

# Novell ZENworks® for Handhelds

5.1

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July 29, 2003

INSTALLATION AND ADMINISTRATION  
GUIDE



Novell®

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Novell, Inc.  
1800 South Novell Place  
Provo, UT 84606  
U.S.A.

[www.novell.com](http://www.novell.com)

ZENworks for Handhelds 5.1 Installation and Administration Guide

[July 29, 2003](#)

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# Contents

<b>About This Guide</b>	<b>9</b>
<b>1 What Is Novell ZENworks for Handhelds?</b>	<b>11</b>
Supported Devices . . . . .	11
Features and Benefits . . . . .	12
Connections . . . . .	12
Using Policies to Manage Handheld Devices . . . . .	12
Distributing Software and Files . . . . .	13
Scheduling and Monitoring Distributions . . . . .	13
Collecting Software and Hardware Inventory . . . . .	14
Understanding the ZENworks for Handhelds Components . . . . .	15
ConsoleOne . . . . .	15
ZENworks for Handhelds Server . . . . .	15
Proxy Service . . . . .	16
Handheld Client . . . . .	16
What's New in This Release . . . . .	16
Support for BlackBerry Devices Running RIM OS . . . . .	16
Management of Palm OS Devices Via TCP/IP . . . . .	17
Enhanced Password Security for Palm OS Devices . . . . .	17
Self-Destruct Feature for Palm OS and Windows CE Devices That Are Lost or Stolen . . . . .	17
<b>2 Installing ZENworks for Handhelds</b>	<b>19</b>
Planning the Installation . . . . .	19
eDirectory and ConsoleOne Requirements . . . . .	19
ZENworks for Handhelds Server Requirements . . . . .	19
ZENworks for Handhelds Proxy Service Requirements . . . . .	20
Handheld Client Requirements . . . . .	20
Firewall Issues . . . . .	21
Performing Pre-installation Tasks . . . . .	22
Creating the ZENworks for Handhelds Server's Windows User Account . . . . .	22
Creating the Service Object's User Account . . . . .	22
Creating a MAPI Profile (BlackBerry Device Support Only) . . . . .	23
Extending the Schema . . . . .	23
Installing ConsoleOne . . . . .	24
Installing ZENworks for Handhelds . . . . .	25
Installing the ZENworks for Handhelds Server . . . . .	25
Installing the Proxy Service and the Handheld Client . . . . .	27
Installing ConsoleOne Snap-Ins on a Remote ConsoleOne Installation . . . . .	33
Activating ZENworks for Handhelds . . . . .	34
Purchasing a ZENworks for Handhelds License . . . . .	34
Generating a ZENworks for Handhelds Activation Request . . . . .	34
Submitting a ZENworks for Handhelds Activation Request . . . . .	35
Installing a ZENworks for Handhelds Activation Credential . . . . .	35
Uninstalling ZENworks for Handhelds . . . . .	36
<b>3 Setting Up Handheld Import</b>	<b>37</b>

Creating the Handheld Service Package . . . . .	37
Configuring the Handheld Import Policy . . . . .	38
Associating the Handheld Service Package. . . . .	42
<b>4 Using ZENworks for Handhelds Policies</b>	<b>43</b>
Understanding ZENworks for Handhelds Policies. . . . .	43
Creating Policy Packages . . . . .	46
Setting Up Container Package Policies . . . . .	47
Search Policy Overview . . . . .	47
Search Policy . . . . .	48
ZENworks for Handhelds Application Search Policy. . . . .	50
Associating the Container Package . . . . .	52
Setting Up Handheld Package Policies . . . . .	52
BlackBerry Configuration Policy . . . . .	53
BlackBerry Inventory Policy . . . . .	54
BlackBerry Security Policy . . . . .	56
Palm Configuration Policy . . . . .	57
Palm File Retrieval Policy . . . . .	60
Palm Security Policy . . . . .	64
WinCE Configuration Policy . . . . .	67
WinCE File Retrieval Policy . . . . .	71
WinCE Security Policy . . . . .	74
Associating the Handheld Package . . . . .	78
Scheduling Packages and Policies . . . . .	78
Setting Up Handheld Service Package Policies. . . . .	79
Viewing Policy Status Information. . . . .	79
Viewing Status for a Specific Policy . . . . .	80
Viewing Policy Status for a Specific Handheld Device. . . . .	81
<b>5 Using Queries and Groups</b>	<b>83</b>
Using Queries . . . . .	83
Creating a Query. . . . .	83
Using Logical Operators . . . . .	85
Using Groups . . . . .	86
Creating Groups . . . . .	86
Viewing the Properties of a Group. . . . .	89
Changing Group Membership . . . . .	91
Changing the Update Schedule of Query-Based Groups . . . . .	92
Deleting a Group. . . . .	92
Viewing Handheld Application Objects Assigned to a Group . . . . .	93
Changing a Group's Type . . . . .	94
<b>6 Distributing Software to Handheld Devices</b>	<b>95</b>
Understanding Handheld Application Objects. . . . .	95
Specifying Source Files . . . . .	95
Understanding Automatic Application Updates . . . . .	96
Distributing Applications to Handheld Devices . . . . .	96
Creating a Handheld Application Object. . . . .	97
Configuring a Handheld Application Object . . . . .	97
Scheduling the Distribution of a Handheld Application Object. . . . .	101
Displaying Handheld Application Object Status . . . . .	102
Modifying a Handheld Application Object . . . . .	103
Modifying the Contents of a Handheld Application Object. . . . .	104
Scanning for Updated Components . . . . .	104
Deleting a Handheld Application Object . . . . .	104
Deleting a Handheld Application Object's Associations . . . . .	104

<b>7</b>	<b>Using Inventory and Reports</b>	<b>105</b>
	Viewing Software Inventory . . . . .	105
	Viewing Software Inventory for a Specific Handheld Device . . . . .	106
	Viewing Software Inventory Across All Palm OS, BlackBerry, or Windows CE Devices in Your System. . . . .	107
	Identifying Files for Windows CE Devices . . . . .	109
	Ignoring or Identifying Windows CE Files and Applications. . . . .	110
	Viewing Hardware Inventory . . . . .	115
	Using Inventory Reports . . . . .	116
	Running Reports . . . . .	116
	Exporting Reports. . . . .	117
	Creating Custom Reports. . . . .	118
	Printing Data from the ZENworks for Handhelds Inventory Viewer. . . . .	119
<b>8</b>	<b>Making System Configuration Changes</b>	<b>121</b>
	Configuring the Proxy Service . . . . .	121
	Configuring Network Settings. . . . .	121
	Configuring Network Usage Restrictions . . . . .	122
	Configuring Dial-Up Communications. . . . .	123
	Enabling or Disabling Message Transfers . . . . .	124
	Connecting to the ZENworks for Handhelds Server . . . . .	125
	Converting to Microsoft SQL Server . . . . .	125
	Compacting and Repairing the Database . . . . .	127
	Compacting the Server Database. . . . .	127
	Compacting the Proxy Service Database. . . . .	127
	Compacting and Repairing the Database. . . . .	128
	Configuring the IP Conduit . . . . .	128
	Configuring Bandwidth Usage . . . . .	128
	Configuring Client Retries and Power Down (or Suspend) . . . . .	129
	Configuring the ZENworks for Handhelds IP Clients . . . . .	129
	Configuring the ZENworks for Handhelds Palm IP Client. . . . .	130
	Configuring the ZENworks for Handhelds WinCE IP Client. . . . .	130
<b>A</b>	<b>Troubleshooting</b>	<b>133</b>
	Error Logs . . . . .	133
	ConsoleOne Status Pages . . . . .	133
	Frequently Asked Questions . . . . .	134
	Contacting Technical Support . . . . .	137
<b>B</b>	<b>Installing the ZENworks for Handhelds Proxy Service Using a ZENworks for Desktops Silent Install</b>	<b>139</b>
	Creating the Silent Installation Files (setup.iss and proxy.ini) . . . . .	139
	Creating and Distributing the Application Object Using ZfD . . . . .	140
	Creating and Distributing the Application Object Using ZfD 3.x. . . . .	141
	Creating and Distributing the Application Object Using ZfD 4 . . . . .	142
<b>C</b>	<b>Upgrading from ZENworks for Handhelds 5 to ZENworks for Handhelds 5.1</b>	<b>145</b>
	Upgrading the ZENworks for Handhelds Server Software . . . . .	145
	Upgrading the Proxy Service Software . . . . .	146
	Using the <i>ZENworks for Handhelds</i> CD to Upgrade the ZENworks for Handhelds Proxy Service Software . . . . .	146
	Using the Proxy Task Utility to Upgrade the ZENworks for Handhelds Proxy Service Software . . . . .	147
	Upgrading the Windows CE IP Client. . . . .	147
<b>D</b>	<b>Documentation Updates</b>	<b>149</b>
	July 29, 2003 . . . . .	149
	Installing the ZENworks for Handhelds Palm IP Client . . . . .	149





# About This Guide

This *Installation and Administration* guide consists of comprehensive, conceptual information to help you install and use Novell® ZENworks® for Handhelds.

The sections include:

- ♦ Chapter 1, “What Is Novell ZENworks for Handhelds?,” on page 11
- ♦ Chapter 2, “Installing ZENworks for Handhelds,” on page 19
- ♦ Chapter 3, “Setting Up Handheld Import,” on page 37
- ♦ Chapter 4, “Using ZENworks for Handhelds Policies,” on page 43
- ♦ Chapter 5, “Using Queries and Groups,” on page 83
- ♦ Chapter 6, “Distributing Software to Handheld Devices,” on page 95
- ♦ Chapter 7, “Using Inventory and Reports,” on page 105
- ♦ Chapter 8, “Making System Configuration Changes,” on page 121
- ♦ Appendix A, “Troubleshooting,” on page 133
- ♦ Appendix B, “Installing the ZENworks for Handhelds Proxy Service Using a ZENworks for Desktops Silent Install,” on page 139
- ♦ Appendix C, “Upgrading from ZENworks for Handhelds 5 to ZENworks for Handhelds 5.1,” on page 145
- ♦ Appendix D, “Documentation Updates,” on page 149

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# 1

## What Is Novell ZENworks for Handhelds?

Novell® ZENworks® for Handhelds is part of the Novell ZENworks product line, which also includes ZENworks for Desktops and ZENworks for Servers.

ZENworks products provide lifecycle directory-enabled management for all of your network components. For more information on the ZENworks product line, see the [Novell ZENworks product Web site \(http://www.novell.com/products/zenworks\)](http://www.novell.com/products/zenworks).

ZENworks for Handhelds is a directory-enabled systems management package that puts you in control of your mobile workforce and helps you reduce the cost and burden of managing handheld devices.

By leveraging Novell eDirectory™ and ConsoleOne®, ZENworks for Handhelds helps you to automate and streamline software distribution, collect software and hardware inventory, and provide policy-based management of your enterprise BlackBerry\*, Palm\* OS\*, and Windows\* CE handheld devices.

The following sections contain additional information:

- ♦ “Supported Devices” on page 11
- ♦ “Features and Benefits” on page 12
- ♦ “Understanding the ZENworks for Handhelds Components” on page 15
- ♦ “What’s New in This Release” on page 16

## Supported Devices

ZENworks for Handhelds supports handheld devices that run the following:

- ♦ **Palm OS:** ZENworks for Handhelds supports Palm OS 3.x and newer.  
ZENworks for Handhelds supports PDA/hybrid phones that run Palm OS 3.x and newer.  
ZENworks for Handhelds also supports expansion cards in Palm OS devices running Palm OS 4.x and newer. Expansion cards are usually referred to as secure digital (SD) cards or memory sticks.  
Any handheld device that runs Palm OS is referred to in this documentation as a Palm OS device.
- ♦ **Windows CE:** ZENworks for Handhelds supports Windows CE 2.11 and newer.  
ZENworks for Handhelds supports PDA/hybrid phones that run Windows CE 2.11 and newer.  
Any handheld device that runs Windows CE (including a Pocket PC) is referred to in this documentation as a Windows CE device.
- ♦ **RIM OS:** ZENworks for Handhelds supports BlackBerry devices running Research In Motion\* (RIM) OS 2.1 and newer.

ZENworks for Handhelds supports BlackBerry 850/857 devices using the DataTAC\* network and 950/957 devices using the Mobitex\* network.

Any handheld device that runs RIM OS is referred to in this documentation as a BlackBerry device.

## Features and Benefits

The following sections describe the key ZENworks for Handhelds features and their benefits:

- ♦ “Connections” on page 12
- ♦ “Using Policies to Manage Handheld Devices” on page 12
- ♦ “Distributing Software and Files” on page 13
- ♦ “Scheduling and Monitoring Distributions” on page 13
- ♦ “Collecting Software and Hardware Inventory” on page 14

## Connections

ZENworks for Handhelds does not require the mobile user to make special connections to the LAN. Instead, ZENworks for Handhelds uses the user’s normal connection mechanism (synchronization software, such as Palm HotSync\*, Microsoft\* ActiveSync\*, or TCP/IP connections) to transfer data between the ZENworks for Handhelds server and the handheld device. BlackBerry devices use the BlackBerry wireless platform to transfer data between the ZENworks for Handhelds server and the device.

ZENworks for Handhelds is optimized for low bandwidth, unreliable communications using queued messaging, compression, and checkpoint/restart strategies.

## Using Policies to Manage Handheld Devices

In ZENworks for Handhelds, a policy is a set of rules that defines how handheld devices can be configured and controlled, including security options, application availability, file retrieval, and more. Policies are contained within policy packages, where they are also administered and customized.

Using ConsoleOne, you can create, configure, and associate policies to do the following:

- ♦ Ensure that a password is set on BlackBerry, Palm OS, and Windows CE devices  
Because sensitive business information is stored on handheld devices (meeting notes, contact lists, and so forth), your organization might have guidelines that all handheld devices must be password-protected. Using the Security policy, you can ensure that each enterprise device has a password set. If a password is not set on a handheld device, the user will be prompted to set one. You can also specify enhanced password support for Palm OS and Windows CE devices.
- ♦ Specify which applications are allowed or not allowed on Palm OS and which applications are not allowed to be accessed on Windows CE devices

You can specify a list of software programs that are allowed to be installed on Palm OS devices. Using the Palm Configuration policy, you can ensure that each handheld device in your organization has only authorized software programs installed. If a user installs an unauthorized program, the application will be automatically removed according to the policy schedule or when the user synchronizes the device. Using the WinCE Configuration policy,

you can specify which programs you want to include on the Start menu (on a Pocket PC) or on the desktop (on a handheld PC).

- ♦ Associate different applications with the buttons on Palm OS and Windows CE devices

By default, Palm OS and Windows CE devices have specific applications assigned to the buttons on the actual handheld devices. Your organization might have several applications that are used frequently. Using the Configuration policy, you can associate different applications to those buttons, making these applications more accessible and your users more productive.

- ♦ Specify general settings for Palm OS devices, such as Auto Off, sounds, alarms, beam states, and more.

You can ensure that each Palm OS device in your organization has the same general settings. Using the Configuration policy, you can ensure that all enterprise handheld devices are consistent across your organization to help lower help desk costs.

- ♦ Set the automatic power-off and timeout values for the battery and AC adapters for Windows CE devices

You can ensure that each Windows CE device in your organization has the same power settings. Using the Configuration policy, you can make your users more productive by preventing battery power loss to idle Windows CE devices.

- ♦ Specify files to retrieve from Palm OS and Windows CE devices to store on the network

You can ensure that mission-critical information is copied and backed up to the network. Using the File Retrieval policy, the files that you specify will be retrieved from the device and copied to the network location you specify. You can then back up these files during your normal network backup process.

## Distributing Software and Files

Because handheld devices are rarely available at a central location for updating, you need a mechanism to distribute files to them, so that mobile users are kept current with the latest applications, including bug fixes, application updates, and so forth.

ZENworks for Handhelds provides this mechanism by allowing you to distribute applications and install them on remote handheld devices at your convenience.

You can even schedule distributions to recur so that handheld devices are updated with the latest files when any components of an application change.

**NOTE:** ZENworks for Handhelds supports software distribution to BlackBerry devices that are synchronized with a cradle; ZENworks for Handhelds does not support software distribution to BlackBerry devices using wireless synchronization.

## Scheduling and Monitoring Distributions

ZENworks for Handhelds provides a comprehensive mechanism for scheduling distributions to run on handheld devices. The scheduling and management of distributions and clients is performed from ConsoleOne.

ZENworks for Handhelds provides you with the following benefits:

Benefit	Description
Centralized scheduling	<p>Software distributions are scheduled using ConsoleOne. The administrator specifies:</p> <ul style="list-style-type: none"> <li>♦ The files to distribute</li> <li>♦ When distributions should run</li> <li>♦ How frequently distributions should run</li> </ul>
Monitoring	<p>After software distributions are run, result information is sent to the ZENworks for Handhelds server, so you can analyze the state of distributions and devices, including:</p> <ul style="list-style-type: none"> <li>♦ Overall status for all distributions in the system</li> <li>♦ Details about failed distributions</li> <li>♦ Distribution output</li> </ul>
Reporting	<p>ZENworks for Handhelds reporting provides detailed reports about your handheld devices and your entire ZENworks for Handhelds system.</p> <p>For example, you can easily generate a report about all software distributions that have run for a specific handheld device or you can generate a report about all applications installed on your handheld devices.</p>
Queries	<p>The ZENworks for Handhelds querying capabilities allow administrators to automatically create criteria-based device groups so they do not need to create them manually.</p> <p>For example, administrators can use queries to help them automatically populate device groups so that all devices with StrongARM* processors are in one group, all MIPS devices are in another group, and so forth.</p>

## Collecting Software and Hardware Inventory

Managing software and hardware assets is a critical function. By keeping up-to-date inventories, you can use ZENworks for Handhelds to do the following:

- ♦ Ensure licensing compliance

ZENworks for Handhelds identifies the number of handheld devices and the number of copies of an application that are installed on those devices so you can easily verify the license count against your internal records.

- ♦ Plan for software and hardware upgrades

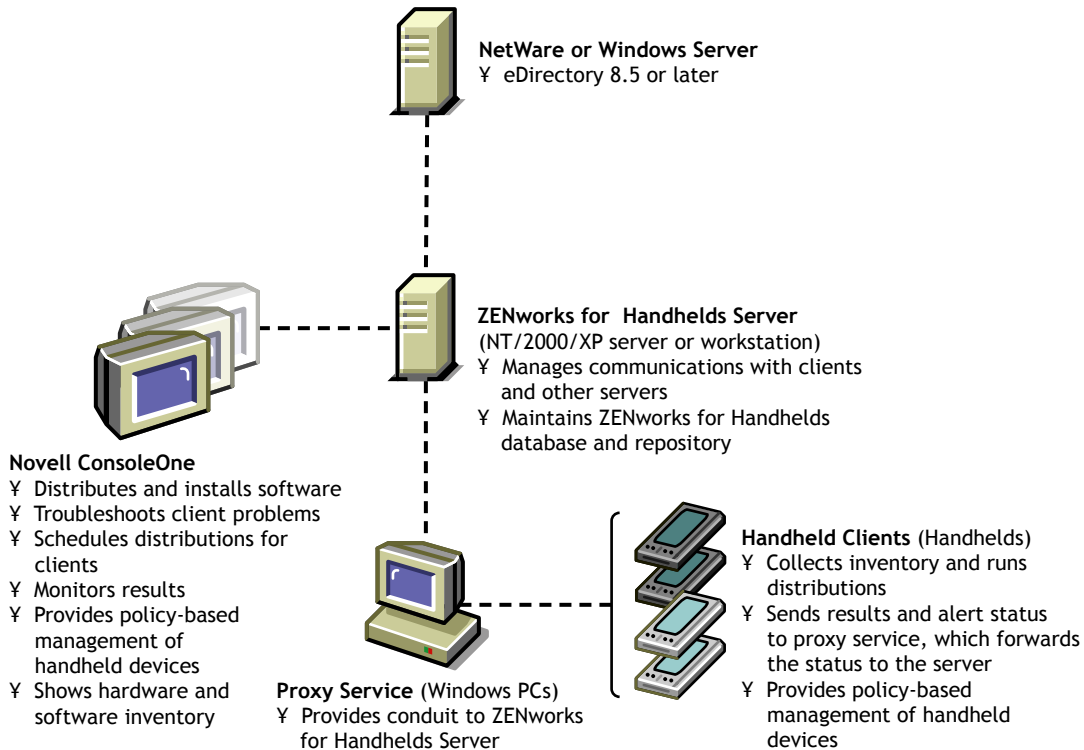
If you decide to update to a specific version of an application or you decide that a certain amount of RAM is required for a new application that has been deployed, ZENworks for Handhelds helps you to quickly identify which handheld devices need to be upgraded and how many components you need to order.

- ♦ Troubleshoot system problems

ZENworks for Handhelds can help pinpoint possible problems on remote handheld devices at the component level.

# Understanding the ZENworks for Handhelds Components

The following illustration depicts the key components of ZENworks for Handhelds:



The following sections provide an overview of the key components of ZENworks for Handhelds:

- ♦ [“ConsoleOne” on page 15](#)
- ♦ [“ZENworks for Handhelds Server” on page 15](#)
- ♦ [“Proxy Service” on page 16](#)
- ♦ [“Handheld Client” on page 16](#)

## ConsoleOne

ConsoleOne is the administration tool for ZENworks for Handhelds. ConsoleOne lets you perform policy-based handheld device management. The Inventory Viewer, a ConsoleOne utility, lets you view all hardware and software inventory (both for a specific device or for all of the devices in your system), build queries, and view reports.

## ZENworks for Handhelds Server

The ZENworks for Handhelds server runs as a service on a Windows NT\*/2000/XP machine (server or workstation). The server is the central point of the ZENworks for Handhelds installation and is responsible for managing communications with all clients and maintaining distribution schedules and distribution results for the ZENworks for Handhelds installation.

## Proxy Service

The proxy service runs on any computer running Windows 95 and above. The proxy service manages application delivery, monitors application distributions sent by the ZENworks for Handhelds server, and sends the results of those distributions back to the server. The proxy service also queues the policies and ensures that they are delivered to handheld devices.

Because handheld devices can synchronize with more than one computer, the proxy service must be installed on any computer that a handheld device synchronizes with.

## Handheld Client

The handheld client is a ZENworks for Handhelds component that can be installed on BlackBerry, Palm OS, and Windows CE devices.

The handheld client installs applications, collects software and hardware inventory for each device, and enforces policies.

## What's New in This Release

ZENworks for Handhelds 5.1 introduces the following new features:

- ◆ [“Support for BlackBerry Devices Running RIM OS” on page 16](#)
- ◆ [“Management of Palm OS Devices Via TCP/IP” on page 17](#)
- ◆ [“Enhanced Password Security for Palm OS Devices” on page 17](#)
- ◆ [“Self-Destruct Feature for Palm OS and Windows CE Devices That Are Lost or Stolen” on page 17](#)

## Support for BlackBerry Devices Running RIM OS

ZENworks for Handhelds 5.1 provides the following features for BlackBerry devices running RIM OS 2.1 and newer:

- ◆ **Groupware/E-Mail Support:** ZENworks for Handhelds 5.1 supports the same groupware/e-mail systems supported by RIM, including Microsoft Exchange, Lotus\* Notes\*, and any POP3- or IMAP-compliant e-mail system (including Novell GroupWise®).
- ◆ **Software Distribution:** ZENworks for Handhelds 5.1 lets you distribute software to BlackBerry devices that are synchronized with a cradle; ZENworks for Handhelds does not support software distribution to BlackBerry devices using wireless synchronization.
- ◆ **Policy Support:** ZENworks for Handhelds 5.1 provides the following policies for BlackBerry devices:
  - ◆ **Configuration Policy:** Lets you specify the owner name and information for the associated BlackBerry devices. For more information, see [“BlackBerry Configuration Policy” on page 53](#).
  - ◆ **Handheld Import Policy:** Allows importing of BlackBerry device objects into eDirectory. For more information, see [Chapter 3, “Setting Up Handheld Import,” on page 37](#).
  - ◆ **Inventory Policy:** Lets you enable collection of hardware and software inventory for associated BlackBerry devices. For more information, see [“BlackBerry Inventory Policy” on page 54](#).



- ♦ **Security Policy:** Lets you enable or disable password protection for the associated BlackBerry devices. For more information, see [“BlackBerry Security Policy” on page 56](#).
- ♦ **BlackBerry Device Lockout:** Lets you disable a BlackBerry device if you suspect that it has been lost or stolen, for example. After the device is locked, no applications can run on the device other than ZENworks for Handhelds, which can be used to unlock the device. For more information, see [“BlackBerry Device Lockout” on page 56](#).

## Management of Palm OS Devices Via TCP/IP

The ZENworks for Handhelds Palm IP client connects directly via TCP/IP to the IP conduit on the proxy service computer, allowing management of Palm OS devices without requiring any third-party synchronization software.

This functionality was provided in earlier releases of ZENworks for Handhelds for Windows CE devices.

## Enhanced Password Security for Palm OS Devices

ZENworks for Handhelds 5 provided enhanced security for Windows CE devices; ZENworks for Handhelds 5.1 provides this same level of security for Palm OS devices.

The Palm Security policy lets you ensure that a password is set on the associated Palm OS devices and also lets you configure enhanced security options, such as the number of days to allow before a password expires, the number of grace logons permitted before the user must change the password, the minimum number of characters to allow for the password, and whether the password must contain a mix of letters and numbers.

For more information, see [“Palm Security Policy” on page 64](#).

## Self-Destruct Feature for Palm OS and Windows CE Devices That Are Lost or Stolen

ZENworks for Handhelds 5.1 enhances the Security policies for both Palm OS and Windows CE devices to let you configure self-destruct settings for Palm OS or Windows CE devices so that data is not accessible from handheld devices that are lost or stolen. When the self-destruct feature is activated, the data on the device is made unusable and the device must be manually reset, which restores the device to its out-of-the-box state.

You can configure the Self-Destruct feature to disable the device after a specified number of incorrect password attempts or if the device is not connected or synchronized for a specified number of days.

For more information, see [“Palm Security Policy” on page 64](#) or [“WinCE Security Policy” on page 74](#).



# 2

## Installing ZENworks for Handhelds

The following sections describe how to plan for Novell® ZENworks® for Handhelds and how to install, activate, and uninstall the ZENworks for Handhelds software:

- ♦ “Planning the Installation” on page 19
- ♦ “Performing Pre-installation Tasks” on page 22
- ♦ “Installing ZENworks for Handhelds” on page 25
- ♦ “Activating ZENworks for Handhelds” on page 34
- ♦ “Uninstalling ZENworks for Handhelds” on page 36

### Planning the Installation

The following sections will help you understand the requirements for each component of a ZENworks for Handhelds installation and give you additional information to consider as you plan for and install ZENworks for Handhelds:

- ♦ “eDirectory and ConsoleOne Requirements” on page 19
- ♦ “ZENworks for Handhelds Server Requirements” on page 19
- ♦ “ZENworks for Handhelds Proxy Service Requirements” on page 20
- ♦ “Handheld Client Requirements” on page 20
- ♦ “Firewall Issues” on page 21

### eDirectory and ConsoleOne Requirements

ZENworks for Handhelds requires Novell eDirectory™ 8.5 or newer and ConsoleOne® 1.3.3 or newer.

For more information about eDirectory, see the [Novell eDirectory Web site \(http://www.novell.com/products/edirectory\)](http://www.novell.com/products/edirectory). For more information about ConsoleOne, see the [Novell ConsoleOne Web site \(http://www.novell.com/products/consoles/consoleone\)](http://www.novell.com/products/consoles/consoleone).

**NOTE:** The *ZENworks for Handhelds* CD contains both the ConsoleOne and eDirectory software. You can install the ConsoleOne software from the ZENworks for Handhelds installation program. You cannot access the eDirectory software from the ZENworks for Handhelds installation program, but you can install it from the CD rather than downloading the software from the Web.

### ZENworks for Handhelds Server Requirements

The machine with the ZENworks for Handhelds server should meet the following requirements:

- ♦ Windows NT\* version 4.0 (service pack 4 or later), Windows 2000, or Windows XP

- ◆ A Pentium\* or higher processor
- ◆ 20 MB of disk space at the time of installation
- ◆ A minimum of 64 MB of RAM
- ◆ A minimum screen resolution of 800×600
- ◆ The Novell Client™ if you want to access NetWare® volumes to store application data or retrieved files

For step-by-step installation information, see [“Installing the ZENworks for Handhelds Server” on page 25](#).

## ZENworks for Handhelds Proxy Service Requirements

The ZENworks for Handhelds proxy service software runs on any computer running Windows 95 and above and communicates via TCP/IP with the ZENworks for Handhelds server. The proxy service manages application and policy delivery and sends results of application installations and policy enforcements back to the server.

The proxy service must be installed on any computer that a handheld device synchronizes with.

For step-by-step installation information, see [“Installing the Proxy Service” on page 28](#).

You can also use ZENworks for Desktops (ZfD) Application Management to distribute the proxy service to users’ computers. For more information, see [Appendix B, “Installing the ZENworks for Handhelds Proxy Service Using a ZENworks for Desktops Silent Install,” on page 139](#).

## Handheld Client Requirements

ZENworks for Handhelds supports handheld devices running the following:

- ◆ RIM OS version 2.1 or newer
- ◆ Palm OS version 3.x or newer
- ◆ Windows CE version 2.11 or newer, including Pocket PCs

The handheld client is the ZENworks for Handhelds component that is installed on each managed handheld device in your system. The handheld client installs applications, collects software and hardware inventory for each device, and enforces policies.

ZENworks for Handhelds provides the following types of handheld clients:

- ◆ [“ZENworks for Handhelds Sync Client \(Palm OS and Windows CE Devices\)” on page 20](#)
- ◆ [“ZENworks for Handhelds IP Clients for Palm OS and Windows CE Devices” on page 21](#)

### ZENworks for Handhelds Sync Client (Palm OS and Windows CE Devices)

The ZENworks for Handhelds sync client is the software that manages Palm OS and Windows CE devices that use third-party software instead of IP to synchronize.

**IMPORTANT:** Handheld PCs require the ZENworks for Handhelds IP client; they cannot use the sync client. Pocket PCs can use either the IP client or the sync client.

When the proxy service starts on the computer that a handheld device uses for synchronization, the proxy service checks for the existence of synchronization software. If the proxy service detects the synchronization software, the proxy service will install the ZENworks for Handhelds sync client and conduit, if necessary.

Subsequent synchronizations will install the handheld client to the handheld device, register the device, and collect hardware and software inventory.

The proxy service on the computer that the handheld device uses for synchronization then sends the inventory information to the ZENworks for Handhelds server.

### Supported Synchronization Packages

If you are using the sync client, one of the following third-party synchronization software packages must be installed on the computer that a handheld device uses for synchronization:

- ♦ Palm HotSync Manager, version 3.0 or newer
- ♦ Microsoft ActiveSync, version 3.1 or newer

If you use ActiveSync to manage your Windows CE devices, Internet Explorer 4.0 or newer must be installed before installing the proxy service on the computer used for synchronization.

- ♦ Palm HotSync Server, version 3.5 or newer
- ♦ Pumatech\* Intellisync\*, version 3.0 or newer

See [“Installing the Handheld Client” on page 29](#) for more information on configuring synchronization packages for use with ZENworks for Handhelds.

### ZENworks for Handhelds IP Clients for Palm OS and Windows CE Devices

The ZENworks for Handhelds IP client on the handheld device communicates directly with the IP conduit on the proxy service computer via TCP/IP; no third-party synchronization software is required.

Unlike the ZENworks for Handhelds sync client, the ZENworks for Handhelds IP clients are not installed automatically on devices.

ZENworks for Handhelds provides the following IP clients:

- ♦ **Palm IP Client:** The Palm IP client is the software that manages Palm OS devices that use IP instead of third-party software to synchronize. The Palm IP client can be installed on Palm OS devices running Palm OS version 3.x and newer.

For more information, see [“Installing the ZENworks for Handhelds Palm IP Client” on page 30](#).

- ♦ **WinCE IP Client:** The WinCE IP client is the software that manages Windows CE devices that use IP instead of third-party software to synchronize. The WinCE IP client can be installed on Windows CE devices running Windows CE version 2.11 and newer (including Pocket PCs).

**IMPORTANT:** Handheld PCs require the IP client; they cannot use the sync client. Pocket PCs can use either the IP client or the sync client.

For more information, see [“Installing the ZENworks for Handhelds WinCE IP Client” on page 31](#).

### Firewall Issues

If ZENworks for Handhelds proxy service machines are connecting from outside of a firewall (for example, from the Internet) to the ZENworks for Handhelds server, the following information might be useful in configuring your firewall.

ZENworks for Handhelds proxy service machines connect to the ZENworks for Handhelds server using TCP port 2398. ZENworks for Handhelds IP agents on handheld devices connect to the IP conduit on the proxy service machines using TCP port 2400. Your firewall should be configured to allow these incoming connections.

Additionally, for optimum performance, the firewall should allow outgoing UDP packets (from the ZENworks for Handhelds server to ZENworks for Handhelds proxy service machines) on UDP port 2398.

## Performing Pre-installation Tasks

Before installing the ZENworks for Handhelds server, complete the following tasks:

- ◆ “Creating the ZENworks for Handhelds Server’s Windows User Account” on page 22
- ◆ “Creating the Service Object’s User Account” on page 22
- ◆ “Creating a MAPI Profile (BlackBerry Device Support Only)” on page 23
- ◆ “Extending the Schema” on page 23
- ◆ “Installing ConsoleOne” on page 24

### Creating the ZENworks for Handhelds Server’s Windows User Account

The ZENworks for Handhelds server requires a valid Windows user account in order to log in as a service and to access the ZENworks for Handhelds database and application data.

To create the server user account:

- 1** On a Windows NT/2000/XP computer, log in as the Administrator or as a member of the Administrators group.
- 2** Create a user account for the ZENworks for Handhelds server.
  - 2a** Uncheck User Must Change Password at Next Logon.
  - 2b** Check Password Never Expires.

If you allow the password to expire, the service will be unable to load until you reconfigure the password.
  - 2c** Make the user a member of the Administrators group.

### Creating the Service Object’s User Account

The ZENworks for Handhelds service object requires a valid user account to access eDirectory through LDAP. You create this user in ConsoleOne.

Make sure that you use a non-expiring password for this account.

The rights you assign to this user account depend on whether you want to access NetWare volumes for application data or to store retrieved files.

If you want to access objects or copy retrieved files on a NetWare volume, the user should have at least Read, Write, and Create rights on the NetWare server.

If access to a NetWare volume is not needed, this user account should have at least Read, Write, Create, Rename, Compare, and Delete rights on all tree areas that will contain ZENworks for Handhelds objects and policies.

## Creating a MAPI Profile (BlackBerry Device Support Only)

If you want to manage BlackBerry devices using ZENworks for Handhelds, you need to create a MAPI profile on the ZENworks for Handhelds server machine to connect to your e-mail system.

ZENworks for Handhelds supports the same groupware/e-mail systems supported by RIM, including Microsoft Exchange, Lotus Notes, and any POP3- or IMAP-compliant e-mail system (including Novell GroupWise®).

Before creating the MAPI profile, log in using the user account you created in “[Creating the Service Object’s User Account](#)” on page 22. Refer to Windows help or to your e-mail system help for step-by-step information on creating the MAPI profile.

## Extending the Schema

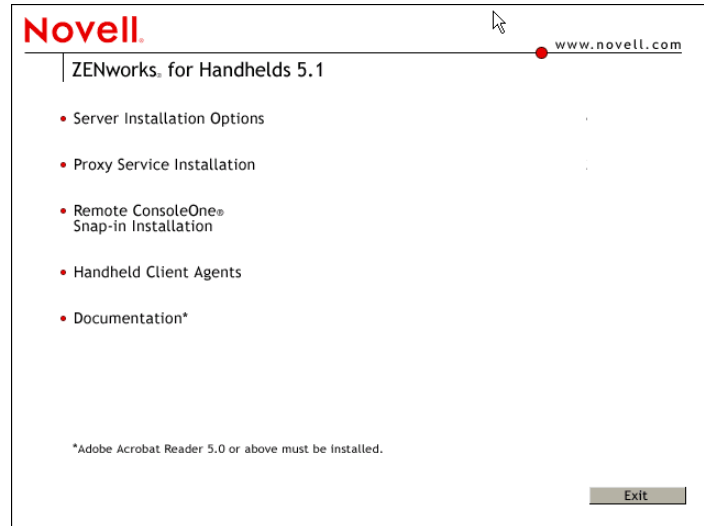
Before installing the ZENworks for Handhelds server, you must prepare the directory by extending the eDirectory schema for ZENworks for Handhelds.

To extend the schema, you must have root level admin privileges to the tree and you must have the Novell Client™ installed.

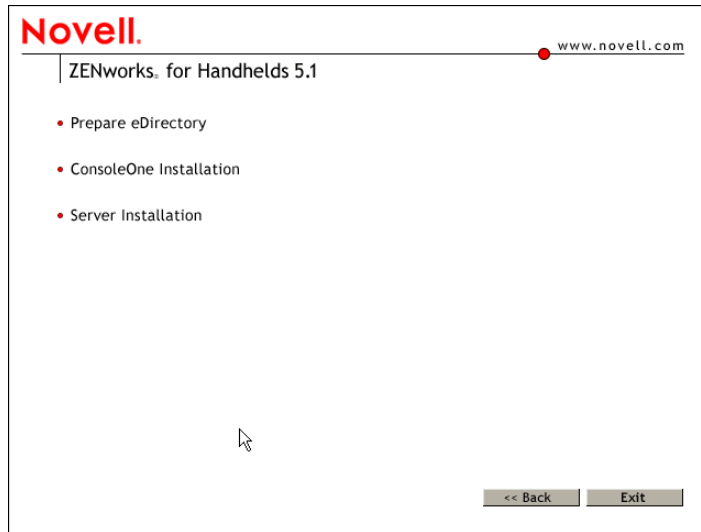
Before running the schema extension tool, ensure that you are logged in to the tree that you want to extend.

To extend the schema:

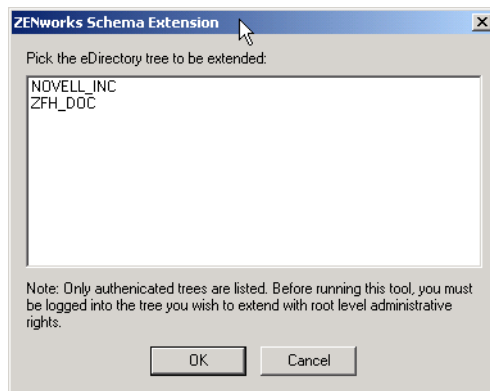
- 1 Insert the *ZENworks for Handhelds* CD on a machine that has the Novell Client running.  
The installation program will autorun. If it does not, run setup.exe from the root of the CD.



- 2 Click Server Installation Options.



**3** Click Prepare eDirectory.



**4** Select the eDirectory tree to be extended.

Only authenticated trees are listed.

**5** Click OK, then click Yes.

## Installing ConsoleOne

Because you administer ZENworks for Handhelds through ConsoleOne, you need to have ConsoleOne 1.3.3 or newer installed on at least one workstation or server before you install the ZENworks for Handhelds server.

To check your current version in ConsoleOne, click Help > About ConsoleOne.

If necessary, to install ConsoleOne 1.3.3:

**1** From the Server Installation Options page, click ConsoleOne Installation.

To access the Server Installation Options page, insert the *ZENworks for Handhelds* CD in the CD drive, then click Server Installation Options.

**2** Click Setup to begin the installation.

**3** Review the License Agreement > click Accept.



- 4 Browse to and select the location where you want to install ConsoleOne, then click Next twice.
  - ♦ On a workstation, you might choose c:\novell.
  - ♦ On a NetWare server, you might choose sys:\public\mgmt.
  - ♦ On a Windows server, you might choose c:\novell.
- 5 Select any languages in addition to English that you want to install, then click Next twice.
- 6 After reviewing the summary of products to be installed, click Finish.

Objects are analyzed and the installation is performed.
- 7 When the installation is complete, click Close.

## Installing ZENworks for Handhelds

After you have performed the steps in “Performing Pre-installation Tasks” on page 22, you are ready to install the ZENworks for Handhelds software.

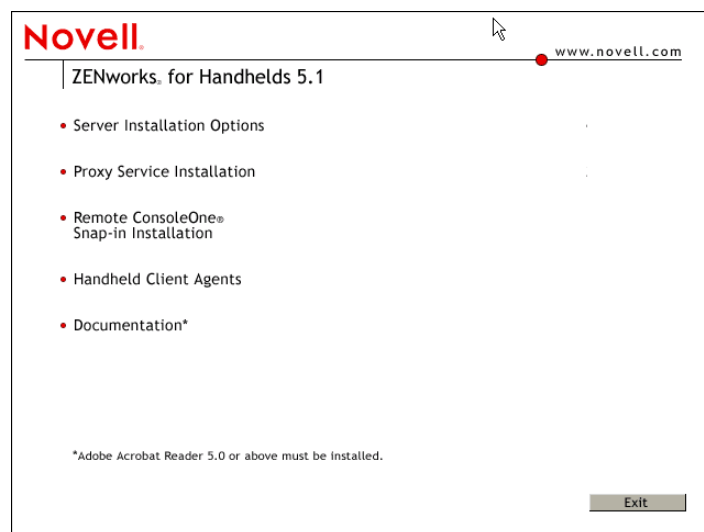
The following sections provide detailed information about installing ZENworks for Handhelds:

- ♦ “Installing the ZENworks for Handhelds Server” on page 25
- ♦ “Installing the Proxy Service and the Handheld Client” on page 27
- ♦ “Installing ConsoleOne Snap-Ins on a Remote ConsoleOne Installation” on page 33

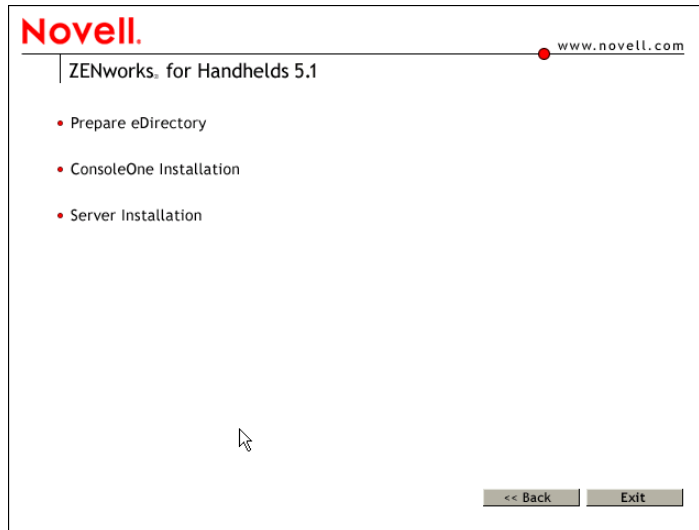
### Installing the ZENworks for Handhelds Server

- 1 Insert the *ZENworks for Handhelds* CD in the CD drive on a Windows NT/2000/XP machine where you want to install the ZENworks for Handhelds server.

The installation program will autorun. If it does not, run setup.exe from the root of the CD.



- 2 Click Server Installation Options.

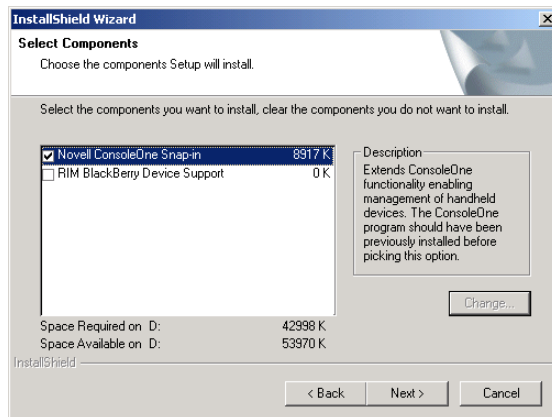


**3** Click Server Installation, then click Next.

**4** Read the License agreement, then click Yes if you agree with the terms of the License Agreement.

If you do not agree with the terms of the license agreement, do not install the software.

**5** Review the destination location where the installation program will install the ZENworks for Handhelds server software (browse to a different location, if desired), then click Next.



**6** On the Select Components window, select the components you want to install:

- ♦ **Novell ConsoleOne Snap-In:** Extends ConsoleOne functionality to allow you to manage handheld devices. This option is enabled by default. You should have previously installed ConsoleOne 1.3.3 or newer on at least one workstation or server before you install the ZENworks for Handhelds server. For more information, see [“Installing ConsoleOne” on page 24](#).
- ♦ **RIM BlackBerry Device Support:** Adds support for managing RIM BlackBerry devices. If you select this option, you must have set up a MAPI profile for e-mail access. For more information, see [“Creating a MAPI Profile \(BlackBerry Device Support Only\)” on page 23](#).

**7** Click Next.

- 8** On the Start Copying Files window, review the settings, then click Next.
- 9** On the InstallShield Wizard Complete window, check the Display Readme File check box to review the Readme file for installation notes and product issues that you need to know as you install and use ZENworks for Handhelds, then click Finish.
- 10** Click Next.
- 11** Select Internal ODBC-Compatible Database if you want ZENworks for Handhelds to create a database for you.  
  
or  
  
Select Microsoft SQL Server, specify the machine name, specify the database name, then click OK.  
  
In order to use an SQL database, SQL Server must already be installed.  
  
**NOTE:** If you are currently using ZENworks for Desktops, you cannot extend the ZENworks for Desktops database to include the handheld inventory information; the inventory databases for ZENworks for Handhelds and ZENworks for Desktops are currently separate.
- 12** In the Service User window, specify the domain name, account name, and password for the account that you created in [“Creating the ZENworks for Handhelds Server’s Windows User Account” on page 22](#), then click Next.
- 13** In the Directory User Information window, specify the server name where eDirectory is installed, the username, and password for the account that you created in [“Creating the Service Object’s User Account” on page 22](#), then click Next.  
  
**NOTE:** The user needs rights to create the service object in the container you specify and rights to create handheld objects and to access application and policy objects in the tree. Browse to the user in the tree and specify the full context name.
- 14** If you want to access objects or store retrieved files on a NetWare volume: in the NetWare Access window, select Enable Access to NetWare, specify the tree, then click Next.
- 15** Select the container where you want the Service object created, then click Next.  
  
To browse to a container you must have a valid LDAP user configured.
- 16** Click Next twice.
- 17** If you chose to enable RIM BlackBerry support, type the service user’s e-mail address to be used by the BlackBerry client software, then select the MAPI profile that you created in [“Creating a MAPI Profile \(BlackBerry Device Support Only\)” on page 23](#).
- 18** Click Finish.

## Installing the Proxy Service and the Handheld Client

Before installing the proxy service, log in as the primary user to the computer that a handheld device synchronizes with.

The proxy service software runs on any computer running Windows 95 and above that communicates via TCP/IP with the ZENworks for Handhelds server.

If you are installing the proxy service on a Windows NT/2000/XP computer, you must log in as a member of the Administrators group.

The following sections contain additional information:

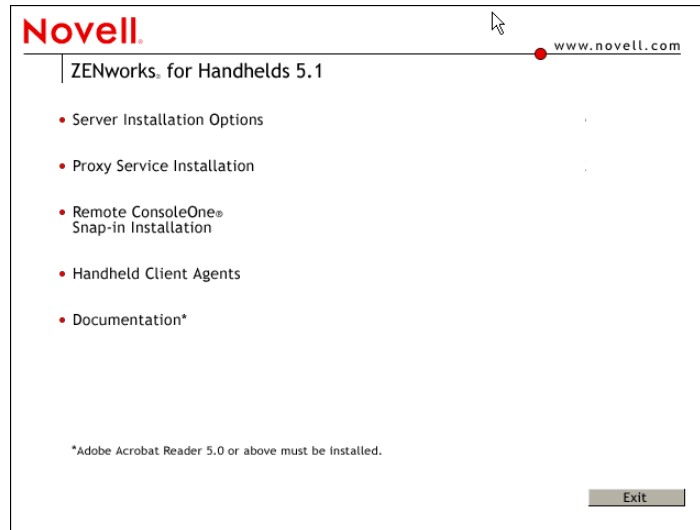
- ♦ [“Installing the Proxy Service” on page 28](#)

- ♦ “Installing the Handheld Client” on page 29
- ♦ “Installing the IP Conduit and ZENworks for Handhelds IP Client” on page 29
- ♦ “Installing the ZENworks for Handhelds BlackBerry Client” on page 33

## Installing the Proxy Service

- 1** Insert the *ZENworks for Handhelds* CD in the CD drive.

The installation program will autorun. If it does not, run setup.exe from the root of the CD.



- 2** Click Proxy Service Installation.
- 3** On the Welcome page, click Next.
- 4** Read the License agreement, then click Yes if you agree with the terms of the License Agreement.  
If you do not agree with the terms of the license agreement, do not install the software.
- 5** Select the destination location for the ZENworks for Handhelds proxy service, then click Next.
- 6** On the Customer Information page, enter the user's user and company name, if necessary, then click Next.
- 7** On the Select Components page, select Handheld IP conduit if you will be installing the IP client on Palm OS and Windows CE devices that can connect using TCP/IP, then click Next.
- 8** Type the computer name or IP address of the machine where the ZENworks for Handhelds server is installed, then click Next twice.
- 9** If prompted, restart your computer before continuing.

The ZENworks for Handhelds proxy service will start automatically after restarting your computer. On Windows NT/2000/XP computers, the proxy will start as a service.

- 10** Click Finish.

The first time that the proxy service computer connects to the network using TCP/IP, a registration message is sent to the ZENworks for Handhelds server.

**NOTE:** You can install the proxy service software on users' desktop or laptop machines using ZENworks for Desktops (ZfD) Application Management. Additionally, you can populate the proxy.ini file with the appropriate settings so that you can perform silent (unattended) installations of the proxy service. For more information, see [Appendix B, "Installing the ZENworks for Handhelds Proxy Service Using a ZENworks for Desktops Silent Install,"](#) on page 139.

## Installing the Handheld Client

When the ZENworks for Handhelds proxy service starts on the Windows computer, the proxy service will check for the existence of synchronization software for Palm OS and Windows CE devices. If synchronization software is detected, the proxy service will install the handheld client and ensure that the handheld client and conduit to the proxy service computer are available for the handheld device and synchronization software.

After the sync client is installed on the handheld device, you might need to configure the synchronization software so it recognizes the conduit.

**NOTE:** If the sync client is manually deleted from the handheld device, it will be automatically re-installed the next time the device is synchronized.

For BlackBerry devices, you must install the BlackBerry handheld client (bbclient.alx) using the BlackBerry Application Loader. By default, bbclient.alx is found in the program files\novell\zfh\bbclient directory.

### Palm HotSync Manager, Microsoft ActiveSync, and Pumatech Intellisync

If you are using Palm HotSync Manager, Microsoft ActiveSync, or Pumatech Intellisync software, the conduit to the proxy service computer is installed automatically by the proxy service.

The proxy service detects the synchronization software and installs the sync client software on the handheld device the first time the handheld device synchronizes after the proxy service is installed.

The next time the handheld device synchronizes, the device is registered and is assigned a unique ID by the proxy service.

When the proxy service computer connects to the ZENworks for Handhelds server, the handheld device object appears in ConsoleOne.

## Installing the IP Conduit and ZENworks for Handhelds IP Client

The ZENworks for Handhelds IP client connects directly to the IP conduit on the proxy service computer, allowing management of Palm OS and Windows CE devices without requiring any third-party synchronization software.

If you have Palm OS and Windows CE devices that can connect via TCP/IP, you can use the appropriate ZENworks for Handhelds IP client.

**IMPORTANT:** Handheld PCs require the WinCE IP client; they cannot use the sync client. Pocket PCs can use either the IP client or the sync client.

The ZENworks for Handhelds BlackBerry IP client is the software that manages BlackBerry devices that use the BlackBerry wireless platform.

The following sections contain additional information:

- ♦ ["Installing the IP Conduit" on page 30](#)
- ♦ ["Installing the ZENworks for Handhelds Palm IP Client" on page 30](#)
- ♦ ["Installing the ZENworks for Handhelds WinCE IP Client" on page 31](#)

## Installing the IP Conduit

Choose a computer where your handheld devices can connect via TCP/IP, and install the proxy service software on that computer. See [“Installing the Proxy Service and the Handheld Client” on page 27](#) for more information.

When you are installing the proxy service software, select Handheld IP Server in the Select Components window to install the IP conduit software. To configure the conduit properties, see [“Configuring the IP Conduit” on page 128](#).

## Installing the ZENworks for Handhelds Palm IP Client

If you have Palm OS devices that can make an TCP/IP connection, you should install the ZENworks for Handhelds IP client for Palm OS devices on each device.

To install the ZENworks for Handhelds Palm IP client:

- 1 Insert the *ZENworks for Handhelds* CD in the CD drive.

The installation program will autorun. If it does not, run setup.exe from the root of the CD.

- 2 Click Handheld Client Agents, then click Palm IP Client.
- 3 Click Next.
- 4 Review the destination location where the installation program will install the ZENworks for Handhelds Palm IP client (browse to a different location, if desired), then click Next twice.
- 5 On the Handheld Configuration window, type the computer name or IP address of the ZENworks for Handhelds server, then click Next.

If you are using an IP address to specify the location of the IP conduit, the IP address of the computer where the IP conduit is installed should remain constant (for example, it doesn't change because of DHCP).

If you are using a DNS or computer name, be sure your handheld devices can resolve the name if the devices are being cradled and using a third-party synchronization package.

By default, ZENworks for Handhelds uses TCP/IP port number 2400. If you change this, you must also change it at the computer where the IP conduit is installed.

- 6 On the Connections Options window, fill in the fields:

**Client Should Auto Connect to Server:** Select an option from the drop-down list:

- ♦ **Never:** The ZENworks for Handhelds IP client will never automatically connect. The user must manually connect the IP client by clicking the ZfHConsole icon on the Palm device, then clicking Connect Now.
- ♦ **When IP Connection Exists:** The Palm IP client will automatically connect whenever an IP connection exists and it is time to connect.  
  
For example, if the device is cradled using an Ethernet cradle, the device has Bluetooth\* running on the device, or if the device dials up using a modem, and it is time to connect (as specified in the Client Should Connect Every option), the Palm IP client will automatically connect.
- ♦ **Always:** The Palm IP client will try to establish an IP connection and connect to the IP conduit automatically if it is time to connect.

**Client Should Connect Every:** Specify how often (in hours or minutes) the Palm IP client should connect to the IP conduit.

**At Connection Time, Display to User:** Specify an option from the drop-down list:

- ♦ **Nothing (Just Connect):** The Palm OS device user will have visual indication that the Palm IP client has connected, but the user will not be prompted to do anything.
- ♦ **Flashing Icon (Subtle):** A flashing icon will display on the Palm OS device when it is time to connect. The user can connect by clicking the reminder icon and then clicking OK.
- ♦ **Dialog:** A dialog box will display on the Palm OS device whenever it is time to connect. The user can connect by clicking Connect.
- ♦ **Dialog With Timeout:** A dialog box with a timeout value will display on the Palm OS device whenever it is time for the Palm IP client to connect. If the user does not respond by clicking Connect or Cancel during the timeout period, the IP client will connect.

For example, if the device is cradled using an Ethernet cradle and you are away from your desk when it is time for the Palm IP client to connect, the IP client will wait until the timeout period has passed and then connect.

**7** If desired, click Advanced Settings, then fill in the fields:

**Connection Timeout (Seconds):** The number of seconds you specify determines how long the Palm IP client will try to connect before it stops trying if a connection cannot be established.

**Session Timeout (Seconds):** The number of seconds you specify determines the length of time that the Palm IP client will stay connected. If the session reaches the limit you specify, the Palm IP client session will terminate.

For example, if you lose an IP connection, the Palm IP client session will terminate after the number of seconds that you specify has passed.

**Connect Retry (Seconds):** Specify the number of seconds that you want the Palm IP client to wait after a failed connection before trying to connect again.

**Maximum Connect Retries:** Specify the maximum number of retry attempts you want the Palm IP client to attempt.

**Timeout (Seconds):** Specify the number of seconds you want to allow before closing the alarm dialog box before trying to make the connection.

**Message:** Enter a message to be displayed on the Palm OS device when it is time for the Palm IP client to connect.

**7a** Click OK.

**8** Click Finish twice.

Rather than running the ZENworks for Handhelds installation program to install the Palm IP client, you can also copy the contents of the program files\novell\zfh palm ip client directory to a Palm OS device using the HotSync Manager Install Tool.

### Installing the ZENworks for Handhelds WinCE IP Client

The ZENworks for Handhelds IP client supports multiple types of Windows CE devices. ZENworks for Handhelds provides a wizard that creates CAB files for all supported devices. The appropriate CAB file must then be installed on the device.

When running the wizard, you will be prompted for the name of the computer (or IP address) where the IP conduit is installed.

The computer name or IP address is built into the CAB file so that when the CAB file is installed on the handheld device, it is ready to communicate with the IP conduit.

To create CAB Files for the ZENworks for Handhelds IP client:

- 1 Insert the *ZENworks for Handhelds* CD in the CD drive.

The installation program will autorun. If it does not, run setup.exe from the root of the CD.

- 2 Click Handheld Client Agents, then click WinCE IP Client.

- 3 Click Next.

- 4 Review the destination location where the installation program will install the WinCE IP client (browse to a different location, if desired), then click Next.

- 5 When prompted, type the computer name or IP address of the ZENworks for Handhelds IP conduit that the handheld device should connect to.

If you are using an IP address to specify the location of the IP conduit, the IP address of the computer where the IP conduit is installed should remain constant (for example, it doesn't change because of DHCP).

If you are using a DNS or computer name, be sure your handheld devices can resolve the name if the devices are being cradled and using a third-party synchronization package.

By default, ZENworks for Handhelds uses TCP/IP port number 2400. If you change this, you must also change it at the computer where the IP conduit is installed.

- 6 Click Next.

- 7 On the Choose Options window, click the Create Shortcut to the Client Console on CE Device, if desired, then click Next.

- 8 Review the information on the Start Copying Files window, then click Next.

- 9 Click Finish.

The wizard will create CAB files for the following types of devices and copy them to the program files\novell\zfh\ipclientcabs directory by default:

Device Type	CAB File to Install
CE 3.0 (Handheld 2000) client for ARM-based Handheld PCs	zfhclientforce.hpc2000_arm.cab
CE 3.0 (Handheld 2000) client for MIPS-based Handheld PCs	zfhclientforce.hpc2000_mips.cab
ARM-based Pocket PCs (iPAQ, and all PPC2002 models)	zfhclientforce.ppc_arm.cab
MIPS-based Pocket PC 2000s (some Cassiopeia models)	zfhclientforce.ppc_mips.cab
SH3-based Pocket PC 2000s (some Jornada models)	zfhclientforce.ppc_sh3.cab

To install the ZENworks for Handhelds IP client:

- 1 Find the CAB file appropriate for your device in the directory where the CAB files were created, program files\novell\zfh\ipclientcabs by default.
- 2 Copy the CAB file to the device, using the method most appropriate for your environment (for example, ActiveSync).



- 3 After the CAB file is on the device, run it by clicking it.

The ZENworks for Handhelds IP client will be installed on the handheld.

## Installing the ZENworks for Handhelds BlackBerry Client

The ZENworks for Handhelds BlackBerry client is the software that manages BlackBerry devices that use the BlackBerry wireless platform.

To install the ZENworks for Handhelds BlackBerry client:

- 1 Insert the *ZENworks for Handhelds* CD in the CD drive.

The installation program will autorun. If it does not, run setup.exe from the root of the CD.

- 2 Click Handheld Client Agents, then click BlackBerry Client.
- 3 Click Next.
- 4 Review the destination location where the installation program will install the ZENworks for Handhelds BlackBerry IP client (browse to a different location, if desired), then click Next twice.

The ZENworks for Handhelds BlackBerry IP client files that will be copied to the destination location include two client .dll files: one file for devices that use the Mobitex network and one file for devices that use the DataTAC network. The copied files also include the .alx installation file that will be used by the BlackBerry Application Loader and the configuration application file.

**NOTE:** If your RIM Desktop Manager software is not at least version 2.1.3 (2.1 SP3), it might not recognize .alx files. If this is the case, you must use the BlackBerry Application Loader to copy the appropriate .ali file to your BlackBerry devices (zfhbbmtexclient.ali for the Mobitex network or zfhbbdtacclient.ali for the DataTAC network). The two .ali files are found in the \blackberryclient directory on the *ZENworks for Handhelds* CD.

- 5 Type the service user's e-mail address to be used by the BlackBerry client software that you specified in [Step 17 on page 27](#).
- 6 Click Finish.

The installation program will copy the ZENworks for Handhelds BlackBerry IP client files to the program files\novell\zfhblackberryclient directory.

- 7 On the InstallShield Wizard Complete window, click the Add ZfH BlackBerry Client to BlackBerry's Application Load to have ZENworks for Handhelds automatically add the necessary files to the BlackBerry Application Loader.

You should enable the Add ZfH BlackBerry Client to BlackBerry's Application Load option if you are running the BlackBerry Client installation wizard from the machine on which the BlackBerry device synchronizes.

## Installing ConsoleOne Snap-Ins on a Remote ConsoleOne Installation

ConsoleOne and the ZENworks for Handhelds ConsoleOne snap-ins can be installed on any number of machines so that you can give other administrators or help desk staff access to ZENworks for Handhelds from multiple locations on your network.

To install the ConsoleOne snap-ins on a remote ConsoleOne installation:

- 1 On the machine that you installed the ZENworks for Handhelds server software, create a share to the installation directory.

The default location is c:\program files\novell\zfh.

- 2 On a machine where ConsoleOne is installed, insert the *ZENworks for Handhelds* CD in the CD drive.

The installation program will autorun. If it does not, run setup.exe from the root of the CD.

- 3 Click Remote ConsoleOne Snap-in Installation, then follow the instructions in the wizard.

## Activating ZENworks for Handhelds

ZENworks for Handhelds must be activated within 90 days of installation, otherwise it will stop working. At any time during the 90 days, or afterward, you can choose to activate ZENworks for Handhelds to a fully licensed state.

Activating ZENworks for Handhelds does not change your current configuration or install a newer version of ZENworks for Handhelds. It simply changes the product to an activated state.

To activate ZENworks for Handhelds you must perform the following tasks in order:

1. “Purchasing a ZENworks for Handhelds License” on page 34
2. “Generating a ZENworks for Handhelds Activation Request” on page 34
3. “Submitting a ZENworks for Handhelds Activation Request” on page 35
4. “Installing a ZENworks for Handhelds Activation Credential” on page 35

## Purchasing a ZENworks for Handhelds License

To purchase a ZENworks for Handhelds license, see the information on how to buy at the [ZENworks for Handhelds Product web site \(http://www.novell.com/products/zenworks/handhelds/howtobuy.html\)](http://www.novell.com/products/zenworks/handhelds/howtobuy.html).

After you purchase a ZENworks for Handhelds product license, Novell will send you a Customer ID via e-mail. If you do not remember or do not receive your Customer ID, please call the Novell Activation Center at the following numbers:

- ♦ **In the United States:** 1-800-418-8373
- ♦ **In all other locations:** 1-801-861-8373. (You will be charged for calls made using the 801 area code.)

**NOTE:** The individual who purchases the ZENworks for Handhelds license will receive an e-mail containing the Customer ID. If your company uses its purchasing agent to handle this transaction, you might need to check with this individual to obtain your Customer ID.

## Generating a ZENworks for Handhelds Activation Request

You use your Customer ID to generate a ZENworks for Handhelds Activation Request in ConsoleOne.

**NOTE:** You need to generate one ZENworks for Handhelds Activation request for each server where ZENworks for Handhelds is installed.

To generate a ZENworks for Handhelds Activation Request:

- 1 Open ConsoleOne.
- 2 Click Wizards > Create a ZfH Activation Request.

- 3** Browse to the handheld service object on which you want to activate ZENworks for Handhelds, click OK, then click Next.
- 4** Enter your Novell Customer ID, then click Next to build your Activation Request file.
- 5** Specify the name of the Activation Request file and where you want the file written to.

or

Copy the Activation Request file in the text area to the clipboard.

You will need to paste the contents of this file in a text area at the Novell Product Activator Web site.

**IMPORTANT:** Do not edit the content of the Product Activation Request.

- 6** Click Next.
- 7** Click Launch to go to the [Novell Product Activator Web site \(http://www.novell.com/activator\)](http://www.novell.com/activator).

## Submitting a ZENworks for Handhelds Activation Request

After you create a Product Activation Request, you submit it to Novell. After you submit the Product Activation Request, Novell will send an e-mail containing a Product Activation Credential. You use this credential to activate ZENworks for Handhelds.

To submit an Activation Request:

- 1** Log in at the [Novell Product Activator Web Site \(http://www.novell.com/activator\)](http://www.novell.com/activator).  
You must have an eLogin account to access the Product Activator Web site. If you don't already have an eLogin account, you can create this free account when you visit the Product Activator site.
- 2** Click Browse to specify the path to the Product Activation Request file that you created in [Step 5 on page 35](#).

or

Paste the text of the Product Activation Request into the text area.

**IMPORTANT:** Do not edit the content of the Product Activation Request.

- 3** Click Submit.
- 4** Mark the product you are activating.
- 5** Click Submit.

Novell generates a Product Activation Credential based on the Product Activation Request you submitted and sends that credential to you via e-mail.

## Installing a ZENworks for Handhelds Activation Credential

You must install the Product Activation Credential in ConsoleOne.

- 1** Open the Novell e-mail that contains the Product Activation Credential.
- 2** Do one of these steps:
  - ♦ Save the Product Activation Credential file.

or

- ♦ Open the Product Activation Credential file, then copy the contents of the Product Activation Credential file to your clipboard.

**IMPORTANT:** Do not edit the contents of the Product Activation Credential file.

- 3** Open ConsoleOne.
- 4** Click Wizards > Install a ZENworks for Handhelds Activation.
- 5** Browse to the handheld service object on which you want to activate ZENworks for Handhelds > click Next.
- 6** Do one of these steps:
  - ♦ Specify where you saved the ZENworks for Handhelds Activation Credential, then click Next.
  - or
  - ♦ Paste the contents of the ZENworks for Handhelds Activation Credential into the text area, then click Next.
- 7** Click Finish.

**NOTE:** You need to generate, submit, and install one ZENworks for Handhelds Activation request for each server where ZENworks for Handhelds is installed.

## Uninstalling ZENworks for Handhelds

Before removing the ZENworks for Handhelds server software, ensure that no one is accessing the installation through a remote installation of ConsoleOne.

To uninstall ZENworks for Handhelds:

- 1** Open the Control Panel on the computer with the ZENworks for Handhelds component you want to uninstall.
- 2** Double-click Add/Remove Programs.
- 3** Click the component that you want to uninstall:
  - ♦ Novell ZENworks for Handhelds
  - ♦ Novell ZENworks for Handhelds Proxy
- 4** Click Add/Remove.
- 5** Click OK when the uninstall is complete.

You should complete the same steps on each computer where ZENworks for Handhelds components are installed.

**NOTE:** Uninstalling ZENworks for Handhelds will not remove ZENworks for Handhelds objects from eDirectory. To remove ZENworks for Handhelds objects from the directory, right-click the object, click Delete NDS Object, then click Yes to confirm the deletion.

# 3

## Setting Up Handheld Import

Novell® ZENworks® for Handhelds provides simplified, hands-off management of enterprise handheld devices.

Before you can manage handheld devices in your organization, you need to import handheld objects into Novell eDirectory™.

The process of importing handheld objects into eDirectory involves creating the Handheld Service Package object, configuring the Handheld Import policy and associating it with the container where you want the handheld objects imported to, and having your users synchronize their handheld devices using their normal synchronization process (Microsoft ActiveSync, Palm HotSync, and so forth). Users can also synchronize their Palm OS and Windows CE devices using the ZENworks for Handhelds IP client. BlackBerry devices use the BlackBerry wireless platform to synchronize.

After the handheld objects are imported into the directory, you can begin using policy-based management, distributing software applications to individual handheld devices or to groups of handheld devices, collecting hardware and software inventory for all enterprise handheld devices, and more.

The following sections contain additional information:

- ♦ “Creating the Handheld Service Package” on page 37
- ♦ “Configuring the Handheld Import Policy” on page 38
- ♦ “Associating the Handheld Service Package” on page 42

## Creating the Handheld Service Package

A policy package is an eDirectory object containing one or more individual policies. A policy package groups policies according to function, making it easier to administer them. It also provides the means for the administrator to change policy settings and to determine how they affect other eDirectory objects.

In ZENworks for Handhelds, the Handheld Service Package contains one policy: Handheld Import.

You should create an Organizational Unit (OU) to hold the policy packages. Consider the following when determining where to place this OU:

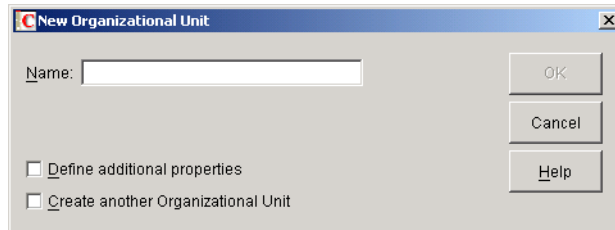
- ♦ If you have partitions in your tree
- ♦ The 256-character limit in eDirectory for the full distinguished name
- ♦ The Search policy that is used to locate the policy package

To minimize tree walking, it is best to create this policy package OU at the root of the partition that contains the objects with which the policy package will be associated. In doing so, the following benefits are realized:

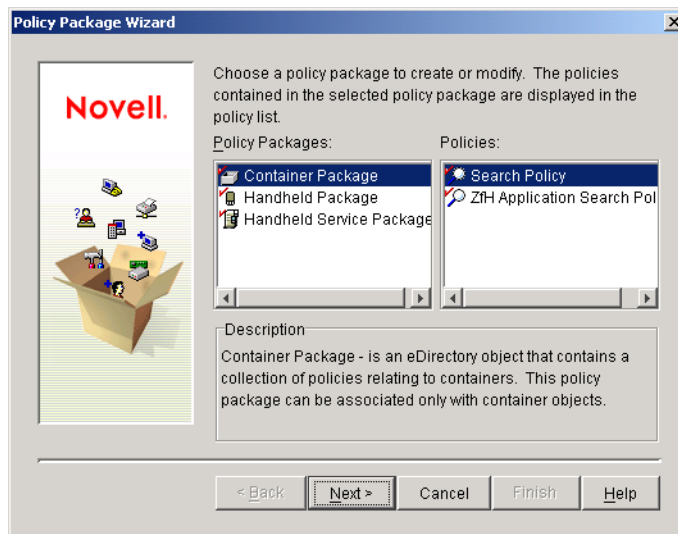
- ♦ Tree walking is minimized with the root of the partition and the Search policy being used
- ♦ Placing the OU at the partition's root maximizes the number of characters that will be available for naming plural policies

To create the Handheld Service Package:

- 1 In ConsoleOne®, right-click the container where you want the container for the policy packages placed, click New, then click Organizational Unit.



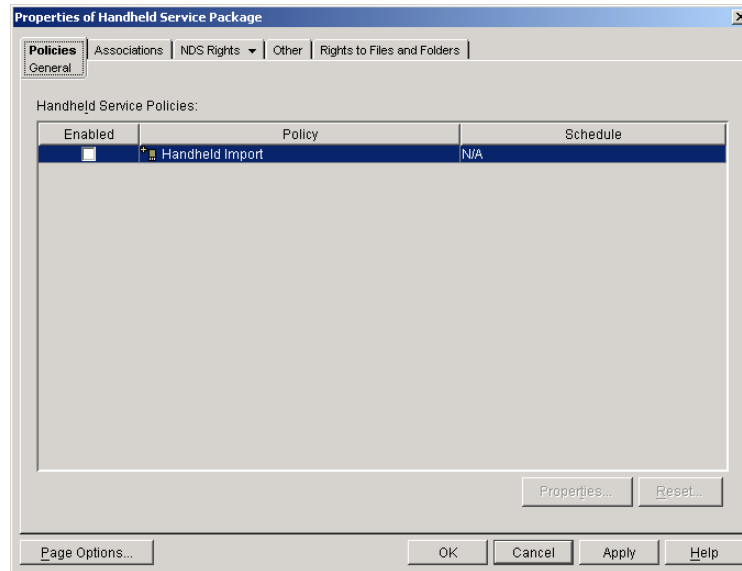
- 2 Give the container a short name, then click OK.
- 3 Right-click the new container that will hold your policy packages, click New, then click Policy Package.



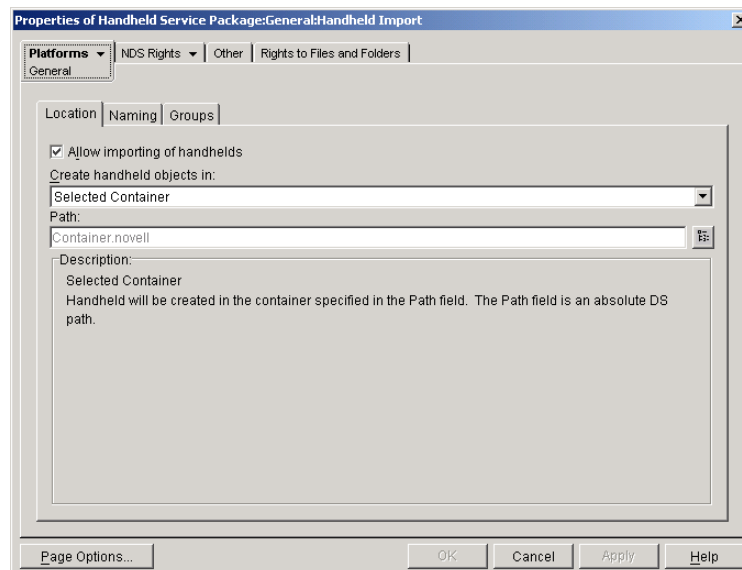
- 4 Select Handheld Service Package, then click Next.
- 5 Give the policy package a short name, click Next, click Create, then click Finish.

## Configuring the Handheld Import Policy

- 1 In ConsoleOne, right-click the Handheld Service Package object, then click Properties.  
You should have created this object while performing the steps in “[Creating the Handheld Service Package](#)” on page 37.



- 2** Check the check box under the Enabled column for the Handheld Import policy.  
This both selects and enables the policy.
- 3** Click Properties.  
The Location tab of the General page is displayed.



You can configure the Handheld Import policy on this page to enable importing of BlackBerry, Palm OS, and Windows CE devices. However, in addition to the General page, ZENworks for Handhelds provides three platform-specific pages: BlackBerry, Palm, and WinCE. If you want to specify different settings for each type of device, you can use the appropriate platform page. For example, you could specify different containers to hold the different types of handheld devices.

- 4** Click the down-arrow on the Platforms tab, then select the desired platform.
- 5** Fill in the fields:

**Enable Platform Settings to Override General Settings:** This option displays only on the BlackBerry, Palm, and WinCE platform pages. Select this option if you want the settings specified on the BlackBerry, Palm, or WinCE page to override those settings specified on the General page.

**Allow Importing of Handhelds:** Enable this option to allow registered handheld devices to be imported into the directory.

**Create Handheld Objects In:** Select an option from the drop-down list:

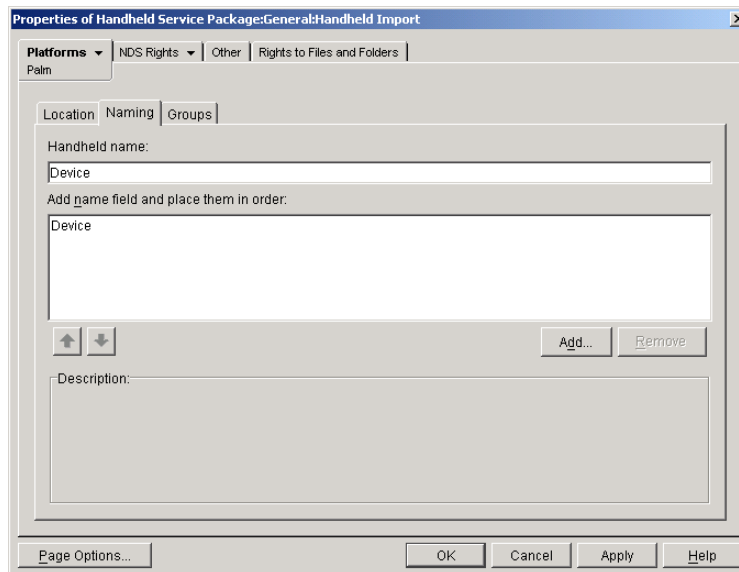
- ♦ **Selected Container:** The handheld device objects will be created in the container specified in the Path field. This is an absolute DS path.
- ♦ **Server Container:** The handheld device objects will be created in the same container as the server running the import service. You can specify a relative DS path from the server container.
- ♦ **Associated Object Container:** The handheld device objects will be created in the container that is associated with the Handheld Import policy. You can specify a relative DS path from the associated container.

Relative Path = .handheld means to go up one level from the container to create the handheld device object.

**Path:** If you are using a relative path, enter a string. The number of periods you end the path with determines the number of relative levels. If you are using an absolute path, select the container.

**NOTE:** The Description box describes where the handheld device objects will be created, based on the settings you selected on the Location page. Review the description and make any necessary changes.

**6** Click the Naming tab.



**7** Fill in the fields:

**Handheld Name:** Displays the handheld naming convention currently defined in the Add Name Fields and Place Them in Order list.



Whenever there is a potential name conflict (such as two handheld device objects in the same container with the same name), the system will append a number on the end of the name that you enter here.

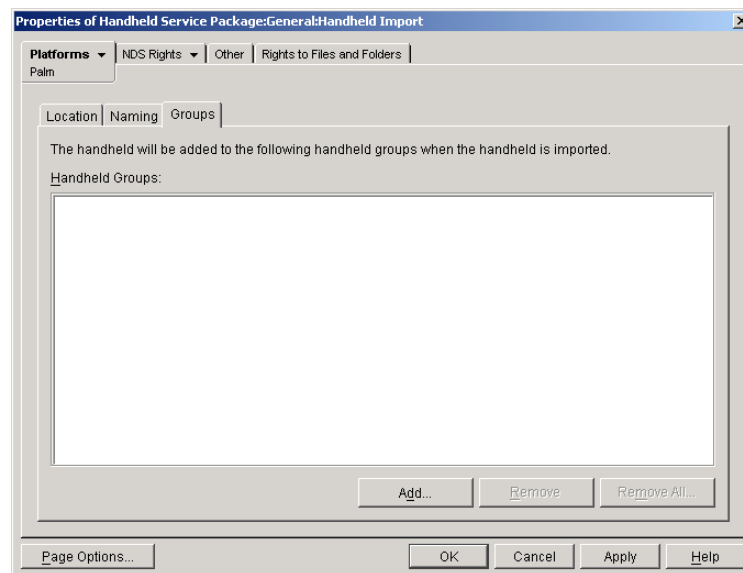
**Add Name Field and Place Them in Order:** You must have at least one option in this list.

You can add or remove options, or click the arrows to move an option up or down the list. The handheld device objects will be named in the order these options display in the list.

The name options are:

- ♦ **<User Defined>:** You can specify other parameters here.
- ♦ **Device:** The device's name.
- ♦ **User:** The device's owner name or the name provided by Palm HotSync or Microsoft ActiveSync.
- ♦ **Computer:** The Windows computer name, usually as it was named during installation.

**8** Click the Groups tab.



**9** Click Add, then browse for the Handheld Group objects you want this handheld device object to belong to when it is imported.

For more information about Handheld Group objects, see [“Using Groups” on page 86](#).

**10** Click OK to save the policy.

**11** Continue with [“Associating the Handheld Service Package” on page 42](#).

## Associating the Handheld Service Package

The Handheld Import policy you configured and enabled will not be in effect until you associate its policy package with the ZENworks for Handhelds Service object directly or with a container object.

To associate the Handheld Service Package:

- 1** In ConsoleOne, right-click the Handheld Service Package, then click Properties.

- 2** Click the Associations tab, then click Add.
- 3** Browse for the container for associating the package, then click OK.

# 4

## Using ZENworks for Handhelds Policies

Much of the functionality of Novell® ZENworks® for Handhelds depends on the preliminary administrative work you do in ConsoleOne® as you import handheld devices into Novell eDirectory™ and set up the policies that can be associated with handheld objects.

For detailed information about importing handheld objects into eDirectory, see [Chapter 3, “Setting Up Handheld Import,” on page 37](#).

For ZENworks for Handhelds to function properly, you must create the policy packages so that you can configure, enable, and associate your planned policies.

A policy package is an eDirectory object containing one or more individual policies. A policy package groups policies according to function, making it easier to administer them. It also provides the means for the administrator to change policy settings and to determine how they affect other eDirectory objects.

ZENworks for Handhelds has three policy packages: Container Package, Handheld Package, and Handheld Service Package.

The following sections contain additional information:

- ♦ [“Understanding ZENworks for Handhelds Policies” on page 43](#)
- ♦ [“Creating Policy Packages” on page 46](#)
- ♦ [“Setting Up Container Package Policies” on page 47](#)
- ♦ [“Setting Up Handheld Package Policies” on page 52](#)
- ♦ [“Setting Up Handheld Service Package Policies” on page 79](#)
- ♦ [“Viewing Policy Status Information” on page 79](#)

## Understanding ZENworks for Handhelds Policies

The following table lists each ZENworks for Handhelds policy, indicates the package that contains the policy, and provides a brief description of the policy.

Policy	Container	Description
Handheld Import Policy	Handheld Service Package	<p>Lets you enable handheld import and configure settings, such as how handheld device objects are named, where they are stored in eDirectory, and which Handheld Group objects you want certain handheld device objects associated with.</p> <p>For more information, see <a href="#">Chapter 3, "Setting Up Handheld Import," on page 37</a>.</p>
Search Policy	Container Package	<p>Lets you specify how far up the tree ZENworks for Handhelds will search for effective policies.</p> <p>For more information, see <a href="#">"Search Policy" on page 48</a>.</p>
ZENworks for Handhelds Application Search Policy	Container Package	<p>Lets you specify how far up the tree ZENworks for Handhelds will search for Handheld Application objects.</p> <p>For more information, see <a href="#">"ZENworks for Handhelds Application Search Policy" on page 50</a>.</p>
BlackBerry Configuration Policy	Handheld Package	<p>Lets you set configuration information for associated BlackBerry devices, including the owner name for the device and any additional information you want to include.</p> <p>For more information, see <a href="#">"BlackBerry Configuration Policy" on page 53</a>.</p>
BlackBerry Inventory Policy	Handheld Package	<p>Lets you enable the collection of hardware and software inventory from associated BlackBerry devices.</p> <p>For more information, see <a href="#">"BlackBerry Inventory Policy" on page 54</a>.</p>
BlackBerry Security Policy	Handheld Package	<p>Lets you ensure that a password is set on associated BlackBerry devices.</p> <p>For more information, see <a href="#">"BlackBerry Security Policy" on page 56</a>.</p>

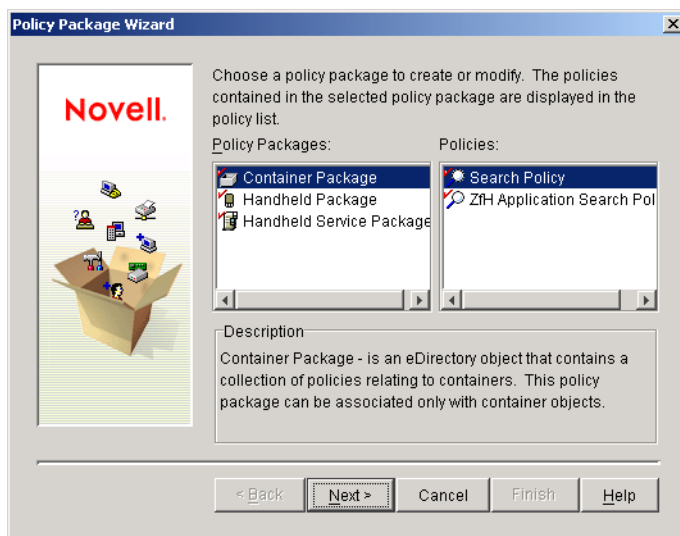
Policy	Container	Description
Palm Configuration Policy	Handheld Package	<p>Lets you set general preferences, such as auto-off, system sound, and beam retrieve settings; associate different software programs with the buttons on the Palm OS device; assign a feature users can access when they drag the pen from the writing area to the top of the screen on the Palm OS device; and specify which software programs are allowed or not allowed on Palm OS devices.</p> <p>For more information, see <a href="#">“Palm Configuration Policy” on page 57</a>.</p>
Palm File Retrieval Policy	Handheld Package	<p>Lets you specify files to retrieve from the associated Palm OS device to copy to a specified location.</p> <p>For more information, see <a href="#">“Palm File Retrieval Policy” on page 60</a>.</p>
Palm Security Policy	Handheld Package	<p>Lets you ensure that a password is set on the associated Palm OS device and lets you configure Auto Lock Configuration and enhanced password protection.</p> <p>Also lets you specify self-destruct settings to disable a Palm device after a specified number of failed password attempts or after a specified number of days since the device was last synchronized.</p> <p>For more information, see <a href="#">“Palm Security Policy” on page 64</a>.</p>
WinCE Configuration Policy	Handheld Package	<p>Lets you associate different software programs or functions with the buttons on the associated Windows CE device; specify which programs you want to include on the Start menu (on a Pocket PC) or on the desktop (on a handheld PC); and specify power settings for Windows CE devices.</p> <p>For more information, see <a href="#">“WinCE Configuration Policy” on page 67</a>.</p>
WinCE File Retrieval Policy	Handheld Package	<p>Lets you specify files to retrieve from the associated Windows CE device to copy to a specified location.</p> <p>For more information, see <a href="#">“WinCE File Retrieval Policy” on page 71</a>.</p>

Policy	Container	Description
WinCE Security Policy	Handheld Package	<p>Lets you ensure that a password is set on the Windows CE device and configure enhanced security options for Pocket PCs.</p> <p>Also lets you specify self-destruct settings to disable a Windows CE device after a specified number of failed password attempts or after a specified number of days since the device was last synchronized.</p> <p>For more information, see <a href="#">“WinCE Security Policy” on page 74.</a></p>

## Creating Policy Packages

A policy package is an eDirectory object containing one or more individual policies. Before you can configure, enable, and associate the policies contained in a policy package, you must create the policy package.

- 1 Right-click the container that will hold your policy packages > click New > click Policy Package.



- 2 Select Container Package.

or

Select Handheld Package.

or

Select Handheld Service Package.

**HINT:** To list the policies that are contained in each policy package, click the name of each policy in the Policy Packages list on the left side of the Policy Package Wizard window. The available policies will display in the Policies list on the right side of the Policy Package Wizard window.

- 3 Click Next.
- 4 Give the policy package a short name, click Next, click Create, then click Finish.

## Setting Up Container Package Policies

In ZENworks for Handhelds, the Container package contains two policies: Search and ZENworks for Handhelds Application Search.

The following sections contain additional information:

- ♦ [“Search Policy Overview” on page 47](#)
- ♦ [“Search Policy” on page 48](#)
- ♦ [“ZENworks for Handhelds Application Search Policy” on page 50](#)
- ♦ [“Associating the Container Package” on page 52](#)

### Search Policy Overview

ZENworks for Handhelds policies are associated to a handheld device object in any of the following ways:

- ♦ To the handheld device object itself
- ♦ To a Handheld Group where the handheld device is a member
- ♦ To a parent container of the handheld device object

The search order that ZENworks for Handhelds uses is consistent with standard eDirectory behavior and any search policies that are in the tree. ZENworks for Handhelds starts at the handheld device object, followed by any Handheld Groups that the device is a member of, and then starts walking up the tree looking for policies to enforce. All handheld policies are merged and the culmination is applied to the handheld device. If any conflicts occur, such as two Palm Configuration policies (one associated directly to the handheld device object and the other associated to a parent container of the handheld device object), the first policy found is enforced. In this case, the Palm Configuration policy directly associated to the handheld device object is enforced.

The File Retrieval policies (Palm File Retrieval and WinCE File Retrieval) present exceptions to rule that the first policy found is enforced. These policies are both plural (meaning they can be added many times to a policy package) and cumulative (meaning that many different File Retrieval policies with different settings can be effective for a single handheld device object, handheld group object, or container object). Because the File Retrieval policies are plural and cumulative, no conflicts occur when ZENworks for Handhelds encounters multiple File Retrieval policies: every effective File Retrieval policy will be enforced.

The Search policy is used to limit how far up the tree ZENworks for Handhelds will search for the effective policies. The ZENworks for Handhelds Application Search policy is used to limit how far up the tree ZENworks for Handhelds will search for handheld application objects. In addition to limiting how far up the tree ZENworks for Handhelds will search for policies, both policies let you determine the searching order (object, group, container) that ZENworks for Handhelds will use as it searches for policies. The search order is significant because the first policy found is enforced (except for the File Retrieval policies, as explained previously).

If your directory contains many objects, ZENworks for Handhelds will perform significant tree-walking if no search policies are enabled. For this reason, you should make use of both the Search policy and the ZENworks for Handhelds Application Search policy.

The Search policy and the ZENworks for Handhelds Application Search policy provide the following benefits

- ◆ Improved security
- ◆ The ability to reorder a search
- ◆ Better search performance by limiting the search levels traversed in eDirectory and by avoiding unnecessary LAN traffic

The Search policy specifies how ZENworks for Handhelds determines which policies are associated with handheld device objects. The ZENworks for Handhelds Application Search policy specifies how ZENworks for Handhelds determines which handheld application objects are associated with handheld device objects. To make either search policy effective, you associate it with a container. Both search policies apply to handheld device objects within or beneath a given container.

You can specify the number of levels above or below the location to begin the search:

Number	Description
0	Limits the search to the selected level.
1	Limits the search to one level above the selected level.  For example, if you selected the handheld device object's parent container, this would limit the search to one level above the parent level.
-1	Limits the search to one level below the selected level.  For example, if you selected [Root], -1 would limit the search to one level below [Root].

Without a search policy in effect, the default is to search from the parent container clear to [Root] hourly. The search checks each container up the tree towards [Root] for policy packages and handheld application objects associated with those containers.

The default search policy will recognize the policy package associated with the handheld device object before it will look in any group or container where such an object resides.

The default search order, Object > Group > Container, can be reordered and can include as few as one of the locations. For instance, you can exclude Group objects by setting the search order to Object > Container.

You can avoid unnecessary LAN traffic by searching to an associated container instead of [Root].

The Search policy is required for finding other policies. You set up Search policies at a container level. Set up as many Search policies as you will need to help minimize network traffic.

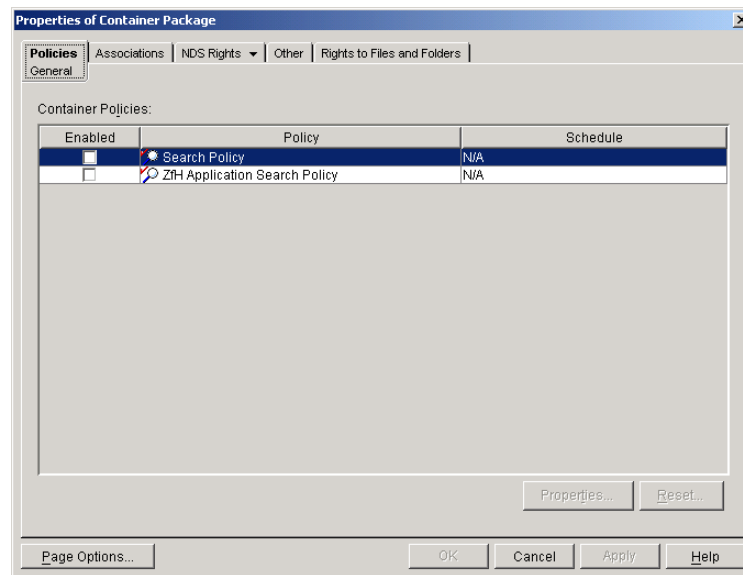
## Search Policy

The Search policy is used to limit how far up the tree ZENworks for Handhelds will search for the effective policies.

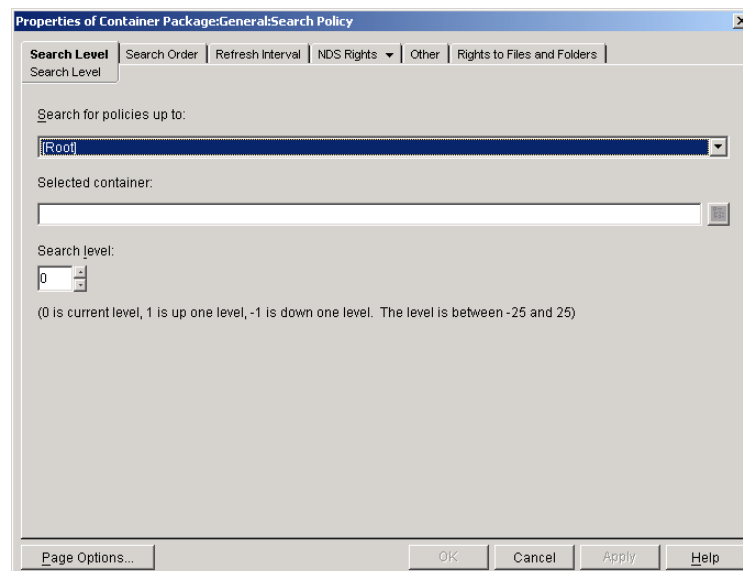


To set up a Search policy:

- 1 In ConsoleOne, right-click the newly created Container Package, then click Properties.



- 2 Check the check box under the Enabled column for the Search policy.  
This both selects and enables the policy.
- 3 Click Properties to display the Search Level page.

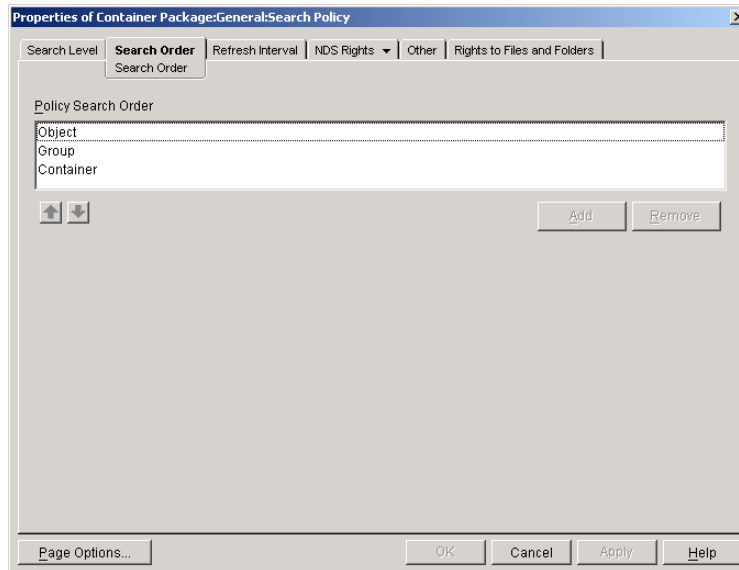


- 4 Select the level to search to from the drop-down list:  
**[Root]:** Search from the handheld device object to the root of the tree.  
**Object Container:** Search from the handheld device object to the parent container of the object.  
**Partition:** Search from the handheld device object to the partition boundary.

**NOTE:** If you are using ZENworks for Desktops 4 (ZfD 4), Partition has been replaced with Associated Container. If you select Associated Container, ZENworks for Handhelds will search to the partition boundary.

**Selected Container:** Search from the handheld device object to the selected container.

- 5 If you chose Selected Container, browse to select the container.
- 6 To determine the searching limits in either direction, specify a number between -25 and 25.
- 7 Click the Search Order tab.



- 8 Specify the policy searching order, using the arrow keys, the Add button, and the Remove button as necessary.

**NOTE:** Depending on which other ZENworks products (ZENworks for Desktops and ZENworks for Servers) are present, ConsoleOne may display a Refresh Interval page; however, ZENworks for Handhelds does not use the settings on the Refresh Interval page.

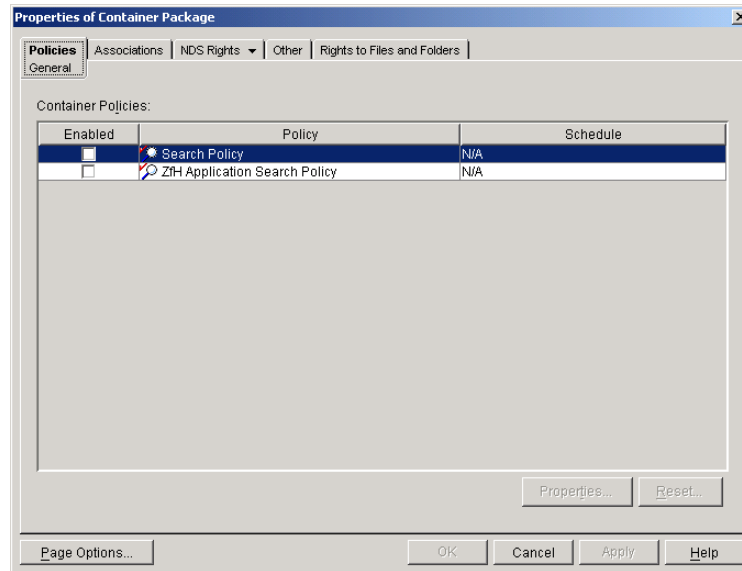
- 9 Click OK.
- 10 When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Container Package” on page 52** to associate the policy package.

## ZENworks for Handhelds Application Search Policy

The ZENworks for Handhelds Application Search policy is used to limit how far up the tree ZENworks for Handhelds will search for Handheld Application objects.

To set up the ZENworks for Handhelds Application Search policy:

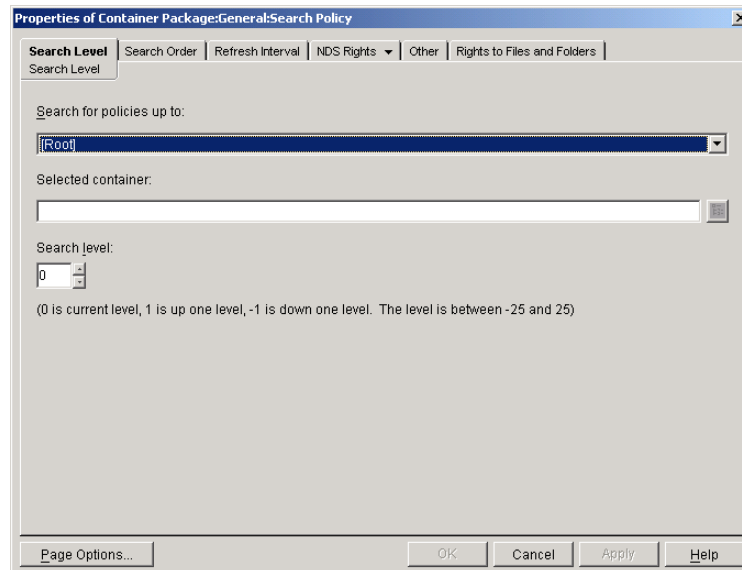
- 1 In ConsoleOne, right-click the Container Package, then click Properties.



- 2 Check the check box under the Enabled column for the ZENworks for Handhelds Application Search policy.

This both selects and enables the policy.

- 3 Click Properties to display the Search Level page.



- 4 Select the level to search to:

**[Root]:** Search from the handheld device object to the root of the tree.

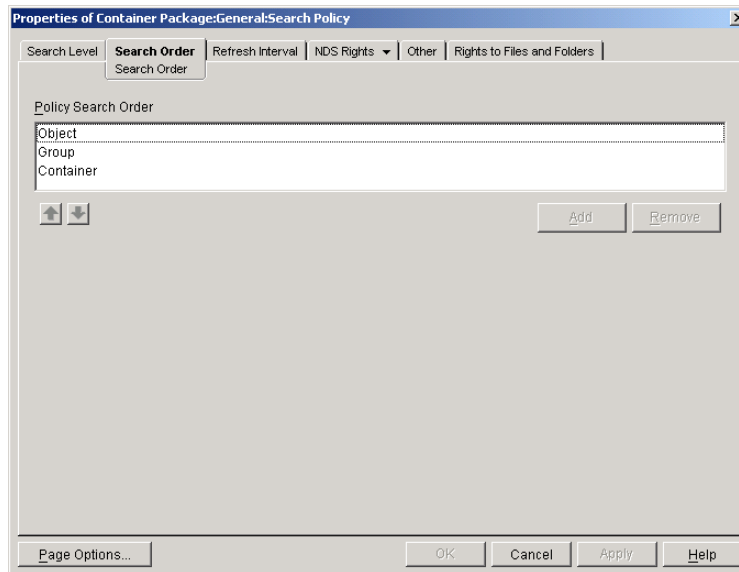
**Object Container:** Search from the handheld device object to the parent container of the object.

**Partition:** Search from the handheld device object to the partition.

**NOTE:** If you are using ZfD 4, Partition has been replaced with Associated Container. If you select Associated Container, ZENworks for Handhelds will search to the partition boundary.

**Selected Container:** Search from the handheld device object to the selected container.

- 5** If you chose Selected Container, browse to select the container.
- 6** To determine the searching limits in either direction, specify a number between -25 and 25.
- 7** Click the Search Order tab.



- 8** Specify the policy searching order.  
Use the arrow keys, the Add button, and the Remove button as necessary to create your search order.
- 9** Click OK.
- 10** When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Container Package” on page 52** to associate the policy package.

## Associating the Container Package

The policies you configured and enabled will not be in effect until you associate their policy package with a container object.

- 1** In ConsoleOne, right-click the Container Package, then click Properties.
- 2** Click the Associations tab > Add.
- 3** Browse for the container for associating the package, then click OK.

## Setting Up Handheld Package Policies

ZENworks for Handhelds provides Handheld Package policies for the Palm OS, Windows CE, and BlackBerry platforms.

Each platform has its own page where you can view and configure available policies. To display a desired platform page: in ConsoleOne, right-click the Handheld Package, click Properties, click the down-arrow on the Policies tab, then click the appropriate platform: Palm, WinCE, or BlackBerry.

Review the following sections for more information to help you set up the Handheld Package policies:

- ♦ “BlackBerry Configuration Policy” on page 53
- ♦ “BlackBerry Inventory Policy” on page 54
- ♦ “BlackBerry Security Policy” on page 56
- ♦ “Palm Configuration Policy” on page 57
- ♦ “Palm File Retrieval Policy” on page 60
- ♦ “Palm Security Policy” on page 64
- ♦ “WinCE Configuration Policy” on page 67
- ♦ “WinCE File Retrieval Policy” on page 71
- ♦ “WinCE Security Policy” on page 74
- ♦ “Associating the Handheld Package” on page 78
- ♦ “Scheduling Packages and Policies” on page 78

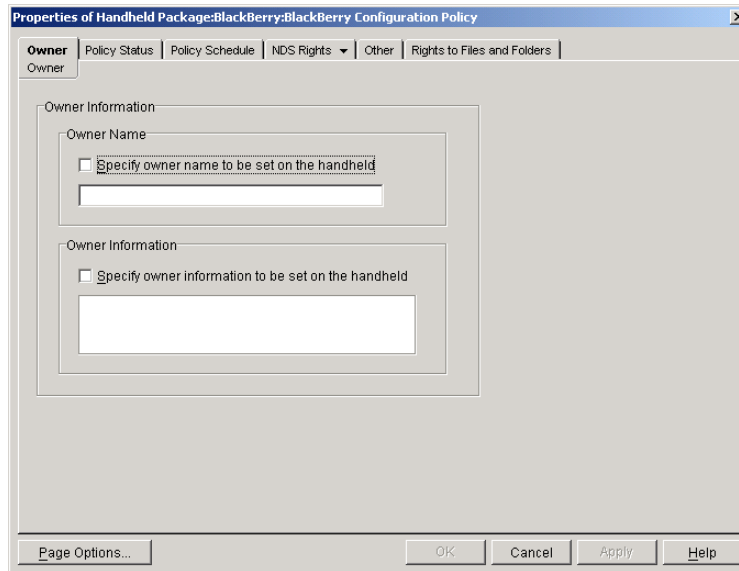
## BlackBerry Configuration Policy

The BlackBerry Configuration policy lets you specify a standard owner name and additional information that will be set on the associated BlackBerry devices. For example, you could specify that your company name, address, and telephone number be set on all associated BlackBerry devices to help recover lost devices.

The owner name and information that you specify using this policy does not affect the naming of the device objects in eDirectory; the owner name and information you specify in this policy displays only on the actual device.

To set up the BlackBerry Configuration policy:

- 1** In ConsoleOne, right-click the Handheld Package object, then click Properties.
- 2** On the Policies tab, click the down-arrow, then click BlackBerry.
- 3** Check the check box under the Enabled column for the BlackBerry Configuration policy.  
This both selects and enables the policy.
- 4** Click Properties to display the Owner page.



**5** Fill in the fields:

**Owner Name:** Click the Specify Owner Name To Be Set on the Handheld check box, then type the owner name that you want to be set on associated BlackBerry devices.

**Owner Information:** Click the Specify Owner Information To Be Set on the Handheld check box, then type any additional information that you want to be set on associated BlackBerry devices.

**6** Click OK to save the policy.

**7** When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Handheld Package” on page 78** to associate the policy package.

**8** If desired, schedule the policy. For more information, see **“Scheduling Packages and Policies” on page 78**.

## BlackBerry Inventory Policy

The BlackBerry Inventory policy lets you enable the collection of hardware and software inventory from associated BlackBerry devices.

To set up the BlackBerry Inventory policy:

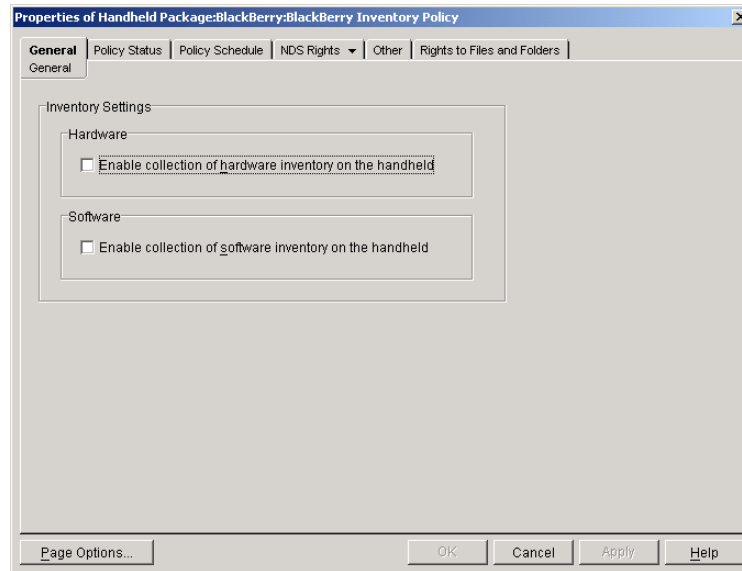
**1** In ConsoleOne, right-click the Handheld Package object, then click Properties.

**2** On the Policies tab, click the down-arrow, then click BlackBerry.

**3** Check the check box under the Enabled column for the BlackBerry Inventory policy.

This both selects and enables the policy.

**4** Click Properties to display the General page.



**5** Fill in the fields:

**Hardware:** To collect hardware information for associated BlackBerry devices, click the Enable Collection of Hardware Inventory on the Handheld check box.

Collected data about hardware is stored on a per-device basis and is found on the ZENworks Inventory page in ConsoleOne or on the Clients: Hardware Inventory page in the ZENworks for Handhelds Inventory Viewer. To view the ZENworks Inventory page in ConsoleOne, right-click a handheld device object, click Properties, then click the ZENworks Inventory tab. To open the ZENworks for Handhelds Inventory Viewer, right-click a handheld device object, click Actions, then click Inventory. For more information, see [“Viewing Hardware Inventory” on page 115](#).

**Software:** To collect software information for associated BlackBerry devices, click the Enable Collection of Software Inventory on the Handheld check box.

Collected data about software is found in the ZENworks for Handhelds Inventory Viewer. To open the ZENworks for Handhelds Inventory Viewer, right-click a handheld device object, click Actions, then click Inventory. You can view software inventory information for a specific device or across all BlackBerry devices in your system. For more information, see [“Viewing Software Inventory” on page 105](#).

**6** Click OK to save the policy.

**7** When you have finished configuring all of the policies for this package, continue with the steps under [“Associating the Handheld Package” on page 78](#) to associate the policy package.

**8** If desired, schedule the policy. For more information, see [“Scheduling Packages and Policies” on page 78](#).

**NOTE:** You must schedule inventory for BlackBerry devices because they are always connected to the ZENworks for Handhelds server. For Palm and Windows CE devices, you do not need to schedule inventory; software inventory is collected once a day from the handheld devices during synchronization.

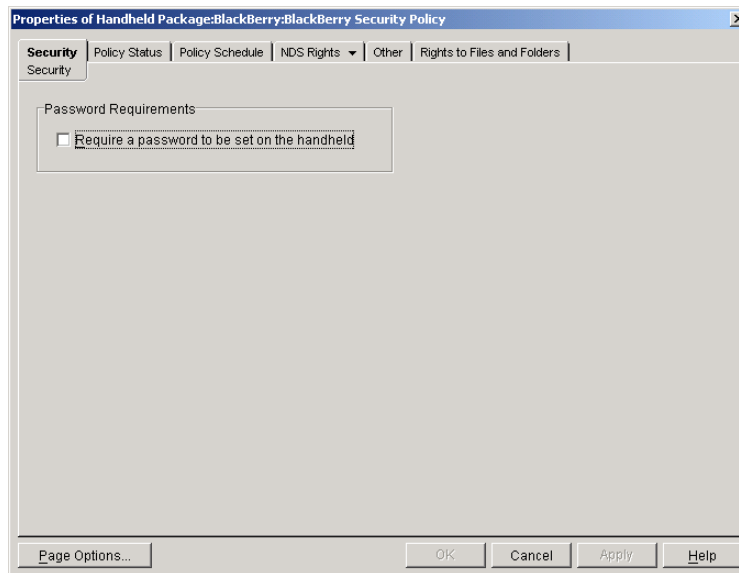
For BlackBerry devices, a policy schedule of Custom Event:EventHandheldSync gets translated on the device to Daily.

## BlackBerry Security Policy

The BlackBerry Security policy lets you ensure that a password is set on associated BlackBerry devices. You can also use the BlackBerry Device Lockout feature to lock a device that you suspect has been lost or stolen. For more information, see [“BlackBerry Device Lockout” on page 56](#).

To set up the BlackBerry Security policy:

- 1 In ConsoleOne, right-click the Handheld Package object, then click Properties.
- 2 On the Policies tab, click the down-arrow, then click BlackBerry.
- 3 Check the check box under the Enabled column for the BlackBerry Security policy.  
This both selects and enables the policy.
- 4 Click Properties to display the Security page.



- 5 Click the Require a Password To Be Set On the Handheld check box.  
If your organization has a rule stating that all handheld devices must have a password, you should enable this policy.  
  
When the BlackBerry Security policy is enforced, if the user does not have a password set, he or she will be prompted to create one. If the user ignores the prompt, he or she will be prompted every 15 minutes to create a password for the device.
- 6 Click OK to save the policy.
- 7 When you have finished configuring all of the policies for this package, continue with the steps under [“Associating the Handheld Package” on page 78](#) to associate the policy package.
- 8 If desired, schedule the policy. For more information, see [“Scheduling Packages and Policies” on page 78](#).

## BlackBerry Device Lockout

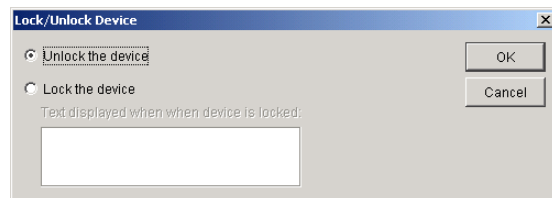
The BlackBerry Device Lockout feature lets you disable a BlackBerry device if you suspect that it has been lost or stolen. After the device is locked, no applications can run on the device other than ZENworks for Handhelds, which can be used to unlock the device.



If a BlackBerry device that has been locked is placed in a cradle, the device will display error messages and will be unusable. The device will remain in an unusable state until it is unlocked by ZENworks for Handhelds; if the device is reset, it will remain locked.

To lock or unlock a BlackBerry device:

- 1 In ConsoleOne, right-click the desired BlackBerry handheld device object, click Actions, then click Lock/Unlock Device.



- 2 Click Unlock the Device.

or

Click Lock the Device, then type the text you want displayed on the device when in is locked.

- 3 Click OK.

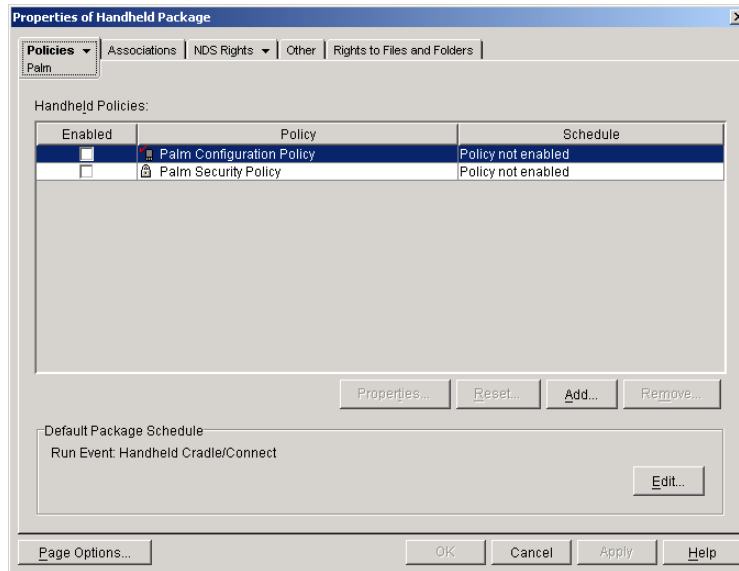
## Palm Configuration Policy

The Palm Configuration policy lets you configure the following:

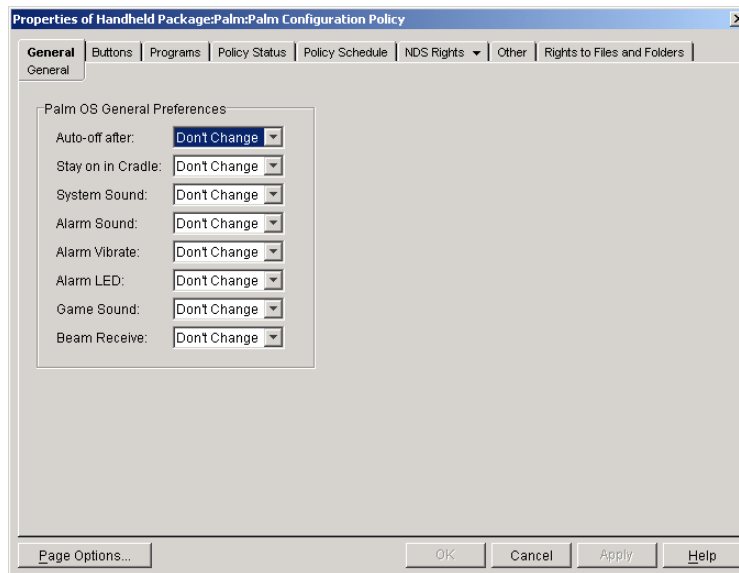
- ♦ **General Preferences:** Lets you set preferences for associated Palm OS devices, for example how long before an idle device turns itself off, whether or not a device stays on when cradled, and more.
- ♦ **Buttons:** Lets you associate different software programs with the buttons on associated Palm OS devices. Also lets you assign a feature users can access when they drag the pen from the writing area to the top of the screen on the Palm OS device. For example, you can select Turn Off & Lock to make it easier for users to turn off and lock their Palm OS devices.
- ♦ **Programs:** Lets you specify which software programs are allowed or not allowed on associated Palm OS devices. Programs that are not allowed can be automatically removed from the devices.

To set up the Palm Configuration policy:

- 1 In ConsoleOne, right-click the Handheld Package object, then click Properties.



- 2** On the Policies tab, click the down-arrow, then click Palm.
- 3** Check the check box under the Enabled column for the Palm Configuration policy.  
This both selects and enables the policy.
- 4** Click Properties.
- 5** On the General page, make the desired configuration changes.



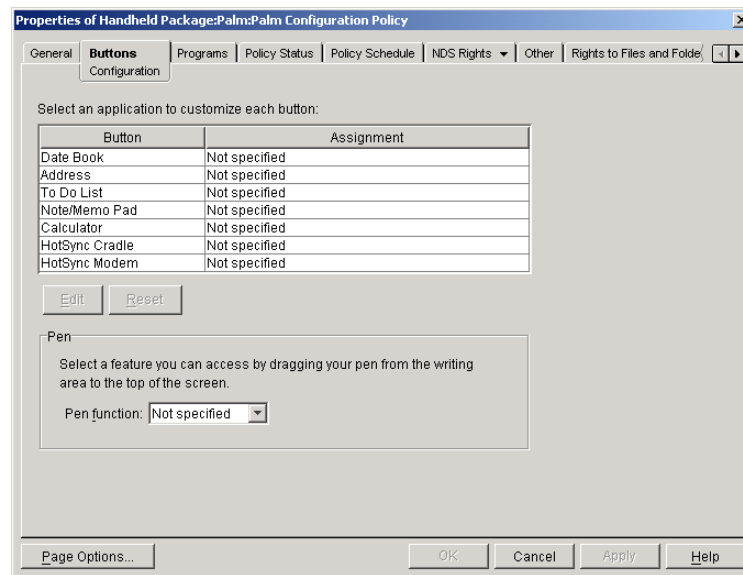
You can change the settings for the following preferences:

- ◆ Auto-Off After
- ◆ Stay On in Cradle
- ◆ System Sound
- ◆ Alarm Sound

- ♦ Alarm Vibrate
- ♦ Alarm LED
- ♦ Game Sound
- ♦ Beam Receive

Each preference in the list contains a Don't Change setting. If you choose this setting, ZENworks for Handhelds will not change that preference on associated devices; the corresponding setting on each device will determine its behavior. For example, if you choose the Don't Change setting for Auto-Off After, each associated device will use its own preference settings to determine how long an idle Palm OS device will wait until it turns itself off. If you want to ensure consistency across all associated Palm OS devices, choose the appropriate setting.

**6** On the Buttons: Configuration page, make the desired configuration changes.



The Button Column lists the available buttons on the Palm OS device. To change a button's association, select a button from the Button list, click Edit, click Set to Application, browse to an application, then click OK.

**HINT:** Depending on your particular Palm OS device, the available buttons in the Button list will be named differently than those in the preceding illustration.

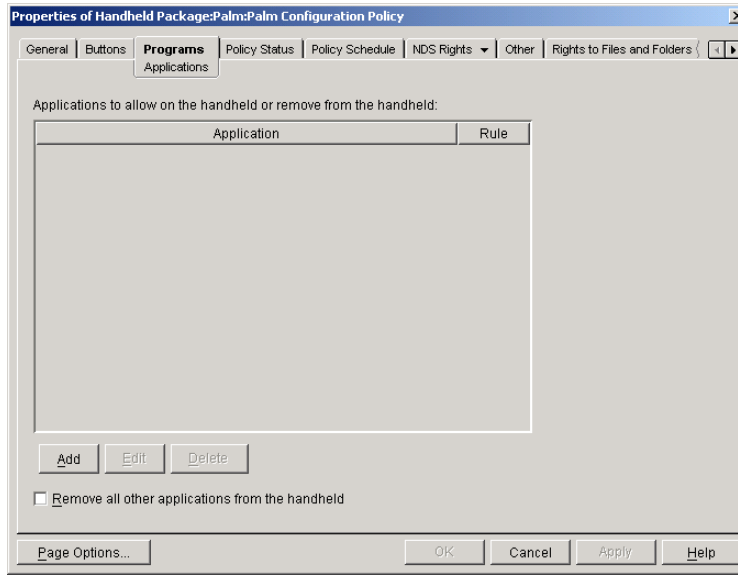
The Pen Function drop-down list lets you assign a feature users can access when they drag the pen from the writing area to the top of the screen on the Palm OS device. For example, you can select Turn Off & Lock to make it easier for users to turn off and lock their Palm OS devices. To assign a feature, choose an option from the drop-down list.

The following options are available:

- ♦ Not Specified
- ♦ Backlight
- ♦ Keyboard
- ♦ Graffiti Help
- ♦ Turn Off & Lock

- ◆ Beam Data

**7** On the Programs page, make the desired configuration changes.



The Application column lists the applications that you want to allow on the device or remove from the device. To add an application to the list, click Add, browse to the application, then click OK.

**NOTE:** When you browse to applications, ZENworks for Handhelds displays all applications, regardless of whether they reside in ROM or RAM. You cannot delete applications from ROM or from an external storage device.

Select a rule to apply to the application:

- ◆ Allow the Application on the Handheld
- ◆ Remove the Application from the Handheld

Rather than selecting certain applications to be removed from the device, you might find it easier to specify a list of allowed applications and check the Remove All Other Applications from the Handheld check box. When the policy is enforced or when the user synchronizes the device, all applications not listed in the Applications list with the Allow rule set will be removed from the device.

- 8** Click OK to save the policy.
- 9** When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Handheld Package” on page 78** to associate the policy package.
- 10** If desired, schedule the policy. For more information, see **“Scheduling Packages and Policies” on page 78**.

## Palm File Retrieval Policy

The Palm File Retrieval policy lets you specify source files you want to retrieve from a Palm OS device and copy to a specified destination location.

The File Retrieval policy is a plural policy, meaning it can be added many times to a policy package. You can set up as many File Retrieval policies as required to adequately retrieve

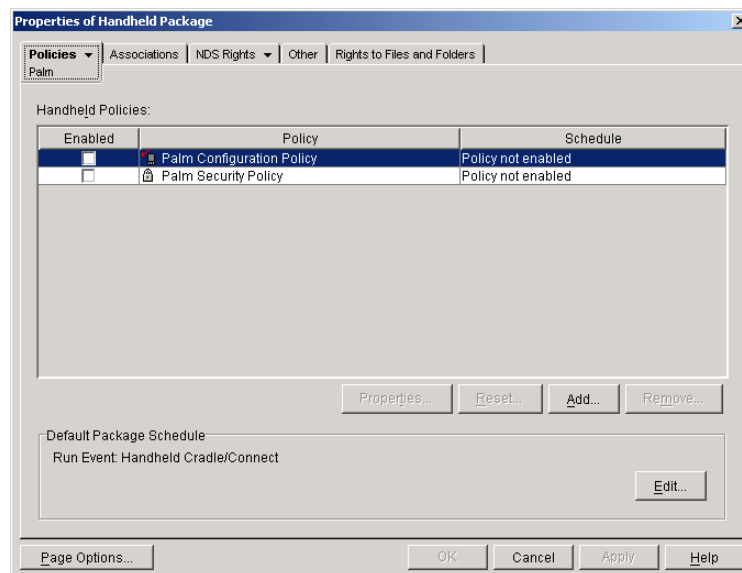
important files from the handheld devices in your organization. When you name these plural policies, be sure to give them descriptive names.

The File Retrieval policy is also cumulative, meaning that many different Palm File Retrieval policies can be effective for a single handheld device object, handheld group object, or container object.

**NOTE:** If you want to retrieve files from handheld devices and store them on a NetWare® volume, you must install the Novell Client™ on the ZENworks for Handhelds server machine.

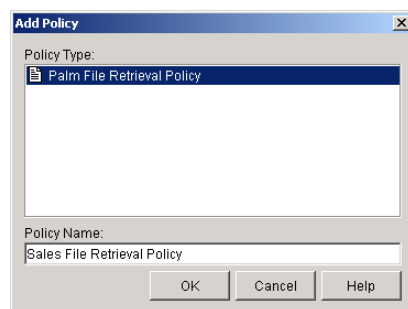
To set up the Palm File Retrieval policy:

- 1 In ConsoleOne, right-click the Handheld Package object, then click Properties.



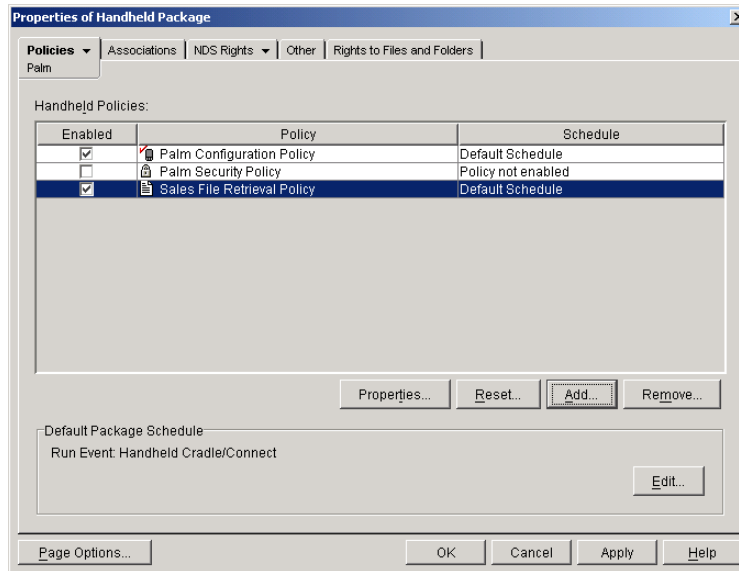
- 2 On the Policies tab, click the down-arrow, then click Palm.

- 3 Click Add.



- 4 Type a descriptive name in the Policy Name field, then click OK.

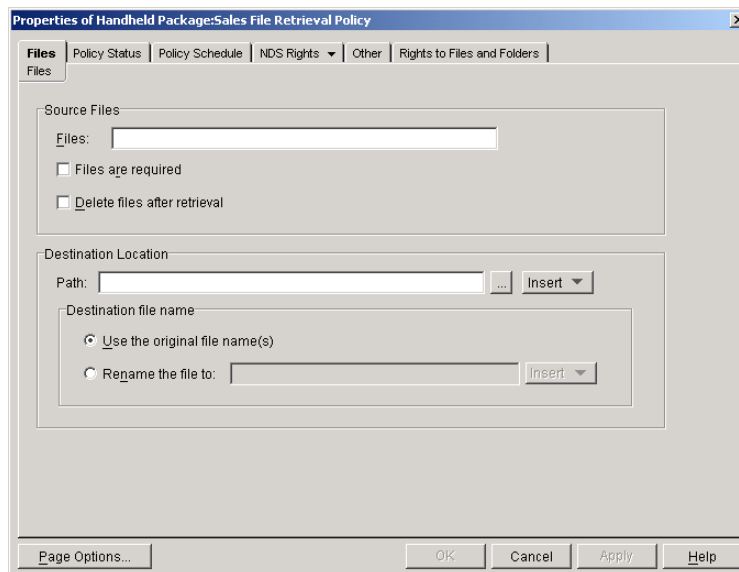
The newly created File Retrieval policy displays in the Handheld Policies list.



- 5 Check the check box under the Enabled column for the newly created Palm File Retrieval policy.

This both selects and enables the policy.

- 6 Click Properties to display the Files page.



- 7 In the Files field, specify the source files to be retrieved from the handheld device.

**NOTE:** You must enter the Palm database or resource filename in the Files field. A third-party file utility tool (such as FileZ, a shareware program) may be necessary to determine the actual filename.

When you specify source files, be aware that filenames are case sensitive. You can use wildcard characters to specify source files.

When the policy is enforced, all specified source files will be retrieved from the device; the files will be retrieved even if the same files were previously retrieved at another time.

- 8** Select the Files Are Required check box if you want ZENworks for Handhelds to report a failed status if the specified files do not exist on the handheld device or if the specified wildcard characters do not provide a match for files on the device.

For more information about policy status, see [“Viewing Policy Status Information” on page 79](#).

- 9** Select the Delete Files After Retrieval check box if you want the specified source files to be deleted from the handheld device after they have been retrieved from the handheld device.

If you do not enable this option, the source files will be copied to the specified location but will also remain on the handheld device.

- 10** In the Path field, browse to or specify the destination location where you want the specified files copied to.

The renamed file can include variables. To include variables, click the Insert button, then click the desired variable.

The following variables are available for use:

Variable:	Description:
<i>device</i>	The CN of the device. For example, in Dan m130.Handhelds.NovellWheaton, the string would be Dan m130.
<i>devicedn</i>	The full DN of the device. For example, In Dan m130.Handhelds.NovellWheaton, the string would be Dan m130.Handhelds.NovellWheaton.
<i>user</i>	The username of the device. This is the value stored in the zfhUserName attribute for the object in the directory. When this value is not configured on the handheld device, it is set to <Undefined>.
<i>date</i>	The date the file was retrieved from the handheld device. This value is the date only; the time that the file was retrieved is not included. For example, if the file was retrieved on September 15, 2002 at 3:15 p.m., the string would be 2002-09-15. The string is always in the format of yyyy-mm-dd.
<i>time</i>	The time the file was retrieved from the handheld device. This value is for the time only; the date that the file was retrieved is not included. For example, if a file was retrieved on September 15, 2002 at 3:20 p.m., the string would be 15-20. The string is always in the format of hh-mm, with hh representing the hour in 24-hour format.
<i>guid</i>	The GUID for the handheld device.
<i>server</i>	The name of the server that received the data. This is the Windows NT name of the server.

To use a variable, place an @ sign on either side of the variable in the string. For example, you could use the following syntax:

@user@\_filename

- 11** Select Use the Original File Name(s) to use the original source filenames for the destination files.

or

Select Rename the Files To and specify new filenames for the destination files.

- 12 Click OK to save the policy.
- 13 When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Handheld Package” on page 78** to associate the policy package.
- 14 If desired, schedule the policy. For more information, see **“Scheduling Packages and Policies” on page 78**.

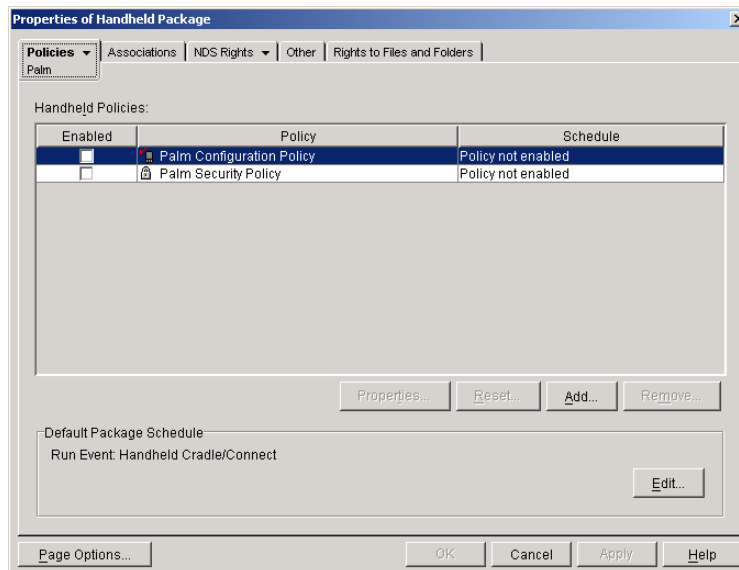
## Palm Security Policy

The Palm Security policy lets you configure the following:

- ♦ **Password Requirements:** Lets you ensure that a password is set on the associated Palm devices and also lets you configure enhanced security options, such as the number of days to allow before a password expires, the number of grace logons permitted before the user must change the password, the minimum number of characters to allow for the password, and whether the password must contain a mix of letters and numbers. For devices running Palm OS 4.x or newer, you can also configure auto-lock options.
- ♦ **Self-Destruct Settings:** Lets you specify self-destruct settings to disable a Palm device after a specified number of failed password attempts or after a specified number of days since the device was last connected or synchronized.

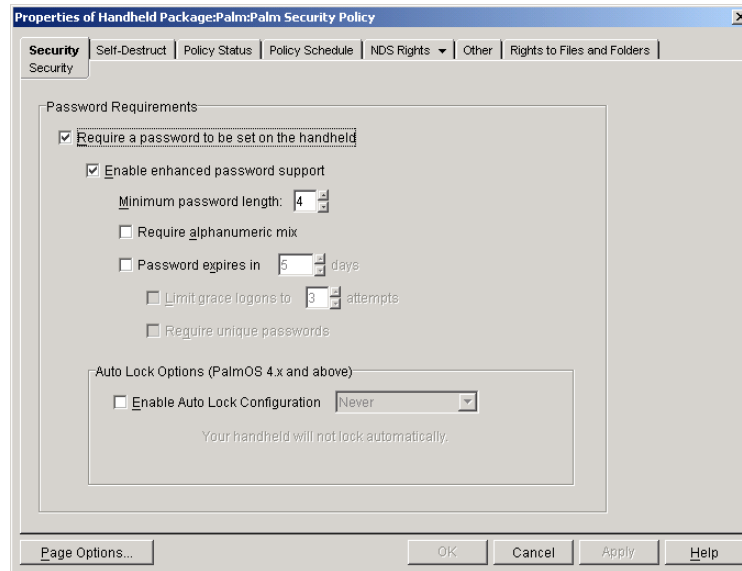
To set up the Palm Security policy:

- 1 In ConsoleOne, right-click the Handheld Package object, then click Properties.



- 2 On the Policies tab, click the down-arrow, then click Palm.
- 3 Check the check box under the Enabled column for the Palm Security policy.  
This both selects and enables the policy.
- 4 Click Properties to display the Security page.





## 5 Fill in the fields:

**Require a Password to Be Set on the Handheld:** Lets you specify that a password must be set on the Palm OS device. If your organization has a rule that states that all handheld devices must have a password, you should enable this policy. If a user does not have a policy set, he or she will be prompted to create one.

**Enable Enhanced Password Support:** Select this option to specify enhanced password support.

For Palm OS devices, ZENworks for Handhelds replaces the Palm password applet if you select Enable Enhanced Password Support; users will see ZENworks for Handhelds password dialog boxes rather than the default Palm OS dialog boxes.

If, in the future, you want to remove the ZENworks for Handhelds password applet and restore the original Palm password applet, you will need to reconfigure the Palm Security policy and disable the Require a Password to Be Set on the Handheld option and then resynchronize the device so that the policy is enforced. Uninstalling the ZENworks for Handhelds handheld client on the device or disassociating the device from the Palm Security policy will not remove the ZENworks for Handhelds password applet replacement.

**Minimum Password Length:** Check this box and specify the minimum number of characters to allow for the password on the device. You should choose a number great enough to ensure adequate security, but small enough not to excessively burden the user.

**Require Alphanumeric Mix:** Check this box to require that the user use both letters and numbers in the password. To improve the security of a password, it should contain both letters (uppercase and lowercase) and numbers.

**Password Expires In \_ Days:** Check this box and specify the number of days that you want the password to expire in. When the specified number of days has expired, the user will be prompted to change the password for the device.

**Limit Grace Logons to \_ Attempts:** Check this box and specify the number of grace logon attempts you want to allow the user before he or she must change the password for the device. After the number of days in Password Expires in \_ Days, the user will be prompted to change the password. The user can choose to ignore this prompt and keep the same password for the number of logon attempts you specify.

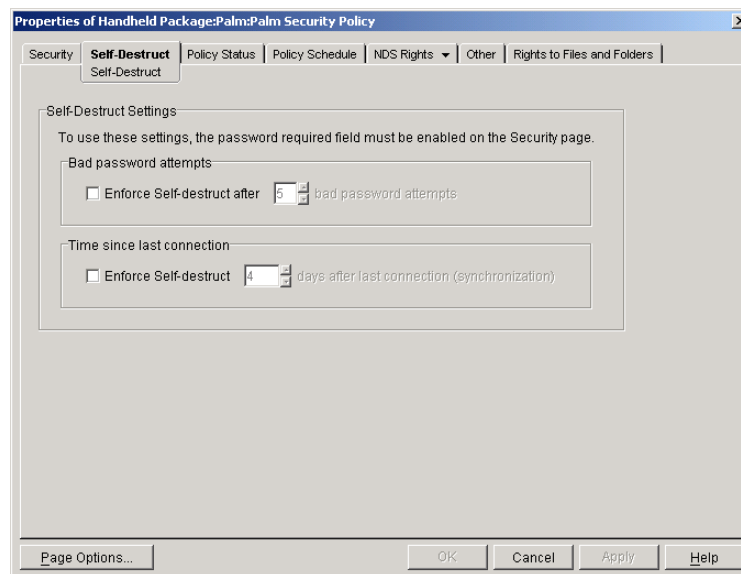
**Require Unique Passwords:** Check this box to require that the user enter a new password; he or she cannot reuse the previous eight passwords.

**Enable Auto Lock Configuration (Palm OS 4.x and Above):** Lets you specify that the Palm OS device is automatically locked when the specified event occurs. Using this policy improves the security of the data on your Palm OS devices. To use this setting, the handheld device must be running Palm OS 4.x or later.

The available settings include:

- ◆ Never
- ◆ On Power Off
- ◆ At Present Time
- ◆ After a Preset Delay

**6** Click the Self-Destruct tab.



The Self-destruct page lets you configure self-destruct settings for Palm OS devices so that data is not accessible from handheld devices that are lost or stolen. When the self-destruct feature is activated, the data on the device is made unusable and the device must be manually reset, which restores the device to its out-of-the-box state.

To use the self-destruct options for Palm OS devices, you must check the Require a Password to Be Set on the Handheld check box on the Security page.

**IMPORTANT:** Use caution when you use the self-destruct feature. Be sure to allow an adequate number of password attempts and an adequate number of days since the last connection or synchronization to prevent data loss to users who incorrectly enter the password or do not connect or synchronize the device during a short vacation.

For Palm devices using HotSync, if the user synchronizes the device using the same desktop or laptop machine as usual, the data can be restored by HotSync.

**7** Fill in the fields:

**Bad Password Attempts:** Enable the Enforce Self-destruct check box and specify the number of bad password attempts to allow before activating the self-destruct feature.

**Time Since Last Connection:** Enable the Enforce Self-Destruct check box and specify the number of days after the last connection before activating the self-destruct feature. If the handheld device is using the ZENworks for Handhelds Palm IP client, the Time Since Last Connection option refers to the last time the handheld device connected to the IP conduit machine. If the handheld device is using the ZENworks for Handhelds sync client, the Time Since Last Connection refers to the last time the handheld device was synchronized.

Each day is made up of 24 hours. If you connect (synchronize) the device on Monday at 2 p.m. and specify three days after the last connection before activating the self-destruct feature, the self-destruct feature will activate Thursday at 2 p.m. (72 hours after the last connection/synchronization) unless the device is connected/synchronized during that period.

- 8** Click OK to save the policy.
- 9** When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Handheld Package” on page 78** to associate the policy package.
- 10** If desired, schedule the policy. For more information, see **“Scheduling Packages and Policies” on page 78**.

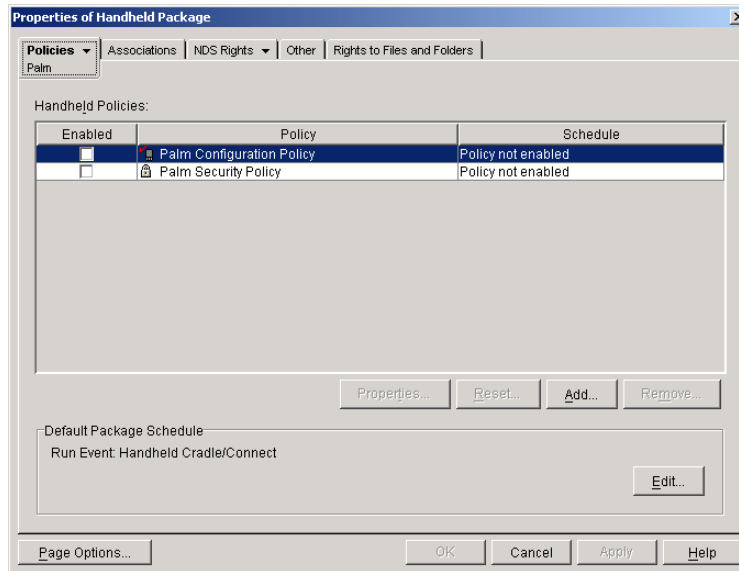
## WinCE Configuration Policy

The WinCE Configuration policy lets you configure the following:

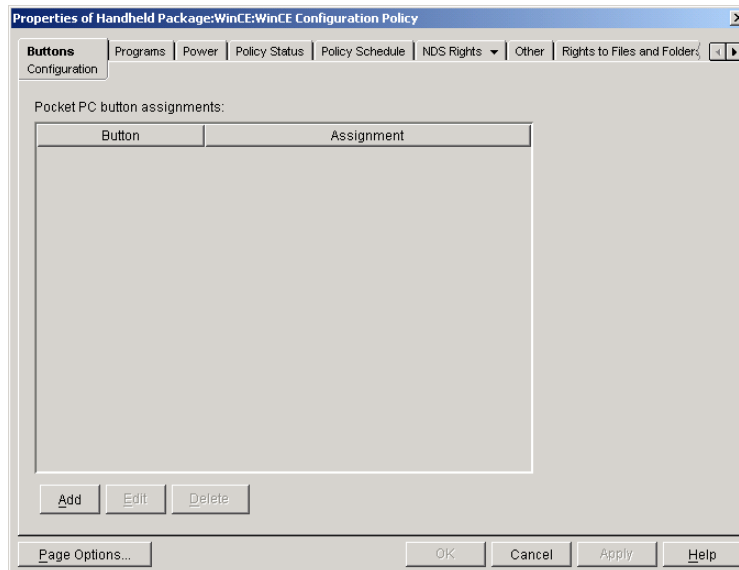
- ♦ **Buttons:** Lets you associate different software programs with the buttons on the Windows CE device. Also lets you assign another function to a button. For example, you can assign Start Menu to a button on the Windows CE device, making it easier for users to access the Start menu.
- ♦ **Programs:** Lets you specify which programs you want to include on the Start Menu (on a Pocket PC) or on the desktop (on a Handheld PC). Programs that are not allowed can be automatically removed from the Start menu/desktop of the device.
- ♦ **Power:** Lets you specify power settings for associated Windows CE devices. You can specify power settings that will apply to Windows CE devices running on internal batteries or on external power.

To set up the WinCE Configuration policy:

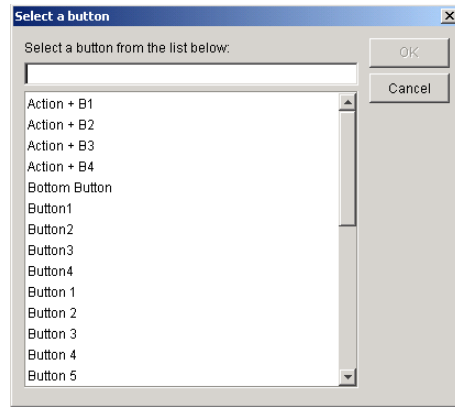
- 1** In ConsoleOne, right-click the Handheld Package object, then click Properties.



- 2** On the Policies tab, click the down-arrow, then click WinCE.
- 3** Check the check box under the Enabled column for the WinCE Configuration policy.  
This both selects and enables the policy.
- 4** Click Properties.



- 5** On the Buttons: Configuration page, click Add to change a button's assignment.



To view the button naming conventions for your particular handheld device: on the handheld device, click Start > Settings > Buttons. For example, on a Compaq iPAQ Pocket PC, the buttons are named Button 1, Button 2, and so forth. On a HP Jornada Pocket PC, the buttons are named Hot key 1, Hot key 2, and so forth.

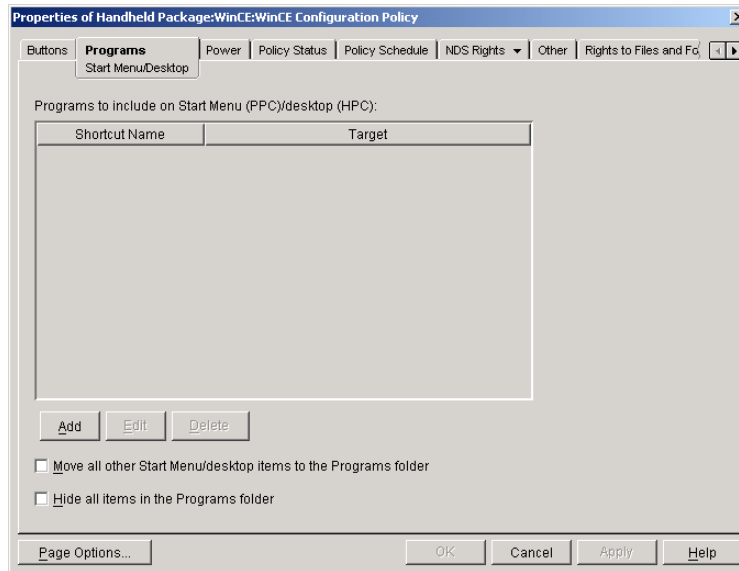
**6** Select a button or type the name of a button, click OK, then select an option:

- ♦ **Reset to Default:** Resets the selected button's association to the factory default association.
- ♦ **Set to Application:** Lets you specify the application to assign to the selected button. If you specify an application that is not in the Start menu path (or subpath), the button applet might not show the correct settings and you will be prompted to restart the handheld device to see the changes.
- ♦ **Set to Other Function:** Lets you specify a function from the drop-down list to assign a function to the selected button.

The available options include:

- ♦ <Input Panel>
- ♦ <None>
- ♦ <Scroll Down>
- ♦ <Scroll Left>
- ♦ <Scroll Right>
- ♦ <Scroll Up>
- ♦ <Start Menu>
- ♦ <Today>

**7** On the Programs: Start Menu/Desktop page, make the desired configuration changes.

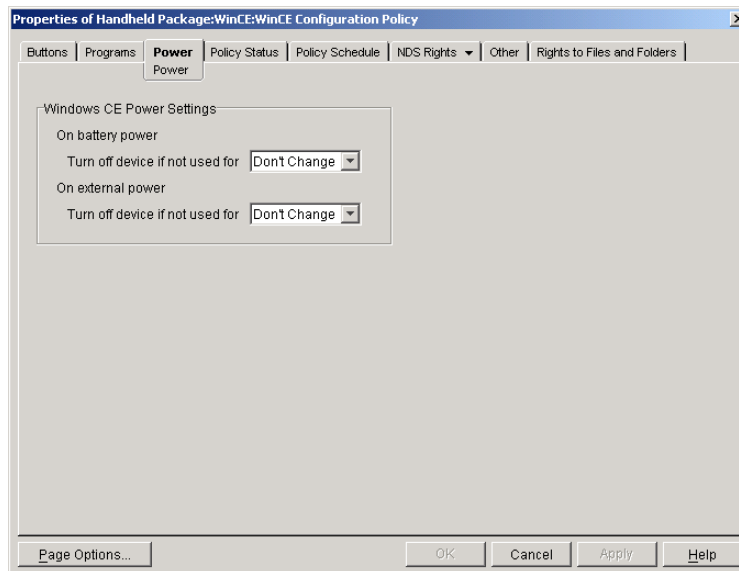


Click Add to specify a program to be added to the Short Cut list, fill in the Shortcut Name box (this is the name that will display in the Start menu or on the desktop), fill in the Target path (the full path to an application's executable file), then click OK.

Rather than selecting certain programs to be removed from the device's Start menu/desktop, you might find it easier to specify a list of allowed applications and check the Move All Other Start Menu/Desktop Items to the Programs Folder check box. When the policy is enforced, all programs not listed in the Icon Name list will be moved to the Programs folder.

Click Hide All Items in the Programs Folder to hide the names and icons of all listed programs in the Programs folder. Using this option lets the user run applications only from the Start menu (on Pocket PC devices) or on the desktop (on handheld PC devices).

- 8 Click OK to save the policy.
- 9 On the Power page, make the desired configuration changes.



**NOTE:** The Power settings do not apply to HP Jornada devices running Microsoft Pocket PC 2002 software.

If you select the Don't Change setting, ZENworks for Handhelds will not change that setting on associated devices; the corresponding setting on each device will determine its behavior. For example, if you select the Don't Change setting, each associated device will use its own preference settings to determine how long an idle Windows CE device will wait until it turns itself off. If you want to ensure consistency across all associated Windows CE devices, select the appropriate setting.

If you select the Disable setting, ZENworks for Handhelds will disable that setting on all associated Windows CE devices; idle Windows CE devices will not shut down.

- 10** When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Handheld Package” on page 78** to associate the policy package.
- 11** If desired, schedule the policy. For more information, see **“Scheduling Packages and Policies” on page 78**.

## WinCE File Retrieval Policy

The WinCE File Retrieval policy lets you specify source files you want to retrieve from a Windows CE device and copy to a specified destination location.

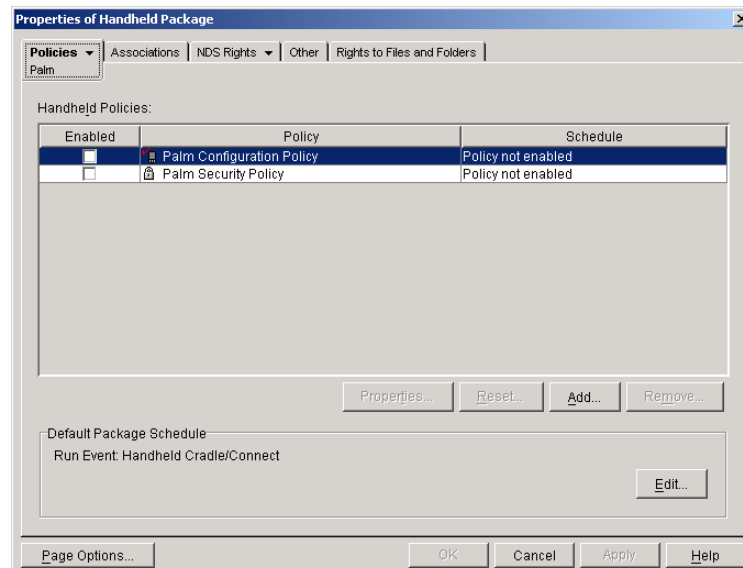
The WinCE File Retrieval policy is a plural policy, meaning it can be added many times to a policy package. You can set up as many File Retrieval policies as required to adequately retrieve important files from the handheld devices in your organization. When you name these plural policies, be sure to give them descriptive names.

The WinCE File Retrieval policy is also cumulative, meaning that many different WinCE File Retrieval policies can be effective for a single handheld device object, handheld group object, or container object.

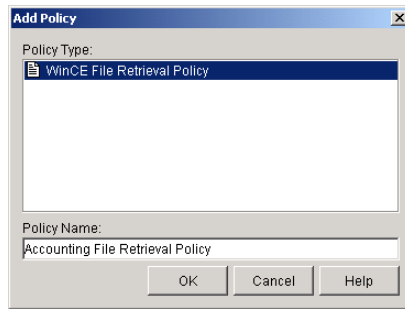
**NOTE:** If you want to retrieve files from handheld devices and store them on a NetWare volume, you must install the Novell Client on the ZENworks for Handhelds Server.

To set up the WinCE File Retrieval policy:

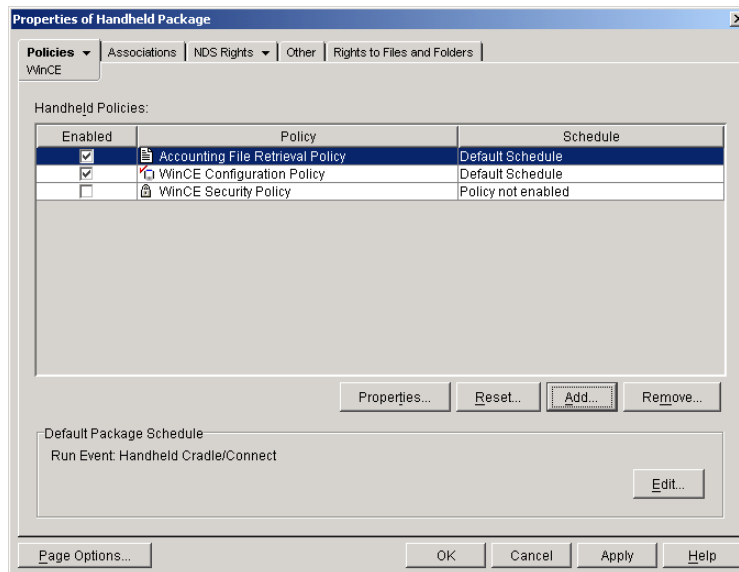
- 1** In ConsoleOne, right-click the Handheld Package, then click Properties.



- 2** On the Policies tab, click the down-arrow, then click WinCE.
- 3** Click Add.



- 4** Type a descriptive name in the Policy Name field, then click OK.  
The newly created File Retrieval policy displays in the Handheld Policies list.



- 5** Check the check box under the Enabled column for the newly created WinCE File Retrieval policy.  
This both selects and enables the policy.
- 6** Click Properties to display the Files page.



- 7** In the Path field in the Source Files box, specify the path to the source files.
- 8** In the Files field, browse to or specify the source files to be retrieved from the Windows CE device.

You can use wildcard characters to specify source files.

When the policy is enforced, all specified source files will be retrieved from the device; the files will be retrieved even if the same files were previously retrieved at another time.

- 9** Select the Files Are Required check box if you want ZENworks for Handhelds to report a failed status if the specified files do not exist on the Windows CE device or if the specified wildcard characters do not provide a match for files on the device.

**NOTE:** For more information about policy status, see [“Viewing Policy Status Information” on page 79](#).

- 10** Select the Delete Files After Retrieval check box if you want the specified source files to be deleted from the Windows CE device after they have been retrieved from the handheld device.

If you do not enable this option, the source files will be copied to the specified location but will also remain on the Windows CE device.

- 11** In the Path field in the Destination Location box, browse to or specify the destination location where you want the specified files copied to.

The renamed file can include variables. To include variables, click the Insert button, then click the desired variable.

The following variables are available for use:

Variable:	Description:
<i>device</i>	The CN of the device. For example, in Dan m130.Handhelds.NovellWheaton, the string would be Dan m130.
<i>devicedn</i>	The full DN of the device. For example, In Dan m130.Handhelds.NovellWheaton, the string would be Dan m130.Handhelds.NovellWheaton.

Variable:	Description:
<i>user</i>	The username of the device. This is the value stored in the <code>zfhUserName</code> attribute for the object in the directory. When this value is not configured on the handheld device, it is set to <code>&lt;Undefined&gt;</code> .
<i>date</i>	The date the file was retrieved from the handheld device. This value is the date only; the time that the file was retrieved is not included. For example, if the file was retrieved on September 15, 2002 at 3:15 p.m., the string would be 2002-09-15. The string is always in the format of yyyy-mm-dd.
<i>time</i>	The time the file was retrieved from the handheld device. This value is for the time only; the date that the file was retrieved is not included. For example, if a file was retrieved on September 15, 2002 at 3:20 p.m., the string would be 15-20. The string is always in the format of hh-mm, with hh representing the hour in 24-hour format.
<i>guid</i>	The GUID for the handheld device.
<i>server</i>	The name of the server that received the data. This is the Windows NT name of the server.

To use a variable, place an @ sign on either side of the variable in the string. For example, you could use the following syntax:

@user@\_filename

- 12** Select Use the Original File Name(s) to use the original source filenames for the destination files.

or

Select Rename the Files To and specify new filenames for the destination files.

- 13** Click OK to save the policy.
- 14** When you have finished configuring all of the policies for this package, continue with the steps under **“Associating the Handheld Package” on page 78** to associate the policy package.
- 15** If desired, schedule the policy. For more information, see **“Scheduling Packages and Policies” on page 78**.

## WinCE Security Policy

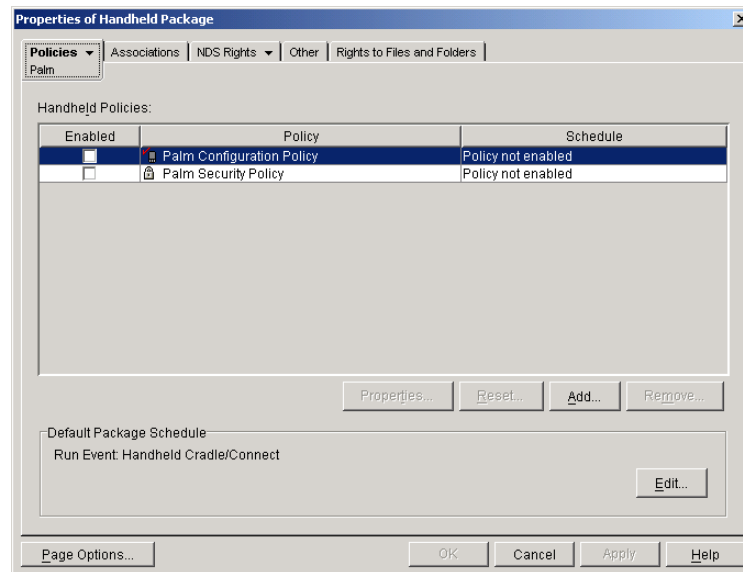
The WinCE Security policy lets you configure the following:

- ♦ **Password Requirements:** Lets you ensure that a password is set on associated Windows CE devices and also lets you configure enhanced security options for Pocket PCs, such as the number of days to allow before a password expires, the number of grace logons permitted before the user must change the password, the minimum number of characters to allow for the password, and whether the password must contain a mix of letters and numbers.
- ♦ **Self-Destruct Settings:** Lets you specify self-destruct settings to disable a Windows CE device after a specified number of failed password attempts or after a specified number of days since the device was last connected or synchronized.

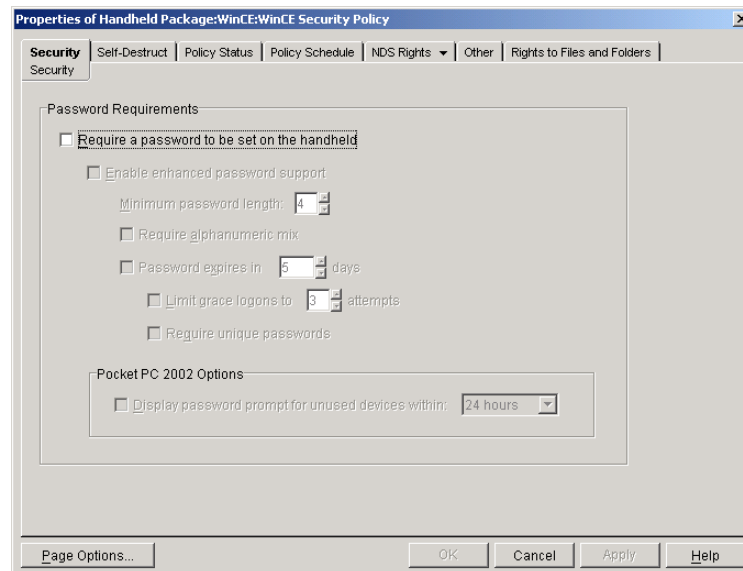
**IMPORTANT:** The WinCE Security policy will not function on Jornada Pocket PCs running Microsoft Windows for Pocket PC 2000 software. Jornada Pocket PCs must be running Microsoft Pocket PC 2002 software to use the WinCE Security policy.

To set up the WinCE Security policy:

- 1 In ConsoleOne, right-click the Handheld Package object, then click Properties.



- 2 On the Policies tab, click the down-arrow, then click WinCE.
- 3 Check the check box under the Enabled column for the WinCE Security policy.  
This both selects and enables the policy.
- 4 Click Properties to display the Security page.



- 5 Fill in the fields:

**Require a Password to Be Set on the Handheld:** Lets you specify that a password must be set on the Windows CE device. If your organization has a rule that states that all handheld devices must have a password, you should enable this policy. If a user does not have a password set, he or she will be prompted to create one.

**Pocket PC Options:** Lets you specify enhanced security options for Pocket PCs. The options in this group box are disabled unless you check **Require a Password to Be Set on the Handheld**.

- ◆ **Enable Enhanced Password Support:** Select this option to specify enhanced password support settings for Pocket PCs.

For Pocket PCs, ZENworks for Handhelds replaces the Windows CE password applet if you select **Enable Enhanced Password Support**; users will see ZENworks for Handhelds password dialog boxes rather than the default Windows CE dialog boxes. The **Enable Enhanced Password Support** option will not function on handheld PCs.

If, in the future, you want to remove the ZENworks for Handhelds password applet and restore the original Windows CE password applet, you will need to reconfigure the WinCE Security policy and disable the **Enable Enhanced Password Support** option and then resynchronize the device so that the policy is enforced. Uninstalling the ZENworks for Handhelds handheld client on the device or disassociating the device from the WinCE Security policy will not remove the ZENworks for Handhelds password applet replacement.

**NOTE:** You can replace the bitmap image that displays in the ZENworks for Handhelds password dialog boxes with a bitmap image of your choosing. For more information, see [“Replacing the ZENworks for Handhelds Password Dialog Box Bitmap Image” on page 78](#).

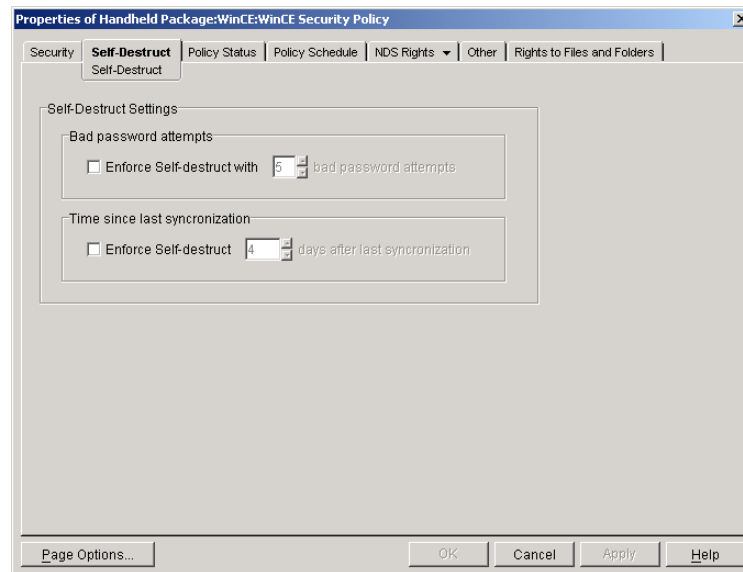
- ◆ **Password Expires in \_ Days:** Check this box and specify the number of days that you want the password to expire in. When the specified number of days has expired, the user will be prompted to change the password for the Pocket PC.
- ◆ **Limit Grace Logons to \_ Attempts:** Check this box and specify the number of grace logon attempts you want to allow the user before he or she must change the password for the device. After the number of days in **Password Expires in \_ Days**, the user will be prompted to change the password. The user can choose to ignore this prompt and keep the same password for the number of logon attempts you specify.
- ◆ **Require Unique Passwords:** Check this box to require that the user enter a new password; he or she cannot reuse the previous eight passwords.
- ◆ **Minimum Password Length:** Check this box and specify the minimum number of characters to allow for the password on the device. You should choose a number great enough to ensure adequate security, but small enough not to excessively burden the user.
- ◆ **Require Alphanumeric Mix:** Check this box to require that the user use both letters and numbers in the password. To improve the security of a password, it should contain both letters (uppercase and lowercase) and numbers.

**Pocket PC 2002 Options:** Lets you specify a time limit that the Pocket PC can be turned off for before a password prompt will be displayed when the device is turned back on. For example, if you set this option to 5 minutes, if the user turns the device off and then back on within 5 minutes, no password is required to use the device. However, if more than 5 minutes passes, the user must enter a password to use the device.

- ◆ **Display Password Prompt for Unused Devices Within:** Check this box and choose a time limit from the drop-down list.

The Windows CE device user can change the corresponding setting on the actual handheld device; however, the value you enter in the **Display Password Prompt for Unused Devices Within** field in ZENworks for Handhelds is the maximum amount of time the user can set; he or she cannot increase the time limit beyond this value.

**6** Click the Self-Destruct tab.



The Self-Destruct page lets you configure self-destruct settings for Windows CE devices so that data is not accessible from handheld devices that are lost or stolen. When the self-destruct feature is activated, the data on the device is made unusable and the device must be manually reset, which restores the device to its out-of-the-box state.

To use the self-destruct options for Windows CE devices, you must check the Enable Enhanced Password Support check box on the Security page. You cannot use the self-destruct options on handheld PCs because the Enable Enhanced Password Support option will not function on them.

**IMPORTANT:** Use caution when you use the self-destruct feature. Be sure to allow an adequate number of password attempts and an adequate number of days since the last connection or synchronization to prevent data loss to users who incorrectly enter the password or do not connect or synchronize the device during a short vacation.

For Windows CE devices, ActiveSync does not automatically back up data. If the user has manually backed up the data, he or she can then manually restore the data to the device.

**7** Fill in the fields:

**Bad Password Attempts:** Enable the Enforce Self-Destruct check box and specify the number of bad password attempts to allow before activating the self-destruct feature.

**Time Since Last Connection:** Enable the Enforce Self-destruct check box and specify the number of days after the last connection before activating the self-destruct feature. If the handheld device is using the ZENworks for Handhelds WinCE IP client, the Time Since Last Connection option refers to the last time the handheld device connected to the IP conduit machine. If the handheld device is using the ZENworks for Handhelds sync client, the Time Since Last Connection refers to the last time the handheld device was synchronized.

Each day is made up of 24 hours. If you connect (synchronize) the device on Monday at 2 p.m. and specify three days after the last connection before activating the self-destruct feature, the self-destruct feature will activate Thursday at 2 p.m. (72 hours after the last connection/synchronization) unless the device is connected/synchronized during that period.

**8** Click OK to save the policy.

- 9 When you have finished configuring all of the policies for this package, continue with the steps under [“Associating the Handheld Package” on page 78](#) to associate the policy package.
- 10 If desired, schedule the policy. For more information, see [“Scheduling Packages and Policies” on page 78](#).

## Replacing the ZENworks for Handhelds Password Dialog Box Bitmap Image

You can replace the ZENworks for Handhelds bitmap image that displays in the following ZENworks for Handhelds password dialog boxes with a bitmap image of your choosing:

- ♦ The login dialog box if you selected Enable Enhanced Password Support in [Step 5 on page 75](#).
- ♦ The dialog boxes that display when the WinCE Security policy is enforced and you selected Require a Password to Be Set on the Handheld in [Step 5 on page 75](#).

To replace the bitmap image in these dialog boxes, create a bitmap file called logo.bmp and place it in the ZENworks for Handhelds installation directory on the handheld device. The size of this bitmap image should be 240 pixels wide by 35 pixels high.

## Associating the Handheld Package

The policies you configured and enabled will not be in effect until you associate their policy package with a handheld device object, a handheld group object, or a container object.

- 1 In ConsoleOne, right-click the Handheld Package object, then click Properties.
- 2 Click the Associations tab > Add.
- 3 Browse for the container for associating the package, then click OK.

## Scheduling Packages and Policies

Some policies can be scheduled to run at a certain time. During creation, all policy packages are given a default run schedule (Handheld Cradle/Connect, by default). This means that all applicable policies in this package will be enforced every time the handheld device is cradled or connects to the proxy service through the IP client. However, you can change the entire policy package schedule, or you can set a policy within the package to run at a different time from the rest of the package.

If you should enable a policy but fail to schedule it, it will run according to the schedule currently defined in the Default Package Schedule.

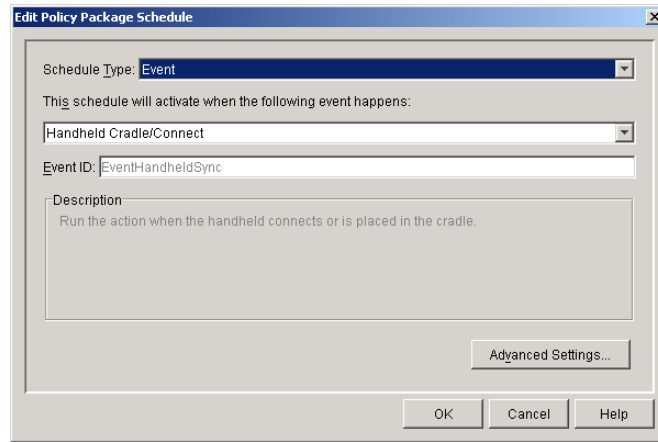
**NOTE:** If you have configured and enabled policies, but they have not been enforced on individual handheld devices, ensure that enough time has passed for the policies to have reached their scheduled run time (hourly, by default). You can force an immediate directory scan to enforce policies by right-clicking the ZENworks for Handhelds Service object, clicking Actions, then clicking Scan Now.

The following sections contain additional information:

- ♦ [“Changing the Handheld Package’s Schedule” on page 78](#)
- ♦ [“Changing an Individual Policy’s Schedule” on page 79](#)

## Changing the Handheld Package’s Schedule

- 1 In ConsoleOne, right-click the Handheld Package object, click Properties, then click the desired platform page.
- 2 Click the Edit button in the Default Package Schedule group box.



**3** Make the desired changes to the schedule.

Be aware that changing the policy package's schedule to run too frequently will affect performance, depending on your environment. The default schedule (hourly) should be adequate for most situations.

**NOTE:** Click the Help button for detailed information about the options in the Edit Policy Package Schedule dialog box.

**4** Click OK.

## Changing an Individual Policy's Schedule

**1** In ConsoleOne, right-click the Handheld Package object, click Properties, then click the desired platform page.

**2** Check the check box under the Enabled column for the desired policy.

This both selects and enables the policy.

**3** Click Properties.

**4** Click the Policy Schedule tab, then make the desired changes to the schedule.

Be aware that changing the an individual policy's schedule to run too frequently will affect performance, depending on your environment. The default schedule (Handheld Cradle/Connect) should be adequate for most situations.

**5** Click OK.

## Setting Up Handheld Service Package Policies

The Handheld Service Package currently contains one policy: Handheld Import. Creating the Handheld Service Package and configuring and associating the Handheld Import policy are covered in [“Setting Up Handheld Import” on page 37](#).

## Viewing Policy Status Information

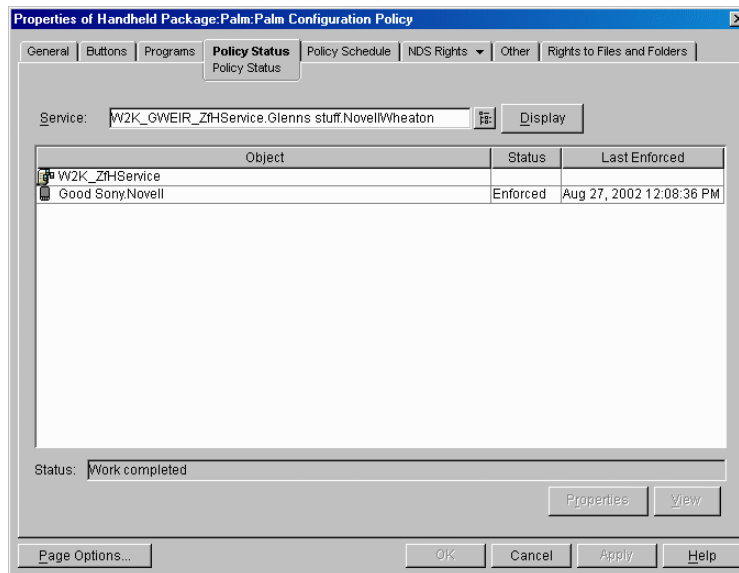
ZENworks for Handhelds lets you view policy status information for each enabled policy, including a list of all handheld devices that a policy is associated with, the status of each policy, and the date and time that the policy was last enforced. You can also view status information about all policies associated with a specific handheld device.

The following sections contain more information:

- ♦ “Viewing Status for a Specific Policy” on page 80
- ♦ “Viewing Policy Status for a Specific Handheld Device” on page 81

## Viewing Status for a Specific Policy

- 1 In ConsoleOne, right-click the Handheld Package object, then click Properties.
- 2 Check the check box under the Enabled column for the desired policy.  
This both selects and enables the policy.
- 3 Click Properties.
- 4 Click the Policy Status tab.



**NOTE:** Click Display to refresh the information in the Object, Status, and Last Enforced columns.

**Object:** Lists the individual handheld device objects that the policy is associated with. You can select a handheld device in the list, then click Properties to view that device’s properties.

**Status:** Lists the status of the policy on each handheld device:

Status	Description
Successful	The policy was successfully enforced on the corresponding handheld device.
Pending	The policy has reached its scheduled run time but has not yet reported results. For example, the policy has been enforced on the handheld device, but the proxy service has not yet connected to the ZENworks for Handhelds server to relay the information.
Failed	The policy was not successfully enforced on the handheld device. For troubleshooting information, see “Policies not being enforced on handheld devices” on page 135.



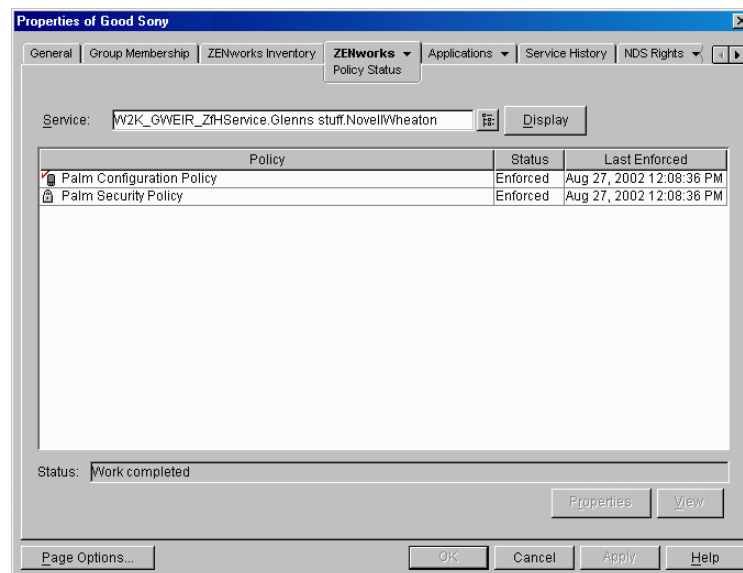
Status	Description
Disabled	The policy has been disabled in ConsoleOne. To re-enable a policy, right-click the Handheld Package object, click Properties, then enable the check box in the Enabled column for the desired policy.
Inactive	The policy is inactive. For example, the policy has been disassociated with the handheld device; however, policy status information still exists in ZENworks for Handhelds.

**Last Enforced:** Lists the date and time that the policy was last enforced.

The Status field at the bottom of the page displays Work Completed if all information has been gathered for the policy and for the associated handheld devices. The Status field will display Connecting to Server if you click Display. When all information has been gathered, the status will return to Work Completed.

## Viewing Policy Status for a Specific Handheld Device

- 1 In ConsoleOne, right-click the desired handheld device object, then click Properties.
- 2 Click the down-arrow on the ZENworks tab, then click Policy Status.



**NOTE:** Click Display to refresh the information in the Object, Status, and Last Enforced columns.

**Policy:** Lists the individual policies that are associated with the selected Handheld Device object. Select a policy in the list, then click Properties to view that policy's properties.

**Status:** Lists the status of the policy on each handheld device:

Status	Description
Successful	The policy was successfully enforced on the corresponding handheld device.

Status	Description
Pending	The policy has reached its scheduled run time but has not yet reported results. For example, the policy has been enforced on the handheld device, but the proxy service has not yet connected to the ZENworks for Handhelds server to relay the information.
Failed	The policy was not successfully enforced on the handheld device. For troubleshooting information, see <a href="#">“Policies not being enforced on handheld devices” on page 135</a> .
Disabled	The policy has been disabled in ConsoleOne. To re-enable a policy, right-click the Handheld Package object, click Properties, then enable the check box in the Enabled column for the desired policy.
Inactive	The policy is inactive. For example, the policy has been disassociated with the handheld device; however, policy status information still exists in ZENworks for Handhelds.

**Last Enforced:** Lists the date and time that the policy was last enforced.

For most policies, the date and time in the Last Enforced column is based on the handheld device's date and time. For File Retrieval policies, the date and time in the Last Enforced column is based on the proxy service machine's date and time (policy enforced) and on the ZENworks for Handhelds server's date and time (file retrieved and copied to the specified location).

The Status field at the bottom of the page displays Work Completed if all information has been gathered for the policy and for the associated handheld devices. The Status field will display Connecting to Server if you click Display. When all information has been gathered, the status will return to Work Completed.

# 5

## Using Queries and Groups

After handheld devices have registered with Novell® ZENworks® for Handhelds, you can use queries to quickly find handheld devices that match criteria specified in the query and create custom groups to make managing handheld devices easier.

The following sections contain additional information:

- ♦ [“Using Queries” on page 83](#)
- ♦ [“Using Groups” on page 86](#)

### Using Queries

Queries let you quickly find handheld devices that match criteria specified in the query.

Using queries, administrators can save time by automatically creating handheld groups populated with handheld devices that have the same attributes.

For example, you can create a group from a query that contains all devices that have:

- ♦ A specific processor type (for example, Intel® StrongARM)
- ♦ RAM greater than 8 MB but less than 64 MB
- ♦ A specific version of an application installed

You can define separate queries for BlackBerry, Palm OS, and Windows CE devices, but you cannot create a single query that returns all types of devices.

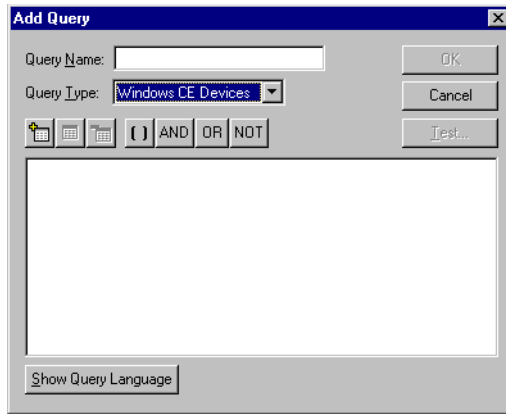
The following sections contain additional information about creating queries:

- ♦ [“Creating a Query” on page 83](#)
- ♦ [“Using Logical Operators” on page 85](#)

### Creating a Query

You create queries in the ZENworks for Handhelds Inventory Viewer.

- 1** In ConsoleOne®, right-click a handheld device object, click Actions, then click Inventory.
- 2** Click Queries > Add Query to display the Add Query dialog box.



**3** Type a name for the query.


**4** Click Palm OS Handhelds in the Query Type drop-down list to create a query for Palm OS devices.

or

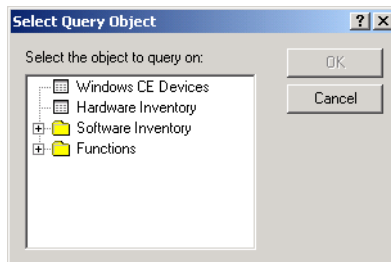
Click Windows CE Devices in the Query Type drop-down list to create a query for Windows CE devices.

or

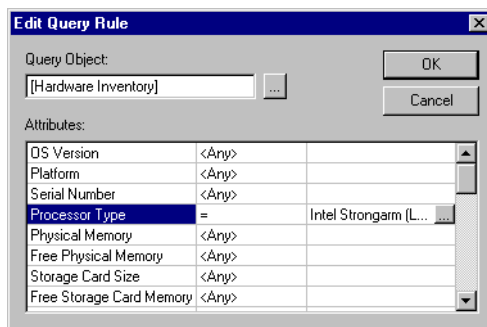
Click BlackBerry Devices in the Query Type drop-down list to create a query for BlackBerry devices.

**5** Click the Add Item button above the Query window .

The following dialog box appears if you are querying on Windows CE devices.

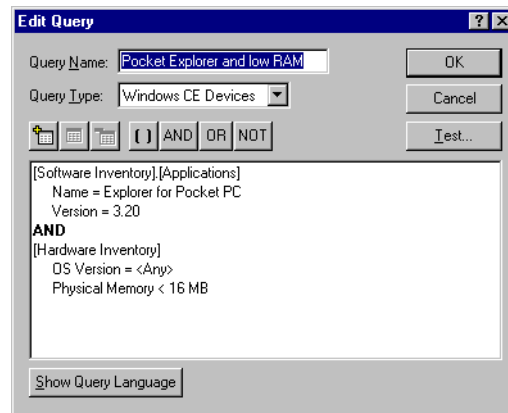


**6** Select the first object you want to make part of the query, then click OK.




The first column lists the attributes you can make part of the query. Click the down-arrow in the second column to select the operator that you want to use. When you click the third column, a browse button displays. Click the browse button, then select a value for the query.

- 7 Select the attributes, operator, and values of the object that you want ZENworks for Handhelds to query on, then click OK.



If you want the query to contain multiple objects, click the Add Item button again to add a new object.

**NOTE:** Select the statements and click the parentheses button  if you want to group statements using parentheses.

When you select multiple attributes to query on, be aware that they will be filtered by the first object you pick.

For example, if the first attribute you select is OS Version = 3.5 and the second object you select is Free RAM, when you choose a specific value for Free RAM, the only values in the list will be handheld devices running OS version 3.5.

- 8 Click OK to save the query.

## Using Logical Operators

Logical operators in a query allow you to refine or expand the scope of the query. ZENworks for Handhelds provides the following logical operators:

Operator	Description	Example
AND	Find devices that match the object criteria joined by the AND.	All Pocket PC devices AND less than 10 MB of free RAM.
OR	Find devices that match at least one of the criteria joined by the OR.	All Pocket PC devices OR all devices with more than 8 MB of RAM.
NOT	Find devices that match one criteria but not another.	All Palm OS devices and NOT with the application FileZ installed.

If you insert multiple objects for querying, ZENworks for Handhelds will automatically add an AND operator between the two object statements.

## Understanding the Order of Operations

When evaluating a query, the following order of operations is used:

1. Expressions in parentheses
2. Expressions negated by NOT
3. Expressions joined by AND
4. Expressions joined by OR

## Using Groups

Placing devices in groups can save you time when scheduling distributions, defining filters, and checking system status. With groups, you can use a single entity to manage multiple devices.

The following sections contain information to help you create and use groups:

- ◆ [“Creating Groups” on page 86](#)
- ◆ [“Viewing the Properties of a Group” on page 89](#)
- ◆ [“Changing Group Membership” on page 91](#)
- ◆ [“Changing the Update Schedule of Query-Based Groups” on page 92](#)
- ◆ [“Deleting a Group” on page 92](#)
- ◆ [“Changing a Group’s Type” on page 94](#)

## Creating Groups

You can create custom groups based on the way you manage the handheld devices in your organization. For example:

- ◆ **Functional groups:** Sales, Marketing, Development, Admin, and so forth.
- ◆ **Geographical location:** Central, East, West, Europe, and so forth.

Think about the way you want to manage your handheld devices before you create groups. Keeping a clean and uncluttered group structure will help minimize confusion when scheduling distributions or defining filters for multiple groups.

ZENworks for Handhelds provides two types of user-created groups:

- ◆ **Static Groups:** Handheld devices are assigned to the group manually by the administrator or according to the settings specified in the Handheld Import policy.
- ◆ **Query-Based Groups:** Handheld devices are automatically placed in a group by ZENworks for Handhelds because they meet criteria specified in the query (for example, operating system version, manufacturer, and so forth).

Handheld devices can belong to multiple groups; they do not need to be limited to one group.

The following sections contain additional information about creating and viewing groups:

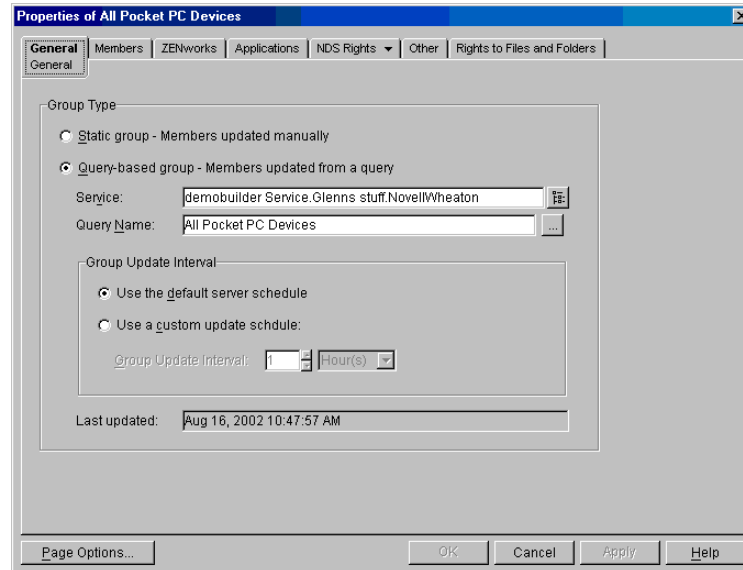
- ◆ [“Creating Static Groups” on page 87](#)
- ◆ [“Creating Query-Based Groups” on page 88](#)

## Creating Static Groups

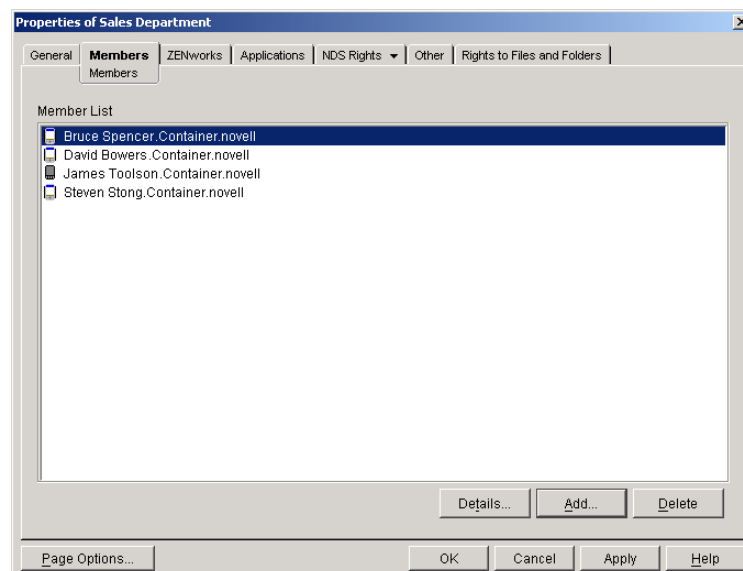
Handheld devices are manually assigned to a static group by the administrator.

To create a static group and assign members to it:

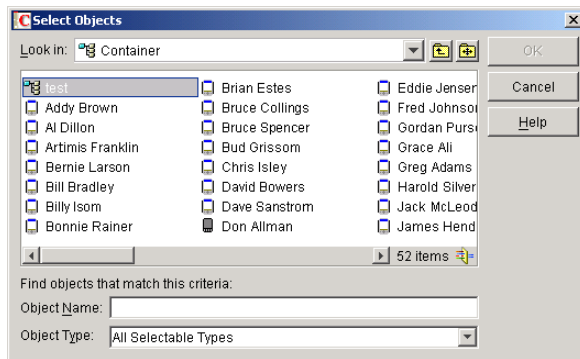
- 1 In ConsoleOne, click the container where you want to create the static group.
- 2 Click File > New > Object.
- 3 Click Handheld Group, then click OK.
- 4 Enter a descriptive name for the group, click the Define Additional Properties check box, then click OK.



- 5 Select Static Group - Members Updated Manually.
- 6 Click the Members tab.




- 7 Click Add to display the Select Objects dialog box.



- 8 Select the handheld device objects that you want to be members of this static group.

You can use Shift+click or Ctrl+click to select multiple handheld device objects.

- 9 Click OK.

Static groups are indicated by  (yellow folder icon) in the ZENworks for Handhelds Inventory Viewer.

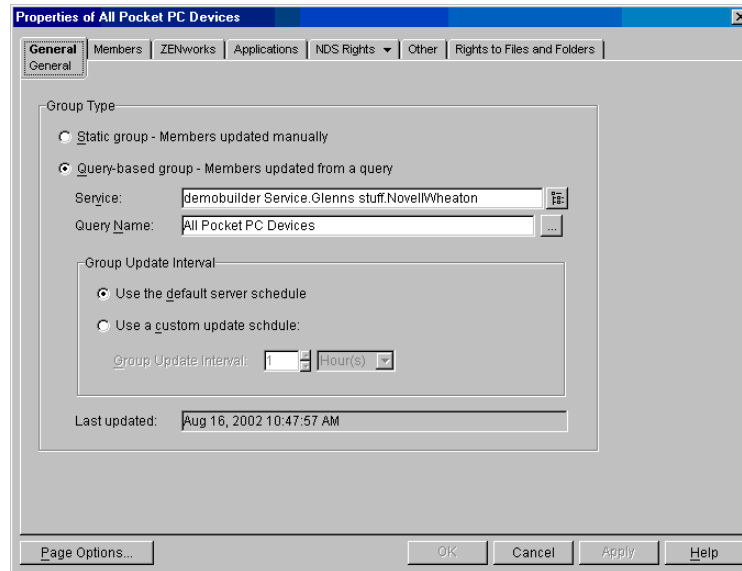
## Creating Query-Based Groups

Handheld devices are automatically placed in a query-based group by ZENworks for Handhelds because they meet criteria specified in the query (for example, operating system version, manufacturer, and so forth).

To create a query-based group:

- 1 In ConsoleOne, click the container where you want to create the query-based group.
- 2 Click File > New > Object.
- 3 Click Handheld Group, then click OK.
- 4 Enter a descriptive name for the group, click the Define Additional Properties check box, then click OK.





- 5 Select Query-Based Group - Members Are Updated From a Query.
- 6 In the Service field, browse to the ZENworks for Handhelds Service object.
- 7 In the Query Name field, browse to the query on which you want to base the group.

You need to create a query before it will display in the list. For more information, see [“Using Queries” on page 83](#).

**NOTE:** If you define and base a query-based group on a specific query and you later change the name of the query in the ZENworks for Handhelds Inventory Viewer, you must re-assign the new query to the group (it is not updated automatically). You cannot change the name of a query in ConsoleOne.


- 8 Select a Group Update Interval:

**Use the Default Server Schedule:** Select this option if you want the group to be updated with new members according to the default server schedule.

The group will be populated with handheld device objects during the server’s next maintenance scan, which is hourly, by default. You can force an immediate update of a specific query-based group. In ConsoleOne, right-click the ZENworks for Handhelds Service object, click Actions, then click Scan Now to perform a directory scan. Next, right-click the desired Handheld Group object, click Actions, then click Update.

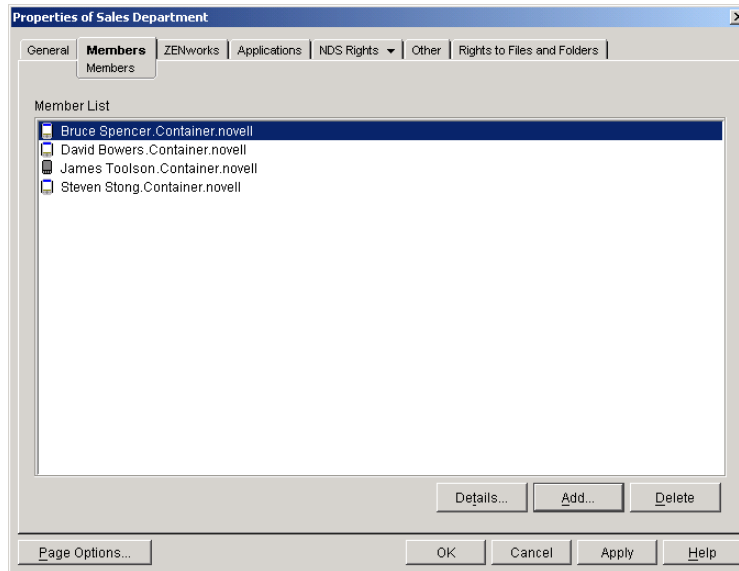
**Use a Custom Update Schedule:** Select this option if you want to specify a custom update schedule, then specify the group update interval.

- 9 Click OK.

The query-based group (indicated by  in the ZENworks for Handhelds Inventory Viewer) will be created and populated with the handheld devices that currently match the criteria specified in the query.

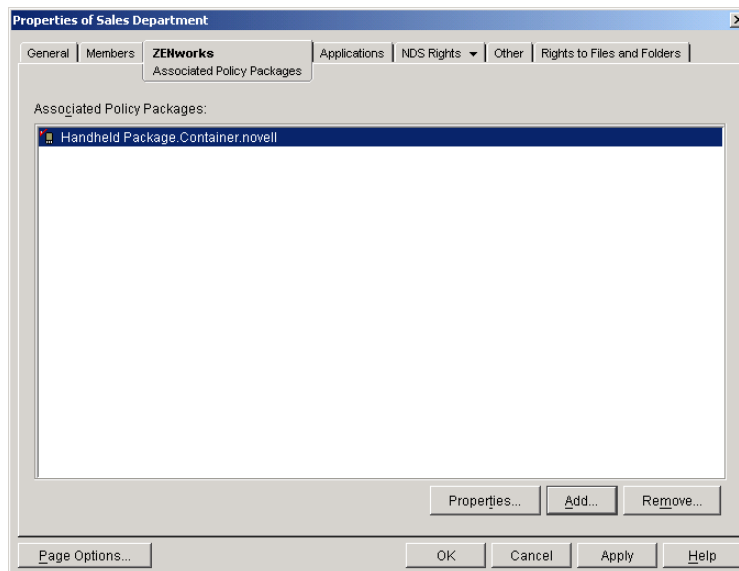
## Viewing the Properties of a Group

- 1 In ConsoleOne, right-click the desired Handheld Group object, then click Properties.
- 2 Click the Members tab.



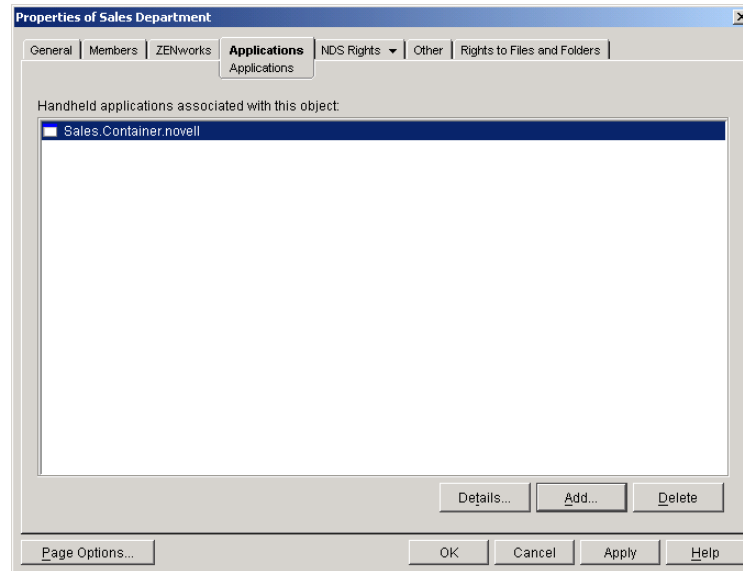
From the Members page, you can view which handheld objects are members of the selected group.

**3** Click the ZENworks tab.



From the Associated Policy Packages page, you can view which policy packages are associated to the selected Handheld Group object.

**4** Click the Applications tab.



From the Applications tab, you can view which Handheld Application objects are associated to the selected Handheld Group object.

## Changing Group Membership

From time to time you will need to modify static group membership by adding or deleting handheld device objects.

Query-based groups will be updated according to the query parameters; membership cannot be changed manually without changing the criteria specified in the query.

For example, if you have divided your client groups by functions, and you have a user who transfers from Sales to Systems Engineering, you might need to delete the user from one group and add the user to another group.

Whenever you add a handheld device to a group, it automatically inherits any distributions assigned to that group.

The following sections contain additional information about changing group membership:

- ♦ [“Adding a Device to a Static Group” on page 91](#)
- ♦ [“Removing a Device from a Static Group” on page 91](#)

### Adding a Device to a Static Group

- 1** In ConsoleOne, right-click the desired Handheld Group object, then click Properties.
- 2** Click the Members tab, then click Add.
- 3** Select the device you want to include in the group.  
You can use Shift+click or Ctrl+click to select multiple handheld device objects.
- 4** Click OK.

### Removing a Device from a Static Group

- 1** In ConsoleOne, right-click the desired Handheld Group object, then click Properties.

- 2** Click the Members tab.
- 3** Select the device you want to remove from this group.  
You can use Shift+click or Ctrl+click to select multiple handheld device objects.
- 4** Click Delete.

## Changing the Update Schedule of Query-Based Groups

When you create a query-based group, you can choose how often the group should be updated. Updating runs the query against existing handheld devices to check which devices match the criteria. Any handheld devices that match the criteria of the query are automatically placed in the appropriate query-based group; any handheld devices that no longer match the criteria of the query are automatically removed from the query-based group.

By default, query-based groups are updated once an hour. You can configure updating system wide so that all groups are updated on the same schedule or on a per-group basis. You can also turn off group updating (essentially making the query-based group a static group).

The following sections contain additional information:

- ♦ [“Changing the Update Schedule of a Specific Query-Based Group” on page 92](#)
- ♦ [“Changing the Update Schedule of All Query-Based Groups” on page 92](#)

### Changing the Update Schedule of a Specific Query-Based Group

- 1** In ConsoleOne, right-click the desired Handheld Group object, then click Properties.
- 2** On the General page, select Use a Custom Update Schedule, then specify the Group Update Interval.
- 3** Click OK.

If you modify the update schedule, the next maintenance scan (hourly, by default) will detect the change and reschedule the update accordingly.

**NOTE:** You can force an immediate update of a specific query-based group. In ConsoleOne, right-click the ZENworks for Handhelds Service object, click Actions, then click Scan Now to perform a directory scan. Next, right-click the desired Handheld Group object, click Actions, then click Update.

### Changing the Update Schedule of All Query-Based Groups

- 1** In ConsoleOne, right-click the ZENworks for Handhelds Service object, then click Properties.
- 2** Select the desired Group Update Interval.
- 3** Click OK.

**NOTE:** You can force an immediate update of a specific query-based group. In ConsoleOne, right-click the ZENworks for Handhelds Service object, click Actions, then click Scan Now to perform a directory scan. Next, right-click the desired Handheld Group object, click Actions, then click Update.

## Deleting a Group

As your installation changes over time, you might want to remove groups based on changes in your organization or in the types of equipment you are using, or you might just want to change the grouping scheme you’ve implemented.

To delete a group:

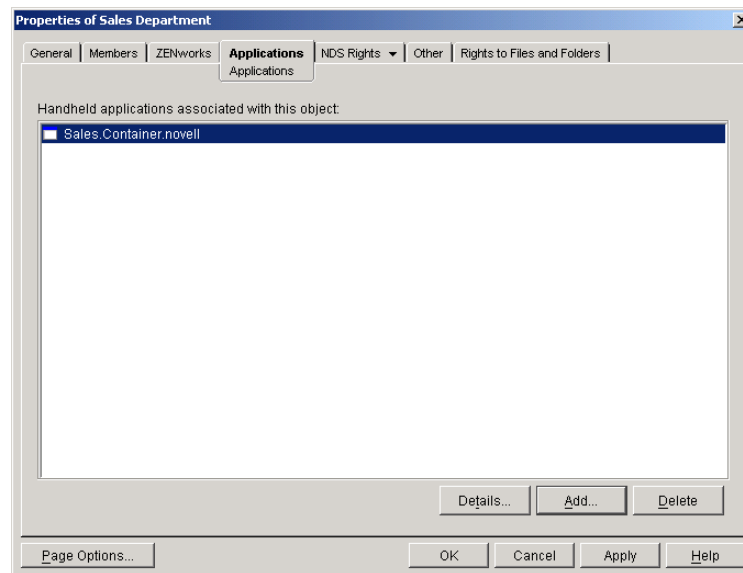
- 1** In ConsoleOne, right-click the desired Handheld Group object, then click Delete NDS object.
- 2** Click Yes to confirm the deletion.

The Handheld Group object will be removed from the directory and its update schedule will be removed from ZENworks for Handhelds.

**NOTE:** When you delete a Handheld Group object, the object will be deleted but the handheld device objects will not be deleted from the directory; they will simply lose their association with the deleted object and all distributions the device inherited that were targeted for the group.

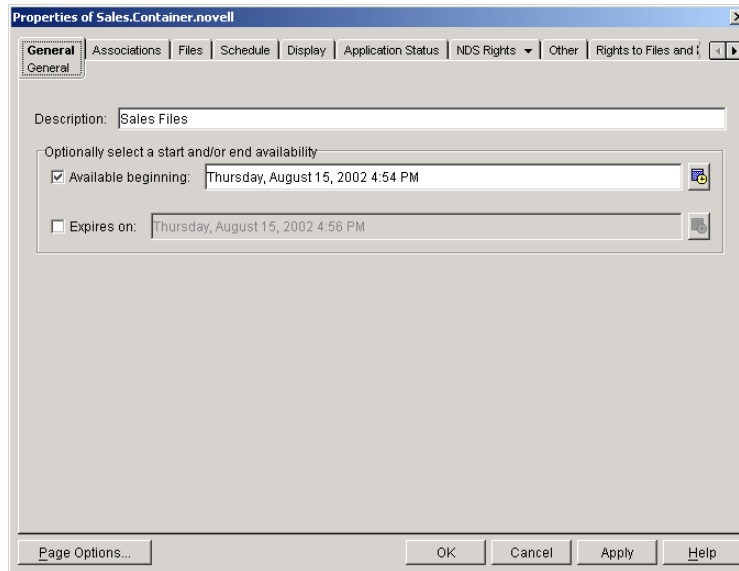
## Viewing Handheld Application Objects Assigned to a Group

- 1** In ConsoleOne, right-click the desired Handheld Group object, then click Properties.
- 2** Click the Applications tab.



The Applications list displays the Handheld Application objects that are associated to the selected Handheld Group object.

- 3** To view an application object's details, click a Handheld Application object, then click Details.



The General page displays the application object's properties, including its description, when it will become available for distribution, and when it will no longer be available for distribution

**NOTE:** When you are viewing the Handheld Application objects that are associated with a Handheld Group object, you only see Handheld Application objects that are associated to that specific group; you do not see all Handheld Application objects that are associated with all individual devices in that group.

## Changing a Group's Type

To change a static group to a query-based group or a query-based group to a static group:

- 1** In ConsoleOne, right-click the desired Handheld Group object, then click Properties.
- 2** On the General page, click Static Group or Query-Based Group.

If you choose Query-Based, select the query on which you want to base the group.

- 3** Click OK.

Because you cannot schedule the update of a static group, if you change a query-based group to a static group, the group's update schedule will be removed from ZENworks for Handhelds.

# 6

## Distributing Software to Handheld Devices

This section describes how to create and distribute Handheld Application objects to handheld devices using Novell® ZENworks® for Handhelds.

The following sections contain detailed information:

- ♦ [“Understanding Handheld Application Objects” on page 95](#)
- ♦ [“Distributing Applications to Handheld Devices” on page 96](#)
- ♦ [“Displaying Handheld Application Object Status” on page 102](#)
- ♦ [“Modifying a Handheld Application Object” on page 103](#)

### Understanding Handheld Application Objects

ZENworks for Handhelds software distribution allows you to distribute Handheld Application objects to handheld devices as part of software distributions. Handheld Application objects contain collections of files that you want copied to your handheld devices.

Handheld Application objects usually consist of applications to install on handheld devices, for example, .prc files (for Palm OS devices), .cab files (for Windows CE devices), and .alx, .ali, and .dll files for BlackBerry devices.

The following sections contain additional information:

- ♦ [“Specifying Source Files” on page 95](#)
- ♦ [“Understanding Automatic Application Updates” on page 96](#)

### Specifying Source Files

When creating Handheld Application objects, you can select files, directories (and subdirectories), or both as the components of your object. You can also specify wildcard characters as a source file specification.

The following sections contain additional information:

- ♦ [“Files for Palm OS Devices” on page 95](#)
- ♦ [“CAB Files for Windows CE Devices” on page 96](#)
- ♦ [“Files for BlackBerry Devices” on page 96](#)

#### Files for Palm OS Devices

Only standard Palm OS file types should be selected when creating handheld application objects targeted for Palm OS devices. Supported file types include:

- ♦ Application files (\*.prc)

- ◆ Database files (\*.pdb)
- ◆ Query application files (\*.pqa)
- ◆ Configuration files (\*.pnc and \*.scp)

## CAB Files for Windows CE Devices

Because Windows CE devices support different processor types, ZENworks for Handhelds ensures that only CAB files compatible with the processor are copied to the Windows CE device when it synchronizes.

If CAB files are included in the handheld application object, they will be automatically extracted and installed.

## Files for BlackBerry Devices

Only standard RIM BlackBerry file types should be selected when creating handheld application objects targeted for BlackBerry devices. Supported file types include:

- ◆ Configuration files (\*.alx and \*.ali)
- ◆ Dynamic link library files (\*.dll)

ZENworks for Handhelds lets you distribute software to BlackBerry devices that are synchronized with a cradle; ZENworks for Handhelds does not support software distribution to BlackBerry devices using wireless synchronization.

## Understanding Automatic Application Updates

For recurring software distributions (distributions that are scheduled to run more than once, for example, weekly), ZENworks for Handhelds automatically scans the application's source directories at the scheduled time and includes new or changed files with the software distribution.

This allows an administrator to copy new or updated files to the source directory for distribution to handheld devices without needing to create a new Handheld Application object.

For example, you distribute sales data weekly to your sales staff. Each Monday, before sending out the distributions, ZENworks for Handhelds scans the application's source directory. If there are any new or changed files added during the previous week, they will be included in that Monday's application distribution. The handheld device will receive only the files that have changed.

If the source directory has no changes during the week, the application is not sent (unless new handheld devices have been added to the list of recipients).

## Distributing Applications to Handheld Devices

ZENworks for Handhelds lets you create and distribute Application objects to individual handheld devices or to groups of handheld devices.

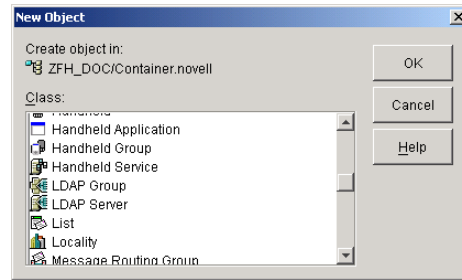
The following sections contain additional information:

- ◆ [“Creating a Handheld Application Object” on page 97](#)
- ◆ [“Configuring a Handheld Application Object” on page 97](#)
- ◆ [“Scheduling the Distribution of a Handheld Application Object” on page 101](#)

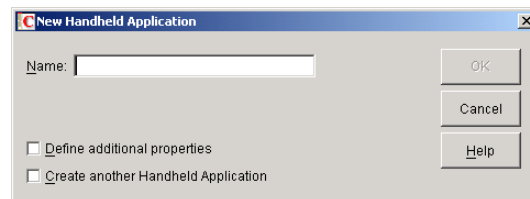


## Creating a Handheld Application Object

- 1 In ConsoleOne®, right-click the container where you want to create the Handheld Application object, click New, then click Object to display the New Object dialog box.



- 2 Click Handheld Application > click OK to display the New Application dialog box.



- 3 In the Name field, type a name for the Handheld Application object, then click OK.

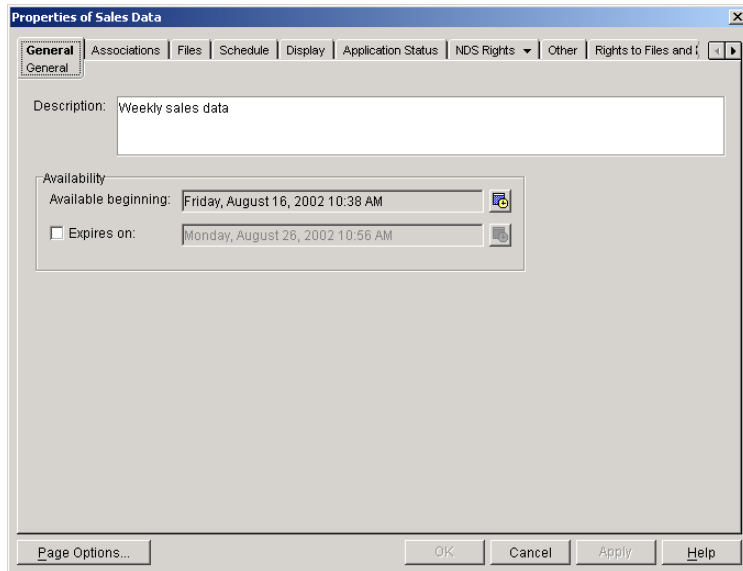
The object's name must conform to the following rules:

- ♦ The name must be unique in the container.
- ♦ Special characters are allowed. However, plus (+), equals (=), and period (.) must be preceded by a backslash (\) if used.
- ♦ Uppercase and lowercase letters, as well as underscores and spaces, are displayed as you first entered them, but they aren't distinguished. For example, ZENworks\_for\_Handhelds and ZENWORKS FOR HANDHELDS are considered identical.

- 4 Click OK.

## Configuring a Handheld Application Object

- 1 Right-click the newly created Handheld Application object, then click Properties to display the General page.



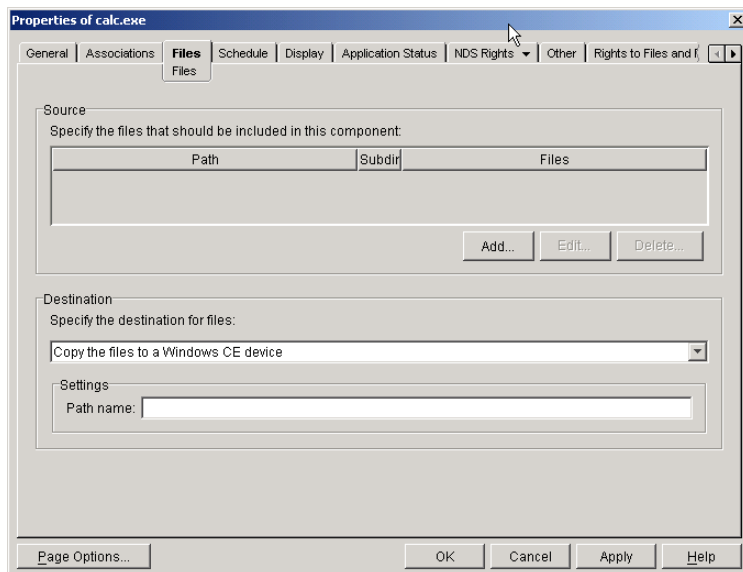
- 2 Type a description of the Handheld Application object, if desired.

This description will only be available by viewing the properties of the object in ConsoleOne; the user will not see this description during distribution.

- 3 If desired, click the Calendar/Clock icon to specify a date and time that the application object will be available for distribution.

If you do not change this setting, the object will be distributed according to the Application object schedule. This option lets you delay distribution to the date you specify.

- 4 If desired, select Expires On, then specify a date and time that the application object will no longer be available for distribution.
- 5 Click the Files tab.



- 6 Click Add, then fill in the fields:

**Path:** Browse to or enter the path to the location of the application's executable file.

**Files:** Browse to or enter the files that you want to include in the Handheld Application object.

**HINT:** You can use wildcard characters to specify the source files. If you use wildcard characters for the source files, you must also use them for the destination files.

**Include Subdirectories of This Path:** Enable this option if you want to include subdirectories of the path.

**IMPORTANT:** If you want to access application data on a NetWare® volume, you must install the Novell Client™ on the ZENworks for Handhelds server machine. You might be able to browse to and select application data on the NetWare volume without the Novell Client installed, but the handheld application object will not be built unless the Novell Client is installed on the ZENworks for Handhelds server machine.

**7** Click OK.

**8** In the Destination box, choose a destination for the files from the drop-down list:

- ♦ **Copy the Files to a Windows CE Device:** Copies the files contained in the Handheld Application object to an individual Windows CE device or to a group of Windows CE devices.
- ♦ **Copy the Files to a Palm Device:** Copies the files contained in the Handheld Application object to an individual Palm OS device or to a group of Palm OS devices.
- ♦ **Copy the Files to a RIM BlackBerry Device:** Copies the files (application object) to the proxy service machine and queues the files in the appropriate directory for installation by the Application Loader.
- ♦ **Copy the Files to a Temporary Location on the Sync Machine:** Copies the files to a temporary location on the machine that the handheld device synchronizes with.

Some applications require running Windows desktop routines before installation on Palm OS or Windows CE devices. If this is the case, choose Copy the Files to a Temporary Location on the Sync Machine so that users can run those routines before installing them on the handheld device. The iPAQ ROM update is an example of an application that you would use this option for.

**NOTE:** If a handheld application object being copied to a Palm OS or BlackBerry device contains a file that already exists on the device, ZENworks for Handhelds will overwrite the file on the device with the file contained in the handheld application object. For Windows CE devices and sync machines, if a handheld application object being copied to a device or machine contains a file that already exists in the destination path, ZENworks for Handhelds will overwrite the file at the target location with the file contained in the handheld application object.

If a file is in use on a handheld device or sync machine when a handheld application object that contains the same file is being installed, the distribution will fail. If you enable automatic updates for the handheld application object, the device will receive the distribution at its next scheduled time, providing that the file is not in use at that time. If the handheld application object is scheduled to run only one time, you must resend it when the file is not in use.

**9 Windows CE Devices:** If you chose Copy the Files to a Windows CE Device, you can specify the path on the Windows CE device where you want the files copied to.

or

**Palm OS Devices:** If you chose Copy the Files to a Palm Device and you have a storage card installed, select Install Files on Storage Card, if desired.

ZENworks for Handhelds supports expansion cards in Palm OS devices running Palm OS 4.x and newer. Expansion cards are usually referred to as secure digital (SD) cards or memory sticks.

**IMPORTANT:** If you select the Install Files on Storage Card option, ZENworks for Handhelds will install the files only to a storage card. If the storage card is not available, the installation will fail; ZENworks for Handhelds will not install the files in the Palm OS device's main memory.

or

**Sync Machines:** If you chose Copy the Files to a Temporary Location on the Sync Machine, specify or browse to the command to run, then select Fail Installation if Command Reports Failure, if desired.

You can specify whether or not dialog boxes display when files contained in this Handheld Application object are installed on machines that associated handheld devices synchronize with. Click the Display tab to configure these settings. Click Help for more information on each option.

or

**BlackBerry Devices:** If you chose Copy the Files to a RIM BlackBerry Device, you can specify whether or not dialog boxes display when files contained in this Handheld Application object are installed on machines that associated BlackBerry devices synchronize with. For example, you could display a message on the proxy service machine to inform users that files have been queued and they should run the BlackBerry Application Loader. Click the Display tab to configure these settings. Click Help for more information on each option.

**9a** To assign a proxy service machine to the selected BlackBerry device, click Assign Proxy, click the desired proxy service machine from the list, then click OK.

Because ZENworks for Handhelds lets you distribute software to BlackBerry devices that are synchronized with a cradle (ZENworks for Handhelds does not support software distribution to BlackBerry devices using wireless synchronization), this association tells the ZENworks for Handhelds server where to send handheld application objects during a distribution.

**IMPORTANT:** The Handheld Application object you configured cannot be distributed to handheld devices until you associate the object with individual handheld devices or to a group of handheld devices.

**10** Click the Associations tab > click Add.

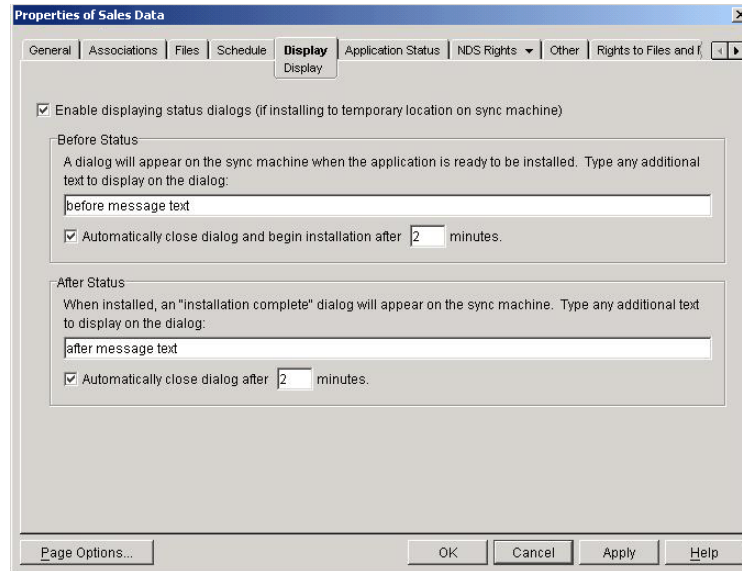
**11** Select the handheld devices or groups of handheld devices you want to distribute the Handheld Application object to, then click OK.

The Handheld Application object will be distributed to each handheld device the next time it synchronizes or according to the application object's schedule.

If you are distributing an application, you probably do not want the distribution to recur. If you are distributing files, such as marketing information, you can schedule the distribution to recur using the Schedule page.

**12** Click OK to save your settings.

**13** If you chose Copy the Files to a Temporary Location on the Sync Machine or Copy the Files to a RIM BlackBerry Device in [Step 8 on page 99](#), click the Display tab.



#### 14 Fill in the fields:

**Enable Displaying Status Dialogs:** Select this option if you want informational dialog boxes to display on sync machines when application files are installed.

**Type Any Additional Informational Text to Display on the Dialog:** Any information that you type in this field will display on the dialog box that will display on the sync machine. You can use this field to provide any additional information or instructions that you want users to see when the files are installed.

**Automatically Close Dialog and Begin Installation After \_ Minutes:** Select this option, then specify the number of minutes that you want to wait before installing the files. Using this option will enable installation of the files even if the user is away from his or her desk when the files are ready to be installed.

**When Installed, an "Installation Complete" Dialog Will Appear on the Sync Machine:** Type any additional text to display on the dialog box after the files are installed.

**Automatically Close Dialog After \_ Minutes:** Select this option, then specify the number of minutes that you want to wait before closing the Installation Complete dialog box.

#### 15 Click OK to save your settings.

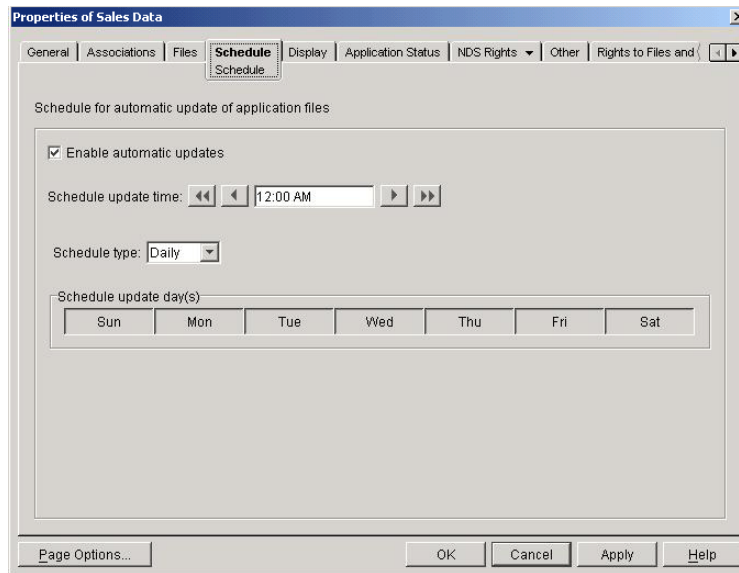
## Scheduling the Distribution of a Handheld Application Object

If your handheld application object contains files that you want to redistribute periodically, use the Schedule page to schedule its distribution.

If you want the handheld application object to be distributed only once, you do not need to schedule it; the object will be distributed the next time the handheld device synchronizes.

To schedule the distribution of a handheld application object:

- 1 In ConsoleOne, right-click the Handheld Application object, then click Properties to display the General page.
- 2 Click the Schedule tab.



**3** Click Enable Automatic Updates.

If you select this option ZENworks for Handhelds will scan the source directory at the scheduled time for any additions or changes to the source files. If something has changed, the application will be pushed out at that time.

**4** Specify an update time in the Schedule Update Time field.

**5** Select a schedule from the Schedule Type drop-down list:

- ◆ Daily
- ◆ Weekly
- ◆ Monthly
- ◆ Yearly

**NOTE:** Click the Help button for detailed instructions about each schedule.

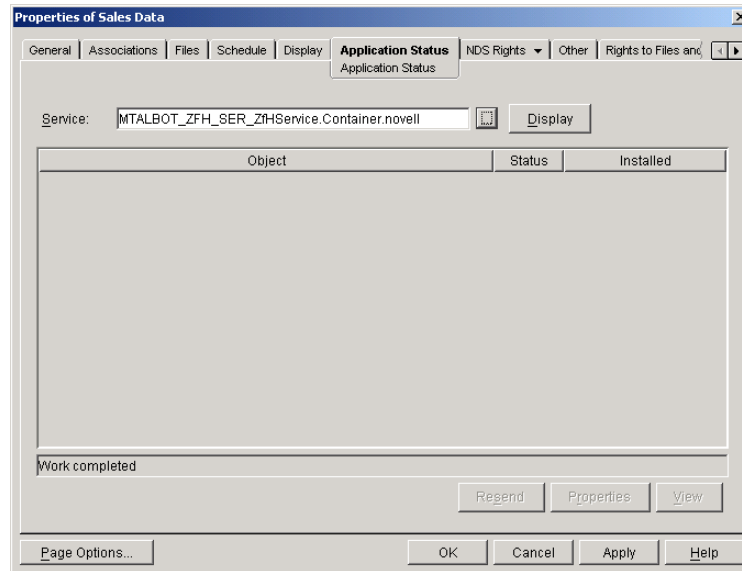
**6** Specify the hours and days that you want the schedule to activate.

**7** Click OK.

## Displaying Handheld Application Object Status

**1** In ConsoleOne, right-click the Handheld Application object, then click Properties to display the General page.

**2** To view the status of a Handheld Application object, click the Application Status tab.



The results will list the Handheld Application objects distributed by the ZENworks for Handhelds service listed in the Service field, the status of each object, and the version number of each Handheld Application object.

The status of the application can be any of the following:

- ◆ **Canceled:** The distribution of the application has been canceled because the distribution it is associated with was deleted.
- ◆ **Failed:** The application could not be installed by the device.
- ◆ **Installed:** The application was installed without a problem.
- ◆ **Pending:** The application has not been distributed yet or results have not yet been made available.
- ◆ **Skipped:** The device contained the current version of the application or the application has not changed.

**HINT:** You can force an application to be installed on an associated handheld device, even if it has already been installed on the device, by using the Resend button on the Application Status page of the application object. You cannot force ZENworks for Handhelds to resend an application by deleting the application from the handheld device; you must use the Resend button.

## Modifying a Handheld Application Object

You can add or delete components and distribute the changes without having to create a new Handheld Application object.

The following sections contain additional information about modifying Handheld Application objects:

- ◆ [“Modifying the Contents of a Handheld Application Object” on page 104](#)
- ◆ [“Scanning for Updated Components” on page 104](#)
- ◆ [“Deleting a Handheld Application Object” on page 104](#)
- ◆ [“Deleting a Handheld Application Object’s Associations” on page 104](#)

## Modifying the Contents of a Handheld Application Object

If you change components of a Handheld Application object (for example, the files that are included in the object) or you want to change the object's associations, you can modify the object using ConsoleOne; you do not need to create a new Handheld Application object.

To modify the contents a Handheld Application object, follow the steps in [“Configuring a Handheld Application Object” on page 97](#), modifying the settings as appropriate.

## Scanning for Updated Components

For recurring distributions of Handheld Application objects, ZENworks for Handhelds scans component directories at the scheduled time to see if their contents have changed before sending out the distribution. Therefore, recurring distributions will send out the most recent versions of files that make up the application.

For example, if you add or replace files in the source directory for the application, those files will be included the next time the Handheld Application object is scheduled to be distributed. You do not need to create a new Handheld Application object to include the files. See [“Understanding Automatic Application Updates” on page 96](#) for an example of how ZENworks for Handhelds automatic updates work.

You can also force a source directory to be scanned.

**IMPORTANT:** Because the ZENworks for Handhelds server scans component directories for recurring distributions, the ZENworks for Handhelds server service account must have proper rights to access the component directories.

To force a source directory scan immediately and distribute the Handheld Application object if it has changed:

- 1 In ConsoleOne, right-click the desired Handheld Application object, click Actions, then click Update Now.

## Deleting a Handheld Application Object

If you decide that you do not want to distribute a specific Handheld Application object again, you can delete its object from the directory using ConsoleOne.

- 1 In ConsoleOne, right-click the desired Handheld Application object, then click Delete NDS Object.
- 2 Click Yes to confirm the deletion.

## Deleting a Handheld Application Object's Associations

If you decide that you do not want to distribute a specific Handheld Application object to a handheld device or to a group of handheld devices, but you want to keep the object in the directory for future use, you can delete the object's associations.

- 1 In ConsoleOne, right-click the appropriate Handheld Application object, then click Properties.
- 2 Click the Associations tab, select the handheld devices or groups you want to remove the association from, then click Delete.
- 3 Click OK.



# 7

## Using Inventory and Reports

After you install the Novell® ZENworks® for Handhelds software, [set up Handheld Import](#), and users have synchronized their handheld devices, you are ready to collect software and hardware inventory for all managed handheld devices in your ZENworks for Handhelds system.

**NOTE:** If a handheld device is new to the ZENworks for Handhelds system, you might need to synchronize the device as many as three times. The first time that the device synchronizes with the proxy service computer, the handheld client is installed. The second time, the handheld device registers with the ZENworks for Handhelds server. The third time, inventory information will be sent to the proxy service for forwarding to the ZENworks for Handhelds server.

Managing software and hardware assets is a critical function for most companies. ZENworks for Handhelds inventory capabilities capture asset information to support analysis, troubleshooting, and planning.

ZENworks for Handhelds lets you collect and view software and hardware inventory information for Palm OS, Windows CE (including Pocket PCs), and BlackBerry handheld devices.

Using ZENworks for Handhelds, you can do the following:

- ♦ View software inventory information across all your handheld devices or on a per-device basis to ensure software licensing compliance
- ♦ Plan for software and hardware upgrades with a complete view of application versions and hardware configurations
- ♦ Troubleshoot problems with a thorough knowledge of each handheld device's hardware and software

The following sections contain additional information:

- ♦ [“Viewing Software Inventory” on page 105](#)
- ♦ [“Viewing Hardware Inventory” on page 115](#)
- ♦ [“Using Inventory Reports” on page 116](#)
- ♦ [“Printing Data from the ZENworks for Handhelds Inventory Viewer” on page 119](#)

## Viewing Software Inventory

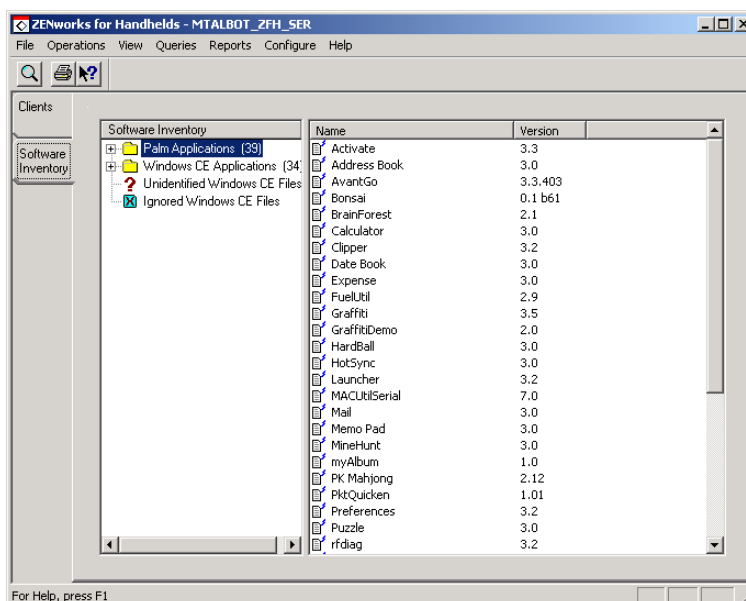
Software inventory is collected once a day from the handheld device during synchronization. Software inventory data is displayed in the ZENworks for Handhelds Inventory Viewer.

ZENworks for Handhelds lets you collect and view software inventory information for Palm OS, Windows CE (including Pocket PCs), and BlackBerry devices.

To view software inventory:

- 1 In ConsoleOne®, right-click a handheld device object, click Actions, then click Inventory.

## 2 Click the Software Inventory tab.



The Software Inventory list in the left frame contains folders named Palm Applications, BlackBerry Applications, and Windows CE Applications. You can expand these folders to display a list of all the applications found on all handheld devices in your system.

If ZENworks for Handhelds cannot identify an application on a Windows CE device, the application is listed in the Unidentified Windows CE Files tree in the Software Inventory list in the left frame.

The right frame contains a Name column that lists each application in alphabetical order by company name and a Version column that lists each application's version number.

**NOTE:** For BlackBerry devices, ZENworks for Handhelds collects software inventory only for applications that display on the device's Options > Status screen.

The following sections contain additional information:

- ♦ [“Viewing Software Inventory for a Specific Handheld Device” on page 106](#)
- ♦ [“Viewing Software Inventory Across All Palm OS, BlackBerry, or Windows CE Devices in Your System” on page 107](#)
- ♦ [“Identifying Files for Windows CE Devices” on page 109](#)
- ♦ [“Ignoring or Identifying Windows CE Files and Applications” on page 110](#)

## Viewing Software Inventory for a Specific Handheld Device

ZENworks for Handhelds lets you view the applications installed on a specific Palm OS, BlackBerry, or Windows CE handheld device. You can also view application details about a specific application on any handheld device in your system.

To view software inventory for a specific device:

- 1 In ConsoleOne, right-click any handheld device object, click Actions, then click Inventory to open the ZENworks for Handhelds Inventory Viewer.
- 2 Click the Clients tab, then expand the ZENworks for Handhelds Groups folder.

- 3** Expand the desired platform folder in the tree: All BlackBerry Devices, All Palm OS Handhelds, or All Windows CE Devices.
- 4** Click the handheld device whose software applications you want to view.
- 5** Click the SW Inventory tab in the right pane.

Depending on which platform you chose in **Step 3**, the information displayed in the SW Inventory page will vary.

**Palm OS Devices:** Lists the application name, version, creator ID, and whether the application is installed in ROM, RAM, or on a storage card.

**BlackBerry Devices:** Lists the application name and version.

**Windows CE Devices:** Lists the name of the company that created the application, the application name, and the version.

**NOTE:** You can determine when the last inventory scan was performed by looking at the Last Software Inventory information at the bottom of the dialog box.

- 6** To view details about a specific application, double-click the application.

The View Application Details dialog box displays the application's size, creation date, backup date, and more.

## Viewing Software Inventory Across All Palm OS, BlackBerry, or Windows CE Devices in Your System

ZENworks for Handhelds lets you view software inventory information across all of the Palm OS, BlackBerry, or Windows CE devices in your system. Suppose, for example, that you want to ensure licensing compliance for a certain application. ZENworks for Handhelds helps you determine how many copies of that application users have installed on individual devices in your organization. You can also display a list containing the name of each device that has the application installed.

To view software inventory information for all Palm OS, BlackBerry, or Windows CE devices in your system:

- 1** In ConsoleOne, right-click any handheld device object, click Actions, then click Inventory to open the ZENworks for Handhelds Inventory Viewer.
- 2** Click the Software Inventory tab on the left side of the dialog box, then expand the desired platform folder in the tree: Palm Applications, BlackBerry Applications, or Windows CE Applications.

If you expand the Windows CE Applications folder, you also need to expand the company folder.

- 3** Click the application whose details you want to view.
- 4** Click the General tab to view the application's details, which, depending on the platform, will vary.

**Palm OS Applications:** Lists the application's name, the version, the Creator ID, the icon name, and how many installations of the application exist on the Palm OS devices in your system.

**BlackBerry Applications:** Lists the application's name and its version, and the total number of copies installed.

**Windows CE Applications:** Lists the application's name, version, company name, the files that make up the application, and the total number of copies installed.

- 5 Click the Clients tab in the right frame to view all the handheld devices in your system that have the selected application installed and to list additional details, depending on the platform.

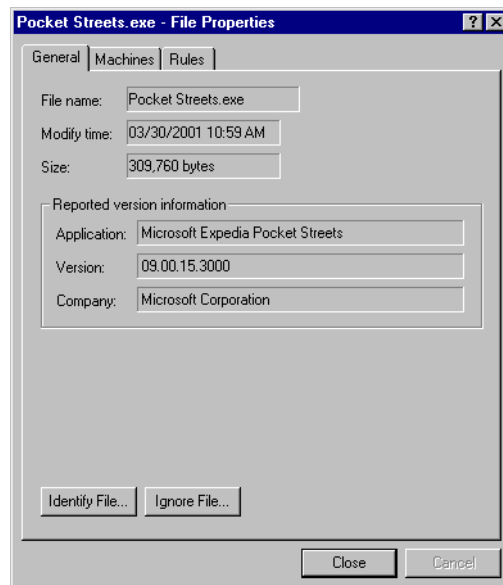
**Palm OS Devices:** Lists information about the individual devices that the selected application is installed on, including the name of the device, where the application is installed (RAM, ROM, or on a Storage Card), the application's size, create date, modify date, and record count.

**BlackBerry Devices:** Lists information about the individual devices that the selected application is installed on, including the name of the device, the application's size, and more.

**Windows CE Devices:** Lists information about the individual devices that the selected application is installed on, including the name of the device, the last time the application was scanned, and the installation path on those devices.

For Windows CE applications, you can also view file details if you want to know details about a specific file that is part of an application (for example, to determine the version of a specific executable file you are running).

- 1 Click the General tab in the right frame.
- 2 Double-click the application file in the Application Files list box.



The File Properties dialog box provides a quick snapshot of information about the file.

Click the following tabs to view information about the selected file:

- ♦ **General:** Lists all application version information, including filename, modify time, and file size.
- ♦ **Clients:** Lists the Windows CE devices that the file is installed on.
- ♦ **Rules:** Lists the Identification and Ignore rules created for the file. For more information, see [“Viewing Windows CE Identified and Ignored File Rules” on page 114](#).

## Identifying Files for Windows CE Devices

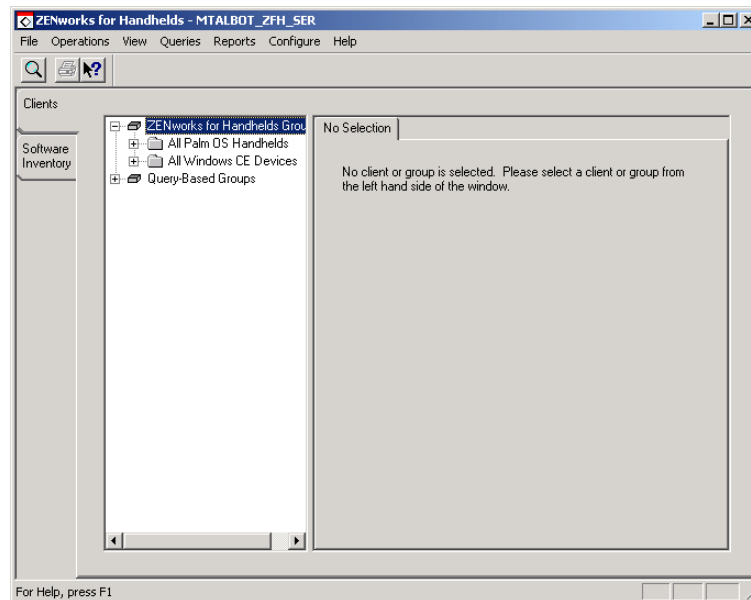
If a Windows CE application file does not have any product information associated with it, ZENworks for Handhelds considers it “unidentified” and stores it in the Unidentified Files folder.

There may be some unidentified files that you want ZENworks for Handhelds to recognize as valid applications whenever ZENworks for Handhelds finds the files on a device. For these files, ZENworks for Handhelds allows you to specify the product, company, and version information so that the files are identified as applications.

When you identify files, an identification rule is created for the files. After they are identified, the files will appear in the Windows CE Applications folder (with a list of the devices it is found on). The files are then removed from the list of unidentified files.

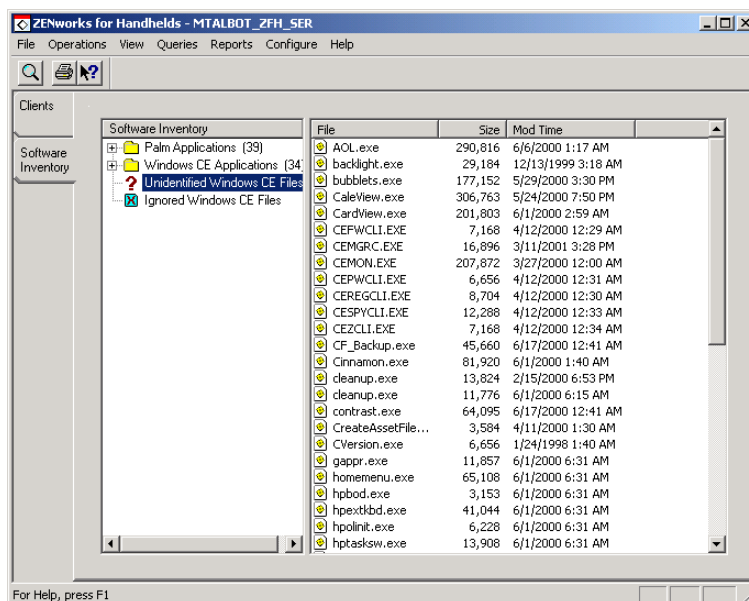
To make an unidentified file a known application:

- 1 In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.

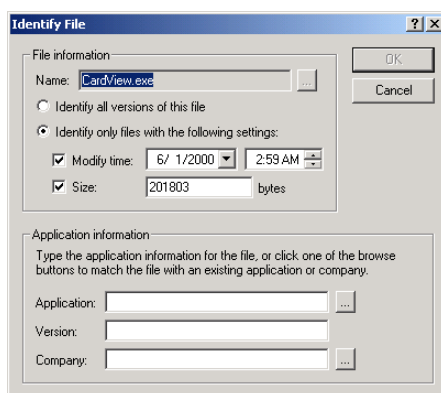


- 2 Click the Software Inventory tab, then click the Unidentified Windows CE Files icon (the question mark).

A list of unidentified files displays in the right pane.



**3** Double-click the file you want to identify > click Identify File.



**4** Specify the name of the application you want this file to identify with, the version, and the company name.

If desired, change the modify time and size for the identification rule.

If you specify a different size and/or date, only files matching those exact specifications will be identified as a known application. Versions of the file not matching the criteria will still appear as unidentified.

**5** Click OK.

The file will now appear as an application in the Windows CE Applications folder in the tree.

## Ignoring or Identifying Windows CE Files and Applications

ZENworks for Handhelds by default will ignore some Windows CE application files so the application view will remain manageable. Ignored files appear in the Ignored Windows CE Files folder in the Software Inventory page and in the Ignored Files tab in the Clients page.

The following sections contain additional information:

- ♦ “Ignoring Windows CE Files” on page 111
- ♦ “Ignoring Windows CE Applications” on page 112
- ♦ “Identifying Ignored Windows CE Files” on page 113
- ♦ “Viewing Windows CE Identified and Ignored File Rules” on page 114

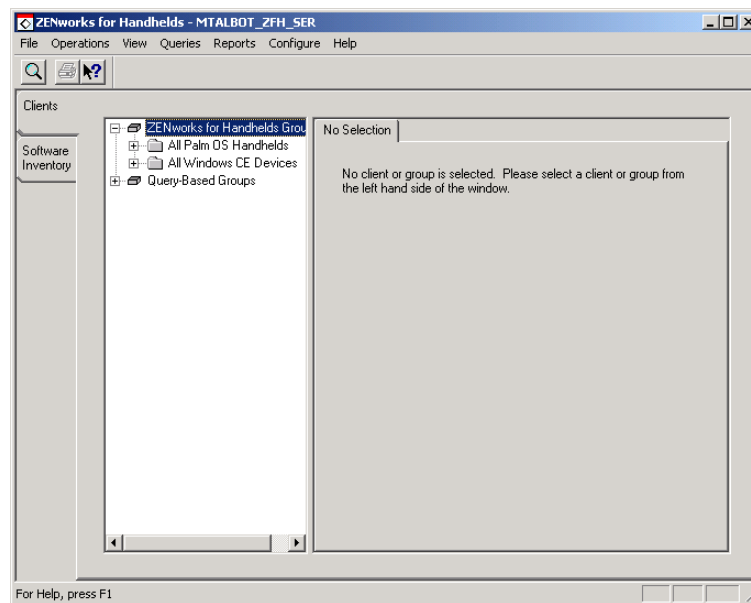
## Ignoring Windows CE Files

To keep your list of unidentified files more manageable, you can ignore unidentified files that you are not going to identify as applications.

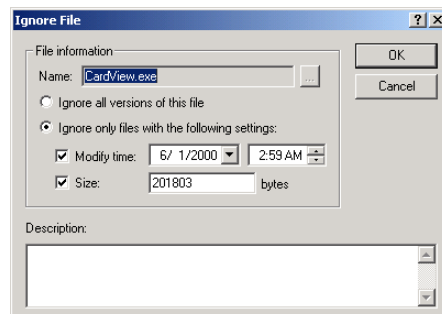
Ignoring these files will keep your unidentified files list smaller, which may help you to recognize when ZENworks for Handhelds encounters new unidentified files during software inventory.

To ignore unidentified files:

- 1 In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.



- 2 Click the Software Inventory tab, then click the Unidentified Windows CE Files icon (the question mark).
- 3 Double-click the file in the right pane.
- 4 Click Ignore File.



**5** Select Ignore All Versions of this File.

or

Select Ignore Only Files with the Following Settings, then specify the modify time and size settings as appropriate.

**6** If desired, type a description of why you are ignoring the file.

**7** Click OK.

The file appears in the Ignored Windows CE Files tree view.

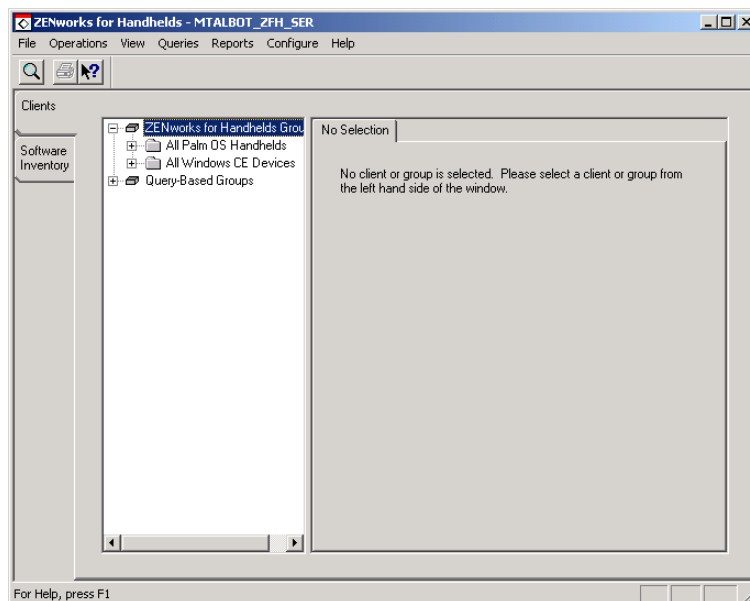
## Ignoring Windows CE Applications

To keep your Applications folder manageable, you can ignore applications. This will allow you to view only the applications that you think are important to display.

For example, you may want to ignore any applications that are by default included with the operating systems (for example, Microsoft Clock).

To ignore an application:

**1** In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.

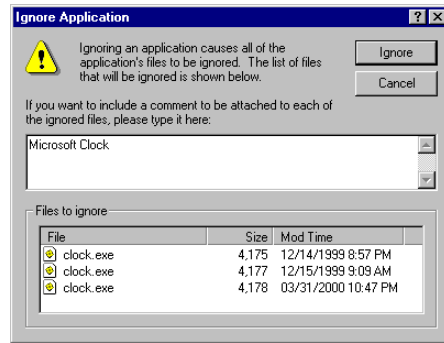


**2** Click the Software Inventory tab > click the application you want to ignore.

**3** Click Operations > Ignore Application.

The Ignore Application dialog box lists files that will be ignored.





- 4 If desired, type a description of why you are ignoring the files.

The description will be stored with the file and can be viewed with the rule created for the file. For more information, see [“Viewing Windows CE Identified and Ignored File Rules” on page 114](#).

- 5 Click Ignore.

The application files will be stored as Ignored files. Any files that future software inventory collections find that match the criteria you specified will also be stored as Ignored files.

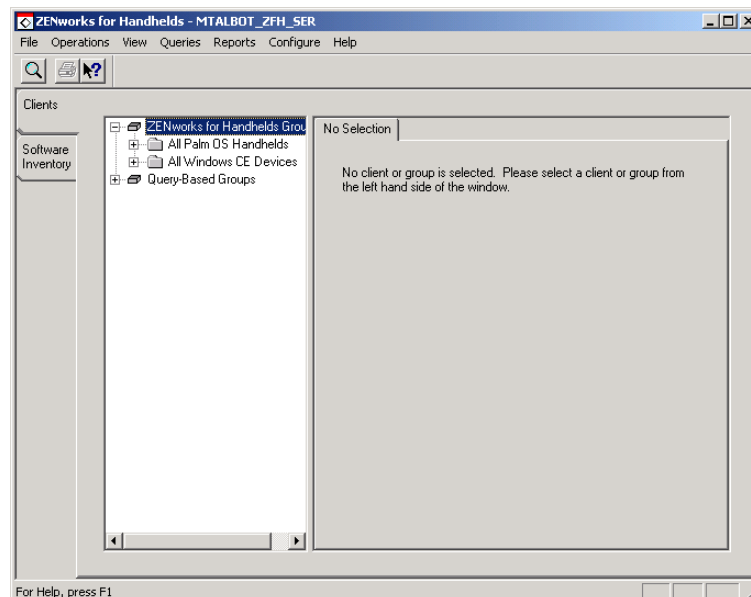
**NOTE:** Ignoring applications ignores files that are currently known that identify themselves with the ignored application. If new files appear that identify themselves as this application, the application will re-appear in the Applications view.

## Identifying Ignored Windows CE Files

You can identify ignored application files that you want to be recognized as applications.

To identify ignored files:

- 1 In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.



- 2 Click the Software Inventory tab > click the Ignored Windows CE Files icon.
- 3 Double-click the file you want to identify > click Identify File.

- 4** Specify the name of the application you want this file to identify with, the version, and the company name.
- 5** If desired, change the modify time and size for the identification rule.  
If you specify a different size and/or date, only files matching those exact specifications will be identified as a known application. Versions of the file not matching the criteria will still appear as unidentified.
- 6** Click OK.

## Viewing Windows CE Identified and Ignored File Rules

When you identify or ignore a Windows CE file or application, a rule is created for the file.

You can view all the rules you have created by clicking **Configure > Software Inventory Rules**.

A rule applies to a file name, not to versions, so you may see rules even if you did not create the rule for a specific version of a file you are viewing. Another rule could have been created for a file that had a different time stamp or size but the same name.

When you identify or ignore all versions of a file, the size and modify time fields display **Any**. When you identify or ignore a specific version of a file, the size and modify time fields match the file you have created the rule for.

If you attempt to create a rule for a file that matches an existing rule, you will be warned before overwriting the existing rule. The same thing will happen if you try to create an ignore rule for a file that already has an identification rule.

To view all rules an administrator has created in ZENworks for Handhelds:

- 1** In ConsoleOne, right-click a handheld device object, click **Actions**, then click **Inventory**.
- 2** Click **Configure > Software Inventory Rules**.



The Software Inventory Rules dialog box lists any files you have identified or ignored.

You can change any rule by selecting the rule, then clicking **Edit**. You can also identify or ignore a file by clicking **Add**, then creating the rule. You can even create a rule for files that have not been installed on your devices yet.

To view rules for a specific file:

- 1** In ConsoleOne, right-click a handheld device object, click **Actions**, then click **Inventory**.

- 2** Double-click an unidentified or ignored file.
- 3** Click the Rules tab.

All user-defined ignore and identification rules that match the name of the file appear.

## Viewing Hardware Inventory

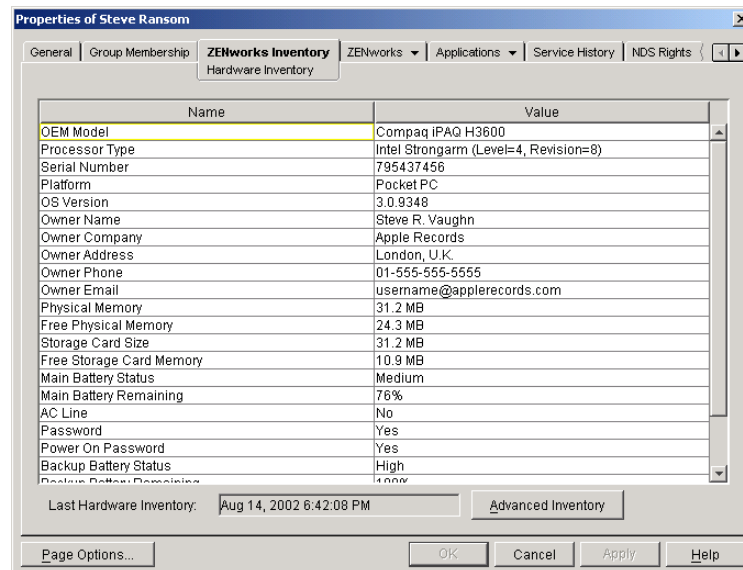
ZENworks for Handhelds collects hardware information from each handheld device in your system, including the model, OS version, processor type, free RAM, RAM used, and battery type and remaining voltage.

Collected data about hardware is stored on a per-device basis and is found on the ZENworks Inventory page in ConsoleOne or on the Clients: Hardware Inventory page in the Inventory Viewer.

Hardware inventory data is collected every time the handheld device synchronizes.

To view hardware inventory using ConsoleOne:

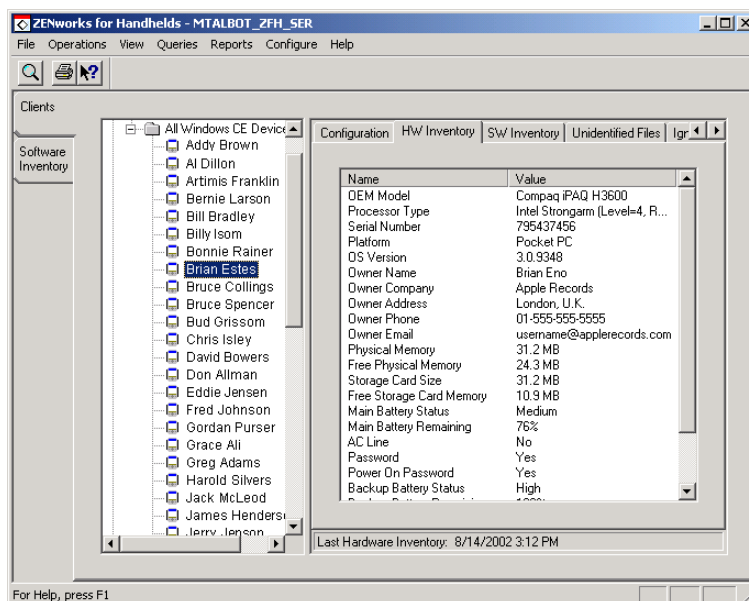
- 1** In ConsoleOne, right-click a handheld device object, then click Properties.
- 2** Click the ZENworks Inventory: Hardware Inventory tab.



The device's hardware inventory information is displayed. The Last Hardware Inventory box displays the date and time that hardware inventory was last collected for the device.

To view hardware inventory using the ZENworks for Handhelds Inventory Viewer:

- 1** In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.
- 2** Click the Clients tab, select a handheld device object, then click the HW Inventory tab in the right pane.



## Using Inventory Reports

You can generate reports about the hardware and software on your handheld devices to make it easy to see the applications you have installed, which devices need upgrades, which hardware components are installed, and more.

ZENworks for Handhelds provides predefined reports for information stored in the ZENworks for Handhelds database, including:

- ◆ Handheld Application objects (status, run time, and so forth)
- ◆ Devices (groups belonged to, distributions run, hardware/software inventory)
- ◆ Groups
- ◆ Software inventory (list of all software applications and where they are installed, unidentified files, and so forth)
- ◆ Hardware inventory

After they are generated, reports can be viewed online, sent to a printer, or saved to a file in a variety of formats.

**HINT:** ZENworks for Handhelds is compatible with the Seagate\* Software Crystal Reports\* reporting engine. Using Crystal Reports, you can create your own custom reports. See your Crystal Reports documentation for further details.

The following sections contain more information about using reports:

- ◆ [“Running Reports” on page 116](#)
- ◆ [“Exporting Reports” on page 117](#)
- ◆ [“Creating Custom Reports” on page 118](#)

## Running Reports

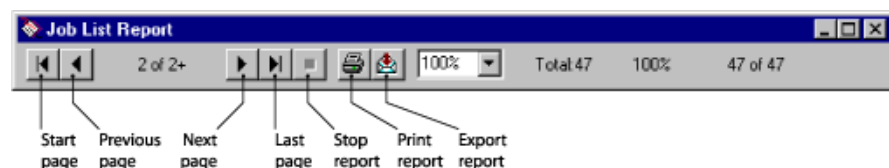
You generate and view ZENworks for Handhelds reports in the ZENworks for Handhelds Inventory Viewer.

- 1 In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.
- 2 Click Reports > the type of report to generate.

After choosing a report, you might be prompted to pick a device or group before generating the data. After the report is generated, a screen similar to the following displays.

Device Name (User)	OS Version	RAM	Free RAM	Last Sync	Main Battery
Addy Brown (Addy Brown)	3.0.9348	15.5 MB	6.8 MB	03/04/2002	5:18PM High (100%)
Al Dillon (Al Dillon)	3.0 Build 126	31.2 MB	24.3 MB	03/04/2002	7:50PM Medium (78%)
Artimis Franklin (Artimis Franklin)	3.0.9348	31.2 MB	24.3 MB	03/04/2002	7:40PM Medium (76%)
Bernie Larson (Bernie Larson)	3.0.9348	31.2 MB	24.3 MB	03/04/2002	10:22PM Medium (76%)
Bill Bradley (Bill Bradley)	3.0 Build 126	31.2 MB	24.3 MB	03/04/2002	7:17PM Medium (78%)
Billy Isom (Billy Isom)	3.0 Build 126	31.2 MB	24.3 MB	03/04/2002	9:06PM Medium (78%)
Bonnie Rainer (Bonnie Rainer)	3.0 Build 126	31.2 MB	24.3 MB	03/04/2002	8:35PM Medium (78%)
Brian Estes (Brian Estes)	3.0.9348	31.2 MB	24.3 MB	03/04/2002	3:12PM Medium (76%)
Bruce Collings (Bruce Collings)	3.0 Build 126	31.2 MB	24.3 MB	03/04/2002	4:17PM Medium (78%)
Bruce Spencer (Bruce Spencer)	3.0 Build 126	31.2 MB	24.3 MB	03/04/2002	6:59PM Medium (78%)
Bud Grissom (Bud Grissom)	3.0.9348	31.2 MB	24.3 MB	03/04/2002	5:46PM Medium (76%)
Chris Isley (Chris Isley)	3.0.9348	31.2 MB	24.3 MB	03/04/2002	4:33PM Medium (76%)

After the report is generated, you can scroll through the report, print it, or export it to many different formats including Excel, HTML, RTF, and so forth. The following illustration shows the toolbar buttons you can use to view and print the report.




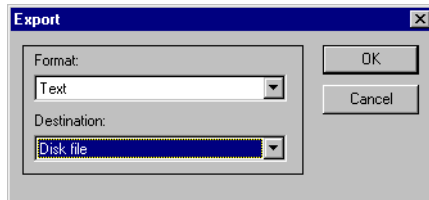
## Exporting Reports

After you generate a report you can export the report to a file or import the data into a database or spreadsheet.

Reports can be exported to formats such as HTML, tab/comma-delimited text files, Microsoft Excel, and so forth. After choosing the export format, you can choose the destination, such as a file, a Lotus Notes\* database, or an e-mail system.

To export a report:

- 1 Click  on the toolbar.



- 2** Choose the format in which to export the format.
- 3** Select the destination for the report.
- 4** Click OK.

You will be prompted for additional information based on the format and destination.

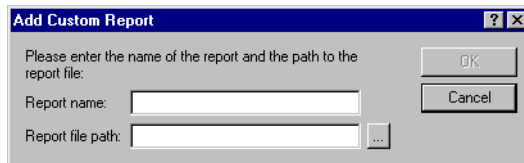
## Creating Custom Reports

Users who have Crystal Reports can create their own custom reports from the ZENworks for Handhelds database.

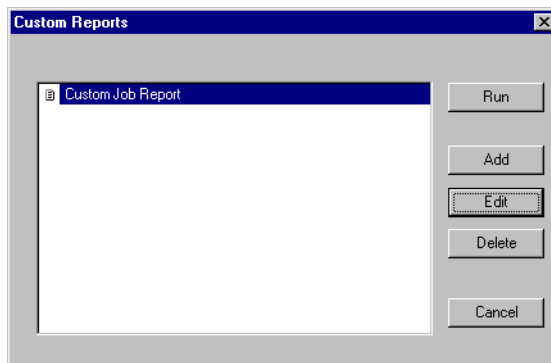
**IMPORTANT:** If you create custom reports, the reports must be stored in a shared path if you want them to be accessed by a remote ConsoleOne installation. When saving a custom report, specify a UNC path to the share (do not use local drive letters).

To create a custom report:

- 1** In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.
- 2** Click Reports > Custom Report.
- 3** Click Add.



- 4** Type a name for the report.
- 5** Specify a location for the report you created, then click OK.



- 6** Click Run to generate the report.

The report will display similar to any standard report.

# Printing Data from the ZENworks for Handhelds Inventory Viewer

ZENworks for Handhelds allows you to print data from most views in the ZENworks for Handhelds Inventory Viewer.

- 1** In ConsoleOne, right-click a handheld device object, click Actions, then click Inventory.
- 2** Click the tab from which you want to print data.
- 3** Click File > Print.





# 8

## Making System Configuration Changes

This section discusses how to make configuration changes to your Novell® ZENworks® for Handhelds system.

The following sections contain additional information:

- ♦ “Configuring the Proxy Service” on page 121
- ♦ “Converting to Microsoft SQL Server” on page 125
- ♦ “Compacting and Repairing the Database” on page 127
- ♦ “Configuring the IP Conduit” on page 128
- ♦ “Configuring the ZENworks for Handhelds IP Clients” on page 129

### Configuring the Proxy Service

The proxy service runs on any computer running Windows 95 and above. The proxy service manages application delivery, monitors application distributions sent by the ZENworks for Handhelds server, and sends the results of those distributions back to the server. The proxy service also queues the policies and ensures that they are delivered to handheld devices.

The proxy service is started and runs in the background each time the computer is started. On Windows NT/2000/XP machines, the proxy service runs as a service.

The proxy service has configuration settings for which ZENworks for Handhelds server it should communicate with and options for dial-up networking and message transfers.

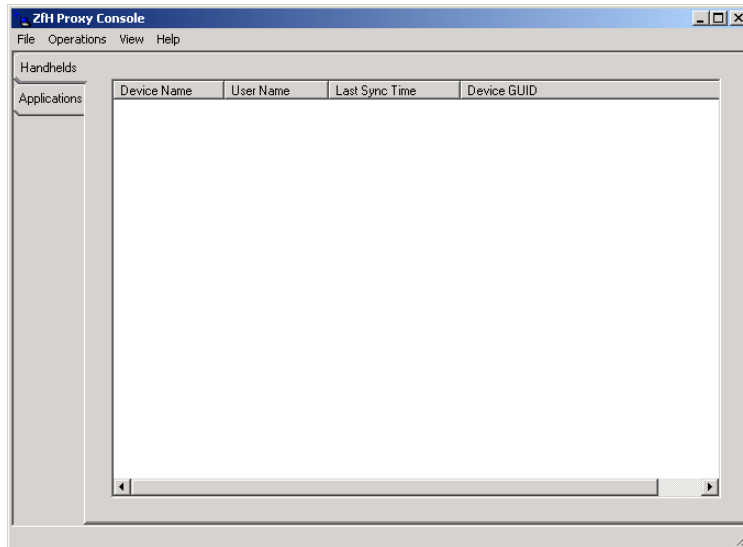
To make configuration changes to a proxy service on a Windows 2000 machine, the user must be at least a Power User on the machine.

The following sections contain additional information:

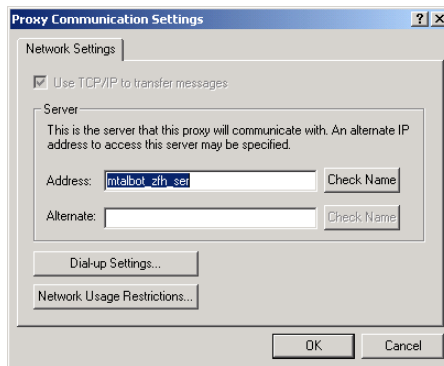
- ♦ “Configuring Network Settings” on page 121
- ♦ “Configuring Network Usage Restrictions” on page 122
- ♦ “Configuring Dial-Up Communications” on page 123
- ♦ “Enabling or Disabling Message Transfers” on page 124
- ♦ “Connecting to the ZENworks for Handhelds Server” on page 125

### Configuring Network Settings

- 1 Run console.exe from the zfhproxy directory (by default, program files\novell\zfhproxy).



**2** Click Operations > Configure Communications.



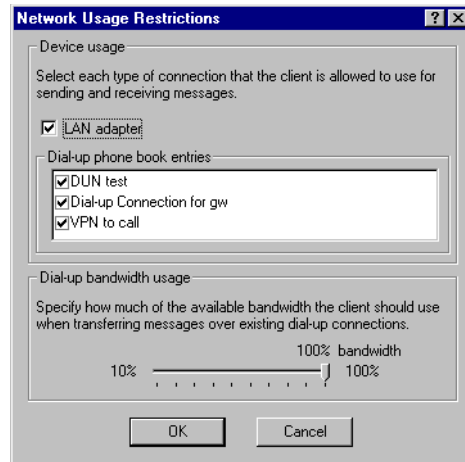
Alternate addresses can be defined for the server when the server is on a network that defines one set of IP addresses for internal traffic and another set of IP addresses for traffic from outside of the firewall, for instance when you are using Network Address Translation (NAT).

## Configuring Network Usage Restrictions

Network usage restrictions allow you to pick how TCP/IP connections are made by the proxy service and to set bandwidth limitations. In most situations, the default settings should be sufficient.

To configure network usage restrictions:

- 1** Run console.exe from the zfhproxy directory (by default, program files\novell\zfhproxy).
- 2** Click Operations > Configure Communications.
- 3** Click Network Usage Restrictions in the Network Settings page.



#### 4 Specify the settings in the fields:

**LAN Adapter:** The proxy service will try to make a TCP/IP connection to the ZENworks for Handhelds server using the installed LAN adapter (this is how a normal connection would be made by a proxy service directly connected to the LAN).

You might want to disable this option if the user is in a remote office that never directly connects to the LAN but has a LAN adapter installed. Because the proxy service will periodically try to connect to the server, if there is no way to connect to the ZENworks for Handhelds server via the LAN, this option should be disabled.

**Dial-Up Phone Book Entries:** Lists the current dial-up networking connections that have been configured on the proxy service.

You might want to disable a dial-up connection in order to limit the bandwidth used by a specific connection. For example, you might not want ZENworks for Handhelds to use a dial-up connection that is used strictly for a cellular modem.

**Dial-Up Bandwidth Usage:** Allows you to set how much bandwidth ZENworks for Handhelds can use when transferring messages over dial-up connections. By default, proxy services will use the maximum bandwidth available.

On occasion, the user might want to limit the bandwidth ZENworks for Handhelds uses, especially if other processes are using the dial-up connection at the same time ZENworks for Handhelds is transferring messages.

For example, if users are downloading large files from the network, they might want to limit the amount of bandwidth ZENworks for Handhelds is using so that the file download finishes faster. If necessary, you can also disable message transfers to keep ZENworks for Handhelds from sending messages. For more information, see [“Enabling or Disabling Message Transfers” on page 124](#).

## Configuring Dial-Up Communications

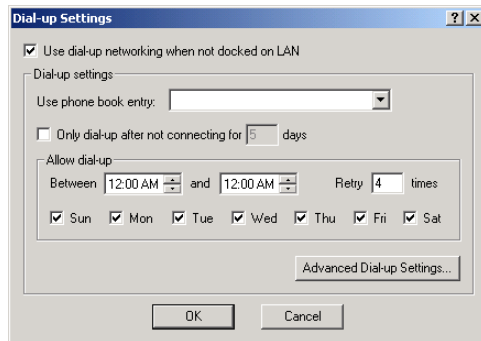
You can configure the proxy service to automatically attempt to connect to the server using a dial-up connection.

When dial-up networking is configured, the proxy service will automatically attempt to dial up the ZENworks for Handhelds server to exchange messages. You can configure the frequency of dial-ups and how long to wait for the next dial-up after the client has connected.

Before setting up the proxy service to use dial-up networking, the proxy service must have a valid phone book entry in the Dial-Up Networking folder on the client. This entry should connect you to a server that will give you access to the server.

To configure the proxy service to use dial-up networking:

- 1** Run console.exe from the zfhproxy directory (by default, program files\novell\zfhproxy).
- 2** Click Operations > Configure Communications.
- 3** Click Dial-Up Settings.



- 4** Check the Use Dial-Up Networking When Not Docked on LAN check box.
- 5** Select a phone book entry from the drop-down list.
- 6** To configure how frequently the proxy service attempts to dial up the server, select Only Dial Up After Not Connecting for \_ Days, then specify the number of days.
- 7** To configure when the proxy service should attempt to dial up the server, configure the schedule in the Allow Dial-Up group box.
- 8** To configure details of the dial-up, such as logon information, select Advanced Dial-Up Settings, make any configuration settings, then click OK.
- 9** Click OK.

## Enabling or Disabling Message Transfers

Message transfers enable the proxy service to send messages to the ZENworks for Handhelds server. Normally, you should always leave message transfers enabled.

To enable/disable message transfers:

- 1** Run console.exe from the zfhproxy directory (by default, program files\novell\zfhproxy).
- 2** To enable transfers, click Operations > Enable Message Transfers.

or

To disable transfers, click Operations > Disable Message Transfers.

By default, message transfer is enabled and new messages are automatically placed in the proxy service's message queue or out box.

## Connecting to the ZENworks for Handhelds Server

You can ensure that the proxy service can locate the ZENworks for Handhelds server and exchange messages by using the Connect to Server option in the Operations menu of the proxy service console.

When you use this option, the proxy service attempts to connect to its assigned server, and, if the server is found, it will forward any pending messages to the server.

To force a connection to the ZENworks for Handhelds server:

- 1** Run console.exe from the zfhproxy directory (by default, program files\novell\zfhproxy).
- 2** Click Operations > click Connect to Server.

**HINT:** If the Connect to Server option is not available, the proxy server is not running.

If the server cannot be found, ensure that the ZENworks for Handhelds server service is running on the ZENworks for Handhelds server machine and that you are properly connected to the network.

## Converting to Microsoft SQL Server

If you configured the ZENworks for Handhelds server to use the internal ODBC-compatible database, you can upgrade to a Microsoft SQL Server database if you have Microsoft SQL Server installed.

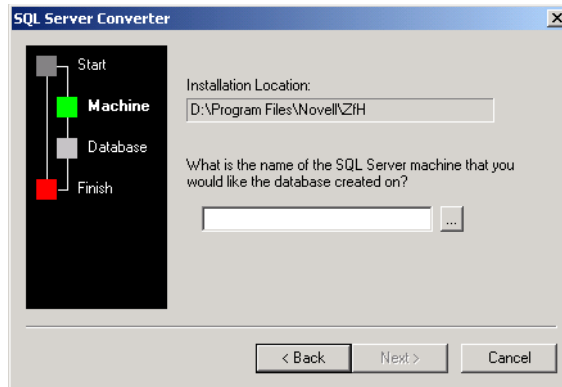
To convert the internal ODBC-compatible database to Microsoft SQL Server:

- ♦ The ZENworks for Handhelds server machine must be able to access the Microsoft SQL Server machine on the network.
- ♦ The person logged in when running the SQL conversion tool must have a server role of System Administrator to convert the database.

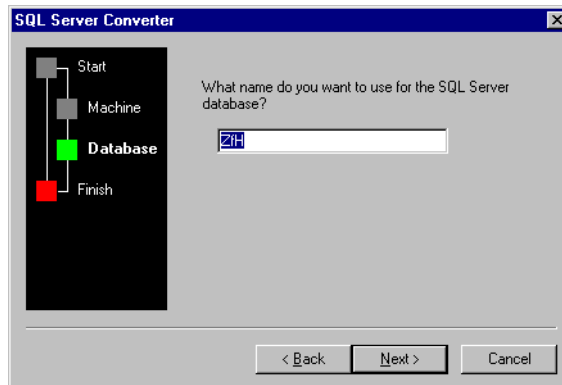
After the database is successfully upgraded, the System Administrator permission can be removed. The ZENworks for Handhelds server user and the user running the ZENworks for Handhelds console just need database access of db\_datareader and db\_datawriter.

To convert to Microsoft SQL Server:

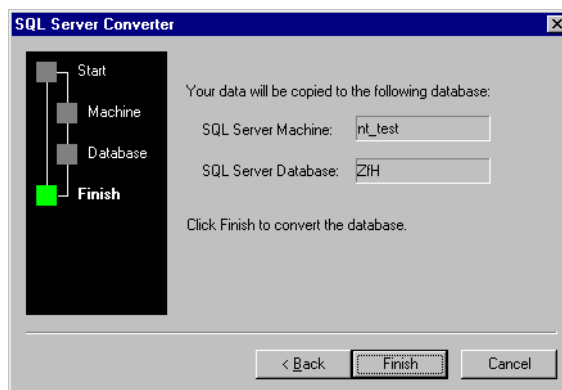
- 1** Use either Windows Explorer or the command prompt on the ZENworks for Handhelds installation machine to access the ZENworks for Handhelds server installation directory.
- 2** From the installation directory, run sqlconv.exe (by default, in program files\novell\zfh).  
The SQL Server Converter wizard appears.
- 3** Click Next.



- 4 Type the name of the machine where Microsoft SQL Server is installed, then click Next.



- 5 Type the name you want to assign to the ZENworks for Handhelds database when it is created in SQL, then click Next.



This window shows the name of the SQL Server machine and the name you are assigning to the database.

- 6 Click Finish to convert your current ZENworks for Handhelds database to an SQL Server database.

The time it takes for the database conversion depends on the size of the database and number of records to process.

# Compacting and Repairing the Database

The tools ZENworks for Handhelds provides to compact and repair the server database are for the internal ODBC-compatible databases only. If you have configured ZENworks for Handhelds to use Microsoft SQL Server, use the utilities provided with Microsoft SQL Server to perform database maintenance.

As the number of distributions you run increases, the size of the databases at the server and on the proxy service computers will grow.

ZENworks for Handhelds provides separate tools to reduce the size of the server and proxy service databases.

The following sections contain additional information:

- ♦ “Compacting the Server Database” on page 127
- ♦ “Compacting the Proxy Service Database” on page 127
- ♦ “Compacting and Repairing the Database” on page 128

## Compacting the Server Database

Before compacting a server database, make sure to shut down all ZENworks for Handhelds applications, including ConsoleOne®.

Make sure that no other computer is accessing the database (for example, a remote copy of ConsoleOne).

If another computer does have the database locked, it will be specified in an error message if you try the operation. Shut down the ConsoleOne on that computer and retry the operation.

**IMPORTANT:** Before performing database operations, you should back up the ZENworks for Handhelds installation directory (specifically serverdata.mdb).

The server database can be compacted by using dbtool.exe from the command line in the server installation directory (program files\novell\zfh).

To compact the server database:

- 1** Use either Windows Explorer or the command prompt on the ZENworks for Handhelds installation machine to access the ZENworks for Handhelds server installation directory.
- 2** From the installation directory, run dbtool.exe.
- 3** If you are sure no other process is accessing the database (for example, a remote installation of ConsoleOne), click OK.

The database will be compacted and the service will be restarted.

## Compacting the Proxy Service Database

The proxy service database can be compacted by using dbtool.exe from the command line in the client installation directory (program files\novell\zfhproxy).

To compact a proxy service database:

- 1** Use either Windows Explorer or the command prompt on the ZENworks for Handhelds proxy service machine to access the ZENworks for Handhelds client installation directory.

**2** From the installation directory, run dbtool.exe.

You will be reminded that the ZENworks for Handhelds client will be stopped and restarted after the database is compacted.

**3** Click OK.

## Compacting and Repairing the Database

If the server internal ODBC-compatible database or proxy service database cannot be opened when ZENworks for Handhelds or the proxy service starts, you might need to compact and repair the database.

If the database is corrupt, you might see a message in the log file that indicates that the database could not be opened. To compact and repair the database, you need to use the DBTOOL command with the /compact option. Other DBTOOL options are described below.

Option	Function
/compact	Compact and repair a database
/proxy	Perform on a proxy service database
/server	Perform on a server database

For example, to repair a proxy service database, enter:

```
dbtool /proxy /compact
```

Dbtool.exe is installed in the zfh and zfhproxy installation directories.

## Configuring the IP Conduit

The IP conduit is used by ZENworks for Handhelds IP service clients to transfer messages. It is installed when the proxy service is installed. For more information, see [“Installing the Proxy Service” on page 28](#).

Administrators can configure how much bandwidth ZENworks for Handhelds should allow when the handheld IP client connects to the IP conduit and how often clients should try to connect to the IP conduit after failing to connect.

These settings are found in the registry on the IP conduit machine (the sync machine).

The following sections contain additional information:

- ♦ [“Configuring Bandwidth Usage” on page 128](#)
- ♦ [“Configuring Client Retries and Power Down \(or Suspend\)” on page 129](#)

## Configuring Bandwidth Usage

If you have a very limited bandwidth (for example, a wireless network where multiple applications use the TCP/IP connection), you can throttle how much bandwidth the ZENworks for Handhelds handheld IP client should use.



On the IP conduit machine (the sync machine where the proxy service is installed), the throttle setting is found in the value name Throttle in:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Novell\ZENworks for Handhelds  
Client\Current Version\Handheld Server
```

By default, ZENworks for Handhelds is configured to use 100 percent of available bandwidth, which is a setting of 100 (decimal) in the Throttle value. If you set it to 50, ZENworks for Handhelds will use just 50 percent of available bandwidth.

If you change this setting, you should test how it works in your environment. Lowering the throttle value will cause ZENworks for Handhelds messages (that is, applications) to take longer to download to the handheld device.

## Configuring Client Retries and Power Down (or Suspend)

Windows CE devices power down or suspend by default after a predefined number of minutes of inactivity. This counter is reset if there is any activity on the device (for example, a synchronization, using the keyboard, and so forth).

Because the IP client periodically attempts to connect to the IP conduit after a failed connection, the counter will be reset whenever the IP client attempts to connect to the server. To prevent this, the IP client uses a default retry connection interval of 60 seconds plus whatever the battery power off setting is (by default, 3 minutes).

Without this default, the device may never power down or go into suspend mode.

On the other hand, if your users only connect for short periods of time, the interval may be set too high for the client to connect to the IP conduit and therefore your users may not connect to the IP conduit frequently enough.

If your users connect for short periods of time and you are concerned that they might not be getting their ZENworks for Handhelds messages because the minimum connection interval is set too high, you can change the Minimum Connect Retry value in the registry.

This value is found in the registry on the IP conduit machine in:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Novell\ZENworks for Handhelds  
Client\Current Version\Handheld Server
```

The setting at the server applies to all handheld devices.

By default, the registry value is 0. This default behavior means that the IP client on the handheld device will wait 60 seconds plus the battery power auto shutoff setting on the handheld device (by default, 3 minutes) to connect to the IP conduit.

The values are in seconds. If you set the value to 25, ZENworks for Handhelds will wait 25 seconds between retry attempts.

## Configuring the ZENworks for Handhelds IP Clients

The ZENworks for Handhelds IP client connects directly to the IP conduit on the proxy service computer, allowing management of Palm OS and Windows CE devices without requiring any third-party synchronization software. For more information, see [“Installing the IP Conduit and ZENworks for Handhelds IP Client” on page 29](#).

The following sections contain additional information:

- ♦ “Configuring the ZENworks for Handhelds Palm IP Client” on page 130
- ♦ “Configuring the ZENworks for Handhelds WinCE IP Client” on page 130

## Configuring the ZENworks for Handhelds Palm IP Client

The ZENworks for Handhelds Palm IP client has a console (zfhconsole) that allows you to do the following:

- ♦ Configure the address of the IP conduit and port number to use
- ♦ Stop and start the proxy service
- ♦ View the log
- ♦ Force a connection to the IP conduit

To start the ZENworks for Handhelds Palm IP client console:

- 1** Click zfhconsole from the Palm OS device’s Application Launcher screen.
- 2** Click Connect Now.

or

Click ZfHConsole at the top of the screen to open the drop-down list, then click an option.

The following table describes the available options:

Click	To
Configure	Configure the handheld server address or port number
View Log	View the client log file and enable diagnostic logging
About	View the Palm IP client version number and copyright information.

## Configuring the ZENworks for Handhelds WinCE IP Client

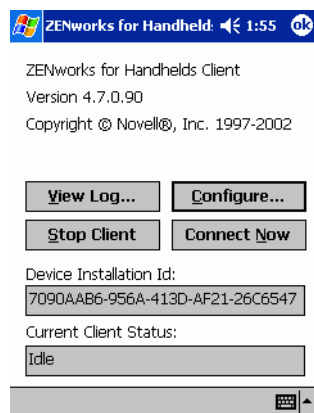
The ZENworks for Handhelds WinCE IP client has a console (console.exe) that allows you to do the following:

- ♦ Configure the address of the IP conduit and port number to use
- ♦ Stop and start the proxy service
- ♦ View the log
- ♦ Force a connection to the IP conduit

To start the ZENworks for Handhelds WinCE IP client console:

- 1** Click console.exe on the Windows CE device.

Depending on the type of Windows CE device you have, the console will look similar to the figure below:



The following table describes the available options:

Click	To
Configure	Configure the handheld server address or port number
Log	View the client log file and enable diagnostic logging
Connect Now	Force a connection to the IP conduit
Stop/Start Client	Stop/start the client



# A

## Troubleshooting

The following sections contain troubleshooting tips and frequently asked questions about Novell® ZENworks® for Handhelds:

- ♦ [“Error Logs” on page 133](#)
- ♦ [“ConsoleOne Status Pages” on page 133](#)
- ♦ [“Frequently Asked Questions” on page 134](#)
- ♦ [“Contacting Technical Support” on page 137](#)

### Error Logs

If you are experiencing a problem, examine the following error logs for insight into errors, warnings, or informational messages recorded by ZENworks for Handhelds:

Log	Description
Windows NT/2000/XP Event Viewer	Check the Windows NT/2000 Event Viewer log for errors, warnings, and alerts logged by the ZENworks for Handhelds server service.
Server Error Log	Check the log file in the ZENworks for Handhelds server installation directory for errors or informational messages logged by ZENworks for Handhelds.
Client Error Log	Check the log file in the ZfH client installation directory for errors or informational messages logged by the proxy service.

### ConsoleOne Status Pages

If you are experiencing problems with policies not being enforced, query-based groups not being updated, or handheld applications not being distributed, you can view status pages in ConsoleOne® to help you troubleshoot these problems.

ZENworks for Handhelds lets you view the following types of status information:

**Policy Status:** You can view policy status information for each enabled policy, including a list of all handheld devices that a policy is associated with, the status of each policy, and the date and time that the policy was last enforced. You can also view status information about all policies associated with a specific handheld device. For more information, see [“Viewing Policy Status Information” on page 79](#).

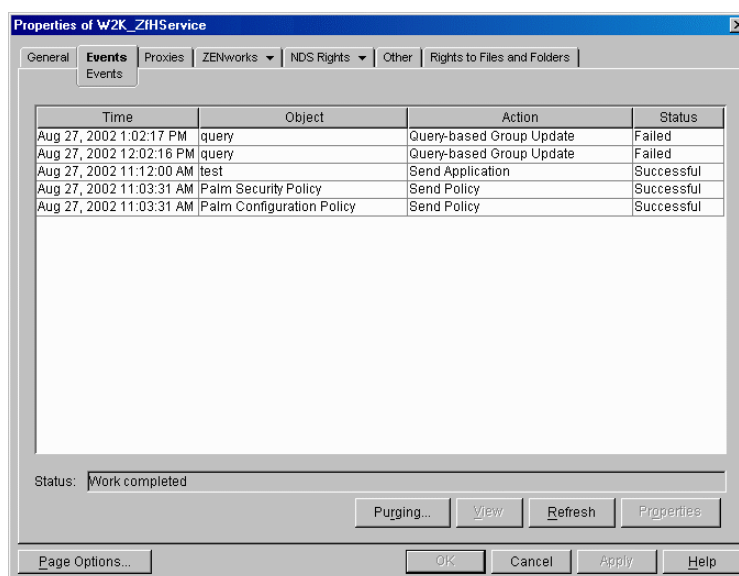
**Handheld Group Status:** You can view the status of handheld groups, including a list of all handheld devices that are members of a specific group, a list of policy packages that are associated

with a particular Handheld Group object, and a list of Handheld Application objects that are associated to a particular Handheld Group object. For more information, see [“Viewing the Properties of a Group” on page 89](#).

**Handheld Application Status:** You can view a list of all the Handheld Application objects distributed by the selected ZENworks for Handhelds Service object, the status of each object, and the version number of each Handheld Application object. For more information, see [“Displaying Handheld Application Object Status” on page 102](#).

**ZENworks for Handhelds Service Object Events:** You can view event information about policy packages, updates to query-based groups, or Handheld Application objects that the ZENworks for Handhelds server has sent (or, in the case of unsuccessful distributions, tried to send) to associated handheld devices.

- 1 In ConsoleOne, right-click the ZENworks for Handhelds service object, then click Properties.
- 2 Click the Events tab.



## Frequently Asked Questions

The following sections contain frequently asked questions and provide suggestions and troubleshooting tips:

- ♦ [“New handheld devices not displaying in ZENworks for Handhelds” on page 134](#)
- ♦ [“Policies not being enforced on handheld devices” on page 135](#)
- ♦ [“Inventory not displaying properly for handheld devices” on page 136](#)
- ♦ [“Handheld devices synchronizing at multiple machines” on page 136](#)
- ♦ [“Backing up the ZENworks for Handhelds databases” on page 136](#)

### New handheld devices not displaying in ZENworks for Handhelds

**Problem:** Why doesn't my handheld device display in ConsoleOne or in the ZENworks for Handhelds Inventory Viewer after I install the ZENworks for Handhelds proxy service on a computer that my device synchronizes with?

- Explanation: Before handheld device objects will display in ConsoleOne, you need to set up the Handheld Import policy. For more information, see [Chapter 3, “Setting Up Handheld Import,” on page 37](#).
- Explanation: You did not associate the Handheld Import policy correctly. The Handheld Import policy you configured and enabled will not be in effect until you associate its policy package with a container object. For more information, see [“Associating the Handheld Service Package” on page 42](#).
- Explanation: You enabled and associated the Handheld Import policy after the handheld devices synchronized with the ZENworks for Handhelds proxy service. Resynchronize the devices to import them into ZENworks for Handhelds.
- Explanation: For a handheld device to register with ZENworks for Handhelds:
- ♦ If you are using the sync client, the handheld device needs to synchronize (possibly three times) after the proxy service is installed on the computer it synchronizes with.
  - ♦ The ZENworks for Handhelds proxy service on the computer needs to connect to the ZENworks for Handhelds server to register the handheld device after the device has synchronized.
  - ♦ If a new handheld device is synchronizing to the proxy service, you might need to log out and log in for the handheld device to be recognized by the proxy service.

### **Policies not being enforced on handheld devices**

- Problem: Why are policies that I have configured and enabled not being enforced on individual handheld devices?
- Explanation: Policies can be scheduled to run at a certain time. During creation, all policy packages are given a default run schedule (hourly, by default). This means that all applicable policies in this package will be enforced every hour.
- If you enable a policy but fail to schedule it, it will run according to the schedule currently defined in the Default Package Schedule.
- If you have configured and enabled policies, but they have not been enforced on individual handheld devices, ensure that enough time has passed for the policies to have reached their scheduled run time (Handheld Cradle/Connect, by default).
- You can force an immediate directory scan of the directory for new or changed policies so that the handheld devices will be refreshed the next time they connect by right-clicking the ZENworks for Handhelds Service object, clicking Actions, then clicking Scan Now.
- You can also change the default schedule for an entire policy package or for individual policies. For more information, see [“Scheduling Packages and Policies” on page 78](#).
- Be aware that changing the policy package’s schedule or an individual policy’s schedule to run too frequently will affect performance, depending on your environment. The default schedule should be adequate for most situations.
- Explanation: The ZENworks for Handhelds proxy service has not yet connected to the ZENworks for Handhelds server. You can force an immediate connection to the ZENworks for Handhelds server using the ZENworks for Handhelds Proxy Console on the proxy service machine (the Windows machine that the handheld device synchronizes with).
- To force an immediate connection to the ZENworks for Handhelds server: from the ZENworks for Handhelds proxy service installation directory (by default program files\novell\zfhp proxy), run console.exe, click Operations, then click Connect to Server.

## Application objects are not being installed on handheld devices

- Problem:** Why are handheld applications not being installed on individual handheld devices?
- Explanation:** The Handheld Application object is not configured properly. For more information, see [“Configuring a Handheld Application Object” on page 97](#).
- Explanation:** The application has already been installed on the handheld device. ZENworks for Handhelds will not re-install an application that is already installed on the device. You can force an application to be installed, even if it has already been installed on the device, by using the Resend button on the Application Status page of the application object. You cannot force ZENworks for Handhelds to resend an application by deleting the application from the handheld device; you must use the Resend button.
- Explanation:** The storage device is not available for a Palm OS device. When you configure the Handheld Application object, you can specify that the files be installed on a storage card on a Palm OS device. If you selected the Install Files on Storage Card option in [Step 9 on page 99](#), ZENworks for Handhelds will install the files only to a storage card. If the storage card is not available, the installation will fail; ZENworks for Handhelds will not install the files in the Palm OS device's main memory.

## Inventory not displaying properly for handheld devices

- Problem:** Why don't I see ZENworks for Handhelds inventory information for my registered handheld devices?
- Explanation:** If you are using the ZENworks for Handhelds sync client, for most synchronization packages, inventory is collected by ZENworks for Handhelds every time the device synchronizes. The ZENworks for Handhelds client on the handheld device must be run manually before synchronizing for ZENworks for Handhelds to get the latest inventory information.
- If the handheld device is new to the ZENworks for Handhelds system, you might need to synchronize the device three times. The first time the device synchronizes with the proxy service computer, the handheld client is installed. The second time, the handheld device registers with the ZENworks for Handhelds server. The third time, inventory information will be sent to the proxy service for forwarding to the ZENworks for Handhelds server.

## Handheld devices synchronizing at multiple machines

- Problem:** How does ZENworks for Handhelds manage handheld devices that synchronize at multiple computers?
- Explanation:** ZENworks for Handhelds allows handheld devices to synchronize at multiple computers. If you are using the ZENworks for Handhelds sync client and you want to be sure software is distributed and inventory collected whenever a device synchronizes, you should install the ZENworks for Handhelds proxy service on every computer where a handheld device synchronizes. For more information, see [“Installing the Proxy Service” on page 28](#).

## Backing up the ZENworks for Handhelds databases

- Problem:** My backup program reports that the ZENworks for Handhelds database files cannot be backed up because they are open. Is there a way to shut them down for the backup?
- Explanation:** The ZENworks for Handhelds server keeps the ZENworks for Handhelds database files open so that they can record any result information they receive. You can shut down the ZENworks for Handhelds server and messenger services before the backup and restart them after the backup.
- If your backup program supports pre- and post-backup commands, you can have the backup



program perform the work of stopping and starting the services. Otherwise, you will need to handle starting and stopping the services and backing up the information yourself.

Before stopping the services, close the ZENworks for Handhelds console and ensure that no remote administrators are accessing the installation.

To stop the services from the command line, enter:

```
net stop "ZENworks for Handhelds Server"
```

To restart the services from the command line, enter:

```
net start "ZENworks for Handhelds Server"
```

## Contacting Technical Support

If your troubleshooting efforts do not provide an answer to your questions, [Novell Technical Services<sup>SM</sup>](http://support.novell.com) (<http://support.novell.com>) provides a range of support options to access top quality technical support.



# B

## Installing the ZENworks for Handhelds Proxy Service Using a ZENworks for Desktops Silent Install

In most Novell® ZENworks® for Handhelds installations, you will need to install only one ZENworks for Handhelds server. However, because handheld devices synchronize with users' desktop or laptop machines, the ZENworks for Handhelds proxy service must be installed on any machine in your organization that a handheld device synchronizes with.

**NOTE:** If you are using the ZENworks for Handhelds IP client, you might need to install the proxy service on only one machine.

For more information about the ZENworks for Handhelds server and proxy service, see [“Understanding the ZENworks for Handhelds Components” on page 15.](#)

You can install the proxy service software on users' desktop or laptop machines using ZENworks for Desktops (ZfD) Application Management. Additionally, you can populate the proxy.ini file with the appropriate settings so that you can perform silent (unattended) installations of the proxy service.

Silent installations allow you to install the proxy service quickly by eliminating the prompts that are normally displayed during installation.

When you use a silent installation, the proxy service on each machine will be configured identically because each proxy service will be configured based on what is stored in the proxy.ini file. For example, each machine will use the same installation path for the proxy service software and each machine will connect to the same ZENworks for Handhelds server.

The following sections contain additional information:

- ♦ [“Creating the Silent Installation Files \(setup.iss and proxy.ini\)” on page 139](#)
- ♦ [“Creating and Distributing the Application Object Using ZfD” on page 140](#)

## Creating the Silent Installation Files (setup.iss and proxy.ini)

If you want to distribute the ZENworks for Handhelds proxy service to machines using various platforms (Windows 98, Windows 2000, Windows XP, and so forth), you need to perform the following steps on a machine with that OS platform. Also, the machine you perform the following steps on should have the same or similar configuration as the machines you will be installing the proxy service on.

- 1 Copy the proxy directory from the *ZENworks for Handhelds* CD to a local or network drive.

If you downloaded the ZENworks for Handhelds software from the [Novell Product Downloads page \(http://download.novell.com\)](#) and extracted the file, you should already have the proxy directory on a local or network drive.

The proxy directory contains the setup.exe file to install the proxy service and a blank proxy.ini file that you will populate with the appropriate settings for your installation.

- 2** Install the ZENworks for Handhelds proxy service, using the -r command. For example, from a command prompt, enter **SETUP.EXE -r**.

The -r command creates a setup.iss file in the windows directory for Windows 95/98/XP or in the winnt directory for Windows NT/2000. The setup.iss file contains information to answer the installation prompts during the silent installation.

When you are installing the proxy service, you should specify the exact settings you want the installation program to use when installing on users' machines (for example, installation path, ZENworks for Handhelds server name, communications settings, and so forth).

For step-by-step instructions, see [“Installing the Proxy Service and the Handheld Client” on page 27](#).

- 3** After installation is complete, from the command prompt, change to the program files\novell\zfhproxy directory.
- 4** Run zfhproxy.exe -r.

The -r command populates the proxy.ini file with the settings that all users' machines will use (the name of the ZENworks for Handhelds server and the installation path of the proxy service software).

The following text is a sample proxy.ini with the proxy service's configuration information:

```
Name=*  
  
Company=Novell, Inc.  
  
Machine Name=*  
  
Is Using Network=TRUE  
  
Server's Network Name=mtalbot_zfh_ser  
  
Install Path=C:\Program Files\Novell\ZfHProxy
```

The asterisks in the Name and Machine Name fields mean that the primary user name and machine name will be automatically taken from the current settings on the machine that the software is installed on (the proxy service will register with its machine name to the ZENworks for Handhelds server).

If you want to prompt users for their names during the silent install, use a question mark (?) in the Name field in the proxy.ini file.

- 5** Copy the proxy.ini file from the program files\novell\zfhproxy directory to the proxy directory. This will replace the blank .ini file with the populated .ini file that you created in [Step 4](#).
- 6** Copy the setup.iss file from the windows directory (for Windows 95/98/XP) or from the winnt (for Windows NT/2000) to the proxy directory.
- 7** Copy the proxy directory to the network location from which it will be distributed.

## Creating and Distributing the Application Object Using ZfD

After creating the setup.iss and proxy.ini files and copying the proxy directory to a network location, you are ready to create and distribute the Application object using ZfD.

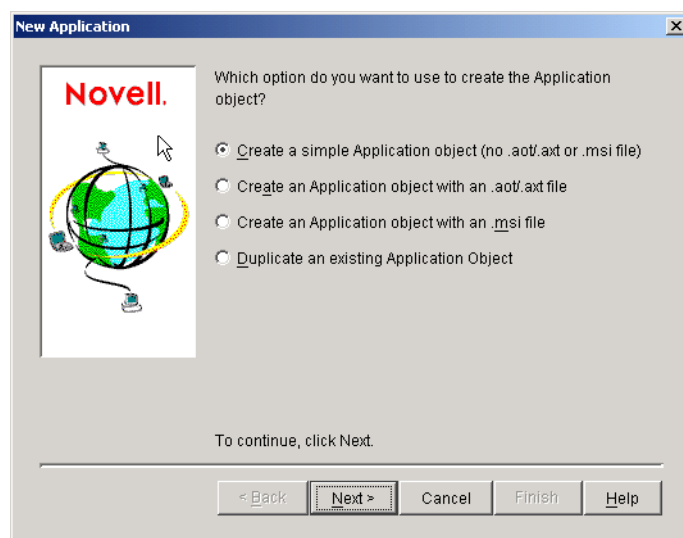
If you want to distribute the ZENworks for Handhelds proxy service to machines using various platforms (Windows 98, Windows 2000, Windows XP, and so forth), you need to create and distribute a different Application object for each platform.

The following sections contain specific information to help you create and distribute the Application object:

- ♦ “Creating and Distributing the Application Object Using ZfD 3.x” on page 141
- ♦ “Creating and Distributing the Application Object Using ZfD 4” on page 142

## Creating and Distributing the Application Object Using ZfD 3.x

- 1 In ConsoleOne®, right-click the container in which you want to create the Application object, click New, then click Object to display the New Object page.
- 2 Click App:Application, then click OK to display the New Application page.



- 3 Click Create a Simple Application Object (No .AOT/.AXT File or .MSI File), then click Next.
- 4 Fill in the fields:

**Object Name:** Type a name for the Application object, such as ZENworks for Handhelds Proxy Service\W2K.

**Path to Executable:** Type the path to the location from which the setup.exe file will be run.

The path you enter should be to the proxy directory you created in [Step 7 on page 140](#).

When specifying a network file path for distributing or launching an application, you can use either mapped drives or UNC paths. If you use a mapped drive, the user's workstation must have the same drive mapping.

**Display Details After Creation:** Check this option to further configure the Application object.

- 5 Click Finish to create the Application object.
- 6 Click the Run Option tab > Application.
- 7 In the Parameter field, type **-s**.

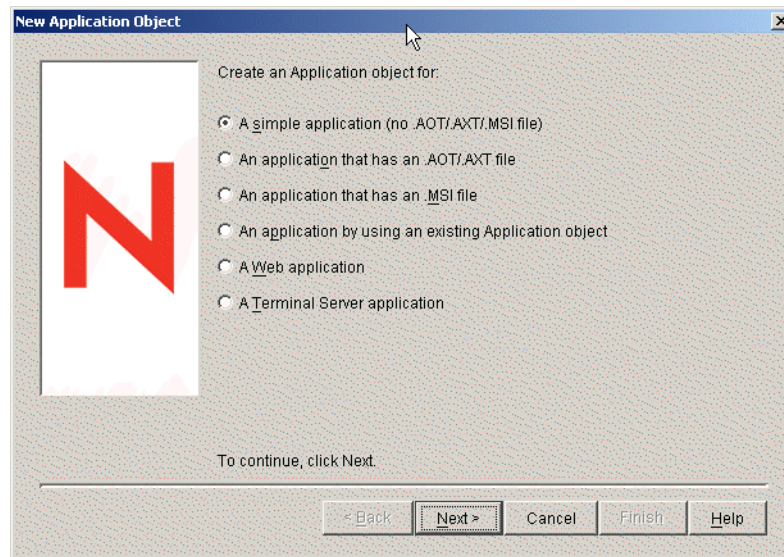
- 8** Click Run Application Once.
- 9** Click the Availability tab > click System Requirements to display the System Requirements page.
- 10** Select the appropriate OS requirement for the Application object.  
If the correct OS version is not listed, click Add, click Operating System, enter the requirements for the operating system, then click OK to add it to the list.  
**IMPORTANT:** An OS Version requirement must be defined before an application will be distributed.
- 11** Click the Associations tab to display the Associations page.
- 12** Click Add, browse and select a User object, Workstation object, Group object, or container object, then click OK to add the user, workstation, group, or container to the Associations list.
- 13** Click Force Run to run the Application object as soon as Application Launcher/Explorer or Workstation Helper starts and the Application object is available.
- 14** Click OK to save the Application object information.

The Application object will be distributed to the associated user or workstation objects as soon as Novell Application Launcher or Workstation Helper starts, usually at login.

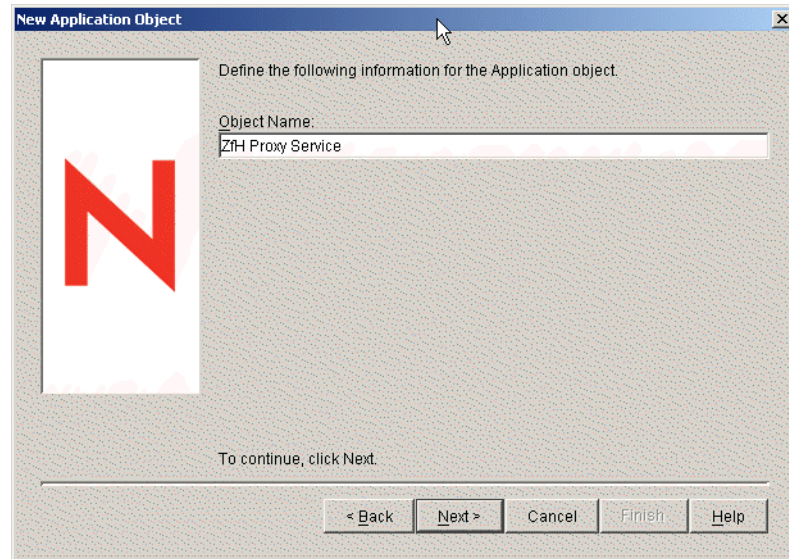
## Creating and Distributing the Application Object Using ZfD 4

If you want to distribute the ZENworks for Handhelds proxy service to machines using various platforms (Windows 98, Windows 2000, Windows XP, and so forth), you need to create a separate application object for each platform.

- 1** In ConsoleOne, right-click the container where you want to create the Application object > click New > click Object to display the New Object page.
- 2** Click App:Application, then click OK to display the New Application page.



- 3** Click A Simple Application (No .AOT/.AXT/.MSI File), then click Next.
- 4** In the Object Name field, type a name for the Application object, such as ZENworks for Handhelds Proxy Service/W2K.



- 5** Click Next; in the Path to Executable field, enter the path to the location from which the setup.exe file will be run.

The path you enter should be to the proxy directory you created in [Step 7 on page 140](#).

When specifying a network file path for distributing or launching an application, you can use either mapped drives or UNC paths. If you use a mapped drive, the user's workstation must have the same drive mapping.

- 6** Click Next, then select the system requirements that a workstation must meet before the application will be distributed to it.

By default, the list includes two OS Version requirements, one for Windows NT/2000/XP (any version) and one for Windows 98 (any version). This means that the application can be distributed to a Windows NT/2000/XP workstation or a Windows 98 workstation. You can modify the two OS version requirements as necessary and add any additional requirements you want.

Because Microsoft no longer supports Windows 95, the default operating systems shown in ZfD 4 do not include Windows 95. However, the ZENworks for Handhelds proxy service can run on Windows 95. If you use the default settings, you should be able to distribute the proxy service to Windows 95 machines; however, Novell does not support this scenario.

- 7** Click Next, then associate the Application object with the users or workstations that you want to distribute the application to. To do so:

- 7a** Click Add, then browse for and select User or Workstation objects.

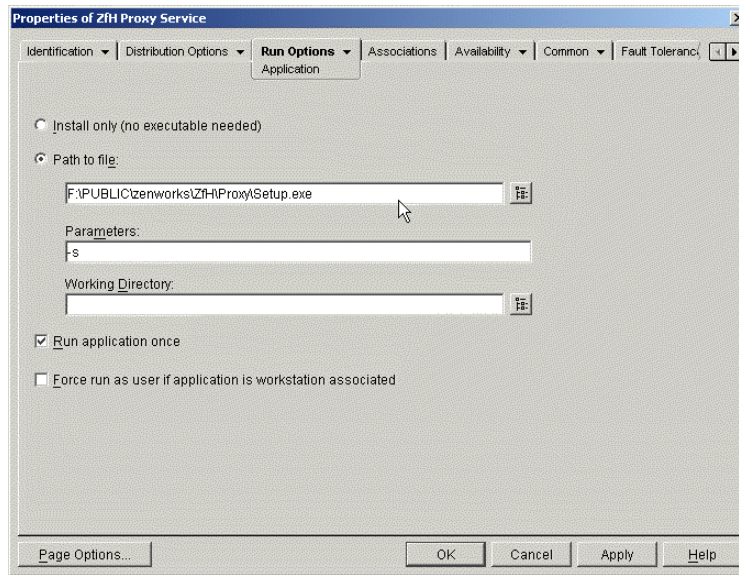
You can also select Group objects, Workstation Group objects, and container objects (Organizational Unit, Organization, or Country). If you select a container object, you will be given the choice of associating all the container's User and/or Workstation objects with the application.

- 7b** After you add the user or workstation to the list, select the Force Run check box. The Force Run option runs the Application object as soon as Novell Application Launcher™ or Workstation Helper starts and the Application object is available.

- 8** Click Next, review the Application object settings, click the Display Details After Creation check box, then click Finish to create the Application object.

- 9** Click the Run Options tab > Application.

- 10** In the Parameters field, type **-s** so that the setup.exe file runs in silent mode, then click Run Application Once.



- 11** Click OK to save the Application object information.

The Application object will be distributed to the associated user or workstation objects as soon as Novell Application Launcher or Workstation Helper starts, usually at login.



# C

## Upgrading from ZENworks for Handhelds 5 to ZENworks for Handhelds 5.1

You can upgrade your Novell® ZENworks® for Handhelds 5 installation to ZENworks for Handhelds 5.1. You cannot upgrade from ZENworks for Handhelds 4.7 to ZENworks for Handhelds 5.1.

The following sections contain additional information:

- ♦ “Upgrading the ZENworks for Handhelds Server Software” on page 145
- ♦ “Upgrading the Proxy Service Software” on page 146
- ♦ “Upgrading the Windows CE IP Client” on page 147

## Upgrading the ZENworks for Handhelds Server Software

Before upgrading the ZENworks for Handhelds server from ZENworks for Handhelds 5 to ZENworks for Handhelds 5.1, you must prepare the directory by extending the Novell eDirectory™ schema. To extend the schema, you must have root level admin privileges to the tree and you must have the Novell Client™ installed. Before running the schema extension tool, ensure that you are logged in to the tree that you want to extend.

To extend the schema:

- 1** Insert the *ZENworks for Handhelds* CD on a machine that has the Novell Client running.  
The installation program will autorun. If it does not, run setup.exe from the root of the CD.
  - 2** Click Server Installation Options.
  - 3** Click Prepare eDirectory.
  - 4** Select the eDirectory tree to be extended.
  - 5** Click OK, then click Yes.
  - 6** Click OK.
- or
- Click View Log File.

To upgrade the ZENworks for Handhelds server:

- 1** Click Server Installation.
- 2** Click Update, then click Next.
- 3** In the Select Components window, select the components you want to install:
  - ♦ **Novell ConsoleOne Snap-In:** Extends ConsoleOne functionality to allow you to manage handheld devices. This option is enabled by default.

- ♦ **RIM BlackBerry Device Support:** Adds support for managing RIM BlackBerry devices. If you select this option, you must have a MAPI profile set up for e-mail access. For more information, see [“Creating a MAPI Profile \(BlackBerry Device Support Only\)” on page 23.](#)
- 4** Click Next.
  - 5** In the Start Copying Files window, review the settings, then click Next.
  - 6** In the InstallShield Wizard Maintenance Complete window, check the Display Readme File check box to review the Readme file for installation notes and product issues that you need to know as you install and use ZENworks for Handhelds, then click Finish.
  - 7** If you chose to enable RIM BlackBerry support, type the service user’s e-mail address to be used by the BlackBerry client software, then select the MAPI profile that you created in [“Creating a MAPI Profile \(BlackBerry Device Support Only\)” on page 23.](#)
  - 8** Click Finish.

## Upgrading the Proxy Service Software

Depending on your ZENworks for Handhelds installation, you can use the *ZENworks for Handhelds* CD to upgrade the ZENworks for Handhelds proxy service software on individual proxy service machines, or you can use the Proxy Task utility to upgrade the ZENworks for Handhelds proxy service software on all proxy service machines in your installation. For example, if your handheld devices use either the WinCE or Palm IP client to connect to the conduit, you might have only one proxy service machine. In this situation, you can use the CD to upgrade the proxy service software. If, however, you have many proxy service machines in your installation, it will be easier to use the Proxy Task utility to upgrade all of your proxy service machines with the ZENworks for Handhelds 5.1 software.

For more information about the ZENworks for Handhelds proxy service, see [“Proxy Service” on page 16.](#)

The following sections contain additional information:

- ♦ [“Using the ZENworks for Handhelds CD to Upgrade the ZENworks for Handhelds Proxy Service Software” on page 146](#)
- ♦ [“Using the Proxy Task Utility to Upgrade the ZENworks for Handhelds Proxy Service Software” on page 147](#)

## Using the *ZENworks for Handhelds* CD to Upgrade the ZENworks for Handhelds Proxy Service Software

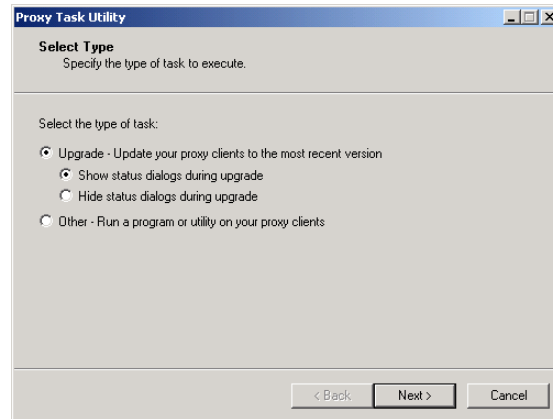
- 1** Insert the *ZENworks for Handhelds* CD in the CD drive.  
The installation program will autorun. If it does not, run setup.exe from the root of the CD.
- 2** Click Proxy Service Installation.
- 3** Click Update, then click Next.
- 4** On the Select Components page, select Handheld IP Conduit if you will be installing the IP client on Palm OS and Windows CE devices that can connect using TCP/IP, then click Next.
- 5** On the Start Copying Files page, review the settings, then click Next.
- 6** Click Finish.

# Using the Proxy Task Utility to Upgrade the ZENworks for Handhelds Proxy Service Software

ZENworks for Handhelds 5.1 provides a utility to help you upgrade the ZENworks for Handhelds proxy service software on proxy service machines from ZENworks for Handhelds 5 to ZENworks for Handhelds 5.1.

To upgrade the ZENworks for Handhelds proxy service software:

- 1 Run prxytask.exe (in program files\novell\zfh by default).



- 2 Click Upgrade - Update Your Proxy Clients to the Most Recent Version.
- 3 Click the desired option:
  - ♦ **Show Status Dialogs During Upgrade:** Select this option if you want ZENworks for Handhelds to display an informational dialog box on the proxy service machines to instruct users to not reboot during the upgrade process.
  - ♦ **Hide Status Dialogs During Upgrade:** Select this option if you do not want ZENworks for Handhelds to display an informational dialog box on the proxy service machines during the upgrade.
- 4 Click Next.
- 5 Select the proxy service machines that you want to upgrade.  
or  
Click Select All to upgrade all proxy service machines in your installation.
- 6 Click Next, then click Finish.

You can verify that each proxy service machine has been upgraded to ZENworks for Handhelds 5.1 by viewing the properties of the ZENworks for Handhelds server object in ConsoleOne®. Right-click the ZENworks for Handhelds server object, click Properties, then click the Proxies tab. The Product Version column lists the version of each machine's proxy service software. You can sort the list by clicking the Product Version heading at the top of the column.

## Upgrading the Windows CE IP Client

If you have Windows CE devices that can make a TCP/IP connection, and these devices use the ZENworks for Handhelds 5 WinCE IP client to communicate, you should upgrade the ZENworks

for Handhelds WinCE IP client on each device. To upgrade the IP client, you must create the appropriate CAB files and distribute them to each device. For step-by-step instructions, see [“Installing the ZENworks for Handhelds WinCE IP Client” on page 31](#).

ZENworks for Handhelds 5.1 provides a new ZENworks for Handhelds Palm IP client for Palm OS devices that can make a TCP/IP connection. For more information, see [“Installing the ZENworks for Handhelds Palm IP Client” on page 30](#).

**NOTE:** You do not need to upgrade the ZENworks for Handhelds handheld (sync) clients on each device. When the ZENworks for Handhelds proxy service starts on the Windows computer, the proxy service will check for the existence of synchronization software for Palm OS and Windows CE devices. If synchronization software is detected, the proxy service will automatically install the handheld client and ensure that the handheld client and conduit to the proxy service computer are available for the handheld device and synchronization software. For more information, see [“Installing the Handheld Client” on page 29](#).

# D

## Documentation Updates

This section contains information on documentation content changes that have been made in the *Installation and Administration Guide* since the initial release of ZENworks for Handhelds 5.1. This information will help you to keep current on updates to the documentation.

All changes that are noted in this section were also made in the documentation. The documentation is provided on the Web in two formats: HTML and PDF. The HTML and PDF documentation are both kept up-to-date with the documentation changes listed in this section.

The documentation update information is grouped according to the date the changes were published. Within a dated section, the changes are alphabetically listed by the names of the main table of contents sections for ZENworks for Handhelds.

If you need to know whether a copy of the PDF documentation you are using is the most recent, the PDF document contains the date it was published on the front title page or in the Legal Notices section immediately following the title page.

The documentation was updated on the following dates:

- ♦ “July 29, 2003” on page 149

### July 29, 2003

Updates were made to the following sections. The changes are explained below.

- ♦ **Installing the ZENworks for Handhelds Palm IP Client**

### Installing the ZENworks for Handhelds Palm IP Client

The following updates were made in this section:

Location	Change
“Installing the ZENworks for Handhelds Palm IP Client” on page 30	In the last paragraph about manually installing the ZENworks for Handhelds Palm IP client, added additional information. The paragraph now reads:  Rather than running the ZENworks for Handhelds installation program to install the Palm IP client, you can also copy the contents of the program files\novell\zfh palm ip client directory to a Palm OS device using the HotSync Manager Install Tool.

