSeries Navigator for Wireless on an existing HTTP server.
2. The following steps assume that you are already running WebSphere Application Server. For setup information and to determine prerequisites, go to the WebSphere Application Server home page and select the appropriate version.

To set up your WebSphere Application Server, follow these steps:

1. Make sure that the QWAS6 subsystem is running. If it is not, run the following command:

```
STRSBS QWAS6/QWAS6
```

2. Run the following command to set up iSeries Navigator for Wireless to run using WebSphere Application Server v6.0 as the servlet engine. It creates an instance of WebSphere Application Server named <WASInstanceName> and an IBM HTTP Server named <HTTPInstanceName> that listens for requests on port <port number>.

```
| CALL QSYSDIR/QYPVSETUP '-wasversion 5733W60 [-nodename <node name>] [-wasinstance  
| <WASInstanceName>] [-httpinstance <HTTPInstanceName>] [-port <port number>]'
```

| The parameters in this command are defined as follows:

| **-wasversion 5733W60**

| This parameter specifies that WebSphere Application Server v6.0, is used to run iSeries Navigator for Wireless.

| **-nodename <system name>**

| This parameter specifies the short name of the system that iSeries Navigator for Wireless is being set up for. For example, if the system name is yoursystem.yourcompany.com, the <system name> is yoursystem.

| **-wasinstance <WASInstanceName>**

| This parameter specifies the name of the WebSphere instance that is created to run iSeries Navigator for Wireless. The instance that is specified cannot exist yet; otherwise, you will receive an error when the command is run. If you do not specify an instance name, the name of the instance is MCP.

| **-httpinstance <HTTPInstanceName>**

| This parameter specifies the name of the HTTP instance used to run the WebSphere servlet engine. The name cannot include spaces and must be less than 10 characters long. If you do not specify an instance name, the default is MCP.

| **-port <port number>**

| This parameter specifies the first number of a block of six ports. The HTTP Server listens for requests on <port number>, and the application server listens on <port number> + 1 through <port number> + 5. If you do not specify a port number, the default is 8110 for the HTTP Server and 8111 - 8115 for the application server.

- | 3. Run the following command from the QSHELL command line to start your WebSphere Application Server.

```
| /QIBM/ProdData/WebSphere/AppServer/V6/Base/bin/startServer  
| iSeriesNavigatorForWireless -profileName instance_name <WASInstanceName>
```

| The port number for the administration console of this instance of the WebSphere Application Server is displayed after the application server has started.

- | 4. Run the following command to start your HTTP server.

```
| STRTCPSVR SERVER(*HTTP) HTTPSVR(<HTTPInstanceName>)
```

| Now that you have finished setting up your Web application server, you can continue to configure your wireless environment.

| **Related concepts**

| “Configuring your wireless environment” on page 7

| Before using iSeries Navigator for Wireless, ensure that you have properly configured your Web application server and firewall.

## Configuring your firewall

When you use iSeries Navigator for Wireless, you access your system from the Internet. If you have a firewall, you might have to modify your firewall setup to run iSeries Navigator for Wireless.

If you have never accessed your systems from the Internet and do not have a firewall set up, refer to the IBM Redbook *AS/400 Internet Security Scenarios: A Practical Approach* for strategies to set up a firewall. See the chapters about screened host architecture and screened subnet architecture.

| **Related information**

|  [AS/400 Internet Security Scenarios: A Practical Approach](#)

## Configuring Management Central

You can take full advantage of the capability that iSeries Navigator for Wireless provides when you interact with Management Central. iSeries Navigator for Wireless does not need a PC to run, but you need a PC to set up Management Central.

Before you begin configuring Management Central, you must complete the following tasks:

1. Install iSeries Navigator on the PC as a component of iSeries Access for Windows®.  
No additional installation is needed. When installing iSeries Access for Windows, select iSeries Navigator from the list of available components, and then select the components you want (Monitors, Commands).
2. Set up Management Central (central system, endpoint systems, monitors, commands).  
To connect to Management Central from a wireless device, your Web application server must be set up on the endpoint system you have configured as your Management Central central system.

Because iSeries Navigator for Wireless is a companion to Management Central, iSeries Navigator for Wireless uses endpoint systems and monitors that are defined in Management Central to report status and to monitor metric information.

To configure Management Central for use by iSeries Navigator for Wireless, follow these steps:

1. Add systems to your network so that you can monitor status. To add endpoint systems, follow the steps in Adding endpoint systems to your Management Central network.  
Only systems defined as endpoint systems in Management Central show up in iSeries Navigator for Wireless. This includes systems with Integrated xSeries Servers. If you want to manage your integrated servers on a particular system, make sure that the system has been added as an endpoint system.  
When all of your endpoint systems have been added, collect inventory so information about each endpoint system is available for you to view from iSeries Navigator.
2. Create monitors with meaningful names, and keep the names short to prevent them from scrolling on the wireless devices. To create monitors, follow the steps in Creating a new monitor.  
When you give a monitor a meaningful name, you can easily recognize the monitor on a wireless device, and you will know what it is monitoring for, if it has been triggered, and the severity of a problem you are looking at.  
Monitors in Management Central enable you to set up thresholds, and to perform automation if those thresholds occur. The goal of iSeries Navigator for Wireless is to keep you informed of the status of these monitors wherever you are. With iSeries Navigator for Wireless, you can also view metrics and values on a specific system.
3. Start and stop monitors.  
You have the ability to start and stop monitors from iSeries Navigator for Wireless, but if you start them in Management Central, your monitors are active and looking for problems, and data will have already been collected when you access your monitors from a wireless device. Many times after a problem occurs, you will need to monitor something in more detail. If you predefine these troubleshooting monitors in Management Central, you can start them later using iSeries Navigator for Wireless.
4. Create command definitions.  
You can run commands from iSeries Navigator for Wireless. However, entering a long command into an Internet-ready telephone can be quite cumbersome. That is why your command definitions are also displayed so you can run the commands in the definitions directly from iSeries Navigator for Wireless. Create as many command definitions as you would like, but keep the names short so you can see them on a small display.  
To create command definitions, follow these steps:
  - a. Expand **Management Central** → **Definitions**.
  - b. Right-click **Command** and select **New Definition**. The New Command Definition window opens.

## Related concepts

Management Central

“Configuring a Web application server” on page 7

You can choose one among several Web application servers to run the iSeries Navigator for Wireless servlet; for example, an Apache Software Foundation (ASF) Jakarta Tomcat servlet engine or a WebSphere Application Server.

## Related tasks

Installing iSeries Navigator

Working with monitors

Creating command definitions

## Selecting a language

The iSeries Navigator for Wireless default language is English, but you can configure your device to display your language of choice.

After you install the optional language support fix (PTF), the language can be set on the device being used, can be set for the browser used on your PC, or can be specified on the URL. If you specify the language on the URL, follow this URL pattern:

```
host . domain : port/servlet/McYpvPervasive?lng= lang
```

*host*: The host name of the central system

*domain*: The domain on which the central system is located

*port*: The port that the instance of the Web server is listening to

*lang*: The language to be viewed

## Available languages

Language	Language identifier	Character set
Belgium Dutch	nl_BE	iso-8859-1
Chinese Simplified	zh	gb2312
Chinese Traditional	zh_TW	big5
Croatian	hr	iso-8859-2
Czech	cs	iso-8859-2
Dutch	nl	iso-8859-1
English	en	iso-8859-1
French	fr	iso-8859-1
French Belgium	fr_BE	iso-8859-1
French Canadian	fr_CA	iso-8859-1
French Swiss	fr_CH	iso-8859-1
German	de	iso-8859-1
German Swiss	de_CH	iso-8859-1
Greek	el	iso-8859-7
Hungarian	hu	iso-8859-2
Italian	it	iso-8859-1
Italian Swiss	it_CH	iso-8859-1
Japanese	ja	shift-jis
Korean	ko	euc-kr
Polish	pl	iso-8859-2

Language	Language identifier	Character set
Portuguese	pt	iso-8859-1
Portuguese Brazilian	pt_BR	iso-8859-1
Romanian	ro	iso-8859-2
Russian	ru	windows-1251
Slovakian	sk	iso-8859-2
Slovenian	sl	iso-8859-2
Spanish	es	iso-8859-1

## Setting the default language and character set for Netscape

To set the language, select **Edit** → **Preferences**, and then click **Languages** (click **Add** to see a list of language possibilities). Only the first one in the list is used.

To set the character set, select **View** → **Character Set**.

## Setting the default language and character set for Internet Explorer

To set the language, select **Tools** → **Internet Options**, and then click **Languages** button (click **Add** to see a list of language possibilities). Only the first one in the list is used.

To set the character set, select **View** → **Encoding**. (You might need to select **More** to see the entire list.)

## Connecting to your central system

To begin using iSeries Navigator for Wireless, you must first establish your connection to the central system. Enter the URL of your central system into your wireless device.

When pointing your device to the URL on your central system, use the following format. Carefully specify the end of the URL (/servlet/McYpvPervasive) exactly as shown:

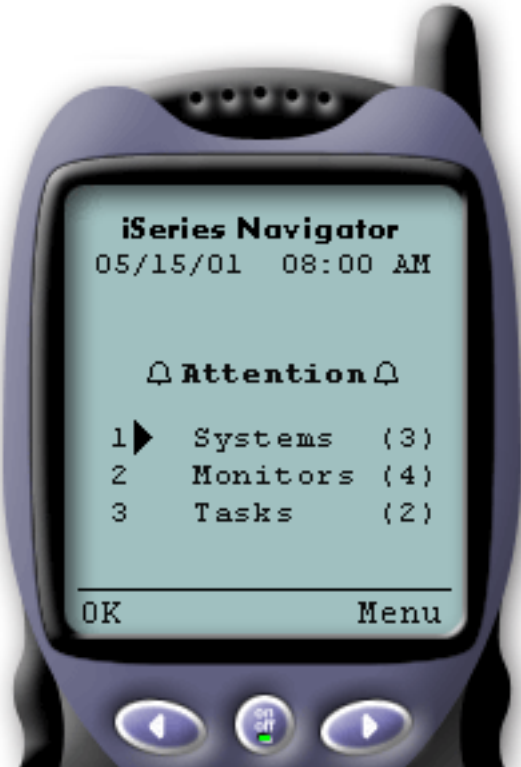
*host.domain:port*/servlet/McYpvPervasive

*host*: The host name of the central system.

*domain*: The domain where the central system is located.

*port*: The port that the instance of the Web server is listening to.

## Internet-ready telephone layout



If you have successfully connected to your central system, the first thing you see when using iSeries Navigator for Wireless on an Internet-ready telephone is the summary. It shows you how current the information is, how many systems are in your list, how many monitors you have running, and how many tasks you have run in the last 24 hours. It also tells you if any item needs attention by showing an overall status of **OK** or **Attention** at the top of your display.

If **OK** is shown, all of your systems, monitors, and tasks are running smoothly.

If **Attention** is shown, a system, monitor, or task needs more attention. If a system is unavailable or if a monitor or task has failed, an exclamation point is shown next to the item that needs attention. If a monitor has been triggered, a bell is shown next to Monitors.

**Note:** For telephones that do not support graphics, an asterisk is shown instead of a bell.

## PDA browser layout

The personal digital assistant (PDA) browser layout is similar to the Internet-ready telephone. When you first use iSeries Navigator for Wireless, a summary is displayed, as well as the number of systems that are unavailable, the number of monitors that failed or were triggered, and the number of tasks that have failed. Because some compatible browsers do not support graphics, an asterisk (\*) is used instead of a bell when the device displays a triggered status.

## Traditional browser layout

The traditional browser layout is exactly the same as the PDA browser layout. However, because of the increased display size, it looks more basic. To make better use of desktop space, you can put a small browser window in the corner of your PC to take advantage of Management Central functions while working with other applications. If you are using a traditional Internet browser on your PC, you can select **Show all** from the main menu to display all information on a full browser window.

After you have successfully connected to your system, you might want to customize your connection and begin managing iSeries Navigator for Wireless.

### Related concepts

“Configuring your wireless environment” on page 7

Before using iSeries Navigator for Wireless, ensure that you have properly configured your Web application server and firewall.

“Customizing your connection” on page 17

You can use several methods to customize connections to iSeries Navigator for Wireless. You can control whether users can run commands and use monitors, and can specify how long tasks display information.

“Managing your systems with iSeries Navigator for Wireless” on page 19

You can manage your systems from a wireless device. Use iSeries Navigator for Wireless to interact with monitors in Management Central and in Integrated xSeries Servers. You can run commands, work with tasks and systems, and control user access.

## Customizing your connection

You can use several methods to customize connections to iSeries Navigator for Wireless. You can control whether users can run commands and use monitors, and can specify how long tasks display information.

Limit user access to Management Central by manually removing functions from iSeries Navigator for Wireless and by configuring Application Administration, and customize how long summary information stays on your display before it is cleared.

### Limiting user access

You can limit a user’s ability to work with Management Central from a wireless device. Follow these steps to enable users to view monitors and system status but not take any action from iSeries Navigator for Wireless.

The following functions can be removed:

- Running commands on the System i™ platform and Integrated xSeries Servers
- Starting or shutting down Integrated xSeries Servers
- Performing any action on a job (hold, release, end)
- Performing any action on a message (reply, delete)
- Starting, stopping, or restarting any monitor

To limit access, you must create the following options file:

1. In the integrated file system, create a file in the following directory:

**Directory:** QIBM/UserData/OS400/MGTC/Pervasive/  
**File:** QYPV\_OPTIONS.OPT

2. Enter one of the following text strings into your file:

- readonly=yes

If you specify readonly=yes in QYPV\_OPTIONS.OPT, users cannot perform any actions.

- readonly=no

If you specify readonly=no in QYPV\_OPTIONS.OPT, all users can perform the following actions:

- Running commands on the System i platform and Integrated xSeries Servers
- Starting or shutting down Integrated xSeries Servers
- Performing any action on a job (hold, release, end)
- Performing any action on a message (reply, delete)
- Starting, stopping, or restarting any monitor

You can also create a user options file named QYPV *xxxxxx*.OPT, where *xxxxxx* is the user ID. This user file overrides QYPV\_OPTIONS.OPT, which allows you to grant all users readonly=yes authority by default while granting specific users all access.

### Setting task details retrieval length

Detailed information about tasks is available in the summary window. These details are set to expire in 24 hours. Tasks can still run, but no new data about a task is retrieved from the central system and displayed on your wireless device before that time.

To change the expiration time, edit the following option file:

**Directory:** QIBM/UserData/OS400/MGTC/Pervasive/

**File:** QYPV\_OPTIONS.OPT

| Add the following new entry to the option file (where *nnnn*, any whole number between 1-9999, is the  
| number of hours):

```
HOURS_OLD= nnnn
```

This is not case-sensitive and can be either on a separate line or separated by a space from the READONLY entry.

For example, your newly edited file might read:

```
READONLY=no
```

```
HOURS_OLD=48
```

This gives you full access and shows tasks that have run in the last 48 hours.

## | **Showing shared monitors**

| In the user options file, the SHARE\_MON property specifies whether shared monitors display on the  
| wireless device.

| • SHARE\_MON=yes

| If you specify yes for this value, shared monitors appear on the display.

| • SHARE\_MON=no

| If you specify no for this value, shared monitors do not appear on the display. This is the default  
| value.

## **Configuring Application Administration**

You can use Application Administration to control user access to limit or grant access to monitors and commands in Management Central. Make sure that the functions selected in Application Administration are configured to match your preferences for connecting to Management Central with a wireless device.

Examples:

- If users are not authorized to Management Central but have valid user IDs on the system, when they try to connect to Management Central with a wireless device, an authorization error message is displayed.
- If users are authorized to Management Central but do not have Application Administration authority to access monitors, no monitor information is displayed on the wireless device.
- If users are not authorized to commands in Management Central, they cannot run a command definition nor run a command on an Integrated xSeries Server.

### **Related concepts**

“Connecting to your central system” on page 15

To begin using iSeries Navigator for Wireless, you must first establish your connection to the central system. Enter the URL of your central system into your wireless device.

“Running commands across multiple systems” on page 22

You can use iSeries Navigator for Wireless to run any i5/OS command across multiple systems. Select



**Run Command** from the summary page, which then asks you to select the system or system group on which to run the command. Or, select a system from your system list and run a command on it.

#### Related information

Managing Application Administration

---

## Managing your systems with iSeries Navigator for Wireless

You can manage your systems from a wireless device. Use iSeries Navigator for Wireless to interact with monitors in Management Central and in Integrated xSeries Servers. You can run commands, work with tasks and systems, and control user access.



Using iSeries Navigator for Wireless is quite simple. After your central system is set up, you can connect to it by pointing your Internet-ready telephone, personal digital assistant (PDA), or traditional Web browser to its URL. The device connects to your central system, asks you to log on, and shows you a summary of the status of all your systems, monitors, and tasks.

iSeries Navigator for Wireless is designed with the assumption that as long as you can find out that your systems, monitors, and tasks are running smoothly, no other information is required. You always have the option to view more information, and you can even check the detailed monitor metrics on systems that are running smoothly. But generally, if everything is OK, it is assumed that the summary is all you need to look at.

When you manage your systems with iSeries Navigator for Wireless, you can feel confident when your wireless device tells you that everything in your network of systems is OK, because you define what OK means in your environment. If you set up the systems and monitors you are interested in, and you tell the monitor to be triggered at a certain threshold, then all you have to do is to view the iSeries Navigator for Wireless summary page and you can easily determine whether everything is running smoothly or whether something needs attention.

#### Related concepts

“Connecting to your central system” on page 15

To begin using iSeries Navigator for Wireless, you must first establish your connection to the central system. Enter the URL of your central system into your wireless device.

“Setting up iSeries Navigator for Wireless” on page 3

To use iSeries Navigator for Wireless, you must meet certain software and hardware requirements. You must decide which kind of wireless device to use and what kind of applications you need to install and configure.

## Working with systems

You can use iSeries Navigator for Wireless to view system properties and customize which systems are displayed.

To view your systems, select the **Systems** link. Any systems that are not available are listed in a bold font and marked by an explanation point. By default, the Systems link displays all of the systems to which you are authorized.

- | Each system is also a link. Select a system to view the system properties and all the active Integrated
- | xSeries Servers on that system. If no Integrated xSeries Servers are active on that system, only the system
- | properties link appears. To see the properties of an active Integrated xSeries Server, click **Integrated**
- | **Servers** and *your server*.

You can customize your system list. You can add and remove systems from your system list, create a default system list, or create system lists for specific users.

### Adding and removing systems from your list

1. Go to the menu, and select **Add System** or **Remove System**.
2. Select the system to add or remove.

Because adding systems to your list can be cumbersome, administrators can create a default system list that becomes the default list for any user. The user can then customize that list to their own liking. This feature can be useful if a group of users is interested in data stored on the same five to ten systems.

### Creating a default system list

In the following directory, create the following file:

**Directory:** QIBM/UserData/OS400/MGTC/Pervasive/  
**File:** QYPV\_SYSTEMS.txt

After you have created this file, add all the systems that you want to include in your default list on one line, separated by a comma. You can also create a system list for a specific user by creating the file QYPV *xxxxx*.txt, where *xxxxx* is the user profile name.

#### Related concepts

“Working with Integrated xSeries Servers”

With iSeries Navigator for Wireless, you can manage your Integrated xSeries Servers from your wireless device.

## Working with Integrated xSeries Servers

With iSeries Navigator for Wireless, you can manage your Integrated xSeries Servers from your wireless device.

If your System i platform has Integrated xSeries Servers, you can manage the servers with iSeries Navigator by adding the platform to your system list.

**Note:** To manage Integrated xSeries Servers from the System i platform, the user ID and password must be the same on both the Integrated xSeries Servers and the System i platform.

When you select a system, you can either link to the system properties, or view the Integrated xSeries Servers. The link to the Integrated xSeries Servers uses the same status as other iSeries Navigator for Wireless functions. It tells you whether any Integrated xSeries Server needs attention, or whether all of them are OK.

You can run Windows commands on a single or on all Integrated xSeries Servers, and see server properties.

1. To run Windows commands on the servers, select **Run IS command** from the menu and click **Go**.
2. To see the properties of a server, select the server on the Integrated Server page.

The Windows commands are started as Management Central tasks, so you can keep track of the commands you run. Figure 2 shows Integrated xSeries Server support in iSeries Navigator for Wireless running in a traditional browser format.

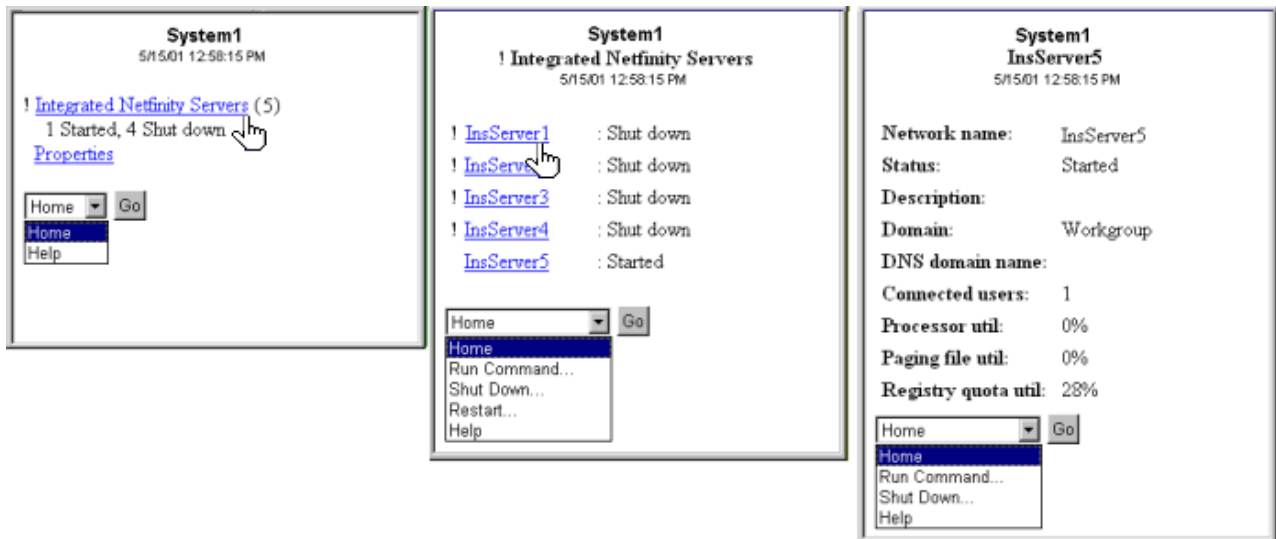


Figure 2. Clicking your Integrated xSeries Servers expands and displays the details of each system.

### Related concepts

“Working with systems” on page 20

You can use iSeries Navigator for Wireless to view system properties and customize which systems are displayed.

Windows environment on iSeries

## Working with tasks

With iSeries Navigator for Wireless, you can view summary details for all your Management Central tasks.

Click **Tasks** from the main summary window to view summary details for the following Management Central tasks:

- Commands
- Packages and Products
- Inventory
- Fixes
- Collection Services
- Users and Groups
- System Values

For each type of task, the task summary displays the total number of tasks, the number of tasks that have failed, and the number of tasks that have completed. Only the tasks run in the last 24 hours display in

your list. If you have not run a command in the last 24 hours, no information about commands is displayed in the task summary window. Task information is set to expire in 24 hours, but you can change this expiration by customizing your connection.

Click a specific task such as **Commands** to view the name or names of command tasks that are starting, or that have completed or failed. Click the name of a specific task to view the endpoint system that the task was or is running on.

#### **Related concepts**

“Customizing your connection” on page 17

You can use several methods to customize connections to iSeries Navigator for Wireless. You can control whether users can run commands and use monitors, and can specify how long tasks display information.

## **Running commands across multiple systems**

You can use iSeries Navigator for Wireless to run any i5/OS command across multiple systems. Select **Run Command** from the summary page, which then asks you to select the system or system group on which to run the command. Or, select a system from your system list and run a command on it.

When you select **Run Command**, you have the option of selecting an existing command definition (defined by you in Management Central), or you can enter any command. Because entering text on a telephone is cumbersome, using command definitions is extremely useful.

When commands are started, they are started as Management Central tasks. That way you can keep a record of them, view the status across all systems, and view the overall status by looking at the summary page. The summary page displays all the tasks you have run with Management Central (including iSeries Navigator for Wireless) over the last 24 hours on your wireless device. After 24 hours, you need to use iSeries Navigator on your PC to view a Command task. If you want to display task details on your wireless device for longer than 24 hours, you can customize your connection.

Figure 3 on page 23 shows a sample of iSeries Navigator for Wireless command support in a personal digital assistant (PDA) format. If the command completes successfully, a plus sign (+) is displayed. On an Internet telephone that supports graphics, a successful command is represented by a smiley face icon.

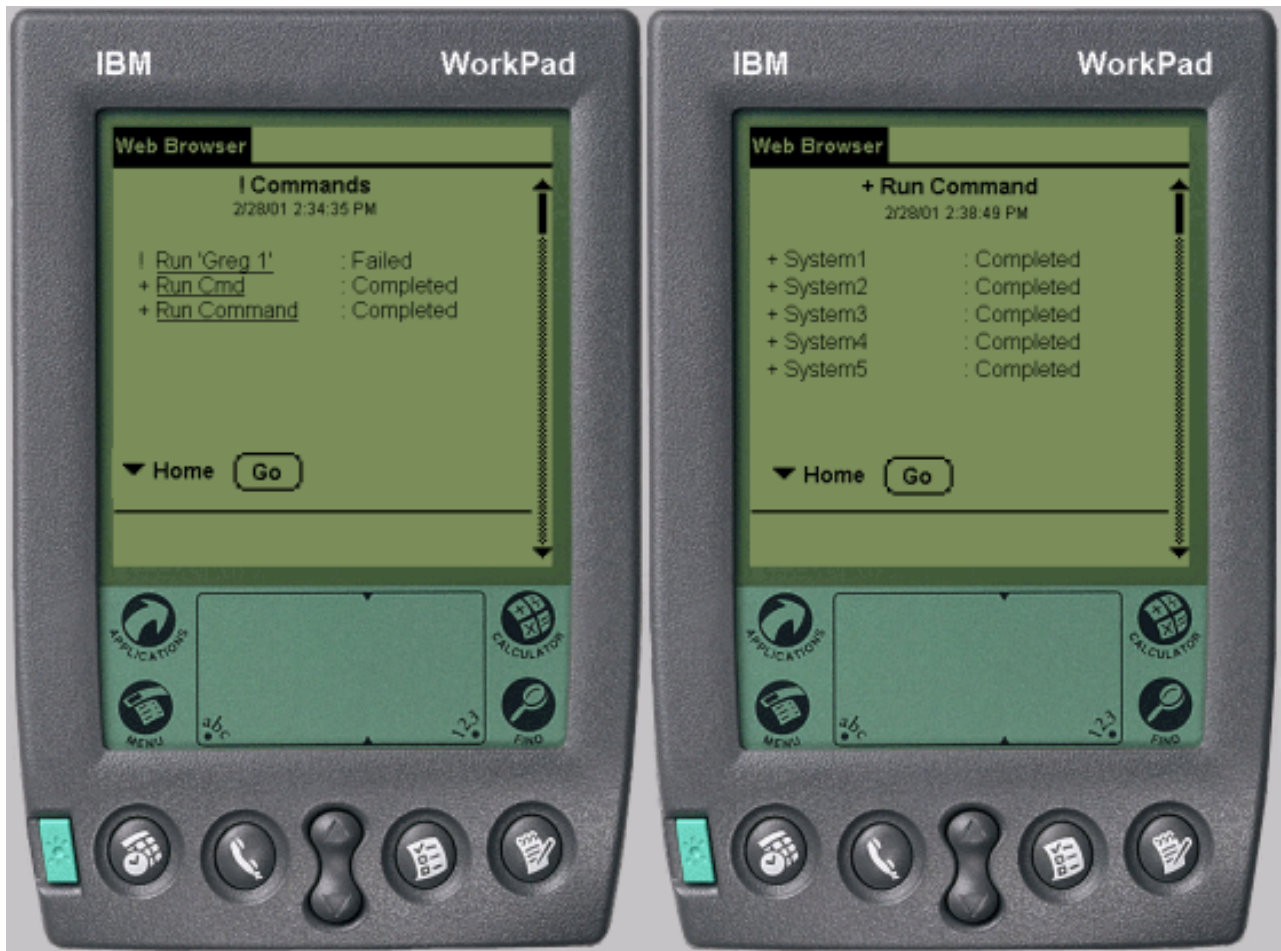


Figure 3. Viewing the status of your commands

**Related concepts**

“Customizing your connection” on page 17

You can use several methods to customize connections to iSeries Navigator for Wireless. You can control whether users can run commands and use monitors, and can specify how long tasks display information.

**Related reference**

Creating command definitions

**Viewing and interacting with monitors**

If you have preconfigured monitors to run in Management Central, you can view and interact with system monitors, message monitors, job monitors, file monitors, and B2B activity monitors using iSeries Navigator for Wireless.

In the following figure, each Internet-ready telephone is displaying detailed metric information for a system.



Figure 4. Viewing monitor metrics on a wireless device

## System monitors

You can work with system monitors to view the metrics and current values being monitored, as well as the top 20 items (jobs, disk units, and so forth) that make up the metric value. You can also work with jobs listed in the monitor (display details, hold, release, and end).

Select the System monitors link to display a list of all your active system monitors (any monitors that are stopped are not shown). If any monitors failed or are triggered, an exclamation point or bell appears next to the monitor.

When you select a monitor, it shows all systems where that monitor is running, and if you select a system, it shows you all metrics in that monitor and the values for the selected system.

When you see and select the metric you are interested in, it shows you the top 20 items for that metric value. For example, if you select **CPU average**, it shows you the top 20 jobs that use the most CPU. Or, if you select **Disk utilization**, it shows you the top 20 disk units that have the highest disk utilization.

- | **Note:** In Management Central, multiple users can share system monitors. When using iSeries Navigator
- | for Wireless, you can view all shared monitors, not just the system monitors that you have created.

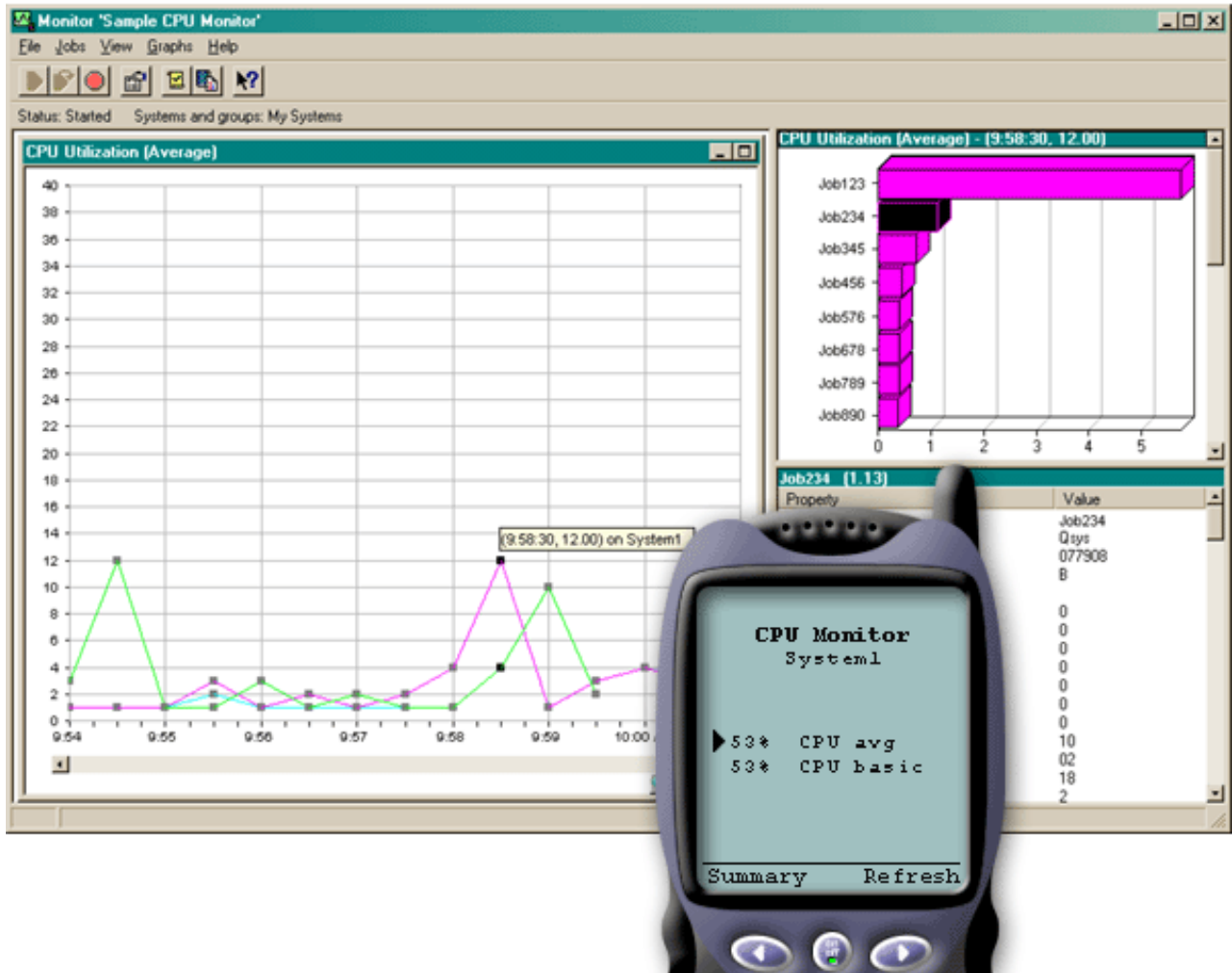


Figure 5. Viewing system monitor metrics on a wireless device

From the list of jobs, you can also select a job to see details, and you can work with that job by selecting **Hold**, **Release**, or **End**.

You can refresh each page to refresh the list at any time. You can also select **Home** to display an updated summary page.

Because display size is minimal, the system monitor metric names are shortened. The following table describes what iSeries Navigator for Wireless displays for each system monitor metric name.

### Monitor metric names in iSeries Navigator for Wireless

System monitor metric names	iSeries Navigator for Wireless name	Unit of measure
CPU Utilization (Average)	CPU avg	% busy
CPU Utilization (Interactive Jobs)	CPU int jobs	% busy
CPU Utilization (Interactive Feature)	CPU int feature	%
CPU Utilization Basic (Average)	CPU basic	% busy
CPU Utilization (Secondary Workloads)	CPU 2nd workload	%
CPU Utilization (Database Capability)	CPU DB	%

System monitor metric names	iSeries Navigator for Wireless name	Unit of measure
Interactive Response Time (Average)	Int resp avg	Seconds
Interactive Response Time (Maximum)	Int resp max	Seconds
Transaction Rate (Average)	Trans rate avg	Transactions per second
Transaction Rate (Interactive)	Trans rate int	Transactions per second
Batch Logical Database I/O	Batch DB IO	IO/second
Disk Arm Utilization (Average)	Disk util avg	% busy
Disk Arm Utilization (Maximum)	Disk util max	% busy
Disk Storage (Average)	Disk stg avg	% full
Disk Storage (Maximum)	Disk stg max	% full
Disk IOP Utilization (Average)	Disk IOP avg	% busy
Disk IOP Utilization (Maximum)	Disk IOP max	% busy
Communications IOP Utilization (Average)	Comm IOP avg	% busy
Communications IOP Utilization (Maximum)	Comm IOP max	% busy
Communications Line Utilization (Average)	Comm line avg	% busy
Communications Line Utilization (Maximum)	Comm line max	% busy
LAN Utilization (Average)	LAN avg	% busy
LAN Utilization (Maximum)	LAN max	% busy
Machine Pool Faults	Mch pool fault	Faults per second
User Pool Faults (Average)	Usr pool fault avg	Faults per second
User Pool Faults (Maximum)	Usr pool fault max	Faults per second

### Related concepts

“Job monitors”

You can work with job monitors to view all jobs across systems that match monitor criteria. You can see metrics and current values being monitored, and you can work with the jobs listed in the monitor (display details, hold, release, and end).

“Message monitors” on page 27

You can work with message monitors to view all messages across systems that match monitor criteria. And you can work with the messages listed in the monitor (display details, reply, and delete).

### Job monitors

You can work with job monitors to view all jobs across systems that match monitor criteria. You can see metrics and current values being monitored, and you can work with the jobs listed in the monitor (display details, hold, release, and end).

Job monitors work the same way as the system monitors do in iSeries Navigator for Wireless. After you create a job monitor in Management Central, you can start, stop, and view it in iSeries Navigator for Wireless. You can also view the overall status of the job monitor, view the list of systems it is running on, view the jobs that match the monitor criteria for each system, and work with a job using **Hold**, **Release**, or **End**.

- | **Note:** In Management Central, multiple users can share job monitors. When using iSeries Navigator for
- | Wireless, you can view all shared monitors, not just the job monitors that you have created.



### Related concepts

“System monitors” on page 24

You can work with system monitors to view the metrics and current values being monitored, as well as the top 20 items (jobs, disk units, and so forth) that make up the metric value. You can also work with jobs listed in the monitor (display details, hold, release, and end).

## Message monitors

You can work with message monitors to view all messages across systems that match monitor criteria. And you can work with the messages listed in the monitor (display details, reply, and delete).

Message monitors work the same way as system monitors do in iSeries Navigator for Wireless. After you create a message monitor in Management Central, it shows up in iSeries Navigator for Wireless, and you can view the overall status of the message monitor, view the list of systems it is running on, view the messages that match the monitor criteria for each system, and work with a message using **Details**, **Reply**, or **Delete**.

| **Note:** In Management Central, multiple users can share message monitors. When using iSeries Navigator  
| for Wireless, you can view all shared monitors, not just the message monitors that you have  
| created.

### Related concepts

“System monitors” on page 24

You can work with system monitors to view the metrics and current values being monitored, as well as the top 20 items (jobs, disk units, and so forth) that make up the metric value. You can also work with jobs listed in the monitor (display details, hold, release, and end).

## File monitors

You can use a file monitor to notify you whenever a selected file has changed. Or, you can monitor for a specified size or for specified text strings.

After you have created a file monitor in Management Central, you can start, stop, and display details about the file monitor in iSeries Navigator for Wireless. The file monitor summary window displays the system on which the monitor is running, the path to the current file you are viewing, the size of the file, the last date and time the file was modified, and the changed text that triggered the file.

| **Note:** In Management Central, multiple users can share file monitors. When using iSeries Navigator for  
| Wireless, you can view all shared monitors, not just the file monitors that you have created.

## B2B activity monitors

If you have an application like Connect for System i configured, you can use a business-to-business (B2B) activity monitor to monitor your B2B transactions. From a wireless device, you can view metrics and current B2B transaction values being monitored.

To use a business-to-business activity monitor, you must configure a consolidated system to log B2B transactions collected from an application like Connect for System i.

After you set up a B2B activity monitor in Management Central, you can start, stop, and view details about the activity monitor in iSeries Navigator for Wireless. View summary status on active transaction duration and active transaction count triggers collected from the B2B activity monitor.


**Note:** The B2B activity monitor data you want to view with iSeries Navigator for Wireless must be on a system with OS/400 V5R2, or a later release. Any B2B activity monitor data stored on an earlier system does not work with iSeries Navigator for Wireless.

---





## Related information for iSeries Navigator for Wireless

Listed below are the System i manuals and IBM Redbooks™ (in PDF format), Web sites, and information center topics that relate to the iSeries Navigator for Wireless topic. You can view or print any of the PDFs.

### Manuals

- AS/400 Internet Security Scenarios: A Practical Approach   
Learn how to use the integrated network security functions. Today, network administrators face the challenge of implementing layered security architectures to protect their networks from the increasing sophistication of hackers. To provide all of the security needed within a manageable budget is a complex task. This redbook explores all the network security features available on the system, such as IP filters, Network Address Translation (NAT), virtual private network (VPN), HTTP proxy server, Secure Sockets Layer (SSL), Domain Name System (DNS), mail relay, auditing, and logging. It describes their use through practical examples.  
Although the system is not intended to be a firewall, the correct implementation of its rich set of network security services, combined with routers or other Internet security appliances, might eliminate the need for a separate firewall product. In some cases, it can provide an affordable solution for smaller sites. The network security functions can be used to enhance the security of environments where routers with firewall security features are also used. This redbook is designed to meet the needs of network administrators, consultants, and specialists who plan to design, implement, and configure networks connected to the Internet and are evaluating alternatives to traditional firewall products.

### Web sites


- For more information about iSeries Navigator for Wireless, see iSeries Navigator for Wireless  .  
The iSeries Navigator for Wireless home page gives you more information about this solution for pervasive computing. This page contains information for supported releases.
- For more information about iSeries Navigator, see iSeries Navigator  .  
In addition to the Management Central functions, iSeries Navigator provides a wide variety of tools to simplify System i management. The iSeries Navigator home page includes functional release overviews, news about technical conferences, and other topics.
- For more information about Web application servers, see the following Web sites:
  - ASF Jakarta Tomcat   
The Apache Software Foundation Jakarta project home page provides detailed information about the Tomcat servlet engine.
  - WebSphere Application Server   
The latest information about the WebSphere Application Server for i5/OS is located in the WebSphere Application Server for i5/OS product Web site.

### Saving PDF files

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

1. Right-click the PDF in your browser (right-click the link above).
2. Click the option that saves the PDF locally.
3. Navigate to the directory in which you want to save the PDF.
4. Click **Save**.

## Downloading Adobe Reader

- | You need Adobe Reader installed on your system to view or print these PDFs. You can download a free
- | copy from the Adobe Web site ([www.adobe.com/products/acrobat/readstep.html](http://www.adobe.com/products/acrobat/readstep.html))  .



---

## Appendix. Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation  
Licensing  
2-31 Roppongi 3-chome, Minato-ku  
Tokyo 106-0032, Japan

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:** INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation

Software Interoperability Coordinator, Department YBWA  
3605 Highway 52 N  
Rochester, MN 55901  
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

- | The licensed program described in this information and all licensed material available for it are provided
- | by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement,
- | IBM License Agreement for Machine Code, or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. \_enter the year or years\_. All rights reserved.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

---

## Programming Interface Information

This iSeries Navigator for Wireless publication documents intended Programming Interfaces that allow the customer to write programs to obtain the services of IBM i5/OS.

---

## Trademarks

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

- | AS/400
- | i5/OS
- | IBM
- | IBM (logo)
- | iSeries
- | Redbooks
- | OS/400
- | System i
- | WebSphere
- | xSeries

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.

---

## Terms and conditions

Permissions for the use of these publications is granted subject to the following terms and conditions.

**Personal Use:** You may reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You may not distribute, display or make derivative works of these publications, or any portion thereof, without the express consent of IBM.

**Commercial Use:** You may reproduce, distribute and display these publications solely within your enterprise provided that all proprietary notices are preserved. You may not make derivative works of these publications, or reproduce, distribute or display these publications or any portion thereof outside your enterprise, without the express consent of IBM.

Except as expressly granted in this permission, no other permissions, licenses or rights are granted, either express or implied, to the publications or any information, data, software or other intellectual property contained therein.

IBM reserves the right to withdraw the permissions granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or, as determined by IBM, the above instructions are not being properly followed.

You may not download, export or re-export this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

IBM MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.









Printed in USA